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A unified account of null pronouns in Korean

Choo, Miho, Ph.D.

University of Hawai‘i, 1994
A UNIFIED ACCOUNT OF NULL PRONOUNS
IN KOREAN

A DISSERTATION SUBMITTED TO THE GRADUATE DIVISION OF THE UNIVERSITY OF HAWAII IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF
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ABSTRACT

This dissertation examines the various manifestations of null pronouns in Korean and attempts to provide a unified account of their properties. Base-generated empty pronouns (pro) and the Generalized Control Rule (GCR: an empty pronominal is coindexed with the closest c-commanding NP), proposed by Huang (1991), play a major role in my explanation.

Chapter II examines topic constructions and relative clauses. We will see that in Korean certain phrases cease to be islands in sentence-initial position (as in Chinese), and that Huang's (1991) GCR, with some modification, can be successfully applied to Korean. I revise the GCR by proposing the Matching Condition and the Binding Principles as crucial constraints on the GCR rather than giving up on apparent structural conditions and attributing everything to pragmatic factors.

Chapter III examines inalienable possession constructions with 'double' nominative or accusative Case. First, we examine the scope of the 'inalienability' relation that affects the Case alternation. I then propose my analysis, arguing that double nominative/accusative sentences in Korean (inalienable) possession constructions are best explained by positing a pro (licensed by the GCR) in the
possessor position of the part-NP. We will see that syntactic restrictions on the part-NP (involving relativization, passivization, and scrambling) do not demonstrate the adjunct status of this element. Rather, they reflect the interaction of the Theta Criterion with the GCR. Other restrictions on the part-NP, such as honorification and reflexivization, are due to the Matching Condition: part-NPs are inanimate while both honorification and reflexivization require a human referent.

In Chapter IV, based on the observation that the floated quantifier construction can be related to part-whole construction, I propose that the floated quantifier phenomenon can best be captured by positing a pro in the specifier (partitive genitive) position of the Quantifier NP, which is licensed by the GCR. An extra constraint on the GCR, requiring 'case agreement' between the antecedent NP and the Quantifier NP is proposed for Korean FQCs. It will be shown that the occurrence of classifiers/case markers in the Quantifier NPs should be considered more carefully.

Finally, Chapter V summarizes the major points and presents the conclusion.
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<td>CL</td>
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<td>Complex NP constraint</td>
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<td>Complementizer</td>
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<td>V</td>
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CHAPTER I
INTRODUCTION

1.1. Goal

The purpose of this dissertation is to examine the various manifestations of 'pro drop' in Korean. The possibility of a null pronominal, or 'little pro' (pro), in one language (e.g., Korean, Japanese, Chinese, etc.) but not another (e.g., English, French, etc.) has been descriptively referred to as the 'pro drop' parameter. The Generalized Control Rule (Huang 1991), which is based on such a typological parameter, accounts for the interpretation and distribution of pro in Korean in terms of the interaction of a number of independently motivated and generalized principles of Universal Grammar rather than invoking a new and ad hoc typological parameter.

As Jaeggli (1986) puts it, one of the most important innovations in syntactic theory concerns the shift from language-particular, construction-specific rules to analyses in terms of general principles from interacting modules of grammar. It is in this spirit that I attempt to provide a unified account of several apparently different phenomena in the Korean language, including topic constructions, relative clauses, inalienable possession constructions, and floated
quantifiers. The sentence types with which I am concerned are as follows:

(1) Topic/Relative Constructions:
   a. John-un nolayha-nun moksoli-ka cohta
      John-Tp sing-Comp voice-Nm good
      'John, the voice with which [he] sings is good.'
      John-Tp I-Nm sing-Comp voice-Ac like
      'John, I like the voice with which [he] sings.'

(2) Inalienable Possession Constructions:
   a. Double Nominative Construction:
      Swuni-ka nwun-i yeypputa.
      Swuni-Nm eyes-Nm pretty
      'Swuni, her eyes are pretty.'
   b. Double Accusative Construction:
      Swuni-ka Cheli-lul ppyam-ul ttaylyessta.
      Swuni-Nm Cheli-Ac cheek-Ac slapped
      'Swuni slapped Cheli, his cheek.'

(3) Floated Quantifiers:
      I-Nm friend-Ac two invited
      'I invited two friends.'
   b. *Nay-ka haksayng-eykey seys yenge-lul
      I-Nm student-Dat three English-Ac
Controversy exists among Korean linguists regarding the following issues involved in the above sentences:

1. Why is (1b) unacceptable while (1a) is acceptable; that is, why can John-un in (1a) be topicalized while John-un in (1b) cannot?
2. What is the status of the two NPs with the identical case suffix in (2) and how are they sanctioned?
3. Why is (3a) acceptable while (3b) is not; that is, why can twul in (3a) be separated from chinkwu whileseys in (3b) cannot be separated from haksayng?

To these three questions, I propose to apply one general principle of contemporary syntactic theory and provide a unified account of their various properties. Base-generated empty pronoun (pro) and the Generalized Control Rule as in (4), proposed by Huang (1991), will play a major role in my explanation.
(4) The Generalized Control Rule (GCR):

An empty pronominal (PRO or pro) is coindexed with the closest c(=constituent)-commanding NP

1.2. Organization

The organization of this dissertation is as follows: Chapter II examines topic constructions and relative clauses. Empty resumptive pronouns and the Generalized Control Rule will be proposed to account for apparent island violations. We will find out that in Korean certain phrases cease to be islands in sentence-initial position (as in Chinese), and that Huang's Generalized Control Rule, with some modification, can be successfully applied to Korean. I propose the Matching Condition and the Binding Principles as crucial constraints on the GCR. Noting the difference between Huang's (1991) GCR and his (1984, 1989) GCR, we will see that Huang's new analysis (supplemented by the constraints I propose) successfully accounts for the counterexamples provided by many linguists.

Chapter III examines inalienable possession constructions. First, we will examine the scope of the 'inalienability' relation that affects the case alternation. Its treatment has been inconsistent among linguists and needs to be clarified in order to have a well-grounded analysis.
Across languages, the part-whole relationship is uncontroversially considered to be an inalienable one. However, whether the kinship relation should be regarded as inalienable remains unclear. I suggest that there is a subject/object asymmetry in terms of treating kinship term as inalienable: the kinship relation is inalienable enough to trigger the double nominative construction, but not inalienable enough for the double accusative construction. I will then propose my analysis, claiming that the two NPs involved are linked by an empty resumptive pronoun in the possessor position of the second NP. This analysis, which is also found in Kang (1986), will be further supplemented with the help of the Generalized Control Rule. Finally, I will be concerned with the putative adjunct status of the second NP (part-NP) in the DNC/DAC patterns. I claim that the second NP is an argument: only the second NP (part-NP) gets its theta-role directly from the verb; in contrast, the first NP (whole-NP) gets a possessor role through a chain linked by a pro in the possessor position of the second NP. Various tests for subject-hood/object-hood such as honorification, relativization, scrambling, reflexivization, optionality, and passivization will be re-evaluated in the light of the Generalized Control Rule.

Chapter IV deals with floated quantifier constructions, which is another instance of double nominative/accusative
sentences. We will investigate the structural relation between the antecedent NP (the NP with which the FQ is associated) and the QNP (the NP headed by the floated quantifier). After briefly considering previous treatments of the FQC and evaluating them in terms of whether they can capture the properties of this pattern in Korean, I propose my analysis, arguing that the floated quantifier phenomenon can best be captured by positing a pro in the specifier (partitive genitive) position of the QNP, which is licensed by the Revised GCR. (An extra constraint on the GCR, requiring 'case agreement' between the antecedent NP and the QNP, will be proposed for Korean FQCs.) This idea is based on my observation that the FQC can be related to the part-whole construction which we discuss in Chapter III. It will also be shown that the occurrence of classifiers/case markers in the QNPs should be considered more carefully. Finally, I will be concerned with how the FQC is licensed. I claim that the QNP is an argument that gets a theta-role directly from the verb. Within the QNP the N (FQ) assigns a partitive role to the pro. The antecedent NP then receives the partitive role through a chain that includes pro. By virtue of being a partitive 'argument' of the QNP, the antecedent NP is interpreted as having the same theta-role as the QNP. We will see that restrictions on relativization and scrambling
of the QNP, which have been attributed to its adjunct status, are in fact due to the GCR and the Theta-Criterion.

1.3. Theoretical Background

Before we consider Huang's GCR, let us examine the theoretical background and motivation underlying the GCR, which are based on typological parameters. Huang tries not to invoke a new and ad hoc typological parameter, but rather seeks to account for the interpretation and distribution of pro in terms of the interaction of a number of independently motivated and generalized principles of Universal Grammar.

1.3.1. Empty Categories and Chains

Chomsky (1981) states:

The question of the nature of empty categories is a particularly interesting one for a number of reasons. In the first place, the study of such elements, along with the related investigation of anaphors and pronouns, have proven to be an excellent probe for determining properties of syntactic and semantic representations and the rules that form them. But apart from this, there is an intrinsic fascination in the study of properties of empty elements. These properties can hardly be determined inductively from observed overt phenomena, and therefore presumably reflect inner resources of
mind. If our goal is to discover the nature of human language faculty abstracting from the effects of experience, then these empty elements offer particularly valuable insights.

One central assumption of contemporary syntactic theory is that certain surface sentences are related to others by a relation of movement or 'chains'. Grammatical sentences which do not have overt arguments in expected argument positions are thought to have empty categories in those positions at S-structure. S-structure representations are related to D-structure representations by movement. Thus the (b) sentences in the following are derived from their (a) counterparts by movement processes classically known as raising, passive, wh-movement, and relativization:

(5)  a. [e] seems [John to have left].
    b. John\_i seems [t\_i to have left].

(6)  a. [e] was seen Bill.
    b. Bill\_i was seen t\_i.

(7)  a. John saw who.
    b. Who\_i did John see t\_i?

(8)  a. This is the book [I like which most].
    b. This is the book [which\_i I like t\_i most].
Given the θ-criterion, the landing site of each movement must be a non-θ position. Such non-θ positions may be A-positions (positions which bear grammatical functions like subject, object, etc.), as in the case of (5) and (6); or they may be A' positions (the position of Comp and those created by adjunction), as in the case of (7) and (8). The movement relations may be represented by 'chains': in (5) and (6) above, (John, t) and (Bill, t) are A-chains; in (7) and (8), (who, t) and (which, t) are A'-chains. Each of the movement process as illustrated in (5)-(8) has traditionally been regarded as a separate movement rule. Recent studies, however, have shown that such movement rules really do not have unpredictable distinct properties. The current standard view is that all the movement rules should be reduced to a single rule, 'Move α'. This is the view that has been adopted in Huang's (1991) work.

There is another kind of EC which must be distinguished from the one in a movement chain. That is an EC in structures of control as in the following:

(9) *John₁ tried [e₁ to win].*
(10) *John₁-i [e₁ nayil ol]-kelako malhayssta.
John-Nm tomorrow will come-Comp said
John said that [he] will come tomorrow.
In the current framework, the ECs in (9) and (10) are defined as pronominal ECs (PRO or pro), to be distinguished from traces, which are non-pronominals. 'Control chains' are distinguished from 'movement chains' for the following reasons. First, whereas members of a movement chain must be related to one and the same \( \theta \)-role, members of a control chain are typically assigned separate \( \theta \)-roles. This can be seen by comparing \((\text{John}, t)\) in (5) and \((\text{John}, e)\) in (9). Note that \textit{John} and \(t\) share a single agent role, but \textit{John} and \(e\) are assigned distinct agent roles by the verbs \textit{try} and \textit{win}.

Secondly, the relation among members of a movement chain is subject to bounding conditions, but not the relation among members of a control pair. Thirdly, traces are subject to the Empty Category Principle, but pronominal empty categories are not.

Chomsky (1982) further distinguishes both lexical and empty categories into four different kinds as in (11), each defined in terms of the feature matrix (\(\alpha\)anaphor, \(\beta\)pronominal):

<table>
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<th>(11) Features</th>
<th>Lexical Category</th>
<th>Empty Category</th>
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<td>+anaphor -pronominal</td>
<td>reflexives &amp; reciprocals</td>
<td>NP-traces</td>
</tr>
<tr>
<td>-anaphor +pronominal</td>
<td>lexical pronouns</td>
<td>(\text{pro})</td>
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</table>
Chomsky states that the identity of an EC can in general be predicted on the basis of its position of occurrence or that of its antecedent. Therefore, he assumes that the different ECs are in fact 'allocategories' of a single EC whose identity can be determined on the basis of the following 'functional definition':

(12) a. An EC is a pronominal if and only if it is free or locally A-bound by an antecedent with an independent 0-role.

b. An EC is an anaphor if and only if it is locally A-bound by an antecedent that lacks an independent O-role.

c. An EC is a variable if and only if it is locally A'-bound and is in A-position.

1.3.2. The Topic Parameter

Huang (1984), following Tsao (1977), proposes a distinction between 'discourse-oriented' languages (Chinese, Japanese, Korean) and 'sentence-oriented' languages (English,
Spanish). Among the distinguishing properties is the fact that discourse-oriented languages have a rule of Topic NP Deletion, which operates across discourse to delete the topic of a sentence under identity with a topic in a preceding sentence (thereby creating a zero topic). Huang incorporates Topic NP Deletion into an interpretive framework, assuming that there is a rule of coindexation in the discourse grammar of a discourse-oriented language which coindexes an empty category with an appropriate preceding topic. For example:

\[(13) \ [e_1 \ [\text{John-i} [\text{e}_1 \text{pissata-ko}] \text{malhayssta}]]\].

\[\text{Tp John-Nm expensive-Comp said}\]

'John said \([e_1]\) was expensive.'

The embedded subject EC in (13) is coindexed with a zero topic.

Another property of discourse-oriented languages is 'topic-prominence'. In a topic-prominent language like Chinese, Japanese, or Korean, sentences with topic-comment structures are numerous and must count as basic forms in that they cannot be plausibly derived from other 'more basic' forms.
1.3.3. The pro Drop Parameter

A well known difference among languages is that some languages allow the occurrence of an empty pronominal in a governed position while others do not. The possibility of occurrence of a null pronominal, or 'little pro' (pro), in one language but not another has been descriptively referred to as the 'pro drop' parameter. It has been observed by Taraldsen (1982) that pro drop often occurs in a language with a relatively rich agreement system (like Spanish or Italian) but not in languages with degenerate agreement systems such as English. This contrast is illustrated in the following:

(14) a. Spanish:
   Juan dijo [que e ha visto Maria].
   Juan said that (he) has seen Maria

b. English:
   *John said [that e has seen Mary].

Chomsky (1964) regards this contrast as a reflection of the requirement that a pro must be 'identified' in some way—essentially the condition of recoverability on deletion. In a language with rich enough agreement, a subject pronoun may drop because its content can be recovered from the agreement
markings on the verb. In a language like English, however, a subject pronoun can not drop, because the agreement markings are too meager to sufficiently determine its content. This agreement-based theory of pro drop also explains why pro drop does not occur with objects in Italian-type languages (given that there is no verb-object agreement in such languages), and predicts certain other important cross-linguistic facts.

Huang, however, points out that the establishment of Chinese-type languages as pro drop language poses an important problem for the agreement-based account of pro drop, since Chinese verbs are not marked for agreement. This falsifies any theory taking 'rich agreement' as the sole licenser for pro drop.¹ Concerning this, Huang observes a number of similarities between the ungoverned PRO of English and the governed pro of Chinese. Ungoverned PRO, which occurs in the absence of agreement in both pro-drop and non-pro-drop languages, is nevertheless often in need of identification by an antecedent; i.e., it is subject to obligatory control. Governed pro in Chinese, though not identified by agreement markings, also often needs to be identified by an antecedent. In the sentences (15) and (16),

¹ For this matter, Jaeggli and Hyams (1988) argue that pro is permitted only in morphologically uniform languages. They define Morphological Uniformity as follows: an inflectional paradigm is morphologically uniform iff either all its forms are morphologically complex or none are.
for example, the PRO and the pro, respectively, are obligatorily controlled by the matrix subject.

(15) Johni tried [[PROi to behave himself/*oneself]].

(Haegeman 1991)

(16) Zhangsan_i lei-de [pro_i bu neng shuo hua].

Zhangsan tired-till not can say word

'Zhangsan was so tired that he/*one could not speak.'

There are also cases of PRO and pro whose reference is arbitrary or pragmatically inferred, as in (17) and (18):

(17) Johni asked [how [PROi,j to behave oneself/himself]].

(18) Zhangsan_i shuo [proi,j bu yinggai chi dao].

Jhangsan say not should late arrive

'Zhangsan said that one/we/he/you should not be late.'

As noted above, a general condition on identification or recoverability (which we will call 'Licensing of PRO/pro') requires an empty pronominal (PRO/pro) to be identified under appropriate circumstances:

(19) Licensing of PRO/pro:

PRO/pro must be identifiable with the help of either
(a) Subject-Verb agreement (AGR under Infl)
-Spanish/Italian or
(b) another NP-Korean/Chinese.

1.4. The Generalized Control Rule

Following essentially the formulation of Huang (1984), Huang (1991) assumes that the identification requirement is to be expressed by the Generalized Control Rule applying to both PRO and pro:

(20) The Generalized Control Rule:
An empty pronominal (PRO or pro) is coindexed with the closest c-commanding NP. (Otherwise, an empty pronominal is assigned the index arb for arbitrary reference.)

The GCR is essentially a generalization of the rule of control proposed in Chomsky (1980), incorporating the 'Minimal Distance Principle' of Rosenbaum (1970) and applying it to both PRO and pro. In a clause with agreement markings, the Agr is the closest potential controller (an Agr essentially amounts to an overt pronoun, with its markings for person, gender, and number), so it must be the controller of its subject pro. A subject pro is licensed if the Agr is rich enough to be its 'controller', as in Italian-type
languages. In a language like English, the Agr makes it the obligatory controller of its subject pro, but its degenerate nature makes it incapable of carrying out the task of control. Hence a pro is not allowed in English. On the other hand, a pro in languages like Chinese, Japanese, and Korean, like a PRO in any language, does not have Agr occurring as its minimal potential 'controller', so it can look outside the clause for its controller, and we have cases of control in the standard sense.  


Huang (1984, 1989) was concerned with how to account for the subject/object asymmetry in some languages which allow an empty subject pronoun more freely than an empty object position. Suggesting that in languages like Chinese, Korean, and Japanese, a zero topic position is available, he claimed that the empty category in subject position is pro, but the EC in object position should be a variable A'-bound with a 'zero-topic' in discourse languages. Huang's (1984) claim is based on the following pair of examples:

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2 I-S Kim suggests: (i) The Korean [+deictic] agreement system is contained in honorifics and it licenses and identifies pro in Korean. (ii) The pro-drop parameter can be simplified as a single clause-pro must be licensed and identified by [+deictic] AGR. As noted in Moon (1989), however, Korean Honorific Agr does not support null arguments, since an Agr system with an honorific feature has to be treated differently from one characterized by the features person, number, and gender.
(21) a. Zhangsan-i xiwang [Lisi keyi kanjian e\_i/j]
Zhangsan hope Lisi can see
'Zhangsan hopes that Lisi can see (him).'
b. Zhangsan-i xiwang [e\_i/j keyi kanjian Lisi]
Zhangsan hope can see Lisi
'Zhangsan hopes that (he) can see Lisi.'

In (21a), the EC in object position may only refer to someone in the discourse, but not to the matrix subject Zhangsan. In (21b), on the other hand, the EC in subject position may refer to either the matrix subject or someone in the discourse. This asymmetry leads Huang, following Chomsky's (1981) 'functional definition' of ECs, to claim that the EC in object position cannot be a pro; rather, it is a variable; whereas the EC in subject position can be either a pro or a variable.

Consider now the following Korean sentences:

(22) a. EC in object position:
\[e_k [John-i_i [[[Mary-ka_j e_k/i_\_j poassta]-ko] Tp John-Nm Mary-Nm saw-Comp malhayssta].]
said
'John said that Mary saw \[e_k]\.'
b. EC in subject position:

\[ \text{Tp John-Nm Mary-Ac saw-Comp malhayssta].} \]

said

'John said that \[ e_{i/j} \] saw Mary.'

In (22a), the EC in object position cannot be a pro; rather, it is a variable, an element that is bound by an element in an A'-position (here, a zero topic). If it were a pro, it would be coindexed with Mary-ka by Huang's GCR, violating the Disjoint Reference (DJR: a pronoun must be free in its governing category = Chomsky's Binding Principle B). The status of the EC as a variable helps the sentence escape the GCR violation, since the GCR applies only to pro. Note that according to Huang, the object EC cannot be coindexed with the matrix subject John, since variables are R-expressions and hence subject to Binding Principle C. (This, however, is a very controversial judgment, as we will see shortly.) In (22b), however, the EC can be either a pro coindexed with the matrix subject John or a variable coindexed with a zero topic. Thus, the subject/object asymmetry is reduced to the possibility of EC being pro.

This view that an object EC cannot be a pro has been called into question by many linguists such as Xu (1984),
Cole (1987), Whitman (1988), S-W. Lee (1988), H-B. Lee (1987), Moon (1989), and Han (1990). They all claim that null objects in Korean are instances of pro, since matrix arguments can also be controllers, based on the examples like the following:3

(23) Che'lswuj-ka [Yenghi-ja e_i/k hyeppakhayssta]-ko
Chelswu-Nm Yenghi-Nm threatened-Comp
cwucanghayssta.
claimed
'Chelswu claimed that Yenghi threatened [him].'

(24) JOhni-i [Billj-i e_i/k cenhwahayssta]-nun sasil-ul
John-Nm Bill-Nm called-Comp fact-Ac
acik molunta.
yet doesn't know
'John doesn't know the fact that Bill called [him].'

Note that the null objects of hyeppakhayssta 'threatened' and cenhwahayssta 'called' are coreferential with the matrix subjects, respectively. In the following section, let us briefly examine some of their counterarguments.

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3 In transcribing Korean example sentences I have used the Yale system of Romanization.
1.4.2. Counterproposals to Huang (1984, 1989)

Based mainly on counterexamples such as (23) and (24), many linguists question Huang's (1984) claim that an object EC has to be interpreted as a variable because coindexing this EC with the embedded subject violates the DJR. H-B. Lee (1987), for instance, asks why the object EC is not allowed to be coindexed with an NP outside its governing category like an ordinary pronominal? He shows with the following examples that if the closest potential antecedent is disqualified as a binder or the gap because of some semantic reason, then the EC may choose another nominal element as its antecedent even if it is not 'closest'.

(25) Ce-salamtul-unj [s phato-ka [NP[s' s ei ej salte]-n]

those people-Tp wave-Nm live-Comp

cip-ulj] ssulekassta].

house-Ac swept away

'As for those people, the wave swept away the houses in which they had lived.'

(26) Mary-nuni [s totwuknom-i [NP[s' s ei ej kaci]-n]

Mary-Tp thief-Nm have-Comp

posek-ulj] motwu hwumchekassta].

jewel-Ac all stole away
'As for Mary, the thief stole away all the jewels that [she] has.'

In (25) the noun phato 'wave' cannot be selected as subject of the verb salta 'live', although it is the closest NP to the subject EC of the relative clause. So, the EC is identified by the next closest nominal, the topic ce-salamtul 'those people'. As for (26), H-B Lee says that it has another reading: 'Mary stole all the jewels that the thief has.' But pragmatic considerations do not allow that interpretation. Generalizing that the interpretation of ECs in Korean involves not only the structural configuration of sentences but also the semantic and pragmatic considerations, H-B Lee claims that nonapplicability of the GCR does not necessarily make an EC a variable. (Note that the subject EC cannot be interpreted as a variable here, since it would violate the CNPC.)

I basically agree with H-B Lee's observation that Huang's GCR needs to be further constrained. Therefore, I propose the Matching Condition as a crucial constraint on the GCR rather than giving up on apparent structural conditions.


If two NPs are assigned the same index, they must 'match' in features (e.g. number, gender, person, etc.)
The GCR supplemented by the Matching Condition will help explain why the apparent counterexample to the GCR in (25) is acceptable. As for (26), I believe that the sentence is ungrammatical with the intended meaning. But the intended meaning may be derived because of pragmatic factors.

Moon (1989) claims that subject/object-drop languages have a D(iscourse)-morpheme in the matrix Comp position, but English-type languages and subject-drop languages lack it. She claims that subject pro in an embedded clause cannot be interpreted as referring to an element from the discourse; whereas object pro in an embedded clause is construed only with a discourse topic in contrast with subject pro. The relevant examples are provided in (28):

(28) a. ?*[[Tori-ka_i [[ek Swuni-lulj poassta]-ko] Tori-Nm Swuni-Ac saw-Comp malhayssta] D_k].
said
'Tori said that e_k saw Swuni.'

---

Identification of pro (Moon 1989):
Small pro must be identified by a local identifier.
Local Identifier:
a. A is a local identifier for B iff A is a potential identifier for B, and there is no other potential identifier C such that A m-commands C and C m-commands B.
b. Potential identifier for pro: NP, D, or AGR bearing a referential index that m-commands pro.
b. [[[Tori_{i}-ka [[Swuni_{j}-ka e_k poassta]-ko]
Tori-Nm Swuni-Nm saw-Comp
malhayssta] D_k].
said
'Tori said that Swuni saw e_k.'
c. *[[[Tori_{i}-ka [[Swuni_{j}-ka e_i poassta]-ko]
Tori-Nm Swuni-Nm saw-Comp
malhayssta] D_k].
said
'Tori said that Swuni saw e_i.'

This view, however, needs to be reconsidered. Note that
the possibility of a zero topic may be obscured in (28a)
because of the interruption of a potential closer topic Tori.
But the sentence (13), in which the potential closer topic is
ruled out by the Matching Condition, shows that a zero topic
is possible. It is repeated here as (29):

(29) [e_i [John-i [ e_i pissata-ko] malhayssta]].
Tp John-Nm expensive-Comp said
'John said [e_i] was expensive.'

Moon's treatment of the sentence (28c) as being ungrammatical
is a very controversial issue, which will be discussed later.
Han (1990, 1992) proposes that Korean empty categories can be explained in terms of the combination of Campos' (1989) theory of null subjects and objects, and Huang's (1984, 1989) Control Theory. Contrary to Huang's (1984, 1989) claim that pro may not occur as an object, Han claims that pro can appear in object position in Korean. To license a null object pro in Korean, she proposes that the control domain for the null object pro should be determined out of its governing category. Remember that in Huang's (1984, 1989) system null pronominals are not allowed in object position by the interaction of the GCR with Binding Principle B. The following is a parameter of the GCR for Korean, Han proposes:

(30) Generalized Control Rule for Korean (GCR-K)

If an EC is in object position, then the control domain cannot be the governing category.

Han suggests that Campos' (1989) theory of null subjects and objects in Spanish (there are two different structures for null categories with different interpretations: one containing a pro, and the other containing an operator which moves to the specifier position of CP) can be extended to the analysis of null categories in Korean. If a null subject or an object is interpreted as referring to a null topic
operator which is in an A'-position, it is an operator. If a
null category is A-bound by an element, it is a pro. The
empty category, which is identified as a pro by Campos' theory, will then be licensed by the GCR-K. This parameterized GCR proposed by Han, however, fails to account for sentences like (25), which is repeated here as (31).

(31) Ce salamtul1-un phato-ka [NP[S e1 e3 salte]-n
those people-Tp wave-Nm live-Comp
cipj-ul] ssulekassta.
house-Ac swept away
'As for those people, the wave swept away the houses in which they had lived.'

Han's movement analysis wrongly predicts this sentence to be ungrammatical. Notice that the e1, which is an operator according to Han, cannot be coindexed with the topic, since this would violate the Subjacency Condition, crossing two bounding nodes-S and NP.

So far we have reviewed some of counteranalyses to Huang (1984, 1989). We have found out that none of them are without problems. In the next section, let us examine how Huang (1991), which is adopted in this work, is different from Huang (1984, 1989). It will be shown that Huang's new system incorporates the observation, made by linguists such
as Cole (1987), that null objects in Korean are instances of pro, since matrix arguments can also be controllers, based on the examples like (23)-(24) above.

1.4.3. Huang (1991)

One crucial difference between Huang's (1984, 1989) and (1991) analyses is that in the former theory, the DJR (Chomsky's Binding Principle B: a pronoun must be free in its governing category) prevented an object EC from being coindexed with a clause-mate subject. That is, it was the interaction of GCR and DJR that decided the coindexing. Because the DJR was independent of (not a constraint on) the GCR, an EC in object position could never be a pro; it could only be a variable associated with a possibly zero topic. An EC in subject position could be either a pro or a variable (linked to a possibly zero topic). Huang (1991) adopts the internal movement analysis, in which the subject/object asymmetry is not stated in terms of the possibility of the EC being a pro any more but in terms of Move α. An EC in either subject or object position is a pro: a pro in subject position does not move, whereas a pro in object position moves and adjoins to S to avoid the DJR violation. This leaves behind a variable subject to Binding Principle C, which explains why it cannot be linked to a higher argument.
CHAPTER II

TOPIC CONSTRUCTIONS AND RELATIVE CLAUSES

2.1. Introduction

This chapter examines Korean topic constructions and relative clauses, considering how Huang's (1991) modular approach for Chinese applies to Korean. I show that in Korean certain phrases cease to be islands in sentence-initial position as in Chinese, and that Huang's Generalized Control Rule, with some minor adjustments, can be successfully applied to Korean.

Linguists have recently been concerned with whether the subject NP bears a different structural relation to the predicate than the object NP, since subject/object asymmetries can provide evidence for the configurational structures, i.e. the existence of VP constituents. Kim (1988) notes that there is no grammatical subject/object asymmetry in Korean in terms of the 'that-trace' effect, in which extraction from subject position is more heavily restricted than from object position.\(^5\) However, a subject/object

\(^5\) For example:
(1) a. Who do you think [s' [s ti loves Mary]]?
   b.*Who do you think [s' that [s ti loves Mary]]?
(2) a. What do you think [s' [s John likes ti]]?
   b. What do you think [s' that [s John likes ti]]?
asymmetry regarding base-generated pronouns, as described for Mandarin by Huang (1991), seems also to exist in Korean.

Huang examines the properties of Chinese topicalized and relativized structures as they relate to the bounding conditions. He observes a subject/object asymmetry, noting that while certain topicalized or relativized structures in Chinese exhibit bounding effects just as they do in English, others do not exhibit these effects, unlike their English counterparts. Among the bounding effects are:

(1) a. *Complex NP Constraint (CNPC)*, which prohibits the extraction of an element out of a complex NP
    b. *Left Branch Constraint (LBC)*, which prohibits the extraction of an element on the left branch of an NP
    c. *Adjunct Constraint (AC)*, which prohibits the extraction of an element out of an adjunct constituent.

Consider, for example, extraction from a complex NP. The following sentences show that neither the object nor the subject of a relative clause can be topicalized or relativized:
The examples above appear to obey the CNPC. This is consistent with the observation that topicalization and relativization in Chinese are constrained by the CNPC (Tang 1977). The following sentences, however, are perfectly acceptable, even though they apparently violate the CNPC:

(4) Zhanqian, [s [s [NP [s [s xihuan ei] de] ren] hen duo] [.

Zhangsan like DE person very many

'Zhangsan, people who like [him] are many.'

(5) [s [s [NP [s [s xihuan ei] de] ren] hen duo] like DE person very many
DE that-CL teacher surname Wang
'The teacher such that the people who like [him] are many has the surname Wang.'

However, it will not do simply to conclude on the basis of (4) and (5) that Chinese does not exhibit the familiar island effects, for this would leave unexplained the ungrammatical examples given in (2) and (3). Huang observes that a comparison of (2)-(3) and (4)-(5) reveals a subject/object asymmetry: in (2)-(3), extraction has taken place from a complex NP in object position, but in (4)-(5), extraction is from a complex NP in subject position. In light of these asymmetries, Huang proposes a modular approach to Chinese topicalization and relativization: the lack of bounding effects in constructions such as (4) and (5) arises from the possibility in Chinese, but not English, of generating a pro as an empty resumptive pronoun that may under appropriate conditions be coindexed with a topic or a head. The coindexing requirement is expressed in the GCR as follows:

(6) The Generalized Control Rule (GCR):
An empty pronominal (PRO or pro) is coindexed with the closest c(=constituent)-commanding NP
The apparent island violations can now be accounted for, since the interpretation of empty pronominals is not subject to island constraints. Unlike in (4)-(5), the intended interpretation is not permitted by the GCR in the ungrammatical sentences (2)-(3). (A detailed analysis of the Chinese examples in (2)-(5) will be provided in Section 3 as part of my discussion of Korean examples.)

If Huang is correct in his assumption that the difference between English and Chinese arises from whether the language allows the occurrence of an empty pronominal in a governed position (pro), then Korean should behave like Chinese, since Korean apparently belongs to the type of language that allows a null pronoun in a governed position.

With this in mind, we examine Korean topicalized and relativized constructions⁶ in this chapter, and consider how Huang's modular approach for Chinese applies to Korean.

This chapter is organized as follows. Section 2 reviews previous studies of topicalized and relativized constructions in Korean. Section 3 examines Huang's GCR, replacing his Chinese examples with their Korean counterparts. After addressing some minor problems in Huang's analysis, I propose the Matching Condition and the Binding Principles as crucial

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⁶ Korean topicalized and relativized constructions may or may not contain gaps. In this paper we will deal only with the constructions with gaps.
constraints on the GCR. More precisely, I modify the GCR so that an empty pronominal is coindexed with the closest c­
commanding NP such that the Matching Condition and the Binding Principles are satisfied. Finally, Section 4 summarizes the major points and presents my conclusion.

2.2. Previous Studies

2.2.1. Topic Constructions

Some linguists, influenced by Chomsky's (1977) analysis of English topicalization and relativization, claim that Korean topicalization and relativization involve syntactic movement of a null operator. As has been noted by Sohn (1980), Kang (1986), Moon (1989), and Na and Huck (1990), however, a movement analysis cannot be maintained since the Subjacency Condition ('no constituent can move out of more than one containing bounding node') is freely violated in those constructions. Sohn (1980) has pointed out the detrimental influence of work concerned with English on generative studies of Korean, which manifests a typology quite distinct from English. In dealing with topichood in Korean, Sohn suggests that we consider insights from the typological study of similar phenomena in various languages, so that Korean constructions can be viewed from a broad typological perspective. Following Li and Thompson (1976),
Sohn claims that in a topic-prominent language like Chinese, Japanese, or Korean, sentences with topic-comment structures must count as basic forms, not as derived from any other structures.

Noting such a distinguishing characteristic of typical topic-prominent languages, Sohn considers the topic's control of coreferentiality (the topic, not the subject, tends to serve as antecedent for null pronouns), as illustrated by the following example:

(7) Ce namwu-nun\[i\] iph-\[i\] khe-se \[X]\[i\] silhta.
    that tree-Tp leaves-Nm big-Comp dislike
    'As for that tree, its leaves are big, so I
dislike it/*them.' ([X] = ce namwu-ka/*iph-i)

The topic ce namwu-nun, not the subject iph-\[i\], controls coreferentiality in the sentence above. Treating topics as base-generated elements, Sohn assumes that \[X\] is a deleted coreferential constituent controlled by the topic. However, a question arises with regard to coreferential NP deletion: why must it delete only certain NPs but not all? That is, why is NP deletion impossible in some constructions? Compare the following two pairs of sentences:
(8) a. [s' Mary-nuni [s son-i nemwu khe-se
    Mary-Tp hands-Nm too big-Comp
    [s kunye-ka\textsubscript{i} silhta]].
    her dislike
b. [s' Mary-nuni [s son-i nemwu khe-se
    Mary-Tp hands-Nm too big-Comp
    [s [X]i silhta]].
    dislike

'Mary, her hands are too big, so I dislike her.'

(9) a. John-uni [s nay-ka [s ku-ka\textsubscript{i} nolayha]-nun]
    John-Tp I-Nm he-Nm sing-Comp
    moksoli-lul\] cohahanta.
    voice-Ac like
b. *John-uni [s nay-ka [s [X]i nolayha]-nun]
    John-Tp I-Nm sing-Comp
    moksoli-lul\] cohahanta.
    voice-Ac like

'John, I like the voice with which he sings.'

In (8), the pronoun kunye-ka\textsubscript{i} in (8a) can be deleted as in
(8b) without affecting the sentence's grammaticality, a fact
explained by Sohn's account, since the antecedent is the
topic Mary. However, deleting the NP coreferential with the
topic, as in (9b), causes the sentence to be ungrammatical
even though the antecedent is still the topic. Clearly there
is some condition on deletion of the pronoun which theories such as Sohn's must seek to identify.

Another approach to Korean topic structures is outlined by Kang (1986), who claims that the gap in the relativized and topicalized constructions is a base-generated empty pronoun. Since this base-generated empty pronoun allows for long-distance binding by the relative clause head or topic, Korean relative clauses and topic constructions can violate the bounding conditions. Therefore, he argues, there is no movement of a null operator in Korean relative clauses and topic constructions. An empty pronoun is base-generated just as a resumptive pronoun is, since Korean allows empty pronouns. This observation is basically similar to Huang's GCR analysis in that no movement is involved and the lack of bounding effects is attributed to the possibility of generating pro, whose relationship to its antecedent does not obey the Subjacency Condition. However, Kang's proposal does not stipulate under what conditions the pro is licensed. By not doing so, it fails to explain why pro is not possible in all contexts, as we have seen in (9b).

Moon (1989), based on following examples, also claims that topic constructions are not sensitive to island constraints.
Another piece of evidence, in Moon, supporting the claim that the standard topic constructions do not involve movement is illustrated by the fact that the resumptive pronoun can be replaced by an epithet is. In the following sentence, the epithet *ku casik* (the guy) refers to the topic, Tori.

(10) Ce-moca₁-nun [Tori-ka [[ ej e₁ ssukoisste]-n] that-hat-Tp Tori-Nm was wearing-Comp
salamj]-ul cal alkoissta.
person-Ac well know
'That hat, Tori knows well the person who was wearing (it).'

(11) I-chayki-un [Tori-ka [[ej e₁ sasste]-n
this-book-Ac Tori-Nm bought-Comp
salamj]-ul mannassta.]
person-Ac met
'This book, Tori met a person who bought (it).'

(12) Tori-nun Swuni-ka ku-casik-ul cohaha-cianhnunta.
Tori-Tp Swuni-Nm the-guy-Ac like does not
'Tori, Swuni does not like the guy.'
2.2.2. Relative Clauses

Some linguists like I-S Yang (1972), D-W Yang (1973), Kuno (1973), S-W Lee (1983), and Saito (1985), claims that relativization in Korean does not involve movement and that the gap in the relative clause is created either by deletion or is a base-generated pro. Others such as H-S Choe (1985), S-S Hong (1985), M-Y Kang (1988), and Han (1990) claim that movement is involved in Korean relativization and thus, the gap is a trace created by movement.

S-W Lee (1983), for instance, proposes a zero resumptive pronoun analysis for the derivation of Korean relatives. According to him, the gap in relative clauses is generated in the base, and furthermore, the nature of this gap is a zero resumptive pronoun, since it may be filled by an overt resumptive pronoun, as shown in (13):

(13) a. [[e₁ cwukess-ulttay] manhun salamtul-i
died-when many people-Nm
sulpheha-n] taythonglyeng₁
were saddened-Comp president

b. [[ku-ka₁ cwukess-ulttay] manhun salamtul-i
he-Nm died-when many people-Nm
sulpheha-n] taythonglyeng₁
were saddened-Comp president
'the president by whose death many people were saddened'

Han (1990), on the other hand, proposes that relativization in Korean should be analyzed as an instance of syntactic movement of an empty relative operator. She states that the 'aboutness condition' cannot be justified unless it answers the following question: if the 'aboutness condition' is responsible for licencing relative clauses in Korean and Japanese, why doesn't the same licencing mechanism apply to relative clauses in English.

Han, however, admits that there are sentences that do not conform to the movement analysis. Therefore, she suggests that the empty categories in Korean can be either a pro or an operator, based on Campos' (1989) theory of null subjects and objects and Huang's (1984, 1989) Control Theory. For the grammaticality of sentences like (14), for instance, Han suggests that the null subject should be analysed not as a variable, but as a base-generated pro.

(14) [s'[s[NP[s'[e1  t3 ip]-un OP] yangpokj-i]
    wear-Comp  suit-Nm
  telewu]-n  ku sinsai
  dirty-Comp the gentleman
  'the gentleman who the suit [he] is wearing is dirty'
According to Han, the object EC in (14) is a trace which is A'-bound by an empty operator. The subject EC, however, cannot be a trace since the movement of an empty relative operator out of the complex NP (here, the lower relative clause) would violate Subjacency. In order to explain the grammaticality of sentences like (14), Han (1992), extending Huang (1984, 1989), claims that in a double relative clause the subject EC can be a base-generated pro, while the object EC can only be a variable. To account for the subject/object asymmetry, Han claims that if an empty category contained in the CNPC is interpreted as being coreferential with a higher relative head noun, it is a pro; if an empty category is interpreted as not being coreferential to a higher relative head noun, it is an operator.

Note, however, that sentences like the following falsifies Han's generalization:

(15) \[e(i,j) \ e(j,i) \ silheha]-nun salam-i\_i manhun Johnj \\
    dislike-Comp people-Nm many John

'John who has many people who [he] dislikes.' or

'John who has many people who dislikes

This sentence is ambiguous: both the subject and object ECs can refer to either salam 'people' or John. Han's analysis, however, wrongly predicts that this sentence has only one
interpretation (the former one). Since according to Han only the subject EC (pro) can be coindexed with a higher relative head noun (John) in a double relative clause; the object EC (operator) cannot be coindexed with John due to the CNPC constraint.

(16) \[[e_j/i \ e_i/*j \ silheha]-nun \ salam-i]_i \ manhun \ John_j

\text{dislike-Comp people-Nm many \ John}

'John who has many people who [he] dislikes.'

I will not attempt to prove whether movement is involved in relative clauses in Korean for those sentences that do not show any apparent island violation. However, I would like to point out that Han's movement analysis has some problems. One has to do with the following sentences:

(17) \[*s\cdot[s[NP[s\cdot [e_j \ e_i \ ip]-un] \ yangpok_i-ul] \ nay-ka

\text{wore-Comp suit-Ac \ I-Nm}

\text{po]-n] \ ku \ sinsaj}

\text{saw-Comp \ the \ gentleman}

'the gentleman who I saw the suit (he) was wearing'

(18) \[*s\cdot[s[NP[s\cdot[e_j \ e_i \ coha]-nun] \ kayj-lul] \ John-i

\text{like-Comp \ dog-Ac \ John-Nm}

\text{kacyeka]-n \ ku \ ai_i}

\text{took away-Comp \ the \ child}
'the child who John took away the dog [(s)he] liked'

(19) ?[s'[s[NP[s's Mary-ka ei salanghanta]-nun somwun-ul
Mary-Nm love-Comp rumor-Ac
nay-ka tul]-un John
I-Nm heard-Comp John
'John who I heard the rumor that Mary loves [him].'

(20) ??[e[i Mary-lul cwukyessta]-nun sasil-ul nay-ka
Mary-Ac killed-Comp fact-Ac I-Nm
alkeytoy]-n ku namca
came to know-Comp the man
'the man who I came to know the fact that [he] killed
Mary'

Han says that the above sentences are unacceptable due to
Subjacency and/or ECP violations, noting that relativization
out of a complex NP construction is possible only if the
complex NP is in subject position. But these sentences are,
in fact, acceptable. As native speakers who I consulted
point out, I believe that there is nothing grammatically
wrong with sentences (17)-(20). (The GCR also makes this
prediction). The awkwardness of the above sentences, I
believe, is a matter of performance factors. These sentences
are just hard to process due to the multiple embeddings.
Nonetheless, the above sentences are not any less acceptable
than the example Han provides as a grammatical sentence in order to show the unbounded character of relativization:

\[(21) \text{John-i [Mary-ka e}_i \text{ ilkeyahanta]-ko sayngkakhanta]-ko}\]
\[\text{John-Nm Mary-Nm must read-Comp think-Comp}\]
\[\text{Bill-i mitkoiss]-nun chayk}_i\]
\[\text{Bill-Nm believe-Comp book}\]

'the book which Bill believes that John thinks Mary must read'

This sentence is awkward and hard to process, but we do not rule it as ungrammatical.

Another problem with Han's analysis is that her syntactic movement approach is not well-motivated. Consider Han's claim that certain sentences are worse than others due to the ECP violations, based on the following examples:

\[(22) \text{Complex NP Constraint Effect:}\]
\[a. \text{??John-i [e}_i \text{ e}_j \text{ chackoiss]-nun salam}_i \text{-ul}\]
\[\text{John-Nm was looking for-Comp person-Ac}\]
\[\text{manna]-n ku pomwul}_j\]

meet-Comp the treasure

'the treasure which John met the person who was looking for [it].'
b. ?*John-i [e_i e_j ttetu]-nun salami-ul
   John-Nm make a noise-Comp person-Ac
   silheha]-nun kyosilj
   dislike-Comp classroom
   'the classroom where John dislikes the person who makes noise'

(23) Subject Condition Effect:

a. ??[haksayng-i e_i ttayli]-n kes-i wuli-lul
   student-Nm beat-Comp thing-Nm we-Ac
   sulphukeyha]-nun kyoswu_i
   sadden-Comp professor
   'the professor who that the students beat [him]
   saddens us.'

b. ?*[haksayng-i e_i kyoswu-lul ttayli]-n kes-i
   student-Nm professor-Ac beat-Comp thing-Nm
   wuli-lul sulphukeyha]-nun tayhakkyoi
   we-Ac sadden-Comp university
   'the university where that the students beat professors saddens us.'

According to Han, the ungrammaticality of (22) and (23) provide evidence that relativization in Korean is constrained by the Subjacency Condition. Furthermore, she claims that (22b) and (23b) are much worse than (22a) and (23a) due to the argument/adjunct asymmetry: the (b) sentences violate not
only the Subjacency Condition but also the ECP; whereas the (a) sentences violate only the Subjacency Condition.

I disagree with Han. Native speakers who I consulted do not distinguish in their judgements between (a) and (b) sentences at all. Besides, as O'Grady (p.c.) notes, an ECP violation generally makes the sentences completely ungrammatical unlike the case of (18b) and (19b). Even though I have not provided any counter-evidence to the movement analysis of Korean relative clauses, it is now clear that the movement analysis is not well-grounded, since it unjustifiably attributes the marginality of some sentences to the strict ECP violations.

2.3. My Proposal

2.3.1. Base-generated pro and the GCR

This section examines Korean topic constructions and relative clauses, replacing Huang's examples with their Korean counterparts. To begin with, consider the following examples:

    John-Tp father-Nm rich-is
    'John, [his] father is rich.'
  John-Tp     I-Nm     father-Ac     like
  'John, I like [his] father.'

(25) a. John-un] [s[NP]s'[s e_i e_j nolayha]-nun] moksoli
  John-Tp      sing-Comp      voice
  -ka_j]       cohta].
  -Nm       good
  'John, the voice with which [he] sings is good.'

b. *John-un] [s nay-ka [s'[s e_i e_j nolayha]-nun]
  John-Tp      I-Nm      sing-Comp
  moksoli-lul] cohahanta.
  voice-Ac     like
  'John, I like the voice with which [e] sings.'

(26) a. [NP][s'[s[NP][s' e_i e_j nolayha]-nun] moksoli-ka_j]
  sing-Comp      voice-Nm
  coh]-un]       ku salam-i_i]       umak       sensayng     ita.
  good-Comp     that person-Nm      music      teacher      is
  'That person who the voice with which [he] sings is
good is a music teacher.'

b. *[NP][s' nay-ka [NP][s' e_i e_j nolayha]-nun] moksoli-
  I-Nm      sing-Comp      voice-

---

7 Moon (1989) states that null subject in an embedded clause can be interpreted as referring to a topic only if the topic is emphatically stressed. If an element receives stress, however, it loses topic function because a topic as old information cannot get stress. Following Hoji (1985), Moon says that a stressed topic marker functions as a contrastive marker.
Both sentences in (24) appear to violate the LBC, but only (24b) is ungrammatical as predicted; all the sentences in (25) and (26) violate the CNPC, but only the (b) sentences have the predicted ungrammaticality. This inconsistency has led linguists such as Sohn and Kang simply to conclude that Korean topicalization does not exhibit island effects. However, if that were so, the ungrammatical examples above would be completely unexplained.

Note that each of the (b) sentences becomes acceptable if the gap [e₁] is replaced by a resumptive pronoun, indicating that the ill-formed sentences are not semantically or pragmatically anomalous. Thus, the following are perfectly acceptable:

    John-Tp I-Nm his father-Ac like

(28) John-un₁ [s nay-ka [s' [s ku-ka ej nolayha]-nun]
    John-Tp I-Nm he-Nm sing-Comp
    moksoli-lul] cohahanta.
    voice-Ac like
Concerning this phenomenon, Huang observes that the comparison of (24a) with the ungrammatical (24b) above reveals a subject/object asymmetry: in (24a), the EC is on the left branch of an NP in subject position, but in (24b) the EC is on the left branch of an NP in object position. The same asymmetry can be observed in filler-gap dependencies involving a complex NP: in the grammatical (25a) and (26a) the EC is inside a subject phrase, but in the ungrammatical (25b) and (26b), the EC is inside an object phrase. This indicates that the CNPC and the LBC appear to block a filler-gap dependency only when the putative island occurs in object position, but not when it occurs as a subject.

As Huang has observed for Chinese, not only do islands in subject position fail to exhibit island effects in Korean, but an object island also ceases to resist extraction once it is scrambled to sentence-initial position. In contrast to (24b), (25b), and (26b), their fronted counterparts in (29), (30), and (31) are perfectly acceptable:

(29) John-un_i [e_i apeci-lul] nay-ka cohahanta.
     John-Tp    father-Ac    I-Nm    like
     'John, I like [his] father.'

(30) John-un_i [NP[S'[s e_i [v_p e_j nolayha]]-nun] moksoli
     John-Tp    sing-Comp     voice
'John, I like the voice with which [he] sings.'

(31) \[NP[S[NP[S[e_i nolayha]-nun] moksoli-lulj] nay
sing-Comp voice-Ac I
-Nm like-Comp that person-Nm music teacher is
'That person who the voice with which [he] sings I
like is a music teacher.'

This observation also applies to extraction out of an
adjunct. Compare the following pair of sentences:

(32) a. *John-un_i [S nay-ka [S Mary-ka e_i pinanha-
John-Tp I-Nm Mary-Nm criticize-
kittaymwuney] kipwunnapputa].
because am unhappy

'John, I am unhappy because Mary criticizes [him].' 

b. John-un_i [S Mary-ka e_i pinanha-kittaymwuney]
John-Tp Mary-Nm criticize-because
nay-ka kipwunnapputa.
I-Nm am unhappy

'John, because Mary criticizes [him], I am unhappy.'
In (32a) the adjunct occurs after the subject and extraction is blocked. But in (32b) the adjunct occurs clause-initially, and extraction becomes possible.

The asymmetries we have observed so far point to the following generalization: in Korean, syntactic islands cease to be islands in sentence-initial position, just as they do in Chinese.

Remember that Han treats the following sentences as ungrammatical: (The judgments represented here are Han's.)

(33) \[s\,[s[NP[s\, [e_i \, e_j \, ip]-un] \, yangpokj-ul] \, nay-ka\]
\[\text{wore-Comp suit-Ac I-Nm}\]
\[\text{po]-n]} \, ku sinsai\]
\[\text{saw-Comp the gentleman}\]
\text{'the gentleman who I saw the suit (he) was wearing'}

(34) \[s\,[s[NP[s\, [e_i \, e_j \, cohaha]-nun] \, kayj-lul] \, John-i\]
\[\text{like-Comp dog-Ac John-Nm}\]
\[\text{kacyeka]-n} \, ku ai_i\]
\[\text{took away-Comp the child}\]
\text{'the child who John took away the dog [(s)he] liked'}

(35) \[[[\, e_i \, Mary-lul \, cwukyessta]-nun \, sasil-ul \, nay-ka\]
\[\text{Mary-Ac killed-Comp fact-Ac I-Nm}\]
\[\text{alkeytoy]-n} \, ku namca_i\]
\[\text{came to know-Comp the man}\]
'the man who I came to know the fact that [he] killed Mary'

Han claims that these sentences are ungrammatical, violating the Subjacency Condition. The native speakers who I consulted, however, do not agree with her judgement. I believe that these sentences are grammatical even though it might take some time to process them due to the multiple embedding. As Huang has observed for Chinese, not only do islands in subject position fail to exhibit island effects in Korean, but an object island also ceases to resist extraction once it is scrambled to sentence-initial position. In contrast to (33)', (34)', and (35)' below, their fronted counterparts in (33), (34), and (35) are acceptable:

(33)'
*Nay-ka [s'[s[NP[s' [e_i e_j ip]-un] yangpok_j-ul]
I-Nm wore-Comp suit-Ac
po]-n] ku sinsai saw-Comp the gentleman

'(the gentleman who I saw the suit (he) was wearing'

(34)'
*John-i [s'[s[NP[s'[e_i e_j coha]-nun] kay_j-lul]
John-Nm like-Comp dog-Ac
kacyeka]-n ku ai_i took away-Comp the child

'(the child who John took away the dog [(s)he] liked'
Note that these phrases, which have not undergone scrambling, are completely unacceptable with the intended meanings.

Let us now consider how Huang deals with cases such as those above in which some grammatical examples appear to obey the CNPC, the LBC, and the AC. Huang claims that the observed apparent violations of Subjacency and other island conditions arise from the possibility of base-generating an empty pronoun that may be properly coindexed with a topic or a head under appropriate conditions. He then proposes that the coindexing requirement be expressed as the GCR, which is essentially a generalization of the rule of control proposed by Chomsky, incorporating a 'Minimal Distance Principle' and applying it to both PRO and pro:

\[(36) \text{The Generalized Control Rule (GCR):} \]

\[
\text{An empty pronominal (PRO or pro) is coindexed with the closest c-commanding NP (otherwise, an empty pronominal is assigned the index arb for arbitrary reference).}
\]
Huang (1984) defines 'closest' in the following way:

\[
\text{(37) a. A is closer to B than C if A c-commands B but C does not c-command B.}
\]

\[
\text{b. For two nodes A and C, both of which c-command B, A is closer to B than C if A but not C occurs in the same clause as B, or if A is separated from B by fewer clause boundaries than C is.}
\]

Assuming that the GCR may coindex an empty pronominal with either an antecedent in A- position or A'-position, the apparent island violations that we have seen so far can be accounted for by the independent possibility of having a pro that is properly coindexed with an antecedent in accordance with the GCR. Since null pronoun interpretation is subject to the GCR but not to island constraints, no violation of such constraints occurs.

In the remainder of this chapter, I will consider how the facts follow from Huang's proposal. Let us first compare a pair of examples (24a) and (24b), which are repeated here as (38a) and (38b), respectively:

\[
\text{(38) a. John-uni } [_{S\text{NP}} [_{S}\text{ e_i e_j nolayha}-\text{nun}]]
\]

\[
\text{John-Tp sing-Comp}
\]
moksoli-ka] cohta].
voice-Nm good
'John, the voice with which [he] sings is good.'
b. *John-un [s nay-ka [s e_i e_j nolayha]-nun]
John-Tp I-Nm sing-Comp
mokso Li cohahanta.
voice-Ac like
'John, I like the voice with which [e] sings.'

In each case above, the binding relationship between the empty categories (EC) and their binders (topics) cannot be established by Move \( \alpha \), since the process of movement would violate Subjacency (crossing two bounding nodes: S and NP). However since Korean allows pro drop, an EC may be base-generated as a governed pro whose reference is determined by the GCR. Consider then the EC in each case as a pro. As an empty pronominal, the EC must be coindexed with the closest NP c-commanding it, or its reference is arbitrary.

Tree diagram (39) depicts the structure of sentence (38a).9

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8 S and NP are considered to be bounding nodes in Korean.
9 Although it is possible to have a topic in an embedded clause in Korean, it is not possible in this case. That is, the NP John-un cannot be in the embedded clause and retain its topic interpretation. (A nun-marked NP in an embedded clause must be interpreted as a 'contrastive focus')
According to Huang, the closest NP c-commanding $e_i$ is the topic. So, by the GCR the EC is coindexed with the topic and we have a case of a topic properly $A'$-binding an EC within a complex NP. Since null pronoun interpretation is subject to the GCR but not to the Subjacency Condition, the binding relation does not violate any principle of grammar. Thus the $e_i$ is allowed as a pro-an empty resumptive pronoun, not a trace of movement.

Note, though, that Huang's analysis is possible only because he ignores a potential binder—the head modified by the relative clause, since the closest NP c-commanding $e_i$ in (39) should be moksoli-ka 'voice' rather than John-un, according to the GCR. I propose to remedy this situation by using the Matching Condition in (40) below to rule out the

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I assume that moksoli-lo (-lo indicates Instrument) is an NP with a case suffix. This assumption will be justified in Chapter IV. Following Sohn (p.c.), I believe that the [Inst] suffix -lo is suppressed when it is stranded.
undesired coindexing. This Matching Condition (MC) is a kind of 'semantic filter', which rules out some interpretations (indexed structures) as ill-formed:

(40) Matching Condition (Radford 1981:366):
If two NPs are assigned the same index, they must
'match' in features (e.g. number, gender, person, etc.)

There is thus a feature mismatch which rules out any possibility of moksoli-ka 'voice' being coreferential with ei, since the latter nominal ei is the agent argument of nolayhata 'sing', and thus necessarily animate. In other words, as a result of the MC costraining the GCR, the ei is coindexed with John-un and the ej with moksoli-ka. Therefore, I reformulate the GCR as follows:

(41) The GCR:
An empty pronominal (PRO or pro) is coindexed with the closest potential antecedent that is consistent with the Matching Condition.

In fact, the closest NP to the oblique ej is the embedded subject ei. But it is ruled out by the MC because of a clash in the [+ animate] feature.
Consider now (38b), which is depicted here as (42).

\[ (42) \]

*John-un nay-ka e e nolayha-nun moksoli-lul cohahanta

Given the Subjacency Condition, \( e_i \) cannot be the trace of movement, but it can be base-generated as a pro. The GCR, however, does not permit it to be coindexed with the topic, and the MC does not permit it to be coindexed with the relativized head, moksoli-lul 'voice'. The closest eligible NP c-commanding \( e_i \) therefore is the subject NP nay-ka 'I' of the comment clause, not the topic John-un. The GCR requires that the \( e_i \) be coindexed with nay-ka 'I' or be assigned arbitrary reference. Since the \( e_i \) cannot be related to the topic, either as a trace or as a pro, the sentence is ill-formed with the intended interpretation. To be precise, the sentence can only have the interpretation 'John, I like the voice of my singing' or 'John, I like the voice with which one sings'. But these interpretations are ruled out due to
the lack of an 'aboutness' relation between the topic John-un and the rest of the sentence.\textsuperscript{11}

In fact, in all likelihood, sentence (38b) will be processed as in (43), since the topic tries somehow to establish an 'aboutness' relation. Notice that the association between subjects and predicates are switched: nay-ka 'I' is now the subject of nolayha-nun 'sing' and ei (John-i) is the subject of cohahanta 'like'. This sentence is grammatical, but it is not the originally intended interpretation, which is 'John, I like the voice with which he sings'.

\begin{enumerate}
\item[(43)] John-un\textsubscript{i} \[S \ e_i [\text{NP}[[S \ nay-ka e_j nolayha]-nun]] \]
\begin{align*}
\text{John-Tp} & \quad \text{I-Nm} \quad \text{sing-Comp} \\
\text{moksoli-lulj} & \quad \text{cohahanta].} \end{align*}
\begin{align*}
\text{voice-Ac} & \quad \text{like} \\
\text{'John likes the voice with which I sing.'}
\end{align*}
\end{enumerate}

\textsuperscript{11} The 'aboutness' relation in a topic-comment structure can be established (O'Grady: p.c.) either by a resumptive pronoun (overt or empty) coreferential with a topic ('John\textsubscript{i}, I like him/e\textsubscript{i}.') or a set-subset relationship ('As for flowers, I like roses best.').
H-B Lee provides the following sentence as a counterexample to the GCR:

(44) ce-salamtul_un phato-ka [e_i e_j salte]-n
those people-Tp wave-Nm live-Comp
cipj-ul ssulekassta.
house-Ac swept away

'As for those people, the wave swept away the houses in which they had lived.'

This sentence is acceptable even though it is exactly parallel to the ungrammatical (42). The revised GCR in (41), however, correctly predicts its grammaticality. The oblique EC e_j can appropriately be coindexed with the relative head cip 'house'. Note that it can not be coindexed either with the matrix subject phato 'wave' due to the Matching Condition or with the subject EC due to the Binding Principle B (We
will come to this point later). Now, according to Huang's GCR, the subject EC will have to be coindexed with phato 'wave', which will lead to ungrammaticality. The revised GCR in (41), however, eliminates the possibility of the matrix subject being coindexed with the subject EC thanks to the Matching Condition. In other words, phato is not the closest NP to the subject EC anymore since it is screened out by the MC. Naturally, the subject EC will be coindexed with the next potential antecedent—ce salamtul 'those people'.

Now let us consider the following structure, which is a fronted counterpart of the ungrammatical (42):

```
      S'  
      |   
 NP_i------S-------S^{12}-------S  
      |   |   
 NP_k  |   |   
      |   
      S'------Comp------NP  
      |   |   
 NP_i  |   |   
      |   
      S  
      |   
 NP_j------VP------NP_k  
      |   |   
 NP_j  |   |   
      |   
      V  
```

In contrast with (42), sentence (45) is well-formed, since nay-ka 'I' no longer c-commands e_i, and the e_i can now be properly coindexed with the topic, the nearest c-commanding NP that does not violate the MC.

---

12 I assume that scrambling involves an S-structure Adjunction operation, following Lasnik and Saito (1989).
The same phenomenon is observed by Kim (1988) in a relativized construction. Compare the pair of sentences in (46) in terms of their structure:

(46) a. *Nay-ka [[e_i John-ul cohahanta-ko]
  I-Nm            John-Ac    like-Comp
  sayngkakha-nun] Mary_i
  think-Comp      Mary

'Mary, who I think that [she] likes John.'

b. [[e_i John-ul cohahanta-ko_j] nay-ka t_j
  John-Ac like-Comp      I-Nm
  sayngkakha-nun] Mary_i
  think-Comp      Mary

'Mary, who I think that [she] likes John.'
In (46a) the EC cannot be coindexed with the relative head, since the nearest c-commanding NP is *nay-ka 'I'. Hence this sentence is ungrammatical with the intended interpretation. Just like (43), it will be processed as a different structure:

(47) [e₁ [Nay-ka John-ul cohahanta-ko] sayngkakha-nun] Mary₁
    I-Nm    John-Ac like-Comp    think-Comp    Mary
    'Mary, who thinks that I like John.'
There occurs a switch in the subject-predicate relations: the subject of cohahanta 'like' is now nay-ka 'I' and the subject of sayngkakha-nun 'think' is Mary. But this is not the originally intended meaning, 'Mary, who I think likes John'. If scrambling occurs as in (46b), however, the sentence becomes grammatical, since nay-ka no longer c-commands the EC, and the EC can be properly coindexed with the relative head in accordance with the GCR. Huang's account, supplemented by the MC, thus captures the generalization that certain syntactic islands fail to exhibit island effects when they appear in sentence-initial position.

2.3.2. The GCR and Move α

So far we have dealt with ECs that are subjects and obliques. This section examines the extraction of an object, as in (32), which is repeated here as (48):

(48) a. *John-un [s nay-ka [s: Mary-ka e ipinanha-
  John-Tp I-Nm Mary-Nm criticize-
  kittaymwuney] kipwunnapputa].
  because am unhappy
  'John, I am unhappy because Mary criticizes [him].'
b. John-unj [s. Mary-ka ei pinanha-kittaymwuney]

John-Tp Mary-Nm criticize-Comp
nay-ka kipwunnapputa.
I-Nm am unhappy

'John, because Mary criticizes [him], I am unhappy.'

Notice that in (48a) the adjunct occurs after the subject. The coindexing of the EC with the topic NP, John-un is blocked, since the EC is wrongly coindexed with the matrix subject nay-ka 'I' by the GCR. Sentence (48b), however, is perfectly grammatical, since the adjunct containing the EC occurs in initial position. The GCR should therefore be able
to account for this sentence. But it is not explained directly by Huang's theory so far. This is because the nearest NP c-commanding the object EC is the subject of the clause Mary-ka, not the topic John-un. That is, the EC cannot be admitted as a pro coindexed with the topic under the GCR.

In order to obtain the required coindexing here, Huang assumes that movement is always an option when its operation is not ruled out by the principles of bounding or in some other way: the object EC in (48b) may first be base-generated as a pro and be moved to a topic or an S-adjoined position within the adjunct clause. Then, at S-structure, this internal topic pro may be coindexed with the external topic in accordance with the GCR. In other words, the required coindexing between the external topic and the object EC is established indirectly and jointly by the two processes, the GCR and Move α. The relevant S-structure representation of sentences like (48) and their relativized counterparts is as follows:

(49) a. \text{Topic}_i, \ [\alpha \ [\text{pro}_i \ldots \text{t}_i] \ldots ] \quad \text{---GCR-------M}\alpha-------

\quad b. \ [\alpha \ [\text{pro}_i \ldots \text{t}_i] \ldots ] \quad \text{Head}_i \quad \text{---M}\alpha------

\quad \quad \text{-----GCR------------------}
The following structure, then, illustrates an $S$-adjunction operation in addition to scrambling of the embedded clause in (48b):

Now the NP Mary-ka no longer c-commands the (moved) EC, and the EC is properly coindexed with the topic in accordance with the GCR. Note that the NP$_k$ cannot move up to the higher $S$ because of the Adjunct Condition, which treats adjuncts as islands.

An additional example is given below, in which an object is topicalized out of a sentential subject:

(51) ai$_i$-nun [emma-ka e$_i$ tolpo]-nun kes-i
child-Tp mother-Nm take care-Comp thing-Nm
kacang cohta.
most good
'As for a child, that mother takes care of [her/him] is best.'
This sentence is not accounted for directly by the GCR. The NP minimally c-commanding e₁ is the EC's own subject emma 'mother', not the topic a₁ 'child'. The object EC in (51) may first be base-generated as a pro and be moved to a topic or an S-adjoined position within the adjunct clause. Then, at S-structure, this internal topic pro may be coindexed with the external topic a₁ in accordance with the GCR.

Consider now the following ungrammatical sentences:

(52) *John₁-un [nay-ka [[e₁ ej ssu]-n manhun
John-Tp I-Nm wrote-Comp many
chaykj-ul ilkessta.]
books-Ac read

'John, I have read many books that [he] wrote.'

(53) *John₁-un Mary-ka [e₁ ej ip]-un osj-ul
John-Tp Mary-Nm wear-Comp clothes-Ac
mantulessta.
made

'John, Mary made the clothes that [he] is wearing.'

These sentences are similar to (42), which is repeated here as (54), except that these have object ECs rather than oblique ones.
The object ECs in (52) and (53) can first be internally topicalized and be successfully coindexed with relative heads. Note that subject ECs can not be coindexed with relative heads since the Matching Condition prevents animate NPs from being the theme arguments for verbs like ssuta 'write' and ipta 'wear'. The subject ECs, then, fail to be coindexed with their appropriate antecedents (topics), since nayka 'I' in (52) and Mary-ka in (53) are the closest NPs to them.

Susumu Kuno (p.c.) and H-B Lee (1987) provide the following sentences as possible counterexamples to the GCR. Note that these sentences are exactly parallel to the ungrammatical (52)-(54).

(55) Pwulssanghan John-un [s etten salam-i [NP[s, [s e_i
Poor John-Tp someone-Nm
e_j pangkum sa]-n] khameyla-lul] mangkattulyessta].
  just bought-Comp camera-Ac broke
'Poor John, someone broke the camera that (he) just bought.'

(56) Mary₁-nun [s totwuknom-i [NP[s e₁ eⱼ kaci]-n]
Mary-Tp thief-Nm have-Comp
posekⱼ-ul] motwu hwumchekassta].
jewels-Ac all stole
'As for Mary, the thief stole all the jewels that [she] has.'

The subject ECs cannot be coindexed with appropriate antecedents--topics--since the matrix subjects etten salam-i in (55) and totwuknom-i in (56) block the desired coindexings. These sentences, therefore, should be ruled out by the GCR. In other words, these sentences are unacceptable with the intended meanings. As in (43), they will be processed as follows:

(57) Pwulssanghan John₁-un [s e₁ [NP[s eⱼ etten salam-i
Poor John-Tp someone-Nm
eⱼ pangkum sa]-n] khameyla-lulⱼ] mangkattulyessta].
just bought-Comp camera-Ac broke
'Poor John, he broke the camera that someone just bought.'

(58) Mary₁-nun [s e₁ [NP[s totwuknom-i eⱼ kaci]-n
Mary-Tp thief-Nm have-Comp
'Mary, she stole all the jewels that the thief had.'

Notice that the association between subjects and predicates are switched. These sentences are grammatical, but not with the originally intended interpretations. I suspect that the coindexings in (55) and (56) might be achieved due to some overriding pragmatic factors: 'Poor John' is more likely to be the person whose camera was broken rather than who broke the camera; 'thief' is more likely to be the one who stole the jewels rather than whose jewels were stolen.\(^{13}\)

Now, let us consider the example given below, in which an object is topicalized out of a relative clause:

\[(59)\] John-un\(_i\) [[\(\text{e}(i,j)\) e\((j, i)\) pinanha-nun] John-Tp criticize-Comp

salam-ij] manhta.

people-Nm many

'John, the people who [he] criticizes are many.' or

'John, people who criticize [him] are many.'

---

\(^{13}\) Chomsky (1977) distinguishes two types of competence: (i) pragmatic competence, and (ii) grammatical competence. Pragmatics is concerned with the role played by nonlinguistic information such as background knowledge and personal beliefs in our use and interpretation of sentences. Chomsky also believes, according to Radford (1981), that Pragmatics should be separated from (and studied independently of) Grammar.
This sentence has two readings: one in which the subject is topicalized and the object is relativized, and the other in which the subject is relativized and the object is topicalized. In his footnote 28, Huang recognizes the ambiguity between the two readings but focuses only on the second interpretation, which involves S-adjunction, claiming that the former is not a natural interpretation. But in Korean, the sentence is completely ambiguous, and the cause of this ambiguity needs to be clarified (Chinese speakers whom I consulted said the same thing for Mandarin, disagreeing with Huang). Let us therefore examine how the GCR can account for this fact, considering the relevant S-structure representation, as depicted in (60):
Note that the GCR does not stipulate the ordering relationship among multiple coindexings. That is, whichever EC is coindexed first, the relative head salam 'people' will be an antecedent, since it is now the closest eligible NP commanding both the subject EC and the object EC (both ECs occur within the same clause). Notice that the NP cannot move up to the higher S, since this is blocked by the Subjacency Condition, there being two intervening bounding nodes—S and NP. If we coindex the subject NP with the relative head salam 'people', the object NP will have to be coindexed with the topic John-un; if the object NP is coindexed with the relative head salam 'people' first, the subject NP will have to be coindexed with the topic John-un. Thus the occurrence of two ECs in the same clause and the free ordering between the two coindexings causes the ambiguity.
Another thing to note here is that the GCR as currently stated in Huang's system requires the subject EC to be coindexed with the fronted EC. Such a coindexing would predict that the sentence is ungrammatical, since it would result in the subject and object ECs being coindexed with each other, violating Binding Principle C:

\[(61)\]
```
S \rightarrow S \rightarrow NP_1 \rightarrow NP_1 \rightarrow VP \rightarrow V
```

The NP in object position is a variable (the trace of pro) which is like an R-expression and hence subject to principle C of the binding theory, which is stated as in (62):

\[(62)\] R-expressions (lexical NP and wh-trace) must be free everywhere.

However, the sentence is perfectly grammatical, contrary to what might be expected. In order to account for the fact, I propose that Binding Principle C is a constraint on the GCR.\(^{14}\) That is, Binding Principle C prevents the undesirable coindexing between the fronted pro and the subject EC. This

\(^{14}\) I owe this idea to O'Grady.
allows the subject EC to be coindexed with the next closest NP salam 'people', giving an acceptable interpretation. Therefore, I restate the GCR as follows to make this point explicit:

(63) The Revised GCR:
An empty pronominal (PRO or pro) is coindexed with the closest c-commanding antecedent that is consistent with both the Matching Condition and Binding Principle C.

Due to the newly proposed constraint on the GCR-Binding Principle C—one but not both ECs can be coindexed with the relative head, even though it is the closest c-commanding NP, since this results in a Principle C violation, as explained above.15

Consider the following sentences which are given by H-B Lee:

(64) Maryi-nun [ei ej cinsimulo salangha]-nun salamj-ul
Mary-Tp truly love-Comp person-Ac
acik mos chacassta.
yet not found

15 Huang (1984) stipulates that the head of a relative clause that is already coindexed with something does not count as a potential antecedent of another empty category.
'Mary hasn't yet found a person who [she] truely loves.'

(65) Johni-un [e₁ e₁ ttayli]-n salam₁-ul chackoissta.
John-Tp hit-Comp person-Ac is looking for
'John is looking for the man who hit [him].'

According to H-B Lee, in (64) only the subject EC, but not
the object EC may be bound by the topic. Whereas the
sentence (65), in his speech, has a strong preferred reading
in which the embedded object EC is bound by the topic. The
judgment, however, seems to be based on his personal beliefs.
These sentences are in fact ambiguous as in the following:

(66) Mary₁-nun [e₁ e₁ cinsimulo salangha]-nun
Mary-Tp truly love-Comp
salam₁-ul acik mos chacassta.
person-Ac yet not found
'Mary hasn't yet found a person who [she] truly loves.'
or 'Mary hasn't yet found a person who truely loves [her].'

(67) John₁-un [e₁ e₁ ttayli]-n salam₁-ul chackoissta.
John-Tp hit-Comp person-Ac is looking for
'John is looking for the person who [he] hit.'
'John is looking for the person who hit [him].'

Consider the following sentences which are exactly
parallel to the ambiguous sentences (60), (66), and (67):
Unlike (60), (66), and (67), these sentences are not ambiguous due to the Matching Constraint on the GCR. Notice that the subject ECs in (68) and (69) cannot be coindexed with relative heads, since the agent arguments for the verbs ssuta 'write' and ipta 'wear' must be animate. Conversely, the object ECs cannot be coindexed with the topics, since the theme arguments for the verbs ssuta 'write' and ipta 'wear' must be inanimate. In (70), the subject EC cannot be coindexed with the topic, since the agent argument for the verb ssuta 'write' has to be animate. The object EC cannot be coindexed with the relative head, since the theme argument for the verbs ssuta 'write' has to be inanimate. Thus, the MC disambiguates these sentences.
2.3.3. Further Differences between Huang (1984, 1989) and Huang (1991)

In the previous section, one crucial difference between Huang's (1984, 1989) analysis and his (1991) analysis has been noted. In Huang (1984, 1989), the DJR (Chomsky's Binding Principle B: a pronoun must be free in its governing category) prevented an object EC from being coindexed with a clause-mate subject. That is, it was the interaction of GCR and DJR that decided the coindexing. Because the DJR was independent of (not a constraint on) the GCR, an EC in object position could never be a pro, since the GCR forced coindexing with the subject in violation of the DJR. It could therefore only be a variable associated with a possibly zero topic. In contrast, an EC in subject position could be either a pro or a variable (linked to a possibly zero topic). Huang's (1984) claim is based on the following pair of examples:

(71) a. EC in object position:

\[ \text{ek} \quad [\text{John-i} \quad [[[\text{Mary-ka}_k \quad \text{ek}*/*i/_j \quad \text{poassta}]-ko]} \]

\[ \text{Tp} \quad \text{John-Nm} \quad \text{Mary-Nm} \quad \text{saw-Comp} \]

\[ \text{malhayssta}]]. \]

said.

'John said that Mary saw [ek].'
b. EC in subject position:

\[
\text{[ej } \text{[John-i } \text{[e}_{i/j} \text{ Mary-lul poassta]-ko]}
\]

Tp John-Nm Mary-Ac saw-Comp malhayssta]. said

'John said that \([e}_{i/j}\) saw Mary.'

In (71a), the EC in object position could not be a pro; rather, it was a variable, an element that is bound by an element in an A'-position (here, a zero topic). If it had been a pro, it would have been coindexed with Mary-ka by Huang's GCR, violating the DJR. The status of the EC as a variable helped the sentence escape the GCR violation, since the GCR applies only to pro. Note that according to Huang, the object EC could not be coindexed with the matrix subject John, which has been called into question by linguists such as Cole. (We will consider this shortly.) In (71b), however, the EC can be either a pro coindexed with the matrix subject John or a variable coindexed with a zero topic.\footnote{The possibility of a zero topic may be obscured in (35b) because of the interruption of a potential closer topic John. But the following sentence, in which the potential closer topic is ruled out by the Matching Condition, shows that a zero topic is possible.} Thus, the

\[
\text{[e}_{i} \text{[John-i [ e}_{i} \text{ pissata-ko] malhayssta]].}
\]

Tp John-Nm expensive-Comp said

'John said \([e}_{i}\) was expensive.'
subject/object asymmetry was reduced to the possibility of EC being pro.

Consider now Huang's (1984) view that an object EC cannot be a pro. Many linguists provide counterexamples, arguing that null objects in Korean are instances of pro, since matrix arguments can also be controllers.

(72) Chelswu$_1$-ka [Yenghi$_j$-ka e$_i$/k hyeppakhayssta]-ko
    Chelswu-Nm Yenghi-Nm threatened-Comp
cwucanghayssta.                                 (Cole 1984)

claimed

'Chelswu claimed that Yenghi threatened him.'

(73) John$_i$-i [Bill$_j$-i e$_i$/k cenhwahayssta]-nun sasil-ul
    John-Nm Bill-Nm called-Comp fact-Ac
acik molunta.                                    (Cole 1984)

yet doesn't know

'John doesn't know the fact that Bill called him.'

(74) John$_i$-i [Mary$_j$-ka e$_i$/k coahanta-ko] hayssta. (Han 1992)
    John-Nm Mary-Nm like-Comp said

'John said that Mary likes him.'

(75) John$_i$-i [Mary$_j$-ka e$_i$/k manna-cwuki]-lul palanta.
    John-Nm Mary-Nm meet-BEN-Ac want

'John wants Mary to meet him'                    (Whitman 1988)
Aii-ka [emraj-ka ei/k honnaycwulkela]-ko child-Nm mother-Nm will scold-Comp sayngkakhayssta. (Han 1992) thought 'The child thought that his mother would punish him.'

John-i [Mary-ka ei/k tlayyessta]-ko malhayssta. John-Nm Mary-Nm beat-Comp said 'John said that Mary beat him.' (Han 1992)

John-i [sensayngnimj-i ei/k pokoissta-nun-kes-ul John-Nm teacher-Nm is looking-Comp-thing-Ac alkoissta. (Lee 1987) knows 'John knows that the teacher is looking at him.'

John-i [neyj-ka ei/k towaculila]-ko sangkakhakoissta. John-Nm you-Nm will help-Comp think 'John thinks that you will help [him].' (Lee 1987)

Note that the null objects of the embedded verbs can be coreferential either with the matrix subject or a (null) discourse topic.

Before we consider how Huang's new analysis incorporates the above observation, let us briefly look at Moon (1989)'s slightly different view. Unlike those linguists noted above, Moon claims that not all cases of the above sort allow coindexing of object ECs with the matrix arguments. She
provides an account of the contrast between sentences like (80) and (81):

(80) *Torii-ka [[Swunij-ka e1 poassta]-ko cwucanghayssta.
   'Tori claimed that Swuni saw [him].'
(81) Torii-ka [[Swunij-ka e1 ttaylyessta]-ko cwucanghayssta.
   'Tori claimed that Swuni hit [him].'

Moon explains that the matrix NP in each sentence above is a logophoric NP in the sense that it represents a speaker or an experiencer. Suggesting that an empty pronoun in object position which is assigned a goal theta-role is an instance of a logophoric pronoun, she claims that only an affected object can take a logophoric NP as its antecedent. The object of actions denoted by verbs like ttaylita 'hit' in (81) is physically or mentally affected by the action, while actions denoted by the verbs like pota 'see' do not affect the object.

I do not endorse this distinction. Native speakers who I consulted including Sohn (p.c.), do not have such a sharp distinction in the judgments of those sentences. Although

17 According to Kuno (1987), a logophoric verb is one which takes as an argument an NP that represents the speaker or the experiencer. The subjects of verbs, such as say, tell, ask, complain, scream, realize, feel, know, expect, claim, are taken as speakers or as experiencers, and the objects of verbs such as worry, bother, disturb, please, as experiencers.
some of them admit that it is harder to think of any context in which the matrix subject becomes the antecedent of the EC in the case of (80), they do not rule out the sentence. Sohn suspects that there must be some discourse factors involved. Besides, note that in (78), the object EC is properly coindexed with the matrix subject even though the verb pokoissta 'is looking at' does not affect the object. In (80) also, changing the embedded verb pota 'see' into palapota 'stare' or chetapota 'look', makes the sentence perfectly acceptable. This indicates that the difference in naturalness between (80) and (81) is not a matter of grammaticality.

Let us now return to the main point. In order to incorporate the observations in (72)-(79), Huang (1991) adopts the internal movement analysis exemplified in (60), in which the subject/object asymmetry is not stated in terms of the possibility of the EC being a pro any more but in terms of Move $\alpha$. An EC in either subject or object position is a pro: a pro in subject position does not move, whereas a pro in object position moves and adjoins to S.

Let us then reconsider sentence (71a) in terms of Huang's (1991) analysis, with a revised judgement:
Unlike (71a), the object EC is now a pro which can be coindexed with either the null topic ek or the matrix subject John-i. First, the EC is base-generated as a pro in object position and moves up to be S-adjoined by internal topicalization:

\[
(83) \quad [e \quad [\text{John-i}]_s \quad [s \quad e_k \quad [s \quad \text{Mary-ka} \quad t_k \quad \text{poassta}]_{-\text{ko}}]] \quad \text{Tp} \quad \text{John-Nm} \quad \text{Mary-Nm} \quad \text{saw-Comp} \\
\quad \text{malhayssta}]]. \\
\quad \text{said} \\
\quad '\text{John said that Mary saw } [e_{i,k}]'.
\]

Huang's GCR then requires the internal topic to be coindexed with John-i:

\[
(84) \quad [e \quad [\text{John-i}_k]_s \quad [s \quad e_k \quad [s \quad \text{Mary-ka} \quad t_k \quad \text{poassta}]_{-\text{ko}}]] \quad \text{Tp} \quad \text{John-Nm} \quad \text{Mary-Nm} \quad \text{saw-Comp} \\
\quad \text{malhayssta}]]. \\
\quad \text{said}
\]
But this would violate Binding Principle C: the NP in object position is a variable which is like an R-expression and hence subject to Binding Principle C. Since the Binding Principles are independent of Huang's (1991) GCR, the sentence is predicted simply to be ungrammatical, which is not true.

However, with Binding Principle C constraining the GCR, the new version of the GCR in (63) coindexes the EC not with John-i but with the zero topic:

(85) \[ e_k \ [John-i [s, [s e_k [s Mary-ka t_k \text{ poassta}-ko]]
Tp John-Nm Mary-Nm saw-Comp
malhayssta)].

said

How then can we explain that the matrix subject can also be an antecedent in Korean, unlike in Chinese? Although further study is necessary, I assume that nonobligatoriness of internal topicalization in Korean distinguishes that language from Chinese. Since internal topicalization is not obligatory (the object EC \text{ pro} can remain in situ) in Korean, the matrix subject can be coindexed with the object EC provided that Binding Principle B is a constraint on the GCR, as in (86):
With Binding Principle B constraining the GCR, the matrix subject is the closest eligible NP to the object EC. Therefore, I propose the following as my final version of the GCR:

(87) The Revised Generalized Control Rule:

An empty pronominal (PRO or pro) is coindexed with the closest c-commanding NP that is consistent with both the Matching Condition and Binding Principles (B & C).

As noted, a nominal does not count as 'closest' if its relationship with a pro violates either the MC or the Binding Principles.

2.3.4. Internal Topicalization

Huang's (1991) motivation for the analysis of internal topicalization introduced in the previous section relies on independent evidence that an object may be internally topicalized within a sentential subject or a relative clause.
in Chinese. This is also true in Korean, as in the following example, which involves internal topicalization of *ku chayk 'that book' within a relative clause:

(88) \[
\text{[\text{Ku chayk-un]} [\text{\textit{ej e}i cohahacianh-nun}]} \text{ salam-\textit{i}j}\]
\text{that-book-Tp don't like-Comp person-Nm}
wass-ta.
\text{has come}

'The person who that book, [he] doesn't like has come.'

However, Bak (1984) claims that this internal topicalization should be prohibited. He argues against Chomsky's (1977) wh-movement analysis on the grounds that it fails to explain why it is impossible for the two rules—relativization and topicalization—to apply in a single clause and produce a topic within a relative clause. The following are Bak's examples.

(89) *I salam-i [chayk-un Chelswu-ka cwu-n]
\text{this person-Nm book-Tp Chelswu-Nm gave-Comp}
Yenghi-ta.
Yenghi-is
'*This is Yenghi whom the book, Chelswu gave to.'

(90) *[Yenghi-nun Chelswu-ka manna-n] hakkyo-ka
Yenghi-Tp Chelswu-Nm met-Comp school-Nm
Bak points out that the inadmissibility of a topic in a relative clause is not an isolated phenomenon unique to Korean; many other languages are reported to exhibit this constraint as well. Assuming that this phenomenon holds universally across languages, he proposes an explanation based on a perceptual conflict in human speech processing rather than on syntactic principles. Bak's proposal can be summarized as follows: relative clauses and topicalized sentences are similar on semantic grounds. In a topic-comment structure, the topic is what the clause is 'about', and in a noun phrase consisting of a relative clause and its head (Kuno 1976), the head is what the relative clause is 'about'. Thus both the topic and the relative head share a semantic property in being what the clause is 'about'. If there are two conflicting topics within a single semantic and informational processing unit, then there arises confusion as to what the clause is about. In (89), for example, the existence of an -un marked NP in a relative clause causes a perceptual conflict in sentence processing by having a single
comment predicated of two distinct topics, chayk and Yenghi, at the same time.

However, since it is obvious from example (88) that internal topicalization is possible not only in Chinese but also in Korean, Bak's claim of universality should be reconsidered. His explanation for the ungrammaticality of sentences like (89) and (90), however, seems valid. But Bak's proposal is too general to account for the grammaticality of sentences like (88). What then makes sentences like (88) acceptable, but sentences like (89) and (90) unacceptable? Consider the following two constructions, which are slightly modified and simplified versions of (88) and (89), respectively, in order to give a minimal pair contrast:

(91) [ku chayk-unj [ e_j e_i cohahacionh-nun]] Yenghi

the book-Tp don't like-Comp Yenghi

'Yenghi who the book, [e_j] doesn't like [e_i].'

18 Topic in an embedded clause is possible in Korean, unlike many other languages, although topics in that case are 'contrastive foci'.
(92) *[ku chayk-unj [Chelswu-ka e₁ e₂ cwu-n]] Yenghi
the book-Tp Chelswu-Nm gave-Comp Yenghi
*'Yenghi whom the book, Chelswu gave [e₁] to [e₂].'

In (91), the topic ku chayk is related to the object EC, and the relative head Yenghi is related to the subject EC. In other words, one EC is VP-external, and the other EC is VP-internal. In (92), however, both the topic and the relative head are related with VP-internal NPs (the ungrammatical (90) exhibits the same phenomenon). Thus, linking both the topic and relative heads to VP-internal ECs seems to make the whole structure difficult to process, leading to unintelligibility. Although this generalization needs to be investigated further, Huang's use of the internal topicalization remains valid.

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2.3.5. The Matching Condition

Before concluding, let us further consider the MC proposed in an earlier section as a crucial constraint on the GCR. We will see that the revised GCR which is filtered by the MC can provide an explanation for blatant counterexamples to the GCR. The following sentence is given by H-B Lee as a counterexample to the GCR:

(93) Pwulcangnan_i-un sensayngnim-kkkeyse [ei wihemhata]
    fire play-Tp teacher-Nm (HON) dangerous
    -ko malssumha-sy-essta.
    -Comp say-HON-Pst

'Fire play, teacher said that [it] is dangerous.'

This sentence is grammatical even though the EC is coindexed with the topic, which is not the closest NP. Note that the closest NP to ei is sensayngnim-kkkeyse 'teacher'. As H-B Lee says, semantic restrictions allow such an interpretation. This is an apparent counterexample to Huang's GCR. The revised GCR in (87), however, successfully accounts for its grammaticality. The subject EC, which is a theme argument for the verb wihemhata 'dangerous' does not match in features (animacy and honorific) with the matrix subject sensayngnim-kkkeyse. Therefore, the MC rules out the matrix subject being
coindexed with the EC. The EC is then properly coindexed with the next closest NP—the topic *pwulcangnan* 'fire play'

Consider now the following sentences (94) in Moon (1989) and (95) in Huang (1991):

(94) Ce kulim-unı [nay-ka [[éj éi kuli]-n that picture-Nm I-Nm drew-Comp salam-ulj] chackoissta].

person-Ac is looking for

'That picture, I am looking for the person who drew [it].'

(95) Ku chayk-unı [nay-ka [[éj éi ihayhacimosha-nun] that book-Nm I-Nm don't understand-Comp manhun salam-ulj] alkoissta].

many people-Ac know

'That book, I know many people who don't understand [it].'

Kuchaykun nayka e e ihayhacimosha-nun manhunsalamul alkoissta
Contrary to what might be expected, these sentences are acceptable, even though they are structurally parallel to the unacceptable (96):

(96) *John-un [nay-ka [[ej ei pinanha-nun] manhun]
John-Nm I-Nm criticize-Comp many
salam-ulj] alkoissta].
people-Ac know

'John, I know many people who criticize [him].'

Notice that neither EC can possibly be linked to the topic John-un because of the nearer c-commanding NP Nay-ka.

Huang attributes the grammaticality of (95) to the inanimacy of the topic, saying that the 'minimal distance requirement' of the GCR may be waived in case a pro is inanimate or nonhuman. He says that the strategy of using an overt resumptive pronoun is unavailable when a given EC is
inanimate, since inanimate pronouns in Chinese are phonetically null. Huang's account, however, does not apply to Korean since inanimate pronouns in Korean such as *kukes* are overt—unlike in Chinese. Moreover his conclusion is language-specific, lacking in explanatory adequacy since the GCR should be preserved everywhere as a principle of Universal Grammar.

Let us then reexamine the original tree diagram with feature specifications:

Notice that Huang's GCR coindexes the object EC with the matrix subject *nay-ka* 'I', making the sentence ungrammatical due to the lack of 'aboutness' relation between the topic and the comment. However, with the MC constraining the GCR, the revised GCR accounts for the right interpretation, since only
the topic *ku chayk-un* 'the book' is semantically compatible with the EC—the theme argument (object EC) of the verb *ihayhacimosha-nun* 'don't understand'. Feature specifications of the ECs are due to the verb's selectional restrictions. The verb *ihayhata* 'understand' necessarily takes a [+animate] argument as an agent. As for a theme, however, I believe, following O'Grady (p.c.), that there are two verbs *ihayhata* : one takes a [-animate] argument as the above, and the other takes a [+animate] argument. In (97), the former option is selected, with the result that the GCR can only link the object EC to the topic.

2.4. Conclusion

One of the theoretical consequences of our account has to do with whether or not movement may be involved in topicalization and relativization in Korean. We have seen the apparent island violations, so it is clear that not all cases of topicalization and relativization need involve movement. What about cases that do not show any apparent island violations? Given that some ECs must be derived from *pro* drop, it is tempting to conclude that no movement is involved in any grammatical topicalized or relativized structures. Huang states that this conclusion is not logically necessary, and furthermore, it is neither
conceptually nor empirically supported. Huang also states that in cases where an EC may be created via Move α without violating any island constraint, the optimal hypothesis is the null hypothesis: movement may or may not be involved. We have seen that certain ECs cannot be directly admitted as pro's in the object position of a syntactic island since the GCR cannot coindex it with an element outside the island. Such ECs must first be moved to an internal topic position before they can be properly coindexed under the GCR.

Our account thus constitutes an argument for the modular view of grammar. Previous studies of Korean topicalization and relativization (except for Han's analysis for relativization) have considered all ECs in such constructions to be of the same kind: either they are all traces or they are all pro's. Following Huang, I believe that such a view entails unmotivated complications of the principles of control or bounding and fails to capture significant cross-linguistic generalizations in an insightful way. Our account shows that it is necessary to construe some instances of the EC as pro's and others as traces. Pro's are subject to (generalized) control but not to bounding, whereas traces are subject to bounding but not to control.

To summarize, we have examined Korean topicalization and relativization with regard to the subject/object asymmetry for the purpose of testing Huang's analysis (1991) for
Chinese by applying it to parallel Korean data. We have found that in Korean certain islands cease to be islands in sentence-initial position, as in Chinese, and overall, Huang's GCR, with some adjustments, can be successfully applied to Korean. The Matching Condition and the Binding Principles have been proposed as crucial constraints on the GCR; this is preferable to ignoring the apparent structural condition and attributing everything to pragmatic factors. We should not throw out the baby with the bath water.
CHAPTER III
INALIENABLE POSSESSION CONSTRUCTIONS

3.1. Introduction

This chapter investigates the syntax and semantics of the so-called double nominative/accusative sentences in Korean (inalienable) possessive constructions, considering how they are generated and how they are sanctioned.\(^1\) Supporting the base-generation hypothesis, I claim that the two NPs are linked by a \textit{pro} in the possessor position of the second NP (part-NP), which is bound by the first NP (whole-NP) in accordance with the Generalized Control Rule (Huang 1984, 1991).

In Korean, the possessor NP can be marked either in the genitive case as in (1a) and (2a), or in the same case as the possessed NP (nominative/accusative) if a particular semantic relationship between the possessor and the possessed is present (e.g. a part-whole relationship), creating a double nominative/accusative construction (DNC/DAC) as in (1b) and (2b):\(^2\)

\(^1\) Double (multiple) nominative/accusative constructions in Korean are not limited to the above pattern, but I will concentrate only on the possessive construction in this chapter.

\(^2\) The number of identical case NP is normally limited to two (whole-NP and part-NP), even though it could be indefinite theoretically since
The DNC/DAC in (1b) and (2b), respectively, is characterized by the fact that there is an inalienable relationship between the two NPs with the identical case suffix (a part-whole relationship). The possessor NPs such as Swuni in (1) and Cheli in (2) will be referred to as the first NP (whole-NP) and the possessed NPs such as nwun 'eyes' in (1) and ppyam 'cheek' in (2), as the second NP (part-NP). Concerning the

we can divide a part into smaller parts continuously. The following sentence illustrates a multiple identical case sentence:

Swuni-ka Cheli-lul elkwl-ul ppyam-ul oynccok-ul ttaylyessta.
Swuni-Nm Cheli-Ac face-Ac cheek-Ac left side-Ac slapped
'Swuni slapped Cheli, his left side of the cheek of the face.'
case alternation above, linguists have been trying to answer the following questions:

1. Are the DNC/DAC patterns base-generated or derived by movement from their genitive counterparts?
2. What is the argument status of both NPs and how are they sanctioned?

In this chapter, we will focus on the second question. Section 3.1 examines the scope of 'inalienability' that affects the case alternation. This notion has been used inconsistently by linguists and needs to be clarified in order to have a well-grounded analysis. Section 3.2 presents my analysis, suggesting that there is a pro in the possessor position of the part NP as first proposed by Y. Kang (1989). We will also examine how the NPs are sanctioned. I suggest that only the second NP (part-NP) gets its theta-role directly from the verb; in contrast, the first NP (whole-NP) gets a possessor role through a chain linked by a pro in the possessor position of the second NP. In Section 3.3, we examine the DNC in terms of the argument status of the part-NP. I claim that it is an argument, reevaluating frequently used tests for the adjunct status of the part-NP, such as relativization, scrambling, honorification, and reflexivization. We will see that such syntactic
restrictions on the part-NP do not demonstrate the adjunct status of the part-NP. The restrictions on the relativization and scrambling of the part-NP is in fact due to the Theta Criterion. The other restrictions (honorification & reflexivization) on the part-NP are due to the Matching Condition: part-NPs are inanimate while both honorification and reflexivization require animacy (more precisely, a human referent). Section 3.4 examines the argument status of the part-NP in the DAC. I claim that it is an argument, reevaluating the tests for demonstrating the adjunct status of part-NPs, such as passivizability, scrambling, and optionality. We will see that the restriction on the passivization of the part-NP is not due to the adjunct status of the part-NP but to the fact that the pro in the possessor position is not licensed by the Generalized Control Rule. The restriction on the scrambling of the part-NP will be attributed to the Theta-Criterion. We will also see that the optionality test is not valid. Finally, Section 3.6 summarizes the major points and presents my conclusion.

3.2. Inalienability

This section examines the scope of the 'inalienability' relationship that affects the case alternation. Its
treatment has been inconsistent among linguists, since inalienability is a relative and subjective term in the sense that its scope varies depending on the language, culture, and even the individual. Our concern, however, is to define the scope of 'inalienability' as a semantic relation between the two NPs that allows the case alternation in Korean illustrated in (1) and (2).

3.2.1. Part-whole vs. Kinship Relationship

In Korean, the genitive marker -uy has at least three different semantic functions as the following examples illustrate:

(3) a. part-whole relation:
   John-uy tali 'John's leg'
   sikyey-uy cwul 'watch band'

b. kinship relation:
   John-uy emeni 'John's mother'

c. ordinary possession:
   John-uy kapang 'John's bag'

Among these varieties of relations between the possessor and the possessed, Chun (1985) claims that only inalienable possession as in (4) and the part-whole relation as in (5)
allow the case alternation; the kinship relation as in (6) and ordinary possession as in (7) do not permit this alternation:

    John-Nm Mary-Gen hand-Ac held
    John-Nm Mary-Ac hand-Ac held
   'John held Mary's hand.'

    John-Nm watch-Gen band-Ac repaired
    John-Nm watch-Ac band-Ac fixed
   'John fixed the watch band.'

    I-Nm John-Gen bag-Ac opened
    I-Nm John-Ac bag-Ac opened
   'I opened John's bag.'

    Mary-Nm John-Gen mother-Ac likes

3 Notice that Chun (also Cheng and Ritter (1988)) distinguish 'part-whole' relation (sikyey-uy cwul 'watch band') from inalienable 'body parts' (John-uy tali 'John's leg'). General usage of the term 'part-whole', however, includes 'body parts', both being treated as inalienable. There is no point in distinguishing the two, since there is no difference between them in terms of the relation between the possessor and the possessed.
Mary-Nm John-Ac mother-Ac likes
'Mary likes John's mother.'

An important point to note is that Chun draws a line between 'part-whole' relation and 'kinship' relation, the former being 'inalienable' and the latter being 'alienable'. Chun, however, admits that some speakers allow the case alternation for kinship relation, as in (8):

(8) a. Swuni-uy emeni-ka hakkyo-ey osyessta.
Swuni-Gen mother-Nm school-Loc came
b. Swuni-ka emeni-ka hakkyo-ey osyessta.
Swuni-Nm mother-Nm school-Loc came
'Swuni's mother came to school.'

Chun attributes this inconsistency to speaker differences in types of possession involving case alternation.

Youn (1990), introducing Claudi and Heine's (1989) concept of 'inalienability', also states that a case alternation is allowed only when the possessed and the possessor are in a relation of partitive inalienability (part-whole relation: e.g., body part, name, voice,) or localizing inalienability (spatial relation: e.g., behind, back, top, etc.), excluding the kinship relation.
Choe (1987), on the other hand, claims that the kinship relation is counted as an inalienable relation in Korean in addition to the part-whole relation:

(9) Cheli-ka tongsayng-i sihem-ey hapkyekhayssta.
    Cheli-Nm brother-Nm exam-Loc passed
    'Cheli, his brother passed in the exam.'

3.2.2. Asymmetry between the DNC and the DAC

Across languages, the part-whole relationship is uncontroversially considered to be inalienable, and ordinary possession to be alienable. Treatment of the kinship relation in terms of 'inalienability', however, is not as clear as suggested above. My view is that neither is inherently right or wrong. The kinship relation, I claim, can be either inalienable or alienable depending on whether it appears in DNCs or in DACs, assuming that the case alternation is sanctioned by 'inalienable relation'.

Notice that the examples ((8) & (9)), in which the kinship relation is allowed, are DNCs. The conflict between (7) and (8) (repeated here as (10) and (11)), which Chun attributes to speaker differences, is due actually to the difference in structures: (10) is a DAC in which the case alternation is not allowed for kinship relation, whereas (11)
is a DNC in which the case alternation is allowed for kinship relation.

   Mary-Nm John-Gen mother-Ac likes
   Mary-Nm John-Ac mother-Ac likes
   'Mary likes John's mother.'

   Swuni-Gen mother-Nm school-Loc came
b. Swuni-ka emeni-ka hakkyo-ey osyessta.
   Swuni-Nm mother-Nm school-Loc came
   'Swuni's mother came to school.'

I suggest that drawing a conclusion that is based on only a particular subset (either DNC or DAC) of multiple case constructions will miss generalizations that hold across possession constructions. Resorting to structural differences, rather than speaker differences, for the conflict between the above two sentences is supported by the fact that nobody who allows (11b) would allow (10b). Consider the following additional contrast of DAC with DNC:

(12) *Cheli-ka Swuni-lul apeci-lul poassta.
    Cheli-Nm Swuni-Ac father-Ac saw
'Cheli saw Swuni, her father.'

(13) Swuni-ka apeci-ka emkyekhasita.

Swuni-Nm father-Nm strict

'Swuni, her father is strict,'

Again, no native speaker allows (12); whereas no native speaker disallows (13).

In fact, in the DNC, not only 'part-whole' and 'kinship' relations, but even some close alienable relations are permitted by many speakers:

(14) Sensayngnim-i cha-ka coh-usi-ta

teacher-Nm car-Nm good-Han-end

'The teacher, his car is good.'

Although, some speakers might find sentences like (14) rather unnatural, there is no doubt that DNCs are much more tolerant of case alternation than DACs. The following pairs of examples further illustrate this contrast:

(15) a. Sensayngnim-i cha-ka coh-usi-ta

teacher-Nm car-Nm good-Hon-end

'The teacher, his car is good.'

4 This example is due to Sohn (p.c.).
   I-Nm teacher-Ac car-Ac like
   'I like my teacher, his car.'

(16) a. ?*Swuni-ka kangaci-ka aphuta.
   Swuni-Nm puppy-Nm sick
   'Swuni, her puppy is sick.'

   I-Nm Swuni-Ac puppy-Ac like
   'I like Swuni, her puppy.'

Concerning the asymmetry between DNC and DAC, many
linguists such as Youn (1990), O'Grady (1991), Choi (1988),
and Lee & Kim (1988) propose that 'part-whole' constructions
should be distinguished from 'focus' constructions
(possessive constructions involving the kinship relation or
ordinary possession).

The following are the differences between the two
constructions noted by O'Grady (1991) and others: [1]
semantically, 'focus' (alienable) construction differs from
'part-whole' (inalienable) construction in not exhibiting a
'part-whole' relationship between the two nominative-marked
NPs. Rather, the initial NP is interpreted contrastively,
giving the entire sentence the flavor of a focus
construction. [2] Syntactically, the 'focus' pattern of
double case marking is found only with subjects. Unlike the
'part-whole' pattern in (17), it has no counterpart involving accusative-marked nominals as in (18):

(17) Part-whole (Inalienable) Patterns:
   a. Swuni-ka nwun-i yeypputa. (DNC)
      Swuni-Nm eyes-Nm pretty
      'Swuni, her eyes are pretty.'
   b. Swuni-ka Cheli-lul ppyam-ul ttaylyessta. (DAC)
      Swuni-Nm Cheli-Ac cheek-Ac slapped
      'Swuni slapped Cheli, his cheek.'

(18) Focus (Alienable) Patterns:
   a. Swuni-ka kapang-i mesissta. (DNC)
      Swuni-Nm bag-Nm stylish
      'Swuni, her bag is stylish.'
   b. *Nay-ka Swuni-lul kapang-ul capassta. (DAC)
      I-Nm Swuni-Ac bag-Ac held
      'I held Swuni, her bag.'

Another syntactic difference is that the initial nominative-marked NP in the part-whole pattern as in (19) triggers subject honorification. However, the comparable NP in focus structures as in (20) does not do so. Rather, obligatory honorific agreement in these structures is triggered by the second nominative-marked NP as in (21).
The above observation led O'Grady and others to conclude that part-whole constructions and focus (alienable) constructions have different syntactic structures. They claim that the second NP is a subject in part-whole constructions and that the first NP is a subject in alienable constructions.

I do not agree with the idea that 'part-whole' constructions are distinguished from 'focus' (alienable) constructions. Let us consider the differences observed above one by one. As for the semantic difference in [1], from a broader perspective, there is more semantic similarity (both involve a possessive relationship) than dissimilarity ('part-whole' or not). Thus, distinguishing two constructions fails to capture the more general similarity, 'possessive relationship'. Besides, as has been noted by several linguists (Li and Thompson 1976, Sohn 1980, Y.B. Kim
the initial NP has the 'focus' meaning in both constructions.

As for the first syntactic difference in [2], it can be attributed to the structural asymmetry between DNCs and DACs as noted earlier. It is hasty to conclude that the part-whole construction is syntactically different from other possessive constructions before exploring what other factors are involved. The second syntactic difference in [2] is not caused by different syntactic structures, but by the nonhuman character of part-NPs. In fact, it is not always the second NP that triggers honorification in 'focus' constructions, contrary to the common claim. Consider the following example:

(22) Sensayngnim-i cip-i coh-usi-ta
    teacher-Nm house-Nm nice-Hon-end

'The teacher, his house is nice.'

This sentence parallels a part-whole construction in terms of honorification just because the second NP cip 'house' is nonhuman, which can never trigger honorification by itself. We will consider honorification in some more detail in later section.

Concerning the above inconsistency among linguists with regard to the semantic condition on the case alternation, I
suggest that there is a subject/object asymmetry in terms of treating kin (and some close belongings) as inalienable or not. That is, the case alternation is much more restricted in the DAC than in the DNC.

Why then is the DNC less tightly constrained than the DAC? Unfortunately, I have no independent evidence to support a hypothesis at this point so I would like to set this issue aside for future research. The only speculation I can make is as follows. As many linguists (O'Grady 1991, Hong 1992, B. Kang 1988) note, the DNC is well-formed as long as it complies with an 'aboutness' condition, which states that the lower clause should provide significant information sufficient enough to 'characterize' the higher nominative NP. This does not apply to the DAC, however. Instead, a stricter semantic condition (some kind of 'affectedness' condition) seems to be required between the two NPs in the DAC (which I will discuss shortly).

We have just noted that the case alternation is much freer in DNCs than in DACs due perhaps to an asymmetry in the relevant semantic conditions: the 'aboutness' condition is required in the DNC whereas the 'affectedness' condition is required in the DAC. However, it is the relationship of the two NPs that sanctions the 'aboutness' relation in the possessor-related DNCs unlike in other types of DNCs. In the DNC involving psych-verbs, for instance, it is not the
relationship of the two NPs but the relation between the first NP and the rest of the sentence that is relevant to satisfying the 'aboutness' condition. The following pair of sentences, which are equally acceptable regardless of the different degrees in the relationship between the two NPs, illustrate the point.

(23) *Psych-verb pattern:*

   Swuni-Nm mother-Nm miss
   'Swuni misses her mother.'

b. Swuni-ka yenghwa-ka pokosipta.
   Swuni-Nm movie-Nm want to see
   'Swuni wants to see a movie.'

In contrast, in the possessor-related DNCs the acceptability of the sentence differs depending on the closeness of the relationship of the two NPs involved. Notice the contrast between the following two sets of sentences: the sentences in (24) are not as natural as those in (25):

    Swuni-Nm puppy-Nm white color-is
    'Swuni's puppy is white.'
b. ?Swuni-ka chayksang-i khuta.
Swuni-Nm desk-Nm big
'Swuni's desk is big.'

(25) a. Sensayngnim-i cha-ka huyn sayk-isita
teacher-Nm car-Nm white color-is
'The teacher's car is white.'

b. Swuni-ka kapang-i mesissta.
Swuni-Nm bag-Nm stylish
'Swuni's bag is stylish.'

3.2.3. The Affectedness Condition

We now turn to the 'affectedness' condition. Although the semantic definition of 'affectedness' has been somewhat amorphous, many linguists claim that the condition is involved in the DAC. According to Larson (1988), the 'affectedness' condition is at work in double object patterns in English. Following Tenny (1987), Larson suggests that the indirect objects must be 'affected'. Consider the following examples Larson introduces from Kayne (1975):

(26) a. I knitted this sweater for our baby.

b. I knitted our baby this sweater.
Although (26a) is acceptable as an utterance by a pregnant wife to her husband, (26b) is odd in this context because it appears to require the baby's present existence. This judgment, according to Larson, results from the fact that the NP our baby occupies the position of affected arguments in (26b). Green (1974) and Tenny (1987) also claim that there is a semantic requirement on the indirect object in a double object construction that it must be understood to exist, to be a recipient, and to coexist with the direct object.

Cheng and Ritter (1988) characterize the DAC in French by observing that the verb's internal argument is an 'affected' theme, i.e. the verb effects some change in its direct object by breaking it, peeling it, etc. They point out that DAC is ungrammatical with verbs which do not select an affected theme, such as 'see, admire, want, smell, etc.'.

(27) Je lui ai coupé les cheveux.
    I him have cut the hair
    'I cut him, his hair.'

(28) *Je lui ai vu le bras
    I him have seen the arm
    'I saw him, his arm.'

Following Cheng and Ritter, Yoon (1990) states that there is a restriction on predicates in the Korean
construction as well, saying that only those verbs that take 'affected' objects are allowed. He says that (29) is unacceptable while (30) is permitted.

(29) *Nay-ka Swuni-lul phal-ul poassta.
    I-Nm Swuni-Ac arm-Ac saw
    'I saw Swuni, her arm.'

    I-Nm Swuni-Ac arm-Ac held
    'I held Swuni, her arm.'

Notice that Yoon's (as well as Cheng and Ritter's) notion of 'affectedness' is that the verb must have some kind of physical effect on the referent of the whole NP. However, Choe (1987) accepts both (29) and (30), noting that the whole-NPs in part-whole constructions are always affected in some way.

    I agree with Choe's judgment. (Most people who I have consulted accept the former sentence.) Note that if we change the verb pota 'see' into pala-pota 'stare' or chyeta-pota 'look' (all three verbs denote the same basic action), the sentence becomes even better.

(31) Nay-ka Swuni-lul phal-ul chyetapoassta.
    I-Nm Swuni-Ac arm-Ac looked
'I looked Swuni, her arm.'

It might be the English gloss for Korean poassta (i.e. 'saw') in (29), which affected Yoon's judgment. In fact, it should be corrected to 'looked at'.

It seems that Cheng and Ritter's 'affectedness' condition does not apply to Korean in exactly the same fashion as it does to French and Mandarin. That is, the 'affectedness' condition in Korean does not constrain the 'part-whole' relationship in the DAC, although it may distinguish the DAC from the DNC, by not allowing a kinship relation in the former. Further examples with verbs such as admire and smell ('nonaffective' verbs according to Cheng & Ritter) that are acceptable support my contention that the standard affectedness condition does not apply to Korean DACs.

Swuni-Nm Yenghi-Ac face-Ac admire
'Swuni admires Yenghi, her face.'

(33) Swuni-ka oleynci-lul kkepcil-ul naymsaymathassta.
Swuni-Nm the orange-Ac skin-Ac smelled
'Swuni smelled the orange, its skin.'
The observations made so far point to the fact that Yoon's (as well as Cheng and Ritter's) notion of 'affectedness' (the verb must cause some kind of physical change to the whole NP) is too strong. It is clear that the part-whole construction is allowed even if the whole-NP is not 'affected' in the sense of their definition.

Choe (1987) accepts even kinship relations in the DAC. (The following is Choe's judgment.)

(34) *Cheli-ka Swuni-lul apeci-lul poassta.
    Cheli-Nm Swuni-Ac father-Ac saw
    'Cheli saw Swuni, her father.'
(35) Cheli-ka Swuni-lul ai-lul yatanchessta.
    Cheli-Nm Swuni-Ac child-Ac scolded
    'Cheli scolded Swuni, her child'

Choe allows (35) while she disallows (34). She attributes this distinction to the 'affectedness' condition, saying that in (35), the NP Swuni is affected (A scolds B, by scolding B's child), but in (34), the NP Swuni is not affected (A does not see B, by seeing B's father).

However, the above somewhat imaginative judgment is not shared by others. I claim that both sentences should be ruled out, which is supported by all the Korean speakers I have consulted. That is, no kinship relation is allowed in
the DAC due perhaps to some kind of the 'affectedness' condition. Further study is needed to determine whether it is truly the 'affectedness' condition that is responsible for distinguishing the DAC from the DNC, by not allowing the kinship relation in the former, and if so, how exactly the 'affectedness' condition should be formulated.

Let us then look at another controversy, stemming from Yoon's radical judgment in (29). Based on the (erroneous) assumption that sentence (29) is ungrammatical in spite of 'part-whole' relation between the two NPs, Sato (1992) concludes that any approach that draws on a special semantic relationship between the whole and part NP is not on the right track. He claims, as proposed in O'Grady (1991), that it is the semantic relationship between the whole-NP and the complex predicate consisting of the part NP and the verb, rather than that between the whole and part NP, that allows the case alternation. He further notes that the more effect the activity denoted by the complex verb has on the whole NP, the more felicitous the sentence sounds.

Notice that Sato's claim is based on a shaky sentence whose judgment has been inconsistent. As we have seen, the sentence is not ungrammatical. Recall also that the acceptability of sentences differs depending on the closeness of the relationship between the two NPs involved. Notice the
contrast between the sentences in (36) and (37), repeated from (24) and (25):

    Swuni-Nm puppy-Nm white color-is
    'Swuni's puppy is white.'
 b. ?Swuni-ka chayksang-i kuta.
    Swuni-Nm desk-Nm big
    'Swuni's desk is big.'

(37) a. Sensayngnim-i cha-ka huyn sayk-isita
    teacher-Nm car-Nm white color-is
    'The teacher's car is white.'
 b. Swuni-ka kapang-i mesissta.
    Swuni-Nm bag-Nm stylish
    'Swuni's bag is stylish.'

The above contrast cannot be explained in any analysis that draws on a special semantic relationship between the whole NP and the complex predicate. That is, the case alternation is basically due to the semantic relationship between the two NPs.

Although there is some disagreement on the nature of the semantic relation that must hold between the two NPs (the scope of 'inalienability'), one thing for sure is that there is certain 'affectedness' constraint on the DAC unlike in the
DNC. The kinship relation, uncontroversially, is not allowed in DACs but allowed in DNCs. This clearly shows a subject/object asymmetry. That is, while DAC with a possessive relation between the two NPs requires an 'affectedness' constraint, DNC is possible as long as there is an 'aboutness' relation between the first NP and the rest of the sentence.

3.3. My Proposal

3.3.1. Base-generated pro and the GCR

In Section 3.1, we noted two main questions regarding the DNC/DAC. As for the question concerning the source of constructions, the answers are mainly divided into two groups, even though the analyses are numerous when it comes to detail:

1. They are base-generated (Yoon (1987), Kang (1989)).
2. They are formed by application of a movement rule to their genitive counterparts via an operation that is informally called 'subjectivization/objectivization' (Choe 1985).

As to whether the DNC/DAC in the possessive construction is base-generated or derived transformationally, I support the
former analysis, suggesting that there is a pro in the part NP's possessor position. This base-generated pro analysis has been suggested in a preliminary way by Y. Kang (1989), but it has not been fully developed. It needs further explication in terms of how the pro is licensed as well as the consequences of the analysis.

In contrast to his previous analysis (1986), Y. Kang (1989) abandons the movement hypothesis and postulates a pro in the possessor position of the second NP. He thus captures the possessor-possessed relationship between the first NP and the second NP, not by a trace but by a resumptive pro. The following tree diagrams illustrate this, with e representing a null pronoun.

(38) Double Nominative Construction:

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5 See Sohn (1980), Han (1987), and Yoon (1985), for counterarguments of movement approach.
(39) **Double Accusative Construction:**

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NP ---- ---- VP
    NPi     NP  V
Swuni-ka Cheli-lul e ppyam-ul tlaylyessta
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As is well-known, there is a general condition on identification or recoverability which requires an empty pronominal (PRO/pro) to be identified under appropriate circumstances:

(40) Licensing of PRO/pro:

PRO/pro must be identifiable with the help of either
(a) Subject-Verb agreement--Spanish/Italian
(b) another NP---Korean/Chinese

The following is the condition for pro licensing proposed by Kang:

(41) pro is coindexed with the closest NP

Kang's proposal, however, is not constrained enough. Consider the following sentences involving passivization:
(42) a. Kay-ka Cheli-lul tali-lul mwulessta.
dog-Nm Cheli-Ac leg-Ac bit
'A dog bit Cheli's leg.'
Cheli-Nm leg-Ac bite-Pass-Pst-end
'Cheli was bitten, his leg.'
leg-Nm Cheli-Nm bite-Pass-Pst-end
'The leg was bitten, Cheli.'

The ungrammatical (42c) above cannot be ruled out by Kang's analysis. Notice that the sentence is ungrammatical, even if the pro is properly coindexed with the closest NP Cheli according to Kang's pro licensing in (41). This is illustrated in (43):

(43)

I basically agree with Kang's base-generated pro analysis, but I suggest a more constrained licensing condition on pro in order to remedy the problem just noted:

An empty pronominal (PRO/pro) is coindexed with the closest *c-commanding* NP.

Thanks to the GCR, we are now able to rule out the ungrammatical sentence (42c). Although the coindexed NP Chelì in (43) is the closest NP to the pro, since the NP does not *c-command* the pro, it is not an appropriate antecedent.

3.3.2. NP Licensing

This section is concerned with how the NPs in the DNC/DAC are licensed in terms of theta-role assignment. Higginbotham (1985) and Speas (1990) (adopted in Yoon (1990) and Maling & Kim (1992)) propose to expand the traditional relation of theta-marking to include three different kinds of theta-relations: theta-marking, theta-binding, and theta-identification. A verb theta-marks its argument, which in turn theta-binds an open position in the argument structure of the verb. If an argument has an open position to be saturated (the part-NP), then the verb does not theta-mark but just theta-identifies the argument, which in turn theta-marks another NP (the whole-NP). This whole-NP then theta-binds the open position of the part-NP.
Notice that this proposal triggers a modification of the Theta Criterion, since the two NPs share one theta-role. However, modifying the Theta Criterion due only to some structure specific reason, which is not necessary in any other constructions, is not desirable. I claim that only the second NP gets its theta-role directly from the verb; the first NP receives its role through a chain that includes the pro in the possessor position of the second NP. However, by virtue of being a possessor of the second NP (part-NP), the first NP (whole-NP) is interpreted to also have the same theta-role as the second NP (part-NP) (thus, if the part-NP is a theme, the whole-NP can be inferred to have this role as well). This explains the fundamental property of the inalienable possession construction with respect to the Theta Criterion. The following tree structure illustrates my claim:

(45) a. *Double Nominative Construction*:

```
S
  NP
  NP
    NP <- N <possessor>
   VP < >
```


b. Double Accusative Construction:

\[
\begin{array}{c}
S \\
\rightarrow \text{NP} \\
\rightarrow \text{VP} \\
\rightarrow \text{NP}_i \\
\rightarrow \text{VP} \\
\rightarrow \text{NP} \leftarrow ------ \text{V} \leftarrow > \\
\rightarrow \text{NP}_i \leftarrow \text{N} \leftarrow \text{possessor}
\end{array}
\]

What then enables only part-NPs to have null possessors while other common nouns cannot? Various linguists have observed that part-NPs are 'relational' in the sense that they always have an (implicit) possessor (cf. Tellier (1990), Yoon (1990), Maling & Kim (1992)). Cross-linguistically, relational nouns include body parts and kinship terms. In order to accommodate many Korean speakers' acceptance of DNCs, in which two NPs hold alienable but close relations, I propose that some close alienable things such as car, house, glasses, etc., when they occur in the DNC, are relational. Nouns with relational interpretations may be thought of having an open position for an implicit possessor. This observation is clearly manifested in my analysis, where pro denotes the possessor implied by the sentences of the relational head noun.
3.3.3. Argument Status of the part-NP in the DNC

This section is concerned with the argument status of the part-NP in the DNC. I claim that it is an argument, reevaluating frequently used tests, for showing the adjunct status of the part-NPs, such as relativization, scrambling, honorification, and reflexivization. We will see that such syntactic restrictions on the part-NP are not due to the adjunct status of the part-NP. The restriction on the relativization and scrambling of the part-NP is in fact due to the Theta Criterion. The other restrictions (honorification & reflexivization) on the part-NPs are due to the Matching Condition: part-NPs are inanimate while both honorification and reflexivization require animacy (more precisely, a human referent).

3.3.3.1. Relativization

Lee and Kim (1988) introduces Keenan and Comrie (1977)'s idea that all languages have an Accessibility Hierarchy which expresses the relative accessibility to relativization of NP positions in simplex main clauses:

(46) Accessibility Hierarchy

Subject > Direct Object > Indirect Object > Oblique....
According to their argument, if any grammar of a human language has the strategy of relativization, it must be designed to allow relativization on subjects, the uppermost end of the hierarchy. Following this, Lee and Kim (1988) and O'Grady (1991) claim that the first NP in part-whole construction (47a) is the subject since it can be relativized as in (47b): whereas the second NP is not a subject since it cannot be relativized as in (47c):

(47) a. yewang-i elkwul-i yeypputa.
   Queen-Nm face-Nm pretty
   'Queen, her face is pretty.'

b. [s — elkwul-i yeyppu-n] yewang
   face-Nm pretty-Comp queen
   'the queen who is pretty in the face'

c. *[s yewang-i — yeyppu-n] elkwul
   queen-Nm pretty-Comp face
   'face which queen is pretty'

Following Kang (1986), O'Grady further states that the NP elkwul 'in the face' semantically has an adverb-type locative meaning, pointing to the English translation. This idea, however, needs to be rethought, since there are part NPs which are not spatial in nature such as sengkyek 'personality', moksoli 'voice', mommay 'figure', phipwu
'skin', nai 'age', khi 'height', etc. Note that not only body parts but also some characteristics of a person are taken to involve part-whole relations:

(48) a. Swuni-uy sengkyek-i cohta.
    Swuni-Gen personality-Nm good
b. Swuni-ka sengkyek-i cohta.
    Swuni-Nm personality-Nm good
'Swuni's personality is good.'

(49) a. Nay-ka Swuni-uy sengkyek-ul cohahtanta.
    I-Nm Swuni-Gen personality-Ac like
    I-Nm Swuni-Ac personality-Ac like
'I like Swuni's personality.'

Returning to the relativization issue, if Keenan and Comrie's relative accessibility to relativization is legitimate, it provides one more reason why many linguists' (including Lee & Kim and O'Grady) distinction between the 'focus' (alienable) construction and the 'part-whole' construction in terms of which NP is a subject is untenable. Consider the following focus construction in (49). According to their claim, the second NP is a subject and therefore can be relativized.
(50) a. Swuni-ka emeni-ka yeypputa.
   Swuni-Nm mother-Nm pretty

   b [s — emeni-ka yeyppu-n] Swuni
   mother-Nm pretty-Comp Swuni

   'Swuni, whose mother is pretty'

   c. *[s Swuni-ka — yeyppu-n] emeni
   Swuni-Nm pretty-Comp mother

   'the mother who Swuni is pretty'

Notice that, contrary to their prediction, it is the first
NP, not the second NP, which can be relativized. Assuming
that relativization is a proper test for subjecthood, the
phenomenon above provides us with one more reason to believe
that the part-whole construction and the 'focus' (alienable)
construction do not have distinctive structures.

Why then can the second NPs not be relativized even
though they are subjects? I claim that the
nonrelativizability of the second NP is due to the Theta-
Criterion. The tree diagrams in (51) and (52) depict my
claim:
Notice that in the grammatical (51), \( \text{NP}^{(1)} \) is c-commanded by the coindexed \( \text{NP}^{(2)} \), which in turn is c-commanded by the coindexed \( \text{NP}^{(3)} \), satisfying the GCR. The part-NP, including elkwul 'face' and its possessor \( e_i \), gets a theta-role (theme) from the verb yeypputa 'pretty'. Inside the part-NP, the N elkwul assigns a possessor role to \( e_i \). This possessor role of the \( e_i \) is transmitted to the antecedent (whole NP) EC. By virtue of being a possessor of the part-NP, which is a theme of the verb, the whole NP yewang is naturally interpreted as a theme of the verb as well. In the ungrammatical (52), in contrast, the \( e_i \) has no possible antecedent, since it is not

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6 Choo (1990) suggests that relativization involves a base-generated pro rather than movement.
c-commanded by the coindexed NP. The result is that the whole NP yewang, which must get its theta-role through the EC in the part-NP, cannot get the role, violating the Theta Criterion. (Since the NP is not in the right position, it does not c-command the EC.) The phrase in (52) in fact will be processed as the following:

(53)

Note that the part-whole relationship between the two NPs cannot be captured: the supposedly whole-NP yewang is interpreted as an antecedent of the entire part-NP by the GCR. At the same time, the supposedly part-NP elkwul cannot behave as a part-NP any more. That is, the NP elkwul 'face' is not any specific person's face any more but a 'face in general'. Note, however, that on this interpretation there is no gap in the relative clause to relate to the head noun.
3.3.3.2. Scrambling

As many linguists such as Choi (1988) note, there is a restriction on scrambling the part-NP in the DNC.7

(54) a. Sikyey-ka cwul-i kkunhecyessta.
    watch-Nm chain-Nm broken
    'The watch band is broken.'

    watch-Nm chain-Nm broken

Choi proposes the Precedence Condition which states that no part of an ascension chômeur can precede the ascendee.8

This stipulation is descriptive but not explanatory. In my analysis, however, an actual explanation is possible. The

7 Kim (1988) says that scrambling is allowed in the DNC, providing the following example:
      Mary-Nm height-Nm tall  height-Nm Mary-Nm tall
      'Mary('s height) is tall.'  'As for height, Mary is tall.'

I claim, however, the (b) sentence is not a scrambled counterpart of the (a) sentence. Khi 'height' in (b) is not a part-NP (not Mary's height) but an independent NP with a meaning of 'height in general'.

8 An 'ascension', in Relational Grammar, is a syntactic rule which promotes some subconstituent (sikyey-uy) of a phrase (sikyey-uy cwul-i) so that it takes over the grammatical relation of the entire phrase (sikyey-ka).
   a. [Sikyey-uy cwul-i] kkunhecyessta.
      watch-Gen band-Nm broken
   b. Sikyey-ka cwul-i kkunhecyessta.
      watch-Nm band-Nm broken
      'The watch band is broken.'

An ascendee (sikyey-ka) is a subconstituent that has undergone ascension; an ascension chômeur (cwul-i) is a nominal whose relation has been subsumed by an ascendee.
licensing condition on pro, which is fulfilled by the GCR, is the key, as the following tree diagrams help illustrate.

Note that in the grammatical (55), the EC is properly licensed by the GCR. In the ungrammatical (56), however, the ei has no possible antecedent, since it is not c-commanded by the coindexed NP. The result is that the whole NP sikiyey, which is in a non-theta position fails to get any theta-role, violating the Theta-Criterion. Since the whole NP is supposed to get its theta-role through the pro in the part-NP but the part-NP is not in the right position.
3.3.3.3. Honorification

In general, a subject can trigger honorification, but non-subjects cannot. Many linguists such as Chun (1985), Youn (1990), Kim (1989, 1990), Lee & Kim (1988), and O'Grady (1991) assume that an NP which triggers honorification is a subject, while an NP which fails to trigger honorification is a non-subject. According to them, subject honorification principle suggests that only the first NP is the subject in 'part-whole' relationship:

(57) a. Ttal-i elkwul-i yeyppu-*si-ta.
   daughter-Nm face-Nm pretty-Hon-end
   'The daughter, her face is pretty.'

b. Emeni-kkeyse elkwul-i yeyppu-si-ta.
   mother-Nm(Hon) face-Nm pretty-Hon-end
   'Mother, her face is pretty.'

The above mentioned linguists say that the contrast between (57a) and (57b) above shows that the first NP controls honorification if its referent is honorable, concluding that the subject is the first NP, not the second one.

In contrast, it is the second NP that triggers the honorific marking in the following sentences:
This contrast leads those linguists to distinguish part-whole constructions like (57), in which first NP is a subject, from other possessive constructions like (58)-(59), in which second NP is a subject.

This conclusion, however, is based on an unfair comparison. Considering that part-NPs are always inanimate (nonhuman) unlike kinship terms which are always human, they independently can never be candidates for honorable referents. In other words, there is a violation of the Matching Condition in the coindexing of any part-NP (nonhuman) with an honorific marker (human). It is wrong, I think, to say that an NP which fails to trigger honorification is necessarily a non-subject. There obviously exist countless subjects which do not trigger honorification, just because they are inanimate.

The above doubtful conclusion seems to be drawn by reasoning that when there are two or more possible candidates for subjecthood and there is honorific agreement, only the NP
that triggers the agreement is a subject and the remaining NP(s) is (are) non-subject(s). This reasoning in turn seems to come from an assumption that there must be only one subject in a sentence. The remaining NPs, however, could also be subjects without such a circular assumption. Although I have no independent evidence that the remaining NPs are necessarily subjects, one thing for sure is that honorification is not a valid test to decide a subject between the two NPs in the DNC because of the extra factor (animacy) that is involved.

The same kind of circular assumption is found in another test for subjecthood in Choi (1988), Youn (1990), and Gerdts (1991). They say that the first NP in (57) is a subject, because it can be marked by the honorific nominative marker -kkeyse: whereas the second NP is not a subject because it cannot be marked by -kkeyse. This test is not convincing, either. Since we cannot tell whether the second NP cannot be marked by -kkeyse because it is not a subject or because of some other factor. Note that [+human] feature associated with the second NP elkwl 'face' [-human] conflicts with the honorific nominative marker -kkeyse, violating the Matching Condition.

Apart from the Matching Condition, sentences like the following undermine the distinction between part-whole
constructions (first NP is a subject) and other possessive constructions (second NP is a subject).

(60) Sensayngnim-kkeyse chinkwu-ka o-sy-ess-ta.
teacher-Nm friend-Nm come-HON-past-end
'Teacher's friend came.'

According to the above mentioned linguists, the second NP only is a subject, and should be an honorific trigger. If they apply their way of explaining the part-whole construction to this sentence, however, it should be the first NP which triggers the honorification, contradicting their claim. Since chinkwu 'friend' itself is not honorable just as elkwal 'face' itself in (57) is not honorable.

We have noted that the honorification test is not valid for deciding a subject between the two NPs because of an extra factor (MC). In brief, it is true that an NP that triggers honorification is usually a subject. But it is not true that an NP that does not trigger honorification is a non-subject. It could be either a subject or a non-subject.

3.3.3.4. Reflexivization

It has been observed that the subject NP in Korean usually triggers reflexive interpretation. That is, the
reflexive form (caki, casin) is interpreted as being coreferential with a subject NP. Apart from the controversy among linguists (see Hong 1992, for instance) over this observation, I claim that the reflexive interpretation is not a reliable test for deciding a subject between the two NPs in the DNC because of the reason noted for honorification above. Since only nominals with a human referent can serve as antecedents of reflexives, NPs that are non-human such as part-NPs can never be coreferential with reflexives independently of the NP's subjecthood. That is, an NP which is not an antecedent of a reflexive is not necessarily a non-subject.

3.3.4. Argument Status of the Part-NP in the DAC

This section examines the argument status of the part-NP in the DAC. Many linguists such as Kang (1985, 1988), Kim (1990), O'Grady (1991), and Sato (1992) claim that only the first NP is the object and the second NP is an adverbial adjunct in the DAC. I claim, however, that the part-NP is an argument, reevaluating the tests such as passivizability, scrambling, and optionality for demonstrating the adjunct status of part-NPs. We will see that the restriction on the passivization of the part-NP is not due to the adjunct status of the part-NP but to the fact that the pro in the possessor
position is not licensed by the Generalized Control Rule. Furthermore, the restriction on the scrambling of the part-NP is due to the Theta-Criterion. Finally, we will also see that the optionality test is not valid.

3.3.4.1. Passivization

Let us first examine passivization, which has been considered to be the most convincing diagnostic for objecthood. Numerous linguists including Chun (1985), Youn (1990), O’Grady (1991), Y.-J. Kim (1990), Sato (1992), etc. claim that only the whole NP is the s-selected argument of the verb since only that NP is the target of passivization. (Notice that the Case on the part-NP can be either accusative or nominative.)

(61) a. Swuni-ka Cheli-lul son-ul capassta.
   Swuni-Nm Cheli-Ac hand-Ac held
   'Swuni held Cheli, his hand.'

   Cheli-Nm Swuni-by hand-Ac/-Nm hold-Pass-Pst-end
   'Cheli was held his hand by Swuni.'

   hand-Nm Swuni-by Cheli-Ac/-Nm hold-Pass-Pst-end
   'Hand was held Cheli by Swuni.'
Regarding the NP son 'hand' in the above sentence as a pseudo-locative adverbial (since it does not take postposition), Kang (1988) suggests that the part-NP has the theta-role [+location]. He further claims that the part-NP is not a true object because it cannot be a subject of a passive sentence, stipulating the following structure-specific constraint:

(62) Object NPs with the theta-role [+location] are not passivizable in Korean.

This stipulation may be descriptively accurate but it does not explain why Korean should be this way. I claim that the nonpassivizability of the second NP is due not to its putative adjunct status but to the fact that the pro inside the NP cannot be properly licensed by the GCR. Let us first consider the tree diagrams in (63) and (64), corresponding to (61b) and (61c), in which the part-NP is accusative-marked:

(63)

\[ S \rightarrow NP \rightarrow VP \rightarrow VP \rightarrow V \]

\[ NP_i \rightarrow Cheli-ka \rightarrow e \rightarrow son-ul \rightarrow caphyessta \]
Notice that in the grammatical (63), the pro is properly coindexed with a c-commanding NP Cheli, whereas in the ungrammatical (64), the pro is not c-commanded by the coindexed NP Cheli. This not only violates the GCR but also violates the Theta-Criterion, since the whole NP Cheli, which relies on the ei for its theta-role, fails to get it.

The ei in (64) above may be c-commanded by an NP in a higher clause as in (65):

\[(65) \quad ^*\text{Swuni-ka son-i Cheli-lul caphyessta-ko malhayssta.}\]
\[\text{Swuni-Nm hand-Nm Cheli-Ac be held-Comp said}\]
However, even if we satisfy the GCR by coindexing the $e_1$ with the higher NP Swuni, the sentence would still be ungrammatical for reasons pertaining to the Theta Criterion. In particular, the NP Cheli must receive its theta-role through the EC, but the EC is unable to transmit its theta-role to it, since the NP is not in the right position (it does not c-command the EC).

Consider now the cases in which the part-NP is nominative-marked.

(66)

```
S
  |   S
  |     NP
  |      NP_i
  |        N'
Cheli-ka  e  son-i  caphyessta
```

(67)

```
S
  |   S
  |     NP
  |      NP_i
  |        N'
  |          NP_i
  |            N'
  |              e
  |                son-i
  |                   Cheli-ka
  |                     t
  |                       caphyessta
```

In contrast to the commonly accepted claim, I argue that the ungrammaticality of (67) is due not to the unpassivizability
of the part-NP son, but to the restriction on the scrambling of the part-NP from (66). (see the sections 3.3.3.2 & 3.3.4.2). Notice now that in the grammatical (66), the pro is properly coindexed with a c-commanding NP Cheli, whereas in the ungrammatical (67), the pro is not c-commanded by the coindexed NP Cheli.

3.3.4.2. Scrambling

As many linguists such as Yoon (1990) note, there is a restriction on scrambling the part-NP in the DAC.

    John-Nm Mary-Ac hand-Ac caught
    'John held Mary by the hand.'

    John-Nm hand-Ac Mary-Ac caught

This is, according to Yoon, caused by the restriction that the possessor NP must c-command the body part NP.

This stipulation is descriptive but not explanatory. In my analysis, however, an actual explanation is possible. The licensing condition on pro, which is fulfilled by the GCR, is the key, as the following tree diagrams help illustrate.
The e₁ in the possessor position of the part-NP son after scrambling occurs in (70) is coindexed with a non-c-commanding NP Mary. The EC is c-commanded by the subject NP John but coindexing the two (while consistent with the GCR) would result in an ungrammatical sentence because of the Theta Criterion. This is because the NP Mary, must receive its theta-role through the EC, but the EC is unable to transmit its theta-role to it, since the NP is not in the right position (it does not c-command the EC).
3.3.4.3. Optionality

Selectional restrictions have sometimes been used to argue for the adjunct status of part-NPs (Kang (1986), O'Grady (1988), Kim (1990)). Kang (1986), for instance, says that a double accusative sentence implies the same sentence without a second NP, since the second-NP is not a direct object but just a locative adverbial. Thus, (71a) implies (71b). Kang says that the ungrammaticality of (72a) and (73a) is due to the ungrammaticality of (72b) and (73b), suggesting that the first NP (denoting the whole) rather than the second NP (denoting the part) is a subcategorized argument of the verb.

   John-Nm Mary-Ac arm-Ac pinched
   'John pinched Mary on the arm'

b. John-i Mary-lul kkocipessta.
   John-Nm Mary-Ac pinched
   'John pinched Mary'

(72) a. (Kang's judgment)
   *Swuni-ka Cheli-lul meli-lul callassta.
   Swuni-Nm Cheli-Ac hair-Ac cut
   'Swuni cut Cheli, his hair.'
b. *Swuni-ka Cheli-lul callassta.
   Swuni-Nm Cheli-Ac cut
   'Swuni cut Cheli.'

    John-Nm Mary-Ac fingernail-Ac clipped
    'John clipped Mary, (her) fingernails.'

    John-Nm Mary-Ac clipped
    'John clipped Mary.'

The above false generalization has led many linguists to conclude that part NPs are adjuncts rather than subcategorized arguments. However, no Korean speakers who I have consulted rule out (72a) and (73a) while they all rule out (72b) and (73b). This means that the second NPs in (72a) and (73a) are not optional adjuncts, but selected arguments. I agree that some NPs have locative meaning, but that does not necessarily mean they are adjuncts. Besides, as pointed out earlier, there are cases like the following, in which second NPs do not have locative meanings:

(74) Cheli-ka sengkyek-i cohta.
    Cheli-Nm personality-Nm good
    'Cheli's personality is good.'
(75) ladio-ka soli-ka nemwu khuta.
   Radio-Nm sound-Nm too loud
   'Radio sound is too loud.'
(76) Nay-ka Cheli-lul pyelmyeng-ul pwullessta.
   I-Nm Cheli-Ac nick name-Ac called
   'I called Cheli by his nickname.'

Y. Kim (1990) agrees with Kang that part-NPs are generally optional. She claims that the optionality of the part-NP is an evidence that they are unselected adjuncts, whereas the whole-NPs are subcategorized arguments of the verb, assuming that 'free deletability' is the most prominent property of adjuncts as contrasted with arguments. As Yoon (1990) and Maling and Kim (1992) correctly point out, however, the validity of the above generalization is doubtful. First of all, not all part-NPs are optional as we noted above (see (72)-(73)). Moreover, adjuncts are optional, but not all optional elements are adjuncts.

Consider the following examples:

   police-Nm thief-Ac wrist-Ac held
   'The police held a thief, his wrist.'
   police-Nm thief-Ac caught/arrested
'The police arrested a thief.'

(78) a. Swuni-ka Cheli-lul i-lul ppopassta.
Swuni-Nm Cheli-Ac tooth-Ac pulled out
'Swuni pulled out Cheli, his tooth.'

b. Swuni-ka Cheli-lul ppopassta.
Swuni-Nm Cheli-Ac selected
'Swuni selected Cheli.'

I-Nm Cheli-Ac hair-Ac cut
'I cut Cheli's hair.'

b. Nay-ka Cheli-lul callassta.
I-Nm Cheli-Ac fired
'I fired Cheli.'

I-Nm Cheli-Ac fingernail-Ac clipped
'I clipped Cheli's fingernail.'

b. Nay-ka Cheli-lul kkakka-cwuessta.
I-Nm Cheli-Ac gave a discount
'I gave a discount for Cheli.'

The above pairs of examples show that the part-NPs are not optional for these verbs. The verbs in the (a) sentences do not normally take animate objects. When they do, their meaning changes, resulting in an unintended interpretation. This is additional evidence that the second NPs are not
optional adjuncts; they are subcategorized for and hence must be able to be selected.

As Maling and Kim (1992) point out, the whole-NP can also be optional (given that Korean is also a pro-drop language):³

(81) Swunkyeng-i pro phalmok-ul capassta.
    police-Nm wrist-Ac held
    'The police held (his) wrist.'

(82) Swuni-ka pro i-lul ppopassta.
    Swuni-Nm tooth-Ac pulled out
    'Swuni pulled out (his) tooth.'

(83) Nay-ka pro meli-lul callassta.
    I-Nm hair-Ac cut
    'I cut (his) hair.'

(84) Nay-ka pro sonthop-ul kkakka-cwuessta.
    I-Nm fingernail-Ac clipped
    'I clipped (his) fingernail.'

3.4. Summary

To summarize, I proposed that the DNC/DAC in Korean (inalienable) possession construction is best explained by

³ Kang (1986) treats these sentences as ungrammatical, which is not true.
positing a pro in the possessor position of the part-NP, which is licensed by the Generalized Control Rule. Concerning the argument status of the part-NP, I claimed that it is an argument. We have seen that syntactic restrictions such as relativization, passivization, and scrambling on the part-NP do not demonstrate the adjunct status of the part-NP. It is in fact due to the Theta Criterion/the GCR. The other restrictions such as honorification and reflexivization on the part-NP are due to the Matching Condition: part-NPs are inanimate while both honorification and reflexivization require a human referent.
CHAPTER IV
FLOATED QUANTIFIER CONSTRUCTIONS

4.1. Introduction

This chapter examines the floated quantifier construction (FQC), which is another instance of double nominative/accusative sentences. In Korean, a quantifier (Q) can appear either in the specifier position of an NP as in the (a) sentences below or in the head position of an NP as in the (b) sentences or in a separate NP as in the (c) sentences.

(1) a. [Sey-myeng-uy chinkwu-ka] wassta.
   three-CL-Gen friend-Nm came
   'Three friends came.'
b. [Chinkwu seys/seym-ye-i] wassta.
   friend three/three-CL-Nm came
c. [Chinkwu-ka] ecey seys/seym(- ye-i) wassta.
   friend-Nm yesterday three/three-CL(-Nm) came
   'Three friends came.'

   student-Nm two-CL-Gen book-Ac bought
   student-Nm book two/two-CL-Ac bought
student-Nm book-Ac two/two-CL(-Ac) bought
'The student bought two books.'

I-Nm two-CL-Gen friend-Dat telephoned

b. Nay-ka [chinkwu twul/twu-myeng-hanthey]
I-Nm friend two/two-CL-Dat
cenhwahayssta.
telephoned

I-Nm friend-Dat two/two-CL-Dat
cenhwahayssta.
telephoned
'I called two friends of mine.'

The sentences in (c) are referred to as FQCs in recognition of the fact that the quantifier is separated from the NP with which it is associated, creating double nominative/accusative constructions. The Q usually consists of a classifier that produces some information about the semantic class of NP. In Korean, unlike many other languages, the FQ are also case-marked.

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1 Sentences like (3c) are incorrectly asterisk-marked in all other analyses of FQC. But I find them perfectly acceptable, which I will try to justify later.
At least two issues arise with FQCs (the (c) sentences): (i) Are they transformationally derived from the (a) sentences? and (ii) how is the FQ sanctioned? We will focus on the second issue, investigating the structural relation between the antecedent NP (NP with which the FQ is associated) and the QNP (the NP with a floated quantifier).

This chapter is organized as follows. Section 4.2 outlines the relation between the antecedent NP and the QNP, and some properties of FQCs that follow from this relation. Section 4.3 offers a brief overview of previous treatments of FQCs in Korean, which we will evaluate in terms of whether they can capture the properties of the FQC. In section 4.4, I propose my analysis, arguing that the floated quantifier phenomenon can best be captured by positing a pro in the specifier (partitive genitive) position of the QNP, which is licensed by the Revised GCR. (An extra constraint on the GCR, requiring 'case agreement' between the antecedent NP and the QNP, will be proposed for Korean FQCs.)

This pro analysis of the FQC is based on my observation that the FQC can be related to the part-whole construction which we discussed in the preceding chapter. In particular, the antecedent NP corresponds to a whole-NP and the QNP, to a part NP.

Furthermore, it will be shown that the occurrence of classifiers/case markers in the QNPs should be considered
more carefully, and not overlooked as in most previous studies. Finally, I claim that the QNP is an argument: it gets a theta-role directly from the verb. Within the QNP the N (FQ) assigns a partitive role to the pro. The antecedent NP then receives the partitive role through a chain that includes pro. By virtue of being a partitive 'argument' of the QNP, the antecedent NP is interpreted as having the same theta-role as the QNP. We will see that restrictions on relativization and scrambling of the QNP, which have been attributed to its adjunct status, are in fact due to the GCR and the Theta-Criterion.

4.2. The Relation between the Antecedent NP/the QNP

As is observed by many linguists such as A. Kim (1990), the antecedent NP and the QNP may be separated from each other by other elements in FQCs—including adverbs as in (4), or even arguments as in (5).

(4) Nay-ka chayk-ul ecey sey-kwen-ul ilkessta.
I-Nm book-Ac yesterday three-CL-Ac read
'I read three books yesterday.'

(5) Phyenci-lul nay-ka chinkwu-eykey sek-cang ssessta.
letter-Ac I-Nm friend-Dat three-CL wrote
'I wrote three letters to my friends.'
Although the antecedent NP and the QNP do not form a unitary constituent, they are related in such a way that the interpretation of the QNP is dependent on the antecedent NP.

In earlier analyses, the Q was assumed to be base-generated adjacent to its NP and moved rightward. More recent analyses claim in one form or another that Q is an anaphor (O'Grady 1986, Gerdts 1985). Sportiche (1988) observes that the relation between the antecedent NP and the QNP seems to obey two conditions that antecedent-anaphor relations obey. First, the QNP must be c-commanded by the antecedent NP. Second, the relation between those two NPs must be local.

The following arguments, however, suggest that holding that an FQ is an anaphor faces difficulties. Choi (1988) points out an apparent asymmetry between FQs and anaphors such as reflexives and reciprocals: while the latter can be bound by a so-called 'dative subject', the former cannot.²

(6) Ku ai-eykey₁ caki-lul₁ phantanha₁

the child-Dat self-Ac evaluate-Comp

nunglyek-i epsta.

ability-Nm non-exist

'The child has no ability to evaluate him/herself.'

² The sentence (7), as in (3c), becomes acceptable if the QNP twu-pwun is case-marked as in twu-pwun-eykey:
(7) *Ku sensayngnimtul-eykeyi twu-pwuni ton-i
  the teachers-Dat  two-CL  money-Nm
  philyohasita.
  is necessary
  'The two teachers need money.'

Sportiche (1988) also states that treating FQs as anaphors is not desirable, since FQs are not referential whereas anaphors are elements with a referential function that are referentially dependent upon another category.

How then can we capture a QNP's anaphor-like properties? Observing that FQC's parallel 'part-whole' possessive constructions, I propose that antecedent NPs such as chinkwu 'friend' in (8) and chayk 'book' in (9) are whole NPs and sey-myeng 'three-CL' and twu-kwen 'two-CL' are part NPs.

(8) Chinkwu-ka seys/sey-myeng(-i) wassta.
    friend-Nm  three/three-CL(-Nm) came
    'Three friends of mine/Three of my friends came.'

(9) Haksayng-i chayk-ul twul/twu-kwen(-ul) sassta.
    student-Nm  book-Ac  two/two-CL(-Ac) bought
    'The student bought two books/two of the books.'

In (8), Korean chinkwu (the antecedent NP) corresponds to English my friends and Korean sey-myeng (the QNP) to English
three. In (9), Korean chayk (the antecedent NP) corresponds to English the books and Korean twul/tuwu-kwen (the QNP) to English two. The relationship between the antecedent NP and the QNP might be stated as a 'set-subset' relation (O'Grady, p.c.) or the 'macro-micro' relation (Yang 1972). The italicized English expressions three friends of mine/three of my friends and two of the books are often referred to as 'partitive genitive' constructions, that indicate a whole divided into parts, expressed in English by of. Note here that the quantifiers three and two are separated by of from the NPs they are associated with, unlike in three friends and two books. Based on the parallel between the FQC in Korean and the partitive genitive construction in English, I propose that the pro in the QNP is a 'partitive genitive' of the rQ.

The following pair of sentences helps show the close similarity between the FQC and the part-whole construction:

(10) Part-whole Construction:
    Aki-ka chayk-ul twu-cang-ul ccicessta.
    baby-Nm book-Ac two-page-Ac tore
    'The baby tore two pages of/from the book.'

(11) Floated Quantifier Construction:
    Aki-ka khatu-lul twu-cang-ul ccicessta.
    baby-Nm card-Ac two-CL-Ac tore
    'The baby tore two cards.'
As far as I can see, the only difference is that the whole NP in the part-whole construction (chayk 'book' in (10)) is definite; whereas the antecedent NP in the FQC (khad 'card' in (11)) is indefinite--khatu is a collective noun. This difference, however, does not influence the relationship between the whole-NP (antecedent NP) and the part-NP (QNP).

The idea of relating FQCs to part-whole constructions is supported by another consideration. According to Sportiche (1988), French FQCs also correspond to partitive structures: FQs correspond to partitive Qs, since only partitive Qs are followed by full NPs. Consider the following:

(12) a. Partitive Quantifier:

Chacun des hommes est parti
each of-the men is left
'Each of the men left.'

b. Floated Variant:

Les hommes sont chacun partis.
the men are each left
The men each left.

(13) a. Non-partitive Quantifier:

Chaque homme est parti.
each man is left

---

3 I am grateful to William O'Grady for providing me with these examples.
Each man left.'

b. Floated Variant:

*Les hommes sont chaque partis.
The men are each left
'The men each left.'

The term 'determiner Qs' ambiguously refers to Qs like each in both (12a) and (13a): the each in (12a) translates as chacun, which floats as in (12b), whereas the one in (13a) corresponds to chaque, which does not float as in (13b). This correlates with the fact that the former may appear as a partitive Q, whereas the latter may not.

4.3. Syntactic Restrictions on the QNP

This section outlines some properties of QNPs derived from the relation between the antecedent NP and the QNP. We will discover that QNPs are subject to the same restrictions as are part-NPs in 'part-whole' constructions.

4.3.1. Restriction on Scrambling

Just as in part-whole constructions, there is restriction on extracting QNPs in FQC. The following
examples show that a floated quantifier may not appear to the left of the NP with which it is associated.

(14) a. Akka haksayng-i twu-myeng(-i) wassta.
    a while ago student-Nm two-CL(-Nm) came
    'Two students came a while ago.'

b. *Twu-myeng(-i) akka haksayng-i wassta.
    two-CL(-Nm) ago student-Nm came
    (Choi 1988)

    I-Nm book-Ac yesterday three-CL-Ac read
    'I read three books yesterday.'

b. *Nay-ka sey-kwen-ul'i ecey chayk-ul'i ilkessta.
    I-Nm three-CL-Ac yesterday book-Ac read
    (O'Grady 1991) 4

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4 Sentences in (14) are slightly modified ones. The original ones from O'Grady (1991) do not have the classifier kwen in the QNP. Although classifiers are usually not mandatory, omitting them often makes sentences sound very unnatural, if not unacceptable. As A. Kim (1990) notes, bare numerals in FQCs without appropriate classifiers may occur only in very restricted situations such as when the QNP consists of very common nouns with the feature of [human]. This is something that needs to be considered in more detail. In the present discussion, however, I will not go into detail about this.
4.3.2. Restriction on Relativization

Just as in part-whole constructions, there is restriction on relativizing QNPs in FQC. The following examples illustrate this point.

   the cookies-Nm two-CL-Nm are gone
   'Two of the cookies are gone.'

b. [Twu-kay-ka epseci]-n ku kwaca
   two-CL-Nm are gone-Comp the cookies
   'the cookies that two of (them) are gone'

c. *[Ku kwaca-ka epseci]-n twu-kay
   the cookies-Nm are gone-Comp two-CL

   I-Nm the cookies-Ac two-CL-Ac ate
   'I ate two of the cookies.'

b. [Nay-ka twu-kay-lul mek]-un ku kwaca
   I-Nm two-CL-Ac eat-Comp the cookies
   'the cookies that I ate two (of them)'

c. *[Nay-ka ku kwaca-lul mek]-un twu-kay
   I-Nm the cookies-Ac eat-Comp two-CL
   'the two that I ate the cookies'
Note that the antecedent NP can be relativized as in (16b) and (17b), but the QNP cannot as in (16c) and (17c).

In fact, there is a difference between FQCs and part-whole constructions with respect to the restriction on the whole-NPs. Unlike in part-whole constructions, even the first NPs usually cannot be relativized in FQCs. Consider the following:

    student-Nm three-CL-Nm came
    'Three students came.'

    b. *[Sey-myeng-i o]-n haksayng-tul
    three-CL-Nm come-Comp student-PL
    'students who three of (them) came'

    c. *[Haksayng-i o]-n sey-myeng
    student-Nm come-Comp three-CL

We will disregard this point, however, since it has nothing to do with the relation between the whole-NP and the part-NP, which we are focusing on in this chapter. The inherent indefiniteness of the antecedent NPs in FQC (unlike the whole NPs in part-whole construction) seems to make it impossible for such NPs to serve as the heads of relative clauses. As C.

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5 A. Kim (1990) discusses the indefinite reading of FQCs.
Lee (1989) points out, relativization generally involves definitization of the head noun.

4.4. Previous Studies

Linguists have been concerned with delineating which nominals are potential antecedents of quantifiers. Consider the following FQCs:

(19) a. Chinkwu-ka seys/sey-myeng (-i) wassta.
friend-Nm three/three-CL (-Nm) came
'Three friends came.'

b. Chinkwu-ka seys/sey-myeng wassta.
friend-Nm three/three-CL came
'Three friends came.'

(20) a. Haksayng-i chayk-ul twul/twu-kwen (-ul) sassta.
student-Nm book-Ac two/two-CL (-Ac) bought
'The student bought two books.'

b. Haksayng-i chayk-ul twul/twu-kwen sassta.
student-Nm book-Ac two/two-CL bought
'The student bought two books.'

(21) a. Nay-ka chinkwu-hanthey twul/twu-myeng -hanthey
I-Nm friend-Dat two/two-CL -Dat
cenwhahayssta.
telephoned
'I called two friends of mine.'

b. *Nay-ka chinkwu-hanthey twul/twu-myeng
   I-Nm friend-Dat two/two-CL
cenhwahayssta.
telephoned
'I called two friends of mine.'

In (19) the FQ is associated with a nominative-marked NP; in (20), with an accusative-marked NP; in (21), with a dative-marked NP. Notice that (21a), in which the QNP is case-marked, is acceptable; whereas (21b), in which the QNP is caseless, is not. All the previous analyses of FQC claim in one form or another that both sentences in (21) are ungrammatical. But I rule out only (21b). My intuition is supported not only by native speakers who I consulted but also by my analysis of FQC, which is based on general principles.

Let us first examine some of previous studies. Shibatani (1977) proposes the Surface Case Hypothesis, claiming that the rule for floated quantifiers in Korean must reference surface case: Qs can float only from nominative /accusative-marked nominals. This hypothesis rules out both sentences in (21), since they have Qs floated from non-nominative/accusative.
Noting some problems for the Surface Case Hypothesis with respect to biclausal constructions and topic constructions, Gerdts (1985) proposes a constituent structure-based approach. She assumes that an FQ is a type of anaphor and is subject to Binding condition A: an FQ requires the antecedent to c-command the FQ. Gerdts claim that only nominals which are not contained within a postpositional phrase can antecede quantifiers: since NPs in a PP are within a branching structure, they cannot c-command FQ. A crucial assumption of this hypothesis is that only nominative/accusative-marked nominals are NPs but others (dative or oblique-marked nominals) are PPs. The c-command analysis basically makes the same prediction as the Surface Case Hypothesis in terms of considering sentences like (21) to be ungrammatical.

Within Relational Grammar, Choi (1988) argues that the quantifier floating phenomenon in Korean involves ascension as illustrated in (22):\(^6\)

\[(22)\]

\[\begin{align*}
\text{a. Sonnim} & \quad \text{twu-pwun-i} & \quad \text{osyessta.} \\
\quad \text{guest} & \quad \text{two-CL-Nm} & \quad \text{came} \\
\text{b. Sonnim-i} & \quad \text{twu-pwun-i} & \quad \text{osyessta.} \\
\quad \text{guest-Nm} & \quad \text{two-CL-Nm} & \quad \text{came}
\end{align*}\]

\(^6\) An 'ascension' is a syntactic rule which promotes some subconstituent of a phrase so that it takes over the grammatical relation of the entire phrase (the 'host').
'Two guests came.'

Choi claims that there is no 'floating' of a quantifier twu-pwun but that the nominal specifier of a quantifier sonnim ascends, placing the initial head two pwun en chomage. Choi also treats both sentences in (21) as ungrammatical, due to a parameterization of the Host Limitation Law.  

(23) Numeral quantifiers do not float from a 3 (unlike other ascension constructions).

Working in the framework of categorial grammar, O'Grady (1991) proposes that the verbal category with which Q combines is 'quantified' in the sense that it is taken to designate a set of events. He further assumes that a quantified verb phrase must have 'scope' over an NP in accordance with the following principle.

(24) Quantified VP Interpretation:

A quantified verb phrase has scope over the first NP with which it combines.

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7 Host Limitation Law (Perlmutter 1983): only a nominal bearing a term relation (1 (subject), 2 (object), or 3 (indirect object)) can be the host of ascension.
Note that O'Grady's formulation also ensures that a Q cannot be associated with an NP embedded within another phrase—be it a PP or another NP.

Miyagawa (1989) proposes a stronger version of the structure-based approach for Japanese, which states that an FQ and the antecedent NP (or NP's trace) must enter into a mutual c-command relation. The mutual c-command condition also excludes sentences like (21), assuming that the antecedents are embedded within PPs.

Different in their details as all of the above analyses may be, one thing they all share is that both sentences in (21), which are repeated here as (25), are ungrammatical regardless of whether the FQ is case-marked as in (25a), or caseless (overtly) as in (25b). Note again that I assume the dative marker to be a case-marker, not a postposition. I provide the justification for this assumption in 4.4.1.

(25) a. Nay-ka chinkwu-hanthey twul/twu-rnyeng -hanthey
    I-Nm friend-Dat two/two-CL -Dat
cenhwahayssta.
telephoned
'I called two friends of mine.'

b. *Nay-ka chinkwu-hanthey twul/twu-rnyeng
   I-Nm friend-Dat two/two-CL
cenhwahayssta.
telephoned
'I called two friends of mine.'

It seems that sentences like (25a) are guilty only by association with ungrammatical sentences like (25b). Recall that all the previous analyses group both sentences together. However, I claim that unlike (25b), the sentence (25a) is perfectly grammatical in that the FQ is properly sanctioned by the antecedent. I do not see anything wrong with the sentence other than the fact that it involves repetition. This repetition, however, is necessary considering that the main point of the FQC is to emphasize both the antecedent NP and especially the QNP, by separating the Q from the antecedent. The repetition also occurs in the nominative/accusative patterns without diminishing their acceptability.

Although she treats sentence in (26a) as ungrammatical like everybody else, Hong (1991) recently points out that NPs bearing non-nominative/accusative markers may sanction FQ in two cases: (i) when a delimiter is attached to either the NP or the QNP, as in (26b), and (ii) when either the NP or the QNP gets stress for a contrastive reading, as in (26c).

(26) a. *Nay-ka chinkwu-tul-hanthey seys/sey-myeng -hanthey
    I-Nm friend-Pl-Dat three/three-CL -Dat
khatu-lul ponayssta. (Hong's Judgment)
card-Ac sent
'I sent cards to three friends.'

b. Nay-ka chinkwu-tul-hanthey-man seys/sey-myeng-hanthey
I-Nm friend-Pl-Dat-only three/three-CL-Dat
khatu-lul ponayssta.
card-Ac sent
'I sent cards only to friends, three.'

c. Nay-ka chinkwu-tul-hanthey SEYS/SEY-MYENG -HANTHEY
I-Nm friend-Pl-Dat three/three-CL -Dat
khatu-lul ponayssta.
card-Ac sent
'I sent cards to three friends.'

Apart from the disagreement over the grammaticality of (26a), the evidence from the other sentences is enough to help us realize that we have to give up either on c-command-type analyses or on drawing a structural distinction between nominative/accusative-marked nominals (NPs) and non-nominative/accusative-marked nominals (PPs). Assuming that non-nominative/accusative markers are inflectional suffixes rather than postpositions, Hong proposes a condition on the co-occurrence of NPs in order to ensure that NPs whose inflectional suffixes carry the identical information cannot cooccur. (The following has been slightly paraphrased.)
(27) NPs carrying exactly and only the same type of semantic information are disallowed in a clause where the type of information = type 1 and type 2. (Inflectional suffixes carry two types of semantic information: type 1 involves thematic roles expressed by means of semantic case markers (e.g. -eye 'at'), while the other is expressed by delimiters (e.g. -man 'only').)

According to Hong, this condition rules out sentences like (26a) by blocking semantic redundancy while it permits sentences like (26b) and (26c).

This condition is unnecessary, however, because all FQs get stress. By virtue of being separated from the antecedent NP, the Q automatically gets stress. There is thus no difference between (26a) and (26c). Besides, a certain amount of redundancy is not only inevitable, but desirable under certain circumstances. In order to emphasize the quantifier, it is desirable to separate the Q from the antecedent as long as there is some way to associate the FQ with the antecedent, allowing the FQ to get primary stress.

The sentences under consideration become even better if adverbs intervene between the antecedent NP and the QNP, perhaps because the reason why we float the Qs becomes more legitimate.
(28) Nay-ka chinkwu-tul-eykey eceypamey sey-myeng-eykey
I-Nm friend-PL-Dat last night three-CL-Dat
cenhwahayssta.
telephoned
'I telephoned three friends of mine last night.'

(29) Na-nun haksayng-tul-hantheyse panghak tongan
I-Tp student-PL-from vacation during
ney-myeng-hantheyse phyenci-lul patassta.
four-CL-from letter-Ac received
'I received letters from four students during the
vacation.'

Hong (1991) further assumes that the condition in (27)
is equally applicable to all multiple case constructions,
saying that if the NPs are marked by the same semantic case
(non-nominative/accusative), they cannot cooccur in a clause.
(This is Hong's judgement.)

(30) *Ku cip-eyse cengwen-eyse phathi-ka yellinta
the house-Loc garden-Loc party-Nm be held
'There will be a party in the garden of the house.'

Hong's judgment, however, is not shared by others. The
sentence (30), in fact, is accepted by most native speakers.
Consider the following sentences which are accepted by many
linguists, including Choi (1988) for (31) and Yang (1972) for (32).

(31) Mwulthong-ey patak-ey kwumeng-i nassta.
    bucket-Dat sole-Dat hole-Nm came out
    'A hole appeared on the bottom of the bucket.'

(32) Mary-ka cip-eyse pang-eyse kongpwuhassta.
    Mary-Nm home-Loc room-Loc studied
    'Mary studied in the room at home.'

Choi says that most native speakers find multiple dative sentences as in (31) acceptable. In multiple oblique constructions like (32), which involve repetition, the second oblique nominal is parenthetically inserted to reinforce the already mentioned information.  

It is also important to realize that the information from oblique markers are not always identical, as the English gloss for the following sentence suggests:

8 Choi also notes that when there are more than three NPs with the same case, the repetition of a dative NP is slightly worse than the repetition of as many nominative NPs. He further notes that the repetition of as many clearly oblique NPs result in ungrammaticality. Although I do not believe that they result in ungrammaticality, I basically agree with Choi in that the repetition of many non-nominative/accusative NPs may sound less natural than that of nominative/accusative NPs. I suspect the reason why is either due just to different lengths of the case markers involved (The longer the marker is, the less natural the repetition of it sound.) or perhaps due to different degrees of obliqueness, as Choi implies.
(33) Nay-ka ku-lul Sewul-eyse hakhoy-eyse mannassta.
        I-Nm he-Ac Seoul-in conference-at met
'I met him at the Conference in Seoul.'

Note that the first eyse is translated as 'in' but the second eyse as 'at', suggesting that the meanings of suffixes are not entirely identical depending on the heads. Another eyse means 'on' in a phrase like keli-eyse 'on the street'.

In sum, we have seen that no single analysis of previous studies of FQC is sufficient for the rule of FQC in Korean, since they all exclude grammatical sentences. Besides they fail to provide any principled explanation for properties of FQC such as restriction on scrambling/relativization of QNPs described in (14)-(17) earlier.

Shibatani's Surface Case Hypothesis, Hong's condition on semantic redundancy, or Miyagawa's mutual c-command condition has no way of explaining such properties. In addition, Miyagawa's analysis is too constrained for sentences like the following in Korean:

(34) Ai-tul-i wen-i toye yel-myeng-i chwumchwuessta.
        child-PL-Nm in a circle ten-CL-Nm danced
'Ten children danced in a circle.'
Notice that the QNP yeol-myeng-i is c-commanded by the antecedent NP Ai-tul-i but not vice versa. The reason why Korean FQCs do not need such a strict structural requirement (mutual c-command relation) may be attributable to the extra requirement that Korean FQCs have case agreement between the antecedent NP and the QNP.

Gerdts' c-command analysis considers the following sentences to be ambiguous, saying that FQ can appear anywhere in the clause to the right of its antecedent:


student-Nm teacher-Dat book-Ac three gave

a. 'Three students gave books to the teacher.'

or b. 'The students gave three books to the teacher.'

The above sentence, however, is not ambiguous to me. Only the (b) interpretation, in which the FQ seys 'three' is associated with the accusative-marked NP chayk 'book', is possible. For haksayng 'student' to be a possible antecedent (in other words, to get the (a) interpretation), the FQ seys 'three' has to be Nm-marked, as in seys-i. (This is also observed by Lee (1991).) Thus, Gerdts' claim that the location of FQ depends solely on c-command is not constrained enough.
O'Grady (1991) tries to account for restriction on extraction of QNPs, assuming that the adjunct status of the QNP is 'contextually encoded' by the relative linear order, that places the FQs to the right of the NP with which they are associated. Choi (1988) proposes a general word order constraints such as the Precedence Condition (No part of an ascension chomeur can precede the ascendee.) and the Restriction on Relativization (No part of an ascension chomeur can be the target of relativization.). These stipulations may be descriptively accurate but they do not explain why Korean should work this way.

In the next section, I propose an alternative approach which can account for the data and reduces the properties of FQCs to the nature of constituent structure.

4.5. My Proposal

4.5.1. Non-Nm/Ac Markers are Suffixes

Before examining the data in terms of my analysis, recall that the right account of sentences like the following forces us choose between the c-command analysis and the treatment of non-nominative/accusative-marked nominals as PPs.
(36) a. Nay-ka chinkwu-hanthey twul/twu-myeng -hanthey
cenhwahayssta.
telephoned
'I called two friends of mine.'
b. *Nay-ka chinkwu-hanthey twul/twu-myeng
cenhwahayssta.
telephoned

I retain the c-command notion in my analysis, adopting the hypothesis that there is no structural distinction between nominative/accusative markers and non-nominative/accusative markers.

Assuming that a PP node for an oblique-marked nominal is valid, Choi (1988) criticizes the c-command analysis of the FQC. He notes a problem for the c-command-based analysis in sentences like (37):

(37) *Yengswu₁-eykey ku₁-ka mwusepta.
Yengswu-Dat he-Nm fearful
'Yengswu fears him.'

If Binding Principle B, which states that a pronoun is free in a governing category, is responsible for the
ungrammaticality of sentences like (37), the dative-marked nominal must be taken to c-command the pronoun ku. Choi therefore concludes that either the c-command approach to FQC is wrong or that c-command should be defined in different ways depending on the type of anaphor.

As some studies like that of Reinhart (1981) suggest, however, it may be our treatment of the dative-marked nominal as a PP which is at fault rather than the c-command analysis. If we treat the dative-marked nominal Yengswu-eykey as an NP rather than a PP, the problem just noted would not arise. Observing some apparent PPs are 'invisible' for purposes of c-command in English, Reinhart suggests that these constituents are in fact NPs and that the apparent P is really a 'case marker'.

(38) Behind him₁, Ben₁ keeps a gun.
   
   Under him₁, Ben's₁ mother found a mango.

(39) *To him₁, I spoke in Ben's₁ office.
   
   *At him₁, Ben's₁ neighbor aimed a gun.

According to Reinhart, the italicized phrases in (38) are PPs but those in (39) are NPs. In other words, behind and under are prepositions; while to and at are case markers.

Hong (1991) provides a piece of evidence from Y.Cho (1988) which shows that non-nominative/accusative markers
should be treated as suffixes. In Korean, a continuant neutralizes to a stop if it is in the syllable coda position (Coda Neutralization). However, if the continuant in a stem is syllabified as the onset of a following suffix, neutralization does not happen. This lexical syllabification occurs between the stem and suffixes, but never between two morphological words.

(40) [kkoch-ilum] --> [kkodirum]
    flower-name 'the name of a flower
    [us-um] --> [usum/*/udum]
    laugh-nominalizer 'laughter'

(41) [os-ey] --> [osey/*/odey]
    clothes-Loc 'on the clothes'
    [kkoch-uloput'e] --> [kkocurobut'e/*kkodurobut'e]
    flower-from 'from the flower'

As (41) demonstrates, Coda Neutralization fails to apply between a noun stem and a non-nominative/accusative marker. This shows that these case markers are suffixes attached to the stem in the lexicon, rather than separate morphological words.

To conclude, non-nominative/accusative markers are not postpositions but case markers just like nominative/accusative markers. There are, however, some asymmetries
between them such as for the matter of Case Drop: nominative/accusative markers can be dropped, whereas non-nominative/accusative cannot. This Case Drop phenomenon may distinguish structurally assigned cases (nominative/accusative) from inherent cases (non-nominative/accusative), but not necessarily from postpositions.

4.5.2. Base-generated pro and the GCR

This section presents my analysis of FQCs in Korean. A base-generated pro will be posited in the specifier (partitive genitive) position of the QNP as a linker between the antecedent NP and the QNP, denoting a kind of a part-whole relationship between them. The pro is licensed by the Revised Generalized Control Rule.

(42) The Revised GCR:

An empty pronominal (PRO/pro) is coindexed with the closest c-commanding NP that is consistent with the Matching Condition and the Binding Principles.

Unlike the constructions considered in preceding chapters, the FQC exhibits one more requirement, namely, 'case agreement' between the antecedent NP and the QNP. The MC constrains the features of an antecedent NP in terms of
number, gender, person, classifier, etc., assuming that the
EC which is coindexed with the antecedent NP carries the same
features as the QNP does. The MC, however, cannot require
case agreement between the antecedent NP and the QNP, because
the EC's Case (genitive) differs from the QNP's Case.

Let us then examine how my analysis accounts for FQCs.
Consider the following examples which are repeated from
above:

(43) a. Chinkwu-ka seys/sey-myeng-i wassta.
    friend-Nm three/three-CL-Nm came
    'Three friends came.'

   b. Chinkwu-ka seys/sey-myeng wassta.
    friend-Nm three/three-CL came
    'Three friends came.'

    student-Nm book-Ac two/two-CL-Ac bought
    'The student bought two books.'

   b. Haksayng-i chayk-ul twul/twu-kwen sassta.
    student-Nm book-Ac two/two-CL bought
    'The student bought two books.'

(45) a. Nay-ka chinkwu-hanthey twul/two-myeng -hanthey
    I-Nm friend-Dat two/two-CL -Dat
cenhwahayssta.
    telephoned
'I called two friends of mine.'

b. *Nay-ka chinkwu-hanthey twul/twu-myeng
c. I-Nm friend-Dat two/two-CL
cenhwahayssta.
telephoned
'I called two friends of mine.'

Note that QNPs in the (a) sentences are case-marked but those in the (b) sentences are caseless. Note also that whether the QNP is case-marked or not does not affect the grammaticality of sentences in (43) and (44). But it does matter when it comes to non-nominative/accusative markers in (45).

With that in mind, consider first the (a) sentences, in which the QNPs are case-marked. These sentences have the following structures:

(46)

<table>
<thead>
<tr>
<th>NPi</th>
<th>S</th>
<th>NP</th>
<th>N'</th>
<th>VP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chinkwu-ka e sey-myeng-i wassta</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>seys/sey-myeng</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
How the QNPs in the above (a) sentences are sanctioned by the Revised GCR is fairly straightforward: the ECs linking the QNPs and the antecedent NPs are properly coindexed with the closest c-commanding NP, in accordance with the GCR. In addition, Case of the QNP is in agreement with that of the coindexed NP.

What about the (b) sentences, in which the QNPs have no overt Case? Note that whether the QNPs are case-marked or not do not make any difference in the sentence's syntactic structure. How then can we account for the ungrammaticality
of (48b)? The answer lies in the requirement that there be case agreement between the antecedent NP and the QNP. Recall our earlier observation that in Korean, nominative/accusative markers can be dropped but other Case markers cannot.\(^9\)

Adopting Travis' (1986) idea of base-generated empty Case, I suggest that the QNPs in the (b) sentences have a null Case with either a [nominative] or [accusative] feature. In (48b), the QNP, with a null Case, is coindexed with an inappropriate NP chinkwu, which has a non-nominative/accusative marker. This blocks the case agreement between the two NPs, resulting in an ungrammatical sentence.

In fact, the EC will look for the next available c-commanding NP, which is nay 'I' here. But then there is a number feature clash between nay 'I', which is inherently singular, and the e\(_i\), which is a partitive genitive of the plural Q twul 'two' and therefore has a plural feature. (In the remainder of this chapter, I will assume that the feature matching/clash is between the antecedent NP and the QNP, although the former is in fact coindexed with the EC, not the QNP. The end result is the same since the EC which is coindexed with the antecedent NP carries the same features (number, classifier, etc.) as the QNP does.) Thus there is

---

\(^9\) The Genitive marker, which is structurally assigned, can also be dropped. But for the sake of exposition, it is disregarded here. Therefore 'other Case markers' do not include genitive markers.
no way for the EC in the QNP to be related to an antecedent, so the sentence is ill-formed.

Consider the following pair of sentences: (49a) repeated from (48b), and (49b) with some number features switched in the possible antecedents of the QNP from (48b).

(49) a. *Nay-ka chinkwu-hanthey twul/twu-myeng  
     I-Nm friend-Dat two/two-CL  
     cenhwahayssta.  
     telephoned  
     'I called two friends of mine.'

b. Chinkwu-tul-i na-hanthey twul/twu-myeng (-i)  
   friend-PL-Nm I-Dat two/two-CL (-Nm)  
   cenhwahayssta.  
   telephoned  
   'Two of my friends called me.'

In (49a), neither chinkwu-hanthey nor nay-ka can serve as an antecedent of the QNP for the reason noted in the discussion of (48b). In (49b), however, the QNP can be anteceded by the subject NP chinkwu-tul thanks to the Revised GCR.

Passive sentences like the following are explained in the same fashion as in (49b):\textsuperscript{10}

\textsuperscript{10} Sentences like (48b) and (49) sound a little unnatural if the QNPs are without either a classifier or a case marker, although, the QNPs are structurally sanctioned in those cases. When a QNP is intervened by
The Revised GCR does not allow the closest c-commanding NP, the dative-marked NP *catongcha-ey*, to be an antecedent of the ei. Since the dative Case does not agree with the QNP's null Case, which has either the feature nominative or accusative. The Revised GCR, which is constrained by the case agreement requirement, allows the next closest NP to be an antecedent of the FQ.

Recall that Gerdts considers the following sentence to be ambiguous, saying that FQ can appear anywhere in the clause to the right of its antecedent.

(51) Haksayng-i sensayngnim-kkey chayk-ul seys cwuessta.

student-Nm teacher-Dat book-Ac three gave

other elements, it tends to require maximum clarity. It sounds best with both a classifier and a case marker.
a. 'Three students gave books to the teacher.'
   or b. 'The students gave three books to the teacher.'

I claimed earlier that only the (b) interpretation is possible. The QNP, which has a null Case with a nominative/accusative feature, requires the antecedent to be nominative/accusative-marked. And the closest c-commanding NP chayk-ul 'book' meets the requirement, yielding the (b) interpretation. For haksayng-i 'student' to be eligible for an antecedent (in order to have the (a) interpretation), the QNP seys 'three' has to be nominative-marked, as in seys-i. (This is also observed by C. Lee (1991).) Then, the accusative-marked NP chayk-ul can no longer be the antecedent because of the constraint on the case agreement. The Revised GCR will allow the nominative-marked QNP to look for the next closest NP, haksayng-i 'student'. Thus, Gerdts' claim that the location of FQ relies on the c-command notion only is not constrained enough.

As first noted in Gerdts (1985), there appears to be no case agreement between the antecedent NP and the QNP in the following three sentences.

    John-Nm student-Ac three-Nm genius-Comp believed
    'John believed that the three students were geniuses.'
(53) Nay-ka haksayng-ul seys-i ttena-key hayssta.
I-Nm student-Ac three-Nm leave-Comp made
'I made three students leave.'

(54) Chayk-un, nay-ka seys-ul sassta.
book-Tp I-Nm three-Ac bought
'Books, I bought three.'

The above sentences, however, do not cause any problem in my structure-based analysis. As correctly noted in Choi (1988), what binds the QNPs in such sentences is the empty category in the subject position in (52) and (53), and in the object position in (54), giving the syntactic representations as follows:

(55) John-i haksayng-ul_i [s t_i seys-i_i chencayla-ko] mitessta.
John-Nm student-Ac three-Nm genius-Comp believed

(56) Nay-ka haksayng-ul_i [s t_i seys-i_i ttena-key] hayssta.
I-Nm student-Ac three-Nm leave-Comp made

(57) Chayk-un_i, nay-ka pro_i seys-ul_i sassta.
book-Tp I-Nm three-Ac bought

We have seen topic constructions like (57) involve ECs in chapter II. However, positing ECs for sentences like (55) and (56) is not simple. GB does not permit the NP haksayng to be in the higher clause since it is not an argument of the
matrix V. Concerning this problem, I adopt Authier's (1991) recent proposal that an additional non-theta position is created at S-structure for the accusative Case marking.\footnote{I am grateful to William O'Grady for drawing my attention to this proposal.} So the sentential object haksayng is base-generated in the lower clause but it has the option of moving into a higher clause to get an objective Case.\footnote{What motivates movement in (55) is not clear, considering that haksayng could stay as an embedded subject (haksayng-i). I speculate that there might be some pragmatic reason for the Case alternation.}

Let us now look into the following sentences:

(58) *Haksayng-i maykcwu-lul sey-myeng masikoissta.
student-Nm beer-Ac three-CL(person) be drinking
'Three students are drinking beer.' \hspace{1cm} (Han 1989)

(59) *Haksayng-i chayk-ul seys/sey-myeng ilkessta.
student-Nm book-Ac three-CL(person) read
'Three students read a book.' \hspace{1cm} (O'Grady 1991)

Han attributes the ungrammaticality of (58) to Binding Principle A and the ECP, saying that the QNP sey-myeng 'three persons' is base-generated adjacent to haksayng-i 'student' and moves rightward leaving behind an improperly bound trace.\footnote{Empty Category Principle (ECP):
A non-pronominal empty category must be properly goverened.} The following tree diagram illustrates Han's explanation:
O'Grady (1991:216) attributes the ungrammaticality of (59) to the 'proximity' requirement on NP-quantifier pairs, saying that a quantified VP seys/sey-myeng ilkessta has scope over the direct object chayk-ul, the first NP with which the VP of which it is a part combines, but not over the subject. He states that this is consistent with the rule of Quantified VP Interpretation:

(61) Quantified VP Interpretation (O'Grady 1991:214):

A quantified VP has scope over the first NP with which it combines.

(i) A properly governs B
    if A governs B and A is a lexical category Xo
    (lexical government)
    or
    A is coindexed with B (antecedent government).

(ii) A governs B if every maximal projection dominating A also dominates B.

Minimality Condition:
A is a barrier for B if A is the immediate projection of C, a zero-level category distinct from B.
However, this needs to be rethought, since the above sentences are acceptable with the intended meanings when the QNPs are properly case-marked:

    student-Nm beer-Ac three-CL-Nm be drinking
    'Three students are drinking beer.'

(63) Haksayng-i chayk-ul sey-myeng-i ilkessta.
    student-Nm book-Ac three-CL-Nm read
    'Three student read a book.'

Neither the ECP nor the Quantified VP Interpretation can account for the tremendous difference in acceptability between (58)-(59) on the one hand and (62)-(63) on the other. Within (58) also, whether the QNP is without a classifier *(seys)* or with one *(sey-myeng)* makes a big difference: the former produces a totally unintended meaning 'The student read three books', whereas the latter produces the intended meaning.

In fact, whether sentences (58)-(59) deserve an asterisk is doubtful. I would give them '?' except for the version of (59), in which the QNP has no classifier (as some of my consultants agree). Han's (1989) ECP account of (58) is thus inconsistent with O'Grady's (p.c.) observation that an ECP violation generally makes the sentences completely
ungrammatical. The sentences sound unnatural but this is not a problem as long as the QNPs are related to their proper antecedents. This does not happen in (59) when the QNP seys has no classifier, which is repeated here as (64).

(64) *Haksayng-i chayk-ul seys ilkessta.
    student-Nm book-Ac three read
    'Three student read a book'

The intended NP haksayng 'student' cannot serve as antecedent, since the closest c-commanding NP is chayk 'book' and nothing blocks this NP from being the antecedent. Thus the sentence is unacceptable with the intended meaning.

Recall, however, that according to Huang’s definition of 'closest' as in (65), both haksayng and chayk count as 'closest' (both occur in the same clause) to the QNP seys.

(65) a. A is closer to B than C if A c-commands B but C does not c-command B.

b. For two nodes A and C, both of which c-command B, A is closer to B than C if A but not C occurs in the same clause as B, or if A is separated from B by fewer clause boundaries than C is.
In order to remedy situations like this, I propose that 'clause' and 'clause boundaries' in (65b) be replaced by 'S-node'. (See (68) for the structural representation of (64))

Now consider the other cases in (58)-(59). The QNPs sey-\text{-myeng} cannot be associated with maykcw\text{-}u 'beer' in (58), or chayk 'book' in (59) since those pairs do not match in their classifiers even though they match in case features. (The classifier -\text{-myeng} can be used only for persons: the classifier for maykcw\text{-}u 'beer' is -\text{-pyeng/-can} 'bottle/glass' and for chayk 'book' it is -\text{-kwen} 'volume'.) The Revised GCR, supplemented by the MC, therefore licenses the coindexing between the QNP sey-\text{-myeng} 'three-CL' and the proper antecedent haksayng-\text{-}i 'student'.

Why do the sentences in (58)-(59) sound so unnatural then? The reason seems to lie in the Case Drop phenomenon in Korean. As is well known, structurally assigned cases such as the nominative or accusative can be dropped, as in the following sentences:

(66) a. Haksayng-\text{-}i maykcw\text{-}u-lul masikoissta.
    student-Nm beer-Ac be drinking

b. Haksayng maykcw\text{-}u masikoissta.
    'The student drank beer.'
When scrambling occurs (when the word order becomes OSV), however, Case Drop is restricted. Note that (67c) and (67d), in which the nominative NP's case is not overt, sound awkward.

   beer-Ac student-Nm be drinking
b. Maykcwu haksayng-i masikoissta.
c. ??Maykcwu-lul haksayng masikoissta.
d. ??Maykcwu haksayng masikoissta.
   'The student drank beer.'

Although a nominative NP in the word order OSV does not always have to be case-marked, generally it does.

The explanation for (58)-(59) and the restriction on the nominative Case Drop when scrambling occurs allows us to see why sentences in (62)-(63) are perfectly acceptable. Neither maykcwu 'beer' nor chayk 'book' is eligible to antecede the nominative-marked QNP sey-myeng-i even though they are the closest c-commanding NPs: there is not only a case feature clash but also a clash in classifier features. Therefore, the next closest NP haksayng-i 'student', which is a perfect match for the QNP, is licensed by the Revised GCR to serve as an antecedent.
In sum, we have noted that the sentences in (58)-(59) sound unnatural but this is not caused by the interpretation of the QNPs, since the QNPs can be related to their proper antecedents.

Finally, compare the structural representation of (58) and (62), which I propose as in (68), with the one in (69) (repeated from (62)), proposed by Han (1989). In my analysis, the NP maykcwu-lul is scrambled leftward unlike in Han's, in which the QNP sey-myeng moves rightward.

(68) *My proposal:*

```
NPj    NPi    S
     |    |    |    |
     |    |    |    |
     S   NP   S   VP
     |   |   |   |   |
     |   |   |   |   |
     |   NPj N'   NPi   V
     |
     |
 a. Haksayng-i maykcwu-lul e sey-myeng t masikoissta
 b. sey-myeng-i
```

(69) *Han's proposal:*

```
NP    S    NP
 |    |    |    |
 |    |    |    |
 |    S    VP
 |    |    |   |   |
 |    |    |   |   |
 |    NP   VP   V
 |    |   |   |   |
 |    |   |   |   |
 |    NPj   NPi   V
 |    |   |   |   |
 |    |   |   |   |
 |    Haksayng-i t maykcwu-lul sey-myeng masikoissta
```

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The above illustration helps us understand why there is a restriction on the nominative Case Drop when scrambling occurs. Note that (68a), without any overt nominative case marker, has a high risk of being misinterpreted as having a structure in (69) due to the same word order. In (68b), however, the presence of the nominative case marker eliminates the risk, helping protect the structure of the sentence.

Before we move on to a next section, consider one last example, in which scrambling occurs. Even though the QNP is far from the antecedent NP, sentence (70) is perfectly acceptable. (This example is repeated from earlier in this chapter.)

(70) Phyenci-lul nay-ka chinkwu-eykey sek-cang ssessta.
letter-Ac I-Nm friend-Dat three-CL wrote
'I wrote three letters to my friends.'

Note that the closest c-commanding NP chinkwu-eykey is not an eligible antecedent of the QNP, because there is both a case feature clash and a clash in classifier. The QNP sek-cang has a nominative/accusative feature (most likely accusative: recall the restriction on nominative Case Drop when scrambling occurs) and the classifier -cang is compatible only with phyenci 'letter' here. The second-closest NP nay-
ka is also out, because nothing (number, classifier, case) matches. Thanks to the Revised GCR, the QNP can relate to the next c-commanding NP phyenci 'letter'.

4.5.3. NP Licensing

This section is concerned with how the NPs (the antecedent NP and the QNP) in the FQC are licensed in terms of theta-role assignment. Before we examine this, recall that English expressions such as three of my friends and two of the books are often referred to as 'partitive genitive' constructions. They indicate a whole divided into parts, expressed by of. Note that the quantifiers three and two are separated by of from the NPs they are associated with, unlike in three friends and two books. Based on the parallel between the FQC in Korean and the partitive genitive construction in English, I propose that the EC in the QNP gets a partitive role from the FQ.

(71) (Q)NP
  NP  N'  
  |    |    N <partitive>
  |    | FQ
I claim that the QNP is an argument that gets a theta-role directly from the verb. The antecedent NP then receives the partitive role through a chain that includes the pro in the specifier (partitive) position of the QNP. By virtue of being a partitive of the QNP, the antecedent NP is interpreted to have the same theta-role as the QNP, which explains a fundamental property of the FQC (which is a kind of a part-whole construction) with respect to the Theta Criterion.

What then enables the QNPs to have null partitives while other common nouns cannot? Various linguists have observed that part-NPs are 'relational' in the sense that they always have an (implicit) possessor (cf. Tellier (1989), Yoon (1990), Maling & Kim (1992)). Cross-linguistically, relational nouns include body parts and kinship terms. In order to accommodate many Korean speakers' acceptance of DNCs, in which two NPs hold alienable but close relations, I proposed in the preceding chapter that some close alienable things such as car, house, glasses, etc., when they occur in the DNC, are relational. Now I propose to add floated quantifiers to the category of relational nouns. Nouns with relational interpretations may be thought of having an open position for an implicit possessor/partitive. This intuition is clearly manifested in my analysis, pro being an implicit possessor/partitive.
4.5.4. Argument Status of the QNP

I have just claimed that the QNP is an argument. How then can we explain restrictions on the QNP such as scrambling and relativization, which have been attributed to its adjunct status? We will see that those restrictions are in fact due to the GCR and the Theta-Criterion.

4.5.4.1. Scrambling

As we noted in an earlier section, there is a restriction on extracting QNPs in FQCs. The following DNC in (72) from Choi (1988) and the DAC in (73) from O'Grady (1991) illustrate the point:

(72) a. Akka haksayng-i twu-myeng(-i) wassta.
    'Two students came a while ago.'
    a while ago student-Nm two-CL(-Nm) came

b. *Twu-myeng(-i) akka haksayng-i wassta.
    two-CL(-Nm) ago student-Nm came

    'I read three books yesterday.'
    I-Nm book-Ac yesterday three-CL-Ac read

    I-Nm three-CL-Ac yesterday book-Ac read
Let us first examine the DNC in (72). The tree diagrams in (74) and (75) depict (72a) and (72b), respectively. (For the sake of exposition, adverbs are disregarded in the tree diagrams):

Note that in the grammatical (74), the EC is properly licensed by the GCR. In the ungrammatical (75), however, the $e_i$ has no possible antecedent, since it is not c-commanded by the coindexed NP. The result is that the antecedent NP *haksayng*, which is in a non-theta position fails to get any theta-role, violating the Theta-Criterion. Since the NP is supposed to get its theta-role through the pro in the QNP but the QNP is not in the right (c-commanded) position.
Consider now (73). The following tree diagrams in (76) and (77) depict (73a) and (73b), respectively.

(76)

```
S
 /   /
NP VP
 |   |
NPi VP
 |   |
NPi VP
 |   |
NPi N' VP

Nay-ka chayk-ul e sey-kwen-ul ilkessta
```

(77)

```
S
 /   /
NP VP
 |   |
NPj VP
 |   |
NPi N' VP
 |   |
NPi VP
 |   |
NPi V

Nay-ka e sey-kwen-ul chayk-ul t ilkessta
```

In the grammatical (76), the $e_i$ is properly coindexed with the closest c-commanding NP $chayk$. But the $e_i$ in the ungrammatical (77) is coindexed with a non-c-commanding NP $chayk-ul$ after scrambling occurs. The result is that the antecedent NP $chayk$, which is in a non-theta position fails to get any theta-role, violating the Theta-Criterion. Since the NP is supposed to get its theta-role through the pro in the QNP but the QNP is not in the right (c-commanded) position. The subject NP nay 'I' c-commands $e_i$ but it cannot serve as an antecedent of the $e_i$ due to violations of the MC
(number & classifier) and the case agreement requirement between the antecedent NP and the QNP. It also violates the Theta Criterion. The QNP is theta-marked by the verb, and the pro in the QNP transmits a partitive role to the antecedent NP. The NP nay-ka 'I', however, is already in a theta-position.

4.5.4.2. Relativization

As noted earlier, QNPs cannot be relativized, whereas antecedent NPs can (as long as the NP is definite). The following examples (the DNC in (78) and the DAC in (79)) illustrate this:

    the cookies-Nm two-CL-Nm are gone
    'Two of the cookies are gone.'
b. [Twu-kay-ka epseci]-n ku kwaca
    two-CL-Nm are gone-Comp the cookies
    'the cookies of which two are gone'
c. *[Ku kwaca-ka epseci]-n twu-kay
    the cookies-Nm are gone-Comp two-CL
    '*the two of which cookies are gone'

    I-Nm the cookies-Ac two-CL-Ac ate
'I ate two of the cookies.'

b. [Nay-ka twu-kay-lul mek]-un ku kwaca
   I-Nm two-CL-Ac eat-Comp the cookies
   'the cookies of which I ate two'

c. *[Nay-ka ku kwaca-lul mek]-un twu-kay
   I-Nm the cookies-Ac eat-Comp two-CL
   '*the two that I ate of the cookies'

Let us first consider the DNC in (78). The following tree diagrams (80) and (81) correspond to (78b) and (78c), respectively:

---

14 Choo (1990) suggests that relativization involves a base-generated pro rather than movement.
Notice that in the grammatical (80), NP\(_1\) is c-commanded by the coindexed NP\(_2\), which in turn is c-commanded by the coindexed NP\(_3\), satisfying the GCR. In the ungrammatical (81), however, the NP ku kwaca cannot get a theta-role, violating the Theta-Criterion. Since the NP is supposed to get its theta-role through the pro in the QNP but the pro is not in the right (c-commanded) position.

Consider now the DAC in (79). The following tree diagrams (82) and (83) correspond to (79b) and (79c), respectively:

\[
(82)
\]
\[
\]
\[
(83)
\]
Notice that in the grammatical (82), \( NP^{(1)} \) is c-commanded by a coindexed \( NP^{(2)} \), which in turn is c-commanded by a coindexed \( NP^{(3)} \), satisfying the GCR. In the ungrammatical (83), however, the NP \textit{ku kwaca} is not licensed, violating the Theta Criterion. Since the NP is supposed to get its theta-role through the pro in the QNP but the pro is not in the right (c-commanded) position.

4.6. Conclusion

I proposed that FQCs are best explained by positing a pro in the possessor position of a QNP, which is licensed by the Revised GCR. This proposal derives fundamental properties of the distribution of floating Qs from the nature of constituent structure. In particular, it derives the anaphor-like behavior of the NP-Q relation; and it reduces the characterization of the set of NPs from which Qs may float to the theory of control. I have tried not only to describe the properties of floated quantifiers but also to provide reasons why they display the particular properties that they do.
CHAPTER V
CONCLUSION

This dissertation has examined the various manifestations of null pronouns in Korean. The Generalized Control Rule (Huang 1991), which is based on a typological parameter, accounts for the interpretation and distribution of pro in Korean in terms of the interaction of a number of independently motivated and generalized principles of Universal Grammar rather than invoking a new and ad hoc typological parameter. It provides a unified account of several seemingly different phenomena in the Korean language, including topic constructions, relative clauses, inalienable possession constructions, and floated quantifier constructions.

In chapter II, we found that certain islands cease to be islands in sentence-initial position in Korean topic constructions and relative clauses, as in Chinese, and that, with some adjustments, Huang's GCR can be successfully applied to Korean. I revised the GCR by proposing the Matching Condition and the Binding Principles as crucial constraints on the GCR rather than giving up on apparent structural conditions and attributing everything to pragmatic factors.
In Chapter III, I proposed that the DNC/DAC in Korean (inalienable) possession construction is best explained by positing a pro in the possessor position of the part-NP, which is licensed by the Revised Generalized Control Rule. Concerning the argument status of the part-NP, I claimed that it is an argument. We have seen that syntactic restrictions on the part-NP (involving relativization, passivization, and scrambling) do not demonstrate the adjunct status of this element. Rather, they reflect the interaction of the Theta Criterion with the GCR. Other restrictions on the part-NP, such as honorification and reflexivization, are due to the Matching Condition: part-NPs are inanimate while both honorification and reflexivization require a human referent.

In chapter IV, we examined the floated quantifier construction, which is another instance of the double nominative/accusative pattern in Korean. Based on the observation that the FQC can be related to part-whole construction, I proposed that the floated quantifier phenomenon can best be captured by positing a pro in the specifier (partitive genitive) position of the QNP, which is licensed by the Revised GCR. In addition, an extra constraint on the GCR, requiring 'case agreement' between the antecedent NP and the QNP was proposed for Korean FQCs. We also saw that the occurrence of classifiers/case markers in the QNPs should be considered more carefully.
The preceding proposal derives fundamental properties of the distribution of floating Qs from the nature of constituent structure. In particular, it derives the anaphor-like behavior of the NP-Q relation and it reduces the characterization of the set of NPs from which Qs may float to the theory of control. I have tried not only to describe the properties of floated quantifiers but also to provide reasons why they display the particular properties that they do. I believe that my analysis derives desirable predictions about the behavior of the FQC which are left unexplained by alternative hypotheses.

There are quite a few questions that arise from my analysis. Among other things that I leave for further research are:

1. What principles regulate the interpretation of null pronouns in 'logophoric' constructions containing NPs referring to the speaker and the hearer?

   (Nay-ka Cheli-eykeyj [e\text{\textregistered} e\text{\textregistered} salanghanta-ko malhayssta.])
   I-Nm Cheli-Dat love-Comp said
   'I told Cheli that I love him.'

2. How is Case assigned in the DNC/DAC?

3. Are there other patterns to which the analyses can be extended?

4. What is the status (argument or adjunct) of the first NP (whole NP) in 'double Case' construction?
REFERENCES


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