

INFORMATION TO USERS

This manuscript has been reproduced from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps. Each original is also photographed in one exposure and is included in reduced form at the back of the book.

Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 6" x 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.

UMI

A Bell & Howell Information Company
300 North Zeeb Road, Ann Arbor MI 48106-1346 USA
313/761-4700 800/521-0600



Clausal Case Marking in Korean

by

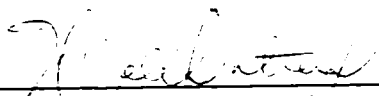
Yongkil Jeong

A dissertation submitted in partial fulfillment
of the requirements for the degree of

Doctor of Philosophy

University of Washington

1998

Approved by 
(Chairperson of Supervisory Committee)

Program Authorized
to Offer Degree Linguistics

Date June 1, 1998

UMI Number: 9907914

UMI Microform 9907914
Copyright 1998, by UMI Company. All rights reserved.


**This microform edition is protected against unauthorized
copying under Title 17, United States Code.**

UMI
300 North Zeeb Road
Ann Arbor, MI 48103

© Copyright 1998

Yongkil Jeong

In presenting this dissertation in partial fulfillment of the requirements for the Doctoral degree at the University of Washington, I agree that the Library shall make its copies freely available for inspection. I further agree that extensive copying of this dissertation is allowable only for scholarly purposes, consistent with "fair use" as prescribed in the U.S. Copyright law. Request for copying of reproduction of this dissertation may be referred to University Microfilms, 1490 Eisenhower Place, P.O. Box 975, Ann Arbor, MI 48106, to whom the author has granted "the right to reproduce and sell (a) copies of the manuscript in microform and/or (b) printed copies of the manuscript made from microform."

Signature 
Date June 11, 1998

University of Washington

Abstract

Clausal Case Marking in Korean

by Yongkil Jeong

Chairperson of the Supervisory Committee:
Professor Heles Contreras
Department of Linguistics

This dissertation investigates morphological features of Korean complementizers *-ko* and *-nun*. I propose that *-ko* and *-nun* are the realizations of accusative and genitive, respectively. The configurations in which the complementizers *-ko* and *-nun* are licensed provide empirical evidence for the proposed analysis. *-Ko* and *-nun* are licensed in the same configurations as the nominal suffixes *-lul* and *-uy*, which are the realizations of accusative and genitive, respectively. Interrogative clauses also provide empirical evidence for the analysis of *-ko* and *-nun* as being associated with case features. *-Ko* and *-nun* are interchangeable with the nominal suffixes *-lul* and *-uy*, respectively.

The analysis of *-ko* and *-lul* as being associated with structural accusative should be revised considering that the latter but not the former is absorbed in passive. In order to account for this, I propose that *-ko* is associated with inherent accusative, whereas the nominal suffix *-lul* is the realization of structural accusative. I extend the analysis to the complementizer *-nun* and claim that *-nun* is associated with inherent genitive and the nominal suffix *-uy* with structural genitive. The analysis of *-ko* and *-nun* as being associated with inherent case is empirically supported by the fact that in various syntactic phenomena *-ko* and *-nun* pattern with postpositions, which are widely assumed to realize

inherent case. I present a new system of case licensing in which structural case is licensed by functional categories in terms of spec-head agreement and inherent case by lexical categories in terms of head-complement relation.

The analysis of *-ko* as being associated with inherent accusative provides a principled account for why ECM takes place in finite but not non-finite clauses in Korean. Finite clauses headed by *-ko* must be licensed via inherent accusative checking by the matrix V, whereas non-finite clauses headed by *-lul* must be licensed by the matrix AgrO. Given this, the subject of finite clauses but not of non-finite clauses can be licensed via structural accusative checking by the matrix AgrO.

TABLE OF CONTENTS

page

Chapter 1: Introduction

1.1. Goals -----	1
1.2. Outline of the Dissertation -----	5
Notes to Chapter 1 -----	9

Chapter 2: Inflectional Morphology in Korean

2.1. Introduction -----	10
2.2. Nominal Projection -----	11
2.2.1. Agreement -----	12
2.2.2. Case -----	16
2.2.3. Postposition -----	24
2.3. Verbal Projection -----	34
2.3.1. Agreement and Tense -----	34
2.3.2. Subordination -----	36
2.3.3. Mood -----	39
2.3.3.1. COMP -----	41
2.3.3.2. MOOD -----	46
2.4. Functional Heads and Inflectional Suffixes -----	49
2.5. Summary -----	57
Notes to Chapter 2 -----	59

Chapter 3: COMP and Case Realization

3.1. Introduction -----	66
3.2. CPs and Case Features -----	73
3.2.1. Case Resistance Principle: Stowell (1981) -----	73
3.2.2. Cross-Linguistic Evidence against the CRP -----	78

3.2.3. Case Realizations on D(P) and C(P) -----	81
3.3. COMPs as Case Realizations -----	86
3.3.1. -Nun and Genitive -----	89
3.3.1.1. Distribution of -Uy and -Nun -----	91
3.3.1.1.1. Complement to N -----	91
3.3.1.1.2. Complement to V -----	94
3.3.1.1.3. Subject -----	96
3.3.1.2. Interrogative -----	97
3.3.1.3. Genitive Checking -----	99
3.3.2. -Ko and Accusative -----	104
3.3.2.1. Distribution of -Lul and -Ko -----	106
3.3.2.1.1. Complement to V -----	106
3.3.2.1.2. Complement to N -----	109
3.3.2.1.3. Subject -----	111
3.3.2.2. Interrogative -----	113
3.3.2.3. Accusative Checking -----	114
3.3.3. Interrogatives -----	117
3.3.3.1. Dual Properties of Interrogatives -----	117
3.3.3.2. Feature Underspecification -----	122
3.3.3.3. Feature Neutralization: Chomsky (1981) -----	127
3.3.4. -Ko in Verbal Adjunct CP -----	132
3.4. Cross-Linguistic Evidence: COMP and Case Features -----	138
3.4.1. Complementizers and Features -----	139
3.4.1.1. English -----	139
3.4.1.2. West Flemish -----	142
3.4.1.3. Bavarian -----	143
3.4.1.4. Diegueño -----	145
3.4.1.5. Summary: Korean -----	146
3.4.2. Parallelism between D(P) and C(P) -----	147
3.4.3. Conversion of Complementizers and Case Markers -----	151
3.5. Summary -----	157
Notes to Chapter 3 -----	158

Chapter 4: COMP and Inherent Case

4.1. Introduction -----	171
4.2. Case Licensing: Inherent and Structural -----	180
4.2.1. Chomsky (1986a) -----	182
4.2.2. Chomsky (1992) -----	184
4.2.3. Fukui (1986) and Abney (1987) -----	185
4.2.4. Mahajan (1990), Murasugi (1992) and Woolford (1997) -----	188
4.2.5. Korean -----	193
4.3. -Ko and Inherent Accusative -----	197
4.3.1. Passivization -----	198
4.3.2. Case Drop -----	206
4.3.3. Interactions with Delimiters -----	213
4.3.4. Morphological Structure -----	219
4.4. V as Inherent Case Licensor -----	225
4.4.1. Uniformity Condition: Chomsky (1986a) -----	225
4.4.2. English -----	227
4.4.3. Chichewa: Baker (1988b) -----	233
4.4.4. Partitive Case: Belletti (1988) and Enç (1989) -----	235
4.5. -Nun and Inherent Genitive -----	239
4.5.1. Morphological Evidence -----	240
4.5.1.1. Case Drop -----	241
4.5.1.2. Interaction with Delimiters -----	242
4.5.1.3. -Uy and Postposition -----	244
4.5.2. Genitive: Structural or Inherent? -----	246
4.5.2.1. Genitive as Inherent -----	246
4.5.2.2. Genitive as Structural -----	248
4.5.3. Summary: Inherent vs. Structural Genitive -----	253
4.5.4. Korean -----	255
4.6. Overlapping of Case Licensing -----	262
4.6.1. Licensing of Checkees -----	262
4.6.2. Licensing of Checkers: Optionality of Feature Checking -----	268
4.7. Summary -----	275
Notes to Chapter 4 -----	277

Chapter 5: ECM Constructions

5.1. Introduction -----	288
5.2. Finite vs. Non-finite Clauses -----	290
5.2.1. Features of INFL: Agreement and Tense -----	290
5.2.2. External Distribution -----	293
5.3. DP Analysis of -Um and -Ki Constructions -----	297
5.3.1. Abney (1987): D-IP Analysis of English POSS-ING -----	298
5.3.2. POSS-ING and -Um and -Ki Constructions -----	299
5.3.3. D-MP Analysis of -Um and -Ki Constructions -----	302
5.3.4. N-Features of -Um and -Ki -----	305
5.4. Inherent Case Approach to ECM Constructions -----	308
5.4.1. ECM in English and Korean -----	308
5.4.2. Analysis of Korean ECM -----	312
5.5. Summary -----	318
Notes to Chapter 5 -----	319
Bibliography -----	324

LIST OF ABBREVIATION

Acc: Accusative
C: Complementizer
D: Determiner
Dat: Dative
Dec: Declarative
Def: Definiteness
Del: Delimiter
Fut: Future Tense
Gen: Genitive
Hon: Honorification
Imp: Imperative
Int: Interrogative
Loc: Locative
Nom: Nominative
Past: Past Tense
Perf: Perfective
Pl: Plural
Pres: Present Tense
Prop: Propositive
Sg: Singular
Sub: Subordination
Top: Topic

ACKNOWLEDGMENTS

I would like to express my sincere gratitude to my supervisory committee members: Heles Contreras, Frederick J. Newmeyer, Soowon Kim, and Sharon Hargus. First of all, I sincerely thank Heles Contreras, my dissertation advisor, for his patient and warm-hearted guidance, helpful and insightful comments, and constant and friendly encouragement. I cannot thank him enough. I am also grateful to Frederick J. Newmeyer for his encouragement and for referring me to references which became valuable supporting arguments for my dissertation. I am also thankful to Soowon Kim for his constant advice and fruitful suggestions. I owe a word of special thank to Sharon Hargus for her encouragement and interest in my dissertation as well as for her kindness and willingness to work on Korean phonology with me.

I would like to thank other faculty members in the department of Linguistics, whose classes helped me to broaden my understanding of linguistics: Karen Zagona, Michael Brame, Toshiyuki Ogihara, Ellen Kaisse. A word of thanks should also go to my colleagues in the department, who made my academic and social life more enjoyable in a way or another: Donna Andrews, Kristin Denham, Maria Galvao, Michael Gamon, Kyu-Hong Hwang, Jaeyoon Kim, Soohee Kim, Tai-Soo Kim, Yoon-Kon Kim, Hee-Bok Jung, Jeeya Lim, James Lyle, Hideo Makihara, Kumiko Makihara, David Moon, Seung Chul Moon, Antxon Olarrea, Young Park, Lorna Rozelle, Younghwan Suh, Alice Taff, Youngdo Yoon, Hiromi Yamamoto. Special

thanks are due to Tai-Soo Kim, who seemed to be always thinking about how he could help me and my family. I hope I will have a chance in the future to repay him for his kindness and help.

I am deeply grateful to my teachers in the department of English language and literature at Seoul National University. I would like to thank Dong-Whee Yang, who was my advisor and encouraged me to become a linguistics major. I am also greatly indebted to Nahm-Sheik Park, who has always been supportive of me in various ways. Without his support and encouragement, I could not have come to the United States. I also thank other teachers in the department, Byung Tae Cho, Choon-Hak Cho, Byung-Gun Lee, and In-Sook Kim, from whom I learned various fields of linguistics.

A special word of thanks should go to the Korean language program in the department of Asian languages and literatures at the University of Washington, which gave me an opportunity to teach Korean for two years. The program gave me not only financial support but also a cozy office in which I always found myself really focused on my dissertation. I thank my supervisors, Ik-Hwan Choi and Ann Sunghee Lee as well as my colleagues, Myungkee Min, So-Min Cheong, and Woo-Kwang Jung. I also thank all my students for providing me with valuable insights about the Korean language by asking questions which Korean native speakers would never have thought of or by making mistakes which could not have been imagined

by native speakers. Those questions and mistakes proved to be important parts of my dissertation.

I would like to thank God for giving me a wonderful family and an opportunity to study in the United States. I also thank my former pastor Richard Denny, current pastor Todd Webber, and every church member for constantly praying for my family and helping us live a spiritual life in Jesus Christ. Finally, I would like to thank my family. I thank my mother, parents-in-law, brothers, sisters, and brothers- and sisters-in-law for their prayers, emotional and financial support, and warm-hearted encouragement. My deepest gratitude should be reserved for my wife, Jeong-Ju, for her prayer, sacrifice, encouragement, and support. My two sons, Kwang-Sik and Woo-Sik, also deserve a word of thanks for providing me with tremendous joy and meaningfulness. This dissertation is dedicated to my wife and sons.

CHAPTER 1

Introduction

1.1. Goals

The primary purpose of this study is to provide a principled account of how Korean complementizers *-ko* and *-nun* are licensed or what features they are associated with. It has been observed that cross-linguistically the category C (or complementizer) is the locus of and may be overtly inflected for a wide variety of morphological features (Bennis and Haegeman 1984, Bayer 1984, Emonds 1985, Rizzi 1991, and Grimshaw 1991). This provides a clue to the question of why a given language employs morphologically different complementizers: *that* and *for* in English (Emonds 1985) and *da* and *dan* in West Flemish (Bennis and Haegeman 1984). In this study, I investigate what morphological features are associated with Korean complementizers *-ko* and *-nun* and propose that the complementizers *-ko* and *-nun* are associated with case features, i.e., accusative and genitive, respectively.

With respect to inflectional morphology in Korean, I assume that the head D is the locus of case features in Korean (Ahn and Yoon 1989 and Bak 1990). Specifically, I assume that the so-called nominal case suffixes *-ka*, *-lul*, and *-uy* are associated with structural case, whereas postpositions such as *-ey* and *-eykey* with inherent case (Baker 1988b and Kim 1990). With respect to the morphological realization of case features, I claim that case features are realized on the head of the projection which enters into a case-checking relation. That is, case features are realized on the head D when associated with

DP and on the head C when associated with CP. This implies that case features are realized as nominal suffixes when associated with DP and as verbal suffixes when associated with CP.

The configurations in which the complementizers *-ko* and *-nun* are licensed provide empirical evidence for the analysis of *-ko* and *-nun* as being associated with case features. A close investigation of the distributions of *-ko* and *-nun* clearly reveals that the former is restricted to the domain of verbal complement, whereas the latter to the domain of nominal complement. In other words, the complementizer *-ko* is licensed in the complement to V but not N, whereas *-nun* is licensed in the complement to N but not to V. Neither *-ko* nor *-nun* is licensed in subject position. These facts about the distributions of *-ko* and *-nun* strongly suggest that they are associated with case features, i.e., the former being associated with accusative and the latter with genitive, given the widely accepted assumption that V and N are the categories responsible for accusative and genitive, respectively (Chomsky 1986a and 1995).¹

The analysis of the complementizers *-ko* and *-nun* as being associated with accusative and genitive predicts that *-ko* and *-nun* are licensed in the same configurations as nominal suffixes *-lul* and *-uy*, which are the morphological realizations of accusative and genitive. This prediction turns out to be correct. The accusative suffix *-lul* is licensed in the complement to V but not to N, whereas the genitive suffix *-uy* is licensed in the complement to N but not to V. Neither *-lul* nor *-uy* is licensed in subject position. It is therefore clear that the complementizers *-ko* and *-nun* share case features with the nominal suffixes *-lul* and *-uy*, respectively. Interrogatives in Korean provide clearer

evidence for the proposed analysis of *-ko* and *-nun* as being associated with case features. The complementizers *-ko* and *-nun* are interchangeable with the nominal suffixes *-lul* and *-nun*, respectively.

An investigation of passive constructions in Korean further suggests that the complementizers *-ko* and *-nun* are associated with inherent accusative, not with structural accusative. The accusative nominal suffix *-lul* but not the complementizer *-ko* is absorbed in passive. Adopting the notion of inherent case in Belletti (1988) and Enç (1989), I propose that the verbal suffix *-ko* is associated with inherent accusative and the nominal suffix *-lul* with structural accusative. Extending the analysis of *-ko* to *-nun*, I claim that the verbal suffix *-nun* is associated with inherent genitive and the nominal suffix *-uy* with structural genitive. The analysis of *-ko* and *-nun* as being associated with inherent case is empirically supported by the fact that they pattern with postpositions, which are argued to be realizations of inherent case (Baker 1988b and Kim 1990). Postpositions in Korean can co-occur with but not be suppressed by topic marker *-nun*. The complementizers *-ko* and *-nun* can co-occur with but not be suppressed by the topic marker. The nominal suffixes *-lul* and *-uy*, on the other hand, can be suppressed by but not co-occur with the topic marker. With respect to the case drop phenomenon, the complementizers *-ko* and *-nun* pattern with postpositions in that neither *-ko* and *-nun* nor postpositions can be dropped. Unlike the verbal suffixes *-ko* and *-nun*, the nominal suffixes *-lul* and *-uy* can be dropped. The verbal suffixes *-ko* and *-nun* are further distinguished from the nominal suffixes *-lul* and *-uy* in terms of morphological structures. The former are followed by

delimiter *-man*, whereas the latter are preceded by *-man*.² Postpositions pattern with *-ko* in that they are followed by *-man*.

With respect to licensing of inherent and structural case, I claim that inherent case is invariably licensed by lexical heads in terms of the head-complement relation, whereas structural case is licensed by functional heads in terms of spec-head agreement. Specifically, I argue that the verbal suffix *-ko*, which is associated with inherent accusative, must be licensed by V in terms of the head-complement relation, whereas the nominal suffix *-lul*, which is the realization of structural accusative, must be licensed by AgrO in terms of the spec-head agreement. Extending this analysis to nominal projections, I claim that the verbal suffix *-nun* associated with inherent genitive must be licensed by N, whereas the nominal suffix *-uy* associated with structural genitive must be licensed by D.

It is well-known that English allows ECM only in non-finite clauses, whereas Korean allows ECM only in finite clauses. The analysis of *-ko* as being associated with inherent accusative provides a principled account of why ECM is restricted to finite clauses in Korean. Based upon the fact that non-finite clauses in Korean, i.e., *-um* and *-ki* constructions are headed by the nominal case suffixes such as *-ka*, *-lul*, and *-uy*, I claim that in Korean finite and non-finite clauses project CPs and DPs, respectively. Given this, a non-finite clause as a complement to V should be licensed by the matrix AgrO since the whole complement is associated with structural accusative, which is realized as the nominal suffix *-lul*. The embedded subject cannot be licensed via structural accusative checking by the matrix AgrO since the feature of the matrix AgrO is already checked off

against the entire complement. A finite clause, on the other hand, is licensed via inherent accusative checking by the matrix verb and the embedded subject can be licensed via structural accusative checking by the matrix AgrO.

1.2. Outline of the Dissertation

The organization of this dissertation is as follows. In chapter 2, I discuss nominal and verbal projections in Korean. With respect to nominal projections, I argue that the category D is the locus of agreement and case features (Haegeman 1991). This implies that not only nominal case suffixes *-ka*, *-lul*, and *-uy* but also postpositions such as *-ey* and *eykey* are Ds (Ahn and Yoon 1989 and Bak 1990). I assume that the nominal case suffixes are the realizations of structural case, whereas postpositions are the realizations of inherent case (Baker 1988b and Kim 1990). With respect to verbal projections, I assume that the subordinators *-ko* and *-nun* are complementizers (Choe 1988, Ahn and Yoon 1989, Jung 1992, and Kim 1996). The verbal suffixes *-ta*, *-nya*, *-ca*, and *-la*, which serve to mark mood features, will be assumed to be the head M(ood) (Ahn and Yoon 1989). Following Halle and Marantz (1992), I will assume that functional heads are the locus of inflectional suffixes, which are associated with relevant morphological features (Chomsky 1995: 238).

In chapter 3, I provide a new analysis of Korean complementizers *-ko* and *-nun*. Based upon the configurations in which *-ko* and *-nun* are licensed, I propose that *-ko* is the morphological realization of accusative, whereas *-nun* is the realization of genitive. The proposed analysis of the complementizers *-ko* and *-nun* as being associated with case

features is empirically evidenced by the fact that *-ko* and *-nun* are licensed in the same configuration as the nominal suffixes *-lul* and *-uy*, which are the realizations of accusative and genitive, respectively.

The observation that the category C may be associated with agreement features (Bennis and Haegeman 1984) allows us to suggest that the head C may be associated with case features in Korean. Given the cross-linguistic evidence that the category D is the locus of agreement and case features, it seems quite plausible to assume that the head C may be associated with agreement and case features. The analysis of *-ko* and *-nun* as being associated with case features is also theoretically supported by Emonds (1985) who suggests that complementizers are of the category P, which I argue to be the realization of inherent case (Baker 1988b and Kim 1990). Cross-linguistically, it has long been observed that case markers and complementizers converge in various languages (Starosta 1972, Moravcsik 1972, Hinds 1973, Gorbet 1973, and Joseph 1975). A parallelism found between C(P) and D(P) (Rizzi 1990 and Siloni 1991 and 1995) also provides a supporting argument for the proposed analysis of the complementizers *-ko* and *-nun* as being associated with case features.

In chapter 3, I also discuss adjunct CPs headed by the complementizer *-ko* and show that the verbal suffix *-ko* licensed in complement CPs differs from *-ko* in adjunct CPs. I claim that the former is the realization of accusative, whereas the latter is just a postpositional complementizer, which is not associated with case features. Interrogative clauses are also discussed in chapter 3. Interrogatives in Korean show dual properties, i.e., both nominal and verbal properties, which is evidenced by the fact that they may be

headed by the verbal suffixes *-ko* and *-nun* or the nominal suffixes *-ka*, *-lul*, and *-uy*. I propose that unlike other sentential endings, the interrogative *-nya* is not specified for N-features so that the projections of *-nya* can be taken either by [+N] categories or [-N] categories. The proposed analysis of Korean interrogatives is supported by Abney's (1987) D-IP analysis of English gerunds.

Chapter 4 presents a revised analysis of the complementizers *-ko* and *-nun* presented in chapter 3. The verbal suffixes *-ko* and *-nun* are distinguished from the nominal suffixes *-lul* and *-uy* in terms of various morpho-syntactic phenomena. I propose in chapter 4 that the verbal suffixes *-ko* and *-nun* are associated with inherent case, whereas the nominal suffixes *-lul* and *-uy* are associated with structural case. The revised analysis of *-ko* and *-lul* provides a principled account of why the latter but not the former is absorbed in passive. It is widely assumed that structural but not inherent case is absorbed by passivized verbs (Jaeggli 1986, Roberts 1987, Baker et al. 1988, and Haegeman 1991).

The revised analysis of *-ko* as being associated with inherent accusative is also empirically supported by the fact that *-ko* patterns with postpositions in terms of various morpho-syntactic phenomena: (i) the nominal suffix *-lul* but not the complementizer *-ko* and postpositions, say, *-ey*, is absorbed in the passive, (ii) *-lul* but not *-ko* and *-ey* can be dropped, (iii) *-lul* but not *-ko* and *-ey* can be suppressed by topic marker, and (iv) *-ko* and *-ey* but not *-lul* can co-occur with the topic marker.

Further the morphological structures of verbal and nominal projections more clearly suggest that *-ko* is associated with inherent (accusative) case. Both the

complementizer *-ko* and the nominal suffix *-lul* can co-occur with a restricted number of delimiters such as *-man* ‘only’. Postpositions can also co-occur with *-man*. Morphological structures of verbal and nominal projections show that *-ko* occupies the same position as postpositions in connection with the delimiter *-man*. The complementizer *-ko* is followed by *-man*, whereas the nominal suffix *-lul* is preceded by *-man*. Postpositions such as *-ey* and *eykey*, which are associated with inherent case, patterns with the verbal suffix *-ko*, i.e., they are followed by *-man*.

Chapter 5 deals with the so-called Exceptional Case Marking in Korean. It has long been a puzzling problem why ECM is restricted to the subject of embedded tensed clauses (*-ko* constructions) but not infinitives (*-ki* constructions) and gerunds (*-um* constructions) in Korean. This can be accounted for in a principled manner under the analysis of *-ko* as being associated with inherent accusative. Given the assumption that in Korean finite (*-ko* constructions) and non-finite clauses (*-um* and *-ki* constructions) project CPs and DPs, respectively, *-ko* complements must be licensed by the matrix verb, whereas *-um* and *-ki* complements must be licensed by the matrix AgrO. Therefore the matrix AgrO may license the embedded subject via structural accusative checking in *-ko* complements but not *-um* and *-ki* complements.

Notes to Chapter 1

1. In chapter 3, I will assume with Chomsky (1986a and 1995) that accusative and genitive are licensed by V and N, respectively. In chapter 4, however, I will argue that structural accusative and genitive are licensed by AgrO and D, whereas inherent accusative and genitive are licensed by V and N.
2. It will be shown in chapter 4 that the complementizer *-nun* is distinguished from the complementizer *-ko* in that the latter but the former can co-occur with topic marker *-nun* or delimiters such as *-man*.

CHAPTER 2

Inflectional Morphology in Korean

2.1. Introduction

Nouns and verbs in Korean are morphologically inflected for a wide variety of morphological features. Nouns, for example, are overtly inflected for agreement and case features as shown in (1a). Verbs, on the other hand, are overtly inflected for agreement, tense, and mood features as illustrated in (1b). These features are realized as inflectional suffixes.¹

(1) a. *haksayng-tul-ka o-ass-ta.*

student-Pl-Nom come-Past-Dec

‘The students came.’

b. *Joe-ka [apeci-ka o-si-ass-ta-ko] mit-ass-ta.*

Joe-Nom father-Nom come-Hon-Past-Dec-C believe-Past-Dec

‘Joe believed that his father came.’

The nominal suffixes *-tul* and *-ka* in (1a) are associated with number agreement ([+Pl]) and case ([+Nom]), respectively. The verbal suffixes *-si*, *-ass*, *-ta*, and *-ko* in (1b), on the other hand, are associated with honorific agreement ([+Hon]), tense ([+Past]), mood ([+Dec]), and subordination ([+Sub]), respectively. In this chapter, I discuss the relationships among morphological features, inflectional suffixes, and functional categories in Korean.

The organization of this chapter is as follows. In 2.2, I discuss nominal projections in Korean. I argue that functional head D is the locus of agreement and case features. I also argue that the so-called postpositions are of the category D and therefore that they are associated with case features. Specifically, I claim that the so-called nominal case suffixes *-ka*, *-lul*, and *-uy* are associated with structural case, whereas postpositions such as *-ey* and *-eykey* are associated with inherent case. (Baker 1988b, Bak 1990, and Kim 1990). In 2.3, I discuss verbal projections in Korean. I will critically review various analyses of subordinators and sentential endings and argue that subordination and mood marking are associated with the functional categories C and M, respectively. In 2.4, I argue that functional heads should be the locus of inflectional suffixes with features (Halle and Marantz 1992 and Chomsky 1995). In 2.5, I summarize the relationships between morphological features and inflectional suffixes.

2.2 Nominal Projection

In Korean, nouns are morphologically inflected for agreement and case features, which are realized as nominal suffixes. In this section, I discuss the relationships among formal features, inflectional heads, and functional heads within nominal projections. I argue that the head D is associated with agreement and case features and that the so-called postpositions are also of the category D, thus being associated with case features. Specifically, I claim that the nominal case suffixes are associated with structural case and the postpositions with inherent case.

2.2.1. Agreement

In Korean, nouns and pronouns are morphologically inflected for number agreement but not for gender and person.² Observe the examples in (2).

- (2) a. Haksayng- ϕ -ka chayk- ϕ -lul sa-ass-ta.
 student-Sg-Nom book-Sg-Acc buy-Past-Dec
 ‘The student bought the book.’
- b. Haksayng-tul-ka chayk-tul-lul sa-ass-ta.
 student-Pl-Nom book-Pl-Acc buy-Past-Dec
 ‘The students bought the books.’

The nominal suffix *-tul* in (2b) is invariably associated with the feature [+Pl], regardless of the other members of agreement features, i.e., gender and person. The feature [-Pl], on the other hand, is specified by a null suffix as illustrated in (2a).³ The data in (2) lead us to conclude that each DP in Korean is associated with number agreement.

Nouns in Korean show another type of agreement feature, which is referred to as honorific agreement. Nouns may be overtly inflected for honorific agreement. Consider the examples in (3).

- (3) a. aki-ka
 baby-Nom
- b. apeci-kkeyse
 father-Nom/Hon

- (4) a. aki-eykey
 baby-Dat
- b. apeci-kkey
 father-Dat/Hon

The nominal suffix *-kkeyse* in (3b) is the morphological realization of [+Nom] and [+Hon], whereas the suffix *-ka* in (3b) is that of [+Nom] and [-Hon]. Similarly, the nominal suffix *-kkey* in (4b) is the overt realization of [+Dat] and [+Hon], whereas the suffix *-eykey* in (4a) is that of [+Dat] and [-Hon]. I assume that honorific agreement is a member of agreement features in Korean.⁴

Under the DP-analysis of noun phrase suggested in Fukui and Speas (1986) and Abney (1987), the functional category D is widely argued to be associated with agreement features. In languages like German and French, lexical determiners are morphologically inflected for agreement features. First, observe the German examples in (5) - (7), cited from Haegeman (1991).

- (5) a. der Mann
 the man ‘masculine singular’
- b. die Manner
 the men ‘masculine plural’

(6) a. die Frau
the woman 'feminine singular'

b. die Frauen
the women 'feminine plural'

(7) a. das Kind
the child 'neuter singular'

b. die Kinder
the children 'neuter plural'

The examples (a) and (b) in (5) through (7) clearly show that the determiners are overtly inflected for number agreement. The examples (5a), (6a), and (7a), on the other hand, indicate that the determiners are also inflected for gender agreement. From the data in (5) through (7), therefore, it is clear that the category D (or determiners) is the locus of agreement features in German.

The overt morphological realizations of agreement features on lexical determiners can also be found in French. Observe the examples in (8) and (9).

(8) a. le livre
the book 'masculine singular'

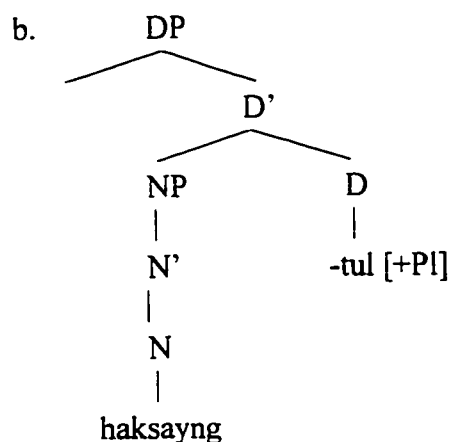
b. les livres
the books 'masculine plural'

- (9) a. la voiture
 the car ‘feminine singular’
- b. les voiture
 the cars ‘feminine plural’

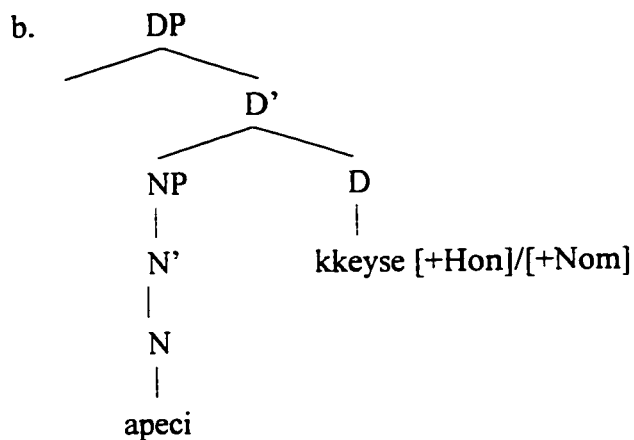
The examples (8a) and (8b) as well as (9a) and (9b) indicate that the determiners are overtly inflected for number agreement. The examples (8a) and (8b), on the other hand, indicate that the determiners are morphologically inflected for gender agreement. Given the widely accepted assumption that lexical determiners are of the category D (Fukui and Speas 1986, Abney 1987, and Olsen 1989, among others), it is clear that the head D is the locus of agreement features in German and French.

Adapting this line of argument to Korean, I will claim that the functional category D is the locus of agreement features in Korean. Consider (10b) and (11b).⁵

- (10) a. haksayng-tul
 student-Pl



(11) a. apeci-kkeyse
father-Hon/Nom



The number agreement feature on the head D in (10b), i.e., [+Pl], and the honorific agreement feature of the head D in (11b), i.e., [+Hon], project to the maximal projection DPs, which enter into a checking relation with relevant functional categories to have their features checked.

2.2.2. Case

Fully inflected noun phrases, i.e., DPs, are typically associated with case features as well as agreement features. Cross-linguistically, it has long been observed that the functional head D is associated with case features (Emonds 1985, Abney 1987, and Olsen 1989). In various languages, lexical determiners are morphologically inflected for case features. Let us consider German determiners again. As pointed out by Olsen (1989), case features are relevant to the morphological realizations of lexical determiners in German. This is a

clear indication that the head D is the locus of case features in German.⁶ Observe the examples in (12).

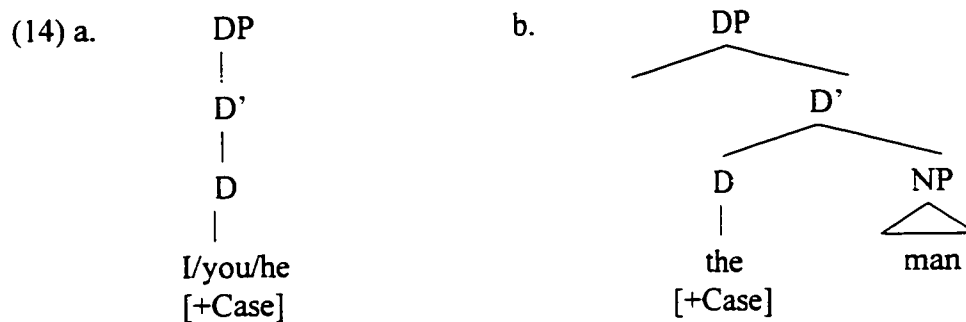
- (12) a. *der* Lehrer
 the-Nom teacher
- b. *den* Lehrer
 the-Acc teacher

As illustrated in (12), case features such as [+Nom] and [+Acc] are overtly marked on the lexical determiners which are of the category D. It is quite clear, therefore, that the category D is the locus of case features in German. Bavarian also shows that case features are morphologically marked on lexical determiners, which suggests that case features are associated with the head D. Observe the examples in (13), cited from Bayer (1984).

- (13) a. *dem* Mo
 the-Dat man
- b. *den* Mo
 the-Acc man

The lexical determiners *dem* and *den* in (13), which are the head D, are morphologically inflected for case features, which confirms that case features are associated with the head D in Bavarian.

Olsen (1989) argues that German pronouns, which are overtly inflected for case features, are of the category D. This confirms the argument that the head D is associated with case features in German. Abney (1987) also provides supporting evidence that the head D is the locus of case features by arguing that English pronouns are of the category D. Given that English pronouns are morphologically inflected for case features, it is not implausible to assume that the head D is the locus of case features, although it is not overtly realized in case of regular determiners. Consider the configurations in (14).



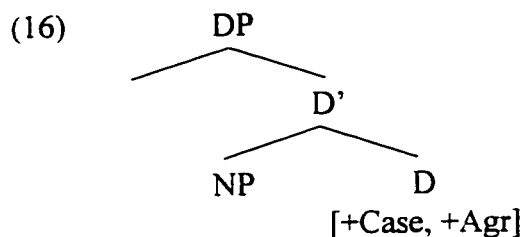
In (14a), case features are overtly realized on the head D, whereas they are not morphologically realized on the head D in (14b). As the null hypothesis, however, one can argue that the head D is the locus of case features in English.⁷

Nouns in Korean are morphologically inflected for case features. Like agreement features, case features are overtly realized as nominal suffixes. Observe the examples in (15). The nominal suffixes *-ka*, *-lul*, and *-uy* in (15) are the morphological realizations of nominative, accusative, and genitive, respectively.

(15) a. aki-ka kicha-lul coaha-n-ta.
 baby-Nom train-Acc like-Pres-Dec
 ‘The baby likes his/her train.’

b. aki-uy kicha-lul sa-ass-ta.
 baby-Gen train-Acc buy-Past-Dec
 ‘I bought the baby’s train.’

Given that the morphological realizations of case features are invariant in Korean, it seems plausible to assume an independent syntactic category for case features. I argue that it is the head D that is associated with case features in Korean. Given the argument in 2.2.1 that the head D is associated with agreement features, we are led to conclude that the head D is the locus of agreement and case features in Korean.



The features of the head D project to the whole DP and the DP enters into a checking relation with relevant categories to have the features checked.

It has been argued in the literature on Korean syntax that the head D is the locus of case features. Ahn and Yoon (1989) and Bak (1990), for example, propose that the nominal case suffixes in (15) are of the functional category D. Their argument goes as follows. Korean is head-final. Given the assumption that noun phrases are DPs (Fukui

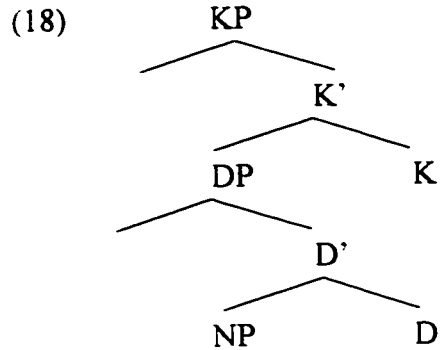
1986 and Abney 1987), it is predicted that in Korean the head D appears in the final position of a noun phrase. It is in fact the nominal case suffixes that appear in the final position of a noun phrase. Therefore it follows that the case suffixes are the head D of DP.

There exists further morphological evidence that both agreement and case features are associated with the head D in Korean. Let us consider (3b) and (4b) again, repeated here.

- (17) a. *apeci-kkeyse*
 father-Nom/Hon
- b. *apeci-kkey*
 father-Dat/Hon

It is clear that the nominal suffix *-kkeyse* in (17a) is the morphological realization of agreement and case features, i.e., [+Hon] and [+Nom]. The suffix *-kkey* in (17b), on the other hand, is the morphological realization of [+Hon] and [+Dat]. If we assume that those suffixes are of the category D, then it follows that the head D is the locus of agreement and case features in Korean.

Cross-linguistic evidence has been provided that case suffixes or case particles should be analyzed as independent syntactic heads. Bittner and Hale (1996a), for example, suggest that case is a functional head, which they refer to as K.⁸ Under their analysis, case-marked nominals have the following structure.⁹



Bittner and Hale's (1996a) argument that case is a functional head is supported by the fact that in head-initial languages like Khasi and Samoan case particles appear in the initial position of case-marked nominals. Observe the following examples, cited from Bittner and Hale (1996a).

(19) a. Khasi (Mon-Khmer: Assam, India)

Ka la yo''ii [ya 'u khlaa].

she Past see Acc the tiger

'She saw the tiger.'

b. Samoan (Austronesian: Samoa)

'olo'o uli [e le teine] le ta'avale.

Prg drive Erg the girl the car

'The girl is driving the car.'

The case particles *ya* and *e* in (19), which are associated with accusative and ergative, respectively, are licensed in the initial position of the case-marked nominals, i.e., outside

the determiners, which are argued to be the head D. Therefore the examples in (19) suggest that we need an independent syntactic category for case features.

The argument that case is a functional head predicts that case suffixes or particles appear in the final position of case-marked nominals in head-final languages. It is indeed confirmed by the data in (20), also cited from Bittner and Hale (1996a).

(20) a. Miskitu (Misumalpan: Nicaragua)

Vaitna ba [sula ba ra] kaik-an.

Man the deer the Acc see-Past.3

‘The man saw the deer.’

b. Shokleng (Ge: Central Brazil)

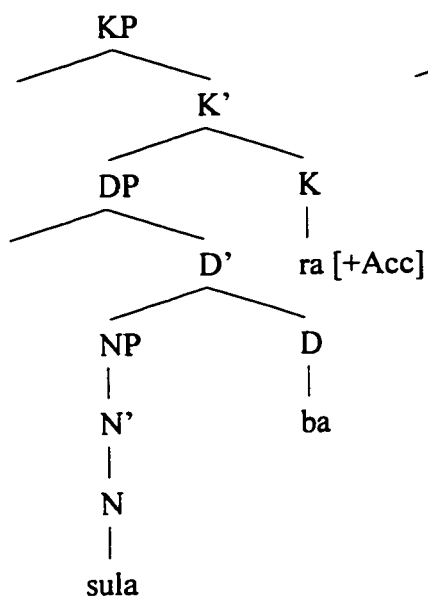
[Ti to] e kuyan te kupe wa.

he Erg his body the wash Prg

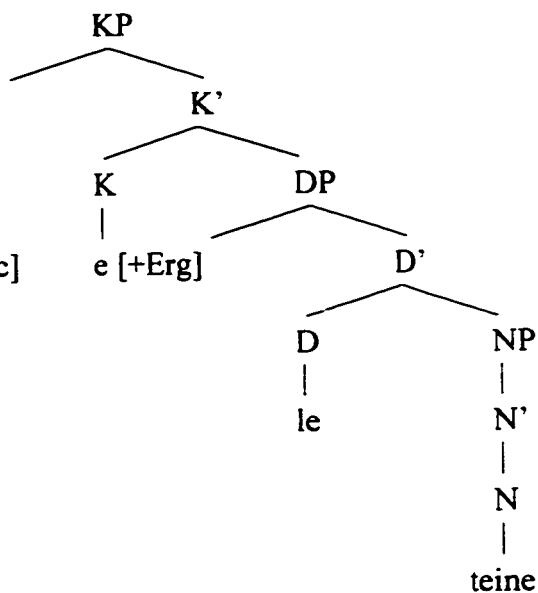
‘He is washing his body.’

Both Miskitu and Shokleng are defined as head-final. As illustrated in (20), the case particles *ra* and *to* appear in the final position of the case-marked nominals, which strongly suggests that they are the head of the entire noun phrases. Like in Khasi and Samoan, the case particles appear outside the determiners, which suggests that they are not the head D but a head which lies outside DP. The data in (19) and (20) are therefore nicely accounted for under Bittner and Hale’s (1996a) analysis. Consider the configurations in (21).

(21) a. Miskitu

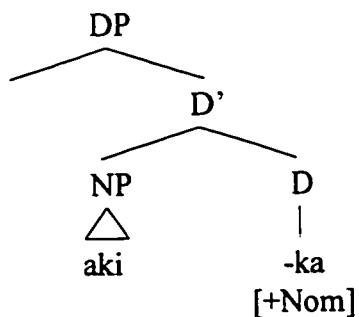


b. Samoan

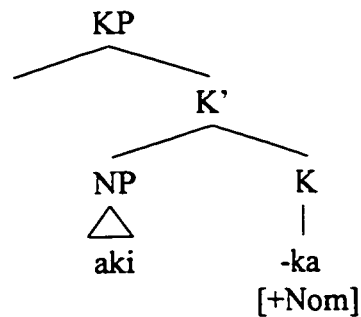


Korean falls under the same category as Miskitu and Shokleng in that it is head-final. As in Miskitu and Shokleng, the nominal case suffixes appear in the final position of case-marked nominals in Korean, which strongly suggests that the case suffixes are the head of case-marked nominals in Korean. Given that a single head may be the locus of multiple features, there are two possible structures for case-marked DPs in Korean.

(22) a.



b.



As the term ‘K’ indicates, the head K in (22b) is assumed to be exclusively associated with case features but not with agreement features. Further we have seen that case and agreement features may be realized as a single suffix in Korean, which supports (22a) over (22b). The maximal projection DP in (22a) inherits the feature [+Nom] from the head D and enters into a case-checking relation.

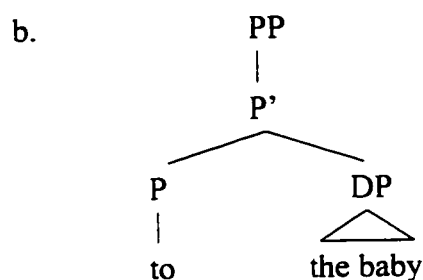
2.2.3. Postposition

We have seen in 2.2.2 that Korean has a group of nominal suffixes which are the overt realizations of case features. Korean has another group of nominal suffixes called “postpositions”. Observe the examples in (23).

- (23) a. Joe-ka aki-eykey panci-lul cu-ass-ta.
 Joe-Nom baby-Dat ring-Acc give-Past-Dec
 ‘Joe gave a ring to the baby.’
- b. Joe-ka pancil-lul cangca-ey ne-ass-ta.
 Joe-Nom ring-Acc box-Loc put-Past-Dec
 ‘Joe put the ring in the box.’

The nominal suffixes *-eykey* and *-ey* in (23) are traditionally referred to as postpositions. They pattern with prepositions in English in that they have their own semantic interpretations. In English, postpositions are argued to constitute an independent syntactic category P.

(24) a. Joe gave it [to the baby].



It is not quite clear, however, whether postpositions belong to the category P in Korean. Let us compare the case-marked noun phrases in (25) and the postpositional phrases in (26).

(25) a. aki-ka
baby-Nom

b. sangca-lul
box-Acc

(26) a. aki-eykey
baby-Dat

b. sangca-ey
box-Loc

The postpositions *-eyky* and *-ey* in (26) are not distinguished from the case suffixes *-ka* and *-lul* in (25) in that both attach to stem nouns. More importantly, the postpositions and the case suffixes occupy the same morphological position, i.e., both follow the stem

nouns. Further, observe the following examples, which more clearly show that the postpositions and the case suffixes occur in the same morphological position.

(27) a. aki-tul-ka

baby-Pl-Nom

b. sangca-tul-lul

box-Pl-Acc

(28) a. aki-tul-eykey

baby-Pl-Dat

b. sangca-tul-ey

box-Pl-Loc

The data in (27) and (28) show that both the postpositions and the case suffixes immediately follow the plural suffix, which is a clear indication that they are in the same morphological position. Further, the postpositions cannot co-occur with the case suffixes in Korean. Observe the examples in (29).¹⁰

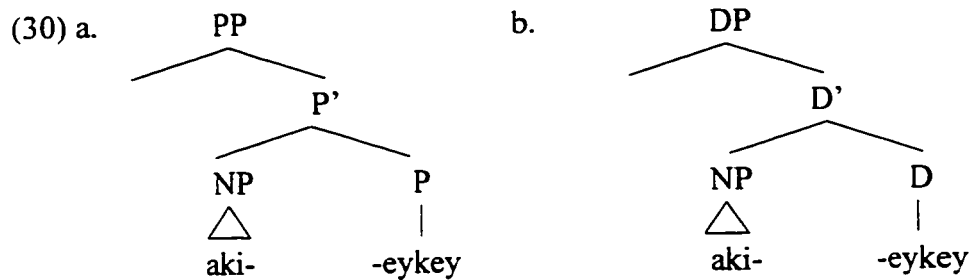
(29) a. *aki-eykey-lul

baby-Dat-Acc

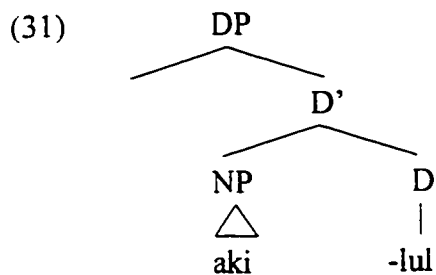
b. *aki-lul-eykey

baby-Acc-Dat

Given the similarities and the differences between the postpositions and the case suffixes in Korean, we are faced with a question, i.e., whether the postpositions constitute an independent syntactic category P or they are of the same category as the case suffixes. Consider the possible configurations of postpositional phrases in Korean as given in (30).

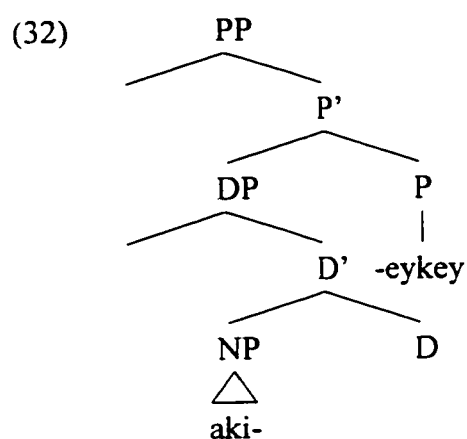


If we assume (30a) as the structure of postpositional phrases, then we need to assume two independent syntactic categories, i.e., D and P, both of which select NP complements. Compare (30a) and (31).



If we assume (30b) for the structure of postpositional phrases, on the other hand, we can have a unified structure of regular nominal projections and postpositional phrases. Intuitively, therefore, (30b) seems to be the better alternative.

There arises a further problem with the structure (30a) considering properties of the category P. Given that it is a universal property that P selects DP complements, the structure (30a) should provide an answer to the question why the head P cannot select a DP complement in Korean. As an alternative to (30a), one might suggest that the category P indeed selects a DP complement as in (32).



With the structure (32), we can maintain the argument that P universally selects a DP complement. There arises another problem with (32). It remains unexplained why the head D is always non-overt, i.e., why the postpositions cannot co-occur with the case suffixes, which are of the category D.

Now let us consider the structure (30b). There is empirical and theoretical evidence for assuming (30b) instead of (30a). First of all, the fact that the postpositions and the case suffixes occupy the same morphological position strongly suggests that they are of the same category. This argument is further confirmed by the fact that the case suffixes and the postpositions cannot co-occur. If we assume that they are of the same

category, these facts are well accounted for in a principled manner. There is further empirical evidence that the postpositions and the case suffixes are indeed of the same category. Consider the following examples.

(33) a. Joe-ka hakkyo-ey/lul ka-ass-ta.

Joe-Nom school-Loc/Acc go-Past-Dec

‘Joe went to school.’

b. Joe-ka Sue-eykey/lul panci-lul cu-ass-ta.

Joe-Nom Sue-Dat/Acc ring-Acc give-Past-Dec

‘Joe gave Sue a ring.’

The data in (33) show that the postpositions *-ey* and *-eykey* are interchangeable with the accusative suffix *-lul*, which is a clear indication that the postpositions are of the same category as the case suffix, i.e., D.¹¹ I argue that postpositions are of the category D in Korean.

Given that the category D is the locus of case (and agreement) features, the argument that the postpositions are of the category D predicts that they are associated with case and agreement features. It has long been argued that the category P is indeed associated with case features in various languages (Chomsky 1986, Baker 1988b, and Kim 1990). More specifically, the category P has been assumed to be typically associated with inherent case. Observing that benefactive applicatives are distinguished from instrumental applicatives in Chichewa, for example, Marantz (1984) and Baker (1988b)

suggest that the syntactic head P may realize inherent case in Chichewa. Baker (1988b) defines the possible functions of the category P as illustrated in (34).

- (34) Ps may
- i. assign a θ -role
 - ii. assign Case to an NP
 - iii. REALIZE (i.e. spell out) an inherent Case Assignment

Under the assumption that a P may in a particular structure have function (iii), Baker (1988b) suggests that the prepositional elements found in instrumental clauses in Chichewa are the morphological realizations of inherent case.

The so-called *of*-insertion in English provides supporting evidence for the argument that prepositions may realize inherent case. Chomsky (1986a) argues that the dummy preposition *of* is merely the realization of the inherent genitive case assigned by the lexical head N. The preposition *of* is distinguished from other prepositions in that it does not assign any θ -role to the complement. Observe the examples in (35).

- (35) a. I bought a book for my son.
 b. I am proud of my son.

The preposition *for* in (35a) assigns a θ -role, i.e., benefactive, to the complement DP *my son*. The preposition *of* in (35b), on the other hand, does not assign a θ -role to the complement, which is assigned a θ -role by the lexical head A *proud*. It is just a morphological realization of the inherent case assigned to the complement by the head A

in connection with a thematic relation. The dummy preposition *of* in (35b) therefore has the property (iii) in (34), whereas the preposition *for* in (35a) has both (i) and (ii).

Adopting the distinction between case-assigning Ps and case-realizing Ps in Baker (1988b), Kim (1990) proposes that the category P may realize an inherent case in Korean. Observe the examples in (36).

(36) a. [Na-eykey] kay-ka musep-ta.

I-Dat dog-Nom scary-Dec

'I am scared of dogs.'

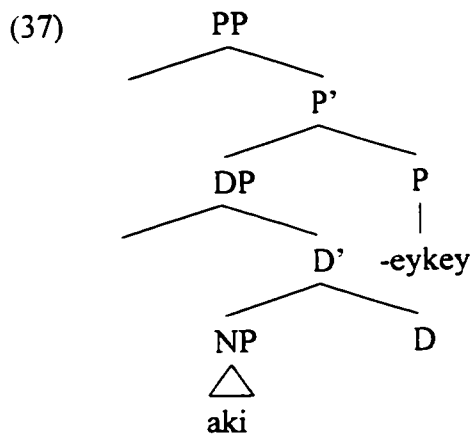
b. [Mikuk-ey] cicin-ka na-ass-ta.

America-Loc earthquake-Nom occur-Past-Dec

'In America an earthquake occurred.'

Kim (1990) argues that the postpositions *-eykey* and *-ey* in (36) are the realizations of the inherent case assigned by the predicates under a close association with θ -roles. Under Kim's (1990) analysis, *na-* and *mikuk-* are assigned an inherent case at D-structure by the predicates *musep-* and *na-*, respectively. The prepositions *-eykey* and *-ey* are inserted at S-structure to realize the inherent cases. These postpositions are not θ -role assigners, i.e., they have only the property (iii) in (34).¹²

The argument that the postpositions are of the same category as the case suffixes in Korean is also supported by Grimshaw (1991) who suggests that the highest (extended) projection of the nominal system is PP. If we adapt Grimshaw's (1991) analysis of noun phrases to Korean, we have the following structure of postpositional phrases.



Given that there are two functional categories within a nominal projection, there arises a question regarding the so-called nominal case suffixes, i.e., whether they are D or P. There is clear empirical evidence that the case suffixes are not D. Observe the following examples.

(38) a. Sue-ka cip-ey-man ka-ass-ta.
 Sue-Nom home-to-Del go-Past-Dec
 'Sue went home only.'

b. *Sue-ka cip-man-ey ka-ass-ta.

(39) a. Sue-ka sakwa-man-lul sa-ass-ta.
 Sue-Nom apple-Del-Acc buy-Past-Dec
 'Sue bought apples only.'

b. *Sue-ka sakwa-lul-man sa-ass-ta.

The data in (38) show that the postposition *-ey* occurs inside the so-called delimiter *-man* ‘only’ and the data in (39) indicate that the case suffix *-lul* occurs outside the delimiter. This implies that the postpositions occupy a morphological position internal to the case suffixes. The data in (38) and (39) therefore suggest that the case suffixes cannot be the head D, which is internal to P under the assumption that the postpositions are the head P.

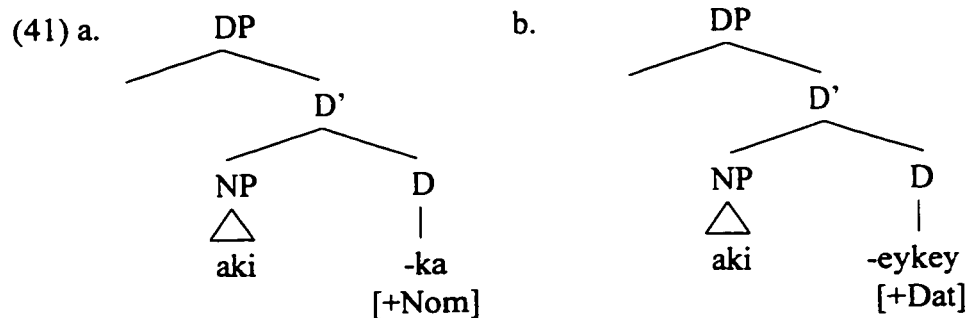
There is much clearer evidence that the case suffixes cannot be D. The data in (40) show that the postposition *-ey* may co-occur with the case suffix *-lul* in restricted contexts.

- (40) a. Sue-ka cip-ey-lul ka-ass-ta.
 Sue-Nom home-to-Acc go-Past-Dec
 ‘Sue went home.’
- b. *Sue-ka cip-lul-ey ka-ass-ta.

Note here that the postposition *-ey* may precede the case suffix *-lul* (40a), but not vice versa (40b). This strongly suggests that the case suffix *-lul* in (40a) cannot be the head D under the assumption that the postposition *-ey* is P. The data in (38) through (40) therefore lead us to conclude that the case suffixes are of the same category as the postpositions if we assume Grimshaw’s (1991) analysis of case-marked nominals.¹³

To summarize, I argue that the case suffixes and the postpositions are of the category D and thus associated with case features in Korean. Specifically, I claim that the

so-called case suffixes are the morphological realizations of structural case, whereas the postpositions are those of inherent case.



The feature [+Nom] of the head D in (46a) and the feature [+Dat] of the head D in (41b) project to the entire DPs, which enter into a checking relation with a relevant head to have their features checked.

2.3. Verbal Projection

2.3.1. Agreement and Tense

Verbs in Korean are overtly inflected for agreement and tense features. Let us consider agreement features first. Unlike nouns which are overtly inflected for number and honorific agreement, verbs are morphologically inflected for honorific agreement. Observe the examples in (42).

(42) a. Joe-ka [apeci-kkeyse o-si-ass-ta-ko] malha-ass-ta.

Joe-Nom himself-Nom come-Agr ([+Hon])-Past-Dec-C say-Past-Dec

‘Joe said that his father came.’

- b. Joe-ka [chinku-ka o- ϕ -ass-ta-ko] mit-ass-ta
 Joe-Nom friend-Nom come-Past-Agr ([-Hon])-Dec-C believe-Past-Dec
 ‘Joe believed that his friend came’

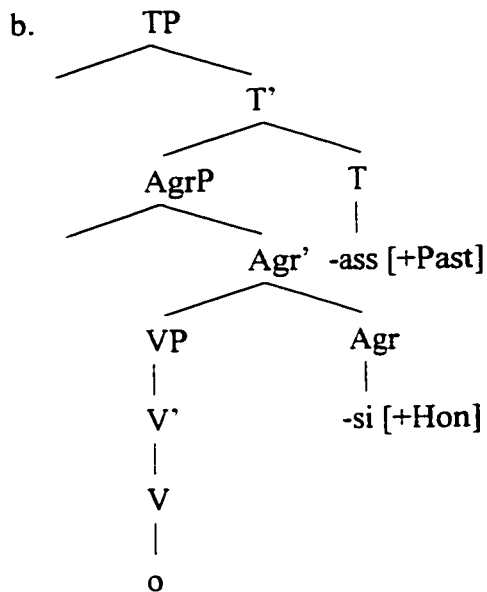
As illustrated in (42), the feature [+Hon] is realized as the verbal suffix *-si*, whereas [-Hon] is realized as a zero suffix. It is widely accepted in the literature that the verbal functional category Agr is the locus of agreement features (Chomsky 1992, Ahn and Yoon 1989, Jung 1992, and Kim 1996). Following Chomsky (1992), I assume that the category Agr is associated with agreement features in Korean.

Verbs in Korean are also overtly inflected for tense features. Consider the following example.

- (43) Joe-ka [caki-ka ka-ass/n/keyss-ta-ko] malha-ass-ta.
 Joe-Nom himself-Nom come-Past/Pres/Fu-Dec-C say-Past-Dec
 ‘Joe said that he went/is going/would go.’

The verbal suffixes *-ass*, *-n*, and *-keyss* in (43) are the morphological realizations of tense features, i.e., [+Past], [+Pres], and [+Fut], respectively. I assume that the functional category T is associated with tense features in Korean. Let us now consider the structure of TP in Korean.

- (44) a. apeci-kkesey o-si-ass-ta.
 father-Nom come-Hon-Past-Dec
 ‘My father came.’



Notice that the relative hierarchy of the functional projections AgrP and TP is based upon the relative order of the honorific agreement suffix *-si* and the tense suffix *-ass*. Given the mirror principle suggested in Baker (1985), it is reasonable to assume that T is higher than Agr.^{14 15}

2.3.2. Subordination

It is a universal property that embedded clauses are distinguished from root clauses in that they are marked by subordinators. In English, for example, an embedded declarative clause is introduced by the subordinator *that* and an embedded interrogative clause by *whether* or *if*.

(45) a. Joe knew [that Sue went home].

b. Joe asked [whether/if Sue went home].

With regard to the categorial status, the subordinators such as *that* and *whether* are known as COMPs. They are the heads of the whole embedded clauses in (45). They precede the embedded clauses, which are their complements, since English is head-initial. It is self-evident that overt COMPs are strictly restricted to embedded clauses since they serve as subordinators. They are not allowed in root clauses as illustrated in (46).¹⁶

- (46) a. *That Sue went home.
 b. *Whether/if Sue went home.

It is a universal property of COMP to serve as a subordinator, although it is not the only property of COMP.¹⁷

In Korean, which is head-final, subordinators occur in the final position of embedded clause. Consider the examples in (47). The embedded clauses are headed by the subordinator *-ko* or *-nun*. The function of *-ko* and *-nun* is to set off the embedded clause from the matrix clause.

- (47) a. Joe-ka [Sue-ka ka-ass-ta-ko] mit-ass-ta.
 Joe-Nom Sue-Nom go-Past-Dec-Sub believe-Past-Dec
 ‘Joe believed that Sue went.’
- b. [Sue-ka ka-ass-nya-nun] cilmun
 Sue-Nom go-Past-Int-Sub question
 ‘the question whether Sue went’

- c. Joe-ka [kati ka-ca-ko] ceanha-ass-ta
 Joe-Nom together go-Prop-Sub suggest-Past-Dec
 ‘Joe suggested that we should go together.’
- d. [Ppali ka-la-nun] myenglyeng
 quickly go-Imp-Sub order
 ‘the order that I should go quickly.’

The subordinators *-ko* and *-nun* are widely argued to be COMPs in the literature of Korean syntax (Choe 1988, Ahn & Yoon 1989, Whitman 1989 & 1991, Yoon 1990, Jung 1992, Sells 1995, and Kim 1996).

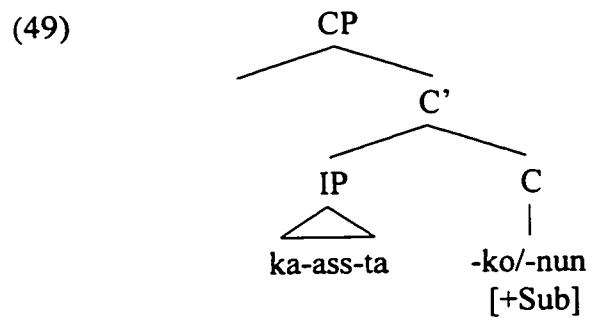
A clear piece of evidence for assuming the subordinators *-ko* and *-nun* as COMPs is that they appear in clause-final position as illustrated in (47). Given the fact that Korean is head-final, it is predicted that *-ko* and *-nun* are the head of CP, i.e., COMP. Another strong piece of evidence for treating *-ko* and *-nun* as COMPs comes from the fact that they are restricted to the domain of embedded clause. They are not licensed in root clauses as illustrated in (48).¹⁸

- (48) a. *Sue-ka ka-ass-ta-ko/nun.
 Sue-Nom go-Past-Dec-Sub
 ‘*That Sue went.’
- b. *Sue-ka ka-ass-nya-ko/nun.
 Sue-Nom home-to go-Past-Int-Sub
 ‘*Whether Sue went.’

- c. *Kati ka-ca-ko/nun.
together go-Prop-Sub
'*That pro should go together.'
- d. *Ppali ka-la-ko/nun.
together go-Imp-Sub
'*That pro should go quickly.'

It is therefore quite natural to assume that the subordinators *-ko* and *-nun* are the head C.

Consider the configuration in (49).¹⁹



2.3.3. Mood

Verbs in Korean are also morphologically inflected for the so-called mood features: declarative, interrogative, and so on. Observe the examples in (50).

- (50) a. Sue-ka ka-ass-ta.
Sue-Nom go-Past-Dec
'Sue went.'

- b. Sue-ka ka-ass-nya?
 Sue-Nom go-Past-Int
 ‘Did Sue go?’
- c. Kati ka-ca.
 together go-Prop
 ‘Let’s go together.’
- d. Ppali ka-la.
 quickly go-Imp
 ‘Go quickly.’

The fully inflected verbs in (50) contain a group of verbal suffixes, i.e., *-ta*, *-nya*, *-ca*, and *-la*, which serve to determine the mood feature of each clause. Those verbal suffixes are referred to as sentential endings. The suffixes *-ta*, *-nya*, *-ca*, and *-la* are the morphological realizations of declarative, interrogative, propositive, and imperative, respectively. In embedded clauses, the sentential endings are immediately followed by the subordinators we discussed in 2.3.2. This is illustrated in (51).

- (51) a. Joe-ka [Sue-ka ka-ass-ta-ko] mit-ass-ta.
 Joe-Nom Sue-Nom go-Past-Dec-Sub believe-Past-Dec
 ‘Joe believed that Sue went.’
- b. [Sue-ka ka-ass-nya-nun] cilmun
 Sue-Nom go-Past-Int-Sub question
 ‘the question whether Sue went’

- c. Joe-ka [kati ka-ca-ko] malha-ass-ta.
 Joe-Nom together go-Prop-Sub-Past-Dec
 'Joe suggested to go together.'
- d. [Ppali ka-la-nun] myenglyeng
 quickly go-Imp-Sub order
 'an order that pro go quickly'

We are now faced with the repeated question, i.e., which functional category is associated with mood features in Korean. Numerous proposals have been provided regarding the categorial status of the sentential endings (Han 1987, Kang 1988, Choe 1988, Ahn & Yoon 1989, Whitman 1989, Kim 1991, Jung 1992, and Kim 1996). A main issue dealt with in most of the analyses mentioned above is whether the sentential endings are COMPs or not.

2.3.3.1. COMP

Choe (1988), Whitman (1991), and Jung (1992), among others, argue that the sentential endings *-ta*, *-nya-*, *-ca*, and *-la* are COMPs. A strong argument for assuming the sentential endings as COMPs comes from Bresnan's (1979) argument that the type of clause is determined by the category COMP.²⁰ Consider the following examples.

- (52) a. Joe knew [that Sue went home].
 b. Joe asked [whether Sue went home].

The embedded clause in (52a) is headed by COMP *that*, which determines that it is declarative. On the other hand, the embedded clause in (52b) is headed by COMP *whether*, which tells us that it is interrogative. Based upon Bresnan's (1979) argument, Jung (1992), among others, argues that the sentential endings in (50) and (51) are of the category COMP. If we adapt Bresnan's (1979) analysis of English COMPs to Korean, therefore, the sentential endings should be of the category COMP.

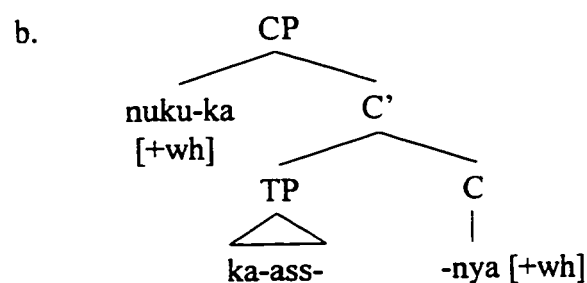
Another argument for analyzing the sentential endings as COMPs comes from the behavior of the interrogative ending *-nya*. It is argued that the interrogative ending *-nya* should be of the category COMP since it is involved in licensing *wh*-words and determining scope relations (Choe 1988, Whitman 1991, and Jung 1992). Observe the following examples.

- (53) a. *Sue-ka encey ka-ass-ta.
 Sue-Nom when go-Past-Dec
 ‘*Sue went when.’
- b. Sue-ka encey ka-ass-nya?
 Sue-Nom when go-Past-Int
 ‘When did Sue go?’
- c. *Kati encey ka-ca.
 together when go-Prop
 ‘*Let's go when.’

- d. *Ppali encey ka-la.
 quickly when go-Imp
 ‘*Go quickly when.’

As observed in Kim (1991), *wh*-words such as *encey* in (53) are licensed only by the interrogative ending *-nya*. It is argued, therefore, that there exists a relation between the *wh*-words and the interrogative ending *-nya*, which has led Choe (1988), Whitman (1989), and Jung (1992) to argue that *-nya* is a [+wh] COMP. Following Rizzi (1991), who suggests that there exists a spec-head relation between COMP and the *wh*-word, Jung (1992) proposes that *wh*-words are licensed by the interrogative ending *-nya* in terms of the spec-head agreement. Given that *wh*-words move to the spec of CP (at LF), it is predicted that the ending *-nya* is the head COMP. The fact that the other sentential endings are in complementary distribution with the interrogative ending *-nya* implies that they also fall into the category of COMP. Consider the example in (54a) and its structure (54b), suggested in Choe (1988), Whitman (1991), and Jung (1992).

- (54) a. Nuku-ka ka-ass-nya?
 who-Nom go-Past-Int
 ‘Who went?’



The fact that the sentential endings determine the type of clause and the fact that *wh*-words are licensed by the interrogative ending *-nya* lead us to conclude that the sentential endings are of the category COMP in Korean.

There seems to arise a problem with the analyses of the sentential endings as COMPs. First observe the examples in (51a) and (51b), repeated here.

(55) a. Joe-ka [Sue-ka ka-ass-ta-ko] mit-ass-ta.

Joe-Nom Sue-Nom go-Past-Dec-Sub believe-Past-Dec

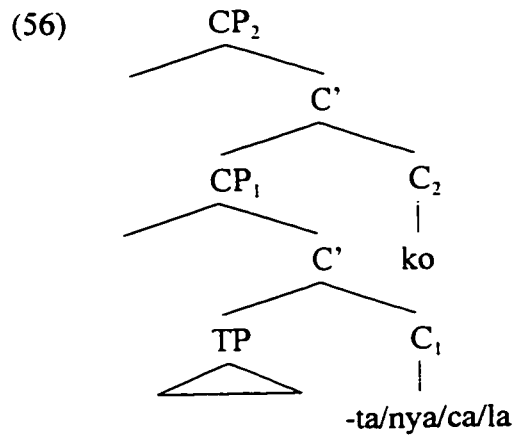
‘Joe believed that Sue went.’

b. [Sue-ka ka-ass-nya-nun] cilmun

Sue-Nom go-Past-Int-Sub question

‘the question whether Sue went’

As illustrated in (55), the sentential endings *-ta* and *-nya* are followed by the subordinators *-ko* and *-nun* in the embedded clauses. It should be accounted for how the sentential endings which are argued to be COMPs can co-occur with the subordinators *-ko* and *-nun*, which are widely accepted as COMPs. In fact, it is not the sentential endings but the subordinators that occur in the final position of the embedded clauses in (55). The fact that the sentential endings occur inside and with the subordinators suggests that there are two independent CP projections under the analysis of the sentential endings as COMPs. This is exactly what Jung (1992) suggests. Consider the double CP structure suggested in Jung (1992).²¹



Jung (1992) tries to draw a supporting argument for her double CP analysis from Spanish, which seems to allow two independent COMP positions (Suñer 1991). Observe the following examples, cited from Plann (1982).

(57) a. Te preguntan [que para qué quieres el préstamo].

you ask(3-p) that for what want(2-p) the loan

‘They ask you what you want the loan for.’

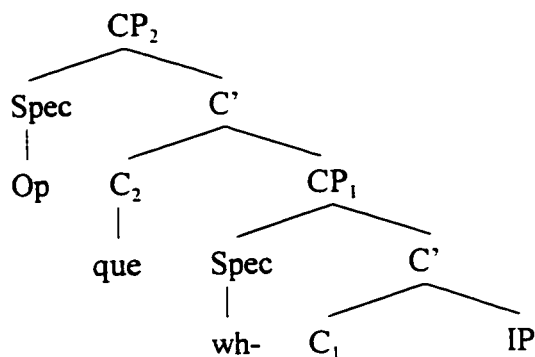
b. María preguntaba [que si no debiéramos dejarlas en paz].

Mary was asking that if not should(1-p) leave them in peace

‘Mary was asking whether we shouldn’t leave them in peace.’

Suñer (1991) argues that *que* in (57) is in the head of the upper CP and that the spec of the upper CP is taken by a null operator. Suñer’s argument has led Jung (1992) to suggest the following structure of indirect interrogatives in Spanish.

(58)



Suñer's (1992) analysis of Spanish interrogatives, however, does not necessarily provide a supporting argument for Jung's (1992) double CP analysis. As pointed out by Chomsky (1995), it seems to be a universal property that lexical complementizers are restricted to embedded clauses. Root clauses may project CP but this does not necessarily mean that the head C may be filled with an overt complementizer. In Suñer's (1991) analysis, root clauses project up to CP₁ whose head is always non-overt, which is compatible with Chomsky's argument that lexical complementizers are licensed only in embedded clauses. Embedded clauses project up to CP₂ whose head may be filled with a lexical complementizer. Under Jung's (1992) analysis, on the other hand, root clauses project up to CP₁ whose head is always overt, which is not compatible with Chomsky's (1995) argument.

2.3.3.2. MOOD

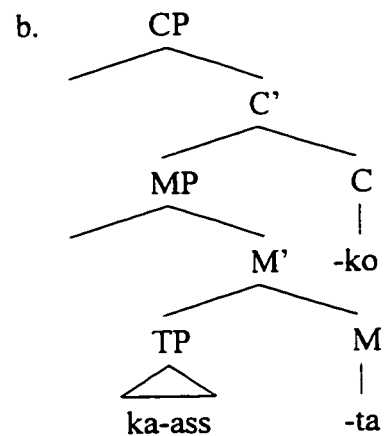
Despite the evidence and arguments for analyzing the sentential endings as COMPs, there is also evidence that the sentential endings are not COMPs. First of all, the sentential endings co-occur with the subordinators in embedded clauses. This has led many linguists

to argue that they are not COMPs but the head of a projection which is lower than CP (Ahn and Yoon 1989 and Kim 1991, among others).²² Ahn and Yoon (1989), for example, treat the sentential endings as the head of MP (=Mood Phrase), which can be used as complement to the head COMP.²³ Let us consider the structure of the verbal projection suggested in Ahn and Yoon (1989).

(59) a. Joe-ka [Sue-ka ka-ass-ta-ko] malha-ass-ta.

Joe-Nom Sue-Nom go-Past-Dec-C say-Past-Dec

‘Joe said that Sue went.’

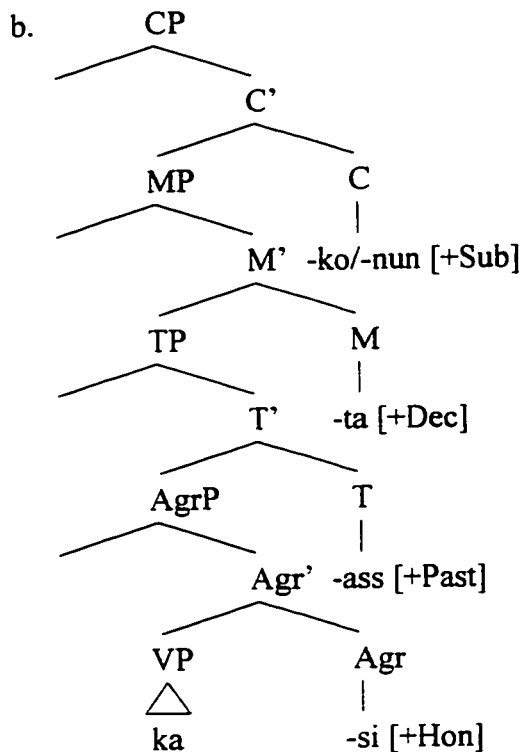


There arise two questions with the structure (59b): (i) which category is involved in determining the types of clause in Korean and (ii) what is the relation between the interrogative ending *-nya* and the *wh*-word licensed by it. With respect to the first question, Ahn and Yoon (1989) suggest that it is the head MOOD that determines the types of clause in Korean. In English, it is typically the head COMP which determines the types of clause.²⁴ The head COMP in English also functions as a subordinator. The

functions of subordination and mood marking are thus done by a single syntactic category COMP in English. Ahn and Yoon (1989), however, argue that in Korean subordination and mood are marked by separate categories, i.e., COMP and MOOD, respectively.²⁵ Given that the sentential endings and the subordinators have different grammatical functions, it is not implausible to assume that they form their own independent syntactic categories.

Now let us consider the second question. Given the argument that the sentential endings including *-nya* are not COMPs, it should be accounted for how *wh*-words are licensed, considering that *wh*-words raise to the spec of CP. A possible answer to the second question is provided by Kim (1991) and Whitman (1991). They argue that the interrogative ending *-nya*, which is generated in the head MOOD/INFL, raises to the head COMP and licenses *wh*-words in terms of the spec-head agreement. I will assume with Ahn and Yoon (1989) that the sentential endings are of the category MOOD. Now consider the structure of verbal projection that I am assuming.

(60) a. ka-si-ass-ta-ko/nun
 go-Hon-Past-Dec-C

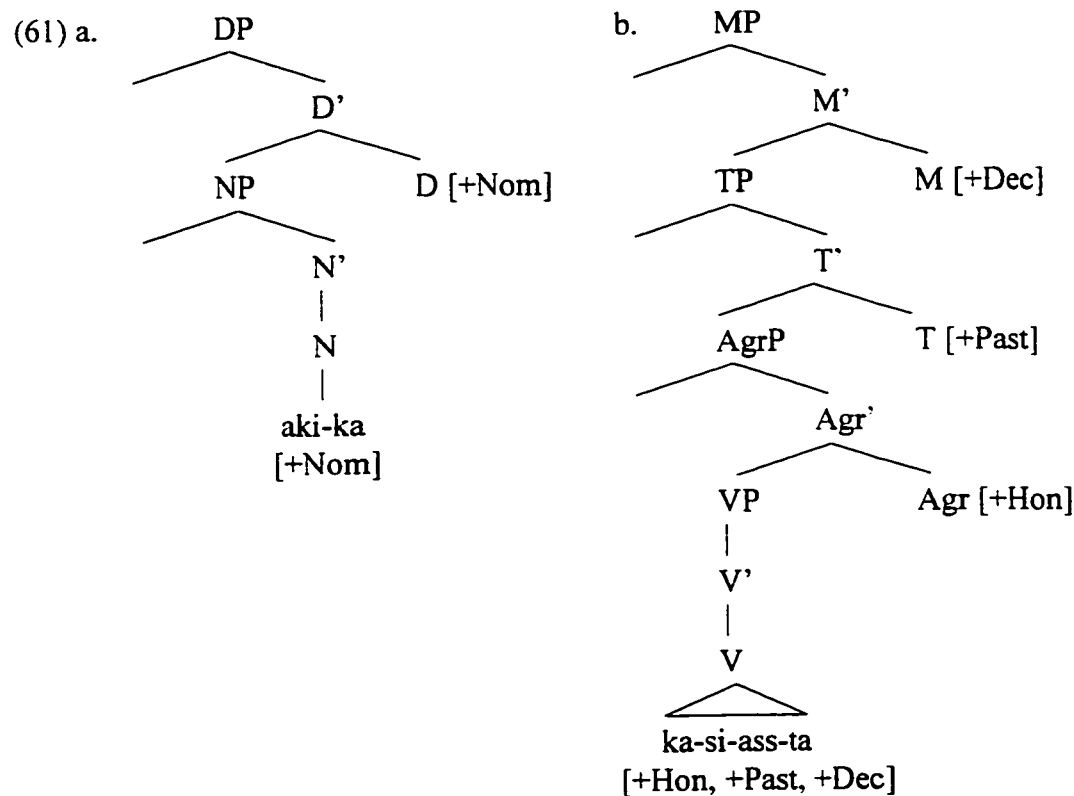


2.4. Functional Heads and Inflectional Suffixes

In the Pre-Minimalist framework, there used to be a direct association in the syntax between functional heads and inflectional suffixes, i.e., the former was argued to be the locus of the latter. In the Minimalist framework, however, there seems no such association between functional heads and inflectional suffixes in the syntax since the former is argued to be the locus of morphological features, not of inflectional suffixes. In 2.2 and 2.3, I have assumed that functional heads are the locus of inflectional suffixes with morphological features in Korean. I discuss whether this assumption is compatible with the checking theory of the Minimalist Program outlined in Chomsky (1992).

At the heart of the Minimalist Program are “morphological features,” which include features associated with case, tense, and agreement. The addition of phonologically overt suffixes associated with features such as case, tense, and agreement involves the simultaneous addition of such features. The functional heads in this system, on the other hand, are the locus of morphological features. They are not the positions in which inflectional suffixes are inserted.²⁶

Given this assumption that functional heads are the locus of features but not suffixes, there seems to be no direct association between functional heads and inflectional suffixes in the syntax. Let us consider the configurations in which various features are checked off under the assumption that functional heads are just the locus of features.



Under the Minimalist framework, nominal suffixes such as *-ka* are added to the nominal stem and the verbal suffixes such as *-si*, *-ass-*, and *-ta* to the verbal stem in the lexicon. The addition of these suffixes involves the simultaneous addition of relevant morphological features. In the syntax, the fully inflected noun *aki-ka* and the verb *ka-si-ass-ta* are now selected from the lexicon and inserted into the nodes N and V, respectively. Functional heads, in the meantime, are associated with certain features but not with inflectional suffixes in the syntax. The fully inflected lexical items cyclically raise to each functional head in the syntax to have their features checked off. Given this mechanism of the checking theory, there seems no direct association in the syntax between functional heads and inflectional suffixes.

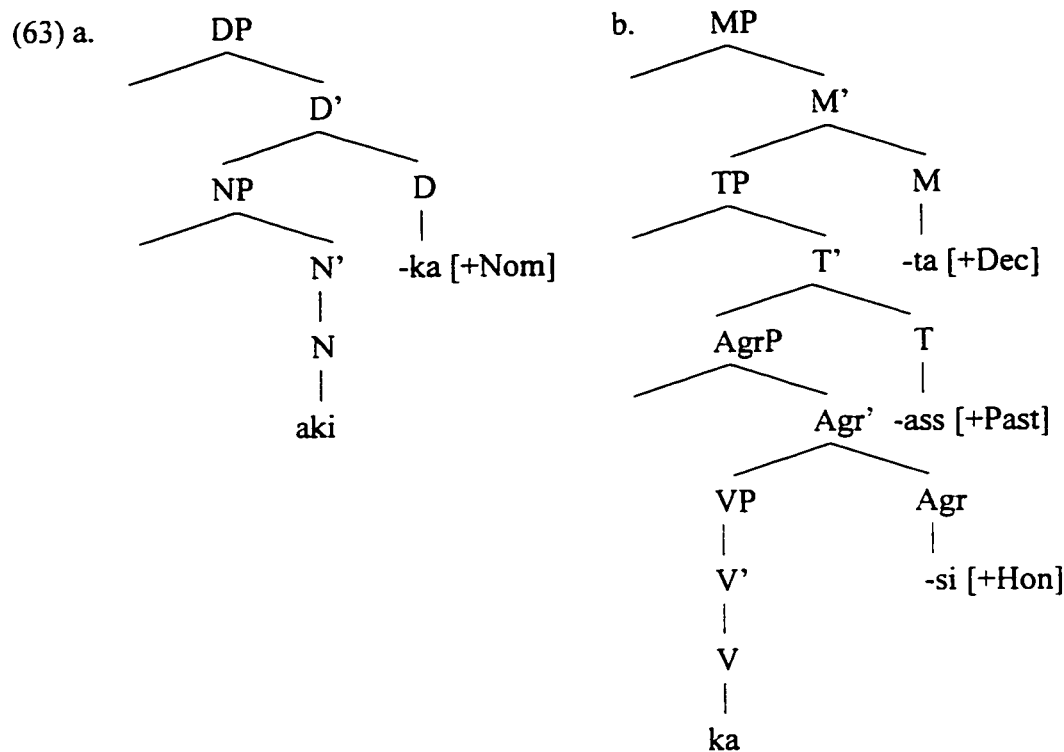
Let us now discuss the lexicon in more detail regarding the relations among morphological features, inflectional suffixes, and functional heads. Morphological features and inflectional suffixes are closely related to each other in the lexicon since the addition of features involves the simultaneous addition of suffixes or the other way around. In Korean, for example, the specific tense feature [+Past] is added to the verbal stem and overtly realized as the suffix *-ass*. Similarly, the feature [+Nom] is realized as *-ka*. Therefore there exists strict one-to-one relation between morphological features and inflectional suffixes. In the lexicon, there also exists a close association between functional heads and morphological features. Specific bundles of morphological features are selected and carried by the relevant functional heads. The feature [+Past], for example, is selected from the lexicon and carried by the head T. Similarly, the feature [+Nom] is selected from the lexicon and carried by the head D. Therefore there exists a

close association between functional heads and morphological features in the lexicon. Given the association between features and suffixes on the one hand and between heads and features on the other, we can induce an indirect association between functional heads and inflectional suffixes in the grammar. Consider the relationships among functional heads, morphological features, and inflectional suffixes in Korean.

(62)	a.	D	[+Nom]	-ka
			[+Acc]	-lul
			[+Gen]	-uy
	b.	T	[+Past]	-ass
			[+Pres]	-n
			[+Fut]	-keyss
	c.	Agr	[+Hon]	-si
			[-Hon]	ϕ
	d.	M	[+Dec]	-ta
			[+Int]	-nya
			[+Prop]	-ca
			[+Imp]	-la

Case features are carried by the functional head D, while those features are overtly realized as the relevant nominal suffixes. Similarly, tense features are carried by the head T and morphologically realized as the relevant verbal suffixes. The same is true of agreement and mood features.

Given the close association between the functional heads and the inflectional suffixes in Korean, it seems not implausible to assume that inflectional suffixes with morphological features are selected from the lexicon and inserted into the relevant functional heads. Compare the structures in (61) with those in (63).



With respect to the status of inflectional morphology, Halle and Marantz (1992) suggest that the functional nodes should serve as the locus of lexical insertion and that all word formation should occur in the syntax, as a result of the syntactic head movement, which is against the fundamental assumption in the Minimalist framework that inflectional morphology takes place in the lexicon. Chomsky (1995), however, does not rule out the possibility that functional nodes are the locus of inflectional suffixes. He

actually mentions three possibilities regarding the sources of morphological features such as case, tense, and agreement.

“Its (a verb’s) tense and ϕ -features might be chosen optionally and assigned to the word as it enters the numeration, or they might result from overt V-raising to Agr and T. Or they might reach the phonological component uninflected, the PF form resulting from interaction with functional elements within the phonological component. The answers could vary across or within languages (Chomsky 1995: 238).”

He further mentions:

“Features that are associated with the verb but not predictable from the lexical entry have two possible sources: they might be chosen arbitrarily as the verb enters the numeration, or they might be the result of operations that form complex words by association with other elements (e.g. adjunction to T). These could be operations of the overt syntax or the phonological component (including morphology). If overt syntactic operations are involved, the categories involved will be marked as allowing or requiring affixation (Chomsky 1995:238).”

“Suppose that specific morphological properties of a language constrain the phonetic correlate of formal features: say, that verbs indicate person with prefixes and number with suffixes, or that exactly n slots are available for spelling out formal features. Then the lexical entries will abstract from these properties, presenting just the information that they do not determine (Chomsky 1995:238-239).”

Now let us consider Korean concerning the relation between morphological features, inflectional suffixes, and functional heads. It is well-known that there exists a

strict one-to-one relation in Korean between morphological features and inflectional suffixes. In other words, morphological features are strictly associated with specific suffixes in specific positions. Consider the nominal and verbal inflections in (64).

(64) a. *aki-tul-ka/lul/uy*

baby-Pl-Nom/Acc/Gen

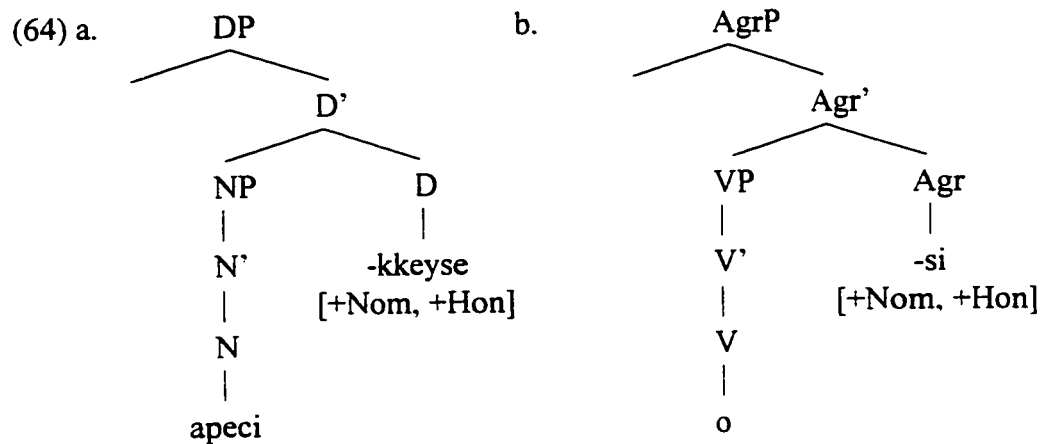
 b. *apeci-ka ka-si-ass/n/keyss-ta/nya-ko/nun*

father-Nom go-Hon-Past/Pres/Fut-Dec/Int-Sub

As illustrated in (64a), case features are invariably realized in a fixed position, i.e., following number agreement suffix. Further they are invariably realized as specific suffixes. That is, [+Nom], [+Acc], and [+Gen] are realized as *-ka*, *-lul*, and *-uy*, respectively. In the verbal projection in (64b), the feature [+Hon] is invariably associated with the suffix *-si* and the position of the suffix *-si* is predictable, i.e., it always occurs immediately after the verbal stem. Tense features such as [+Past], [+Pres], and [+Fut] are invariably realized as *-ass*, *-n*, and *-keyss*, respectively, and occupy the same position, which is also predictable, i.e., immediately following the honorific suffix. The same is true of the mood features. [+Dec] and [+Int] are realized as *-ta*, and *-nya*, respectively, and appear immediately after the tense suffixes.

Given the strict correlation between morphological features and phonological realizations, it seems not impossible to assume that the functional heads are the locus of lexical insertion in Korean as shown in (63). The configurations in (63) are compatible

with the checking theory suggested in Chomsky (1992). Morphological features are optionally added to lexical items via syntactic head-to-head movement. Let us compare how case features of DP and agreement features on V are checked under the proposed analysis.



In (64a), the features [+Nom] and [+Hon] are percolated to the maximal projection DP. The feature [+Nom] must be checked off before the derivation reaches LF since it is [-Interpretable]. The DP, enters into a checking relation with relevant head in order to have the feature [+Nom] checked off. The feature [+Nom] is entirely erased once it is checked off. The feature [+Hon] is checked off in the same manner when the DP enters into a checking relation with a relevant head. Unlike the feature [+Nom], however, the feature [+Hon] is not erased even when it is checked since it is considered [+Interpretable]. The functional head Agr also bears [+Nom] and [+Hon]. The head Agr enters into a checking relation with a DP in the specifier position and the feature [+Nom] of the head Agr is checked off and totally erased since it is [-Interpretable]. The feature [+Hon] on the head

Agr can be checked when it enters into a checking relation with a DP in the specifier. The feature, however, is not erased even when it is checked off since it is [+Interpretable].²⁷

2.5. Summary

There exist a strict one-to-one relation between morphological features and inflectional suffixes in Korean. Morphological features and inflectional suffixes of nominal projection are summarized in (65) and those of verbal projection in (66). I assume that the nominal suffixes share the categorial features with their stem N, i.e., [+N, -V], whereas the verbal suffixes with their stem V, i.e., [-N, +V].²⁸

(65) a. Agreement

[+N, -V, +Pl]	-tul
[+N, -V, -Pl]	- ϕ

b. Case

[+N, -V, +Nom]	-ka
[+N, -V, +Acc]	-lul
[+N, -V, +Gen]	-uy
[+N, -V, +Dat]	-eykey
[+N, -V, +Loc]	-ey

c. Agreement and Case

[+N, -V, +Nom, +Hon]	-kkeyse
[+N, -V, +Dat, +Hon]	-kkey

(66) a. Agreement

[-N, +V, +Hon] -si

[-N, +V, -Honl] - ϕ

b. Tense

[-N, +V, +Past] -ass

[-N, +V, +Present] -n

[-N, +V, +Fut] -keyss

c. Mood

[-N, +V, +Dec] -ta

[-N, +V, +Int] -nya

[-N, +V, +Prop] -ca

[-N, +V, +Imp] -la

d. Subordination

[-N, +V, +Sub] -ko/-nun

Note in (66d) that the verbal suffixes *-ko* and *-nun* are both the morphological realization of [-N, +V, +Sub]. In chapters 3 and 4, I will present analyses of the verbal suffixes *-ko* and *-nun*.

Notes to Chapter 2

1. For the sake of convenience, I simplify the system of inflectional suffixes in Korean, ignoring variants conditioned by phonological environments. The feature [+Nom] is realized as *-ka* when the stem noun ends in a vowel (ia) and as *-i* when the stem noun ends in a consonant (ib). Similarly, the feature [+Acc] is realized as *-lul* when the stem noun ends in a vowel (iia) and as *-ul* when the stem noun ends in a consonant (iib).

(i) a. *chinku-ka*
friend-Nom

b. *haksayng-i*
student-Nom

(ii) a. *chinku-lul*
friend-Acc

b. *haksayng-ul*
student-Acc

I will simply posit *-ka* and *-lul* as the realizations of the features [+Nom] and [+Acc], respectively.

The feature [+Past], on the other hand, is overtly realized as *-ass* or *-ess*, depending upon the stem vowels. Observe the examples in (iii).

(iii) a. *cap-ass-ta.*
hold-Past-Dec

b. *nol-ass-ta.*
play-Past-Dec

c. *mek-ess-ta.*
eat-Past-Dec

d. *cu-ess-ta.*
give-Past-Dec

As illustrated in (iii), the feature [+Past] is realized as *-ass* when the stem has either *a* or *o* and as *-ess* otherwise. This phonological phenomenon is called ‘vowel harmony’. I will ignore vowel harmony and simply posit *-ass* as the realization of the feature [+Past].

2. A bundle of morphological features, i.e., number, gender, and person is referred to as agreement or ϕ -features in the literature. With regard to the morphological realizations of

agreement features, there exist a wide range of variety cross-linguistically or within a language. In English, for example, personal pronouns are overtly inflected for number, gender (only for third person), and person, whereas ordinary nouns are morphologically inflected only for number. In German, on the other hand, determiners and pronouns are inflected for number, person, and gender.

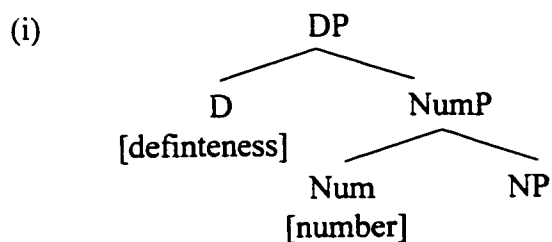
3. It is quite possible for the feature [+Pl] to be realized as a zero suffix when the context clearly tells us whether it is singular or plural. Observe the examples in (i).

- (i) a. tosekwan-ey chayk- ϕ -ka manh-ta.
 library-Loc book-Num-Nom many-Dec
 'There are many books in the library.'
- b. tosekwan-eyse chayk- ϕ -lul han kwen ilk-ass-ta.
 library-Loc book-Num-Acc one volume read-Past-Dec
 'I read a book in the library.'

The noun *chayk-ka* in (ia) is clearly understood as plural because of the predicate *manh-*, whereas the noun *chayk-lul* in (ib) is interpreted as singular because of the number expression following it. This is not relevant to my discussion in this chapter. What should be pointed out here is that the nominal suffix *-tul* is associated with the feature [+Pl].

4. As we will see in 2.3, verbs are morphologically inflected for honorific agreement but not for number agreement in Korean.

5. See Ritter (1995), who suggests an independent syntactic category for number agreement. She argues that in Hebrew there exist two functional categories within DP, i.e., D and Num(ber). Under her analysis, the head D is associated with 'definiteness'. Consider the structure of DP suggested in Ritter (1995).



As pointed out by Lee (1992), however, Korean does not show the so-called definiteness effect. Given this, we need not assume two functional categories within DP in Korean and it seems quite plausible to argue that the head D is the locus of number agreement.

6. Olsen (1989) argues that the category N but not D (=determiners and pronouns) has lost its ability for morphological expression of the strong Agr-features to a large extent in the modern German. In other words, D always inflects strongly, whereas N inflects strongly only in the dative plural and in the genitive singular of the masculine and neuter. See also Emonds (1985) for a discussion on case realization in German.

7. Chomsky (1995) leaves it open whether the case features of DP come from the head D or N. See Webelhuth (1995) who suggests two possibilities regarding the source of case features associated with DP. One is to assume that the case features of the entire DP come from the functional head D and the other is to assume that they come from the lexical head N.

8. See Chomsky (1995) who also mentions a case category K.

9. They distinguish nominative-marked nominals from accusative-marked nominals by arguing that the former projects a DP, whereas the latter projects a KP. In Korean, there is no such distinction between nominative- and accusative-marked DPs. See Kim (1990) who argues that nominative differs from accusative in Korean in that it is assigned by default. With respect to the morphological realization, however, nominative is not distinguished from accusative in that both are realized as nominal suffixes.

10. S.-W. Kim (p.c.) pointed out to me that the so-called case stacking seems not to be entirely impossible. Observe the examples in (i).

- (i) a. ?Joe-ka [aki-eykey-lul] kwaca-lul cu-ass-ta.
 Joe-Nom baby-Dat-Acc cake-Acc give-Past-Dec
 'Joe gave the baby a cake.'
- b. Joe-ka [hakkyo-ey-lul] ka-ass-ta.
 Joe-Nom school-Loc-Acc go-Past-Dec
 'Joe went to school.'

To me, the examples in (i) can be (marginally) acceptable. The acceptability of (ia) and (ib) seems to be related with the fact that the verbs *cu-* and *ka-* can license the accusative suffix *-lul* as well as the dative suffix *-eykey* or the locative suffix *-ey*, as illustrated in (ii).

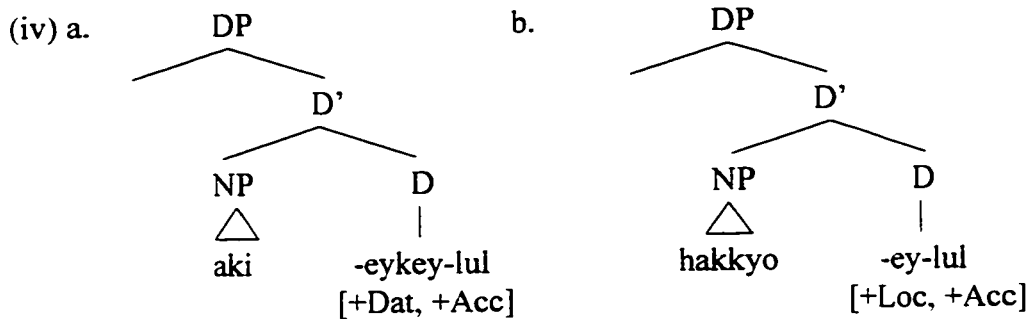
- (ii) a. Joe-ka [aki-eykey/lul] kwaca-lul cu-ass-ta.
 b. Joe-ka [hakkyo-ey/lul] ka-ass-ta.

Now compare the examples in (ii) with those in (iii), which show that the case stacking is not possible when the verbs cannot license the accusative marker.

(iii) a. Joe-ka [kyengchal-eykey/*lul] sako-lul sinkoha-ass-ta.
 Joe-Nom police-Dat/Acc accident-Acc report-Past-Dec
 ‘Joe reported the accident to the police.’

b. *Joe-ka [kyengchal-eykey-lul] sako-lul sinkoha-ass-ta.

Based upon the assumption that a single head may be associated with multiple features, I suggest the following structures for the dative DP and the locative DP in (i).



The multiple case features of the DPs in (iv) must be checked off. I will claim in chapter 4 that [+Dat] and [+Loc] are checked off by V and [+Acc] by AgrO. Belletti (1988) suggests a possibility that inherent case can combine with structural case. Her argument is supported by the fact that the case stacking is possible only when one structural case marker and one inherent case marker are involved. The following examples are not allowed in Korean.

(vi) a. *aki-ka-lul
 Nom-Acc

b. *aki-lul-uy
 Acc-Gen

c. *aki-ka-uy
 Nom-Gen

(vii) a. *aki-ey-ekey
 Loc-Dat

b. *aki-eykey-ey
 Dat-Loc

11. See Kim (1990) who cites examples which show that the nominative suffix *-ka* is interchangeable with the dative suffix *-eykey* or the locative suffix *-ey*.

- (i) a. Na-eykey/ka kay-ka musep-ta.
I-Dat/Nom dog-Nom scared-Dec
'To me dogs are scary or I am scared of dogs.'
- b. Mikuk-ey/ka cicin-ka na-ass-ta.
America-Loc/Nom earthquake-Nom occur-Past-Dec
'In America an earthquake occurred.'

The examples in (ia) also suggest that postpositions are of the same category as the nominal case suffixes.

12. Like Baker (1988), Kim (1990) also distinguishes two types of P in Korean. Some Ps are just the morphological realizations of case and the others are θ -role assigners. In this chapter, I discuss only the former type of P. See Neeleman (1997) for θ -theory regarding PP complements.

13. One might raise another question here, i.e., whether there exists a functional category outside P, given that case suffixes occur outside P. This is beyond my discussion.

14. See Jung (1992) for a discussion on the hierarchical relationships among functional projections in Korean.

15. Under the lexicalist analysis of inflectional morphology as suggested in Chomsky (1992), where inflectional suffixes are added to lexical items in the lexicon, we lose the motivation for the relative hierarchy of T and Agr (and all other functional categories).

16. The question we are concerned with here is not whether root sentences project up to CP, but whether overt complementizers may be licensed in root sentences. It is noted in Chomsky (1995) that root clauses may project up to CP, but with no overt COMP. He observes that root clauses with overt COMP can be found, but not with declarative forces. Observe the following.

- (i) a. that John left
b. that John leave

Both (ia) and (ib) can stand alone as root sentences. As noted by him, however, such sentences do not have declarative forces. This is confirmed by the fact that (ia) and (b) could be the answers to the questions (iia) and (iib), respectively, but not (iic), which calls for a declarative assertion.

- (ii) a. what did he tell you
b. what would you prefer
c. what happened yesterday

(Chomsky 1995: 292)

17. I will discuss cross-linguistic properties of complementizers in chapter 3.

18. Root clauses with an overt complementizer sound acceptable in some contexts. Observe the examples in (i).

- (i) a. Joe-ka muelako malha-ass-nya?
 Joe-Nom what say-Past-Int
 ‘What did Joe say?’
- b. cicin-ka na-ass-ta-ko.
 earthquake-Nom occur-Past-Dec-C
 ‘That an earthquake occurred.’

The CP headed by the complementizer *-ko* in (ib) is acceptable as an answer to the question (ia). It is clear, however, that (ib) lacks declarative forces. It cannot be the answer to the question in (iia), which requires a declarative assertion.

- (ii) a. ecey musun il-ka na-ass-nya?
 yesterday what thing-Nom occur-Past-Int
 ‘What happened yesterday?’
- b. cicin-ka na-ass-ta.
 earthquake-Nom occur-Past-Dec
 ‘An earthquake occurred.’

See footnote 16.

19. Irrelevant projections are omitted.

20. See also Chomsky (1995) who argues that the head C is an indicator of mood: declarative, interrogative, propositive, and imperative.

21. See Nishigauch (1990) for a similar idea for Japanese. He suggests that the question marker *-ka* in Japanese is a [+wh] COMP, which is embedded under the quotative COMP *-to*. Observe the following example.

- (i) Hanako-wa [[dare-ka ki-ta-ka-] to] iw-ta.
 Hanako-Top who-Nom come-Perf-Int-C say-Perf
 ‘Hanako said, “Who came?”

22. See Fukui (1987), who argues against Nishigauchi’s (1986) analysis of *-ka* as [+wh] COMP since it would be odd to embed a [+wh] COMP under another COMP.

23. See Kim (1991) who analyzes the sentential endings as the head INFL.

24. It is not the case, however, that mood features are always associated with the COMP in English. The distinction in mood features between interrogative and subjunctive, for example, is not reflected on the head COMP but on the head INFL. Observe the following examples.

- (i) a. Joe believes [that Sue went home].
- b. Joe suggests [that Sue go home].

The data in (i) provide supporting evidence for Ahn and Yoon's (1989) argument that mood features are associated with the head MOOD but not with COMP in Korean.

25. As pointed out in Ahn and Yoon (1989), mood marking is done in different manners in Korean and English. In Korean, different types of mood are invariably marked by the so-called sentential endings. In English, on the other hand, different types of mood are marked in different manners. Declarative, for example, is marked in such a way that no overt COMP occurs. Interrogative, on the other hand, involves Subject-Aux inversion (and *wh*-fronting). Imperative is marked in such a way that no overt subject appears and the verb is not inflected.

26. See Weibelhuth (1995) for more details.

27. Under the proposed system in which morphological features are added via syntactic movement, it should be accounted for what triggers the movement. Verbal stems do not bear any features and therefore the so-called feature checking does not trigger the raising of verbal stems. With regard to this issue, Chomsky (1995) suggests that the categories involved in syntactic operations must be marked (in the lexicon or the transition to the numeration) as allowing or requiring affixation.

28. See Grimshaw (1991) for the notion of extended projection.

CHAPTER 3

COMP and Case Realization

3.1. Introduction

Embedded CPs in Korean are headed by complementizer *-ko* or *-nun*. It is well-known that the complementizers *-ko* and *-nun* are in complementary distribution (Yoon 1990). The complementizer *-ko* is licensed in the domain of complement to V but not complement to N. The complementizer *-nun*, on the other hand, is licensed in the domain of complement to N but not complement to V. Neither *-ko* nor *-nun* is licensed in subject CP.

- (1) a. Joe-ka [Sue-ka ka-ass-ta-ko/*nun] mit-ass-ta.
Joe-Nom Sue-Nom go-Past-Dec-C believe-Past-Dec
'Joe believed that Sue went.'
- b. [Sue-ka ka-ass-ta-*ko/nun] mitum
Sue-Nom go-Past-Dec-C belief
'the belief that Sue went'
- c. [Sue-ka ka-ass-ta-*ko/*nun] motu-lul nolakey ha-ass-ta.
Sue-Nom go-Past-Dec-C everyone-Acc surprised do-Past-Dec
'That Sue went surprised everyone.'

In (1a), the embedded CP serves as complement to the matrix verb and is headed by the verbal suffix *-ko*. In (1b), on the other hand, the embedded CP is used as complement to

the head noun and headed by the verbal suffix *-nun*. In (1c), the embedded CP functions as subject and neither *-ko* nor *-nun* can be licensed.

In this chapter, I propose that the complementizers *-ko* and *-nun* are associated with case features, i.e., accusative and genitive, respectively. I claim that the verbal suffix *-ko* is associated with accusative and therefore must be licensed by the lexical head V, which is widely argued to be responsible for accusative in Korean. I also claim that the verbal suffix *-nun* is associated with genitive and licensed by the functional head D, which I argue to be responsible for genitive in Korean (Fukui 1986 and Abney 1987).

The proposed analysis of the verbal suffix *-ko* as being associated with accusative is empirically evidenced by the fact that *-ko* is licensed in the same configuration as the nominal suffix *-lul*, which is the morphological realization of accusative. That is, the suffixes *-ko* and *-lul* are licensed in the domain of complement to V, whereas neither is licensed in complement to N or in subject position. Compare the examples in (2) with those in (1).¹

- (2) a. Joe-ka [ku iyaki-lul] mit-ass-ta.
 Joe-Nom that story-Acc believe-Past-Dec
 ‘Joe believed the story.’
- b. [ku iyaki-*lul] mitum
 that story-Acc belief
 ‘the belief of the story’

- c. [ku iyaki-*lul] motu-lul nolakey ha-ass-ta.
 that story-Acc everybody-Acc surprised do-Past-Dec
 ‘The story surprised everybody.’

The data in (1) and (2) strongly suggest that the verbal suffix *-ko* is associated with accusative, just as the nominal suffix *-lul* is. The proposed analysis of *-ko* as the morphological realization of accusative is further supported by the fact that the verbal suffix *-ko* is interchangeable with the nominal suffix *-lul* in interrogative clauses.

There exists the same line of evidence for the analysis of the verbal suffix *-nun* as being associated with genitive. The verbal suffix *-nun* is licensed in the same configuration as the nominal suffix *-uy*, which is the morphological realization of genitive. That is, they are licensed in the domain of complement to N, whereas neither is licensed in complement to V or in subject position. Compare (1) with (3).

- (3) a. Joe-ka [ku iyaki-*uy] mit-ass-ta.
 Joe-Nom that story-Gen believe-Past-Dec
 ‘Joe believed the story.’
- b. [ku iyaki-uy] mitum
 that story-Gen belief
 ‘the belief of the story’
- c. [ku iyaki-*uy] motu-lul nolakey ha-ass-ta.
 that story-Gen everybody-Acc surprised do-Past-Dec
 ‘The story surprised everybody.’

The data in (1) and (3) clearly indicate that the verbal suffix *-nun* is the morphological realization of genitive, just as the nominal suffix *-uy* is. Further, the fact that the verbal suffix *-nun* is interchangeable with the nominal suffix *-uy* in interrogative clauses provides clearer empirical evidence that the complementizer *-nun* is associated with genitive.

The nominal suffixes *-lul* and *-uy* are widely argued to be the head D (Ahn and Yoon 1989 and Bak 1990), and the verbal suffixes *-ko* and *-nun* the head C (Choe 1988, Ahn and Yoon 1989, Whitman 1989, Jung 1992, and Kim 1996). Given this, I claim that case features are overtly realized on the head D as nominal suffixes when associated with DPs, whereas case features are morphologically realized on the head C as verbal suffixes when associated with CPs. A generalization can be made regarding overt realization of case features in Korean: case features realized on the head of the projections which enter into a case-checking relation.

It is not implausible to assume that the category C may be associated with case features. The proposed analysis of the verbal suffixes *-ko* and *-nun* as being associated with case features is theoretically supported by a parallelism between D and C (Szabolcsi 1989, Siloni 1991 and 1995, and Bittner and Hale 1996). Bittner and Hale (1996) argue that the nominal head D (or K), which is associated with case features, corresponds to the verbal head C. This allows us to argue that the head C may be associated with case features if we assume that CPs may be assigned case. Szabolcsi (1989) and Siloni (1995), on the other hand, claim that the category D in Hebrew may serve as a complementizer in certain participial clauses. This is, the head D shares certain features with the head C.

Therefore it is quite plausible to assume that the category C may realize case features in Korean. The proposed analysis is also supported by the argument that the category P may realize case features (Baker 1988, Kim 1990, and Lee 1992), along with the argument that complementizers are of the category P (Emonds 1985). If we adopt those arguments, the verbal suffixes *-ko* and *-nun* known as COMPs are predicted to be of the category P. Therefore, it follows that they realize case features.

A universal property of the category C is that it serves as a subordinator. It has long been observed, however, that subordination is not the only function of the category C. Cross-linguistic evidence has been provided that morphological features which are relevant to morphological realizations of complementizers are varied from one language to another. Further, it is quite common that a language employs more than one complementizer, which suggests that there exist certain features by which different complementizers can be distinguished. In English, for example, complementizer *that* realizes [+tense, -wh, +Sub], whereas *for* realizes [-tense, -wh, +Sub] (Bresnan 1979 and Emonds 1985). It is therefore tense features that allow us to distinguish *that* from *for*. In other words, tense features are relevant to the morphological realizations of complementizers in English. Bennis and Haegeman (1984), on the other hand, observe that complementizers *da* and *dan* in West Flemish realize [+tense, -pl, +Sub] and [+tense, +pl, +Sub], respectively. Therefore it is agreement features that serve to distinguish *dan* from *da*. That is, agreement features are relevant to the realizations of complementizers in West Flemish. I claim that Korean complementizers *-ko* and *-nun* realize [+Acc, +Sub] and [+Gen, +Sub], respectively. It is therefore case features that allow us to distinguish

the two complementizers *-ko* and *-nun*. Once we assume that the category C may be associated with such morphological features as *wh-* and agreement features, there is no reason to rule out the possibility that the head C may be associated with case features.

It is case features by which the nominal suffixes *-lul* and *-uy* are distinguished from each other, i.e., the former being associated with accusative and the latter with genitive. What I am proposing in this chapter is that the verbal suffixes *-ko* and *-nun* are distinguished from each other in the same manner, i.e., in terms of case features. The former is associated with accusative and the latter with genitive. The verbal suffixes *-ko* and *-nun*, on the other hand, are distinguished from the nominal suffixes *-lul* and *-uy* in terms of their categorial features, i.e., the former is of [-N, +V], whereas the latter is of [+N, -V]. I propose the feature specifications of the verbal suffixes *-ko* and *-nun* and the nominal suffixes *-lul* and *-uy* as in (4).

- (4) a. *-lul* [+N, -V, +Acc]
 -ko [-N, +V, +Acc, +Sub]
- b. *-uy* [+N, -V, +Gen, +Sub]
 -nun [-N, +V, +Gen]

The feature specifications of the nominal suffixes *-lul* and *-uy* and the verbal suffixes *-ko* and *-nun* imply that the former are Ds with case features, whereas the latter are COMPs with case features. It has long been observed that nominal case markers and complementizers morphologically converge in various languages (Moravcsik 1972,

Gorbet 1973, Clark 1973, and Joseph 1975, among others). The proposed analysis of Korean complementizers *-ko* and *-nun* provides a principled account of the cross-linguistic conversion of case markers and complementizers.

The organization of this chapter is as follows. In 3.2, I will discuss whether case features may be associated with CPs. Stowell (1981) proposed Case Resistance Principle (=CRP) which says that CPs may not be assigned case. I will address both theoretical and empirical problems with Stowell's (1981) CRP and present cross-linguistic evidence that CPs may bear case features. I also claim that morphological features may be realized as nominal suffixes in nominal projections and as verbal suffixes in verbal projections. In 3.3, I present an analysis of the verbal suffixes *-nun* and *-ko* by proposing that the former is associated with genitive and the latter with accusative. I show that the verbal suffixes *-nun* and *-ko* are licensed in the same configurations as the nominal suffixes *-uy* and *-nun*, which are the realizations of accusative and genitive, respectively. In 3.4, I provide theoretical and empirical arguments for the proposed analysis of *-ko* and *-nun* as being associated with case features. I show that morphological features associated with complementizers vary cross-linguistically, which allows us to argue that complementizers may be associated with case features in Korean. I also show that a functional parallelism between D and C also provides a theoretical argument for the proposed analysis in which both C and D may be associated with case features. Finally, I present cross-linguistic evidence that complementizers converge with nominal case markers in various languages, which provides empirical evidence for the proposed analysis.

3.2. CP and Case Features

It has long been a controversial issue in the literature whether CPs may be assigned case or not.² In this section, I discuss this issue and present both theoretical and empirical evidence that CPs may be assigned case cross-linguistically. I argue that case features are morphologically realized on the head of the maximal projections which enter into a case-checking relation. In other words, case features are realized on the head D when DPs enter into a case-checking relation, whereas case features are realized on the head C when CPs enter into a case-checking relation.

3.2.1. Case Resistance Principle: Stowell (1981)

Stowell (1981) proposes the Case Resistance Principle to account for different distributions of DPs and CPs in English. The CRP is stated in (5).

(5) **Case Resistance Principle**

Case may not be assigned to a category bearing a case-assigning feature.

Stowell argues that tensed CPs cannot occur in case-marked positions since they bear a case-assigning feature, i.e., [+tense]. There is some evidence suggesting that CPs may not be assigned case in English, Consider the following data, which led Stowell (1981) to propose the CRP.

- (6) a. *Did [that Sue went home] surprise Joe?
 b. *Bill knew [that [that Sue went home] surprised Joe].
 c. ?*Mary said [that she wanted to drive] quietly.
 d. *Paul knew about [that Sue went home].

- (7) a. Did [Sue's going home surprise] Joe?
 b. Bill knew that [Sue's going home] surprised Joe.
 c. Mary remembered Sue's going home clearly.
 d. Paul know about Joe's going home.

As illustrated in (6) and (7), there are some syntactic positions in English from which tensed CPs but not DPs are excluded. These positions are defined as case-marked positions.³ The embedded CPs in (6a) and (6b) occur in the subject position to which nominative is assigned by the finite INFL. In (6c), the embedded CP is used as the complement to V, which assigns accusative to the complement. In (6d), the embedded CP occurs in the complement to P, which is argued to assign accusative or oblique case (Chomsky 1981 and Kayne 1984). The CRP in (5) correctly predicts that the sentences in (6) are ungrammatical since the embedded CPs occur in case-marked position and thus violate the CRP.⁴ The CRP also can account for the fact that CPs but not DPs may appear in complements to N and A, which are defined as non-case positions.

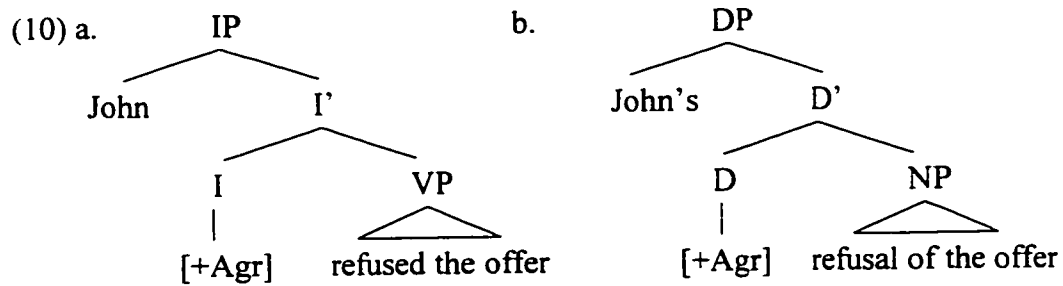
- (8) a. Joe's belief [that Sue went home]
 b. Joe is aware [that Sue went home].

The complementary distributions of DPs and CPs mentioned above seem to be well accounted for by Stowell's (1981) CRP.

Despite the data in (6) and (8), however, there arise both theoretical and empirical problems with the CRP. First let us consider some theoretical problems. As pointed out by Contreras (1985), for the analysis to work, infinitives must be specified [+tense] in Stowell (1981), which is against widely accepted assumptions. Yoon (1993) points out that the syntactic behaviors of a certain projection seem to be determined by the head of the projection, not by the head of any lower projections. Under the CRP, however, the external distributions of CPs is determined not by the head of the CP but by the head of the lower projection, i.e., IP. Yoon (1993) argues that it is not the features of the head INFL but the features of the head C which determine the distributions of CPs in Korean. Specifically, Yoon (1993) argues that tensed CPs headed by the complementizer *-ko* cannot be assigned case in Korean since the head C of the CPs bears the feature [-N], which is defined as case-assigning categories (Chomsky 1981 and Stowell 1981). There arises another theoretical problem in the CRP if we assume Fukui (1986) and Abney (1987) in arguing that the head D is a case-assigner. Fukui (1986) argues that the possessive morpheme *-s*, which is of the category D, assigns genitive, just as the feature [+tense] of INFL assigns nominative.⁵

Abney (1987) also suggests a possible parallelism between clauses and noun phrases regarding case assignment. He suggests that the head D with the feature [+Agr] assigns genitive in (9b), just as the head INFL with [+Agr] assigns nominative in (9a).

- (9) a. John refused the offer.
 b. John's refusal of the offer



If this is correct, then it follows that DPs, which bear a case-assigning feature, may not be assigned case. But this is not the case. Therefore the CRP is not compatible with the DP-analysis, which has been widely accepted in the literature.

Now let us consider empirical problems with the CRP. First, Observe the following examples.

- (11) a. *John knew [that [that Mary left too early] upset Bill].
 b. *?John mentioned [that Mary left too early] to Bill.

The data in (11) clearly show that there exists a subject/object asymmetry, which seems not to be accounted for by the CRP. The CRP wrongly predicts that both (9a) and (9b) are ruled out since they are both in case-marked positions.⁶ Another empirical problem is posited by the following examples. Compare (12) and (13).

- (12) a. *?John mentioned [that Mary left too early] to Bill.
 b. John mentioned to Bill [that Mary left too early].

- (13) a. *?John complained [that Mary left too early] to Bill.
 b. John complained to Bill [that Mary left too early].

The CRP correctly predicts that (12a) is not grammatical since the embedded CP is in the case-marked position, violating the CRP, whereas (12b) is grammatical since the embedded CP is extraposed and not in the case-position any more, satisfying the CRP. Now let us consider the examples in (13). Unlike the matrix verb *mentioned* in (12), the matrix verb *complained* in (13) cannot assign accusative to its complement. This is illustrated by the examples in (14).

- (14) a. John mentioned (*of) the rumor.
 b. John complained *(of) the rumor.

The fact that *of*-insertion is required in (14a) indicates that the verb *complained* does not have the ability to assign accusative to its complement. Given that the verb *complained* does not assign accusative in (13a), the embedded CP is not in case-marked position and thus does not violate the CRP. Under the CRP, therefore, (13a) is wrongly predicted to be grammatical.

3.2.2. Cross-Linguistic Evidence against the CRP

In this section, we provide cross-linguistic evidence that CPs may be assigned case. First, Contreras (1985) and Plann (1986) show that Spanish infinitival and tensed CPs occur in case-marked positions including complement of P. The following examples are from Plann (1986).

- (15) a. Luis se fue sin [despedirse de nadie]
 Luis himself went without [to-say-goodbye of nobody]
 ‘Luis went away without saying goodbye to anyone.’
- b. Luis soñaba con [que llamaba a casa].
 Luis was dreaming with [that was-III-sg calling to home]
 ‘Luis was dreaming that he was calling home.’

The embedded CPs in (15a) and (15b) occur as the complements to P, which is defined as a case-marked position.

Furthermore, both tensed and infinitival CPs trigger *de*-insertion when they are selected as complement to N, A, or an intransitive V, which are assumed to lack a case-assigning feature. The following examples are from Contreras (1985).

- (16) a. Juan trata de [leer].
 ‘John tried to read.’
- b. El plan de [construir un puente]
 ‘the plan to build a bridge’

(17) a. Juan trató de [que Marta se fuera].

‘John tried for Martha to leave.

b. La propuesta de [que vayamos a la playa]

‘the proposal that we go to the beach’

The embedded infinitival clauses in (16) and the embedded tensed clauses in (17) are selected either by an intransitive verb or a noun, which does not assign case and therefore *de*-insertion is triggered. This is a clear indication that the embedded CPs in (16) and (17) must and/or may be assigned case. The data in (15) - (17) therefore suggest that CPs may be assigned case in Spanish.

Taraldsen (1984) notes that the distribution of CPs in Norwegian differs from the distribution of CPs in English. Tensed CPs may occur as the complement of N in English (18a), but not in Norwegian (18b). On the other hand, tensed CPs may occur as the complement of P in Norwegian (19b) but not in English (19a). Observe the examples in (18) and (19), cited from Taraldsen (1984).

(18) a. the claim [that Knighton was le Marquis]

b. *pastanden [at Knighton var le Marquis]

claim that K. was the M.

(19) a. *They argue against [that we should tell the police].

b. de argumenterte mot [at vi skulle varsle politiet].

they argue against that we should tell police

The data in (18) and (19) strongly suggest that CPs may and/or must be assigned case in Norwegian.

Hoekstra (1984) also observes that tensed CPs may occur as the complement of P in Dutch. Consider the examples in (20).

(20) a. voor [het eten]

before the meal

b. voor [dat we gingen eten]

before that we started the meal

The complement DP in (20a) and the complement CP in (20b) are exactly in the same syntactic configuration, i.e., in the complement of the preposition *voor*. Therefore it follows that the CP in (20b) is case-marked just as the DP in (20a) is.

Tsai (1995) provides evidence for the claim that CPs are assigned case in Chinese. She observes that DPs and CPs have the same distribution in Chinese. Let us consider the following examples.

(21) a. wo hen zaiyi (*dui) [Akiu bu lai].

I very mind about Akiu not come

'I do not mind Akiu not coming.'

b. wo [*(dui) [Akiu bu lai]] hen zaiyi.

I about Akiu not coming very mind

(22) a. wo hen zaiyi (**dui*) [*zhe-jian shi*].

I very mind about this-Cl matter

‘I do not mind about this matter.’

b. wo [**(dui) [zhe-Jian shi]*] hen zaiyi

I about this-Cl matter very mind

The embedded CP in (21a) is governed by the matrix V, just as the object DP in (22a) is. The matrix V does not allow an intervening preposition like *dui*. On the other hand, the embedded CP in (21b), which occurs in the preverbal position, cannot be licensed without being case-marked by the preposition *dui* since the matrix verb cannot govern the preposed complement CP. The same is true of the object DP in (22b). The data in (21) and (22) suggest that both DPs and CPs may be assigned case in Chinese.⁷

3.2.3. Case Realizations on D(P) and C(P)

In Korean, morphological features are overtly realized as nominal suffixes when associated with nominal projections (=DPs) and as verbal suffixes when associated with verbal projections (=CPs). Let us take agreement features in Korean as an example. It is shown in chapter 2 that agreement features consist of number and honorification in Korean. The feature [+Pl] is overtly realized as the nominal suffix *-tul* when associated with DPs, whereas it is realized as a zero verbal suffix ϕ when associated with CPs. The feature [+Hon], on the other hand, is overtly realized as the nominal suffix *-kkeyse* when

associated with DPs, whereas it is realized as the verbal suffix *-si* when associated with CPs.⁸

Nominal and verbal suffixes are distinguished in terms of categorial features. It is quite natural to assume that nominal suffixes share their categorial features with the stem N, and verbal suffixes with the stem V (Grimshaw 1991 and Jung 1992). Then we have the feature specifications of the nominal suffixes *-kkeyse* and *-tul* and the verbal suffixes *-si* and ϕ as in (23) and (24).

- (23) a. *-kkeyse* [+N, -V] [+Hon] [+Nom]
 b. *-si* [-N, +V] [+Hon]

- (24) a. *-tul* [+N, -V] [+Pl]⁹
 b. ϕ [-N, +V] [+Pl]

Conjunctions in Korean also provide supporting evidence for the assumption that morphological features are realized as nominal suffixes when associated with nominal projections and as verbal suffixes when associated with verbal projections. Both nominal and verbal projections can be conjoined by the so-called conjunctions in Korean. Nominal and verbal projections, however, employ different conjunctions. That is, nominal projections are conjoined by nominal suffix *-(k)wa* and verbal projections by verbal suffix *-ko*.¹⁰ Observe the examples in (25) and (26).¹¹

(25) a. Joe-ka [[_N chayk]-kwa [_N cito]]-lul sa-ass-ta.

Joe-Nom book-Conj map-Acc buy-Past-Dec

‘Joe bought a book and a map.’

b. Joe-ka [[_{DP} Sue-eykey]-wa [_{DP} Mary-eykey]] panci-lul cu-ass-ta.

Joe-Nom Sue-Dat-Conj Mary-Dat ring-Acc give-Past-Dec

‘Joe gave Sue and Mary a ring.’

(26) a. [[_v mek]-ko [_v ca]]-ki

eat-Conj sleep-NM

‘eating and sleeping’

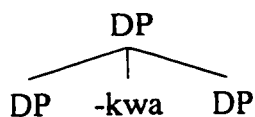
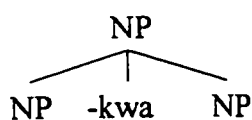
b. [[_{TP} apci-nun LA-ey ka-si-ass]-ko [_{TP} emeni-nun Seoul-ey ka-si-ass]]-ta.

father-Top LA-Loc go-Hon-Past-Conj mother-Top Seoul-Loc go-Hon-Past-Dec

‘Father went to LA and mother went to Seoul.’

The nominal projections *chayk* and *cito* in (25a) are conjoined by the nominal suffix *-kwa*. The conjunction *-kwa* in (25b) conjoins the nominal projection *Sue-eykey* and *Mary-eykey*. The verbal projections *mek-* and *ca-* in (26a), on the other hand, are conjoined by the verbal suffix *-ko*. The verbal projections *apci-nun LA-ey ka-si-ass* and *emeni-nun Seoul-ey ka-si-ass* in (26b) are also conjoined by the verbal suffix *-ko*. Consider the structures in (27).

(27) a.





It is now clear that the nominal suffix *-kwa* and the verbal suffix *-ko* share the grammatical function, i.e., conjunction (or the feature [+Conj]). The nominal suffix *-kwa*, however, is distinguished from the verbal suffix *-ko* in terms of the categorial features, i.e., the former being [+N, -V] and the latter [-N, +V].

- (28) a. *-kwa* [+N, -V] [+Conj]
 b. *-ko* [-N, +V] [+Conj]

It is now clear that morphological features need not be uniformly realized as certain suffixes when they are associated with nominal and verbal projections. It makes more sense to assume that certain features are realized as nominal suffixes in nominal projections and as verbal suffixes in verbal projections. I claim that case features associated with verbal projections are overtly realized as verbal suffixes. The nominal suffixes *-lul* and *-uy* have the feature specifications as in (29a) and (29b), respectively. I will show in section 3.3 that the verbal suffixes *-ko* and *-nun* realize the feature specifications in (30a) and (30b), respectively.

- (29) a. [+N, -V] [+Acc]
 b. [+N, -V] [+Gen]

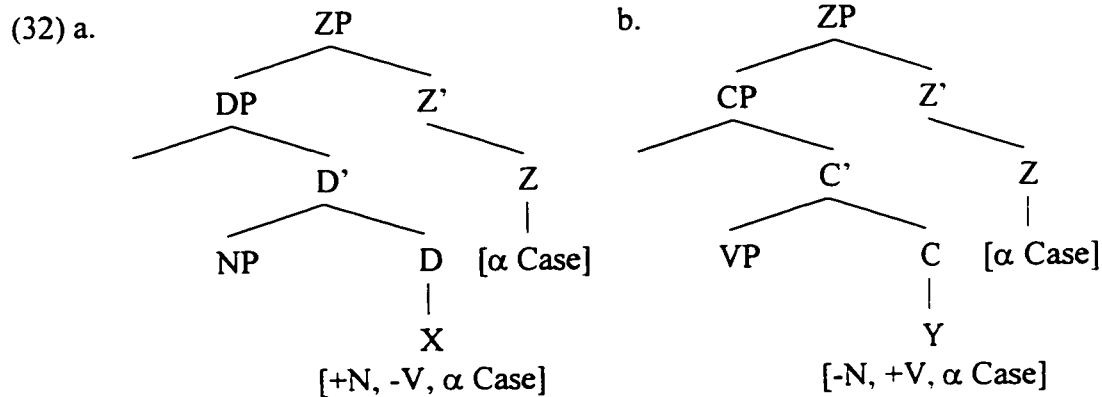
- (30) a. [-N, +V] [+Acc]
 b. [-N, +V] [+Gen]

In chapter 2, I have argued that case (and agreement) features are morphologically realized on the head D when they are associated with DP. This argument is based upon the assumption that it is the entire DP not the lexical head N that enters into a checking relation for the checking of the features associated with the DP. Given this, it seems not implausible to assume that the verbal functional head C is associated with case features since it is the entire CP that enters into a checking relation for the checking of the case features associated with the CP. I argue that case features are associated with or morphologically realized on the head C when CP is associated with case features. Now we can make a generalization regarding morphological realizations of case features as stated in (31).

(31) Case Realization

Case features are morphologically realized on the heads of the projections which enter into a case-checking relation

According to the generalization (31), case features are overtly realized on the head D when they are assigned to DP and on the head C when they are assigned to CP. The generalization (31) further implies that case features are realized as nominal suffixes when associated with DP and as verbal suffixes when associated with CP. Consider the structures in (32).



The head D, i.e., the nominal suffix X in (32a) is associated with α case and its categorial features are [+N, -V]. The head C, i.e., the verbal suffix Y in (32b) is also associated with α case but its categorial features are [-N, +V]. The case features of D and C percolate to the maximal projections, i.e., DP and CP, which enter into a case-checking relation with the head Z.

3.3. COMPs as Case Realizations

In Korean, embedded clauses are headed by verbal suffix *-ko* or *-nun*, which are widely argued to be COMP (Choe 1988, Ahn and Yoon 1989, Yoon 1990, and Jung 1992, among others). As we have seen in chapter 2, the primary function of *-ko* and *-nun* is to serve as subordinators. In other words, they serve to set off the embedded clauses from the matrix clause. Given this, the verbal suffixes *-ko* and *-nun* share the feature [+Sub]. It should be accounted for in a principled manner why Korean employs two different complementizers *-ko* and *-nun*. Observe the examples in (33), which show that embedded CPs are headed by different complementizers in different configurations.

- (33) a. [Sue-ka cip-ey ka-ass-ta-nun/*ko] Joe-uy mitum
 Sue-Nom home-to go-Past-Dec-C Joe-Gen belief
 ‘Joe’s belief that Sue went home’
- b. Joe-ka [Sue-ka cip-ey ka-ass-ta-ko/*nun] mit-ass-ta.
 Joe-Nom Sue-Nom home-to go-Past-Dec-C believe-Past-Dec
 ‘Joe believed that Sue went home.’

The complementizer *-nun* is licensed in the complement to N (33a), and *-ko* in the complement to V (33b). The fact that the complementizers *-ko* and *-nun* are licensed in different configurations clearly indicates that they are licensed by different elements or heads. This further implies that the complementizers *-nun* and *-ko* are associated with different morphological features by which we can distinguish them. In this section, I propose that the verbal suffixes *-nun* and *-ko* in (33) are indeed associated with different case features. Based upon the syntactic configurations in which they are licensed, I argue that *-nun* is associated with genitive, whereas *-ko* is associated with accusative.

It is in order to discuss whether CPs can be assigned case or not in Korean. Given that case features are overtly realized as inflectional suffixes in Korean, the question of whether or not CPs can be assigned case reduces to whether case features are overtly realized in verbal projections, i.e., CPs. Adopting Stowell’s (1987) CRP, Han (1987) and Yoon (1993) argue that CPs cannot be assigned case in Korean. Their argument is based upon the fact that CPs cannot be headed by nominal case suffixes or postpositions, which are argued to be the realizations of case features. Observe the examples in (34).¹²

- (34) a. *Joe-ka [Sue-ka o-ass-ta-(ko)-lul] mit-ass-ta.
 Joe-Nom Sue-Nom come-Past-Dec-C-Acc believe-Past-Dec
 ‘Joe believed that Sue came.’
- b. *[Sue-ka o-ass-ta-ko-ka] motu-eykey ali-eci-ass-ta.
 Sue-Nom come-Past-Dec-C-Nom everybody-Dat-inform-Pass-Past-Dec
 ‘That Sue came was known to everybody.’
- c. *[Sue-ka o-ass-ta-nun-uy] sasil
 Sue-Nom come-Past-Dec-C-Gen fact
 ‘the fact that Sue came’
- d. *[Sue-ka o-ass-ta-(ko)-ey] motu-ka nola-ass-ta.
 Sue-Nom come-Past-Dec-C-at everybody-Nom be surprised-Past-Dec
 ‘Everybody was surprised that Sue came.’

As clearly shown in (34), the nominal case suffixes *-lul*, *-ka*, and *-uy* and the postposition *-ey* cannot be licensed in CPs headed by *-ko* or *-nun*. The data in (34) seem to suggest that CPs cannot be assigned case in Korean, which is what Han (1987) and Yoon (1993) argue for.

Han’s (1987) and Yoon’s (1993) argument that CPs cannot be assigned case in Korean, however, is valid only if we assume that case features are invariably realized as nominal suffixes, regardless of whether they are associated with nominal and verbal projections. As we have seen in 3.2.3, it is more plausible to assume that morphological features are realized as nominal suffixes when associated with nominal projections and as

verbal suffixes when associated with verbal projections. I have shown in 3.2.3 that honorific agreement is realized as the nominal suffix *-kkeyse* when associated with nominal projections, whereas it is realized as the verbal suffix *-si* when associated with verbal projections. Given this, the data in (34) do not tell us anything about whether CPs can be assigned case or not.¹³ In what follows, I will argue that CPs can be assigned case and that case features are realized as verbal suffixes when associated with CPs.

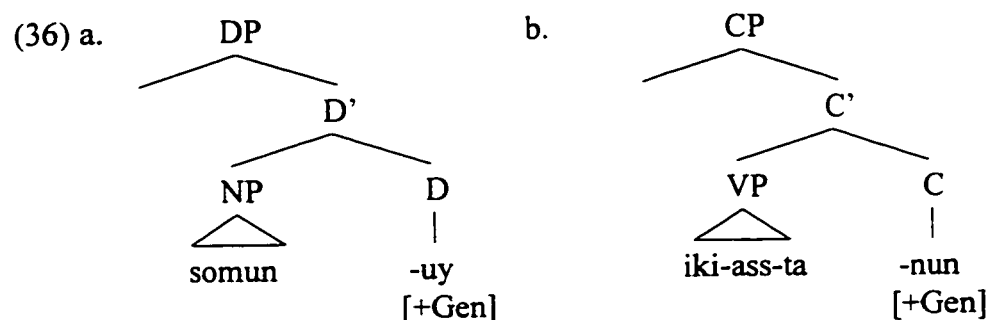
3.3.1. *-Nun* and Genitive

In this section, I propose that the verbal suffix *-nun* is associated with or the morphological realization of genitive. We have seen in chapter 2 that genitive is morphologically realized on the head D as the nominal suffix *-uy* when associated with DP. Now I propose that genitive is overtly realized on the head C as the verbal suffix *-nun* when associated with CP. First, observe the examples in (35).

- (35) a. [somun-uy] inceng
 rumor-Gen acknowledgment
 ‘the acknowledgment of the rumor’
- b. [pro iki-ass-ta-nun] mitum
 win-Past-Dec-C belief
 ‘one’s belief that he won’

The genitive-marked DP in (35a) is used as the complement to the head N. The embedded CP headed by the verbal suffix *-nun* in (35b) is also used as the complement to the head

N. It is not implausible to argue that the embedded CP in (35b) is assigned genitive, just as the complement DP in (35a) is. Let us suppose that the embedded CP is indeed assigned genitive and consider the structures in (36).¹⁴

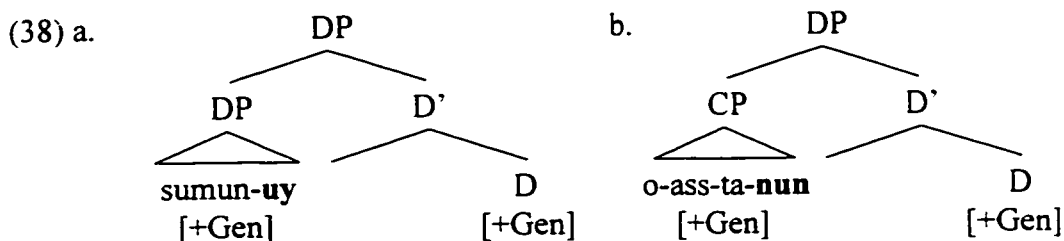


I argue that both the DP in (36a) and the CP in (36b) bear genitive, which is overtly realized as the nominal suffix *-uy* on the head D in the former and on the head C as the verbal suffix *-nun* in the latter.

The verbal suffix *-nun* is distinguished from the nominal suffix *-uy* in terms of the categorial features, i.e., the former is [-N, +V] and the latter [+N, -V]. The verbal suffix *-nun* is further distinguished from the nominal suffix *-uy* in terms of other features, i.e., the former is associated with the feature [+Sub], whereas the latter does not. Now we have the feature specifications of *-uy* and *-nun* in (37).

- (37) a. *-uy* [+N, -V, +Gen]
 b. *-nun* [-N, +V, +Gen, +Sub]

Given the feature specifications of *-uy* and *-nun* in (37), it is not surprising that there are two different realizations of genitive in Korean. The feature specifications of *-uy* and *-nun* in (37) predict that they must be licensed by the same element since they bear the same feature [+Gen]. Under the assumption that genitive is licensed by the functional head D (Fukui 1986 and Abney 1987), the DP headed by the nominal suffix *-uy* in (37a) and the CP headed by the verbal suffix *-nun* in (37b) must be licensed by the head D. In other words, they must enter into a checking relation with the head D in order to have their case features checked.



3.3.1.1. Distribution of *-Uy* and *-Nun*

There is empirical evidence that the verbal suffix *-nun* is associated with genitive. First of all, the verbal suffix *-nun* is licensed in the same configuration as the nominal suffix *-uy*, which is the morphological realization of genitive in DP.

3.3.1.1.1. Complement to N

CPs may serve as complement to N. CPs in this configuration are invariably headed by the verbal suffix *-nun*. Observe the following examples.

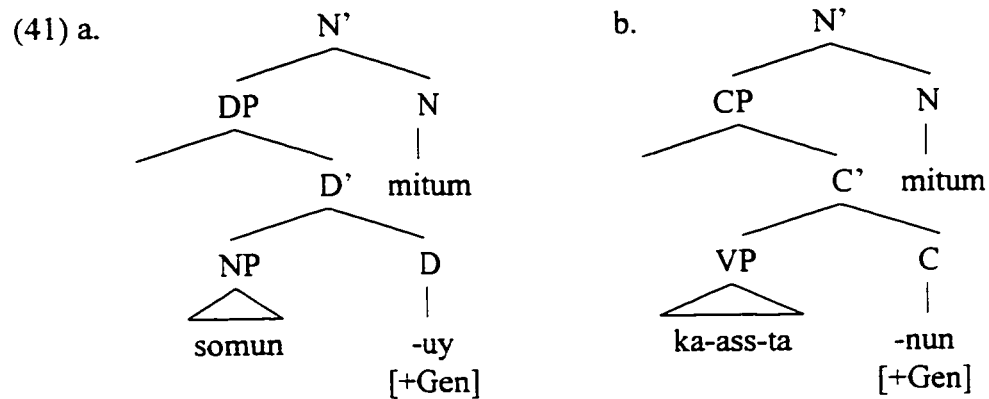
- (39) a. [Sue-ka cip-ey ka-ass-ta-nun] Joe-uy mitum
 Sue-Nom home-to go-Past-Dec-C Joe-Gen belief
 ‘Joe’s belief that Sue went home’
- b. [Sue-ka cip-ey ka-ass-nya-nun] Joe-uy cilmun
 Sue-Nom home-to go-Past-Int-C Joe-Gen question
 ‘Joe’s question whether Sue went home’
- c. [Kati cip-ey ka-ca-nun] Joe-uy cean
 together home-to go-Past-Prop-C Joe-Gen suggestion
 ‘Joe’s suggestion that they go home together’
- d. [Ppali cip-ey ka-la-nun] Joe-uy myenglyeng
 quickly home-to go-Imp-C Joe-Gen order
 ‘Joe’s order that (someone) go home quickly’

The embedded CPs in (39) are subcategorized and assigned a θ -role by the head nouns. It is clear that the verbal suffix *-nun* is licensed in the domain of complement to N. Like the verbal suffix *-nun*, the nominal suffix *-uy* is licensed in the domain of complement to N. Observe the following examples.

- (40) a. [sasil-uy] inceng
 fact-Gen acknowledgment
 ‘the acknowledgment of the fact’

- b. [somun-uy] mitum
 rumor-Gen belief
 ‘the belief of the rumor’

The genitive-marked DPs in (40) are subcategorized and assigned a θ -role by the head nouns. That is, they are licensed in the same configuration as the embedded CPs in (39), i.e., as complements to the head nouns. Consider the configurations in (41).



The fact that DPs headed by *-uy* and CPs headed by *-nun* are licensed in the same configuration strongly suggests that the verbal suffix *-nun* shares some feature(s) with the nominal suffix *-uy*. Given that the nominal suffix *-uy* is exclusively associated with genitive, it is clear that the verbal suffix *-nun* is also associated with genitive. The proposed analysis of *-nun* as the realization of genitive predicts that CPs headed by *-nun* cannot be licensed in the domain of complement to V or in subject position, which will be confirmed in what follows.

3.3.1.1.2. Complement to V

CPs can also serve as complement to V in Korean. The verbal suffix *-nun* cannot be licensed in this configuration as illustrated in the examples in (42).

- (42) a. *Joe-ka [Sue-ka cip-ey ka-ass-ta-nun] mit-ass-ta.
 Joe-Nom Sue-Nom home-to go-Past-Dec-C believe-Past-Dec
 ‘Joe believed that Sue went home.’
- b. *Joe-ka [Sue-ka cip-ey ka-ass-nya-nun] mul-ass-ta.
 Joe-Nom Sue-Nom home-to go-Past-Int-C asked
 ‘Joe asked whether Sue went home.’
- c. *Joe-ka [kati cip-ey ka-ca-nun] ceanha-ass-ta.
 Joe-Nom together home-to go-Prop-C suggested
 ‘Joe suggested that they should go home together.’
- d. *Joe-ka [ppali cip-ey ka-la-nun] myenglyerjha-ass-ta.
 Joe-Nom quickly home-to go-Imp-C ordered
 ‘Joe ordered pro that he should go home.’

The embedded CPs in (42) are subcategorized and assigned a θ -role by the matrix verbs. The ungrammaticality of the data in (42) is due to the verbal suffix *-nun*. All the sentences in (42) become grammatical when the verbal suffix *-nun* is replaced by *-ko*, as will be seen in 3.3.2. Like the verbal suffix *-nun*, the nominal suffix *-uy* cannot be licensed in the domain of complement to V as illustrated in (43).

(43) a. *Joe-ka [somun-uy] mit-ass-ta.

Joe-Nom rumor-Gen believe-Past-Dec

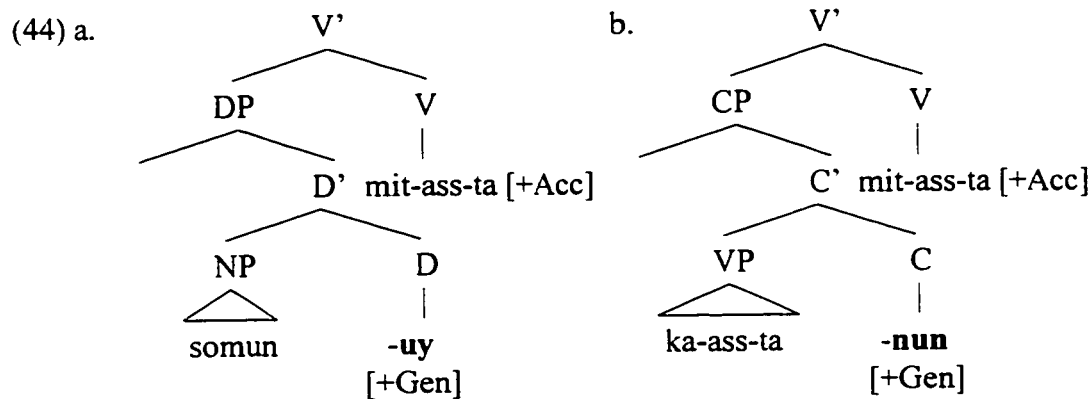
‘Joe believed the rumor.’

b. *Joe-ka [yenghwa-uy] ceanha-ass-ta.

Joe-Nom movies-Gen suggest-Past-Dec

‘Joe suggested a movie.’

Consider the configurations in (44). Neither *-uy* nor *-nun* is licensed in the domain of complement to V.



The proposed analysis of *-nun* as being associated with genitive accounts for the fact that neither the nominal suffix *-uy* nor the verbal suffix *-nun* is licensed in the complement to V. Complement to V is the position to which accusative but not genitive is assigned and therefore neither DPs headed by *-uy* nor CPs headed by *-nun* can be licensed in the configuration since the feature [+Gen] cannot be licensed/checked.

3.3.1.1.3. Subject

Now let us consider CPs which occur in subject position. As illustrated in (45) and (46), neither nominal suffix *-uy* nor the verbal suffix *-nun* is licensed in the embedded CPs which appear in the subject position.

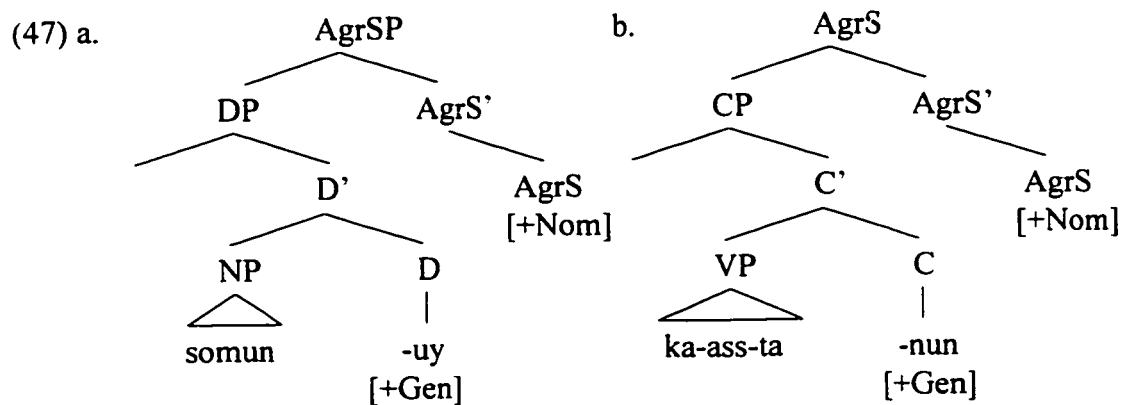
(45) a. *[Sue-ka cip-ey ka-ass-ta-nun] Joe-lul nolakey ha-ass-ta.
 Sue-Nom home-to go-Past-Dec-Nom Joe-Acc surprised do-Past-Dec
 ‘That Sue went home surprised Joe.’

b. *[Sue-ka cip-ey ka-ass-nya-nun] cunгыoha-ta.
 Sue-Nom home-to go-Past-Int-C-Nom important-Dec
 ‘Whether Sue went home is important.’

(46) a. *[ku somun-uy] Joe-lul nolakey ha-ass-ta.
 that rumor-Gen Joe-Acc surprised do-Past-Dec
 ‘The rumor surprised Joe.’

b. *[ku sasil-uy] cunгыoha-ta
 that fact-Gen important-Dec
 ‘The fact is important.’

The proposed analysis of *-nun* as the realization of genitive provides a principled account of why CPs headed by *-nun* cannot be licensed in subject position. Consider the configurations in (47).



Under the proposed analysis of *-nun* as being associated with genitive, the subject DP in (47a) and the subject CP in (47b) are associated with the feature [+Gen] to be checked off. Given that the head AgrS is associated with nominative, the feature [+Gen] of the subject cannot be checked in (47a) and (47b).

To summarize, the external distributions of the verbal suffix *-nun* and the nominal suffix *-uy* provides strong empirical evidence for the proposed analysis of *-nun* as being associated with genitive.

3.3.1.2. Interrogative

There is a more clear piece of evidence that the verbal suffix *-nun* shares the feature [+Gen] with the nominal suffix *-uy*. Unlike other types of clauses, interrogative clauses in Korean may be headed either by the verbal suffix *-nun* or the nominal suffix *-uy* as illustrated in (48).

(48) a. [Nuku-ka iki-ass-nya-nun] muncey
 who-Nom win-Past-Int-C question
 ‘the question who won’

b. [Nuku-ka iki-ass-nya-uy] muncey
 who-Nom win-Past-Dec-Gen question
 ‘the question (of) who won’

As in English, interrogatives in Korean exhibit dual properties, i.e., nominal and verbal properties, which is clearly pointed out by the fact that they can select either the verbal suffix *-nun* or the nominal suffix *-uy*. The fact that the verbal suffix *-nun* is interchangeable with the nominal suffix *-uy* is a strong indication that *-nun* is associated with genitive. The embedded interrogatives in (48) are associated with genitive, which is realized as the verbal suffix *-nun* in (48a) and as the nominal suffix *-uy* in (48b). The suffixes *-nun* and *-uy* share genitive but are distinguished from each other in terms of the categorial features, i.e., the former is [-N, +V] and the latter is [+N, -V].

The verbal suffix *-nun* is not interchangeable with other case suffixes such as *-ka* and *-lul*, which are the morphological realizations of nominative and accusative, respectively, which indicates that *-nun* is not associated with nominative or accusative. Consider the examples in (49).¹⁵

(49) a. [Nuku-ka o-ass-nya-lul/*nun] mul-ass-ta.
 who-Nom come-Past-Int-Acc/C ask-Past-Dec
 ‘pro asked who came.’

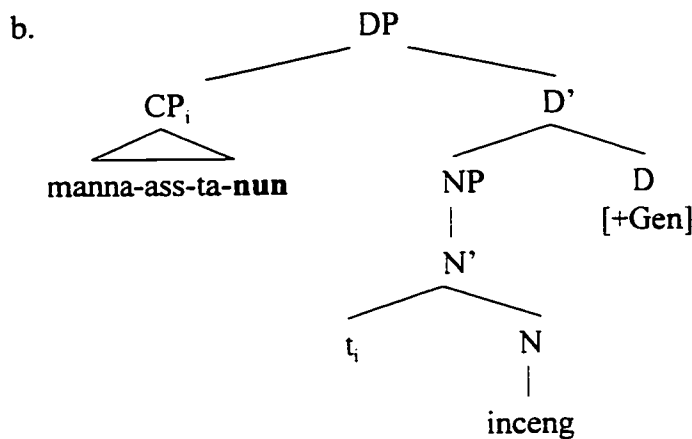
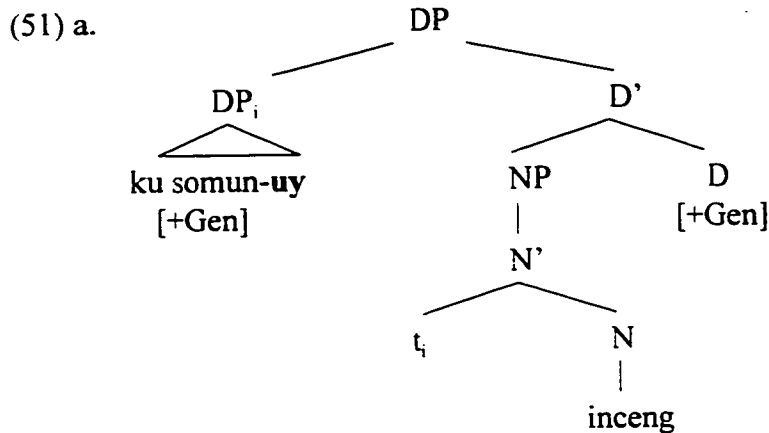
- b. [Nuku-ka o-ass-nya-ka/*nun] cungyoha-ta.
 who-Nom come-Past-Int-Nom/C be important-Cop
 ‘Who came is important.’

The data in (48) and (49) lead us to conclude that the verbal suffix *-nun* is the realization of genitive.

3.3.1.3. Genitive Checking

I have proposed that DPs headed by the nominal suffix *-uy* and CPs headed by the verbal suffix *-nun* are associated with the same feature, i.e., [+Gen]. Let us now consider how the feature [+Gen] is licensed/checked under the Minimalist Program. Adapting Fukui (1986) and Abney (1987) to Korean, I assume that genitive is checked by the functional category D.¹⁶ Consider the examples in (50) and the configurations in (51) in which the nominal suffix *-uy* and the verbal suffix *-nun* are licensed.

- (50) a. [ku somun-uy] inceng
 that rumor-Gen acknowledgment
 ‘the acknowledgment of the rumor’
- b. [pro Sue-lul manna-ass-ta-nun] inceng
 Sue-Acc meet-Past-Dec-C acknowledgment
 ‘the acknowledgment that pro met Sue’



The object DP in (51b) is base-generated in the complement to the head N and bears the feature [+Gen], which is overtly realized on the head D as the nominal suffix *-uy*. The feature [+Gen] of the object DP must be checked off for the derivation to converge. The object DP raises to the specifier of DP and enters into a checking relation with the functional head D. The feature [+Gen] of the object DP is checked off by the head D in terms of the spec-head agreement.¹⁷ Now let us consider how the embedded CP in (51b) is licensed. The embedded CP in (51b) is base-generated in the complement to the head N and bears the feature [+Gen], which is overtly realized on the head C as the

verbal suffix *-nun*. The object CP raises to the spec of DP and enters into a checking relation with the functional head D. The feature [+Gen] of the complement CP is checked off by the head D in terms of the spec-head agreement. In short, DPs headed by *-uy* and CPs headed by *-nun* are licensed by the same head in the same manner.

Now let us consider adjunct CPs. Consider the examples in (52) and their configurations (53a) and (53b). I assume that nominal adjuncts are base-generated in the spec of DP.¹⁸ The adjunct DP in (53a) bears the feature [+Gen], which is realized as the nominal suffix *-uy*. The feature [+Gen] of the adjunct DP is checked off by the functional head D in terms of the spec-head agreement. Similarly, the embedded CP in (53b) bears the feature [+Gen], which is realized as the verbal suffix *-nun*. The feature [+Gen] of the CP is checked off by the head D in terms of the spec-head agreement.

(52) a. [ecey-uy] somun

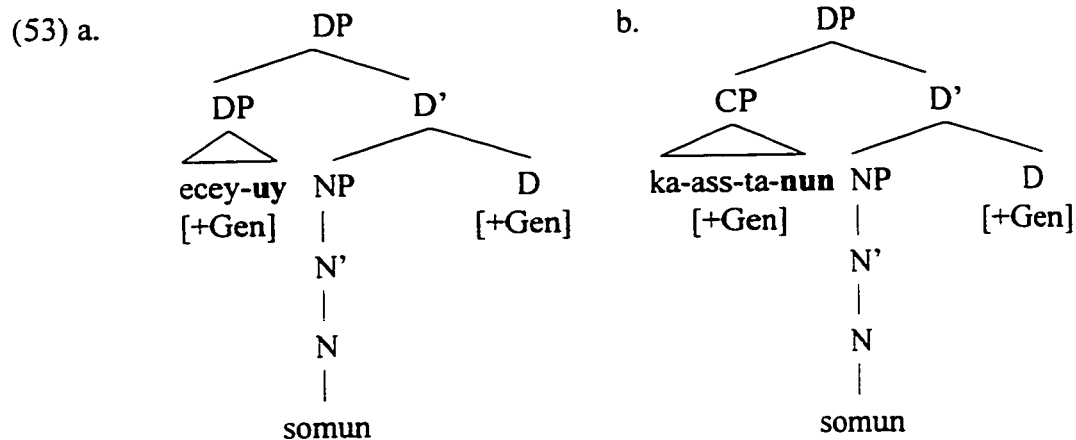
yesterday-Gen rumor

'yesterday's rumor'

b. [Sue-ka cip-ey ka-ass-ta-nun] somun

Sue-Nom home-to go-Past-Dec-C rumor

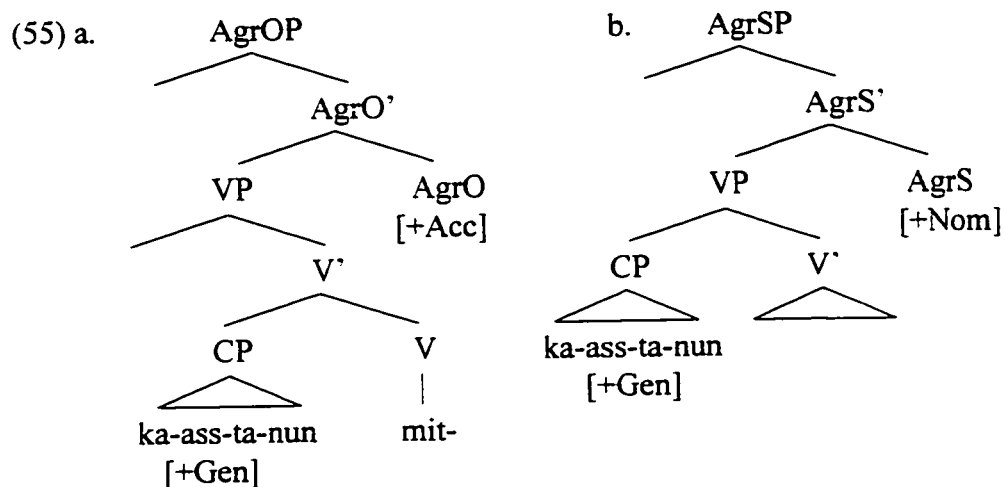
'the rumor that Sue went home.'



CPs headed by *-nun*, which are used as complement or adjunct to N, can also be accounted for in a principled manner under the proposed analysis of *-nun* as being associated with genitive.

Now let us consider how the proposed analysis can account for the fact that *-nun* is not licensed in CPs which serve as complement to V (54a) or subject (54b).

- (54) a. *Joe-ka [Sue-ka cip-ey ka-ass-ta-nun] mit-ass-ta.
 Joe-Nom Sue-Nom home-to go-Past-Dec-C believe-Past-Dec
 'Joe believed that Sue went home.'
- b. *[Sue-ka cip-ey ka-ass-ta-nun] Joe-lul nolakey ha-ass-ta.
 Sue-Nom home-to go-Past-Dec-Nom Joe-Acc surprised do-Past-Dec
 'That Sue went home surprised Joe.'



Under the proposed analysis of *-nun*, the embedded CP in (55a) bears genitive, which must be checked off. The feature [+Gen] of the CP, however, cannot be checked off even if we assume that the CP raises to the specifier of AgrOP since the head AgrO licenses accusative not genitive. Similarly, the feature [+Gen] of the embedded CP in (55b) remains unchecked even when the CP raises to the specifier of AgrSP since the head AgrS licenses nominative not genitive.

To summarize, I have proposed that CPs headed by verbal suffix *-nun* are associated with genitive and thus licensed in the same manner as DPs headed by the nominal suffix *-uy*, which is the realization of genitive. The proposed analysis is empirically supported by the fact that *-nun* and *-uy* are licensed in the same configurations, i.e., as complement to N but not as complement to V or in subject position. The proposed analysis is also supported by the fact that the verbal suffix *-nun* is interchangeable with the nominal suffix *-uy* in interrogatives. With respect to the overt realizations of the feature [+Gen], I have argued that it is realized on the head D as the

nominal suffix *-uy* when associated with DP and on the head C as the verbal suffix *-nun* when assigned to CP. In short, the nominal suffix *-uy* is the head D with the feature [+Gen], whereas the verbal suffix *-nun* is the head C with the feature [+Gen].

3.3.2. *-Ko* and Accusative

Along the same line of arguments presented in 3.3.1, I propose in this section that the verbal suffix *-ko* is associated with accusative. We have seen in chapter 2 that accusative is overtly realized as the nominal suffix *-lul* when associated with nominal projections, i.e., DPs. In this section, I claim that accusative is overtly realized as the verbal suffix *-ko* when associated with verbal projections, i.e., CPs. The nominal suffix *-lul* is the head of DP and the verbal suffix *-ko* is the head of CP. Consider the configurations in (57a) and (57b) for the object DP and CP in (56a) and (56b), respectively.

(56) a. Joe-ka [somun-lul] mit-ass-ta.

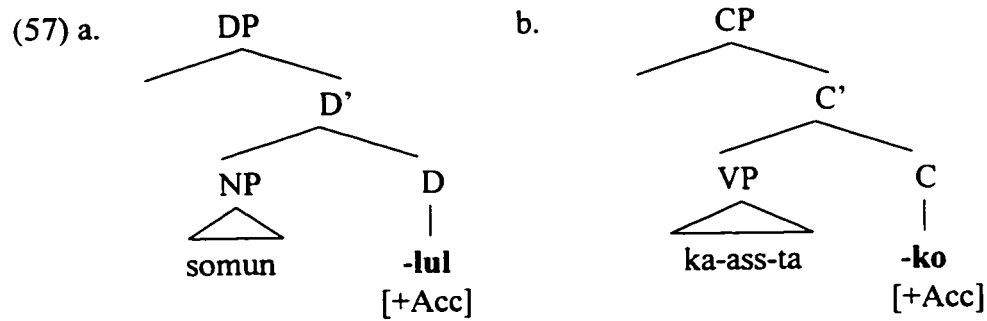
Joe-Nom rumor-Acc believe-Past-Dec

‘Joe believed the rumor.’

b. Joe-ka [Sue-ka ka-ass-ta-ko] mit-ass-ta.

Joe-Nom Sue-Nom go-Past-Dec-C believe-Past-Dec

‘Joe believed that Sue went.’



Under the proposed analysis, the nominal suffix *-lul* and the verbal suffix *-ko* have the feature specifications as in (58).

- (58) a. *-lul* [+N, -V, +Acc]
 b. *-ko* [-N, +V, +Acc, +Sub]

As illustrated in (58), the nominal suffix *-lul* shares the feature [+Acc] with the verbal suffix *-ko*. Therefore *-lul* and *-ko* must be licensed in the same configuration, i.e., by the same head to have the case features checked. The verbal suffix *-ko*, however, is distinguished from the nominal suffix *-lul* in terms of the categorial features. The different categorial features of *-lul* and *-ko* provide an explanation to why there are different morphological realizations of accusative. Further, the verbal suffix *-ko* differs from the nominal suffix *-lul* since it realizes the feature [+Sub] as well, whereas the nominal suffix *-lul* does not.

Given the argument that the verbal suffix *-ko* is associated with accusative, it is predicted in the Minimalist Program that CPs headed by *-ko* must enter into a checking relation with the relevant head which serves to check accusative, just as DPs headed by -

lul. Following Chomsky (1992 and 1995), I assume in this chapter that accusative is checked by V.¹⁹ This implies under the proposed analysis that DPs headed by *-lul* and CPs headed by *-ko* are both licensed by V since both are associated with accusative.

3.3.2.1. Distribution of *-Lul* and *-Ko*

It is empirically evidenced that the nominal suffix *-lul* and the verbal suffix *-ko* are associated with the feature [+Acc]. First of all, *-ko* and *-lul* (or DPs headed by *-lul* and CPs headed by *-ko*) are licensed in the same configurations. That is, *-ko* and *-lul* are restricted to the domain of complement to V. They are not licensed in complement to N nor in subject position. This is a strong piece of empirical evidence for the proposed analysis of *-ko* as being associated with accusative.

3.3.2.1.1. Complement to V

Like DPs, CPs can be subcategorized and thus θ -marked by the lexical head V in Korean, i.e., they can serve as the complement to V. CPs in this configuration are invariably headed by the verbal suffix *-ko*. We have seen in 3.3.1 that CPs occurring as complements to V do not allow the verbal suffix *-nun*, which I argued to be associated with genitive. Observe the following examples.

(59) a. Joe-ka [Sue-ka cip-ey ka-ass-ta-ko] mit-ass-ta.

Joe-Nom Sue-Nom home-to go-Past-Dec-C believe-Past-Dec

‘Joe believed that Sue went home.’

- b. Joe-ka [Sue-ka cip-ey ka-ass-nya-ko] mul-ass-ta.
 Joe-Nom Sue-Nom home-to go-Past-Int-C asked
 ‘Joe asked whether Sue went home.’
- c. Joe-ka [kati cip-ey ka-ca-ko] ceanha-ass-ta.
 Joe-Nom together home-to go-Prop-C suggested
 ‘Joe suggested that they should go home together.’
- d. Joe-ka [ppali cip-ey ka-la-ko] myenglyengha-ass-ta.
 Joe-Nom quickly home-to go-Imp-C ordered
 ‘Joe ordered pro that he should go home.’

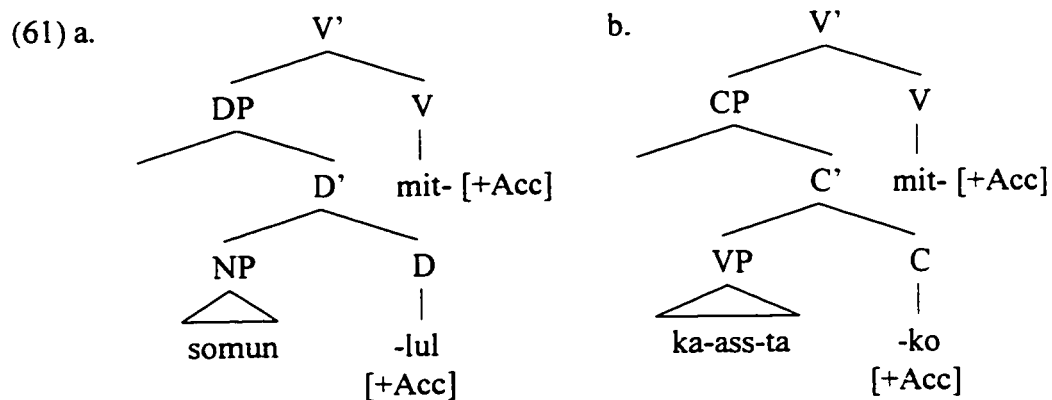
The embedded CPs in (59) are subcategorized and θ -marked by the matrix verbs. They are all headed by the verbal suffix *-ko*.

The nominal suffix *-lul*, which is exclusively associated with accusative, shows exactly the same distribution as the verbal suffix *-ko*. That is, *-lul* is licensed in the domain of complement to V, which is argued to be responsible for accusative (Chomsky 1986a and 1992). Observe the examples in (60).

- (60) a. Joe-ka [somon-lul] mit-ass-ta.
 Joe-Nom rumor-Acc believe-Past-Dec
 ‘Joe believed the rumor.’
- b. Joe-ka [yenghwa-lul] ceanha-ass-ta.
 Joe-Nom movies-Acc suggest-Past-Dec
 ‘Joe suggested a movie.’

The data in (59) and (60) clearly show that the CPs headed by *-ko* and the DPs headed by *-lul* are licensed in the same configuration by the same element. The embedded CP headed by *-ko* in (59a) and the object DP in (60a) are subcategorized by the same matrix verb *mit-*. Similarly, the embedded CP headed by *-ko* in (59c) and the object DP in (60b) are subcategorized and θ -marked by the same matrix verb *ceanha-*.

Consider the configurations in which the embedded CP in (59a) and the object DP in (60) are licensed.



The fact that DPs headed by *-lul* and CPs headed by *-ko* are licensed in the same configuration clearly indicates that the verbal suffix *-ko* shares features with the nominal suffix *-lul*. Given that *-lul* is exclusively associated with accusative, it is clear that the verbal suffix *-ko* is also associated with accusative. The proposed analysis of *-ko* as bearing accusative predicts that CPs headed by *-ko* cannot be licensed in the domain of complement to N or in subject position, which will be confirmed in what follows.

3.3.2.1.2. Complement to N

CPs may also serve as the complement to N. We have seen in 3.3.1 that CPs in this configuration are invariably headed by the verbal suffix *-nun*. As illustrated in (62), however, CPs headed by *-ko* can not be licensed as the complement to N.

- (62) a. *[Sue-ka cip-ey ka-ass-ta-ko] Joe-uy mitum
 Sue-Nom home-to go-Past-Dec-C Joe-Gen belief
 ‘Joe’s belief that Sue went home’
- b. *[Sue-ka cip-ey ka-ass-nya-ko] Joe-uy cilmun
 Sue-Nom home-to go-Past-Int-C Joe-Acc question
 ‘Joe’s question whether Sue went home’
- c. *[Kati cip-ey ka-ca-ko] Joe-uy cean
 together home-to go-Past-Prop-C Joe-Gen suggestion
 ‘Joe’s suggestion that they go home together’
- d. *[Ppali cip-ey ka-la-ko] Joe-uy myenglyeng
 quickly home-to go-Imp-C Joe-Gen order
 ‘Joe’s order that (someone) go home quickly’

The embedded CPs in (62) are subcategorized and assigned a θ -role by the head nouns and CPs headed by the verbal suffix *-ko* cannot be licensed in the domain of complement to N.

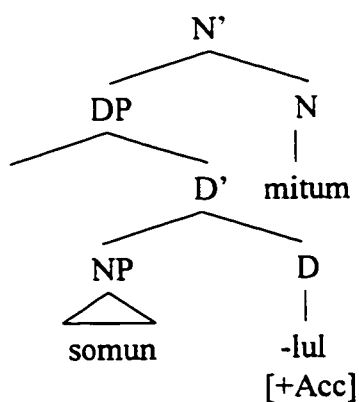
Like the CPs headed by *-ko*, DPs headed by the nominal suffix *-lul* can not be licensed in the domain of complement to N. Observe the following examples.

(63) a. *[sasil-lul] Joe-uy inceng
 fact-Acc Joe-Gen acknowledgment
 ‘Joe’s acknowledgment of the fact’

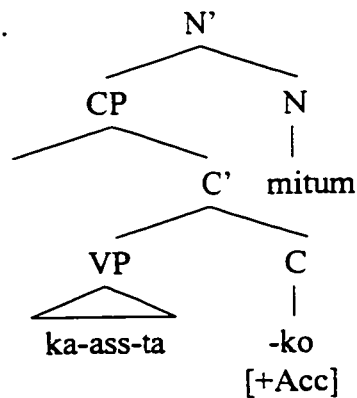
b. *[somon-lul] Joe-uy mitum
 rumor-Acc Joe-Gen belief
 ‘Joe’s belief of the rumor’

The accusative-marked DPs in (63) are in the same configuration as the embedded CPs in (62), i.e., in the complement to N. The proposed analysis of *-ko* as bearing accusative can account for the fact that CPs headed by *-ko* cannot be licensed in the domain of complement to N. The complement to N is the position to which genitive but not accusative is assigned and therefore CPs headed by *-ko* cannot be licensed since they are associated with accusative.

(64) a.



b.



The proposed analysis of *-ko* as being associated with accusative correctly predicted that neither the complement DP in (64a) nor the complement CP in (64b) is licensed since the features [+Acc] cannot be checked within the nominal projections.

3.3.2.1.3. Subject

Now let us consider CPs in subject position. We have seen in 3.3.1 that the verbal suffix *-nun* is not allowed in subject CPs, which is well accounted for by the proposed analysis of *-nun* as being associated with genitive. Subject CPs do not allow the verbal suffix *-ko*, either, as illustrated in (65).²⁰

(65) a. *[Sue-ka cip-ey ka-ass-ta-ko] Joe-lul nolakey ha-ass-ta.

Sue-Nom home-to go-Past-Dec-Nom Joe-Acc surprised do-Past-Dec
 ‘That Sue went home surprised Joe.’

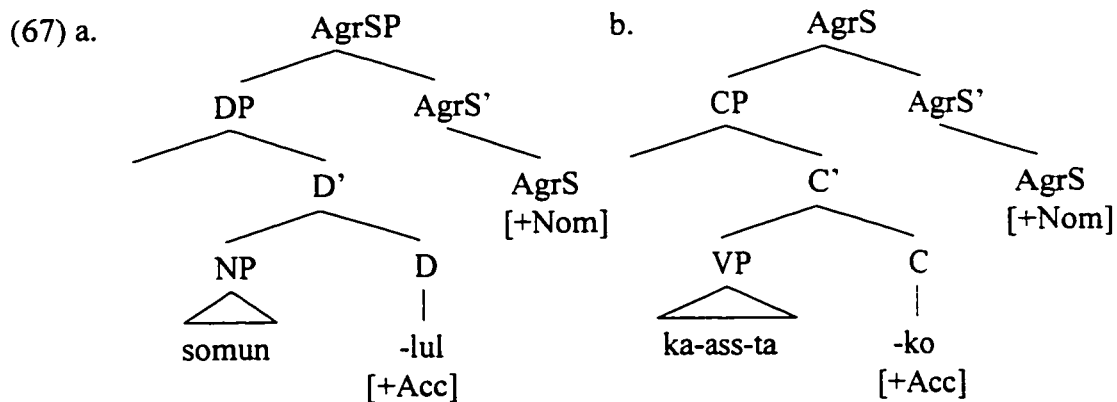
b. *[Sue-ka cip-ey ka-ass-nya-ko] cungyoha-ta.

Sue-Nom home-to go-Past-Int-C-Nom important-Dec
 ‘Whether Sue went home is important.’

The nominal suffix *-lul*, which is exclusively associated with accusative, cannot be licensed in the domain of subject position since accusative cannot be checked in that position.

- (66) a. *[ku somun-lul] Joe-lul nolakey ha-ass-ta.
 that rumor-Acc Joe-Acc surprised do-Past-Dec
 ‘The rumor surprised Joe.’
- b. *[ku sasil-lul] cungyoha-ta
 that fact-Acc important-Dec
 ‘The fact is important.’

Neither the nominal suffix *-lul* nor the verbal suffix *-ko* is licensed in subject position, which is predicted by the proposed analysis of *-ko* as bearing [+Acc]. Nominative but not accusative can be assigned to the subject position and therefore CPs headed by *-ko* cannot be licensed. Consider the configurations in (67).



To summarize, we have seen that the verbal suffix *-ko* and the nominal suffix *-lul* are licensed in the same configuration, i.e., in complement to V but not in complement to N nor in subject position, which clearly indicates that *-ko* and *-lul* are licensed by the same element.²¹ Given that the nominal suffix *-lul* is clearly the morphological realization of accusative, I have proposed that the verbal suffix *-ko* is associated with accusative.

3.3.2.2. Interrogative

There is a clearer piece of empirical evidence that the verbal suffix *-ko* shares the feature [+Acc] with the nominal suffix *-lul*. Interrogative clauses differ from other types of clauses in Korean in that they may be headed either by the verbal suffix *-ko* or the nominal suffix *-lul* as illustrated in (68).

- (68) a. [Nuku-ka iki-ass-nya-ko] mul-ass-ta
 who-Nom win-Past-Int-C ask-Past-Dec
 ‘pro asked who won.’
- b. [Nuku-ka iki-ass-nya-lul] mul-ass-ta.
 who-Nom win-Past-Dec-Acc ask-Past-Dec
 ‘pro asked who won’

The fact that the verbal suffix *-ko* is interchangeable with the nominal suffix *-lul* strongly suggests that the complementizer *-ko* is associated with accusative.²²

Unlike other types of CPs, interrogatives may occur in subject position and complement to N as well. Interrogatives in these configurations are invariably headed by the nominal suffix *-ka* and *-uy*, which is the realization of nominative and genitive, respectively. Observe the examples in (69). The verbal suffix *-ko* is not interchangeable with the nominal suffix *-ka* or *-uy*. This indicates that *-ko* is not associated with nominative or genitive.

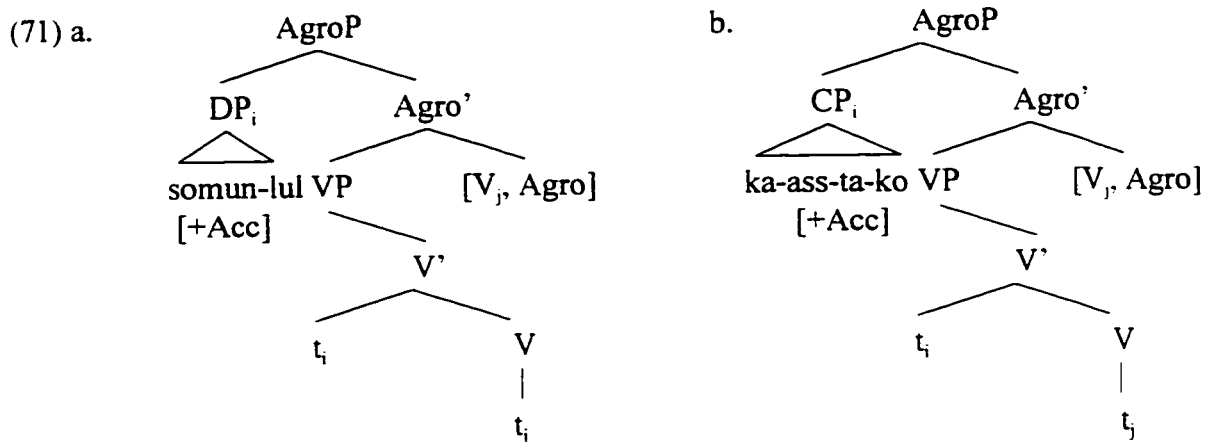
- (69) a. [Nuku-ka iki-ass-nya-ka/*ko] cungyoha-ta.
 who-Nom win-Past-Dec-Nom/C important-Dec
 ‘Who won is important.’
- b. [Nuku-ka iki-ass-nya-uy/*ko] muncey
 who-Nom win-Past-Dec-Gen/C question
 ‘the question (of) who won’

The data in (68) and (69) lead us to conclude that the verbal suffix *-ko* is associated with accusative, just as the nominal suffix *-lul* is.

3.3.2.3. Accusative Checking

Let us now discuss how the feature [+Acc] of DP and CP is checked in the Minimalist Program. Following Chomsky (1992 and 1995), I assume in this chapter that accusative-marked DPs are licensed by the lexical head *V* in the spec of AgrOP. Consider the configurations (71a) and (71b) in which accusative is licensed.

- (70) a. Joe-ka [ku somun-lul] mit-ass-ta.
 Joe-Nom that rumor-Acc believe-Past-Dec
 ‘Joe believed that rumor.’
- b. Joe-ka [Sue-ka cip-ey ka-ass-ta-ko] mit-ass-ta.
 Joe-Nom Sue-Nom home-to go-Past-Dec-C believe-Past-Dec
 ‘Joe believed that Sue went home.’



The object DP in (71a) bears accusative, which is realized as the nominal suffix *-lul*. The feature [+Acc] of the DP must be checked off. The accusative-marked DP raises to the spec of AgrOP and enters into a checking relation with the verb which also raises to AgrO. The feature [+Acc] of the raised DP is checked off by the raised verb *mit-* in terms of the spec-head agreement. The embedded CP in (71b) also bears accusative, which is realized as the verbal suffix *-ko*. The CP raises to the spec of AgrOP and enters into a checking relation with the verb adjoined to AgrO. The feature [+Acc] of the raised CP is checked off by the raised verb *mit-* in terms of the spec-head agreement. In short, the object DP in (71a) and the embedded CP in (71b) are licensed by the same head, i.e. V in terms of the spec-head agreement.

The proposed analysis of the complementizer *-ko* as the realization of accusative can account for why *-ko* cannot be licensed in the domain of complement to V or subject. Consider the examples in (72). The embedded CPs in (72a) and (72b) have the structures in (73a) and (73b), respectively.

(72) a. *[Sue-ka ka-ass-ta-ko] Joe-uy mitum

Sue-Nom go-Past-C Joe-Gen belief

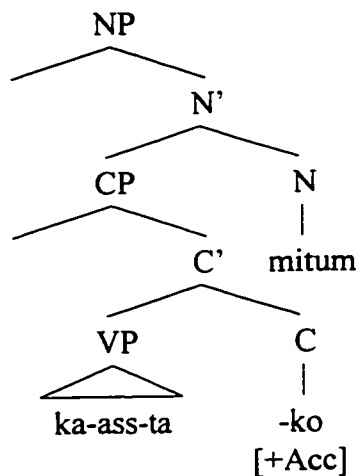
‘Joe’s belief that Sue went’

b. *[Sue-ka ka-ass-ta-ko] motu-lul nolakey ha-ass-ta.

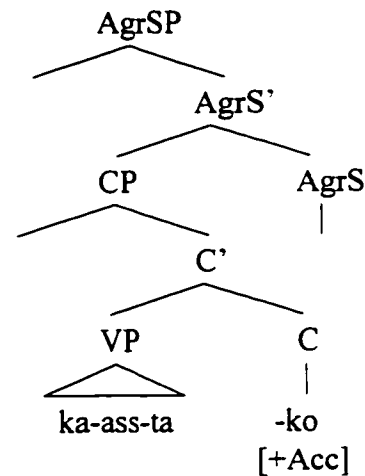
Sue-Nom go-Past-Dec-C everybody-Acc surprised make-Past-Dec

‘That Sue went surprised everyone.’

(73) a.



b.



In (73a), the embedded CP is associated with accusative, which is realized as the verbal suffix *-ko*. The feature [+Acc] of the CP, however, cannot be checked within the noun phrase in which genitive but not accusative is available. The embedded CP in (73b) also bears accusative, which cannot be checked in the spec of AgrSP since the latter serves to check nominative but not accusative. Therefore the derivations in (73a) and (73b) crash since the case features of the embedded CPs remain unchecked and it is correctly predicted that (72a) and (72b) are ungrammatical.

To summarize, I have proposed that the verbal suffix *-ko* is associated with accusative and thus licensed in the same manner as the nominal suffix *-lul*, which is the

realization of accusative. This proposal is empirically supported by the fact that *-ko* and *-lul* are licensed in complement to V but not in complement to N nor in subject position. It is also supported by the fact that the complementizer *-ko* is interchangeable with the nominal suffix *-lul* in interrogatives.

3.3.3. Interrogatives

We have seen in 3.3.1 and 3.3.2 that interrogative clauses may be headed either by nominal suffixes or by verbal suffixes. I have argued in chapter 2 that nominal suffixes such as *-ka*, *-lul*, *-uy*, and *-ey* are of the category D (Ahn and Yoon 1989 and Bak 1990) and verbal suffixes *-ko* and *-nun* are of the category C (Choe 1988, Ahn and Yoon 1989, Whitman 1989, Jung 1992, and Kim 1996). Given this argument, we are led to conclude that interrogatives headed by nominal suffixes project DPs, whereas interrogatives headed by verbal suffixes project CPs. I will argue that interrogatives headed by nominal case suffixes are DPs whose head selects an MP complement, whereas interrogatives headed by verbal suffixes are CPs whose head also selects an MP (=Mood Phrase). This analysis is supported by Abney's (1987) D-IP analysis of English gerund.

3.3.3.1. Dual Properties of Interrogatives

I have proposed in 3.3.1 and 3.3.2 that the verbal suffixes *-nun* and *-ko* are associated with genitive and accusative and therefore licensed by N and V, respectively. The nominal suffixes *-uy* and *-lul* are also associated with genitive and accusative, respectively. The verbal suffixes are licensed in verbal projections, whereas the nominal

suffixes are licensed in nominal projections. In other words, the nominal suffixes *-uy* and *-lul* are distinguished from the verbal suffixes *-nun* and *-ko* in terms of their categorial features, i.e., the former [+N, -V] and the latter [-N, +V].

Under the proposed analysis of the complementizers *-ko* and *-nun* as being associated with case features, one thing still remains to be accounted for. i.e., how both the nominal suffixes *-uy* and *-lul* and the verbal suffixes *-nun* and *-ko* may be licensed in interrogative clauses. Consider the data in (74) - (76), which show that the nominal suffixes are licensed in interrogatives but not in other types of clause in Korean.

(74) a. Joe-ka [Sue-ka ka-ass-ta-*lul/ko] mit-ass-ta.

Joe-Nom Sue-Nom go-Past-Dec-Acc/C believe-Past-Dec

'Joe believed that Sue went.'

b. [Sue-ka iki-ass-ta-*uy/nun] mitum

Sue-Nom win-past-Dec-Gen/C belief

'the belief that Sue won.'

(75) a. Joe-ka [kati ka-ca-*lul/ko] malha-ass-ta.

Joe-Nom together go-Prop-Acc/C say-Past-Dec

'Joe suggested that they go together.'

b. Joe-ka na-eyeky [nayil o-la-*lul/ko] malha-ass-ta.

Joe-Nom I-Dat tomorrow come-Imp-Acc/C say-Past-Dec

'Joe told me to come tomorrow.'

(76) a. Joe-ka [nuku-ka ka-ass-nya-lul/ko] mul-ass-ta.

Joe-Nom who-Nom go-Past-Int-Acc/C ask-Past-Dec

‘Joe asked who won.’

b. [Nuku-ka iki-ass-nya-uy/nun] muncey

who-Nom win-past-Int-Gen/C question

‘the question (of) who won’

The embedded declarative clauses in (74) may be headed by the verbal suffixes *-ko* and *-nun* but not by the nominal suffixes *-lul* and *-uy*. Similarly, the embedded propositive clauses in (75) may be headed by the verbal suffixes but not by the nominal suffixes. The embedded interrogative clauses in (76), on the other hand, may be headed either by the nominal suffixes or the verbal suffixes.

Interrogative clauses also differ from other types of clause in that they may be headed by the nominative suffix *-ka* and postpositions such as *-ey*, as illustrated in (77) and (78).

(77) a. [nuku-ka ka-ass-nya-ka] cunгыoha-ta.

who-Nom go-Past-Int-Nom be important-Dec

‘Who went is important.’

b. *[Sue-ka ka-ass-ta-ka] cunгыoha-ta.

Sue-Nom go-Past-Dec-Nom be important-Dec

‘That Sue went is important.’

- (78) a. [nuku-ka ka-ass-nya-ey] kwansim-i moa-ci-ass-ta.
 who-Nom go-Past-Int-to attention-Nom pay-Pass-Past-Dec
 ‘Attention was paid to who went.’
- b. *[Sue-ka ka-ass-ta-ey] kwansim-i moaci-ass-ta.
 Sue-Nom go-Past-Dec-to attention-Nom pay-Pass-Dec
 ‘*Attention was paid to (that) Sue went.’

The data in (76) - (78) clearly show that interrogatives in Korean share certain nominal features with DPs since they may be headed by the nominal case suffixes and postpositions.

Like in Korean, interrogatives are also distinguished from other types of clause in English. First of all, interrogatives but not declaratives can appear in the complement to P as illustrated in (79).

- (79) a. *Attention was paid to [that Sue won].
 b. *Attention was paid to [for Sue to win].
 c. Attention was paid to [whether Sue won].
 d. Attention was paid to [Sue’s winning].

The data in (79) clearly indicate that interrogatives in English behave like DPs in certain syntactic configurations.

Interrogatives are, however, distinguished from DPs in other contexts. There are certain syntactic positions in which clauses but not noun phrases can appear. Observe the following examples.

- (80) a. It is not important [that Sue is smart].
 b. It is not important [for Sue to be smart].
 c. It is not important [whether Sue is smart].
 d. *It is not important [Sue's being smart].

The embedded tensed declarative in (80a), the embedded infinitive in (80b), and the embedded interrogative in (80c) may all occur in the extraposed position, where DPs are not allowed as shown in (80d). Thus the data in (80) clearly show that interrogatives share certain features with CPs.

From the data in (79) and (80), we are led to conclude that interrogatives in English have dual properties, i.e., verbal and nominal properties. This is empirically evidenced by the fact that the so-called *of*-insertion is optional in interrogatives. Observe the examples in (81). *Of*-insertion is obligatorily required when N takes a DP complement (81a), whereas *of*-insertion cannot take place when N takes a tensed declarative CP (81b). Consider the example in (81c), which clearly illustrates that *of*-insertion is optional when N takes an interrogative clause.

- (81) a. the belief *(of) Sue's being smart
 b. the belief (*of) that Sue is smart
 c. the question (of) whether Sue is smart

In order to account for the dual properties of English interrogatives, Abney (1987) suggests two possibilities. One is to assume that interrogatives share the structure of headless relatives, which are arguably noun phrases. The other is to assume that there is a [+wh] Agr in the head C that licenses *wh*-words in the specifier position and that this Agr provides the entire CP with nominal features.²³

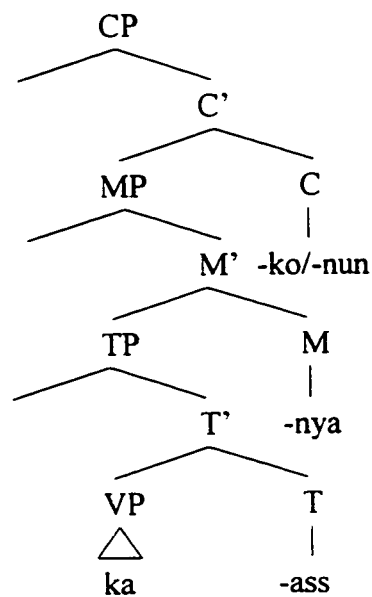
3.3.3.2. Feature Underspecification

I have argued in chapter 2 that the nominal suffixes *-uy* and *-lul* are the head D, whereas the verbal suffixes *-ko* and *-nun* are the head C. With respect to the categorial features, the nominal and the verbal suffixes are defined as [+N, -V] and [-N, +V], respectively. Given this, we are now led to conclude that the interrogative clauses headed by the verbal suffixes *-ko* and *-nun* in (74) project verbal projections, i.e., CPs, whereas the interrogative clauses headed by the nominal suffixes *-lul* and *-uy* in (74) project nominal projections, i.e., DPs.

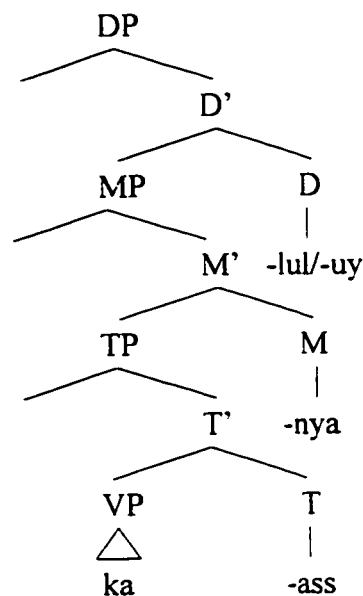
I propose that interrogative clauses headed by the nominal suffix *-lul* or *-uy* are DPs whose head takes an MP complement, whereas interrogative clauses headed by the verbal suffix *-ko* or *-nun*, on the other hand, are CPs whose head takes an MP

complement. Consider the structures (82a) and (82b) I am proposing for interrogative clauses headed by the verbal suffixes and the nominal suffixes, respectively.

(82) a.



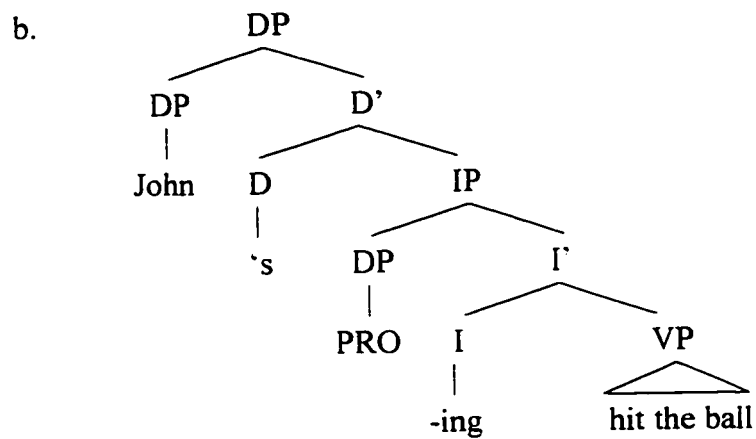
b.



In (82a), the verbal suffixes *-ko* and *-nun*, which I argue to be COMPs, project CP and select an MP as complement. In (82b), on the other hand, the nominal suffixes *-lul* and *-uy*, which I argue to be of the category D, project DP and select an MP as complement. The dual properties of interrogatives are well accounted for in a principled manner by the proposed analysis.

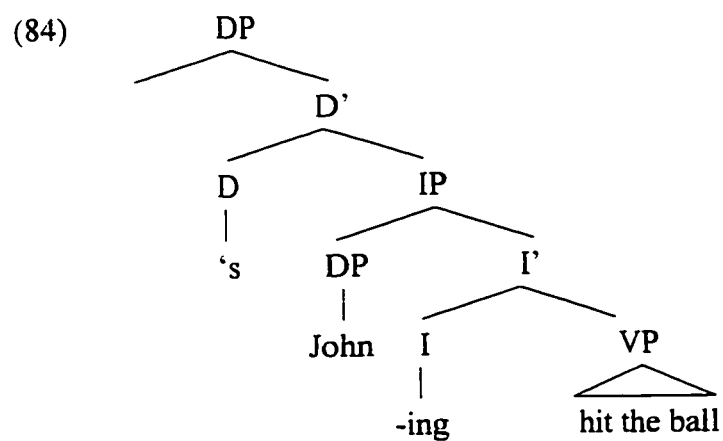
The proposed analysis of interrogatives in Korean is supported by Abney's (1987) D-IP analysis of English POSS-ING constructions. He suggests that POSS-ING constructions are DPs whose head takes an IP complement. Consider the structure in (83b) suggested in Abney (1987).

(83) a. John's hitting the ball



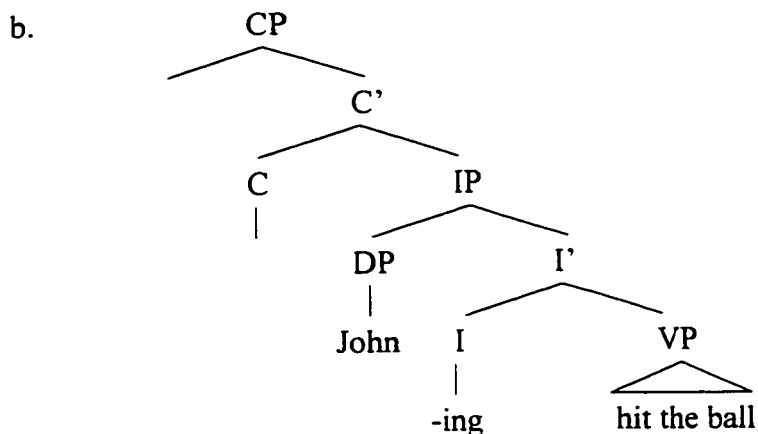
In (83b), the head D projects DP and selects an IP as its complement. The dual properties, i.e., the verbal and the nominal properties, of English POSS-ING constructions are well accounted for by Abney's D-IP analysis.

Unlike Abney (1987), Jeong (1989) suggests that the lexical subject of POSS-ING construction is base-generated in the spec of IP and moves to the spec of DP to receive genitive case from the head D. Consider the structure (84) suggested in Jeong (1989).²⁴



In (84), the subject DP raises to the spec of DP to be assigned genitive by the functional head D. Jeong (1989) also argues that the so-called ACC-ING constructions project CPs.

(85) a. I remember [John hitting the ball].



The argument that ACC-ING and POSS-ING constructions project CPs and DPs, respectively, amounts to saying that English gerunds can be selected as complement to the verbal head C or the nominal head D. It seems clear that the dual properties of English gerunds come from the inflectional morpheme *-ing*, which is argued to be the head of IP.

Now let us move back to Korean. Given the fact that interrogatives but not other types of clause may be headed by nominal suffixes, it is quite clear that the dual properties of interrogative clauses in Korean come from the interrogative ending *-nya*. Based upon this observation, I claim that unlike other sentential endings, the interrogative ending *-nya* is not specified for N-features. Consider the feature specifications of the sentential endings in Korean.

- (86) *-nya* [α N, -V, +Int, +wh]
-ta [-N, +V, +Dec, -wh]
-ca [-N, +V, +Prop, -wh]
-la [-N, +V, +Imp, -wh]

Along with the argument that interrogative *-nya* is underspecified for N-features, I propose a type of selectional constraint which is based on the categorial features of heads and complements within an extended projection in the sense of Grimshaw (1991).

- (87) a. [+N] heads cannot select as complement the maximal projection of a [-N] head.
 b. [-N] heads cannot select as complement the maximal projection of a [+N] head.

According to (87a), the nominal case suffixes, which are defined as [+N], cannot select an MP whose head is defined as [-N]. In other words, the nominal suffixes *-lul* and *-uy* cannot select an MP headed by the verbal suffix *-ta*, *-ca*, or *-la*. MPs headed by the interrogative *-nya*, however, can be selected by the nominal suffix *-lul* or *-uy* since the interrogative *-nya* is not defined as [-N]. According to (87b), on the other hand, the verbal suffixes *-ko* and *-nun* cannot select an MP whose head is defined as [+N].²⁵ The verbal suffixes *-ko* and *-nun*, however, can select an MP headed by the interrogative *-nya* since the latter is not defined as [+N].²⁶

3.3.3.3. Feature Neutralization: Chomsky (1981)

The notion of feature neutralization/underspecification has been employed in order to account for various syntactic phenomena. Chomsky (1981), for example, exploits a notion of feature neutralization in order to account for two types of passive: syntactic vs. lexical passive. Consider the following examples from English.

- (88) a. John was killed.
 b. John was untaught.
 c. John was sad.

The passive constructions in (88a) and (88b) are referred to as syntactic and lexical passive, respectively. The passive participles *killed* in (88a) and *untaught* in (88b) are treated as adjectives in that they can appear in copular sentence just like the adjective *sad* can (88c). They are, however, distinguished in many aspects. First of all, in certain syntactic constructions which allow adjectives, syntactic passive but not lexical passive is excluded (89a). Syntactic passive but not lexical passive, on the other hand, can appear in some constructions which do not allow adjectives (90b). The following examples are cited from Chomsky (1981).

- (89) a. John seems sad/untaught/*killed.
 b. John had Bill leave killed/*sad/*untaught.

This has led Chomsky (1981) to assume that syntactic passive participles differ from their lexical counterparts in terms of their categorial features. It is quite clear that lexical passive participles share the features [+N, +V] with adjectives. Unlike lexical passive participles, however, syntactic passive participles do not necessarily pattern with adjectives as illustrated in (89). In order to account for the dual properties of syntactic passive participles, Chomsky (1981) suggests that they are not adjectives but rather neutralized verb-adjectives with the feature structure [+V].

- (90) a. sad [+N, +V]
 b. untaught [+N, +V]
 c. killed [+V]

The feature structures in (90) has the same effect as the notion of feature underspecification I proposed in this section. In other words, the syntactic passive participle *killed* in (90c) is not specified for the N-features, whereas the lexical passive participle *untaught* in (90b) is specified as [+N].²⁷

It is pointed out in Chomsky (1981) that the notion of feature neutralization is also necessary in Italian, which shows a distinction between syntactic and lexical passives. Observe the Italian examples in (91), cited from Chomsky (1981).

- (91) a. la verita che e stata comunicata a Maria
 ‘the truth that was communicated to Maria’

- b. *la verita che e sconosciuta a Maria*
 ‘the truth that is unknown to Maria’

The relative construction in (91a) *comunicata* is a syntactic passive, whereas the parallel form in (91b) *sconosciuta* is lexical. In either case, the PP *a Maria* may be cliticized as illustrated in (92).

- (92) a. *la verita che gli e stata comunicata*
 b. *la verita che gli e sconosciuta*

The syntactic passive and the lexical passive, however, are distinguished in that the former but not the latter allow the cliticization of the PP in the reduced relatives as illustrated in (93).

- (93) a. *la verita comunicatagli*
 b. **la verita sconosciutagli*

Given that adjectives do not take clitics, Chomsky suggests that the lexical passive participle *sconosciuta* but not the syntactic counterpart *comunicata* can be base-generated as an adjective.²⁸

A notion of category neutrality is also presented by Grimshaw (1991) and Lee (1994). In order to account for light verbs in Japanese, Grimshaw (1991) suggests that Japanese verbal nouns, which can combine with the so-called light verb *suru* ‘do’, are category-neutral. She argues that Japanese verbal nouns may form part of an extended

projection with V, which amounts to saying that the extended projection has nominal properties at the lower level and verbal properties at the higher level.²⁹

Adapting Grimshaw's (1991) notion of category neutrality to Korean, Lee (1994) presents an analysis of case alternations within projections of event nouns in Korean. Observe the examples in (94) - (96).

(94) a. Kim kyosu-uy AIDS-uy yenku

Kim professor-Gen AIDS-Gen research

'Professor Kim's research on AIDS'

b. *Kim kyosu-ka AIDS-lul yenku

Kim professor-Nom AIDS-ACC research

(95) a. *Kim kyosu-uy AIDS-uy yenkuha-n-ta.

Kim professor-Gen AIDS-Gen research-Pres-Dec

'Professor Kim does research on AIDS.'

b. Kim kyosu-ka AIDS-lul yenkuha-n-ta.

Kim professor-Nom AIDS-Acc research-Pres-Dec

(96) a. Kim kyosu-uy AIDS-uy yenku-cwung

Kim professor-Gen AIDS-Gen research-during

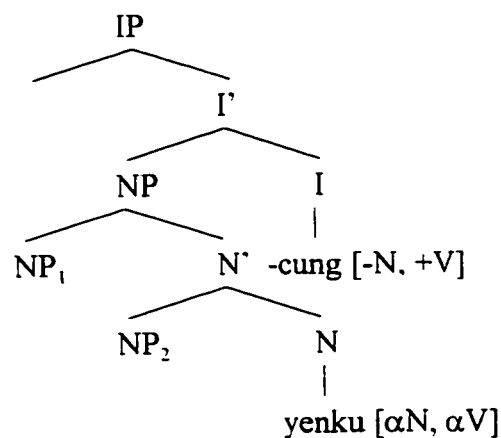
'during Professor Kim's research on AIDS'

b. Kim kyosu-ka AIDS-lul yenku-cwng

Kim professor-Nom AIDS-Acc research-during

As illustrated in (94), neither nominative nor accusative can be licensed by the event noun *yenku* 'research'. The event noun, on the other hand, can license genitive. The examples in (95), on the other hand, show that accusative but not genitive can be licensed by the complex verb *yenkuha-* 'do research'. Finally the examples in (96) show that not only accusative but also genitive can be licensed when the event noun *yenku* combines with a certain aspect morpheme such as *-cung* 'during'. In order to account for genitive/accusative alternation (and genitive/nominative alternation as well) in (96), Lee (1994) suggests that the event noun *yenku* is category-neutral so that it may form an extended projection with N or V. She treats the aspect morpheme *-cung* as the functional category INFL. Now consider the configuration as suggested in Lee (1994).

(97)



According to Lee (1994), the event noun *yenku* can license the genitive of NP₁ or NP₂ since it may be of the category [+N, -V], which she argues to license genitive. The head noun may also raise to the functional head INFL and license the accusative of the complement to DP which also moves out of NP. This is possible because the head noun

may be of the category [-N, +V]. In sum, Grimshaw's (1991) analysis of Japanese light verb constructions and Lee's (1994) analysis of Korean event nouns provide a supporting argument for the proposed D-MP analysis of Korean interrogatives.³⁰

3.3.4. *-ko* in Verbal Adjunct CP

I have proposed in 3.3.2 that the verbal suffix *-ko* is associated with accusative and thus that CPs headed by *-ko* must be licensed by the lexical head V. In this section, I discuss verbal adjunct CPs in Korean and show that the complementizer *-ko* in adjunct CPs differs from *-ko* in complement CP. Observe the examples in (98).

(98) a. Joe-ka [Sue-ka cip-ey ka-ass-ta-ko/*nun] hwa-lul nay-ass-ta.

Joe-Nom Sue-Nom home-to go-Past-Dec-C anger show-Past-Dec

'Joe got angry because Sue went home.'

b. Joe-ka [kati cip-ey ka-ca-ko/*nun] kyosil-eyse nao-ass-ta.

Joe-Nom together home-to go-Prop-C classroom-from come-out-Past-Dec

'Joe came out of the classroom, suggesting that we should go home together.'

The embedded CPs in (98) are not in a thematic relation with the matrix verbs. They serve just as verbal adjuncts. As illustrated in (98), the verbal adjunct CPs are headed by the complementizer *-ko*. Under the proposed analysis of the complementizer *-ko* as being associated with accusative, it is predicted that the adjunct CPs in (98) bear accusative, which must be checked off by the matrix verbs. Under the assumption that verbal

adjuncts are not assigned accusative in Korean, I will argue that adjunct CPs headed by the complementizer *-ko* is not associated with accusative.³¹

Compare the embedded complement CP in (99) and the adjunct CPs in (98).

- (99) Joe-ka [Sue-ka cip-ey ka-ass-ta-ko] mit-ass-ta.
 Joe-Nom Sue-Nom home-to go-Past-Dec-C believe-Past-Dec
 ‘Joe believed that Sue went home.’

The embedded CP in (99) is subcategorized and assigned a θ -role by the matrix verb. There is no thematic relation, however, between the embedded CPs and the matrix verbs in (98). Nonetheless, both are headed by *-ko*, which implies under the proposed analysis that the adjunct CPs in (98) are associated with accusative.

The verbal suffix *-ko* in the complement CPs and *-ko* in the adjunct CP, however, show different behaviors in syntactic, morphological, and semantic aspects. First of all, the verbal suffix *-ko* licensed in complement CPs can co-occur with the delimiters, whereas the verbal suffix *-ko* occurring in adjunct CPs cannot.

- (100) a. Joe-ka [Sue-ka cip-ey ka-ass-ta-ko-man/to] mit-ass-ta.
 Joe-Nom Sue-Nom home-to go-Past-Dec-C-Del believe-Past-Dec
 ‘Joe believed only/also that Sue went home.’
- b. *Joe-ka [Sue-ka cip-ey ka-ass-ta-ko-man/to] hwa-lul nay-ass-ta.
 Joe-Nom Sue-Nom home-to go-Past-Dec-C-Del anger-Acc get-Past-Dec
 ‘Joe got angry only/also because Sue went home.’

Similarly, the complementizer *-ko* may co-occur with the topic marker *-nun* in complement CPs, whereas *-ko* in adjunct CPs may not.³²

(101) a. Joe-ka [Sue-ka cip-ey ka-ass-ta-ko-nun] mit-ass-ta.

Joe-Nom Sue-Nom home-to go-Past-Dec-C-Top believe-Past-Dec

‘Joe believed that Sue went home.’

b. *Joe-ka [Sue-ka cip-ey ka-ass-ta-ko-nun] hwa-lul nay-ass-ta.

Joe-Nom Sue-Nom home-to go-Past-Dec-C-Top anger-Acc get-Past-Dec

‘Joe got angry because Sue went home.’

The data in (100) and (101) clearly show that the complementizer *-ko* in complement CPs should be distinguished from its counterpart in adjunct CPs.

We have seen in 3.3 that the verbal suffix *-ko* is interchangeable with the nominal suffix *-lul* in interrogatives, which is an indication that the former shares the feature [+Acc] with the latter. The complementizer *-ko* in adjunct CPs is also distinguished from *-ko* in complement CPs in that it is not interchangeable with the nominal suffix *-lul*.

(102) a. Joe-ka [nuku-ka ka-ass-nya-ko/lul] mul-ass-ta.

Joe-Nom who-Nom go-Past-Int-C/Acc ask-Past-Dec

‘Joe asked who went.’

b. Joe-ka [nuku-ka ka-ass-nya-ko/*lul] hwa-lul nay-ass-ta.

Joe-Nom who-Nom go-Past-Int-C/Acc anger-Acc show-Past-Dec

‘Joe got angry asking who went.’

The embedded interrogative clause in (102a) is used as the complement to the matrix verb and the head *-ko* is interchangeable with the accusative suffix *-lul*. The embedded clause in (102b), on the other hand, is used as an adjunct to the matrix VP and the head *-ko* is not interchangeable with *-lul*. Therefore the data in (102) clearly show that the complementizer *-ko* in complement CPs differs from the complementizer *-ko* in adjunct CPs.

The complementizer *-ko* in complement CPs differs from *-ko* in adjunct CPs in that the former but not the latter may be dropped in certain contexts. Observe the following examples.

(103) a. Joe-ka [Sue-ka ka-ass-ta-?(ko)] malha-ass-ta.

Joe-Nom Sue-Nom go-Past-Dec-C say-Past-Dec

‘Joe said that Sue went.’

b. Joe-ka [Sue-ka ka-ass-ta-*(ko)] hwa-lul nay-ass-ta.

Joe-Nom who-Nom go-Past-Dec-C anger-Acc show-Past-Dec

‘Joe got angry because Sue went.’

The data in (103) clearly suggest that we need to distinguish the verbal suffix *-ko* in (103a) and *-ko* in (103b).

The complementizer *-ko* in complement CPs is further distinguished from *-ko* in adjunct CPs in terms of the semantic contents. The former does not carry any semantic content, whereas the latter does, which is clearly illustrated by the examples in (104).

(104) a. Joe-ka way hwa-lul nay-ass-nya?

Joe-Nom why anger-Acc get-Past-Int

‘Why did Joe get angry?’

b. Sue-ka cip-ey ka-ass-ta-ko (hwa-lul nay-ass-ta).

Sue-Nom home-to go-Past-Dec-C anger-Acc get-Past-Dec

‘(He got angry) because Sue went home.’

The adjunct CP in (104b) is perfect as an answer to the question (104a). Compare the Korean sentences with the corresponding English translations. Just as *because* is related to *why* in English, *-ko* is related to *way* in Korean. This is a clear indication that the head *-ko* in (104b) bears a certain semantic content.

Korean shows other verbal suffixes that occur in the same morphological position and that carry semantic contents. The verbal suffixes following the sentential ending *-ta* in (105), i.e., *-myen* and *-ciman*, seem to correspond to English prepositional complementizers *if* and *(al)though*, respectively.

(105) a. Sue-ka cip-ey ka-ass-ta-myen na-to ka-kess-ta.

Sue-Nom home-to go-Past-Dec-if I-also go-Fut-Dec

‘I will go home too if Sue went home.’

b. Sue-ka cip-ey ka-ass-ta-ciman amuto an mit-ass-ta.

Sue-Nom home-to go-Past-Dec-although anybody not believe-Past-Dec

‘Nobody believed it, although (people say) Sue went home.’

I assume that the verbal suffix *-ko* in adjunct CPs is just one of the postpositional complementizers in Korean, which should be treated differently from the non-postpositional complementizer *-ko*, which is licensed in complement CPs. I argue that *-ko* in complement CPs but not *-ko* in adjunct CPs is associated with accusative, although they are identical in terms of morphological realization. Consider possible feature specifications of the morphologically identical complementizers.

- (106) a. *-ko*₁ [-N, +V, +Acc, +Sub]
 b. *-ko*₂ [-N, +V, +Sub]

English provides a similar example where two elements of the same morphological form are distinguished from each other in terms of the feature specifications. Observe the following examples.

- (107) a. Joe arranged [for Sue to go to the party].
 b. It is spring, [for birds are singing].

The complementizer *for* in (107a) should be of the same category as the complementizer *for* in (107b), i.e., COMP. They differ from each other, however, in terms of the syntactic and semantic properties. First, the latter bears its own semantic content, whereas the latter does not. Second, the former assigns accusative to the subject of the embedded clause, whereas the latter does not. Third, the former heads a non-finite clause, whereas the latter heads a finite clause. It is therefore clear that they have different feature specifications.

- (108) a. for₁ [P, -tense, +Acc]³³
 b. for₂ [P, +tense]

For in (108a) is referred to as infinitival complementizer, whereas *for* in (108b) as prepositional complementizer.

3.4. Cross-Linguistic Evidence: COMP and Case Features

In 3.3, I have proposed that the complementizers *-nun* and *-ko*, which serve as subordinators, are associated with case features, i.e., genitive and accusative, respectively. In this section, I will provide cross-linguistic evidence that it is not implausible to argue that the category C may be associated with case features. In 3.4.1, I discuss the morphological features of complementizers in various languages. Cross-linguistically, the primary function of complementizers is to serve as subordinators. The function of subordination, however, is not the sole function of complementizers. Otherwise we would not expect different lexical complementizers in a given language. In reality, it is quite common for a given language to employ various lexical complementizers, which implies that there are other features associated with complementizers. I discuss English, West Flemish, Bavarian, and Diegueño, regarding possible morphological features of different lexical complementizers in those languages. In 3.4.2, I discuss a possible parallelism between C(P) and D(P). I will show that there is cross-linguistic evidence that the category D shares feature(s) with the category C (Szabolcsi 1989 and Siloni 1995). Given the assumption that the head D is associated with case features in Korean, it is not

implausible to argue that the head C may also be associated with case features. In 3.4.3. cross-linguistic evidence is presented that complementizers converge with nominal case markers in various languages. (Gorbet 1973, Clark 1973, and Joseph 1975, among others).

3.4.1. Complementizers and Features

Cross-linguistically, the primary function of complementizers is to mark subordination. Therefore complementizers are primarily associated with the feature [+Sub]. The feature [+Sub], however, is not the sole feature associated with complementizers in various languages. It is quite common that a certain language employs more than one lexical complementizer, which suggests that there are other morphological features involved by which we can distinguish different complementizers. I will show in this section that the head C are associated with a variety of morphological features such as *wh*-, tense, and agreement and claim that the head C is associated with case features in Korean.

3.4.1.1. English

In English, lexical complementizers such as *that*, *for*, and *whether* are licensed by different matrix verbs. Observe the following examples.

- (109) a. Joe knew [that/*whether/*for Sue is pretty].
 b. Joe asked [whether/*that/*for Sue is pretty].
 c. Joe arranged [for/*that/*whether Sue to be examined by a doctor].

The lexical complementizer *that* in (109a) is licensed by the matrix verb *knew*. The verb agrees with the complementizer in terms of *wh*-features (and tense features). The other complementizers *whether* and *for* cannot be licensed by the verb *knew* since the features of the verb contrast with those of the complementizers in one way or another. The complementizer *whether* contrasts with the verb *knew* in terms of *wh*-features, i.e., the former being [+wh] and the latter [-wh]. The complementizer *for*, on the other hand, contrasts with the verb *knew* in terms of tense features, i.e., the former being [+tense] and the latter [-tense]. The complementizer *whether* in (109b), which has the feature [+wh], is licensed by the matrix verb *asked*, which also has [+wh]. Neither *that* nor *for* is licensed by the verb *asked* since the former does not have [+wh]. Finally, the complementizer *for* in (109c) is licensed by the matrix verb *arranged* since they share the features [-tense] and [-wh]. *That* is not licensed by the verb *arranged* since it is [+tense]. *Whether* is not licensed by *arranged* either since they contrast with each other in terms of *wh*-features.

Therefore overt complementizers in English can be defined differently in terms of tense and *wh*-features. Consider possible feature specifications of different lexical complementizers in English as given in (110).³⁴

- | | | |
|-------|----------------|------------------------|
| (110) | <i>that</i> | [+tense, -wh] |
| | <i>whether</i> | [α tense, +wh] |
| | <i>for</i> | [-tense, -wh] |

Therefore the system of complementizers in English clearly shows that the category C may be associated with a wide range of features, thereby we can distinguish different lexical complementizers.

Rizzi (1990) introduces a feature [\pm pred(cative)] as well as [\pm wh] to distinguish the complementizer in relative clauses from the one in declarative clauses in English. Consider the feature specifications of English relative and declarative complementizers suggested in Rizzi (1990).

- | | |
|-----------------------|---------------------------------------|
| (111) a. [+wh, -pred] | I wonder what [ϕ [you saw t]] |
| b. [+wh, +pred] | the thing which [ϕ [you saw t]] |
| c. [-wh, +pred] | the thing Op [that [you saw t]] |
| d. [-wh, -pred] | I know [that [you saw it]] |

If Rizzi's (1990) analysis is on the right track, it follows that the category C is associated with the feature [\pm pred] as well as [\pm wh] in English.³⁵

As pointed out in Rizzi (1990), many languages employ a special complementizer for relative clauses, distinct from declarative complementizer(s). The Scandinavian languages, for example, have relative complementizer *som*. Modern Hebrew and Standard Arabic have relative complementizers *?asher* and *?alladhi*, respectively. These facts lead us to conclude that we need feature(s) by which relative complementizers are distinguished from declarative complementizers. In sum, complementizers in English are associated with a wide range of features such as tense, *wh-*, and [\pm pred].

3.4.1.2. West Flemish

West Flemish also shows that overt complementizers are associated with various morphological features other than [+Sub]. Bennis and Haegeman (1984) note that lexical complementizers in West Flemish agree in number with the subject of the embedded clause they introduce. Observe the following examples.

(112) a. *da* Pol zat is

that Pol drunk is

'that Pol is drunk'

b. *dan* Pol en Valere zat zijn

that Pol and Valere drunk are

'that Pol and Valere are drunk'

The complementizer *da* in (112a) is licensed when the embedded subject is singular, whereas the complementizer *dan* in (112b) is licensed when the embedded subject is plural. This shows that complementizers in West Flemish are morphologically inflected for number agreement. Both *da* and *dan* are licensed only in tensed clauses, which further implies that they are also associated with tense features. Bennis and Haegeman (1984) present the feature specifications of the complementizers *da* and *dan* as in (113).³⁶

(113) a. *da* [+Sub, +tense, -Pl]

b. *dan* [+Sub, +tense, +Pl]

West Flemish provides evidence that the head C may be associated with number features by which inflected complementizers can be distinguished.³⁷ Given that the category C can be inflected for agreement features, it is quite plausible to argue that the head C is inflected for case features. We have seen in chapter 2 that the category D is cross-linguistically associated with agreement and case features. If the head C is associated with agreement features, then it is naturally expected that the head C is also associated with case features.

3.4.1.3. Bavarian

Bayer (1984) also notes that Bavarian employs different complementizers in different syntactic configurations. In Bavarian, CPs headed by lexical complementizer *daß* is restricted to the domain of complement to V and CPs headed by *wo* are restricted to the domain of complement to N. Observe the examples in (114) and (115), cited from Bayer (1984).

(114) a. I woäß ned [wann daß [da Xavea t kummt]].

I know not when that the X. comes

‘I do not know when Xaver will arrive.’

b. Weam moanstn [daß da Franz t troffa hot]

who think-you that the F. met has

‘Who do you think that Fanz has met?’

- (115) a. *dea Hund [dea wo [t gestern d'Katz bissn hot]]*
 the dog which that yesterday the cat bitten has
 'the dog which has bitten the cat yesterday'
- b. *de Frau [dea wo [da Xavea t a Bussl g'gem hot]]*
 the woman to-whom that the X. a kiss given has
 'the woman who Xaver kissed'

The embedded CPs in (114) are licensed by the matrix verbs and in this configuration they are headed by *daß*. The embedded CPs in (115) are relative CPs and therefore are not in the same configuration as the embedded CPs in (114). The embedded CPs in (114) are headed by *wo*. The fact that *daß* and *wo* are licensed in different configurations suggests that they are associated with features by which they can be distinguished from each other. At this point, it seems that the complementizer *daß* is licensed by N, whereas *wo* is licensed by V. We are led to assume in the Minimalist framework that they are licensed by the relevant features of N and V, no matter what the features are. One possibility is to assume that the former is associated with genitive and the latter with accusative, just as suggested for the complementizers *-nun* and *-ko* in Korean. What should be pointed out here is that the complementizers in Bavarian are associated with features other than [+Sub] so that we can distinguish one from the other.

3.4.1.4. Diegueño

Gorbet (1973) observes that Diegueño, a Yuman language of Southern and Baja California, employs various lexical complementizers. Consider the examples in (116).

(116) a. ?enya:-c ?ica:s puy ta?ny eway-pu- ϕ
 I-SUB I-remember-Emph there we-be-there-Def-OBJ
 ‘I remember that we were there.’

b. nya:-c ?a-Ly ?ar
 I-SUB I-go-Iness I-want
 ‘I want to go.’

c. wepinx uma:w-pu-k ?a:x
 it-is-warm-Fut Neg-Def-Abl I-go-Fut
 ‘If it is not warm, I will go.’

d. tu:yu:w-m ?I:kwic(- ϕ) ewu:w
 he-stand-there-Comit man-Obj he-see-him
 ‘As he stood there, he saw a man.’

The embedded clauses in (116a, b, c, and d) are headed by different complementizers, i.e., $-\phi$, $-Ly$, $-k$, and $-m$, respectively. This clearly indicates that there must be certain features involved by which all the lexical complementizers can be distinguished.

It becomes clear what features each complementizer is associated with when we consider nominal projections in Diegueño. Observe the examples in (117).

- (117) a. ?ewa:-pu- ϕ wecow
house-Def-Obj he-made
‘He made the house.’
- b. ?ewa:-pu-Ly
house-Def-Iness
‘in(to) the house’
- c. ?ewa:-pu-k
house-Def-Abl
‘from the house’
- d. ?ewa:-pu-m
house-Def-Comit
‘to the house’

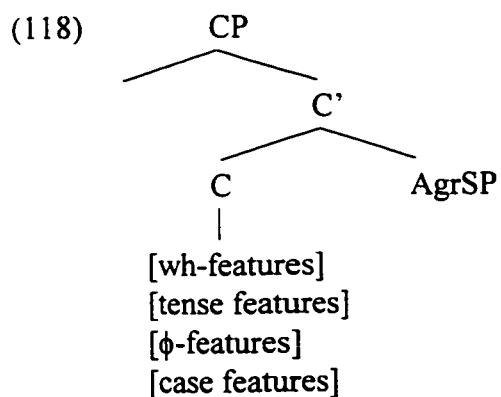
The nominal suffixes ϕ , *-Ly*, *-k*, and *-m* in (117) are associated with case features, i.e., objective, inessive, ablative, and comitative, respectively. Given this, it is quite plausible to argue that the complementizers ϕ , *-Ly*, *-k*, and *-m* in (116) are also associated with case features.

3.4.1.5. Summary: Korean

In the earlier sections, we have seen that complementizers (or the category C) are the locus of a wide range of morphological features. Lexical complementizers in English, for example, are the locus of tense and *wh*-features. West-Flemish complementizers, on the

other hand, are the locus of tense and agreement features. The category C can also be the locus of the feature [\pm mod(ification)] or [\pm pred(ication)].

Given the cross-linguistic evidence that the category C is the locus of various morphological features, there is no reason to rule out the possibility that the category C may be the locus of case features too, which is evidenced by two types of complementation in Korean. A close look at the configurations in which Korean complementizers *-ko* and *-nun* are licensed clearly reveals that they are the realizations of case features. It is quite plausible to argue that the verbal suffixes *-ko* and *-nun* in Korean are complementizers morphologically inflected for case features, just as *da* and *dan* in West Flemish are complementizers morphologically inflected for number agreement features and *that* and *for* in English are complementizers morphologically inflected for tense features.



3.4.2. Parallelism between D(P) and C(P)

I provide theoretical arguments for the proposed analysis of the verbal suffixes *-ko* and *-nun*. The argument that both the verbal suffixes *-ko* and *-nun* and the nominal suffixes *-lul*

and *-uy* are associated with case features implies that case features are associated with the head C when assigned to CP and with the head D when assigned to DP. Now we have a functional parallelism between C and D in that both may be associated with case features in Korean.

It has been observed that the functional head D functions on a par with the functional head C (Longobardi 1990, Szabolcsi 1987 and 1989, and Siloni 1991 and 1995). Given the widely-accepted argument that it is the head D which determines the referential capacity of the nominal expression and thus allows it to occur in the argument position (Longobardi 1990), the head C has exactly the same function, i.e., it turns its complement IP/TP into an argument. From this perspective, D can be labeled the complementizer of the noun phrase (Szabolcsi 1987 and 1989). Further it has been argued that the head D can serve as the complementizer of non-finite clauses in Hebrew (Siloni 1991 and 1995).

Siloni (1995) provides empirical evidence that the head D can serve as complementizers. Observe the following Hebrew examples, cited from Siloni (1995).

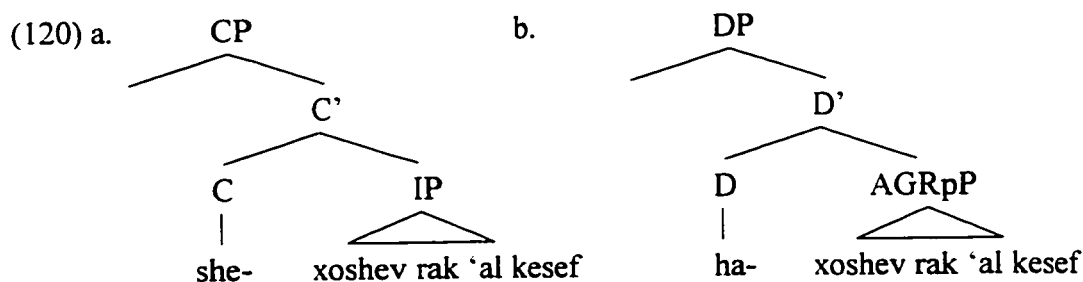
(119) a. hine ha-‘ish [**she**-xoshev rak ‘al kesef]

here the-man that-thinks only about money

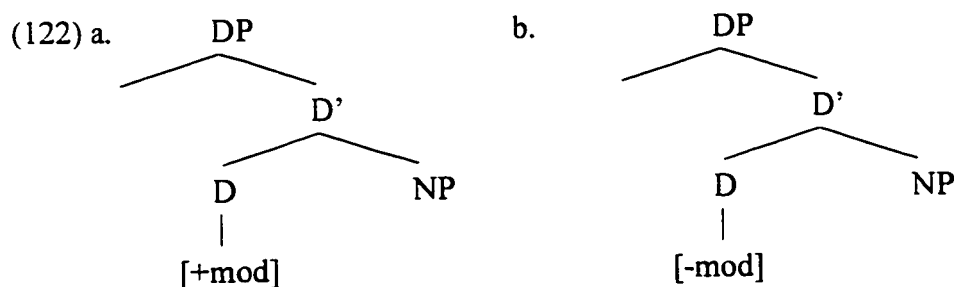
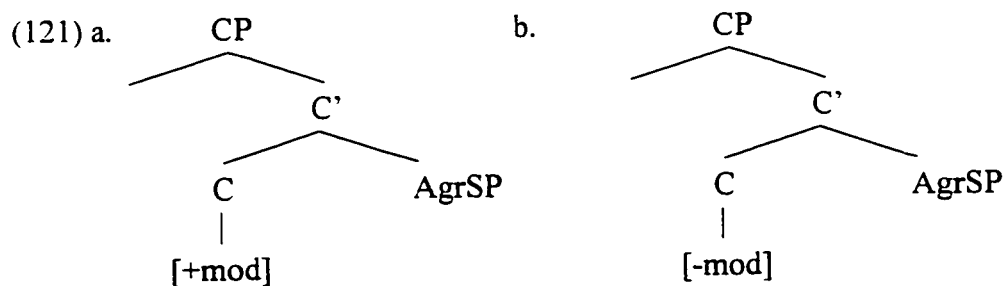
b. hine ha-‘ish [**ha**-xoshev rak ‘al kesef]

here the-man the-thinking only about money

(119a) contains a regular relative clause, which is headed by the standard complementizer *she-*. (119b), on the other hand, includes a relative clause headed by *ha-*, which is homophonous with the definite article in Hebrew. Siloni (1995) argues that the prefix *ha-* is indeed the definite article occurring in the head D and suggests the structures in (120).³⁸



If Siloni (1995) is on the right track, it is clear that it is possible for D and C to share certain feature(s). Following Rizzi (1990) who suggests two types of C, i.e., $C_{[-pred]}$ and $C_{[+pred]}$, Siloni (1995) suggests that Hebrew has two types of C and D.



$C_{[+mod]}$ heads a CP which is a modifier, whereas $C_{[-mod]}$ heads a CP which cannot be a modifier (123). Similarly, $D_{[+mod]}$ heads a phrase which is a modifier, whereas $D_{[-mod]}$ heads a phrase which cannot be a modifier (124).^{39 40}

(123) a. the thing [_{CP} Op [_{C_[+mod]} that] you saw t] (English)

b. I know [_{CP} [_{C_[-mod]} that] you saw it]

(124) a. ha-‘ish [_{DP} Op [_{D_[+mod]} ha-] [_{AGRP} t xoshev ‘al kesef]] (Hebrew)

the-man the- thinking about money

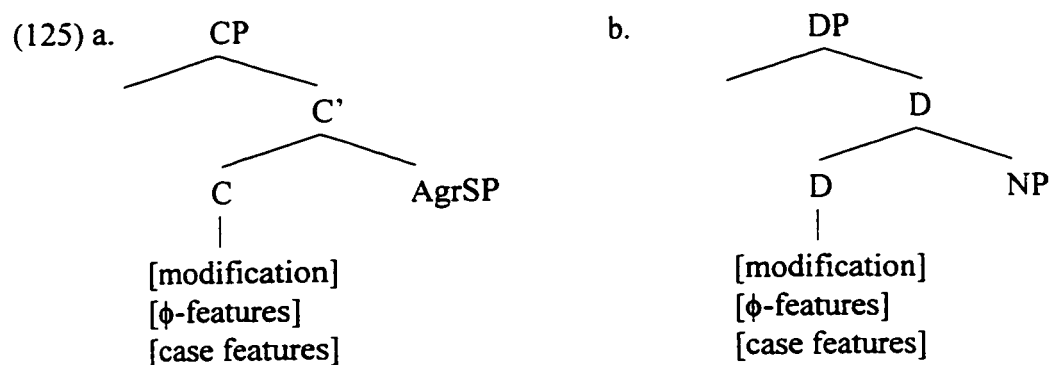
b. [_{DP} [_{D_[-mod]} ha-] ‘ish]

the man

(123) and (124) clearly show that there is a feature which the relative D *ha-* in (124a) shares with the relative C *that* in (123a) and *she-* in (119a). The shared feature is [+mod]. The head C of the embedded CP in (123b), on the other hand, shares the feature [-mod] with the head D of the DP in (124b).

In chapter 2, we have seen that the category D is the locus of agreement features in various languages such as German and French. We have also seen in 4.3.1 that the category C is the locus of agreement features in languages such as West Flemish. This implies that both D and C can be the locus of agreement features. In this section, we have seen that D as well as C may be associated with the feature [\pm mod] in languages such as Hebrew. All this suggests that the category C may share certain features with the category D. Given this, it is not implausible to argue that both D and C may be associated with

case features in Korean, which is empirically evidenced by the distributions of the determiners *-lul* and *-uy* and the complementizers *-ko* and *-nun*. Compare (125a) and (125b).



3.4.3. Conversion of Complementizers and Case Markers⁴¹

It has been observed that nominal case markers and complementizers morphologically converge in various languages. Starosta (1972), for example, noted that the particles *to* in English and *le-* in Hebrew can be used both as a nominal case marker and as a complementizer. In other words, case markers and complementizers are homophonous in these languages. Observe the examples in (126) and (127).

- (126) a. I gave the book to John. (English)
 b. I wanted to leave.

- (127) a. *le-xeder* (Hebrew)
 to-room
 'to the room'

- b. le-daber
to-speak
'to speak'

Moravscik (1972) also observed that case markers and complementizers morphologically converge in German, Hungarian, and Swahili. As illustrated in (128) through (130), the same particles are used both as a case marker and as a complementizer in these languages.

- (128) a. Er ist zu Hause. (German)
'He is at home.'

- b. Ich habe viel zu tun
I have much to do.

- (129) a. Janos-ni megyek (Hungarian)
Janos-to go
'I am going to John.'

- b. Alund-ni megyek
sleep-to go
'I am going to sleep.'

- (130) a. An-enda nyum-bani kw-angu (Swahili)
Imp-go house-to to-my
'Go to my house.'

- b. Kw-enda kumekwisha.
 to-sing it-is-finished
 ‘Going is finished.’

German *zu* in (128), Hungarian *-ni* in (129), and Swahili *an-* in (130) are all used as a case marker and a complementizer.

Hinds (1973) noted that Japanese has a complementizer and a case marker which are homophonous. Observe the examples in (131). The particle *-no* is used as a nominal case marker in (131a) and as a complementizer in (131b).

- (131) a. John-no sampo (Japanese)
 John-Gen walk
 ‘John’s walk’

- b. taroo-wa [hanako-ka akiko-o butta-no-]-o mita.
 Taro-Top Hanako-Nom Akiko-Acc hit-C-Acc saw
 ‘Taro saw Hanako hit Akiko.’

Joseph (1975), on the other hand, observed that Modern Persian has a particle *be*, which serves as a prepositional case marker as well as a complementizer, which is illustrated in (132).

- (132) a. man ketab-ra be hasan mi-dah-am (Modern Persian)
 I book-Acc to Hasan Pres-give-1 sg.
 ‘I give the book to Hasan.’

b. man be hasan farman-dad-am ke ali-ra be-kos-ad
kill-3 sg.

‘I ordered Hasan to kill Ali.’

The particle *be* is used as a case marker, i.e., dative marker, in (132a) and as a complementizer in (132b).

Gorbet (1973) also noted that case markers and complementizers are homophonous in Basque and Diegueño. First, consider the Basque examples in (133) and (134).

(133) a. etxe-ra noa (Basque)

house-to I-am-going

‘I am going to the house.’

b. zu ikuste-ra noa

you see-to

‘I am going to see you.’

(134) a. etxe-ko atea

house-of the door

‘the door of the house’

b. zu ikuste-ko gogoan

you see-of in-the-wish

‘wanting to see you’

The nominal case markers *-ra* in (133a) and *-ko* in (134b) morphologically converge with the complementizers *-ra* in (133b) and *-ko* in (134b), respectively.

Now observe the examples from Diegueño in (135).

- (135) a. ?ewa:-pu- ϕ wecow (Diegueño)
house-Def-Obj he-made
‘He made the house.’
- b. ?enya:-c ?ica:s puy ta?ny eway-pu- ϕ
I-SUB I-remember-Emph there we-be-there-Def-Obj
‘I remember that we were there.’

The object DP in (135a) and the object CP in (135b) are both headed by the same particle ϕ , which is used as an accusative marker in the former and as a complementizer in the latter. The convergence of case markers and complementizers are not restricted to the accusative marker $-\phi$ in Diegueño. Observe the examples in (136) - (138).

- (136) a. ?ewa:-pu-Ly
house-Def-Iness
‘in(to) the house’
- b. nya:-c ?a-Ly ?ar
I-SUB I-go-Iness I-want
‘I want to go.’

(137) a. ?ewa:-pu-k

house-Def-Abl

‘from the house’

b. wepinx uma:w-pu-k ?a:x

it-is-warm-Fut Neg-Def-Abl I-go-Fut

‘If it is not warm, I will go.’

(138) a. ?ewa:-pu-m

house-Def-Comit

‘to the house’

b. tu:yu:w-m ?I:kwic(- ϕ) ewu:w

he-stand-there-Comit man-Obj he-see-him

‘As he stood there, he saw a man.’

The examples in (136) -(138) show that the nominal case markers *-Ly*, *-k*, and *-m* are homophonous with the complementizers *-Ly*, *-k*, and *-m*.

We have seen that case markers and complementizers converge in various languages. It should be accounted for why it is that this particular convergence is so prevalent and recur in languages. The data given in this section provide strong empirical evidence for the proposed analysis in which I have claimed that complementizers are associated with case features. Emonds (1985) argues that English complementizers are of the category P, which provides an account of why case markers and complementizers converge in many languages.

3.5. Summary

I have argued that CPs may be assigned case and presented cross-linguistic evidence for the argument. I have proposed that the verbal suffixes *-ko* and *-nun* are associated with accusative and genitive, respectively, just as the nominal suffixes *-lul* and *-uy* are.⁴² This analysis account for the distributions of the verbal suffixes *-ko* and *-nun* in a principled manner. The complementizer *-ko* is licensed only in the configuration to which accusative is assigned, whereas the complementizer *-nun* is licensed only in the configuration to which genitive is assigned. Interrogative clauses in Korean provide empirical evidence that the complementizers *-ko* and *-nun* bear accusative and genitive. The complementizers *-ko* and *-nun* are interchangeable with the nominal suffixes *-lul* and *-uy*, respectively, which are clearly associated with accusative and genitive. The proposed analysis of *-ko* and *-nun* is also theoretically well-motivated. It has been shown that morphological feature specifications of complementizers vary cross-linguistically, which makes it reasonable to argue that complementizers are associated with case features in Korean. A parallelism between D and C also provides a supporting argument for the proposed analysis. We can find a parallelism between D and C in Korean, i.e., both are associated with case features. The fact that complementizers and nominal case markers converge in various languages provides a strong empirical evidence for the proposed analysis.

Notes to Chapter 3

1. The example (2b) sounds perfectly acceptable. It is because the head noun *mitum* 'belief' is homophonous with the corresponding gerund form *mit-um* 'believing'. In other words, (2b) is grammatical if it is understood as 'believing the story', not as 'belief of the story'. It becomes clear that the nominal suffix *-lul* cannot be licensed by the head N if we consider the example (i) in which the head N *mitum* is modified by an adjective, which cannot occur with the corresponding gerund form *mit-um*.

- (i) **[ku iyaki-lul] punmyenghan mitum*
 that story-Acc clear belief
 'the clear belief of the story'

The noun *mitum* in (ia) cannot be understood as 'believing' since it is modified by an adjective. Unlike (2b), (i) is clearly ruled out.

2. The term 'case assignment' has been replaced by 'case checking' in the Minimalist framework. In this chapter, however, I will continue to use the term 'case assignment' simply for the sake of convenience.

3. Infinitival clauses pattern with tensed clauses regarding their distributions. Gerundive clauses, however, do not exactly pattern with tensed CPs in that aspect. Unlike tensed and infinitival CPs, gerundive CPs can occur in complement to P. See Abney (1987) for a detailed discussion on gerundive CPs.

4. It seems that tensed CPs may occur in the matrix subject position, which appears to be against the CRP. Observe the examples in (i).

- (i) a. *[That Pauline moved to Kansas] surprised me.*
 b. *[That Brian dyed his hair] proves her nothing.*

The embedded CPs in (i) are used as the subjects of the matrix verbs and therefore seems to be in case-marked position, i.e., assigned nominative by the matrix INFL. In order to account for the data in (i) under his analysis, Stowell argues that the subject CPs in (i) are not really in the subject position. Following Emonds (1976) and Koster (1978), he argues that the subject CPs in (i) are in topic position.

- (ii) *[That Pauline moved to Kansas]_i [_{IP} t_i surprised me]*

In (ii), the embedded CP is not assigned case, thus satisfying the CRP. Stowell extends this line of argument to CP complements to V.

- (iii) a. Mary knows [that Pauline moved to Kansas].
 b. Mary [knows t_j] [that Pauline moved to Kansas].

Stowell (1981) argues that the embedded CP in (iii) is extraposed and thus not assigned accusative by the matrix verb. The data in (i) and (iii) therefore cannot be counterexamples to the CRP.

5. Fukui (1986) uses the term ‘Kase’ instead of ‘case’ to include other morphological features such as [+wh] features.

6. Fritz Newmeyer and other native speakers (p.c.) pointed out to me that (11b) is quite grammatical. Then the CRP is faced with a more serious problem.

7. Given the argument in this section that CPs may be assigned case, we are faced with a question, i.e., how CPs but not DPs are excluded from certain syntactic positions in English, as illustrated in (6) and (7). It seems that CPs are typically excluded from the spec of IP, regardless of whether the position is case-marked or not. See Jeong (1994) who proposes Categorical Hierarchy Principle to the effect that CPs may not be immediately dominated by the projection of INFL.

8. The nominal suffix *-kkeyse* is also associated with the feature [+Nom].

9. It should be noted that the plural suffix *-tul* is not restricted to nominal projections. As can be seen from the examples in (i), the suffix *-tul* can be licensed not only in nominal projections but also in verbal and adverbial projections.

- (i) a. saram-tul-ka ilccik-tul o-ass-ta.
 person-Pl-Nom early-Pl come-Past-Dec
 ‘People came early.’
- b. saram-tul-ka [Sue-ka o-ass-ta-ko-tul] malha-ass-ta.
 person-Pl-Nom Sue-Nom come-Past-Dec-C-Pl say-Past-Dec
 ‘People said that Sue came.’

From the data in (i), one might argue that the feature [+Pl] is uniformly realized as the suffix *-tul*, in other words, that the plural suffix *-tul* is not specified for N- and/or V-features so that it may be licensed in both nominal and verbal projections. Korean does have inflectional suffixes which may be licensed both nominal and verbal projections. Topic marker *-nun* is a typical example. Observe the examples in (ii).

- (ii) a. saram-tul-nun mani an o-ass-ta.
 people-Pl-Top many not come-Past-Dec
 ‘Not many people came.’

- b. saram-tul-ka [Sue-ka o-ass-ta-ko-nun] an malha-ass-ta.
 people-Pl-Nom Sue-Nom come-Past-Dec-C-Top not say-Past-Dec
 ‘People didn’t say that Sue came.’

Even if we assume that the feature [+Pl] is uniformly realized in nominal and verbal projections, the examples in (i) do not serve as evidence against my argument in this chapter. What I am assuming in this chapter is not that features must always be realized as different morphemes in different projections but that features may be realized as different morphemes in different projections. In other words, I do not rule out the possibility that features can be uniformly realized as a single morpheme in nominal and verbal projections.

Further, note that the plural suffix *-tul* differs from the topic marker *-nun* in some aspect. In (i), the first occurrences of *-tul* are distinguished from the second occurrences of *-tul* in that the latter must be licensed by the former but not vice versa. Let us call the former and the latter ‘inherent PL (plural suffix)’ and floating PL, respectively. Observe the examples in (iii) and (iv).

- (iii) a. saram-tul-ka ilccik-(tul) o-ass-ta.
 person-Pl-Nom early-Pl come-Past-Dec
 ‘People came early.’
- b. saram-tul-ka [Sue-ka o-ass-ta-ko-(tul)] malha-ass-ta.
 person-Pl-Nom Sue-Nom come-Past-Dec-C-Pl say-Past-Dec
 ‘People said that Sue came.’
- (iv) a. chinku-*(tul)-ka ilccik-tul o-ass-ta.
 friend-Pl-Nom early-Pl come-Past-Dec
 ‘A friend/friends came early.’
- b. chinku-*(tul)-ka [Sue-ka o-ass-ta-ko-tul] malha-ass-ta.
 friend-Pl-Nom Sue-Nom come-Past-Dec-C-Pl say-Past-Dec
 ‘A friend/friends said that Sue came.’

The data in (iii) and (iv) show that the plural suffix *-tul* can be inherently licensed in nominal projection but not in verbal and adverbial projections. If we distinguish two types of *-tul*, inherent PL and floating PL, then the first type of *-tul* can still be supporting evidence for my argument.

10. The conjunction meaning ‘and’ is realized as *-wa* when the preceding syllable ends in a vowel and as *-kwa* when the preceding syllable ends in a consonant.

11. The complementizer *-ko* and the conjunction *-ko* should be distinguished. The former invariably follows sentential endings (ia), whereas the latter may follow verb stems, honorific marker, or tense markers but not sentential endings (ib).

- (i) a. ka-si-ass-ta-ko
go-Hon-Past-Dec-C
- b. ka-(si)-(ass)-ko
go-Hon-Past-Conj

See Sells (1995) for a detailed discussion on Korean morphology.

12. As pointed out by S.-W. Kim (p.c.), Japanese differs from Korean in that Japanese genitive marker *-no* can be licensed in verbal projections as well as nominal projections. Observe the examples in (i).

- (i) John-no murabito-ey-no [ookami-ka kuru-to-no] keikoku
John-Gen villager-to-Gen wolf-Nom come-C-Gen warning
'John's warning to the villagers that the wolf is coming'

Fukui (1986) argues that the verbal suffix *-to* in (i) is a postposition. If this is on the right track, it is accounted for why the genitive marker is licensed in the embedded clause in (i). It is not implausible to say that like Korean genitive marker *-uy*, *-no* is licensed in nominal and postpositional projections in Japanese.

Fukui (1986) provides evidence for analyzing *-to* as a postposition. First, the suffix *-to* can be used as a postposition (ii). Second, the topic marker *-wa*, which is argued to be licensed in nominal but not verbal projections, is licensed in the projections of *-to* (iii).

- (ii) John-wa Mary-to kaimono-ni itta.
John-Top Mary-with shopping-to went
'John went shopping with Mary.'
- (iii) a. John-wa Bill-o nagutta.
John-Top Bill-Acc hit
'John hit Bill.'
- b. Tokyo-ey-wa Bill-ga itta.
Tokyo-to-Top Bill-Nom went
'Bill went to Tokyo.'

- c. *[John-ga Bill-o nagutta-wa] mondai ta.
 John-Nom Bill-Acc hit-Top problem is
 'It is a problem that John hit Bill.'

S.-W. Kim (p.c.) also pointed out that the fact that *-no* is licensed in verbal projections in Japanese seems to be related to the fact that the so-called nominative/genitive conversion is common in Japanese. Compare the Korean examples in (iv) with the Japanese examples in (v).

- (iv) a. [Joe-ka/*uy sa-ass-ta-nun] chayk
 Joe-Nom/Gen buy-Past-Dec-C book
 'the book that (people say) Joe bought'
- b. Joe-nun [Sue-ka/*uy o-ass-ta-nun] kes-lul moru-ass-ta.
 Joe-Top Sue-Nom/Gen come-Past-Dec-C NM-Acc not-know-Past-Dec
 'Joe didn't know that Sue came.'
- (v) a. [kinoo John-ga/no katta] hon
 yesterday John-Nom/Gen bought book
 'the book that John bought yesterday'
- b. John-wa [kinoo Mary-ga/no kita] koto-o shiranakatta.
 John-Top yesterday Mary-Nom/Gen came FN-Acc kno-Neg-Past
 'John didn't know that Mary came yesterday.'

It is clear that Korean differs from Japanese in those aspects we have seen. Detailed discussions of Japanese data, however, are beyond this dissertation.

13. See Shim (1995) who points out further problems with Han's (1987) argument that CPs cannot be assigned case in Korean.

14. Functional categories intervening between C and V are ignored in (36b) since they are not relevant to the discussion in this chapter.

15. Interrogatives can be headed by postpositions such as *-ey* as illustrated in (i).

- (i) [Nuku-ka iki-ass-nya-ey] kwansim-ka mo-eci-ass-ta.
 who-Nom win-Past-Int-P attention-Nom pay-Pass-Past-Dec
 'Attention was paid to who won.'

16. Chomsky (1986a and 1992) argues that genitive is licensed by the lexical head N. A detailed discussion of genitive will be presented in chapter 4. It is not relevant to the discussion in this chapter whether genitive is licensed by N or D.

17. We have seen in chapter 2 that the functional head D is associated with agreement (number and honorification) and case features. In this chapter, I will not discuss which specific feature is responsible for checking [+Gen]. See Yoon (1996) who suggests that the feature [+N] is responsible for genitive in Korean.

18. It is not relevant to the discussion in this chapter whether adjuncts are base-generated in the spec of DP or not.

19. See Mahajan (1990), Murasugi (1992), and Woolford (1997) who present analyses in which accusative are licensed by functional head AgrO or Tr(ansitivity) not by V. It is not relevant to the discussion in this chapter, however, whether accusative is licensed by V or AgrO/Tr. The point that should be made here is that the verbal suffix *-ko* and the *nominal* suffix *-lul* are licensed by the same head. See chapter 4 for a detailed discussion on this issue.

20. Interrogative clauses differ from declarative ones in that they may be licensed in subject position when they are headed by the nominal suffix *-ka*. Observe the example in (i).

- (i) [Nuku-ka cip-ey ka-ass-nya-(**ko*)-ka] cungyoha-ta.
 who-Nom home-to go-Past-Int-Nom important-Dec
 ‘Who went home is important.’

Note here that the verbal suffix *-ko* still cannot be licensed in subject position. Interrogative clauses will be discussed in 3.3.3.

21. S.-W. Kim (p.c.) pointed out to me that the nominal suffix *-lul* and the verbal suffix *-ko* do not always show the same external distributions. It is observed by Lee (1994) that event nouns in Korean may license not only genitive but also accusative when they are followed by certain aspect morphemes such as *-cung* ‘during’. Observe the examples in (i).

- (i) a. Kim kyosu-uy AIDS-uy yenku-cung
 Kim professor-Gen AIDS-Gen research-during
 ‘during Professor Kim’s research on AIDS’
 b. Kim kyosu-ka AIDS-lul yenku-cung
 Kim professor-Nom AIDS-Acc research-during

Now observe the examples in (ii) in which CP complements are selected by the event noun *poto* ‘report’

- (ii) a. [hankuk-ka iki-ass-ta-nun] CBS-uy poto-cung
 Korea-Nom win-Past-Dec-C CBS-Gen report-during
 ‘during CBS’s report that Korea won’
- b. ?*[hankuk-ka iki-ass-ta-ko] CBS-ka poto-cung
 Korea-Nom win-Past-Dec-C CBS-Nom report-during

According to S.-W. Kim (p.c.), there is a clear contrast between (ib) and (iib), i.e., the former but not the latter is not acceptable. To some speakers including me, however, both (ib) and (iib) seem to be marginally acceptable. See Lee (1994) for an analysis of case alternations in the projections of event nouns.

22. The juxtaposition of the verbal suffix *-ko* and the nominal suffix *-lul* seems to be acceptable to some speakers. Consider the example in (i).

- (i) ?Joe-ka [nuku-ka iki-ass-nya-ko-lul] mul-ass-ta.
 Joe-Nom who-Nom win-Past-Int-C-Acc ask-Past-Dec
 ‘Joe asked who won.’

The sentence (i) is not acceptable to me and even to those who consider (ia) acceptable, it is clear that (i) is less acceptable than either (iia) or (iib).

- (ii) a. Joe-ka [nuku-ka iki-ass-nya-ko] mul-ass-ta.
 b. Joe-ka [nuku-ka iki-ass-nya-lul] mul-ass-ta.

Under the assumption that (i) is grammatical, one might argue that the verbal suffix *-ko* is the head C, which is not associated with case features, whereas the nominal suffix *-lul* is the realization of the accusative case assigned to the embedded CP. This turns out to be incorrect, however, when we consider interrogative clauses used as subject or complement to nouns or postpositions. Observe the examples in (iii).

- (iii) a. *[Nuku-ka iki-ass-nya-ko-ka] cungyoha-ta.
 who-Nom win-Past-Int-C-Nom be important-Dec
 ‘Who won is important.’
- b. *[Nuku-ka iki-ass-nya-ko-uy] muncey
 who-Nom win-Past-Int-C-Gen question
 ‘the question who won’

- c. *[Nuku-ka iki-ass-nya-ko-ey] kwansim-ka mo-eci-ass-ta.
 who-Nom win-Past-Int-C-Dat attention-Nom pay-Pass-Past-Dec
 ‘Attention was paid to who won.’

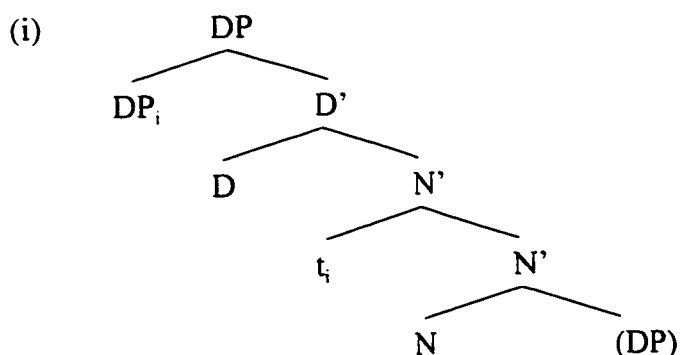
The analysis of *-ko* as not being associated with case features cannot account for why the examples in (iii) are ungrammatical, given that interrogatives may be assigned case. Further, observe the example in (iv).

- (iv) a. *[Nuku-ka iki-ass-nya-nun-uy] cilmun
 who-Nom win-Past-Int-C-Gen question
 ‘the question who won’
- b. [Nuku-ka iki-ass-nya-nun] cilmun
- c. [Nuku-ka iki-ass-nya-uy] cilmun

If we assume that the verbal suffix *-ko* is the head C with no case features, and the nominal suffix *-lu!* is the realization of accusative in (ia), then it is wrongly predicted that (iiia) is grammatical too since the verbal suffix *-nun* is the head C and the nominal suffix *-uy* is the realization of genitive. This is not the case, however. Therefore the argument that the verbal suffix *-ko* is the head C not associated with case features cannot be maintained.

23. See Larson (1985) who suggests that interrogatives are indeed noun phrases that perform adverbial functions.

24. See Fukui (1986) who suggests that the subject of noun phrase is base-generated in the spec of NP and raises to the spec of DP to be assigned genitive by the head D.



25. In chapter 5, I will show that there exist inflectional suffixes which fall into the category M but are specified [+N].

26. Under the proposed analysis of interrogative clauses in Korean, the definition of extended projection suggested in Grimshaw (1991) should be revised. Grimshaw's (1991) definition of extended projection is given in (i).

- (i) x is the extended head of y , and y is the extended projection of x iff:
- (a) y dominates x ,
 - (b) y and x share all categorial features
 - (c) all nodes intervening between x and y share all categorial features.
 - (d) If x and y are not in the same perfect projection, the F value of y is higher than the F value of x .

where n intervenes x and n ; n dominates x , and n does not dominate y .

- (ii) x is the perfect head of y , and y is the perfect projection of x iff:
- (a) y dominates x ,
 - (b) y and x share all categorial features
 - (c) all nodes intervening between x and y share all categorial features.
 - (d) the F value of y is the same as the F value of x .

According to the definitions in (i) and (ii), interrogative clauses headed by the nominal suffix *-lul* or *-uy* cannot form an extended projection since the nominal suffix *-lul* or *-uy* does not share categorial features with the verbal suffixes such as tense and mood. i.e., the former being [+N, -V] and the latter [-N, +V].

The definition of extended projection in (I) should be revised in order to account for dual properties of interrogatives in Korean (and English gerundive constructions as well).

(iii) Revised Definition of Extended Projection

x is the extended head of y , and y is the extended projection of x iff:

- (a) y dominates x ,
- (b) the N-feature of y is not distinct from the N-feature of the head immediately dominated by y .
- (c) If x and y are not in the same perfect projection, the F value of y is higher than the F value of x .

where [+N] is not distinct from [α N].

27. Chomsky (1981) cites another example of feature neutralization. Consider the following example.

- (i) the destruction [α of the city]

Typically N selects DP not PP as complement, especially in terms of θ -role assignment. Given this, the projection α should be [+N, -V]. It is also true, however, that the projection α is headed by the preposition *of*, which is a clear indication that the projection should be [-N, -V]. Therefore we are in a contradictory position regarding the categorial status of the projection α . Chomsky (1981) presents a compromising analysis of the projection α by suggesting that it may not be specified for N-features, i.e., it is defined as [-V].

28. See Burzio (1981) who discusses other distinctions between syntactic and lexical passives in French and Italian.

29. Noting that in English *Deg(ree)* and its projection may form an extended projection with the complement AdjP (Adjective phrase) or AdvP (Adverb phrase), Grimshaw (1991) also argues that the head *Deg* is also of a category which is neutral between adverb and adjective.

30. See also the references for Japanese event nouns, cited in Lee (1994)

31. See Wechsler and Lee (1996) who argue that the domain of case assignment must be extended to include a situation delimiter. If we assume that verbal adjuncts may be assigned accusative, then there arises no problem with the proposed analysis of *-ko*.

32. The complementizer *-nun* should be distinguished from the topic marker *-nun*. The former is restricted to verbal projections, whereas the latter is not. See 4.3 for a discussion on the topic marker *-nun*.

33. Here [+Acc] means that the head has the ability to assign [+Acc].

34. Emonds (1985) defines English lexical complementizers as follows.

(i)	that	[P, -wh]
	if/whether	[P, +wh]
	for	[P, Goal]

35. See Siloni (1995) who presents a similar analysis of complementizers in Hebrew.

36. See also Rizzi (1990), Grimshaw (1990), and Haegeman (1991).

37. Lexical complementizers in West Flemish are also morphologically inflected for person. Observe the following examples, cited from Haegeman (1991).

- (i) a. dan-k noa Gent goan
that-I to Ghent go
'that I go to Ghent'
- b. da-me noa Gent goan
that-we to Ghent go
'that we go to Ghent'
- (ii) a. da-se noa Gent goat
that-she to Ghent goes
'that she goes to Ghent'
- b. dan-ze noa Gent goan
that-they to Ghent go
'that they go to Ghent'

38. AGRpP stands for participial agreement phrase, whose head accommodates the participial agreement.

39. There is a third occurrence of *ha-* in Hebrew. It occurs with modifying adjectives as an agreement reflex with the noun they modify. Observe the following examples.

- (i) ha-'ish ha-yafe
the-man the-beautiful

Siloni (1995) defines the second *ha-* in (i) as $D_{[-mod]}$.

40. The category D in English also seems to be associated with [+pred]. Observe the following examples.

- (i) a. This is [_{DP} a teacher].
b. I met [_{DP} a teacher].

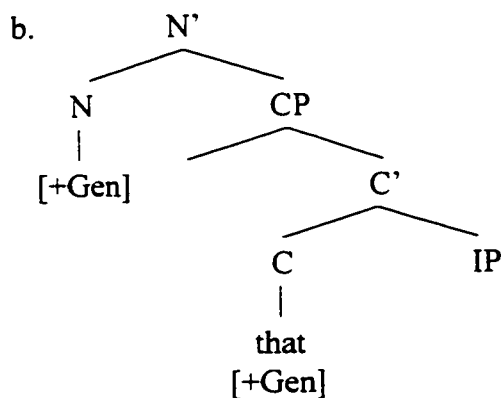
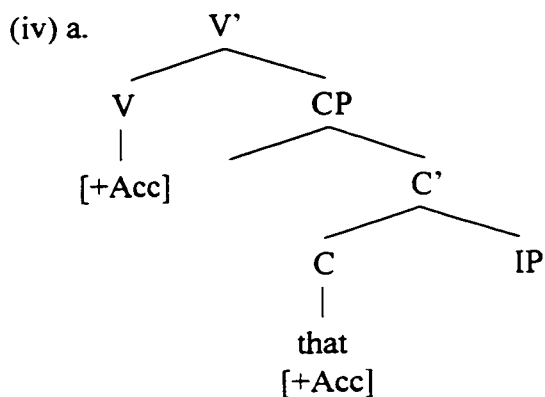
41. I thank Fritz Newmeyer for referring me to the data in this section.

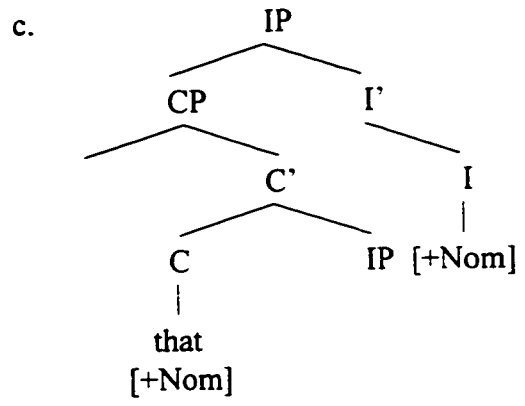
42. The proposed analysis of the complementizers *-ko* and *-nun* as being associated with accusative and genitive seems to be applicable to English, although there is no morphological evidence as there is in Korean. In general, case features are not overtly realized in English, regardless of whether they are associated with nominal projections or verbal projections. Observe the following examples.

- (i) a. Joe believes [the rumor].
b. Joe believes [that the man kissed Sue].

- (ii) a. Joe's belief [of the rumor]
 b. Joe's belief [that the man kissed Sue]
- (iii) a. [The rumor] frightened Joe.
 b. [That the man kissed Sue] frightened Joe.

Under the proposed analysis of Korean complementizers, it is predicted that the embedded CP in (ia) is associated with accusative, just as the object DP is. The embedded CPs in (iib) and (iiib), on the other hand, is predicted to be associated with genitive and nominative, respectively. Those case features, however, are never overtly realized in English so there is no empirical evidence for or against the proposed analysis. Therefore it is not implausible to argue that the head of the embedded CP in (ia) is associated with genitive, the head of the embedded CP in (iib) with accusative, and the head of the embedded CP in (iiib) with nominative.





CHAPTER 4

COMP and Inherent Case

4.1. Introduction

I have proposed in chapter 3 that the complementizers *-ko* and *-nun* are associated with accusative and genitive, respectively. The analysis of both the nominal suffix *-lul* and the verbal suffix *-ko* as being associated with accusative implicitly assumes that *-ko* is the realization of structural accusative, considering the widely accepted argument that *-lul* is the morphological realization of structural accusative. The analysis of *-ko* as the realization of structural accusative, however, faces an empirical problem. One of the major properties of structural accusative is that it is absorbed in the passive (Jaeggli 1986, Roberts 1987, Baker et al. 1988, and Hagegegan 1991).

As predicted, the nominal suffix *-lul*, which is the realization of structural accusative, is not licensed in the passive as illustrated in (1b). The analysis of the verbal suffix *-ko* as the realization of structural accusative predicts that *-ko* may not be licensed in the passive, either. This prediction is not correct, however. CPs headed by *-ko* may be licensed by passivized verbs as illustrated in (2b).

- (1) a. motu-ka [ku somun-lul] incengha-ass-ta.
everyone-Nom that rumor-Acc acknowledge-Past-Dec
'Everyone acknowledged the rumor.'

- b. **motu-ey uyhayse [ku somun-lul] inceng-toy-ass-ta.*
 everyone by that rumor-Nom/Acc acknowledge-Pass-Past-Dec
 ‘The rumor was acknowledged by everyone.’
- (2) a. *motu-ka [Sue-ka ka-ass-ta-ko] incengha-ass-ta.*
 everyone-Nom Sue-Nom go-Past-Dec-C acknowledge-Past-Dec
 ‘Everyone acknowledged that Sue went.’
- b. *motu-ey uyhayse [Sue-ka ka-ass-ta-ko] inceng-toy-ass-ta.*
 everyone by Sue-Nom go-Past-Dec-C acknowledge-Pass-Past-Dec
 ‘That Sue went was acknowledged by everyone.’

The proposed analysis of *-ko* as being associated with structural accusative, therefore, should be reconsidered.

In this chapter, I will revise the analysis of the complementizer *-ko* as the realization of structural accusative and propose that *-ko* is not associated with structural accusative but with inherent accusative. Following Belletti (1988), who suggests that indefinite object DPs may be licensed by passivized verbs in terms of inherent partitive, I argue that the verbal suffix *-ko* is the morphological realization of inherent accusative and that CPs headed by *-ko* can be licensed by passivized verbs via licensing of inherent accusative. The verbal suffix *-ko* is now distinguished from the nominal suffix *-lul*. The former is associated with inherent accusative and the latter with structural accusative. Unlike structural accusative, inherent accusative is not absorbed in the passive and therefore can be licensed by passivized verbs.

The revised analysis of *-ko* as being associated with inherent accusative is empirically supported by various syntactic phenomena related to nominal inflections in Korean. First of all, the nominal suffixes *-ka*, *-lul*, and *-uy*, which are the morphological realizations of structural nominative, accusative, and genitive, respectively, may be dropped in certain contexts. Postpositions such as *-ey* and *-eykey*, on the other hand, which I have argued in chapter 2 to be the realizations of inherent locative, and dative, respectively, may not be dropped. The verbal suffixes *-ko* and *-nun* pattern with postpositions regarding the case drop phenomenon, i.e., they may not be dropped. This suggests that the verbal suffixes *-ko* and *-nun* are associated with inherent case.

The revised analysis is also supported by the interactions with the topic marker *-nun* as well as the so-called delimiters. Neither the topic marker nor the delimiters may co-occur with the nominal suffix *-lul*, whereas both may co-occur with the postpositions *-ey* and *-eykey*. On the other hand, the nominal suffix *-lul* may be replaced by the topic marker or the delimiters, whereas the postpositions *-ey* and *-eykey* may not. In this respect, the verbal suffix *-ko* patterns not with the nominal suffix but with the postpositions. That is, *-ko* can co-occur with but not be replaced by the topic marker or the delimiters, which strongly suggests that *-ko* is associated with inherent (accusative) case.

Morphological structures regarding the nominal suffixes and the delimiters more clearly indicate that the verbal suffix *-ko* is associated with inherent case. Both the nominal suffixes *-lul* and *-uy* and the postpositions may occur with certain delimiters. The nominal suffixes, however, are distinguished from the postpositions in that the former are

preceded by the delimiters, whereas the latter are followed by the delimiters. In this respect, the verbal suffix *-ko* patterns with the postpositions, i.e., it is followed by the delimiters. This is a clear indication that *-ko* is associated with inherent case.

In this chapter, I will address how inherent and structural case should be licensed. Chomsky (1980, 1981, and 1986a) and Chomsky and Lasnik (1993) distinguish two types of case: structural and inherent case. The former is considered a property of a formal structure, i.e., dependent upon syntactic relation between a head and an XP. A head may license structural case on a DP. Finite T and transitive V, for example, are widely assumed to license nominative- and accusative-marked DPs, respectively, when the former governs the latter. There need not be any thematic relation between the head and the DP, which is clearly evidenced by the fact that the subject of an embedded infinitival clause can be assigned accusative by the matrix verb via the so-called Exceptional Case Marking. Inherent case, on the other hand, is considered a property of a thematic relation between a lexical head and its complement XP. A lexical head may license inherent case of the complement when the former θ -marks the latter.

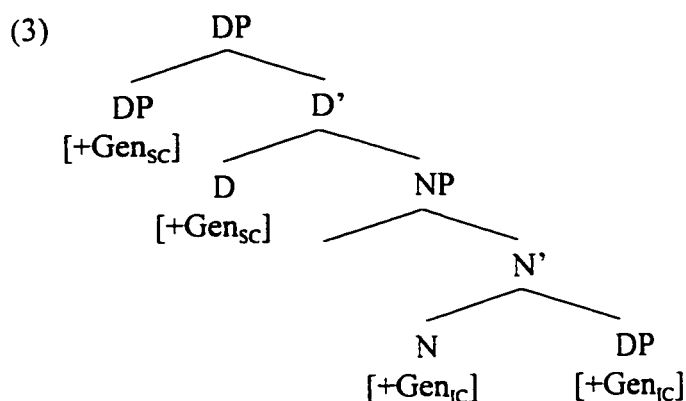
Given that there are two types of case, inherent vs. structural, there arises a fundamental question, that is, how we should define the licensing of inherent and structural case.¹ Given that case is a relation between a licenser and a licensee, there are two theoretical possibilities regarding the question of how we can define structural and inherent case: one based upon the properties of case licensers and the other based upon the properties of case licensees. The definition of case licensing based upon case licensers

has long been widely adopted in the literature. Since Chomsky (1981), structural and inherent case have been defined in terms of the categorial features, specifically, the N-features of case licensors. Under this analysis, structural case is argued to be licensed by the heads of [-N] feature: V, P, and INFL (T or Agr), whereas inherent case by the heads of [+N] feature: N and A (Chomsky 1981, 1986a, and 1995).

The definition of case licensing in terms of case licensees has also been adopted in the literature. Belletti (1988), for example, suggests that definite object DPs are licensed by the lexical head V via licensing of structural accusative, whereas indefinite object DPs are licensed by the head V via licensing of inherent partitive. Under this analysis, it is not the case licensors but the case licensees that determine whether object DPs are licensed in terms of inherent case licensing or structural case licensing. Similarly, Enç (1989) suggests that specific DPs are licensed in terms of structural case licensing, whereas non-specific DPs are licensed via inherent case licensing. Under the definition of case licensing in terms of case licensees, the lexical head V has the ability to license not only inherent case but also structural case. In this chapter, I will present a new definition of case licensing, which combines the definition based upon case licensors and that based upon case licensees. I claim that inherent case is uniformly licensed by lexical heads in terms of the head-complement relation, whereas structural case is invariably licensed by functional heads in terms of the spec-head agreement. Following the notion of inherent case in Belletti (1988) and Enç (1989), I claim that CPs may be licensed via inherent case checking in Korean.

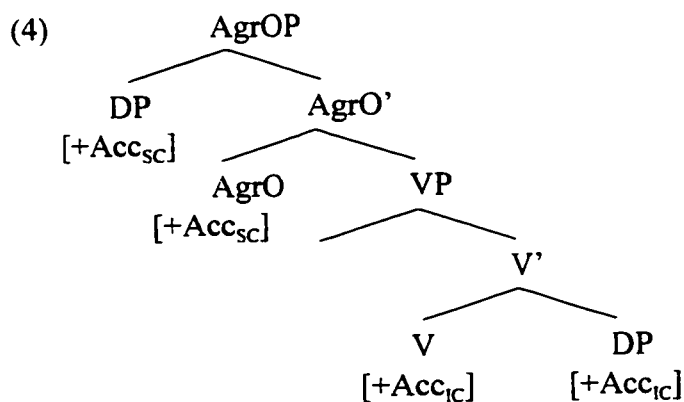
Various arguments have been provided against the definition of structural and inherent case licensing in terms of the N-features of case licensors. Given the fact that inherent case is a property of a thematic relation between a head and its complement, it seems intuitively correct to assume that lexical categories including V are inherent case licensors if they are θ -role assigners. (Belletti 1988, Baker 1988b, Grimshaw 1991, J.-S. Lee 1992, Bittner and Hale 1996, and Woolford 1997). Under the definition of inherent and structural case licensing in terms of N-features, the lexical category V is in a contradictory position since it is a [-N] category as well as a θ -role assigner, which implies that it licenses structural case as well as inherent case. I will argue that V is an inherent case licensor.

It has long been controversial whether genitive is structural or inherent (Chomsky 1981, 1986a, and 1995, Fukui 1986, and Abney 1987). Chomsky (1981), for example, defines genitive as structural. In his later works (Chomsky 1986a and 1995), however, he argues that genitive is inherent and licensed by N. Fukui (1986) and Abney (1987), on the other hand, argue that genitive is structural and licensed by the functional category D in terms of the spec-head agreement. In this chapter, I will argue that there exist two types of genitive, i.e., inherent and structural genitive and that the former is licensed by the lexical head N in terms of the head-complement relation, whereas the latter by functional head D in terms of the spec-head agreement.



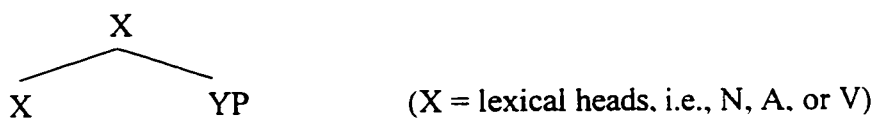
In the configuration (3), the licensing of inherent and structural genitive is defined in terms of the case licensers. In this respect, it falls under the same system as Chomsky's (1986a and 1995) definition of case licensing. The proposed system, however, differs from Chomsky's (1986a and 1995) in that it is not the categorial features of the case licensers that distinguish inherent case licensing from structural case licensing.

Along the same line of arguments for genitive, I will argue that there are two types of accusative: inherent and structural accusative. Specifically, I will argue that inherent accusative is licensed by the lexical head V in terms of the head-complement relation, whereas structural accusative is licensed by the functional head AgrO in terms of the spec-head agreement, as shown in (4). This is compatible with the following proposals: Murasugi (1992), who suggests that structural accusative is licensed not by the lexical category V but by the functional category Tr (=Transitivity); Mahajan (1991) and Woolford (1996), who suggest that structural accusative may be licensed by the functional category AgrO in Hindi and Nez Perce, respectively; and Belletti (1988) and Enç (1989), who suggest that the lexical head V may license inherent case.

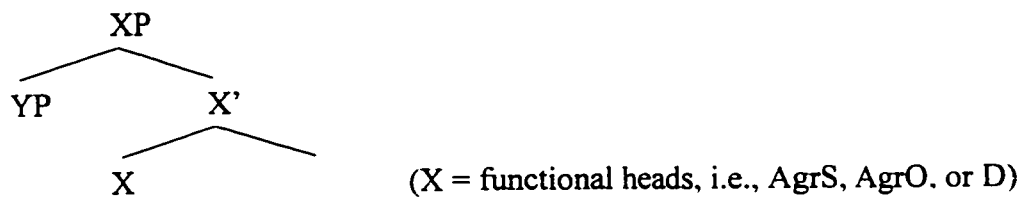


As for nominative and dative, I simply assume that the former is structural and licensed by the functional head AgrS (or T) in terms of the spec-head agreement, whereas the latter is inherent and licensed by the lexical head V in terms of the head-complement relation. Now we have a new system of case licensing: structural case is licensed by a functional head in terms of the spec-head agreement, whereas inherent case is licensed by a lexical head in terms of the head-complement relation.

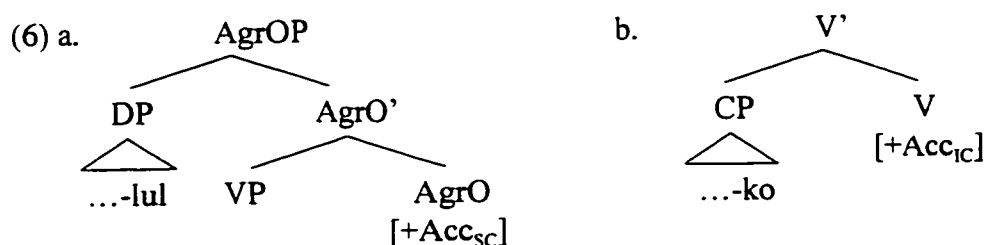
(5) a. Inherent Case Licensing



b. Structural Case Licensing

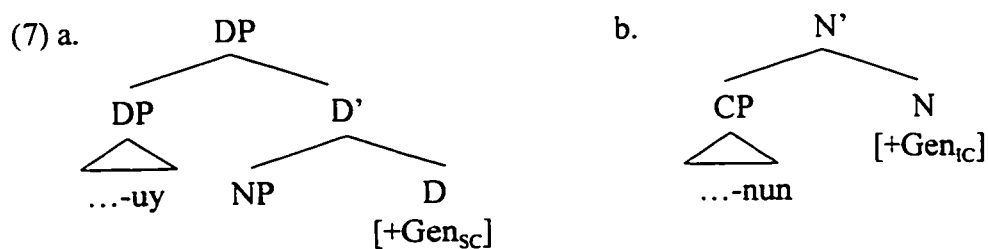


Based upon the system of case licensing in (5), I will propose that CPs headed by the verbal suffix *-ko* are associated with inherent accusative and therefore that they are licensed by the lexical head V in terms of the head-complement relation. DPs headed by *-lul*, on the other hand, are associated with structural accusative and licensed by the functional head AgrO in terms of the spec-head agreement.



Given this, the fact that the nominal suffix *-lul* but not *-ko* is absorbed in the passive can be accounted for in a principled manner simply by assuming that passivized verbs do not project AgrOP.

I will also argue that the nominal suffix *-uy*, which is associated with structural genitive, is licensed by the functional head D, whereas the verbal suffix *-nun*, which is associated with inherent genitive, is licensed the lexical head N.



The argument that DPs headed by *-lul* and *-uy* are licensed by AgrO and D, whereas CPs headed by *-ko* and *-nun* by V and N implies that the definition of case licensing relies upon both licensors and licensees. With respect to case licensors, lexical categories license inherent case, whereas functional categories license structural case. With respect to case licensees, nominal projections, i.e., DPs can be licensed via the checking of structural case, whereas verbal projections, i.e., CPs, can be licensed via the checking of inherent case.

The organization of this chapter is as follows. In 4.2, I discuss two types of case licensing: licensing of structural case and that of inherent case. I argue that structural case is invariably licensed by functional heads in terms of the spec-head agreement, whereas inherent case is licensed by lexical heads in terms of the head-complement relation. In 4.3, I propose that the verbal suffix *-ko* is associated with inherent accusative and licensed by the lexical head V in terms of the head-complement relation. Theoretical and empirical evidence will be presented. In 4.4, I will present cross-linguistic evidence that the lexical category V is an inherent case licensor. In 4.5, I claim that the verbal suffix *-nun* is associated with inherent genitive and licensed by the lexical head N in terms of the head-complement relation.

4.2. Case Licensing: Inherent vs. Structural

Case is a relation between a head and an XP. Since Chomsky (1981), it has been assumed that there exist two types of case: structural and inherent. Given that case is a relation between a licensor and a licensee, there are two theoretical possibilities regarding how to

define inherent and structural case: one based upon the properties of case licensors (8a) and the other based upon the properties of case licensees (8b).

- (8) a. Case licensing is defined in terms of case licensors.
 b. Case licensing is defined in terms of case licensees.

Not only (8a) but also (8b) has been suggested in the literature. It has been assumed in Chomsky (1981, 1986a, and 1995) that structural case is licensed by [+N] categories, whereas inherent case by [-N] categories. Under this analysis, it is (the N-features of) case licensors which determine whether case licensing is structural or inherent. Unlike Chomsky (1981, 1986, and 1995), Belletti (1988) presents an analysis which relies on the definition (8b). She suggests that definite object DPs are licensed via the checking of structural accusative, whereas indefinite object DPs via the checking of inherent partitive. Both definite and indefinite DPs are licensed by the head V. Under Belletti's analysis, it is not case licensors but case licensees which determine whether case licensing is structural or inherent.

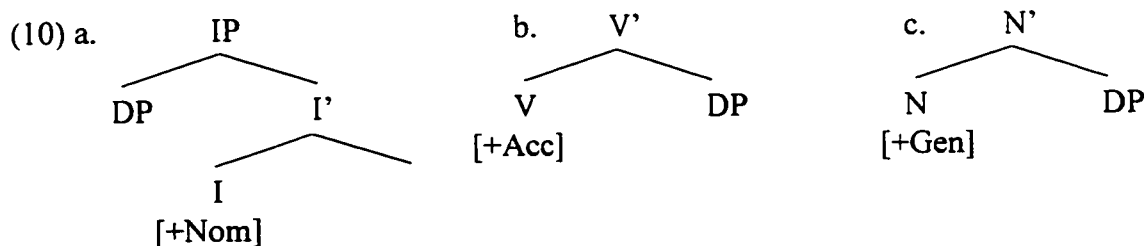
In this section, I will propose that case licensing should be defined in terms of both case licensors and licensees by claiming that structural case is uniformly licensed by functional categories, whereas inherent case by lexical categories and that in Korean DPs can be licensed via the checking of structural case, whereas CPs can be licensed via the checking of inherent case.

4.2.1. Chomsky (1986a)

Case licensing has long been defined in terms of the categorial features, specifically, the N-features of case licensers (Chomsky 1981, 1986a, and 1995 and Stowell 1981). Categories with the feature [-N], i.e., V, P, and INFL, have been identified as licensers of structural case, whereas categories with the feature [+N], i.e., N and A have been defined as licensers of inherent cases.

- (9) a. Structural case is assigned by [-N] categories.
 b. Inherent case is assigned by [+N] categories.

In Chomsky (1986a), genitive is distinguished from nominative and accusative in that it is considered as inherent case. Nominative and accusative are argued to be licensed by the functional head INFL and the lexical head V, respectively. Genitive, on the other hand, is argued to be licensed by the lexical category N.² Nominative is further distinguished from accusative in that the former is licensed in terms of the spec-head agreement and the latter in terms of the head-complement relation. Consider how nominative, accusative, and genitive are licensed in Chomsky (1986a).



As illustrated in (10), there exists an asymmetry in Chomsky (1986a) between the licensing of nominative and that of accusative. The former is assumed to be licensed by INFL in terms of the spec-head agreement, whereas the latter in terms of the head-complement relation, which is typically an instance of a thematic relation. Accusative and genitive, on the other hand, are licensed in the same configuration, i.e., the head-complement relation, although Chomsky argues that one is structural and the other inherent.

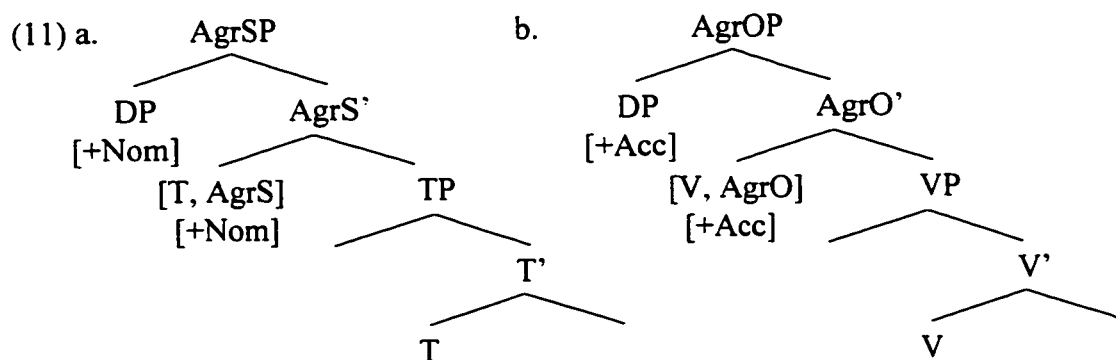
Under Chomsky's (1986a) analysis in which inherent case is distinguished from structural case in terms of the N-features of the case licensors, the lexical head V poses a problem. According to the definition of structural case licensors in (9a), V may license structural case since it has the [-N] feature. According to the definition (9b), on the other hand, V is not an inherent case licensor. It is clear, however, V is a θ -role assigner. Given the basic assumption that inherent case is a property of a thematic relation, therefore, we are led to conclude that V is an inherent case licensor. Now the lexical head V is in a contradictory position regarding case licensing. It seems intuitively correct to assume that V licenses inherent case (Chomsky 1981, 1986a, Baker 1988b, Belletti 1988, Y-J Kim 1990, J-S Lee 1992, Bittner and Hale 1996, and Woolford 1997).

There exist various types of asymmetry under the system of case licensing suggested in Chomsky (1986a). Nominative is argued to be assigned by finite INFL in terms of spec-head agreement, whereas accusative is assumed to be assigned by V in terms of the head-complement relation. Genitive is distinguished from nominative in that

the former is inherent and assigned by N in terms of the head-complement relation. Genitive is not distinguished from accusative, however, since both are licensed by the lexical heads in terms of the head-complement relation.

4.2.2. Chomsky (1992)

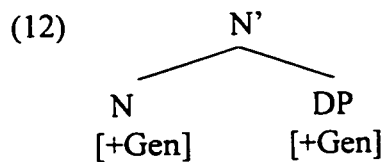
Chomsky (1992) presents a unified analysis of nominative and accusative. He proposes that nominative and accusative are both checked in terms of spec-head agreement. Consider the configurations in which nominative and accusative are licensed.³



In (11a), the subject DP, which is base-generated in the spec of VP, raises to the spec of AgrSP. The functional head T, in the meantime, raises to the head AgrS. The DP now enters into a checking relation with the functional head T and the feature [+Nom] of the DP is checked by the adjoined T in terms of the spec-head agreement. In (11b), the object DP, which is base-generated in the complement to V, raises to the spec of AgrOP and the lexical head V is adjoined to the head AgrO. The DP now enters into a checking relation with the head V and the feature [+Acc] on the DP is checked off by the adjoined V in

terms of the spec-head agreement. There still remains a type of asymmetry, however, between the licensing of nominative and that of accusative. That is, nominative is licensed by the functional head T, whereas accusative is licensed by the lexical head V.

In Chomsky (1992), genitive is distinguished from accusative and nominative in that it is defined as inherent, whereas the latter as structural. Genitive is licensed in terms of the head-complement relation, whereas nominative and accusative in terms of the spec-head agreement. Genitive and accusative are not distinguished, however, in that both are licensed by lexical heads, i.e., N and V, respectively.⁴

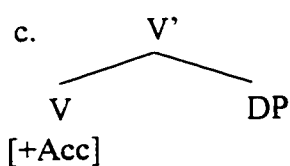
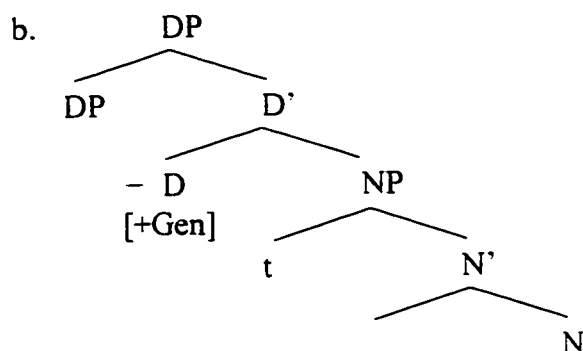
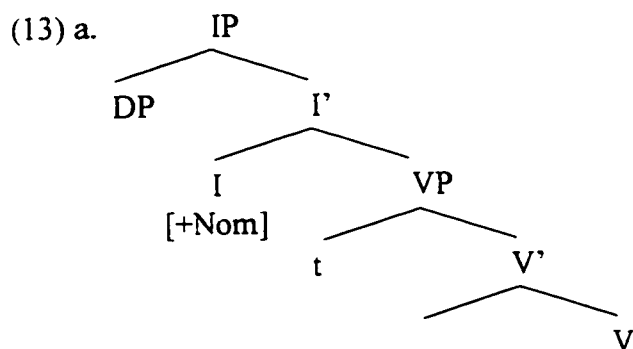


The assumption in Chomsky (1986a) that structural case is licensed by [-N] categories, whereas inherent case is licensed by [+N] categories, is still maintained in Chomsky (1992).

4.2.3. Fukui (1986) and Abney (1987)

Fukui (1986) suggests that not only nominative but also genitive is structural. He proposes that nominative and genitive are licensed in the same configuration, i.e., in terms of the spec-head agreement. Unlike in Chomsky (1986a and 1995), accusative is distinguished from nominative and genitive in Fukui (1986) in that it is licensed in terms

of the head-complement relation. Consider the configurations in which nominative, genitive, and accusative are licensed in Fukui (1986).



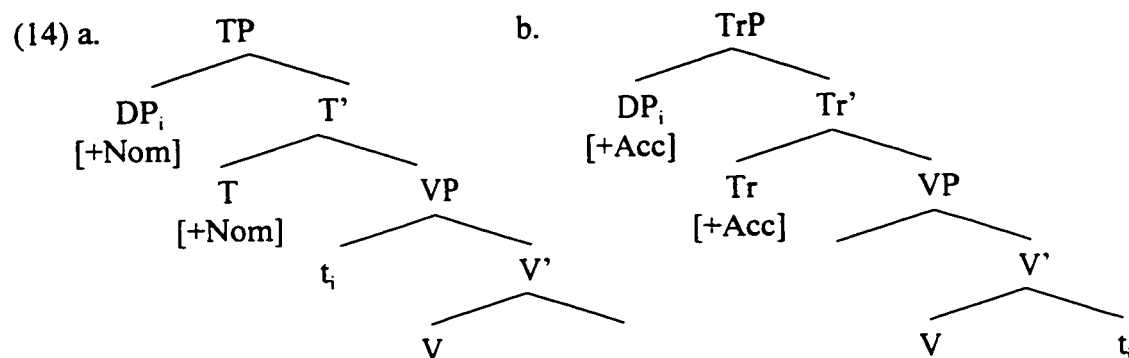
Fukui (1986) argues that the subject DP in (13b), which is generated in the spec of NP, raises to the spec of DP to be licensed by the functional head D, just as the subject DP in (13a) raises from the spec of VP to the spec of IP to be licensed by the functional head INFL. Nominative and genitive are both licensed by the functional heads INFL and D, respectively, in terms of the spec-head agreement.⁵ Unlike Chomsky (1995), however,

Fukui argues that accusative is licensed by the lexical head *V* in terms of the θ -related head-complement relation (13c). Therefore there remains an asymmetry between the licensing of nominative and that of accusative in Fukui (1986).

Abney (1987) presents a similar analysis of genitive in English. He suggests that genitive may be licensed in the same manner as nominative. In other words, genitive is licensed by the functional head *D* in terms of the spec-head agreement, whereas nominative is licensed by the functional head *INFL* in terms of the spec-head agreement. Abney's (1987) analysis of genitive differs from Fukui's (1986) in that he assumes that the subject DP is base-generated in the spec of DP, whereas Fukui assumes that the subject DP is raised from the spec of NP to the spec of DP. Following Fukui (1986) and Abney (1987), I argue that genitive is structural and licensed by the head *D* in terms of the spec-head agreement. At this point, it is quite clear that nominative, accusative, and genitive, which are all structural, are licensed in the same configuration, i.e., in terms of spec-head agreement. As mentioned earlier, however, there exists an asymmetry between nominative and genitive on the one hand and accusative on the other, i.e., the latter is licensed by the lexical head *V* and the former by the functional heads *INFL* and *D*, respectively. Therefore, accusative is still distinguished from nominative and genitive in terms of the *N*-features of the case licensors.

4.2.4. Mahajan (1990), Murasugi (1992) and Woolford (1997)

Murasugi (1992) provides a possible way to get rid of the asymmetry between nominative and accusative discussed in the earlier sections. She proposes that nominative and accusative are both licensed by functional heads in terms of spec-head agreement. That is, nominative is licensed by the functional head T, whereas accusative is licensed by the functional head Tr (=Transitivity). Consider the configurations in which nominative and accusative are licensed in Murasugi (1992).



Murasugi (1992) argues that the subject DP raises to the spec of TP to be licensed by the head T in terms of the spec-head agreement (14a), whereas the object DP raises to the spec of TrP to be licensed by the functional head Tr in terms of the spec-head agreement (14b). In Murasugi (1992), therefore, no asymmetry is found between the licensing of nominative and accusative. Both are licensed by the functional heads and in terms of spec-head agreement. If we assume Fukui (1986) and Murasugi (1992), we can have a new definition of case checking.

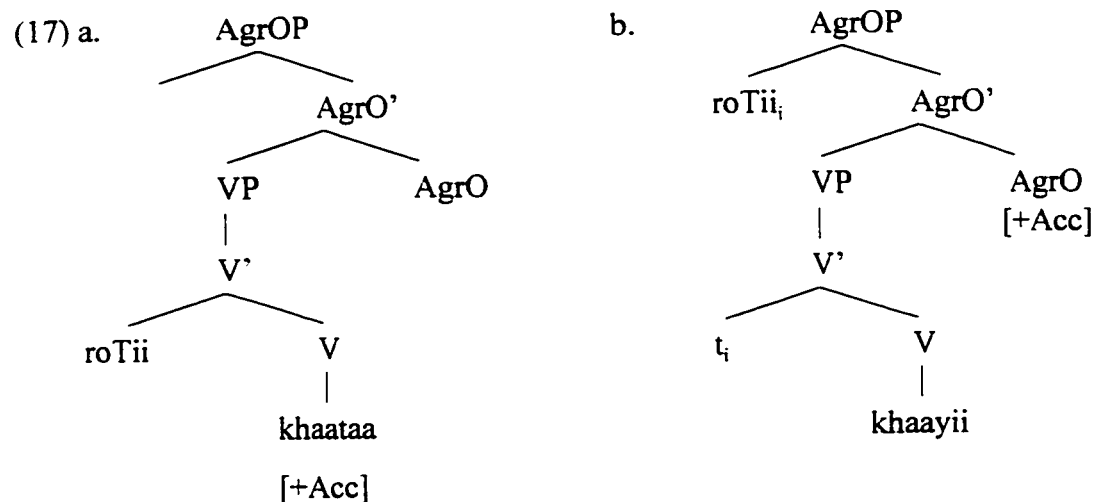
- (15) a. Structural case is licensed by a functional head in terms of spec-head agreement.
 b. Inherent case is licensed by a lexical head in terms of the head-complement relation.

Unlike Murasugi (1992) who argues that accusative is licensed by the functional category Tr, Mahajan (1990) and Woolford (1997) suggest that accusative may be licensed by the functional head AgrO. Mahajan (1991), for example, argues that there are two structurally case-marked object positions in Hindi (one inside and one outside the VP). Consider the examples in (16), cited from Mahajan (1990).

- (16) a. raam rotii khataa thaa
 Ram (m.) bread (f.) eat (imp.m) be (pst.m.)
 'Ram (habitually) ate bread.'
- b. raam ne rotii khaayii
 Ram (m.) Erg bread (f.) eat (perf.f)
 'Ram ate bread.'

In (16a), the subject DP not the object DP agrees with the verb in terms of agreement features, whereas the object DP agrees with the verb in (16b). Based upon the difference in agreement between (16a) and (16b), Mahajan (1990) suggests that the object DP in (16a) does not raise to the spec of AgrOP to be assigned accusative and that it remains in the complement position and is assigned accusative by the verb. The object DP in (16b), which agrees with the verb, on the other hand, raises to the spec of AgrOP and is assigned

accusative by the functional head AgrO. Consider the configurations in which the object DPs in (16) are licensed.



Mahajan (1990) argues that *khaataa* in (17a) but not *khaayii* in (17a) is a structural case licenser. The object DP in (17a) is therefore assigned accusative by the verb in terms of the head-complement relation and the object DP in (17b) raises to the spec of AgrOP and is assigned accusative by AgrO.⁶

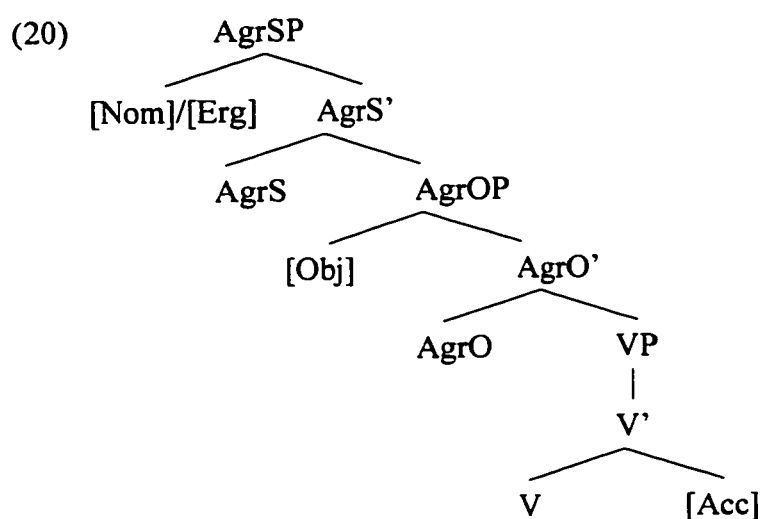
Woolford (1997) presents a similar analysis for Nez Perce. Nez Perce uses two distinct Cases for subject (nominative and ergative) and two for direct object (objective and accusative). Under her analysis, nominative and ergative both trigger agreement. They are distinguished from each other in that the latter but not the former is morphologically realized. In the meantime, objective is distinguished from accusative in that the former triggers agreement, whereas the latter does not. Consider the transitive examples in (18) and the ditransitive examples in (19), cited from Woolford (1997).

- (18) a. haama- ϕ hi-'wi-ye wewukiye- ϕ
 man-Nom 3-shoot-ASP elk-Acc
 'The man shot an elk.'
- b. haama-nm pee-'wi-ye wewukiye-ne
 man-Erg 3/3-shoot-ASP elk-Obj
 'The man shot an elk.'
- (19) a. ?aayat- ϕ hi-?ni-ye tiim'es- ϕ haama- ϕ
 woman-Nom 3-give-Past book-Acc man/husband-Acc
 'The woman gave her husband a book.'
- b. ?aayato-m pee-?ni-ye tiim'es- ϕ haama-na
 woman-Erg 3/3-give-Past- book-Acc man-Obj
 'The woman gave the man a book.'

The subject DP in (18a) is assigned nominative and the subject DP in (18b) ergative. The object DP, on the other hand, is assigned accusative in (18a) and objective in (18b). The goal object in (19a) is assigned accusative, whereas the goal object in (19b) objective. Further note that both accusative and objective are both licensed in (19b). The data in (18) and (19) indicate that objective is distinct from accusative.

Based upon the fact that nominative and ergative subjects both trigger subject agreement, she argues that both should raise to the spec of AgrS for agreement checking, which further implies that the case features of the subject DPs are checked by AgrS in terms of spec-head agreement. The fact that objective object DPs but not accusative

object DPs trigger agreement has led her to argue that the former should raise to the spec of AgrO for agreement checking, whereas the latter remains within the VP. This implies that the case features of objective object DPs are checked by AgrO in terms of spec-head agreement, whereas the case features of accusative object DPs by V in terms of the head-complement relation. Consider the structure (20) suggested in Woolford (1997).



She further argues that ergative is inherent, whereas nominative structural. The inventory of Cases in UG suggested in Woolford (1997) is given in (21).⁷

(21) a. Structural Case

nominative	checked by AgrS
objective	checked by AgrO
accusative	checked by V/P

b. Inherent Case (all checked by V)

ergative	associated with agent
dative	associated with goal/experiencer
accusative	associated with theme

Murasugi (1992), Mahajan (1990), and Woolford (1997) provide a theoretical ground for the new definition of case licensing, i.e., structural case is licensed by functional heads and inherent case by lexical heads. Of the two possible analyses of structural accusative, I will assume with Mahajan (1990) and Woolford (1997) that accusative/objective is licensed by the functional head AgrO.

4.2.5. Korean

It is widely argued in the literature on Korean syntax that nominative is checked by AgrS (Y.-J. Yim 1984, H.-S. Han 1987, H.-S. Choe 1988, J.-R. Yoon 1990, and T.-S. Kim 1996). The functional category Agr is a collection of agreement features, i.e., number, gender and person. We have seen in chapter 2 that agreement features include honorification in Korean. Observe the following examples.

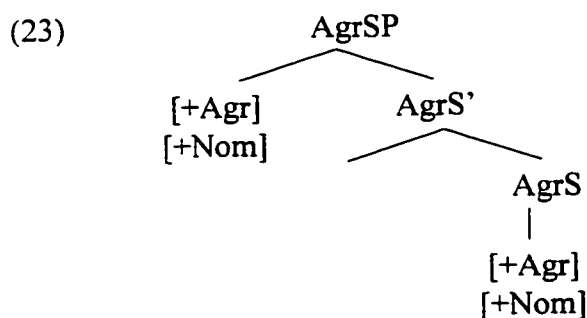
(22) a. apeci-kkeyse ka-si-ass-ta.

father-Nom(+Hon) go-AgrS(+Hon)-Past-Dec

‘My father went.’

- b. *chinku-ka ka- ϕ -ass-ta.*
 friend-Nom(-Hon) go-AgrS(-Hon)-Past-Dec
 ‘My friend went.’

As illustrated in (22), the subject DPs agree with the verbs in terms of honorific agreement. That is, the subject DP in (22a) is associated with the feature [+Hon], which is reflected on the nominal suffix *-kkeyse*. The verb is also associated with the feature [+Hon], which is overtly realized as the verbal suffix *-si*. In (22b), on the other hand, neither the subject DP nor the verb is associated with the feature [+Hon]. It is now clear that the functional head AgrS is responsible for checking the agreement features of the subject DPs. The case feature, i.e., [+Nom] of the subject DP is also argued to be checked by the head AgrS in Korean. Now consider the configuration in which the agreement and case features of the subject DP are checked by the functional head AgrS.



In Korean, not only subject DPs but also object DPs agree with the verbs in terms of agreement features. Just as subject DPs agree with verbs in terms of honorific

agreement, object DPs agree with verbs in terms of honorific agreement. Observe the examples in (24) and (25).

(24) a. *apeci-lul poy-ass-ta.*

father-Acc meet-Past-Dec

'pro met his father.'

b. *chincku-lul manna-ass-ta.*

friend-Acc meet-Past-Dec

'pro met his friend.'

(25) a. *halmeni-lul pyengwon-ey mosi-ko ka-ass-ta*

grandmother-Acc hospital-to take-and go-Past-Dec

'pro took his grandmother to the hospital.'

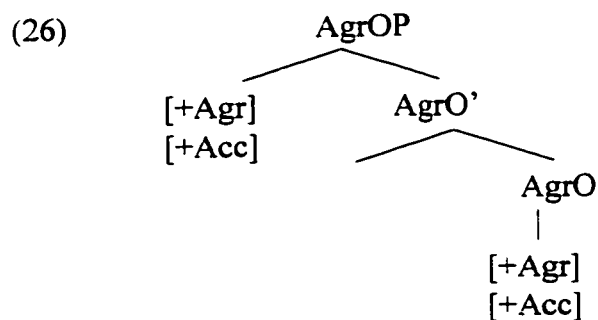
b. *namtongsayng-lul pyengwon-ey teyri-ko ka-ass-ta.*

younger brother-Acc hospital-to take-and go-Past-Dec

'pro took his younger brother to the hospital.'

The verb *poy-* in (24a) is the honorific verb corresponding the regular verb *manna-* in (24b). The former is intrinsically marked for [+Hon], whereas the latter is not. In the meantime, the object DP in (24a) is associated with the feature [+Hon], whereas the object DP in (24b) with [-Hon]. The verb *poy-* in (24a) therefore agrees with the object DP in terms of honorific agreement. The verb *manna-* in (24b) also agrees with the object DP. The same is true of the honorific verb *mosi-* and the regular verb *teyri-* in (25). Given the agreement between the verbs and the object DPs, it becomes clear that it is the

functional head AgrO which is responsible for checking the agreement features of object DPs. It is therefore not implausible to assume that the head AgrO is responsible for checking the case features of object DPs, just as the head AgrS is responsible for checking the case features of subject DPs.⁸ Now consider the configuration in which the agreement and case features of object DPs are checked.



Mahajan (1990) and Woolford (1997) provide supporting evidence for the configuration in (26). Given that in contrast with in Nez Perce there is no morphological evidence for assuming two different structural Cases (objective and accusative) for object DPs in Korean, the inventory of Cases in Korean will be as follows.

(27) a. Structural Case

nominative	checked by AgrS
accusative	checked by AgrO
genitive	checked by D

b. Inherent Case (all checked by V)⁹

dative	checked by V (associated with goal/experiencer)
locative	checked by V (associated with location)
accusative	checked by V (associated with theme)
genitive	checked by N

What I am proposing in this section is that there exist two types of accusative and genitive: structural and inherent. The former is licensed by functional heads and the latter by lexical heads. Unlike accusative and genitive, nominative is invariably structural, whereas dative and locative are invariably inherent.

4.3. *-ko* and Inherent Accusative

I have proposed in chapter 3 that both the nominal suffix *-lul* and the verbal suffix *-ko* are associated with structural accusative. In chapter 2, on the other hand, I have argued that the nominal case suffixes including *-lul* are the realizations of structural case, whereas postpositions such as *-eykey* and *-ey* are the realizations of inherent case. In this chapter, I revise the analysis of *-lul* and *-ko* as the realization of structural accusative and propose that *-ko* is the morphological realization of inherent accusative, whereas *-lul* is that of structural accusative.

This revised analysis of *-lul* and *-ko* is empirically supported by the fact that the latter but not the former can be licensed by passivized verbs. In this aspect, the verbal suffix *-ko* patterns with postpositions, which are the realizations of inherent case. The revised analysis of *-ko* as the realization of inherent accusative is also supported by the

interactions of *-ko* and *-lul* with topic marker and delimiters. Postpositions behave in the same manner as the verbal suffix *-ko* but not with the nominal suffix *-lul*. The so-called case drop phenomenon also provides supporting evidence for the analysis of *-ko* as being associated with inherent accusative. The verbal suffix *-ko* patterns with postpositions regarding the case drop phenomenon. Finally, the morphological structures of *-ko* and *-lul* in connection with the delimiters provide strong evidence that the former is inherent and the latter structural.

4.3.1. Passivization

Passivization is considered as one of the criteria by which one can distinguish structural case from inherent case. It is widely argued that passivized verbs lose the ability to assign structural (accusative) case but retain the ability to assign inherent case. Let us consider the German examples in (28) and (29), cited from Haegeman (1991) and Webelhuth (1995).

- (28) a. Sie sieht ihn
 she sees him-Acc
- b. Er wird gesehen
 he-Nom is seen
- c. *Ihn wird gesehen
 him-Acc is seen

- (29) a. Sie hilft ihm.
 she helps him-Dat
- b. Ihm wird geholfen
 him-Dat is helped
- c. *Er wird geholfen
 he-Nom is helped

The data in (28) clearly indicate that German accusative, which is assumed to be structural, cannot be licensed by the passivized verb *gesehen* (28c). This is correctly predicted by the widely accepted assumption that passivization absorbs structural case (Jaeggli 1986, Roberts 1987, Baker et al. 1988, Haegeman 1991, and Webelhuth 1995). Given this, the object DP raises to the subject position to be assigned nominative by the finite INFL (28b). The data in (29), on the other hand, show that German dative, which is argued to be inherent, is licensed by the passivized verb *geholfen*. This is predicted by the assumption that inherent case is not absorbed by passivization.

Korean patterns exactly with German in terms of passivization and case absorption. Consider the following examples.

- (30) a. Joe-ka Sue-eykey panci-lul cu-ass-ta.
 Joe-Nom Sue-Dat ring-Acc give-Past-Dec
 ‘Joe gave Sue a ring.’

b. *panci-ka Sue-eykey cu-eci-ass-ta.*
 ring-Nom Sue-Dat give-Pass-Past-Dec
 ‘A ring was given to Sue.’

c. **Sue-ka panci-lul cu-eci-ass-ta.*
 Sue-Nom ring-Acc give-Pass-Past-Dec
 ‘Sue was given a ring.’

In (30a), the indirect object DP *Sue-eykey* is assigned dative and the direct object DP *panci-lul* is assigned accusative. (30b) clearly indicates that the dative-marked indirect object is licensed by the passivized verb *cu-eci*. (30c), on the other hand, shows that the accusative-marked direct object cannot be licensed by the passivized verb. From the data in (30), we can conclude that dative, which is realized as *-eykey*, is inherent, whereas accusative, which is realized as *-lul*, is structural. I assume that DPs headed by *-lul* are licensed by AgrO in terms of the spec-head agreement, whereas DPs headed by *-eykey* are licensed by V in terms of the head-complement relation.

Given that passivized verbs lose the ability to license structural accusative in Korean, consider the examples in (31) and (32).

(31) a. *CBS-ka ku somun-lul potoha-ess-ta.*
 CBS-Nom that rumor-Acc report-Past-Dec
 ‘CBS reported the rumor.’

b. *CBS-eyuyhayse ku somun-lul potoy-ess-ta.

CBS-by that rumor-Acc report-Pass-Past-Dec

'The rumor was reported by CBS.'

(32) a. Motu-ka ku somun-lul mit-ess-ta.

everybody-Nom that rumor-Acc believe-Past-Dec

'Everybody believed the rumor.'

b. *Motu-eykey ku somun-lul mit-eci-ess-ta.

everybody-by that rumor-Acc believe-Pass-Past-Dec

'The rumor was believed by everybody.'

The passive morphemes *-toy* and *-eci* in (31b) and (32b) absorb structural accusative and thus the accusative-marked DP *somun-lul* in (31b) and (32b) cannot be licensed by the passivized verbs *poto-toy* and *mit-eci*. The object DP may raise to the subject position to be assigned nominative by AgrS as illustrated in (33).

(33) a. ku somun-ka CBS-eyuyhayse potoy-ess-ta.

that rumor-Nom CBS-by report-Pass-Past-Dec

'The rumor was reported by CBS.'

b. ku somun-ka Motu-eykey mit-eci-ess-ta.

that rumor-Nom everybody-by believe-Pass-Past-Dec

'The rumor was believed by everybody.'

From the data in (31) - (33), it is clear that DPs headed by the nominal suffix *-lul* are associated with structural accusative, which is absorbed in the passive.

Now let us consider passive constructions with sentential complements. Observe the examples in (34) and (35).

(34) a. CBS-ka [hankuk-ka iki-ess-ta-ko] potoha-ess-ta.

CBS-Nom Korea-Nom win-Past-Dec-C report-Past-Dec

‘CBS reported that Korea won.’

b. [hankuk-ka iki-ess-ta-ko] poto-toy-ess-ta.

Korea-Nom win-Past-Dec-C report-Pass-Past-Dec

‘It was reported that Korea won.’

(35) a. Motu-ka [hankuk-ka iki-ess-ta-ko] mit-ess-ta.

everybody-Nom Korea-Nom win-Past-Dec-C believe-Pass-Dec

‘Everybody believed that Korea won.’

b. [hankuk-ka iki-ess-ta-ko] mit-eci-ess-ta.

Korea-Nom win-Past-Dec-C believe—Pass-Pass-Dec

‘It was believed that Korea won.’

The embedded CPs headed by the verbal suffix *-ko* in (34b) and (35b) are the objects of the passivized verbs *poto-toy-* and *mit-eci-*, respectively. Unlike the DPs headed by *-lul* in (31b) and (32b), the embedded CPs headed by *-ko* in (34b) and (35b) are licensed by the passivized verbs. Under the analysis of *-ko* and *-nun* I proposed in chapter 3, the object CPs in (34b) and (35b) are associated with structural accusative. It is therefore wrongly predicted that like the object DPs headed by *-lul* in (31b) and (32b), the object CPs in (34b) and (35b) headed by *-ko* cannot be licensed by the passivized verbs. The prediction

is not correct, however, as clearly illustrated in (34b) and (35b). The analysis of *-ko* and *-lul* as being associated with structural accusative should be reconsidered.

Given the fact that the object DPs (33a) and (33b) raise to the subject position and are assigned nominative, one might argue that the embedded CPs in (34b) and (35b) are also in the subject position and therefore the verbal suffix is not associated with accusative, whether structural or inherent. This is not the case, however. We have seen in chapter 3 that CPs differ from DPs in Korean in that the latter but not the former can occur in subject position. Compare (36) and (37).

(36) a. [Ku sasil-ka] motu-lul nolake ha-ess-ta.

that fact-Nom everybody-Acc surprise make-Past

‘The fact surprised everyone.’

b. [Ku sasil-ka] cungyoha-ta.

that fact-Nom important-Dec

‘The fact is important.’

(37) a. *[Hankuk-ka iki-ess-ta-ko-(ka)] motu-lul nolake ha-ess-ta.

Korea-Nom win-Past-Dec-C-Nom everybody-Acc surprise make-Past-Dec

‘That Korea won surprised everybody.’

b. *[Hankuk-ka iki-ess-ta-ko-(ka)] cungyoha-ta.

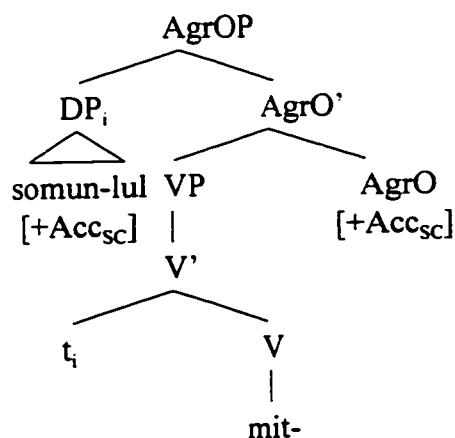
Korea-Nom win-Past-Dec-C-Nom important-Dec

‘That Korea won is important.’

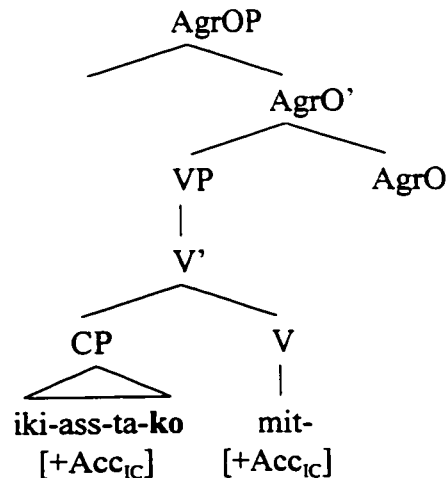
Judging from the data in (37), it is clear that the embedded CPs in (34b) and (35b) are not in the subject position.

Revising the analysis of *-ko* and *-lul* presented in chapter 3, I propose in this chapter that the verbal suffix *-ko* is associated with inherent accusative, whereas the nominal suffix is associated with structural accusative. Under the revised analysis, CPs headed by *-ko* are predicted to be licensed by passivized verbs since inherent accusative is not absorbed by passivization. I claim that the embedded CPs in (34b) and (35b) are licensed via the checking of inherent accusative by the matrix verbs since latter θ -marks the former. In order to account for the fact that the nominal suffix *-lul* cannot be licensed by the passivized verbs, I maintain the argument that *-lul* is the morphological realization of structural accusative, which is checked by the functional category AgrO. Consider the configurations in which *-lul* and *-ko* are licensed.

(38) a.



b.



The object DP in (38a) headed by the nominal suffix *-lul* bears structural accusative, which must be checked off by the functional head AgrO in terms of the spec-head agreement. It raises to the spec of AgrOP and enters into a checking relation with the head AgrO. The (case and agreement) features of the DP are checked by AgrO in terms of the spec-head agreement. The object CP in (38b), on the other hand, bears inherent accusative, which must be licensed by the lexical head V in terms of the head-complement relation. It is not necessary for the object CP to raise to the spec of AgrO. Under the assumption that passivized verbs do not project AgrOP, object DPs headed by *-lul* cannot be licensed in the passive since the feature [+Acc_{sc}] of the object DPs cannot be checked. CPs headed by *-ko*, on the other hand, are licensed in passive since the feature [+Acc_c] can be checked by the passivized verbs in terms of the head-complement relation.¹⁰

The revised analysis of *-ko* implies that CPs headed by *-ko* are licensed in the same manner as DPs headed by postpositions such as *-eykey* and *-ey*, which are the morphological realizations of dative and locative. DPs headed by *-eykey* and *-uy* are licensed by passivized verbs since they are associated with dative and locative which are inherent. Observe the examples in (39).

- (39) a. *panci-ka Sue-eykey cu-eci-ass-ta.*
 ring-Nom Sue-Dat give-Pass-Past-Dec
 ‘A ring was given to Sue.’

- b. *panci-ka sangca-ey sumki-eci-ass-ta.*
 ring-Nom box-Loc hide-Pass-Past-Dec
 ‘The ring was hidden in the box.’

The dative-marked DP in (39a) and the locative-marked DP in (39b) are licensed by the passivized verbs *cu-eci* and *sumki-eci*. I argue that both DPs headed by *-eykey* or *-ey* and CPs headed by *-ko* are associated with inherent case and thus that they are licensed by V in terms of the head-complement relation.

In sum, the revised analysis of *-ko* as being associated with inherent accusative is empirically supported by the fact that like DPs headed by postpositions which are associated with (inherent) dative and locative, respectively, CPs headed by *-ko* are licensed by passivized verbs.

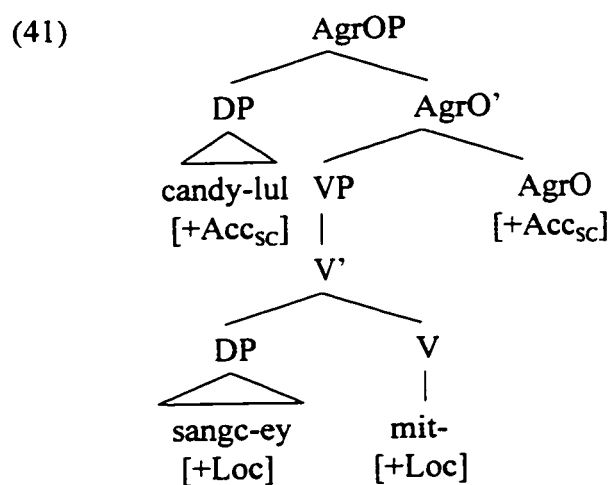
4.3.2. Case Drop

The revised analysis of the verbal suffix *-ko* as being associated with inherent accusative is also empirically supported by the so-called case drop phenomenon in Korean. I have argued in chapter 2 that postpositions in Korean are the morphological realizations of inherent case, whereas the nominal case suffix *-lul* is the morphological realization of structural accusative. Observe the following examples.

- (40) a. *Joe-ka [kyotong sako-lul] [kyengchal-eykey] sinkoha-ass-ta.*
 Joe-Nom traffic accident-Acc police-Dat report-Past-Dec
 ‘Joe reported the traffic accident to the police.’

- b. Joe-ka [candy-lul] [sangca-ey] sumki-ass-ta.
 Joe-Nom candy-Acc box-Loc hide-Past-Dec
 'Joe hid the candy in the box.'

The direct object DPs in (40a and b), which are headed by the nominal suffix *-lul*, are licensed via the checking of structural accusative by the functional head AgrO. The dative DP in (40a) and the locative DP in (40b), on the other hand, are licensed by the verbs via the checking of dative and locative, respectively.



Given that postpositions are the realizations of inherent case in Korean, let us discuss how the nominal case suffixes and the postpositions behave in terms of the case drop phenomenon. There have been provided ECP-based analyses of the case drop phenomenon in the literature. Lamontagne and Travis (1987), for example, observe that the possibility of non-overt realization of accusative is subject to an adjacency condition

in languages like Japanese.¹¹ Observe the following examples from Japanese, cited from Bittner and Hale (1996).

(42) a. John-ka dare-(o) nagutta no?

John-Nom who-Acc hit Q

‘Who did John hit?’

b. Dare-*(o) John-ga nagutta no?

The object DP in (42a) is properly governed by the verb since it is θ -marked and satisfies the adjacency condition. Therefore the accusative suffix *-o* can be dropped. The object DP in (42b), on the other hand, is not properly governed by the verb since the adjacency condition is not satisfied. Therefore the accusative suffix *-o* cannot be dropped.

ECP-based analyses of the case drop phenomena, however, seem not to hold in Korean in which the adjacency condition seems not to exist. Observe the examples in (43).

(43) a. Nuku-ka candy-(lul) mek-ass-nya?

who-Nom candy-Acc eat-Past-Int

‘Who ate the candy?’

b. Candy-(lul) nuku-ka mek-ass-nya?

As clearly illustrated in the above examples, the accusative suffix *-lul* can be dropped regardless of whether the adjacency condition is met or not. Consider the data in (44) and (45) which further suggest that the adjacency condition is not relevant to the case drop phenomena in Korean.

(44) a. Joe-ka Sue-eykey panci-(lul) cu-ass-nya?

Joe-Nom Sue-to ring-Acc give-Past-Int

‘Did Joe give Sue a ring?’

b. Joe-ka panci-(lul) Sue-eykey cu-ass-nya?

(45) a. Sue-ka sangca-ey candy-(lul) sumki-ass-nya?

Sue-Nom candy-Acc box-in hide-Past-Int

‘Did Sue hid the candy in the box?’

b. Sue-ka candy-(lul) cangca-ey sumki-ass-nya?

From the data in (43) -(45), it is clear that the structural accusative suffix *-lul* can be dropped regardless of whether the adjacency condition is met or not.

Unlike the structural accusative suffix *-lul*, postpositions such as *-eykey* and *-ey*, which I argue to be the morphological realizations of (inherent) dative and locative, cannot be dropped regardless of the adjacency condition is met. Compare (45) and (46).

(46) a. Sue-ka sangca-*(ey) candy-lul sumki-ass-nya?

Sue-Nom box-in candy-Acc hide-Past-Int

'Did Sue hide the candy in the box?'

b. Sue-ka candy-lul cangca-*(ey) sumki-ass-nya?

In order to account for the case drop phenomenon in Korean, we need to make a distinction between structural and inherent case. Regardless of whether the adjacency condition is met or not, structural case suffixes may be dropped, whereas inherent case suffixes may not.^{12 13}

Now let us consider the verbal suffix *-ko*. With respect to the case drop phenomenon, the verbal suffix *-ko* patterns with the postpositions *-eykey* and *-ey* but differs from the structural accusative suffix *-lul*. As clearly illustrated in (47) and (48), *-ko* cannot be dropped regardless of whether the adjacency condition is met or not.

(47) a. Joe-ka [Sue-ka o-ass-ta-?(ko)] mit-ass-ta.

Joe-Nom Sue-Nom come-Past-Dec-C believe-Past-Dec

'Joe believed (that) Sue came.'

b. [Sue-ka o-ass-ta-?(ko)] Joe-ka mit-ass-ta.

(48) a. Joe-ka Sue-eykey [han si-ey o-la-?(ko)] malha-ass-ta.

Joe-Nom Sue-to one o'clock-at come-Imp-C say-Past-Dec

Joe told Sue to come at one o'clock.'

b. Joe-ka [han si-ey o-la-*(ko)] Sue-eykey malha-ass-ta.

The embedded CPs in (47b) and (48b) are not properly governed by the matrix verbs and the verbal suffix *-ko* may not be dropped. In (47a) and (48a), on the other hand, the embedded CPs are properly governed by the matrix verbs since the adjacency condition is met. Nevertheless, the verbal suffix *-ko* may not be dropped.¹⁴ The data in (47) and (48) clearly show that the verbal suffix *-ko* patterns with inherent case suffixes such as *-eykey* and *-ey* but differs from the structural accusative *-lul* regarding the case-drop phenomenon. This strongly supports the analysis of *-ko* as being associated with inherent (accusative) case.

The nominal case suffixes are further distinguished from postpositions regarding the so-called VP ellipsis phenomenon in Korean. Observe the examples in (49) and (50).

(49) a. Nuku-lul manna-ass-eyo?

who-Acc meet-Past-SC

‘Who did you meet?’

b. Sumi-(?lul)-yo.

‘Sumi.’

(50) a. Nuku-eykey panci-lul cu-ass-eyo?

who-Dat ring-Acc give-Past-SC

‘Who did you give a ring?’

b. Sumi-?(*eykey*)-yo.

‘To Sumi.’

As illustrated in the above examples, VP may be dropped in certain contexts as when someone answers a question. When VP is deleted, however, the sentence concluding ending *-(e)yo* is retained and attached to the remaining element as shown in (49b) and (50b). With respect to the VP-ellipsis phenomenon, the postposition *-eykey* in (50b) is distinguished from the accusative suffix *-lul* in (49b). That is, the latter tends to be dropped along with the VP, whereas the former tends to be retained.¹⁵ The complementizer *-ko* patterns with *-eykey* and is distinguished from *-lul*. Observe the examples in (51).

(51) a. Joe-ka muelako malha-ass-eyo?

Joe-Nom what say-Past-Dec-SC

‘What did Joe say?’

b. Sue-ka ka-ass-ta-*(ko)-yo.

‘That Sue went.’

The complementizer *-ko* in (51b) cannot be dropped when the matrix VP is deleted, which shows that it patterns with the postposition *-eykey* but not with the accusative suffix *-lul*. This suggests that the verbal suffix *-ko* is associated with inherent (accusative) case. To summarize, the case drop phenomenon in Korean provides empirical evidence for the proposed analysis of the complementizer *-ko* as realizing inherent accusative case.

4.3.3. Interactions with Delimiters

Structural and inherent case suffixes show different properties regarding their interactions with the topic marker *-(n)un* in Korean. Structural case suffixes cannot co-occur with the topic marker as illustrated in (52). Instead, they can be replaced by the topic marker as illustrated in (53).¹⁶

(52) a. *Joe-ka-nun enehak-lul yenkuha-ass-ta.

Joe-Nom-Top linguistics-Acc study-Past-Dec

‘Joe studied linguistics.’

b. *Joe-ka enehak-lul-nun yenkuha-ass-ta.

Joe-Nom linguistics-Acc-Top study-Past-Dec

‘Joe studied linguistics.’

(53) a. Joe-ka/nun enehak-lul yenkuha-ass-ta.

Joe-Nom/Top linguistics-Acc study-Past-Dec

b. Joe-ka enehak-lul/nun yenkuha-ass-ta.

Joe-Nom linguistics-Acc/Top study-Past-Dec

Unlike the nominal suffixes *-ka* and *-lul*, which are associated with (structural) nominative and accusative, the postpositions *-ey* and *-eykey*, which are the realizations of (inherent) locative and dative, can co-occur with but cannot be replaced by the topic marker as illustrated in (54).

(54) a. Joe-ka candy-lul cangca-*(ey)-nun sumki-ass-ta.

Joe-Nom candy-Acc box-in-Top hide-Past-Dec

‘Joe hid the candy in the box.’

b. Joe-ka Sue-*(eykey)-nun panci-lul cu-ass-ta.

Joe-Nom Sue-to-Top ring-Acc give-Past-Dec

‘Joe gave Sue a ring.’

In short, structural case suffixes are distinguished from inherent case suffixes in terms of their interactions with the topic marker. The former are interchangeable but not co-occur with the topic marker, whereas the latter are not interchangeable but co-occur with the topic marker.¹⁷

Korean has a group of nominal suffixes, which are referred to as ‘delimiters’. The interactions of the case suffixes with the delimiters also suggest that we need a distinction between inherent and structural case. In general, the structural case suffixes *-ka* and *-lul* can be replaced by the delimiters as in (55). The examples in (56), on the other hand, show that the structural case suffixes cannot co-occur with the delimiters.¹⁸

(55) a. Joe-to/man enehak-lul yenkuha-ass-ta.

Joe-also/only linguistics-Acc study-Past-Dec

‘Joe also/only studied linguistics.’

b. Joe-ka enehak-to/man yenkuha-ass-ta.

Joe-Nom linguistics-also/only study-Past-Dec

‘Joe studied linguistics too/only.’

(56) a. Joe-(*ka)-to/kkaci enehak-lul yenkuha-ass-ta.
 Joe-Nom-also/even linguistics study-Past-Dec

b. Joe-ka enehak-(*lul)-to/kkaci yenkuha-ass-ta.
 Joe-Nom linguistics-Acc-also/even study-Past-Dec

Unlike the structural case suffixes, on the other hand, the inherent case suffixes *-ey* and *-eykey* cannot be replaced by but co-occur with the delimiters as illustrated in (57).

(57) a. Joe-ka candy-lul cangca-*(ey)-to/kkaci/man sumki-ass-ta.
 Joe-Nom candy-lul box-in-also/even/only hide-Past-Dec
 'Joe hid the candy also/even/only in the box.'

b. Joe-ka Sue-*(eykey)-to/kkaci/man panci-lul cu-ass-ta.
 Joe-Nom Sue-to-also/even/only ring-Acc give-Past-Dec
 'Joe gave a ring also/even/only to Sue.'

The data in (55) - (57) clearly show that structural case is distinguished from inherent case with respect to their interactions with the delimiters in Korean.

Now let us discuss the interactions of the verbal suffix *-ko* with the topic marker and the delimiters. With respect to the interactions with the topic marker and the delimiters, the verbal suffix *-ko* patterns exactly with the inherent case suffixes *-ey* and *-eykey*. Observe the examples in (58).

(58) a. Joe-ka [Sue-ka o-ass-ta-*(ko)-nun/man/kkaci] malha-ass-ta.

Joe-Nom Sue-Nom come-Past-Dec-C-Top/only/even say-Past-Dec

‘Joe said only/even that Sue came.’

b. Joe-ka Sue-eykey [han si-ey o-la-*(ko)-nun/man/kkaci] mal-ass-ta.

Joe-Nom Sue-Dat one o'clock-at come-Prop-C-Top/only/even tell-Past-Dec

‘Joe told Sue to come at one o'clock.’

The verbal suffix *-ko* can co-occur with the topic marker or the delimiters, just as the inherent case suffixes can. The verbal suffix *-ko*, on the other hand, cannot be simply replaced by the topic marker or the delimiters.

We have seen that the nominal suffix *-lul* but not the postpositions such as locative suffix *-eyse* is suppressed by the topic marker or the delimiters. Korean has another type of nominal suffix, the negative polarity suffix *-pakkey*, which suppresses the accusative *-lul* but not the locative *-eyse*. Observe the examples in (59).¹⁹

(59) a. Joe-ka sakwa-lul mek-ci aniha-ass-ta.

Joe-Nom apple-Acc eat-C not-Past-Dec

‘Joe did not eat apples.’

b. Joe-ka sakwa-pakkey mek-ci aniha-ass-ta.

Joe-Nom apple-NPI eat-C not-Past-Dec

‘Joe ate only apples.’

c. *Joe-ka sakwa-lul-pakkey mek-ci aniha-ass-ta.

d. *Joe-ka sakwa-pakkey-lul an mek-ci aniha-ass-ta.

The data in (59) show that the accusative suffix *-lul* and the negative polarity suffix *-pakkey* are mutually exclusive, i.e., the former is suppressed by the latter. The locative suffix *-eyse*, which is associated with inherent case, is distinguished from the accusative suffix *-lul* in that it is not suppressed by but co-occurs with the negative polarity suffix *-pakkey*.

(60) a. Joe-ka Sue-lul Seoul-eyse manna-ci aniha-ass-ta.

Joe-Nom Sue-Acc Seoul-Loc meet-C not-Past-Dec

‘Joe did not meet Sue in Seoul.’

b. *Joe-ka Sue-lul Seoul-pakkey manna-ci aniha-ass-ta.

Joe-Nom Sue-Acc Seoul-NPI meet-C not-Past-Dec

‘Joe met Sue only in Seoul.’

c. Joe-ka Sue-lul Seoul-eyse-pakkey manna-ci aniha-ass-ta.

d. *Joe-ka Sue-lul Seoul-pakkey-eyse manna-ci aniha-ass-ta.

The examples in (60b) and (60c) clearly indicate that the locative suffix *-eyse* is not absorbed by but co-occurs with the negative polarity suffix *-pakkey*.

With respect to the interaction with the negative polarity suffix *-pakkey*, the verbal suffix *-ko* patterns with the locative suffix *-eyse* and is distinguished from the accusative

suffix *-lul*, i.e., *-ko* is not suppressed by but co-occurs with *-pakkey*. Observe the examples in (61).

(61) a. Joe-ka [Sue-ka ka-ass-ta-ko] malha-ci aniha-ass-ta.

Joe-Nom Sue-Nom go-Past-Dec-C say-C not-Past-Dec

‘Joe did not say that Sue went.’

b. *Joe-ka [Sue-ka ka-ass-ta-pakkey] malha-ci aniha-ass-ta.

Joe-Nom Sue-Nom go-Past-Dec-NPI say-C not-Past-Dec

‘Joe said only that Sue went.’

c. Joe-ka [Sue-ka ka-ass-ta-ko-pakkey] malha-ci aniha-ass-ta.

d. *Joe-ka [Sue-ka ka-ass-ta-pakkey-ko] malha-ci aniha-ass-ta.

(61b) shows that the negative polarity suffix *-pakkey* cannot suppress the complementizer *-ko* and (61c) shows that *-ko* can co-occur with *-pakkey*. The data in (59) - (61) therefore provide empirical evidence that the verbal suffix *-ko* is associated with inherent (accusative) case. We have seen that the complementizer *-ko* patterns with postpositions such as *-eykey* and *-eyse* but is distinguished from the nominal suffix *-lul* in terms of the interactions with the topic marker, the delimiters, and the negative polarity suffix. This is a clear indication that *-ko* is associated with inherent case.

In sum, we have seen systematic differences between the nominal suffix *-lul* and the verbal suffix *-ko*, which has led us to argue that *-ko* is not associated with structural accusative. We have also seen systematic similarities between the verbal suffix *-ko* and

the inherent case suffixes, which led us to conclude that *-ko* is associated with inherent accusative. Consider a summary of properties of *-lul*, *-eykey*, and *-ko* as given in (62).

(62)	-lul	-eykey	-ko
	• Free Case Drop	• No Case Drop	• No Case Drop
	• Replaced by Del	• Not replaced by Del	• Not replaced by Del
	• Not co-occur with Del	• Co-occurs with Del	• Co-occurs with Del
	• Not licensed in passive	• Licensed in passive	• Licensed in passive

The systematic differences between the nominal suffix *-lul* and the verbal suffix *-ko* along with the systematic similarities between the postposition *-eykey* and the complementizer *-ko* lead us to the conclusion that *-ko* is associated with inherent (accusative) case.

4.3.4. Morphological Structure

In this section, I will show that the morphological structures of case-marked DPs and CPs further suggest that the verbal suffix *-ko* is associated with inherent accusative, whereas the nominal suffix *-lul* is associated with structural accusative. We have seen in 4.3.3 that the structural accusative suffix such as *-ka* and *-lul* cannot co-occur with the delimiters, whereas the inherent case suffixes such as *-ey* and *-eykey* can.

Delimiters in Korean, however, should be classified into two subtypes in terms of whether they can co-occur with the structural case suffixes. Some can co-occur with *-ka* and *-lul* and others cannot. Consider the examples in (63) and (64).

(63) a. *panci-man-ka*
 ring-Del (only)-Nom

 b. *panci-man-lul*
 ring-Del (only)-Acc

(64) a. **panci-to-ka*
 ring-Del (also)-Nom

 b. **panci-to-lul*
 ring-Del (also)-Acc

As clearly illustrated in (63) and (64), the delimiter *-man* is distinguished from the delimiter *-to* in that the former but not the latter can co-occur with *-ka* and *-lul*, which are associated with (structural) nominative and accusative. The fact that the delimiter *-man* can co-occur with *-lul* seems to suggest that the structural accusative suffix *-lul* is not distinguished from the inherent dative suffix *-eykey* since both can occur with *-man*.

Despite the fact that both *-lul* and *-eykey* allow the delimiter *-man*, however, *-lul* and *-eykey* are clearly distinguished from each other in terms of morphological structure. Compare the examples in (63) with those in (65).

(65) a. *chinku-eykey-man*
 friend-Dat-Del (only)
 ‘only to the friend’

- b. *cangca-ey-man*
 box-Loc-Del (only)
 ‘only in the box’

A close look at the internal morphological structures of the nominal projections in (63) and (65) clearly indicates that the structural case suffixes are preceded by the delimiter *-man*, whereas the inherent case suffixes are followed by the delimiter. In other words, they occupy different morphological positions.²⁰

(66) a.	<i>panci</i>	<i>-man</i>	<i>-lul</i>
	N	Del	SC
b.	<i>Sue</i>	<i>-eykey</i>	<i>-man</i>
	N	IC	Del

Given the morphological structures in (66), we are led to assume the structure in (67) for nominal projections in Korean.

(67) N-IC-Del-SC

According to (67), inherent case suffixes such as *-eykey* and *-ey* are licensed inside delimiters, whereas structural case suffixes such as *-ka* and *-lul* outside the delimiters.

Now let us move to the verbal case suffix *-ko*. With respect to morphological structure, *-ko* patterns exactly with inherent case suffixes, i.e., both are followed by the delimiters. Observe the examples in (68).

- (68) a. Joe-ka [Sue-ka ka-ass-ta-ko-man] malha-ass-ta.
 Joe-Nom Sue-Nom go-Past-Dec-C-Del say-Past-Dec
 ‘Joe said that Sue went.’
- b. *Joe-ka [Sue-ka ka-ass-ta-man-ko] malha-ass-ta.

The fact that the verbal suffix *-ko* is followed by the delimiter *-man* strongly suggests that it is associated with inherent case. The verbal suffix *-ko* and inherent case suffixes occupy the same morphological position in connection with the delimiter *-man*. Now consider the morphological structure of verbal projections headed by *-ko*.

- | | | | |
|------|-----------|-----|------|
| (69) | ka-ass-ta | -ko | -man |
| | V | IC | Del |

The internal morphological structure of the verbal projection in (69) provides strong evidence that the verbal suffix *-ko* is indeed associated with inherent accusative.²¹

The interactions of *-lul* and *-ko* with the delimiters in interrogatives more vividly show that the former is associated with structural accusative and the latter with inherent accusative. We have seen in chapter 3 that interrogative clauses in Korean may be headed

by the nominal suffix *-lul* or the verbal suffix *-ko*, which is a strong indication that both are associated with accusative.

- (70) Joe-ka [nuku-ka ka-ass-nya-lul/ko] mul-ass-ta.
 Joe-Nom who-Nom go-Past-Int-Acc/C ask-Past-Dec
 ‘Joe asked who went.’

The delimiter *-man* can co-occur with the verbal suffix *-ko* as well as the nominal suffix *-lul*. The suffixes *-lul* and *-ko*, however, are clearly distinguished from each other in terms of the morphological positions in which they occur. Observe the examples in (71).

- (71) a. Joe-ka [nuku-ka ka-ass-nya-man-lul] mul-ass-ta.
 Joe-Nom who-Nom go-Past-Int-Del-Acc ask-Past-Dec
 ‘Joe asked who went.’

- b. Joe-ka [nuku-ka ka-ass-nya-ko-man] mul-ass-ta.

As clearly illustrated in (71), the nominal suffix *-lul* is preceded by the delimiter *-man*, whereas the verbal suffix *-ko* is followed by *-man*, which strongly suggests that the former is associated with structural accusative and the latter with inherent accusative.

I have argued that the postposition *-eykey* is the realization of inherent (dative) case and the nominal suffix *-lul* that of structural (accusative) case. Observe the examples in (72), which show that the postposition *-eykey* is interchangeable with the nominal case suffix *-lul* in some case.²²

- (72) a. uysa-ka aki-eykey/lul cusa-lul noh-ass-ta.
 doctor-Nom baby-Dat/Acc shot-Acc put-Past-Dec
 ‘The doctor gave the baby a shot.’
- b. Joe-ka Sue-eykey/lul chayk-lul cu-ass-ta.
 Joe-Nom Sue-Dat/Acc book-Acc give-Past-Dec
 ‘Joe gave Sue a book.’

Both *-eykey* and *-lul* can co-occur with the delimiter *-man*. As expected, however, the postposition is followed by *-man*, whereas the nominal suffix *-lul* is preceded by *-man*.

- (73) a. uysa-ka aki-eykey-man cusa-lul noh-ass-ta.
 doctor-Nom baby-Dat-Del shot-Acc put-Past-Dec
 ‘The doctor gave a shot only to the baby.’
- b. uysa-ka aki-man-lul cusa-lul noh-ass-ta.
- (74) a. Joe-ka Sue-eykey-man chayk-lul cu-ass-ta.
 Joe-Nom Sue-Dat-Del book-Acc give-Past-Dec
 ‘Joe gave a book only to Sue.’
- b. Joe-ka Sue-man-lul chayk-lul cu-ass-ta.

The morphological structure given in (67) is clearly confirmed by the data in (71), (73) and (74) and therefore we are led to conclude that the verbal suffix *-ko* is associated with inherent (accusative) case and the nominal suffix *-lul* with structural (accusative) case.

4.4. V as Inherent Case Licenser

In 4.2, I have argued that structural case is uniformly licensed by functional categories and inherent case by lexical categories. Under this analysis, the lexical head V is argued to be an inherent case licensor, not a structural case licensor, contra Chomsky (1986a and 1995). In this section, I will show that the lexical head V is indeed an inherent case licensor. Cross-linguistic evidence will be presented that the lexical head V licenses inherent case.

4.4.1. Uniformity Condition: Chomsky (1986a)

Pesetsky (1982) and Chomsky (1986a) propose that inherent case assignment is always linked directly to θ -role assignment. Chomsky (1986a) attributes this to the Uniformity Condition, stated in (75).

- (75) The Uniformity Condition on Case-Marking (Chomsky, 1986a: 194)
 If α is an inherent Case-marker, then α Case-marks NP if and only if α θ -marks the chain headed by NP.

The Uniformity Condition (75) imposes two requirements on inherent case assignment. One is that α be an inherent case licensor and the other that there be a thematic relation. In Chomsky (1986a), it is not the case that every θ -role assigner is an inherent case licensor, which weakens the fundamental assumption that inherent case is a property of thematic relation.

With regard to the first requirement, it has long been assumed that [+N] categories, i.e., N and A, are inherent case licensers (Chomsky 1986a, Chomsky and Lasnik 1993, Chomsky 1995, and Webelhuth 1995).²³ Unlike N and A, the lexical category V cannot be an inherent case licenser under Chomsky's analysis which defines inherent case licensers as [-N] categories. It is well-known that the lexical category V is distinguished from other lexical categories such as N and A in that it does not induce *of*-insertion in English when it takes a DP complement.

- (76) a. John criticized (*of) the theory.
 b. John's criticism *(of) the theory

- (77) a. John envies (*of) Bill.
 b. John is envious *(of) Bill.

The lexical heads *criticized* in (76a) and *envies* in (77a) license the object DPs via accusative case checking. The lexical heads *criticism* in (76b) and *envious* in (77b), however, can not license the object DPs in the same manner as the corresponding verbs, i.e., via accusative case checking. In order to account for this distinction between V and N/A regarding the licensing of complement DPs, Chomsky (1986a) proposes that N and A license the complements via inherent case checking and that the insertion of a semantically null preposition *of* is the realization of the inherent case licensed by N or A.²⁴

Given that inherent case is a property of a thematic relation between a lexical head and its complement, however, it does not seem not intuitively correct to distinguish the category V from the categories N and A. Consider the examples in (76) and (77) again. The head V *criticized* in (76a) and the head N *criticism* in (76b) are exactly in the same thematic relation with their complements. Similarly, the head *envies* in (77a) and the head *envious* in (77b) enter into the same thematic relation with their complements. Now let us suppose that V is also an inherent case licenser since it is a θ -role assigner. The first requirement of the Uniformity Condition (75) is not required any more and therefore the Uniformity Condition (75) can be simplified as follows.

- (78) Revised Uniformity Condition on Case Licensing
 α licenses DP via inherent case checking if and only if α θ -marks the chain headed by DP.

In what follows, I will provide theoretical and empirical evidence that the revised uniformity condition (78) is correct, i.e., the lexical category V is an inherent case licenser.

4.4.2. English

English double object constructions pose a problem for the analysis which distinguishes the licensing of inherent case from that of structural case in terms of the N-features of the licensers. Observe the following examples.

- (79) a. John gave Mary a book.
 b. John told Mary a story.

The verbs *gave* and *told* in (79) subcategorize two DP objects which must be licensed via case checking. An apparent problem is that the lexical category V typically licenses only on DP via structural case checking (Chomsky 1981 and 1986a and Baker 1988b). If this is so, one of the DP objects in (79a) and (79b) cannot be licensed by the verbs. In order to solve this problem, Chomsky (1981) suggests that *gave* and *told* can license an inherent case as well as a structural case. Given the adjacency requirement for structural case licensing, Chomsky assumes that the goal object DPs in (79) are licensed via structural case checking, whereas the theme object DPs via inherent case checking.

This inherent case approach to English double object constructions is empirically supported by passivization as illustrated in (80) and (81).

- (80) a. Mary was given a book.
 b. *A book was given Mary.

- (81) a. Mary was told a story.
 b. *A story was told Mary.

Structural case but not inherent case is argued to be absorbed in the passive sentences (Chomsky 1986a, Haegeman 1991, and Webelhuth 1995). The goal object DPs in (80a) and (81a) raise to the spec of IP and are licensed via nominative case checking by the functional head INFL. The theme object DPs, on the other hand, can not be licensed by

the passivized verbs via accusative case checking since they lose the ability to license a DP via accusative case checking. They can be licensed, however, via inherent case checking by the passivized verbs.²⁵ Double object constructions in English therefore provide evidence that the lexical head V is an inherent case licenser.

Chomsky's analysis of English double object constructions directly conflicts with his definition of case licensing based upon the N-features of case licensers. His definition of inherent case licensers as [+N] categories should be discarded if we assume his analysis of double object constructions in English. English double object constructions can be well accounted for by the system of case licensing I have proposed in 4.2. I will discuss later how the proposed system can account for various constructions which are involved in inherent case licensing.

We have seen in 4.2.3.1 that the dummy preposition *of* is the realization of inherent case licensed by N or A. *Of*-insertion typically takes place when an A or an N takes a DP complement. Now observe the following examples, which show that *of*-insertion takes place even when a verb takes a DP complement.

- (82) a. John complained *(of) [her rudeness].
 b. I don't approve *(of) [rising employment].

If the dummy preposition *of* is indeed the realization of inherent case, then it follows that the verbs *complained* and *approve* in (82) are inherent case licensers. It is quite clear that the complement DPs *her rudeness* and *rising employment* in (82) are assigned a θ -role by

the verb *complained* and *approve*, respectively. Then the examples in (82) suggest that the lexical head V can license the complement via inherent case checking.

Chomsky (1986a) and Rothstein (1992) also provide examples which show that the lexical head V may license inherent case. Consider the following examples.

- (83) a. I persuaded [John] [**(of)* the importance of going to college].
 b. He informed [the officer] [**(of)* the importance of a prompt arrival].

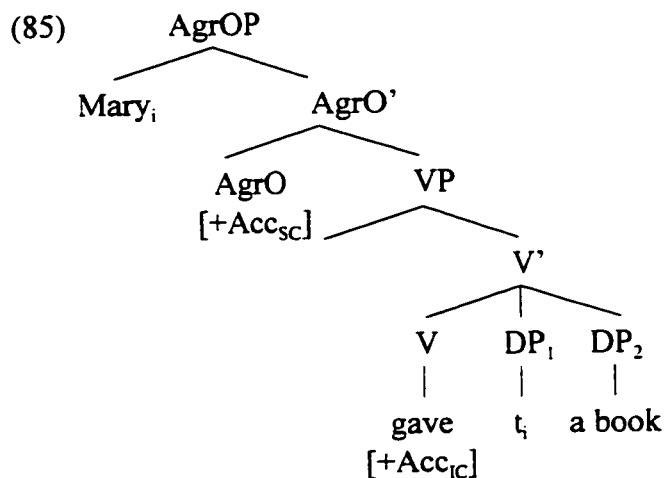
The verbs *persuaded* and *informed* in (83) select two internal arguments which must be licensed via case checking. The first arguments *John* in (83a) and *the officer* in (83b) are licensed in terms of accusative case checking by the verbs since they satisfy the adjacency requirement. The second arguments in (83a) and (83b), however, cannot be licensed in the same manner since the verbs are argued to license only one DP via accusative case checking and the first object DPs are already licensed via accusative checking by the verbs. Chomsky (1986a) proposes that the second arguments in (83) are licensed in terms of inherent case checking by the verbs. The fact that *of*-insertion takes place in (83) indeed indicates that the second object DPs are licensed by the verbs via inherent case checking in (83).

Observe the examples in (84), which are the passive counterparts of (83a). They clearly show that the first argument in (83a) is licensed via accusative case checking, whereas the second argument is licensed via inherent case checking.

- (84) a. John was persuaded [of the importance of going to college].
 b. *The importance of going to college was persuaded John.

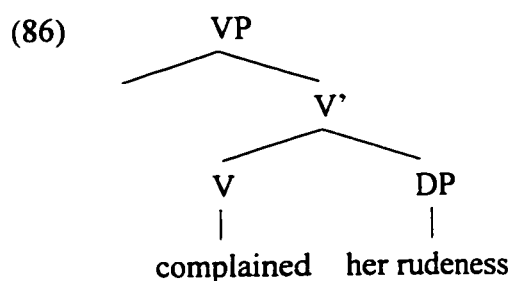
The passive examples in (84) show that the first object *John* can be licensed via structural case checking by the finite INFL but not via inherent case checking by the passivized verb. The second object *the importance of going to college*, on the other hand, is licensed via inherent case checking by the passivized verb. Given that verbs in English can license inherent case in terms of θ -role relation, it seems intuitively correct to assume that V in principle can license an XP in terms of inherent case checking if it θ -marks the XP. Those examples we have seen in this section suggest that the Uniformity Condition should not be defined in terms of the N-features of case licensors.

Now let us consider how the examples we have seen in this section are accounted for under the system of case licensing I have proposed in 4.2, which defines case licensing in terms of the lexical and functional status of case licensors. English double object constructions are well accounted for simply by assuming that the functional head AgrO licenses the first object via the checking of structural accusative, whereas the lexical head V licenses the second object via the checking of inherent case. Consider the configurations in which two object DPs in double object constructions are licensed.²⁶



The goal object *Mary* raises to the spec of AgrOP and is licensed via accusative case checking by the functional head AgrO in terms of the spec-head agreement. The theme object *a book*, on the other hand, is licensed in situ via inherent case checking by the verb in terms of the head-complement relation. The data in (83) can be accounted for in the same manner. The first objects are licensed via accusative case checking by the functional head Tr, whereas the second objects are licensed via inherent case checking by the verbs.²⁷

Intransitive verbs such as *complain* and *approve* can also be accounted for by the proposed analysis simply by assuming that they do not project AgrOP. Consider the configuration (86).



The complement DP in (86) is licensed in situ by the verb via inherent case checking in terms of the head-complement relation since the former is θ -marked by the latter. The inherent case of the complement DP is realized as the so-called *of*-insertion.²⁸

4.4.3. Chichewa: Baker (1988b)

Extending to Chichewa the inherent case approach to English double object constructions in Chomsky (1981), Baker (1988b) proposes that all verbs may assign an inherent case as well as a structural case in Chichewa. Observe the following examples, cited from Baker (1988b).

(87) a. Mavuto a- na- umb -ir -a mfumu mtsuko.

Mavuto SP PAST mold APPL ASP chief waterpot

‘Mavuto molded the waterpot for the chief.’

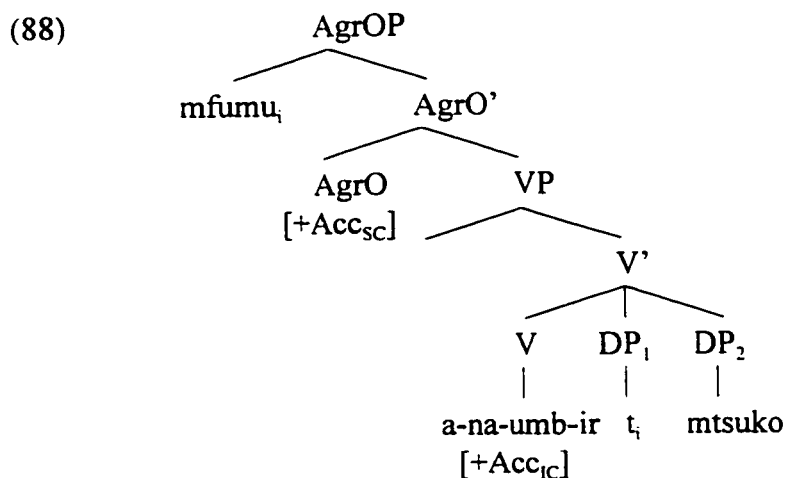
b. Mavuto a- na- umb -ir -a mpeni mtsuko.

Mavuto SP PAST mold APPL ASP knife waterpot

‘Mavuto molded the waterpot with a knife.’

The verbs in (87a) and (87b) have two object DPs which must be licensed in terms of case checking. By assuming that verbs in Chichewa can assign structural case only to one DP, Baker (1988b) suggests that the second object *mtsuko* in (87a) is assigned an inherent case by the verb. The first object *mfumu*, on the other hand, is assigned a structural case by the verb since it satisfies the adjacency requirement.

Under the proposed analysis, (87a) can be accounted for in the same manner as English double object constructions. The first object *mfumu* in (87a) raises to the spec of AgrOP and is licensed via accusative case checking by the head AgrO in terms of the spec-head agreement, whereas the second object *mtsuko* is licensed via inherent case checking by the verb *umb* in terms of the head-complement relation.



If Baker (1988b) is on the right track, Chichewa provides supporting evidence that verbs license their complement DPs in terms of inherent case checking.²⁹

4.4.4. Partitive Case: Belletti (1988) and Enç (1989)

Belletti (1988) provides an argument that verbs can license DPs via inherent case checking in various languages. First, observe the following example, cited from Haegeman (1991).

(89) There were attacked [_{DP} no fewer than three robbers].

The passivized verb *attacked* in (89) loses its ability to assign accusative and the object DP remains caseless. Therefore the example (89) is wrongly predicted to be ungrammatical. In order to account for the problem, Belletti (1988) proposes that passive verbs absorb the ability to assign structural case, but that they retain the ability to assign inherent case, under the assumption that all verbs have a potential ability to assign inherent case. Noting that definite DPs cannot be assigned inherent case by the same passivized verb as illustrated in (90), she suggests that the inherent case assigned by the passive verb in (89) is inherent 'partitive'.

(90) *There were attacked [_{DP} the three robbers].

According to Belletti, passive verbs are not the only verbs which can assign inherent partitive case. She argues that unaccusative verbs, which do not assign accusative to their complements, also assign inherent partitive case. Observe the following examples, cited from Belletti (1988).

- (91) a. A man is in the garden. (English)
 b. There arose a storm.
- (92) a. Trois filles sont arrivées. (French)
 three girls are arrived
 b. Il est arrivé trois filles
 there is arrived three girls
- (93) a. Pöydällä on kirjoja. (Finnish)
 on the table is (some) books (PART)
 'There are some books on the table.'
 b. Helsingistä tulee kirjeitä.
 from Helsinki comes (some) letters (PART)
 'There comes some letters from Helsinki.'

Belletti (1988) argues that the objects of the typical unaccusative verbs in (91) - (93) are assigned inherent partitive case, rather than structural accusative case. Partitive case is morphologically realized in Finnish, whereas it is not overtly realized in English and French.

Belletti (1988) further argues that inherent partitive case may be assigned even to the direct objects of transitive verbs. This is clearly illustrated in the following examples from Finnish, cited from Belletti (1988).

(94) a. Hän pani kiriat pöydälle
 he put the books (Acc) on the table

b. Hän pani kirjoja pöydälle
 he put (some) books (part) on the table.

The definite DP object *kiriat* in (94a) is assigned a structural case, i.e., accusative, by the verb *pani*, whereas the indefinite DP object *kirjoja* in (94b) an inherent case, i.e., partitive, by the same verb *pani*. This implies that the verb *pani* has a potential ability to assign both structural accusative and inherent partitive.

Enç (1989) also provides an argument that verbs in Turkish may assign inherent partitive case. A correlation is found in Turkish between specificity and a particular case marker *-yu*. Observe the following examples, cited from Lee (1992).

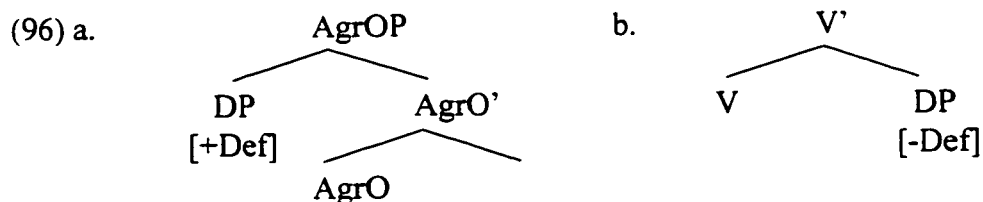
(95) a. Ali bir piyano-yu kiralamak istiyor
 Ali one piano-Acc to-rent wants
 ‘a certain piano such that Ali wants to rent it’

b. Ali bir piyano kiralamak istiyor.
 ‘Ali wants to rent a (nonspecific) piano.’

The object DP *piyano-yu* in (95a) is obligatorily interpreted as specific, whereas the object DP *piyano* in (95b) is obligatorily nonspecific. Enç (1989) suggests that the indefinite object DP in (95b) is assigned inherent partitive case, which is overtly realized as *-yu*.

The definite object DP in (95a), on the other hand, is assigned accusative, which is structural.

Belletti's (1988) and Enç's (1989) analyses can be adopted in the proposed analysis. I argue that the definite object DP in (94a) and the specific object DP in (95b) are licensed via structural case, i.e., accusative case checking by the functional head AgrO, whereas the indefinite object DP in (94b) and the non-specific object DP in (95a) are licensed via inherent case, i.e., partitive case checking by the lexical head V. Consider the configurations in which structural accusative and inherent partitive are licensed.



The definite DP object in (96a) is licensed via accusative case checking by AgrO in terms of the spec-head agreement, whereas the indefinite object DP in (96b) is licensed via partitive case checking by V in terms of the head-complement relation.

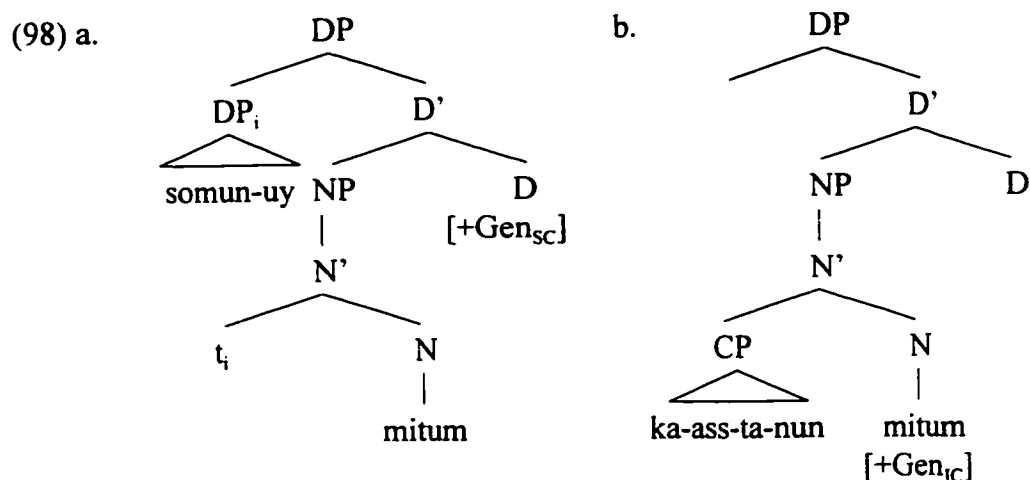
What should be pointed out in Belletti (1988) and Enç (1989) is that the properties of DPs which are to be licensed determine whether they are licensed via inherent case checking by V or structural case checking by AgrO. That is, DPs are licensed via inherent case checking by the lexical head V when the DPs are [-definite] as in Finnish and English or [-specific] as in Turkish. DPs, on the other hand, are licensed via structural case checking by the functional head AgrO when they are [+definite] or [+specific]. In

the meantime, the case licensers V and AgrO have the potential ability to license DPs via inherent and structural case checking, respectively.

4.5. *-Nun* and Inherent Genitive

Along the same line of argument as for the verbal suffix *-ko* and the nominal suffix *-lul* in 4.3, I propose in this section that the verbal suffix *-nun* is associated with inherent genitive, whereas the nominal suffix *-uy* is associated with structural genitive. I argue that structural genitive is licensed by the functional category D (Fukui 1986 and Abney 1987), whereas inherent genitive is licensed by N (Chomsky 1986a and 1995). Consider the configurations in which *-nun* and *-uy* are licensed.

- (97) a. [somun-uy] mitum
 rumor-Gen belief
 ‘the belief of the rumor’
- b. [Sue-ka ka-ass-ta-nun] mitum
 Sue-Nom go-Past-Dec-C belief
 ‘the belief that Sue went’



The complement DP in (98a) bears structural genitive, which is realized as *-uy*. The DP raises to the spec of DP and enters into a checking relation with the head D. The feature $[+Gen_{sc}]$ of the DP is checked by the head D in terms of the spec-head agreement. The complement CP in (98b) is associated with inherent genitive, which is realized as *-nun*. The feature $[+Gen_{ic}]$ of the CP is checked by the head N in terms of the head-complement relation.

4.5.1. Morphological Evidence

In this section, I will provide morphological evidence for the proposed analysis of *-uy* and *-nun*. The nominal suffix *-uy* is distinguished from the verbal suffix *-nun* regarding the case drop phenomenon. The former may be dropped under the adjacency condition, whereas the latter cannot be dropped at all. They are further distinguished from each other in terms of the interactions with the delimiters. The nominal suffix *-uy* can co-occur with the delimiters, whereas the verbal suffix *-nun* cannot.

4.5.1.1. Case Drop

The verbal suffix *-nun* is distinguished from the nominal suffix *-uy*, which is the realization of structural genitive. The non-overt realization of structural genitive is subject to the adjacency condition as illustrated in (99).

(99) a. solcikhan ku pemhayng-(uy) inceng
 frank that crime-Gen acknowledgment
 ‘frank acknowledgment of the crime’

b. ku pemhayng-*(uy) solcikhan inceng

(100) a. yelkwangcekin Beattles-(uy) kongyen
 frantic Beattles-Gen concert
 ‘frantic concert by Beattles’

b. Beattles-*(uy) yelkwangcekin kongyen

The nominal genitive suffix *-uy* in (99a) and (100a) can be dropped since the adjacency requirement is met, whereas the genitive suffix in (99b) and (100b) cannot since the adjacency condition is not met.

Now let us consider the verbal suffix *-nun*. Unlike the nominal genitive *-uy*, the verbal suffix *-nun* cannot be dropped regardless of whether the adjacency condition is met or not. Compare the examples in (101) with those in (99) and (100).

- (101) a. [hankuk-ka iki-ass-ta-*(nun)] Joe-uy mitum
 Korea-Nom win-Past-Dec-C Joe-Gen belief
 ‘Joe’s belief that Korea won’
- b. Joe-uy [hankuk-ka iki-ass-ta-*(nun)] mitum

With respect to the case drop phenomenon, therefore, the verbal suffix *-nun* patterns with the inherent case suffixes such as *-ey* and *-eykey*. Observe the examples in (46), repeated here.

- (102) a. Sue-ka sangca-*(ey) candy-lul sumki-ass-nya?
 Sue-Nom box-in candy-Acc hide-Past-Int
 ‘Did Sue hide the candy in the box?’
- b. Sue-ka candy-lul sangca-*(ey) sumki-ass-nya?

The inherent locative suffix *-ey* cannot be dropped regardless of whether the adjacency condition is satisfied or not. The fact that *-nun* cannot be dropped strongly suggests that it is associated with inherent genitive.

4.5.1.2. Interaction with Delimiters

The interactions of the verbal suffix *-nun* with the delimiters also provide supporting evidence that it is associated with inherent genitive. The nominal genitive *-uy*, which is associated with structural genitive, can co-occur with the delimiters.³⁰

- (103) a. pemhayng-man-uy inceng
 crime-Del-Gen acknowledgment
 ‘the acknowledgment of only the crime’
- b. Joe-man-uy inceng
 Joe-Del-Gen acknowledgment
 ‘only Joe’s acknowledgment’

Unlike the nominal genitive marker *-uy*, the verbal suffix *-nun* cannot co-occur with the delimiters. Observe the following example.

- (104) [hankuk-ka iki-ass-ta-(*man)-nun] mitum
 Korea-Nom win-Past-Dec-Del-C belief
 ‘*the belief only that Korea won’

The embedded clause in (104) shows that the verbal suffix *-nun* cannot co-occur with a delimiter, which suggests that *-nun* differs from the nominal suffix *-uy*. I argue that *-uy* is associated with structural genitive, whereas *-nun* with inherent genitive.³¹

Now let us compare properties of the structural genitive suffix *-uy*, and the inherent genitive suffix *-nun*, summarized in (105).

- | | |
|--|---|
| (105) -uy | -nun |
| <ul style="list-style-type: none"> • Case Drop Under Adjacency • Co-occurs with Del • Not replaced by Del | <ul style="list-style-type: none"> • No Case Drop • Does not co-occur with Del • Not replaced by Del |

The systematic differences between the nominal suffix *-uy* and the verbal suffix *-nun* suggest that *-nun* is associated with inherent genitive.^{32 33}

4.5.1.3. *-Uy* and Postposition

We have seen in 4.3.3 that postpositions can co-occur with the delimiters and in 4.5.1.2 that the nominal suffix *-uy* can also can co-occur with the delimiters. Given this, one might argue that the nominal suffix *-uy* is associated with inherent case since it seems to share some properties with the inherent case suffixes such as *-eykey*. Observe the examples in (106).

(106) a. Joe-ka [Sue-eykey-man] panci-lul cu-ass-ta.

Joe-Nom Sue-to-Del ring-Acc give-Past-Dec

‘Joe gave a ring only to Sue.’

b. [pemhayng-man-uy] inceng

crime-Del-Gen acknowledgment

‘the acknowledgment of only the crime’

(106a) and (106b) show that both the inherent case suffix *-eykey* and the structural case suffix *-uy* can co-occur with the delimiter *-man*.

The inherent case suffix *-eykey*, however, is distinguished from the genitive suffix *-uy* in that the former is followed by the delimiter, whereas the latter is preceded by the delimiter. Therefore the fact that the delimiters can co-occur both with *-eykey* and *-uy* does not necessarily mean that both are inherent case suffixes. In fact, the data in (106) strongly suggests the opposite, i.e., one is inherent and the other is structural. Consider the morphological structures of the DPs in (106).

(107) a. Sue-	eykey-	man
N	Dat (IC)	Del
b. pemhayng-	man-	uy
N	Del	Gen (SC)

We have seen in 4.3.3 that the nominal suffixes *-ka* and *-lul*, which are associated with nominative and accusative, respectively, follow the delimiters and therefore the nominal suffix *-uy* falls under the same category as *-ka* and *-lul*. As we have seen in 4.3.3, we can posit the morphological structure (108) for the nominal projections in (107).

(108) N-IC-Del-SC

The genitive case suffix *-uy* is licensed outside the delimiters, whereas postpositions such as *-eykey* are licensed inside the delimiters. Therefore, it is not plausible to argue that both *-uy* and *-eykey* are associated with inherent case, although they can co-occur with the delimiters.

4.5.2. Genitive: Inherent or Structural?

It has long been quite controversial in the literature whether genitive is structural or inherent (See Chomsky 1981 and 1986a, Fukui 1986, Abney 1987, and Webelhuth 1995).

In this section, I will argue that there exist two types of genitive, inherent and structural, and that inherent genitive is licensed by the lexical head N and structural genitive by the functional head D (Fukui 1986 and Abney 1987).

4.5.2.1. Genitive as Inherent

Noun phrases and clauses show systematic similarities and differences in many aspects (Chomsky 1986a and Abney 1987). Observe the following examples.

- (109) a. The enemy destroyed the city.
 b. the enemy's destruction of the city

- (110) a. John is honest.
 b. John's being honest.

The subjects in (109a) and (110a) are licensed via nominative case checking, whereas the subjects in (110b) and (110b) are licensed via genitive case checking.

Chomsky (1986a and 1995) suggests that genitive is inherent.³⁴ It is licensed by the lexical head N in terms of inherent case checking. He points to a number of differences between nominative and genitive (See also Webelhuth 1995). First of all, the

expletive *there* can be licensed via nominative case checking, whereas it is not licensed via genitive case checking.

- (111) a. There has been too much rain last year.
 b. **there's* having been too much rain last year

If we assume that genitive is structural, then the genitive marked expletive in (111b) is expected to be licensed in the same manner as the nominative marked expletive in (111a). The data in (111) therefore suggest that genitive is not structural.

Raising constructions in English provide another piece of evidence that genitive is not structural. Consider the following examples.

- (112) a. *Mary* seems [*t* to be intelligent].
 b. **Mary's* seeming [*t* to be intelligent]

The embedded subject *Mary* in (112a) is not licensed in situ since the embedded non-finite T cannot license the subject via nominative case checking. Therefore the subject raises to the matrix subject position in which it is licensed via nominative case checking by the matrix finite T. This is possible since nominative is structural but not inherent. If we assume that genitive is structural, then it is expected that the embedded subject in (112b) is licensed via genitive case checking in the subject position of the DP. It is not the case, however, which suggests that genitive is not structural.

The most notable property of structural case is best illustrated by the so-called Exceptional Case Marking constructions.

- (113) a. John believes [Mary to be intelligent].
 b. *John's belief (of) [Mary to be intelligent]

The embedded subject in (113a) is argued to be licensed via accusative case checking by the matrix V in terms of the spec-head agreement. In (113b), on the other hand, the embedded subject is not licensed via genitive case checking by the lexical head *belief*. This difference suggests that genitive is not structural. For these reasons, Chomsky (1986a) argues that genitive is inherent and that it is licensed by the lexical head N.

4.5.2.2. Genitive as Structural

There arise problems with Chomsky's (1986a) inherent case approach to genitive. First, under his analysis, not only a lexical head X^0 but an intermediate projection X' and a maximal projection XP may license genitive. Observe the examples in (114).

- (114) a. the destruction of the city
 b. the enemy's destruction of the city
 c. the enemy's destroying the city

Under the inherent case approach to genitive suggested in Chomsky (1986a), the object DP *the city* in (114a) is licensed by the lexical head N *destruction* via inherent (genitive)

case checking since the former is θ -marked by the latter. Chomsky argues that the dummy preposition *of* is the morphological realization of the inherent genitive case. The subject DP *the enemy's* in (114b) is argued to be θ -marked not by the head N but by the intermediate projection N', which implies that the genitive subject is licensed not by the head N but by the N'. The POSS morpheme 's is the overt realization of the genitive case licensed by the N'. In short, both the subject and the object are licensed via genitive case checking, but by different elements, which realize the genitive case in different manners.

Not only the subject of a noun phrase but the subject of gerund can be licensed via genitive case checking as illustrated in (114b) and (114c). Chomsky (1986a) argues that the genitive subject in (114c) is licensed by the predicate VP, not by N nor by N'. Under Chomsky's (1986a) analysis of genitive, therefore, genitive can be licensed by N, N' or VP. In order to account for the different realizations of genitive in English, Chomsky suggests two syntactic rules, i.e., *of*-insertion and POSS-insertion.

(115) a. Of-Insertion

$[_\alpha \alpha \text{ ___ NP}]$ ($\alpha = \text{N or A}$)

b. POSS-Insertion

$[_{\text{NP}} \text{NP ___ } \alpha]$ ($\alpha = \text{N' or VP}$)

Given the definition of case licensing in terms of the N-features of the licensers, it is not plausible to assume that N, N', and VP form a natural class of inherent case licensers. It is problematic to assume that genitive marked DPs can be licensed by N, N',

or VP, even though it seems true that they are θ -marked by N, N', or VP. Observe the examples in (116).

- (116) a. the city's destruction t
 b. the city's being destroyed t

Under the inherent case approach to genitive, the genitive marked DP in (116a) is θ -marked and therefore licensed by the lexical head N via the checking of inherent genitive case, which is realized through POSS-insertion. Then we cannot have a unified account of the genitive DPs in (114b) and (116a). We are forced to conclude that the genitive DP in (114b) is licensed by N', whereas the genitive DP in (116a) by N, although they have the same morphological realization. It would be desirable that a unified analysis of genitive can be presented. (116b) poses a more serious problem. The genitive marked DP in (116b) is θ -marked by the lexical head V, which implies not only that the lexical head V can also license genitive but that we must assume different accounts of the genitive DPs in (114c) and (116b). The genitive DP in (114c) is θ -marked and licensed by VP, whereas the genitive DP in (116b) by V.

The genitive case realized as 's is not always a reflection of a thematic relation between the genitive DP and its licenser. It is well-known that not only θ -marked arguments but also adjuncts may be licensed via genitive case checking in English.

- (117) a. the Romans' destruction of the city
 b. yesterday's destruction of the city by the Romans

The genitive-marked adjunct in (117 b) is not θ -marked by the lexical head N *destruction*, as the genitive marked subject DP in (115a). This suggests that genitive is not an instance of inherent case.

We have seen in 4.5.2.1 that the English expletive *there* may not be licensed via genitive case checking. English, however, has another expletive *it*, which can be licensed via genitive case checking as illustrated in (118).

- (118) *its* being obvious [that John was late]

In (118), the embedded CP is θ -marked by the lexical head *obvious* and it is widely assumed that it forms a CHAIN with the expletive subject (Chomsky 1986a). Under Chomsky's (1986a) analysis, the expletive subject is licensed by the predicate VP via genitive case checking. In other words, the CHAIN is θ -marked by the lexical head *obvious* but case-marked by the VP, which implies that genitive in question is not an instance of inherent case.

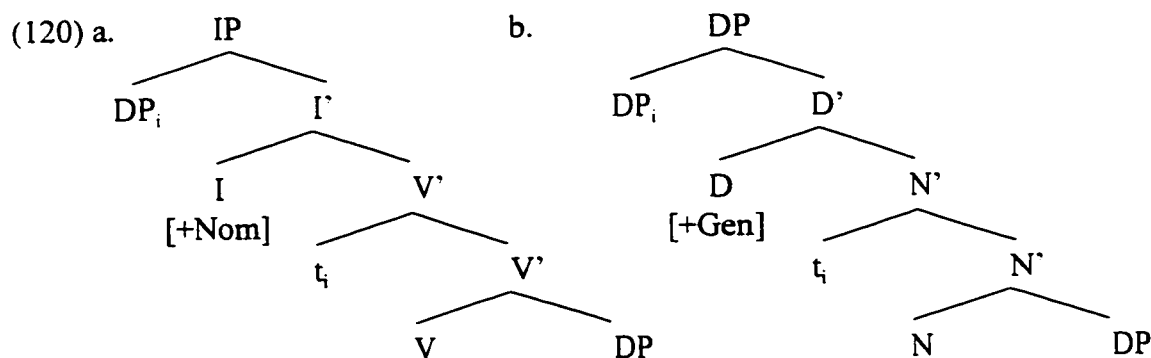
The difference between *there* and *it* can be accounted for if we assume a morphological condition on genitive case such that genitive is not licensed on certain morphological elements, including *there*. This type of morphological condition can be

independently motivated by the fact that DPs but not CPs can be licensed via genitive case checking. Observe the following examples.

- (119) a. *[that John was being late's] being obvious t
 b. *[that John was being late's] being believed t

It should be accounted for why the complement CPs in (119) cannot be licensed via the checking genitive case, which Chomsky argues to be inherent. It is implicitly assumed in Chomsky (1986a) that CPs can be licensed via inherent case checking. In order to account for the fact that CPs are not licensed via genitive case checking, we need a certain morphological condition on genitive case.

Efforts have been made to view genitive as structural. (Chomsky 1981, Fukui 1986, and Abney 1987). As we have seen in 4.2.3, Fukui (1986) and Abney (1987) suggest that nominative and genitive are licensed in the same configuration, i.e., in terms of the spec-head agreement, by the functional heads INFL and D, respectively. Consider the following structures of IP and DP suggested in Fukui (1986).



Under the DP-analysis in Fukui (1986), the subject DP in (120b) may raise to the spec of DP to be licensed by the functional head D, just as the subject DP in (120a) raises to the spec of IP to be licensed by INFL. Following Fukui (1986), I argue that genitive case is licensed by the functional head D not by the lexical head N.

4.5.3. Summary: Inherent vs. Structural Genitive

The arguments given so far have led us to the conclusion that there exists two types of case which can be licensed within a noun phrase: a case licensed by the functional head D in terms of the spec-head agreement and a case licensed by the lexical head N in terms of the head-complement relation. The former is realized through the POSS-insertion and the latter through *of*-insertion. The former is a property of a syntactic configuration, i.e., it is structural, whereas the latter is a property of a thematic relation, i.e., it is inherent. I will refer to the former as [+Gen_{SC}] or structural genitive and the latter as [+Gen_{IC}] or inherent genitive. Consider (114a) and (114b) again, repeated here.

- (121) a. the destruction of the city
 b. the enemy's destruction of the city

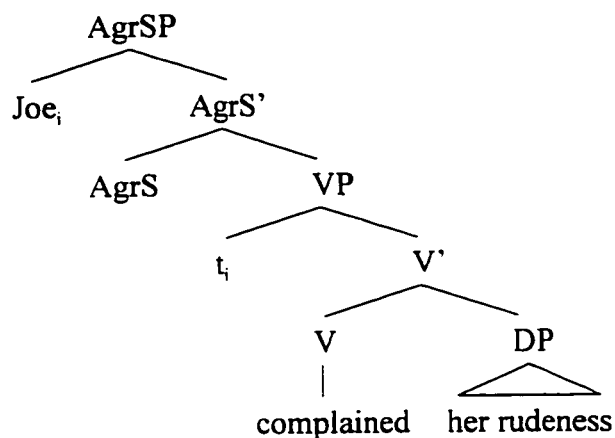
The complement DP *the city* in (121a) is licensed by the head N *destruction* via the checking of inherent genitive, which is realized as the dummy preposition *of*. The subject DP *the enemy's* in (121b), on the other hand, is licensed by the functional head D via the checking of structural genitive, which is realized as -'s.

Under the analysis I am proposing, a parallelism can be found between a noun phrase and a clause in terms of case licensing. Observe the examples in (122) and their structures in (123).

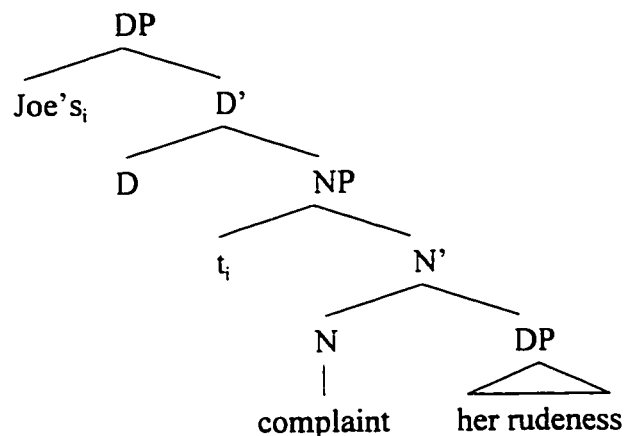
(122) a. Joe complained of her rudeness.

b. Joe's complaint of her rudeness

(123) a.



b.



In (123b), the subject DP *Joe's* raises to the spec of DP and is licensed by the functional head D via the checking of structural genitive in terms of spec-head agreement. The

complement DP *her rudeness*, on the other hand, is licensed in situ by the lexical head N via the checking of inherent genitive. Similarly, the subject DP in (123a) raises to the spec of AgrSP to be licensed by the functional head AgrS (or T) via nominative case checking in terms of the spec-head agreement. The complement DP, on the other hand, is licensed in situ by the lexical head V via inherent case checking. I will refer to the inherent case licensed by V as [+Acc_{IC}] or inherent accusative. The inherent case licensed by N, on the other hand, will be referred to as [+Gen_{IC}] or inherent genitive. Chomsky (1986a) argues that the lexical category A can also license inherent genitive.

(124) Joe is sick of her rudeness.

The complement DP *her rudeness* is θ -marked and therefore licensed by the lexical head *A sick* via the checking of inherent case, which is overtly realized through *of*-insertion.³⁵

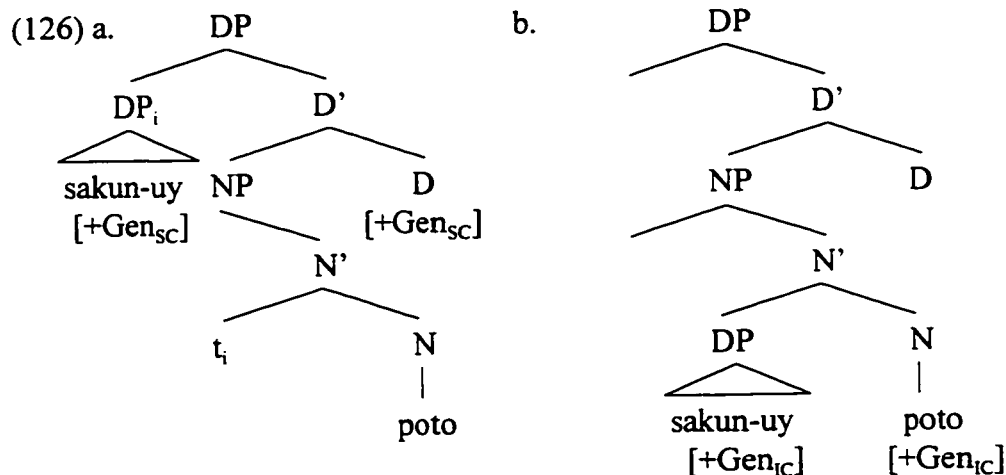
4.5.4. Korean

Now let us consider Korean regarding whether genitive is inherent or structural. First, observe the following examples.

(125) a. *enehak-uy yenku*
 linguistics-Gen study
 ‘study of linguistics’

- b. *sakun-uy poto*
 event-Gen report
 ‘report of the event’

Genitive is overtly realized as the nominal suffix *-uy* in Korean. As illustrated in (125), the complement DPs to the head N are licensed via genitive case checking in Korean. The genitive-marked DPs *enehak-uy* and *sakun-uy* in (125) are θ -marked by the head nouns *yenku* and *poto*, respectively. Therefore one might argue that genitive is licensed by the lexical head N in Korean, i.e., genitive is inherent. As an alternative, one might assume that the complement DPs in (125) raise to the spec of DP to be licensed by the functional head D, i.e., genitive is structural. Now we have two possible configurations in which genitive is licensed in Korean.



Korean differs from English regarding the morphological realization of genitive.

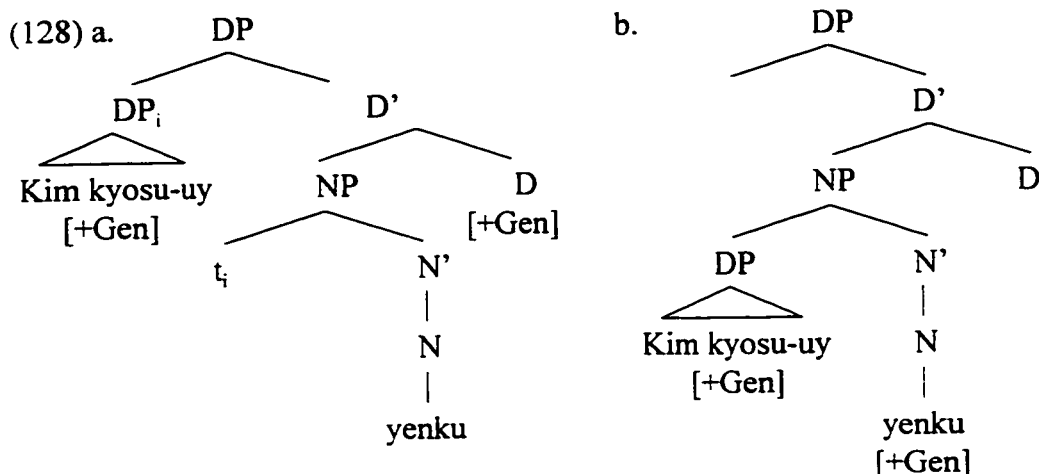
In English, the subject DP is licensed via the POSS-insertion, whereas the object DP is

licensed via *of*-insertion, which has led me to argue that they are licensed by different heads, D and N, respectively. In Korean, genitive is invariably realized as the nominal suffix *-uy*, regardless of whether it is assigned to the subject or the object. Compare (125) and (127).

- (127) a. *cencayng-uy palsayng*
 war-Gen occurrence
 ‘the war’s taking place’
- b. *Kim kyosunim-uy yenku*
 Kim professor-Gen study
 ‘Professor Kim’s study’

Not only the object DPs in (125) but also the subject DPs in (127) are assigned genitive, which is realized as *-uy*. In other words, there is no distinction in Korean between the subject and the object in terms of the morphological realization of genitive.

Once again we are faced with the same question whether the genitive-marked DPs in (127) are licensed by D or N. We have two possible configurations in which the genitive-marked subject DPs in (127) are licensed.



In (128a), the functional head D licenses the genitive subject DP in terms of the spec-head agreement, whereas in (128b), the intermediate projection N' θ -marks and therefore licenses the subject DP.

If we assume that genitive is inherent, we must say that it may be licensed in different configurations as in (126b) and (128b). If we assume that genitive is structural, on the other hand, we can maintain the argument that genitive is uniformly licensed by the functional head D in terms of spec-head agreement as in (126a) and (128a). Given the fact that the genitive case on the object and the subject is invariably realized as *-uy*, I argue that genitive is uniformly licensed by the functional head D in terms of spec-head agreement. This amounts to saying that the genitive case which is realized as *-uy* is structural in Korean. The argument that the nominal suffix *-uy* is associated with structural genitive is supported by the fact that a wide variety of adjuncts can be licensed via the checking of genitive as illustrated in (129).

- (129) a. 1950 yen-uy cencayng
 year-Gen war
 ‘1950’s war or the war in 1950’
- b. Seoul-eyse-uy kongyen
 Seoul-in-Gen performance
 ‘the performance in Seoul’
- c. han tal dongan-uy yenku
 one month for-Gen study
 ‘a month of study’
- d. yul si-kkaci-uy sumyun
 ten o’clock-until-Gen sleep
 ‘(the) sleep until ten o’clock’
- e. haykmuki-lo-uy wihyep
 nuclear weapon-with-Gen threat
 ‘(the) threat using nuclear weapons’

The genitive-marked DPs in (129) are not θ -marked arguments but adjuncts, which strongly suggests that genitive is structural in Korean.

Multiple genitive constructions in Korean also provide evidence that genitive is structural. As illustrated in (130), more than one DP can be licensed via genitive case checking.

- (130) a. 1950 yen-uy cencayng-uy palsayng
 year-Gen war-Gen occurrence
 ‘the war’s taking place in 1950’
- b. Kim kyosunim-uy mikuk-eyse-uy enehak-uy yenku
 Kim professor-Gen America-in-Gen linguistics-Gen study
 ‘Professor Kim’s study of linguistics in America’
- c. mikuk kasu-uy Seoul-eyse-uy sey sikan tongan-uy kongyen
 American singer-Gen Seoul-in-Gen three hour for-Gen performance
 ‘American singer’s performance for three hours in Seoul’

It is well-known that Korean allows multiple licensing of nominative and accusative, which are structural as illustrated in (131) and (132).

- (131) a. Ecey-ka nalssi-ka coh-ass-ta.
 yesterday-Nom weather-Nom good-Past-Dec
 ‘The weather was fine yesterday.’
- b. Sue-ka chinku-ka manh-ta.
 Sue-Nom friend-Nom many-Dec
 ‘Sumi has many friends.’
- (132) a. Sue-ka cip-lul se sikan dongan-lul chilha-ass-ta.
 Sue-Nom home-Acc three hour for-Acc paint-Past-Dec
 ‘Sue painted her house for three hours.’

b. Sue-ka Joe-lul tu pen-lul manna-ass-ta.

Sue-Nom Joe-Acc two times-Acc meet-Past-Dec

‘Sue met Joe twice.’

Therefore the fact that multiple DPs can be licensed via genitive case checking as in (130) strongly suggests that genitive is structural.

ECM is known as the best criterion by which we can distinguish inherent case from structural case. It is widely argued that structural case but not inherent case can be licensed through ECM (Chomsky 1981 and 1986a and Stowell 1981). Like in English, accusative can be licensed through ECM in Korean as illustrated in (133).

(133) a. Joe-ka [Sue-ka/lul yeppu-ta-ko] mit-ass-ta.

Joe-Nom Sue-Nom/Acc pretty-Dec-C believe-Past-Dec

‘Joe believed Sue to be pretty.’

b. Joe-ka [Sue-ka/lul hakkyo-ey ka-key] ha-ass-ta.

Joe-Nom Sue-Nom/Acc school-to go-C cause-Past-Dec

‘Joe made Sue go to school.’

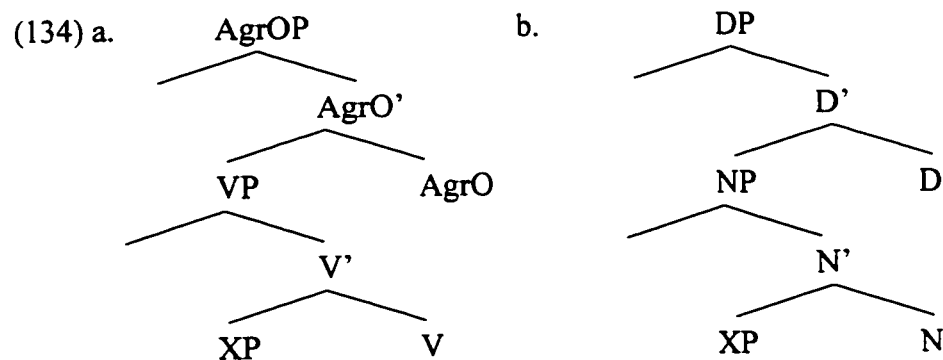
The nominative-marked subject DPs of the embedded clauses in (132) are licensed by the embedded AgrS in terms of the spec-head agreement. The accusative-marked subject DPs, on the other hand, are licensed by the matrix AgrO in terms of the spec-head agreement. This is a clear indication that accusative is structural.³⁶

I have proposed that CPs headed by *-nun* are associated with inherent genitive, whereas DPs headed by *-uy* with structural genitive. The former is licensed by the lexical head N in terms of the head-complement relation, whereas the latter by the functional head D in terms of the spec-head agreement.

4.6. Overlapping of Case Licensing

4.6.1. Licensing of Checkees

In 4.2, I argued that structural and inherent case are licensed by functional and lexical categories, respectively. Structural accusative and genitive, for example, are licensed by the functional categories AgrO and D, respectively. Inherent accusative and genitive, on the other hand, are licensed by the lexical categories V and N, respectively. Under this system of case licensing, XPs may occur in configurations where both inherent and structural case could be assigned. Consider the configurations in (134).



XPs occurring in the complement to V as in (134a), for example, can be licensed via inherent (accusative) case checking by V or structural (accusative) case checking by

AgrO. Similarly, XPs occurring in the complement to N as in (134b) can be licensed via inherent (genitive) case checking by N or structural (genitive) case checking by D.

Given that there exist two possible options of case licensing, it is in order to discuss which option should and/or could be activated in a given derivation. First, let us consider languages like English in which case features are not morphologically realized. Observe the examples in (135).

- (135) a. Joe gave Sue a ring.
 b. Joe lost a ring.

I argued in 4.4.2 that the second object DP *a ring* in (135a) is licensed via inherent case checking by the verb. It cannot be licensed via structural case checking by AgrO. Structural accusative is no longer available since the first object DP *Sue* is already licensed via structural case checking by AgrO. Ditransitive verbs are well accommodated under the proposed system of case licensing. Now consider the sentence (135b) which contains a typical transitive verb. Theoretically, the object DP *a ring* can be licensed by V via inherent accusative checking or by AgrO via structural accusative checking. There is no morphological evidence, however, for one or the other. Therefore it is not clear whether the object DP is licensed by the verb or the functional head AgrO. Most analyses of inherent case face this question (Chomsky 1986a, Belletti 1988, and Enç 1989).

Belletti (1988) provides a possible solution to the question of how the object of a transitive verb is licensed. In order to account for Quirky Case in Icelandic, she suggests

that inherent case can combine with structural case.³⁷ Observe the examples from Icelandic in (136).

(136) a. Mér kólnar.

me-Dat is getting cold

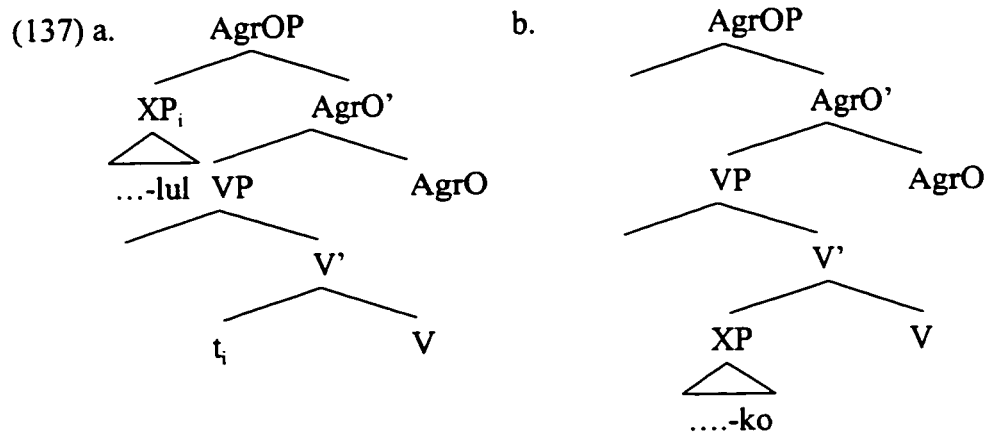
b. Snjóa leysir á fjallinu

snow-Acc melts on the mountain

According to Belletti (1988), the subject DPs in (136a) and (136b) are assigned inherent case by the verbs, dative and accusative, respectively. The subject DPs in (136) are also in the configuration where (structural) nominative can be assigned by the finite INFL. Belletti (1988) suggests that the inherent dative on the subject of (136a) and the inherent accusative on the subject of (136b) combine with the structural nominative assigned by INFL. Under Belletti's (1988) assumption that inherent case can combine with structural case, the object DP in (135b) manifests the possibility of combining inherent accusative and structural accusative.³⁸

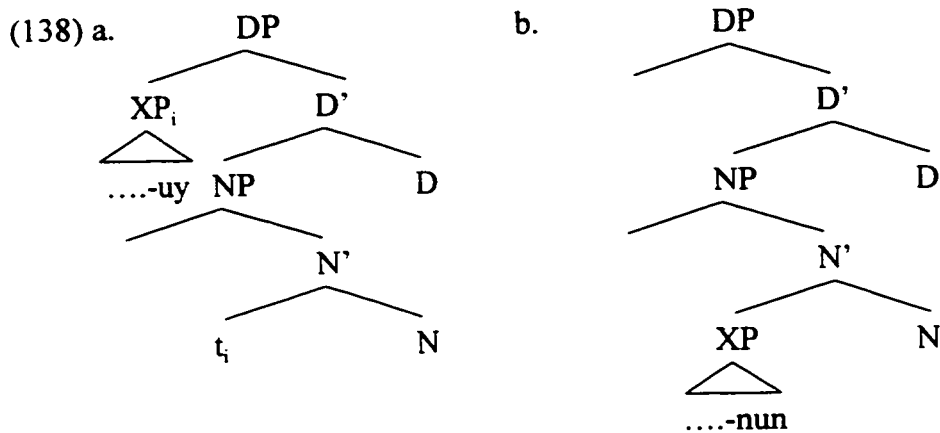
Under the proposed analysis of the complementizers *-ko* and *-nun* and the nominal case suffixes *-lul* and *-uy* presented in this chapter, the question of how the complement XP of a transitive verb can be licensed is no longer problematic since inherent case and structural case are overtly realized as different suffixes (in the lexicon). I argued that DPs headed by *-lul* or *-uy* are associated with structural case and CPs headed by *-ko* or *-nun*

with inherent case, which implies that the former must be licensed by functional categories and the latter by lexical categories. Consider the configurations in (137).



Under the proposed system of case licensing in which inherent and structural case are licensed by lexical and functional heads, respectively, it is already determined how the complement XPs in (137a) and (137b) can be licensed. The complement XP in (137a) must be licensed by the functional head AgrO since it is invariably associated with structural accusative, which is realized as the nominal suffix *-lul*. The DP may raise to the spec of AgrOP and enter into a checking relation with the functional head AgrO. The feature [+Acc_{sc}] of the DP is checked by AgrO in terms of the spec-head agreement. The complement XP in (137b), on the other hand, must be licensed by the lexical head V since it is associated with inherent accusative, which is realized as the verbal suffix *-ko*. Therefore the object DP is licensed by the verb in terms of the head-complement relation.

The same is true of complement XPs in nominal projections. Consider the configurations in (138).



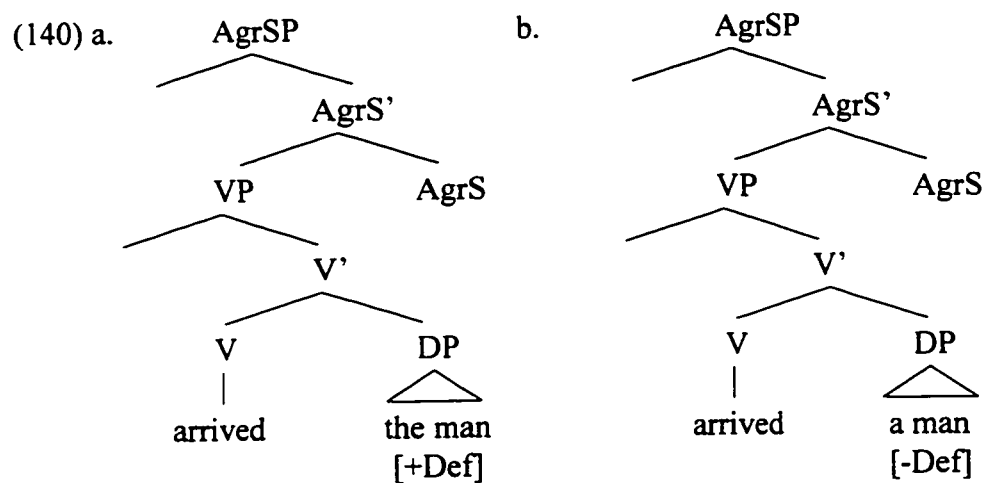
The complement XP in (138a) must be licensed by the functional head D in terms of spec-head agreement since it is associated with structural genitive, which is realized as *-uy*. The complement XP in (138b), on the other hand, must be licensed by the lexical head N in terms of the head-complement relation since it is associated with inherent genitive, which is realized as *-nun*.³⁹

Under the proposed system of case licensing, not only case licensors (=heads) but also case licensees (=complements) are involved in determining whether the complement XPs are licensed via inherent case checking or via structural case checking. As we have seen in 4.4, Belletti (1988) and Enç (1989) provide supporting evidence for the proposed analysis. Consider the examples in (139).

(139) a. e arrived [the man].

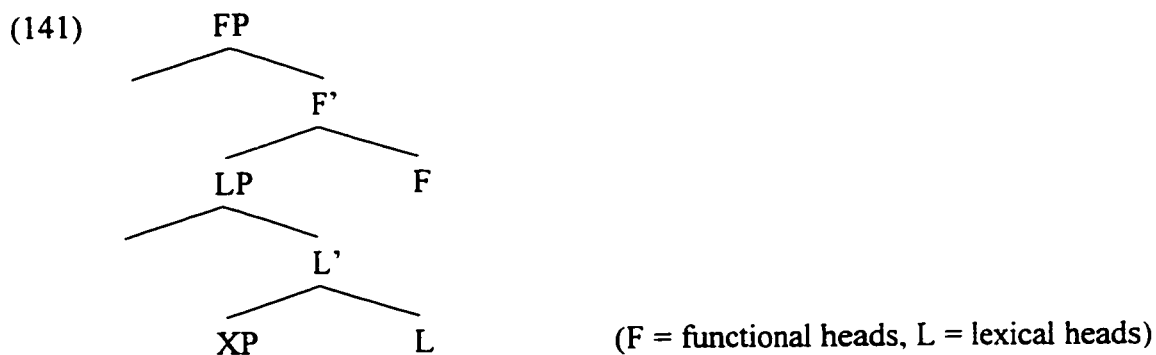
b. e arrived [a man].

Belletti (1988) argues that unaccusative verbs such as *arrived* in (139) may assign inherent partitive case to the complement. The indefinite DP *a man* in (139a) but not the definite DP *the man* in (139b) can be licensed via the checking of inherent partitive, which implies that it is the complement XPs that determine whether they can be licensed via inherent case checking. For certain properties of *a man* and *the man*, the former but not the latter can be licensed via inherent case checking. Consider how the complement DPs in (139) are licensed.⁴⁰



The complement DP *the man* in (140a), which is associated with the feature [+Def], may not be licensed via inherent case checking by the verb. It must be licensed via structural case checking and therefore it raises to the spec of AgrSP and is licensed by AgrS via the checking of (structural) nominative. The complement DP *a man* in (140b), which is associated with [-Def], on the other hand, can be licensed via inherent case checking by the verb.

To summarize, case licensing is determined not only by licensors but also by licensees. Consider the following configuration.



With respect to case licensors, the head F may license structural case in terms of the spec-head agreement and the head L may license inherent case in terms of the head-complement relation. With respect to case licensees, on the other hand, the complement XP is licensed by L when it is associated with inherent case and by F when associated with structural case.

4.6.2. Licensing of Checkers: Optionality of Feature-Checking

Under the proposed system of case licensing in which case licensees may be involved in determining the type of case licensing, i.e., structural or inherent case licensing, one thing still remains to be discussed. One of the fundamental assumptions in the checking theory is that features of functional heads as well as of lexical heads must be checked off. Let us take the feature [+Nom] in English as an example. Subject DP of a finite clause is associated with [+Nom]. The functional head T, on the other hand, carries [+Nom]. Not

only the feature of the DP but also the feature of the head T must be checked off in order for the derivation to converge.. Consider the examples in (142).

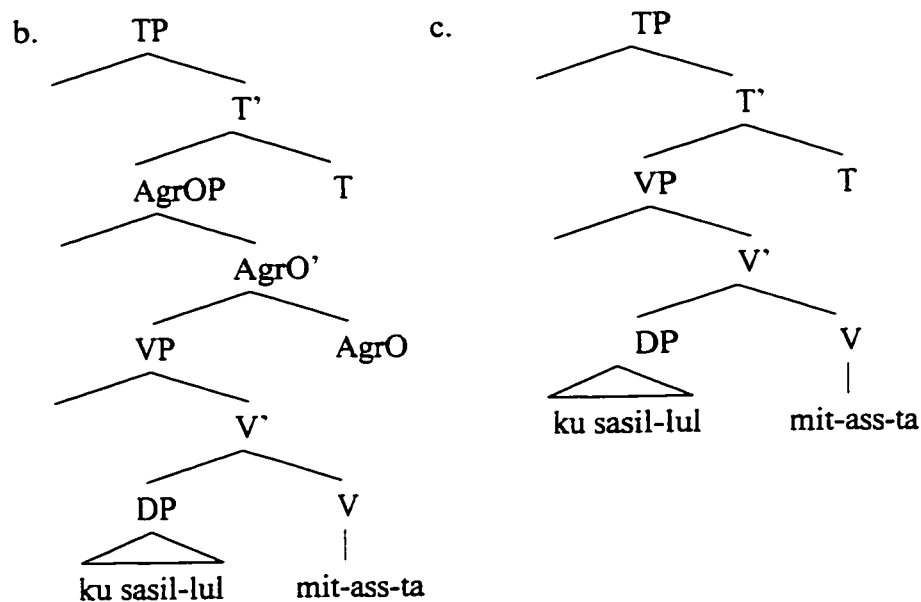
- (142) a. * e arrived a man.
 b. There arrived a man.
 c. A man arrived t.

Belletti (1988) argues that *a man* in (142b) can be licensed via inherent case checking by the verb. Given this, it is clear that *a man* in (142a) can be licensed in the same manner. The reason why (142a) is ungrammatical is because the feature [+Nom] of the finite T remains unchecked. In (142c), the feature [+Nom] of the T is checked against *a man* and the derivation converges.

Given this situation, there arises a question regarding the licensing of CPs via inherent case checking under the proposed analysis. I have claimed that CPs headed by *-ko* are licensed by the lexical head V. Now the question is how the feature [+Acc] of the functional head AgrO can be checked off. There seem to be two possible answers to the question. One is to assume that the projection of AgrOP is optional when a CP complement is selected and the other to say that features of functional heads may be optionally checked.

Let us consider the first alternative. Given the assumption that AgrOP is optional, there are two possible structures for (143a), i.e., one with AgrOP (143b) and one without AgrOP (143c).

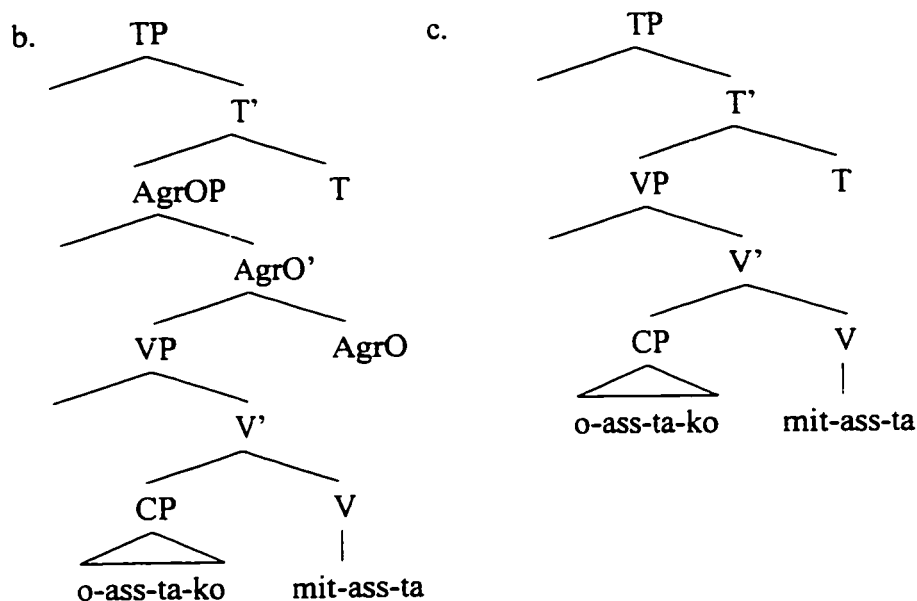
- (143) a. [ku sasil-lul] mit-ass-ta.
 the fact-Acc believe-Past-Dec
 'pro believed the fact.'



In (143b), the complement DP which is associated with [+Acc_{SC}] raises to the spec of AgrOP and the features [+Acc_{SC}] of the AgrO and the complement DP are checked off against each other and the derivation converges. In (143c), on the other hand, the feature [+Acc_{SC}] of the complement DP cannot be checked off and therefore the derivation crashes. Therefore we are led to assume (143b) over (143c) when a DP complement is selected.

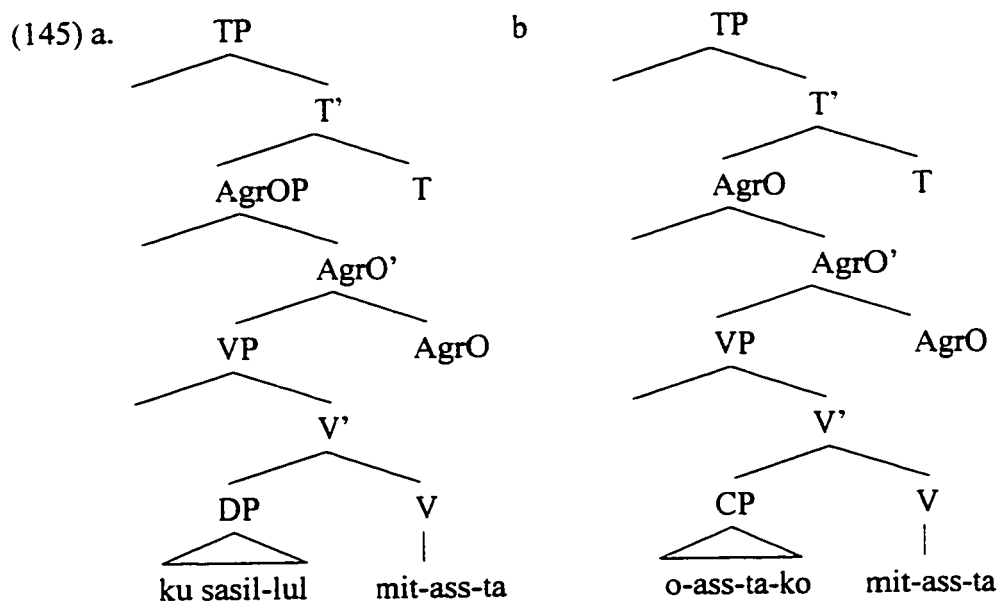
Now let us consider (144a) and its possible structures (144b) and (144c).

- (144) a. [Sue-ka o-ass-ta-ko] mit-ass-ta.
 Sue-Nom come-Past-Dec-C believe-Past-Dec
 'pro believed that Sue came.'



In (144b), the complement CP headed by *-ko* is associated with $[+Acc_{IC}]$. The case feature of the CP is checked by the matrix verb in terms of the head-complement relation. The functional head AgrO in (144b), on the other hand, carries $[+Acc_{SC}]$, which remains unchecked. Therefore the derivation crashes. In (144c), the complement CP is licensed by the matrix verb. Now the derivation converges since there is no projection of AgrO with $[+Acc_{SC}]$ to be checked. Therefore we are led to assume (144c) over (144b) when a CP complement is selected.

Now let us consider the second alternative. One may assume that case features of the functional heads, i.e., AgrO and D, are optionally checked in Korean. Consider (143b) and (144b), repeated here.



In (145a), the head AgrO serves to license the object DP and therefore the feature [+Acc_{SC}] is checked off. In (145b), on the other hand, the head AgrO does not license the object CP, which is licensed by the matrix verb. The feature [+Acc_{SC}] of the head Agr which remains unchecked does not cause the derivation to crash if we assume that it may be optionally checked.

A notion of the optionality of feature-checking is indeed required in order to account for various case alternations in Korean. First observe the examples in (146), which show that the embedded subject may be assigned nominative or accusative in the so-called ECM constructions.

(146) a. Joe-ka [Sue-ka yeppu-ta-ko] mit-nun-ta.

Joe-Nom Sue-Nom pretty-Dec-C believe-Pres-Dec

‘Joe believed that Sue is pretty.’

b. Joe-ka [Sue-lul yeppu-ta-ko] mit-nun-ta.

Joe-Nom Sue-Acc pretty-Dec-C believe-Pres-Dec

The nominative subject of the embedded CP in (146a) is licensed by the embedded AgrS, whereas the accusative subject of the embedded CP in (146b) is licensed by the matrix AgrO. Now let us suppose that the matrix AgrO in (146a) and the embedded AgrS in (146b) bear case features, i.e., [+Acc_{sc}] and [+Nom], respectively and that these features must be checked off for the derivations to converge. Under these assumptions, both (146a) and (146b) are wrongly predicted to be ungrammatical since neither the feature [+Acc_{sc}] of the matrix AgrS in (146a) nor the feature [+Nom] of the embedded AgrS in (146b) will be checked off. Therefore we need a notion of optional feature-checking to account for the case alternation in (146). Causative constructions also show nominative/accusative alternation as illustrated in (147).

(147) a. Joe-ka [Sue-ka o-key] ha-ass-ta.

Joe-Nom Sue-Nom come-C make-Past-Dec

‘Joe made Sue come.’

b. Joe-ka [Sue-lul o-key] ha-ass-ta.

Acc

The case alternations in (146) and (147) force us to assume some notion of the optionality in Korean.

Case alternations are not restricted to the embedded subject. Observe the examples in (148), which show nominative/accusative alternation for the embedded object in *sip-* constructions.

(148) a. Na-nun [pizza-lul mek-ko] sip-ta.

I-Top pizza-Acc eat-C want-Dec

‘I want to eat pizza.’

b. Na-nun [pizza-ka mek-ko] sip-ta.

Nom

The object of the embedded CP in (148a) is licensed by the embedded AgrO via structural accusative checking. The object of the embedded CP in (148b) is not licensed by the embedded AgrO since it is marked nominative not accusative. Then the feature [+Acc_{sc}] of the embedded AgrO will remain unchecked and therefore (148b) is wrongly predicted to be ungrammatical.

Let us consider more case alternations in Korean. Observe the examples in (149) which show that the subject of gerundive constructions shows nominative/genitive alternation.

(149) a. Joe-ka [apeci-ka chencay-i-si-ass-um-lul] mit-nun-ta.

Joe-Nom father-Nom genius-Cop-Hon-Past-NM-Acc believe-Pres-Dec

‘Joe believes that his father was a genius.’

b. Joe-ka [apeci-uy chencay-i-si-ass -um-lul] mit-nun-ta.

Joe-Nom father-Gen genius-Cop-Hon-Past-NM-Acc believe-Pres-Dec

The nominative subject of the embedded clause in (149a) is licensed by the embedded AgrS. The genitive subject of the embedded clause in (149b), on the other hand, is licensed by the functional head D under the proposed analysis. If we assume that the embedded AgrS bears [+Nom] both in (149a) and (149b) and that the feature [+Nom] must be checked off, then (149b) is wrongly predicted to be ungrammatical since the feature [+Nom] of the embedded AgrS will remain unchecked. The data in (149) therefore lead us to the conclusion that the feature of the embedded AgrS may be optionally checked off.

To summarize, the proposed analysis of the complementizers *-ko* and *-nun* as being associated with inherent case features is not incompatible with the checking theory in the Minimalist Program, given that a notion of optional projection or feature-checking is independently required in Korean.

4.7. Summary

I have argued that inherent case is uniformly licensed by lexical heads in terms of the θ -related head-complement relation, whereas structural case is licensed by functional heads in terms of the spec-head agreement. Specifically, I argued that structural accusative is licensed by the functional head AgrO and inherent accusative by the lexical head V. I also argued that structural genitive is licensed by the functional head D in terms of the spec-

head complement and inherent genitive by the lexical head N. Based upon these arguments, I proposed that the verbal suffixes *-ko* and *-nun* are the morphological realizations of inherent accusative and inherent genitive, respectively. I showed that this analysis is supported by the licensing of *-ko* in the passive sentences, the case drop phenomenon, the interactions of the case suffixes with the delimiters, and the internal morphology of the case suffixes and the delimiters.

Notes to Chapter 4

1. The term 'case assigner' in the Pre-Minimalist framework has been replaced by the term 'case checker' in the Minimalist Program. In this chapter, I will use a neutral term 'case licenser', which I think can accommodate both case assigner and case checker.
2. In Chomsky's (1981 and 1986a) inherent case approach to genitive, not only N but also A is a genitive case licenser. As pointed out by Abney (1987), however, it is yet to be accounted for why N can assign genitive in either direction, whereas A can assign genitive only in one direction as illustrated in (i) and (ii).
 - (i) a. the enemy's destruction
 b. the destruction of the city
 c. the city's destruction t
 - (ii) a. *John's proud
 b. proud of his son
 c. *his son's proud t
3. See Hwang (1997), who argues that the checking of nominative should be parametrized cross-linguistically.
4. It is not clear how possessive-marked DPs will be analyzed under the checking theory in the Minimalist Program.
5. A notable difference between genitive and nominative case assignment in Fukui (1986) and Abney (1987) is that in the former either the subject DP or the object DP can move to the spec of DP and be licensed by the head D, whereas in the latter the subject DP but not the object DP can move to the spec of IP and be licensed by the head INFL. I will not discuss why this is so.
6. See Guilfoyle, Huno, and Travis (1992) who suggest that two subject positions (spec of IP and spec of VP) may be licensed in some Austronesian languages.
7. Genitive is ignored in Woolford (1997).
8. One might argue that AgrS is distinguished from AgrO in Korean in the sense that the feature [+Hon] of AgrS is overtly realized as the verbal inflectional suffix *-si*, whereas the feature [+Hon] of AgrO is not morphologically realized but inherently marked on the verb. It is true that the feature [+Hon] of AgrO is not morphologically reflected but inherently marked on the verb. It is not necessarily true, however, that the feature [+Hon] of AgrS is always morphologically realized but not inherently marked on the verb. Observe the following examples.

- (i) a. *apeci-kkeyse pizza-lul capsusi-n-ta*
 father-Nom pizza-Acc eat (Hon.)-Pres-Dec
 ‘His father is eating pizza.’
- b. *chinku-ka pizza-lul mek-nun-ta.*
 friend-Nom pizza-Acc eat-Pres-Dec
 ‘His friend is eating pizza.’
- (ii) a. *apeci-kkeyse cumusi-n-ta.*
 father-Nom sleep-Pres-Dec
 ‘His father is sleeping.’
- b. *chinku-ka ca-n-ta.*
 friend-Nom sleep-Pres-Dec
 ‘His friend is sleeping.’

Note here that the verbal stems *capsusi-* and *cumusi-* happen to contain *-si*, which is homophonous with the honorific verbal suffix *-si*. There is evidence that *capsusi-* and *cumusi-* are not forms inflected for [+Hon] but verbal stems.

- (iii) a. *ka-(si)-ass-ta.*
 go-Hon-Past-Dec
- b. *cumu-*(si)-ass-ta.*
 sleep-Hon-Past-Dec

The status of *-si* in (iii) as an inflectional suffix is clear given that it can be separated from the stem. (iiib) clearly indicates that *-si* in (iiib) cannot be separated from the stem.

One might further argue that *cumu-* in (iiib) is inherently marked as [+Hon] and requires the honorific verbal suffix obligatorily. It seems to be a plausible assumption. Such an assumption, however, turns out to be supporting evidence that both subject and object agree with the verb in exactly the same manner, which is illustrated in (iv).

- (iv) a. *apeci-lul mosi-ko o-ass-ta.*
 father-Acc bring-C come-Past-Dec
 ‘pro brought his father.’
- b. *chinku-lul teri-ko o-ass-ta.*
 friend-Acc-bring-C come-Past-Dec
 ‘pro brought his friend.’

Mosi- in (iv) is a verbal stem, just as *capsusi-* in (ia) and *cumusi-* in (iia). If one argues that *capsusi-* and *cumusi-* are inflected forms, he/she must admit that *mosi-* in (iv) is also

an inflected form. In sum, it is quite plausible to argue that verbs agree with objects as well as subjects in Korean in the same manner.

Further there is evidence that the features of AgrS and AgrO need not be reflected in the same manner in Korean. We have seen that the feature [+Hon] is morphologically reflected on subject DPs but not on object DPs as illustrated in (v).

(v) a. apeci-kkeyse
father-Nom (Hon.)

b. chinku-ka
friend-Nom

(vi) a. apeci-lul
father-Acc

b. chinku-lul
friend-Acc

9. See Belletti (1988) and Woolford (1997) for the term 'inherent accusative.'

10. It has been noted that CPs and DPs have different external distributions in English (Stowell 1981 and Chomsky 1986a, among others). Observe the following examples.

(i) a. *He complained her rudeness
b. He complained of her rudeness
c. He complained that she was rude.

(ii) a. *He persuaded her the importance of going to college.
b. He persuaded her of the importance of going to college.
c. He persuaded her that it is important to go to college.

As illustrated in (i) and (ii), CPs are licensed in those configurations which trigger *of*-insertion, which seems to imply that they are licensed via inherent case checking by V. Note that the object DP in (ib) and the theme object DP in (iib) are argued to be licensed by the verbs in terms of inherent case checking. Now observe the examples in (iii).

(iii) a. *It is believed (of) the rumor.
b. It is believed that she is rude.

It is possible to assume that the complement CP in (iiib) is licensed by the passivized verb via inherent case checking.

11. See also Saito (1984) and Bittner and Hale (1996).

12. There exist a wide variety of variations regarding the case drop phenomenon in Korean, which I will not discuss. See Kim (1990) and Hong (1993) for more detailed discussions on this issue.

13. There seem to exist postpositions in Korean which can be dropped. This may weaken the argument presented in this section. It is not necessarily the case, however. First observe the following examples.

- (i) a. Joe-ka hakkyo-(ey) ka-ass-ta.
 Joe-Nom school-to go-Past-Dec
 'Joe went to school.'
- b. Joe-ka pancil-lul Sue-(eykey) cu-ass-ta.
 Joe-Nom ring-Acc Sue-to give-Past-Dec
 'Joe gave Sue a ring.'

The examples in (i) show that the inherent case markers *-ey* and *-eykey* can be dropped. It is not clear, however, whether it is indeed the inherent case makers that are dropped if we consider the fact that the inherent case markers *-ey* and *-eykey* in (i) are interchangeable with the nominal accusative marker *-lul* as illustrated in (ii).

- (ii) a. Joe-ka hakkyo-(lul) ka-ass-ta.
 Joe-Nom school-Acc go-Past-Dec
 'Joe went to school.'
- b. Joe-ka panci-lul Sue-(lul) cu-ass-ta.
 Joe-Nom ring-Acc Sue-Acc give-Past-Dec
 'Joe gave Sue a ring.'

Given the fact that *-ey* and *-eykey* may be interchangeable with *-lul*, it is not implausible to assume that it is the structural accusative marker *-lul*, not the inherent case markers that are dropped.

14. With regard to grammaticality judgments, there seems to exist a distinction between the (a) sentences and the (b) sentences in (47) and (48). The (a) sentences seem to be acceptable to some speakers, whereas the (b) sentences are not. The (a) sentences are marginally acceptable to me. What should be pointed out here is that there are not contexts in which CPs without *-ko* are preferred to or considered as good as CPs with *-ko*, whereas there do exist contexts in which DPs without *-lul* are preferred to or considered as good as DPs with *-lul*. See Yoon (1990) and Lim (1995), who argue that the verbal suffix *-ko* may be dropped in (47a) and (48a).

15. The accusative case suffix *-lul* seems to be retained in other contexts, for example, in echo questions. Observe the examples in (i).

- (i) a. Joe-ka Sue-lul manna-ass-e-yo.
 Joe-Nom Sue-Acc meet-Past-Part-SE
 ‘Joe met Sumi.’
- b. Sue-?(lul)-yo?
 ‘Sue?’

I have no answer to why the accusative suffix *-lul* tends to be dropped in some contexts but retained in others. Aside from the above question, however, the fact that *-lul* but not *-eykey* tends to be dropped in certain contexts provides supporting evidence for the proposed analysis.

16. The topic marker *-nun* should be distinguished from the complementizer *-nun*. The former can attach to both nominal and verbal projections, whereas the latter is restricted to verbal projections.

17. As pointed out by S.-W. Kim (p.c.), there seem to exist some postpositions which can be suppressed by the topic marker *-nun*. Observe the examples in (i).

- (i) a. Joe-ka Sue-eykey/nun panci-lul cu-ass-ta.
 Joe-Nom Sue-Dat/Top ring-Acc give-Past-Dec
 ‘Joe gave Sue a ring.’
- b. Joe-ka hakkyo-ey/nun ka-ass-ta.
 Joe-Nom school-Loc/Top go-Past-Dec
 ‘Joe went to school.’

The dative suffix *-eykey* in (ia) and the locative suffix *-ey* in (ib) may be suppressed by the topic marker and therefore the examples in (i) seem to be counterexamples to my argument. Note, however, that the postpositions *-eykey* and *-ey* in (i) may also be replaced by the accusative suffix *-lul*.

- (ii) a. Joe-ka Sue-lul panci-lul cu-ass-ta.
 Joe-Nom Sue-Acc ring-Acc give-Past-Dec
- b. Joe-ka hakkyo-lul ka-ass-ta.
 Joe-Nom school-Acc go-Past-Dec

It is not clear at the moment whether it is the postpositions *-eykey* and *-ey* or the accusative suffix *-lul* which is suppressed by the topic marker.

Now observe the examples in (iii), which suggest that it is not the postpositions but the accusative suffix which is suppressed by the topic marker.

- (iii) a. Joe-ka kyengchal-eykey/*lul/*nun sako-lul sinkoha-ass-ta.
Joe-Nom police-Dat/Acc/Top accident-Acc report-Past-Dec
'Joe reported the accident to the police.'
- b. Joe-ka hakkyo-ey/*lul/*nun tochakha-ass-ta.
Joe-Nom school-Loc/Acc/Top arrive-Past-Dec
'Joe arrived at school.'

Neither the dative suffix *-eykey* in (iiia) nor the locative suffix *-ey* in (iiib) can be replaced by the accusative suffix *-lul*. Now note that neither *-eykey* nor *-ey* in (iii) can be suppressed by the topic marker *-nun*. Now it becomes clear that the accusative suffix *-lul* but not the postpositions can be suppressed by the topic marker.

S.-W. Kim (p.c.) also pointed out that the locative suffix *-ey* may be suppressed even when it may not be replaced by the accusative suffix *-lul*. Consider the examples in (iv).

- (iv) a. Joe-ka cangca mit-ey/*lul/nun panci-lul sumki-ass-ta.
Joe-Nom box under-Loc/Acc/Top ring-Acc hide-Past-Dec
'Joe hid a ring under the box.'
- b. Joe-ka cangca yep-ey/*lul/nun sikye-lul sumki-ass-ta.
Joe-Nom box beside-Loc/Acc watch-Acc hide-Past-Dec
'Joe hid a watch beside the box.'

The locative suffix *-ey* in (iv) cannot be replaced with the accusative suffix *-lul* but may be suppressed by the topic marker. It seems to me that *-ey* can be suppressed by *-nun* in (iv) because the stem nouns *mit-* 'under' and *yep-* 'beside' are locative nouns themselves, which correspond to prepositions/postpositions in other languages.

18. See Lukoff (1993) who observes that the nominal case suffixes, the topic marker, and the delimiters are all mutually exclusive.

19. Korean employs two types of negation. Observe the examples in (i).

- (i) a. Sue-ka ani ka-ass-ta.
Sue-Nom not go-Past-Dec
'Sue didn't go.'
- b. Sue-ka ka-ci aniha-ass-ta.
Sue-Nom go-C not-Past-Dec

The types of negation in (ia) and (ib) are called short-form negation and long-form negation, respectively. Note in (ia) that long-form negation requires an additional verbal suffix, i.e., *-ci*. See Sells (1995) who defines the negative suffix *-ci* as COMP₁, compared to the verbal suffix *-ko* which he defines COMP₄. See Jung (1992) for a discussion on two types of negation in Korean. See also Jung (1992) for a discussion on two types of negation in Korean.

20. Given the morphological structures of the structural case suffixes and the inherent case suffixes in Korean, one might argue that in the lexicon the relevant features of the delimiter are added to N after inherent case features and before structural case features.

21. Emonds (1985) argues that complementizers are of the category P. Under his analysis of complementizers, it is quite natural to assume that complementizers share features with postpositions. Given the argument that postpositions are the realizations of inherent case, we are led to argue that complementizers are also associated with inherent case.

22. It is not the case that *-eykey* is always interchangeable with *-lul*. Normally, they are not interchangeable with each other, as illustrated in (i).

- (i) a. Joe-ka Sue-eykey/*lul mul-ass-ta.
Joe-Nom Sue-Dat/Acc ask-Past-Dec
'Joe asked Sue.'
- b. Joe-ka Sue-eykey/*lul pyunci-lul ponay-ass-ta.
Joe-Nom Sue-Dat/Acc letter-Acc send-Past-Dec
'Joe sent a letter to Sue.'

23. See Grimshaw (1991) and Bittner and Hale (1996) who argue that all the lexical heads, i.e., V, P, N, or A can assign inherent case. I will not discuss whether P is an inherent or a structural case licenser. See also Chomsky (1981 and 1986a) and Kayne (1984) on this issue.

24. Haegeman (1991) suggests that English has a default procedure of inserting the dummy preposition *of* when NP complements are not assigned Case by their lexical heads. The preposition *of* then assigns accusative case to the complements of the lexical heads.

25. Alternatives to the inherent case approach are suggested in Williams (1975), Jaeggli (1980) and Larson (1988). Following Williams (1979), Chomsky (1981) assumes the following structure of (79a).

- (i) John [_{VP} [_V gave Mary] a book].

Chomsky suggested that *Mary* is assigned structural case by the verb *gave* and *a book* is assigned structural case by *V'*. This analysis, however, cannot explain why the object *a book* cannot raise to the subject position in the passive sentence (80b).

26. The inherent case licensed by the verbs such as *give* in English will be referred to as inherent accusative or [+Acc_{IC}] since it is associated with theme. Structural accusative will be represented as [+Acc_{SC}].

27. I do not have an answer to the question why inherent case is overtly realized through the *of*-insertion in (84a) but not in (80a) and (81a).

28. *Of*-insertion is generally assumed to be the realization of inherent genitive assigned by N or A. Given that V also allows *of*-insertion, there arises a question regarding what type of case the inherent case licensed by V and realized via *of*-insertion is. One might define it as inherent genitive or inherent accusative. I will not discuss this matter.

29. See Baker (1988b) for the detailed discussion on differences between benefactive and instrumental DPs regarding case assignment. He argues that either the first object or the second object can be assigned structural case in (87b), whereas the first object is assigned structural case in (87a). The point that should be made here is that the verbs have the potential ability to license their complements via inherent case checking.

30. Some delimiters may co-occur with *-uy* but others such as *-to* and *-nun* may not. Observe the following example.

- (i) **pemhayng-to/nun-uy inceng*
 crime-Del/Top-Gen acknowledgment
 'the acknowledgment of only/at least the crime'

31. The verbal suffix *-nun* is not distinguished from postpositions in that neither can be replaced by a delimiter. They are distinguished from each other, however, since the latter but not the former can co-occur with a delimiter. One might argue that the above-mentioned distinction is attributed to the fact that *-nun* is licensed by N and postpositions by V. This seems to be a plausible argument, given that unlike *-nun*, the verbal suffix *-ko* which I argue to bear inherent accusative is not distinguished from postpositions. As we have seen in 4.3, both can co-occur with a delimiter.

32. Relative CPs headed by *-nun* seem to raise a problem in the proposed analysis. If we assume that relative CPs are adjuncts and therefore are not assigned a θ -role by the head N, it remains unaccounted for under the proposed analysis how relative CPs headed by *-nun* can be licensed by N in terms of the θ -related head-complement relation. See Stowell (1988) and Kayne (1994) who seem to provide a possible solution. Kayne (1994) argues

that relative CPs are complements. Stowell (1988), on the other hand, suggests that verbs may assign an inherent case to a DP which they do not θ -mark in Irish. This substantially weakens Chomsky's (1986a) Uniformity Condition.

33. It is quite controversial in the literature whether CPs in nominal projections are true arguments or just adjuncts. There exist two types of CPs which are normally licensed in nominal projections as illustrated in (i).

- (i) a. the belief [that Sue is smart]
- b. the woman [that is smart]

The embedded CP in (ia) is widely assumed to be an argument of the head noun, just as the embedded CP in (ii) is an argument of the head verb.

- (ii) Joe believed [that Sue is pretty].

The embedded CP in (ib), on the other hand, is widely assumed to be an adjunct to the head noun.

Kayne (1994) argues that the embedded CPs in (ia) and (ib) are both arguments. S.-W. Kim (p.c.), on the other hand, suggested to me that the embedded CPs in (ia) and (ib) might be adjuncts. The embedded CP in (ia) is distinguished from the embedded CP in (ii) in that the lexical complementizer *that* may be dropped in the latter but not in the former. If we assume that the embedded CP in (ia) is an adjunct, then it is well accounted for by the so-called Empty Category Principle why *that* cannot be dropped in (ia). Under the assumption that DP complements in nominal projections are arguments whereas CPs in nominal projections are adjuncts in Korean, it is also accounted for why the nominal suffix *-uy* but not the verbal suffix *-nun* cannot be dropped.

34. Chomsky (1981), on the other hand, defines genitive as structural.

35. As pointed out by Abney (1987), the subject of noun phrases but not the subject of adjectival phrases can be licensed via the POSS-insertion. This remains unexplained under Chomsky's (1986a) definition of inherent case licensers as [+N] categories. If we assume that there are two types of genitive, i.e., inherent and structural, on the other hand, it is accounted for why the subject of adjectival phrases cannot be licensed via the POSS-insertion. Structural genitive is licensed by the functional head D and therefore adjectival phrases do not allow genitive-marked subjects.

36. As an alternative, one might distinguish the genitive case assigned to the complement DP from the genitive case assigned to the subject and/or adjunct by arguing that the former is licensed by the lexical head N in terms of the head-complement relation, whereas the latter is licensed by the functional head D, although they are both realized as

the nominal suffix *-uy*. A similar analysis of genitive is suggested in Y.-J. Kim (1990), who distinguishes possessor DPs and adjunct DPs from θ -marked DPs. Consider the examples in (i).

- (i) a. Joe-uy puin
Joe-Gen wife
'Joe's wife'
- b. Joe-eykey-uy kyengko
Joe-to-Gen warning
'a warning to Joe'
- c. Kim-paksa-uy AIDS-uy yenku
Kim-Dr.-Gen AIDS-Gen study
'Dr. Kim's study of AIDS'

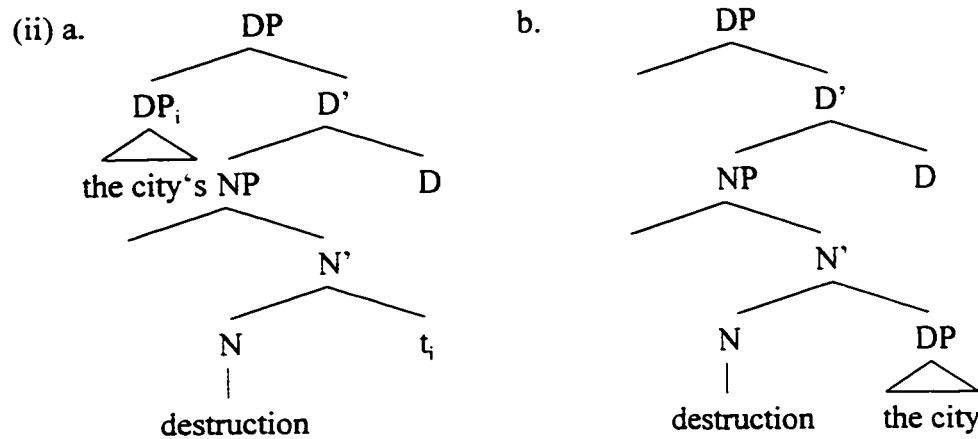
She suggests that the nominal suffix *-uy* is inserted at S-structure for the possessor DP in (ia) and the adjunct DP in (ib), whereas it is present at D-structure for the θ -marked DPs in (ic). Despite the distinction between θ -marked and non θ -marked DPs regarding the licensing of genitive case, she assumes that the genitive case on non θ -marked DPs are still inherent.

37. Quirky Case is defined by the appearance of oblique DPs in subject position where nominative is normally assigned.

38. Belletti (1988) suggests another possibility regarding the overlapping of case licensing. She suggests that inherent case assignment is an optional process. Quirky Case, however, cannot be accounted for by this assumption.

39. English genitive seems to be accounted for in the same manner under the Minimalist framework. Consider the examples in (i).

- (i) a. the city's destruction t
b. the destruction of the city



The complement DP in (iia) must be licensed by the functional head D since it is associated with structural accusative, which is realized as *-s*. The complement DP in (iib), on the other hand, must be licensed by the lexical head N since it is associated with inherent accusative, which is realized via *of*-insertion.

40. Irrelevant functional projections are omitted.

CHAPTER 5

ECM Constructions

5.1. Introduction

In Korean, the so-called Exceptional Case Marking (henceforth, ECM) is allowed in embedded tensed clauses (*-ko* constructions) but not in non-finite clauses, i.e., gerunds (*-um* constructions) and infinitives (*-ki* constructions) as illustrated in (1).

- (1) a. Joe-ka [Sue-lul yeppu-ta-ko] mit-nun-ta.
Joe-Nom Sue-Acc pretty-Dec-C believe-Pres-Dec
'Joe believes that Sue is pretty.'
- b. *Joe-ka [Sue-lul yeppu-um-lul] mit-nun-ta.
Joe-Nom Sue-Acc pretty-NM-Acc believe-Pre-Dec
'*Joe believes Sue's being pretty.'
- c. *Joe-ka [Sue-lul yeppu-ki-lul] kitayha-n-ta.
Joe-Nom Sue-Acc pretty-NM-Acc expect-Pre-Dec
'Joe expects Sue to be pretty.'

There arise two fundamental questions regarding ECM in Korean: (i) how the embedded subject (of a finite clause) is ECMed and (ii) why ECM is allowed in finite clauses but not in non-finite clauses. With respect to question (i), it has long been argued that the embedded subject raises to the spec of CP to be assigned accusative by the matrix V (Ahn

and Yoon 1989, Yoon 1990, and Lee 1992, among others). With respect to question (ii), Yoon (1993) suggests that the head COMP assigns accusative to the embedded subject in (1a) since it has a case-assigning feature, i.e., [-N], whereas the head COMP cannot in (1b) or (1c) since the head does not have the feature [-N].

In this chapter I will show that the analysis of the complementizer *-ko* as being associated with inherent accusative provides a principled account of the question (ii), i.e., why ECM in Korean takes place in finite clauses but not in non-finite clauses. With respect to the question (i), I assume with Chomsky (1992) that the embedded subject raises to the spec of the matrix AgrO to be licensed by the matrix AgrO. In chapter 4, I proposed that the complementizer *-ko* is associated with inherent accusative, which must be licensed by the lexical head V in terms of the head-complement relation, whereas the nominal suffix *-lul* is associated with structural accusative, which must be licensed by the functional head AgrO in terms of the spec-head agreement. Under this analysis, the embedded tensed CP in (1a), which is headed by the complementizer *-ko*, must be licensed by the matrix verb in terms of the head-complement relation, whereas the gerundive complement in (1b) and the infinitival complement in (1c), both of which are headed by the nominal suffix *-lul*, must be licensed by the matrix AgrO in terms of the spec-head agreement. Given this, the accusative subject of the embedded finite clause in (1a) can be licensed by the matrix AgrO, whereas those of the embedded non-finite clauses in (1b) and (1c) cannot since the matrix AgrO is already checked off against the entire complement clauses.

The organization of this chapter is as follows. In 5.2, I discuss characteristics of finite and non-finite clauses in Korean and English. I show that in Korean finite and non-finite clauses are distinguished in terms of external distributions, which is empirically evidenced by the fact that the former are headed by the verbal suffix *-ko* and the latter by the nominal suffix *-lul*. In English, on the other hand, finite and non-finite clauses are not distinguished in terms of external distributions. In 5.3, I discuss the structures of non-finite clauses, i.e., infinitive and gerund in Korean and English. Then I argue that infinitives and gerunds project DPs in Korean and CPs in English. Morphological evidence will be presented that non-finite clauses are DPs in Korean. In 5.4, I present an analysis of ECM in Korean.

5.2. Finite vs. Non-finite Clauses

In this section, I discuss the structures of non-finite clauses in Korean and English. I show that in Korean finite clauses are not distinguished from non-finite clauses in terms of the feature specifications of INFL but in terms of their external distributions. I also show that in English finite and non-finite clauses are distinguished in terms of the feature specifications of INFL but not in terms of their external distributions.

5.2.1. Features of INFL: Agreement and Tense

The categories Agr and T are specified for agreement and tense features. The heads Agr and T of a tensed clause in English, for example, are specified [+Agr] and [+tense], respectively, whereas those of non-finite clauses, i.e., infinitives and gerunds, are

specified [-Agr] and [-tense].¹ Therefore finite clauses contrast with non-finite clauses in English in terms of the feature specifications of the head INFL. This accounts for why the subject of a tensed clause is invariably assigned nominative, whereas the subject of a non-finite clause is invariably assigned accusative. The former is assigned nominative by the finite T, whereas the latter is assigned accusative by the matrix verb via ECM. Observe the examples in (2).

- (2) a. Sue believes [(that) he/*him is smart].
 b. Sue believes [him/*he to be smart].
 c. Sue remembers [him/*he being smart].

The nominative-marked subject of the embedded tensed clause in (2a) is licensed by the embedded T since the head T bears [+tense], which is assumed to be responsible for nominative (Chomsky 1992).² The embedded subject DPs in (2b) and (2c), on the other hand, cannot be assigned nominative by the embedded T since the T lacks [+tense]. Therefore the subject DPs must be assigned accusative by the matrix verbs via Exceptional Case Marking. The distinction between finite and non-finite clauses in English therefore reduces to the distinction between them in terms of agreement and tense features.

Korean differs from English in that both finite and non-finite clauses may have the same agreement and tense features. Honorific agreement and past tense are overtly realized as the verbal suffixes, *-si* and *-ass*, respectively. Those verbal suffixes are licensed both in finite and non-finite clauses as illustrated in (3).³

- (3) a. o-si-ass-ta.
 come-Hon-Past-Dec
- b. o-si-ass-um
 come-Hon-Past-NM
- c. o-si-ass-ki
 come-Hon-Past-NM

Under the widely accepted argument that the feature [+Agr] is responsible for nominative in Korean (Yin 1984, Han 1987, Choe 1988, Yoon 1990, and Kim 1996), it is predicted that both tensed and non-finite clauses allow nominative subject.⁴ This prediction turns out to be correct as illustrated in (4).

- (4) a. Joe-ka [apeci-ka ka-si-ass-ta-ko] mit-ass-ta.
 Joe-Nom father-Nom go-Hon-Past-Dec-C believe-Past-Dec
 ‘Joe believed that his father went.’
- b. Joe-ka [apeci-ka ka-si-ass-um-lul] incengha-ass-ta.
 Joe-Nom father-Nom go-Hon-Past-NM-Acc admit-Past-Dec
 ‘Joe admitted his father’s having gone.’
- c. Joe-ka [apeci-ka ka-si-ass-ki-lul] wenha-ass-ta.
 Joe-Nom father-Nom go-Hon-Past-NM-Acc want-Past-Dec
 ‘Joe wanted his father to have gone.’

The embedded clause in (4a) is a regular tensed clause headed by the verbal suffix *-ko*. Embedded clauses headed by the so-called nominalizers *-um* and *-ki* as in (4b) and (4c) are referred to as gerunds and infinitives, respectively. The subject DP of the gerund in (4b) and that of the infinitive in (4c) are indeed assigned nominative, just as the subject DP of the tensed clause in (4a) is. In short, non-finite clauses in English do not bear [+Agr] and [+T] and therefore do not allow nominative subject, whereas non-finite clauses in Korean may bear [+Agr] and [+T] and thus allow nominative subject.

5.2.2. External Distribution

It has long been noted that clauses and DPs show different distributions in English (Horn 1975, Stowell 1981, Emonds 1984, Safir 1985, and Abney 1987). In English, non-finite clauses pattern with finite clauses in terms of their external distributions. There are certain syntactic positions in which DPs but not clauses may be licensed.⁵

- (5) a. *Did [that John is rude] bother you?
 b. *Would [for John to be rude] bother you?
 c. *Did [John being rude] bother you?
 d. Did [John's rudeness] bother you?
- (6) a. *It is [that John is rude] that bothered me.
 b. *It is [for John to be rude] that would bother me.
 c. *It is [John being rude] that bothered me.
 d. It is [John's rudeness] that bothered me.

- (7) a. *Mary considers [that John is rude] to be stupid.
 b. *Mary considers [for John to be rude] to be stupid.
 c. *Mary considers [John being rude] to be stupid.
 d. Mary considers [John's rudeness] to be stupid.

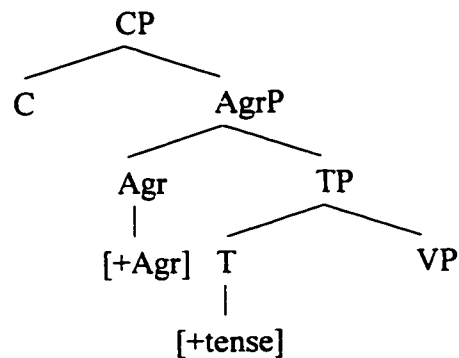
Neither finite nor non-finite clauses may be licensed in inverted subject position (5), in topic position of cleft sentence (6), or in embedded subject position (7). Regular DPs (and POSS-ING constructions) are licensed in those positions as illustrated in the (d) examples.⁶

There are also syntactic configurations in which clauses but not noun phrases may be licensed. Both finite and non-finite clauses may be licensed in extraposed position, whereas noun phrases may not. Observe the examples in (8).

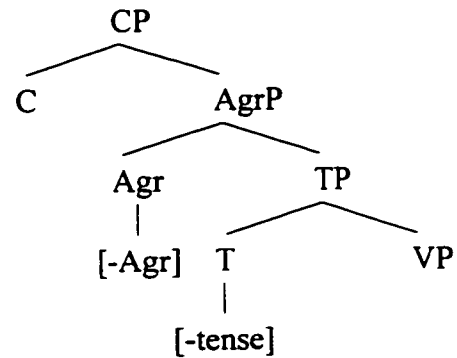
- (8) a. It bothered me [that John is rude].
 b. It would bother me [for John to be rude].
 c. It is no use [PRO being rude].
 d. *It bothered me [John's rudeness]

In short, non-finite clauses show the same external distributions as tensed clauses in English, although they are distinguished in terms of whether the subject can be assigned nominative or not. This suggests that finite and non-finite clauses are of the same projections, i.e., CPs.⁷

(9) a. finite clause



b. non-finite clause



Now let us consider non-finite clauses in Korean. We have seen in 5.2.1 that finite and non-finite clauses are not distinguished in Korean in terms of agreement and tense features. Finite and non-finite clauses, however, are distinguished from each other in terms of their external distributions, i.e., finite clauses are headed by verbal suffixes, whereas non-finite clauses are headed by nominal suffixes. In this respect, non-finite clauses pattern with regular DPs. Consider the examples in (10) - (12).

(10) a. [pemhayng-lul] incengha-ass-ta.

crime-Acc admit-Past-Dec

'pro admitted the crime.'

b. [coffee-lul] wenha-ass-ta.

coffee-Acc want-Past-Dec

'pro wanted coffee.'

- (11) a. [apeci-ka ka-si-ass-um-lul/*ko] incengha-ass-ta.
 father-Nom go-Hon-Past-NM-D/C admit-Past-Dec
 ‘pro admitted his father’s having gone.’
- b. [apeci-ka ka-si-ass-ki-lul/*ko] wenha-ass-ta.
 father-Nom go-Hon-Past-NM-D/C want-Past-Dec
 ‘pro wanted his father to go.’
- (12) a. [Sue-ka ka-ass-ta-ko/*lul] incengha-ass-ta.
 Sue-Nom go-Past-Dec-C/D acknowledge-Past-Dec
 ‘pro acknowledged that Sue went.’
- b. [kati ka-ca-ko/*lul] ceanha-ass-ta.
 together go-Prop-C/D suggest-Past-Dec
 ‘pro suggested that they go together.’

The object DPs in (10) are headed by the nominal suffix *-lul*. The embedded tensed clauses in (12), on the other hand, are headed by the verbal suffix *-ko*. Now observe the examples in (11). The embedded non-finite clauses are headed by the nominal suffix *-lul*, not by the verbal suffix *-ko*. This is an indication that the embedded non-finite clauses in (11) have the same external distribution as the object DPs in (10).

I have argued in chapter 2 that nominal suffixes including the so-called case suffixes are of the category D and verbal suffixes including the so-called subordinators are of the category C. Given this, the finite clauses headed by the verbal suffix *-ko* in (12) are predicted to be CPs, whereas the non-finite clauses headed by the nominal suffix *-lul*

in (11) are DPs. Based upon the fact that non-finite clauses are headed by the nominal suffixes, I argue that they project DPs in Korean. Non-finite clauses can also be headed by other nominal suffixes such as *-ka* and *-uy*, which are the realizations of nominative and genitive. They can also be headed by postpositional suffixes such as *-ey*. Observe the examples in (13).

- (13) a. [apeci-ka ka-ass-um-uy] inceng
 father-Nom go-Past-NM-Gen acknowledgment
 ‘the acknowledgment of his father’s having gone’
- b. [Sue-ka ka-ass-um-ka] motu-eykey ali-eci-ass-ta
 Sue-Nom go-Past-NM-Nom everybody-Dat inform-Pass-Past-Dec
 ‘Sue’s having gone was known to everybody.’
- c. [Sue-ka ka-ass-um-ey] motu-ka nola-ass-ta
 Sue-Nom go-Past-NM-at everybody-Nom be-surprised-Past-Dec
 ‘Everybody was surprised at Sue’s having gone.’

The fact that non-finite clauses in Korean are headed by a wide variety of nominal suffixes such as case suffixes and postpositions is a strong indication that the entire clauses project DPs.

5.3. DP Analysis of *-Um* and *-Ki* Constructions

Adopting Abney’s (1987) D-IP analysis of English POSS-ING constructions, I propose that non-finite clauses in Korean project DPs whose head D takes an MP complement. I

will show that non-finite clauses in Korean share nominal properties with English POSS-ING constructions and present morphological evidence for the proposed D-MP analysis of non-finite clauses in Korean.

5.3.1. Abney (1987): D-IP Analysis of English POSS-ING

It has long been noted that English POSS-ING constructions have both nominal and verbal properties (Horn 1975, Schachter 1975, Abney 1987, Suzuki 1988, and Jeong 1989, among others). With regard to internal structure, POSS-ING constructions are similar to tensed and infinitival clauses. Observe the following examples.

- (14) a. I acknowledge [my having perhaps been mistaken].
 b. I was surprised at [the game's having been canceled because of the storm].
 c. [John's refusing the offer]

As illustrated in (14a) and (14b), POSS-ING constructions allow not only certain auxiliary verbs but also sentential adverbs, which suggests that they are at least IPs. (14c), on the other hand, shows that the object DP is assigned accusative by the verb, which suggests that they contain at least a VP.

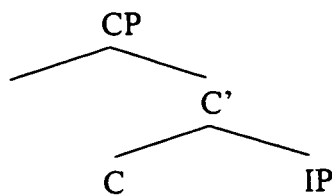
POSS-ING constructions, however, behave like DPs in terms of their external distributions. Observe the examples in (15).

- (15) a. Did [John's being rude] bother you?
 b. It is [John's being rude] that bothered me.
 c. Mary considers [John's being rude] to be stupid.
 d. *It bothered me [John's being rude].

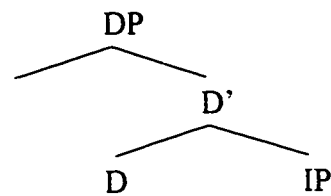
Like regular DPs, POSS-ING constructions may occur in inverted subject (15a), topic position (15b), and embedded subject position (15c), whereas they may not occur in extraposed position (15d).

The data in (14) and (15) led Abney (1987) to propose that POSS-ING constructions project DP whose head D takes an IP complement. The dual properties of POSS-ING constructions can be well accounted for by his D-IP analysis. Compare (16a) and (16b).⁸

(16) a. tensed clause/infinite



b. POSS-ING



5.3.2. POSS-ING and -Um and -Ki Constructions

Korean gerunds and infinitives share many characteristics with English POSS-ING constructions. First of all, the so-called nominalizers *-um* and *-ki* pattern with English gerundive suffix *-ing* in that both may serve as lexical nominalizers, which convert verbs into nouns. Observe the following examples.

- (17) a. sulph-um ‘sadness’, kipp-um ‘happiness’, el-um ‘ice’,
to be sad-NM to be happy-NM to freeze-NM
- ul-um ‘a cry’, cuk-um ‘death’, nol-um ‘gambling’
to cry-NM to die-NM to play-NM
- b. talli-ki ‘race’, po-ki ‘example’, nophittwi-ki ‘high jump’,
to run-NM to watch-NM to jump high-NM
- kulk-ki ‘thickness’ malha-ki ‘speaking’, culnum-ki ‘ropeskipling’
to be thick-NM to speak-NM to jump rope-NM

- (18) buildings, readings, writings, findings, meetings

In (17a) and (17b), the nominalizers *-um* and *-ki* are attached to non-inflected verbal stems and create deverbal nouns, just as *-ing* in (18). It is clear at this point that *-ing* and *-um/ki* share certain nominal properties. This type of nominalization is referred to as lexical nominalization (Yoon 1989).

There is another type of nominalization referred to as syntactic nominalization. In syntactic nominalization, both POSS-ING constructions and *-um* and *-ki* constructions license accusative objects. Compare the examples (19) with (13c).

- (19) a. Joe-ka Sue-lul manna-ass-um
Joe-Nom Sue-Acc meet-Past-NM
‘Joe’s having met Sue.

- b. sangtaypang-lul al-ki
 opponent-Acc know-NM
 ‘to know the opponent’

The data in (19) show that Korean gerunds and infinitives contain at least a VP, just as English POSS-ING constructions. Further, *-um* and *-ki* constructions allow sentential adjuncts as illustrated in (20).

- (20) a. pi-ka o-ase hakkyo-ey an ka-um
 rain-Nom come-because school-to not go-NM
 ‘pro not going to school because it is raining’
- b. Na-nun [Sue-ka eri-ciman iki-ki-lul] kitayha-ass-ta.
 I-Top Sue-Nom young-though win-NM-Acc expect-Past-Dec
 ‘I expected Sue to win although she is young.’

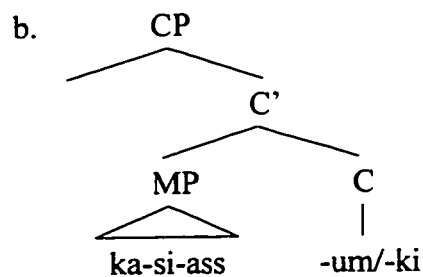
The fact that *-um* and *-ki* constructions allow tense and agreement suffixes along with the fact that they license sentential adverbs and accusative objects strongly suggests that they are at least MPs.

In sum, English POSS-ING constructions and Korean *-um* and *-ki* constructions exhibit dual properties, i.e., nominal and verbal properties. They pattern with regular DPs in that they show the same external distributions, whereas they pattern with clauses in that they allow sentential adverbs and auxiliary verbs. Based upon these observations, I will propose D-MP analysis of *-um* and *-ki* constructions.

5.3.3. D-MP Analysis of *-um* and *-ki* Constructions

It has long been assumed that the nominalizers *-um* and *-ki* are the heads of the entire gerundive and infinitival clauses (Choe 1988 and Yoon 1993, among others). Consider the example in (21a) and the structure of *-um* and *-ki* constructions in (21b), which is widely accepted in the literature.

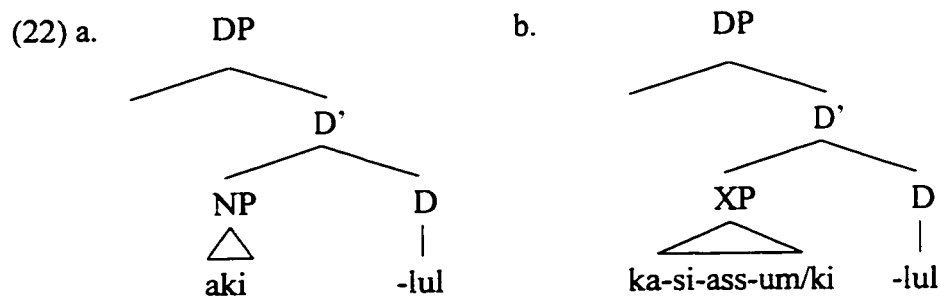
(21) a. *ka-si-ass-um/ki-lul*
 go-Hon-Past-NM-Acc



Yoon (1993) argues that the nominalizers are complementizers with the feature [+N], compared to the verbal suffixes *-ko* and *-nun*, which he argues to be complementizers with the feature [-N].

Note, however, that the nominalizers *-um* and *-ki* are followed by the accusative suffix *-lul* in (21a). In fact, little attention has been paid to the nominal suffixes that follow the nominalizers. Given that Korean is head-final, it seems more plausible to argue that it is not the nominalizers *-um* and *-ki* but the case suffix *-lul* that is the head of the non-finite clauses in (21a). Extending Ahn and Yoon's (1989) and Bak's (1990) argument that the nominal case suffixes are of the category D, I claim that the head of -

um and *-ki* constructions is not the nominalizers *-um* and *-ki* but the case suffixes appearing in the clause-final position. In short, the case suffix *-lul* in (21a), which is the head D, heads the entire *-um* and *-ki* constructions, which implies that they project DPs. Compare the structure of regular DPs and that of Korean non-finite clauses which I am proposing.

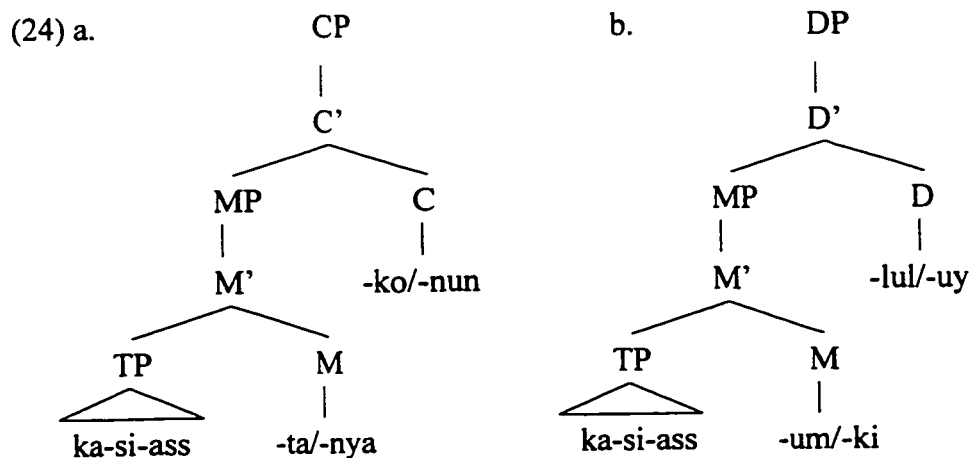


The head D in (22a) takes an NP complement, whereas the head D in (22b) selects an *-um* or *-ki* construction as complement.

Now let us consider the categorial status of 'XP' in (22b). The verbal morphology of gerunds and infinitives clearly indicates that the XP should be MP (=Mood Phrase), which implies that the nominalizers themselves are the head MOOD. This is empirically evidenced by the fact that the nominalizers *-um* and *-ki* occupy the same morphological position as the so-called sentential endings which are widely argued to be the head MOOD (Ahn and Yoon 1989). Consider the internal morphological structures of finite and non-finite clauses in Korean.⁹

- (23) a. ka -si -ass -ta -ko/nun
 ka -si -ass -nya -ko/nun
 ka -si - ϕ -ca -ko/nun
 ka -si - ϕ -la -ko/nun
- b. ka -si -ass -um -lul/uy
 ka -si -ass -ki -lul/uy

The inflectional morphology of the verbal projections in (23) clearly shows that the nominalizers *-um* and *-ki* occupy the same morphological position as the sentential endings *-ta*, *-nya*, *-ca*, and *-la*, which strongly suggests that *-um* and *-ki* are of the same category as the sentential endings, i.e., MOOD. The inflected verbal complex *ka-si-ass* in (23) projects TP, which serves as complement to the head MOOD. Therefore it is quite plausible to argue that the nominalizers *-um* and *-ki* are the head MOOD. Based upon this, I propose that non-finite clauses containing the nominalizers *-um* and *-ki* are DPs whose head selects an MP complement. Consider the structures in (24).



The structure (24b) is parallel to that of POSS-ING constructions in English suggested by Abney (1987).

The proposed analysis of non-finite clauses as DPs is empirically supported by the fact that the subject of *-um* constructions can be assigned genitive. Observe the example in (25).

- (25) [Sue-ka/uy enehak-lul cenkongha-um-nun] Chomsky ttaymun-i-ta.
 Sue-Nom/Gen linguistics-Acc major-NM-Top Chomsky because-Cop-Dec
 ‘Sue’s majoring linguistics is because of Chomsky.’

I have argued in chapter 4 that structural genitive realized as the nominal suffix *-uy* is licensed by the functional head D. Under the proposed analysis of non-finite clauses, the case alternations in (25) are well accounted for. The genitive-marked subject DP of the embedded *-um* construction is licensed by the functional head D in terms of the spec-head agreement, whereas the nominative-marked subject is licensed by the embedded AgrS in terms of the spec-head agreement.¹⁰

5.3.4. N-Features of *-Um* and *-Ki*

I have argued in chapter 4 that the interrogative ending *-nya* is underspecified for N-features so that the projections of *-nya* can be selected by either [+N] or [-N] categories. In this section, I argue that unlike *-nya*, the nominalizers *-um* and *-ki* are specified as [+N] and that the projections of *-um* or *-ki* can serve as complement to [+N] but not [-N]

categories. Consider the N-feature specifications of various mood suffixes (26) and case suffixes (27) under the proposed analysis.

- (26) a. *-ta, -ca, -la* [-N, +V]
 b. *-nya* [α N, +V]
 c. *-um, -ki* [+N, +V]

- (27) a. *-ko, -nun* [-N, +V]
 b. *-lul, -uy* [+N, -V]

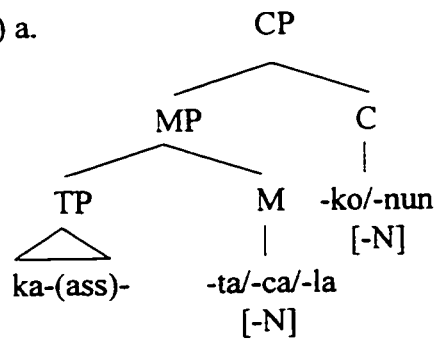
In chapter 3, I have proposed a constraint on head-complement relation within an extended projection, repeated here.

- (28) a. [+N] heads cannot select as complement the maximal projection of a [-N] head.
 b. [-N] heads cannot select as complement the maximal projection of a [+N] head.

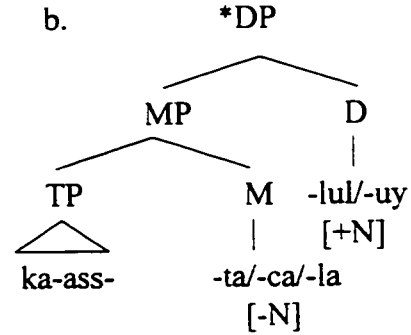
According to (28a), the nominal case suffixes such as *-lul* and *-uy* can select the projections of the nominalizers *-um* or *-ki* but not the projections of the sentential endings *-ta*, *-ca*, or *-la* since the case suffixes and the nominalizers are [+N] categories and the sentential endings, on the other hand, [-N] categories. According to (28b), the subordinators *-ko* and *-nun* can select the projections of *-ta*, *-ca*, or *-la* but not the projections of *-um* or *-ki* since the subordinators and the sentential endings are [-N]

categories, whereas the nominalizers are [+N] categories.¹¹ Consider the configurations in (29) and (30).¹²

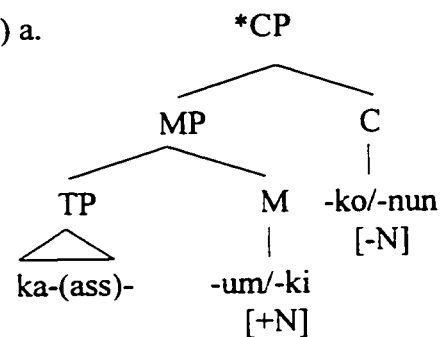
(29) a.



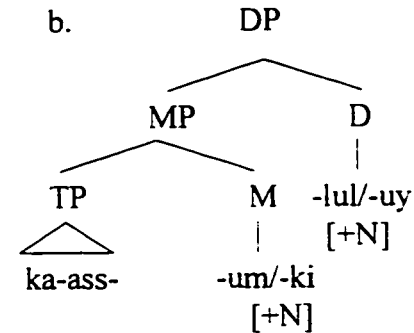
b.



(30) a.



b.



The constraint (28) predicts that other nominal suffixes such as nominative suffix *-ka* and postposition *-ey* select the projections of the nominalizers *-um* and *-ki* but not those of the sentential endings *-ta*, *-ca*, and *-la*. This prediction is confirmed by the examples in (31b) and (31c).

(31) a. [Sue-ka o-ass-um-ka] motu-eykey ali-eci-ass-ta.

Sue-Nom come-NM-Nom everybody-Dat inform-Pass-Past-Dec

‘Sue’s having arrived was known to everybody.’

b. [Sue-ka o-ass-um-ey] motu-ka nola-ass-ta.

Sue-Nom come-Past-NM-at everybody-Nom be suprised-Past-Dec

‘Everybody was surprised at Sue’s having arrived.’

It is quite clear that the nominative suffix *-ka* and the postposition *-ey* share [+N] feature with the accusative suffix *-lul* and the genitive suffix *-uy*. I have argued in chapter 2 that postpositions as well as case suffixes are of the category D, which implies that the embedded non-finite clauses in (31) project DPs.

5.4. Inherent Case Approach to ECM Constructions

In this section, I present an analysis of ECM constructions in Korean by proposing that a CP complement can be licensed by the matrix verb in terms of inherent accusative checking, whereas the embedded subject can be licensed by the matrix AgrO via structural accusative checking. A DP complement, on the other hand, must be licensed by the matrix AgrO via structural accusative checking. Given this, the embedded subject of the DP complement cannot be licensed by the matrix AgrO. This provides a principled account of why Korean allows ECM in tensed clauses but not in non-finite clauses.

5.4.1. ECM in English and Korean

In English, the subject of an embedded clause is assigned accusative via ECM when the subject cannot be assigned case clause-internally. ECM is therefore restricted to the subject of non-finite clauses in English since the subject is not assigned case clause-

internally. ECM is not allowed in tensed clauses since the embedded subject can and/or must be assigned case clause-internally, i.e., nominative by the embedded T. This point is illustrated in (32).

- (32) a. Joe believes [her/*she to be smart].
 b. Joe remembers [her/*she being smart].
 c. Joe believes (that) she/*her is smart.

The standard account of the ECM constructions as suggested in Chomsky (1981) is that ECM verbs trigger CP-deletion and assign accusative to the embedded subject under government.¹³

This should be reinterpreted in the Minimalist version of case theory such that the embedded subject with the feature [+Acc] raises to the spec of the matrix AgrO and the [+Acc] features on the subject and the matrix AgrO are checked off against each other.¹⁴ In the Minimalist framework, the distinction between (32a and b) and (32c) reduces to the assumption that the embedded T in (32c) is finite and thus bears [+Nom], whereas the embedded T in (32a) and (32b) is not finite and therefore does not bear [+Nom]. The [+Nom] feature of the finite T should be checked off. Therefore it requires a nominative DP in the specifier position. The feature [+Nom] of the embedded T will remain unchecked if the embedded subject does not bear [+Nom]. If we assume that the embedded subject bears [+Acc], for example, the feature [+Nom] of the embedded T remains unchecked and therefore the derivation crashes. The embedded T in (32c), on the

other hand, does not bear [+Nom] to be checked off and therefore does not require a nominative DP in the specifier. Therefore the accusative-marked subject can raise to the specifier of the matrix AgrO and the feature [+Acc] of the subject is checked off against the matrix AgrO.

Now let us discuss ECM constructions in Korean. First, observe the examples in (33), which show that ECM is restricted to tensed clauses in Korean.

- (33) a. Joe-ka [Sue-lul yeppu-ta-ko] mit-nun-ta.
 Joe-Nom Sue-Acc pretty-Dec-C believe-Pres-Dec
 'Joe believes that Sue is pretty.'
- b. *Joe-ka [Sue-lul yeppu-um-lul] mit-nun-ta.
 Joe-Nom Sue-Acc pretty-NM-Acc believe-Pre-Dec
 '*Joe believes Sue's being pretty.'
- c. *Joe-ka [Sue-lul yeppu-ki-lul] kitayha-n-ta.
 Joe-Nom Sue-Acc pretty-NM-Acc expect-Pre-Dec
 'Joe expects Sue to be pretty.'

The subject DP of the embedded tensed clause in (33a) can be assigned accusative, whereas the subject DPs of the embedded non-finite clauses in (33b) and (33c) cannot. Note that the presence of an overt complementizer does not prevent the embedded subject from being assigned accusative by the matrix verb in (33a).¹⁵

Given the ECM phenomenon in Korean as illustrated in (33), there arise two fundamental questions as stated in (34).

(34) a. Why does ECM take place in tensed but not in non-finite clauses?

b. How does ECM take place in tensed clauses?

The question (34b) has attracted relatively much attention (Hong 1985, Yoon 1989, Lee 1992, and Yoon 1993, among others). The standard account suggested by Chomsky (1981) cannot apply to the ECM constructions in Korean. First of all, Korean ECM differs from English ECM in that ECM takes place in Korean although the embedded subject may be assigned case clause-internally, i.e., it may be assigned nominative by the embedded AgrS. Compare (35) with (33a).

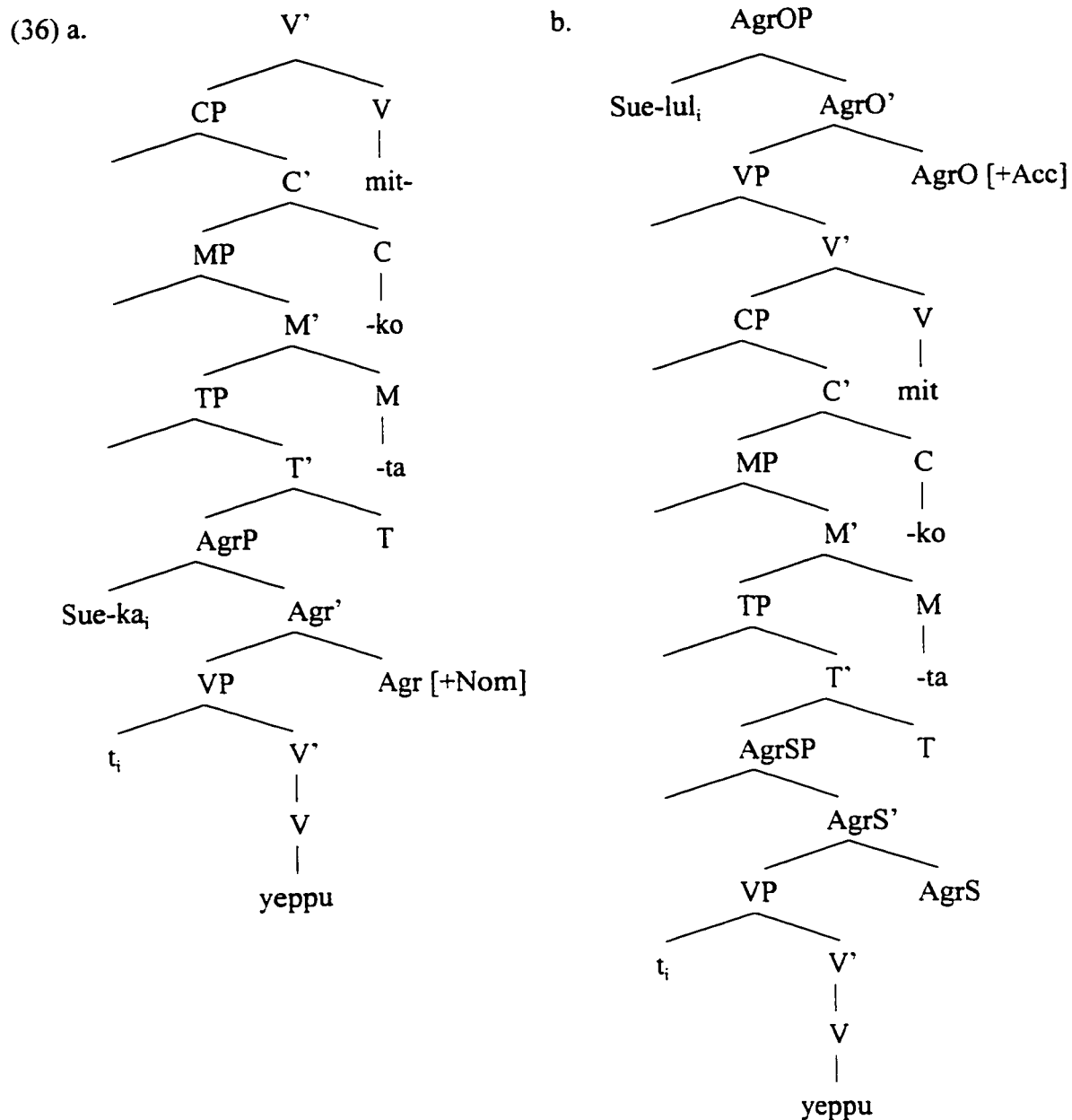
- (35) Joe-ka [Sue-ka yeppu-ta-ko] mit-nun-ta.
 Joe-Nom Sue-Nom pretty-Dec-C believe-Pres-Dec
 'Joe believes Sue to be pretty.'

Another puzzling problem in Korean ECM constructions is that the presence of an overt complementizer does not block ECM. In order to account for this, various analyses have been provided. Hong (1985), for example, suggests that the overt complementizer is lowered and does not block the matrix V from governing the embedded subject. Yoon (1989) and Lee (1992), on the other hand, suggest that the embedded subject raises to the spec of the embedded CP to be assigned accusative by the matrix V under government. Yoon (1993), on the other hand, suggests that the overt complementizer, which bears [-N] feature, can assign accusative to the embedded subject. Under the Minimalist framework, I will assume that the embedded subject may raise to the specifier of the matrix AgrO.

5.4.2. Analysis of Korean ECM

Compared to the question (34b), little attention has been paid to the question (34a). In this section, I will present an inherent case approach to Korean ECM. I have proposed in chapter 4 that CPs headed by the complementizer *-ko* are associated with inherent accusative. I have also argued in 5.3 that finite and non-finite clauses in Korean project CPs and DPs, respectively. I will show how the analysis of the verbal suffix *-ko* proposed in chapter 4 can account for why ECM is restricted to finite clauses in Korean.

Let us consider the example (33a) and (35) again. I posit the configurations (36a) and (36b) for (35) and (33a), respectively.

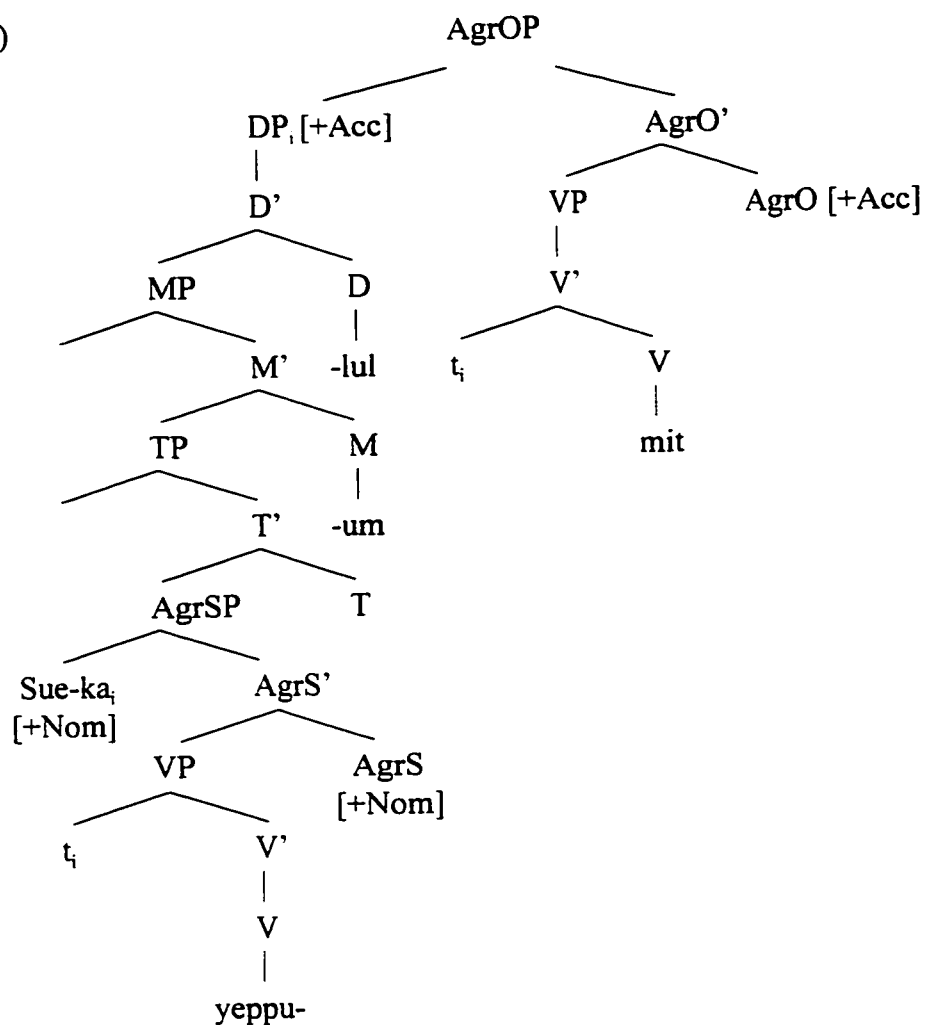


The embedded CPs in (36a) and (36b) are associated with inherent accusative, which I argue is realized as the verbal suffix *-ko*. The case features of the embedded CPs are checked off against the matrix verb *mit-* in terms of the head-complement relation. The feature [+Nom] of the embedded subject in (36a) is checked off against the embedded

AgrS. In (36b), on the other hand, the embedded subject bears [+Acc], which cannot be checked off within the embedded clause. The embedded subject may raise to the spec of the matrix AgrO and the features [+Acc] of the subject DP and the head AgrO are checked off against each other.

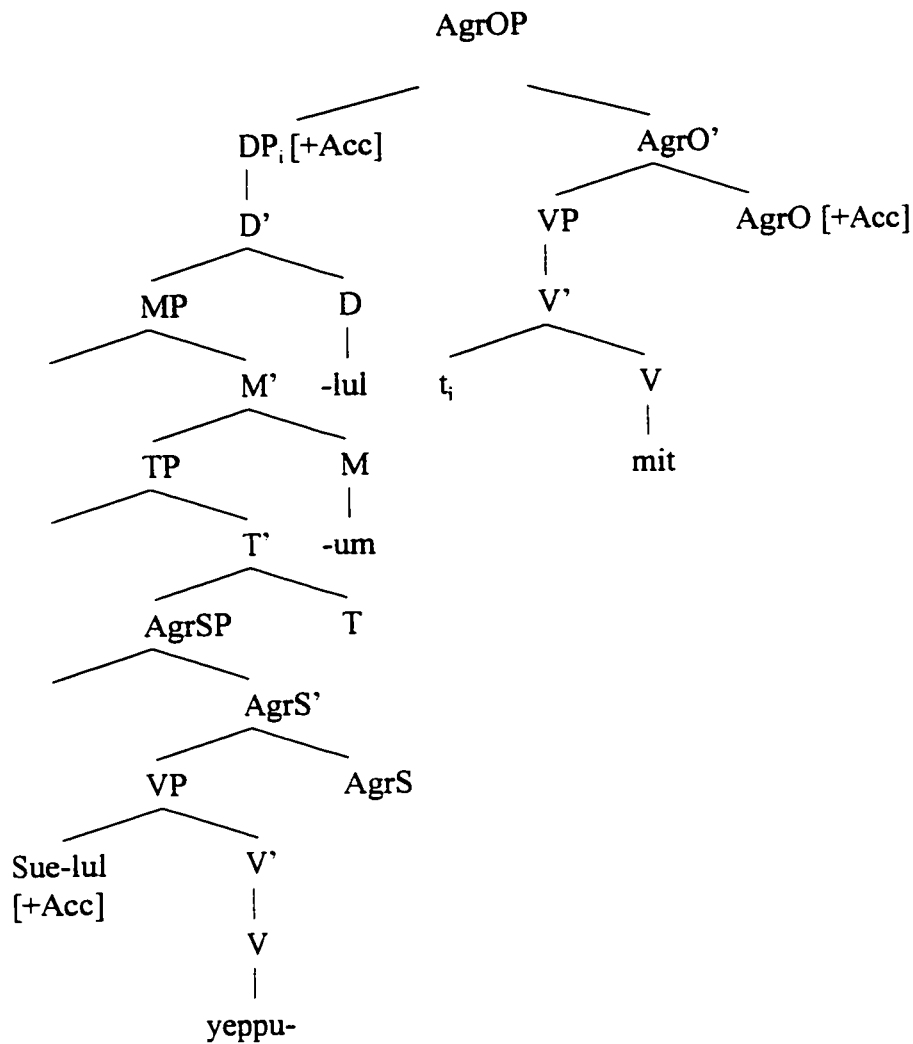
Now let us consider why ECM is not allowed in non-finite clauses, i.e., gerunds and infinitives in Korean. Consider (33b) and (33c) again. What distinguishes the embedded clause in (33a) from those in (33b) and (33c) is that the former is associated with inherent accusative, which is checked by the matrix verb, whereas the latter are associated with structural accusative, which is checked by the matrix AgrO. In (33b) and (33c), the embedded clauses, which are DPs, raise to the specifier of the matrix AgrO to have the case features checked. The case features of the entire complement DPs and the matrix AgrO are checked off against each other in terms of the spec-head agreement. The nominative subject of the embedded clause, on the other hand, is licensed by the embedded AgrS in terms of the spec-head agreement. Consider the configuration in (37), which shows how the embedded clause and the embedded subject are licensed.

(37)



Now let us suppose that the embedded subject bears accusative. Then the feature remains unchecked since the case feature of the matrix AgrO is already checked off against that of the entire complement DP. Therefore the derivation crashes. The derivation is illustrated in (38).

(38)



It is in order to discuss why English allows ECM in non-finite clauses. Consider the examples in (32a) and (32b), repeated here.

(39) a. Joe believes [her to be smart].

b. Joe remembers [her being smart].

I have argued in 5.2 that non-finite clauses project CPs in English. The embedded CPs in (39) may be licensed by the matrix verbs via inherent accusative checking. Therefore the

matrix AgrO is available to license the embedded subject DP via structural accusative checking.¹⁶ To summarize, the question of why English but not Korean allows ECM in non-finite clauses reduces to the assumption that non-finite clauses project CPs in English and DPs in Korean.

There still remains one more question regarding ECM in Korean and English. It should also be accounted for why Korean but not English allows ECM in tensed clauses. We have seen that the subject of embedded finite clauses can be licensed by the embedded T/AgrS both in English and Korean. The standard account of why English does not allow ECM in tensed clauses is that the finite T has the feature [+Nom] which must be checked off. If we suppose that the embedded subject bears accusative, then the case feature of the subject can be checked off against the matrix AgrO. However, the derivation crashes since the feature [+Nom] of the embedded T will remain unchecked. This account cannot be applied to Korean since ECM is allowed in tensed clauses which can license a nominative subject clause-internally. As we have seen in chapter 4, we need some notion of optionality in order to account for the nominative/accusative alternation in Korean ECM constructions. One possible option is to say that the feature [+Nom] of T should be checked obligatorily in English whereas the feature [+Nom] of AgrS may be checked off optionally in Korean.

5.5. Summary

I have argued that non-finite clauses project DPs in Korean but CPs in English. I have shown that non-finite clauses in Korean are headed by nominal suffixes which are the heads of regular DPs, whereas finite clauses are headed by verbal suffixes, which are the heads of CPs. This is a clear indication that finite clauses are CPs and non-finite clauses DPs. Given this argument, I have proposed that embedded finite CPs headed by *-ko* are licensed by the matrix verb via inherent accusative checking and the embedded subject DPs can be licensed either via nominative checking by the embedded AgrS or via structural accusative checking by the matrix AgrO. Unlike finite CPs headed by *-ko*, non-finite clauses headed by the nominal suffix *-lul* are licensed by the matrix AgrO via structural accusative checking. The embedded subject therefore cannot be licensed via accusative checking by the matrix AgrO. It may be licensed by the embedded AgrS via nominative checking.

Notes to Chapter 5

1. See Stowell (1982) who argues that INFL of infinitives also has [+tense]. This is against the widely accepted assumption that infinitives lack [+tense].
2. It is not relevant to the discussion in this chapter whether nominative is checked by T or AgrS.
3. Given that both tensed and gerundive/infinitive clauses may bear [+Agr] and [+tense], it is not appropriate to distinguish them using the terms finite and non-finite clauses. I will continue to use the terms, however, simply for the sake of convenience.
4. Jung (1992) argues that T is responsible for nominative in Korean. On the other hand, Kim (1990) argues that nominative is assigned by default in Korean. It is not relevant to my discussion whether nominative is assigned by T or Agr.
5. There is a clear exception to this generalization. Unlike tensed and infinitive clauses, gerunds patterns with DPs in that they may appear in complement to P. Observe the examples in (i).

- (i) a. I learned about [John's weakness for stogies]. (Abney 1987: 172)
 b. I learned about [John smoking stogies].
 c. *I learned about [for John to smoke stogies].
 d. *I learned about [that John smokes stogies].

I have no answer to the question why English gerunds can occur in complement to P.

6. There are other syntactic positions from which CPs but not DPs are excluded. As observed by Horn (1975), CPs normally do not undergo topicalization in English as illustrated in (i).

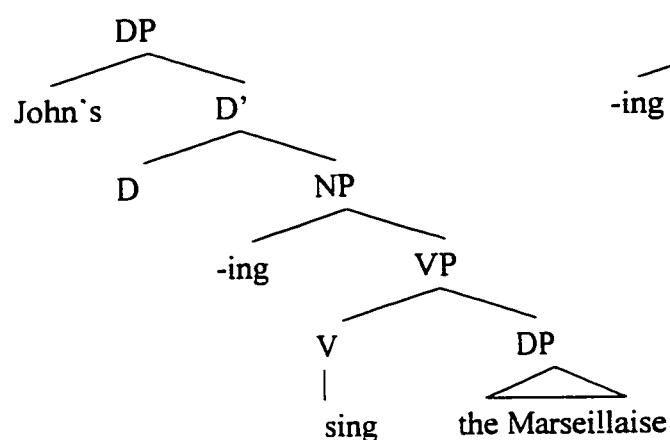
- (i) a. The story I can't believe.
 b. John's kissing Mary I can't believe.
 c. *John kissing Mary I can't believe.
 d. *For John to kiss Mary I can't believe.
 e. *That John kissed Mary I can't believe.

7. It is quite controversial what is the categorial status of English gerunds, i., ACC-ING constructions. Reuland (1983), Jeong (1989), and Hwang (1997), for example, argue that ACC-ING constructions are CPs. By arguing that no *wh*-words are licensed in English gerunds, Stowell (1981 and 1982) seems to suggest that they are IPs but not CPs. Johnson (1988), on the other hand, argues that ACC-ING constructions are CPs or IPs, depending upon whether they have an overt subject or PRO. Finally, Abney (1987) and Suzuki

(1988) argue that ACC-ING constructions are DPs whose head D takes an IP complement. I will not discuss this issue here but simply assume that ACC-ING constructions are CPs. See Jeong (1989) and Hwang (1997) for more detailed discussions.

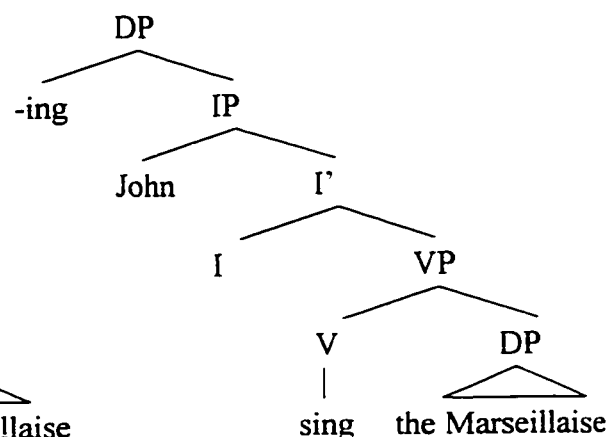
8. Abney (1987) revises the D-IP analysis of POSS-ING constructions later and presents the following structures for POSS-ING and ACC-ING constructions.

(i) a. POSS-ING



b. ACC-ING

Abney (1987: 223)



The structure (ia), however, cannot explain why POSS-ING constructions license certain auxiliary verbs and sentential adjuncts. In this chapter, I assume his earlier analysis of POSS-ING constructions, i.e., D-IP analysis.

9. Korean has other verbal suffixes which pattern with the nominalizers *-um* and *-ki*. *-Nunci* and *-nunka* are included. They select a TP as complement and their maximal projections are selected by the nominal suffixes. Observe the examples in (i).

- (i) a. [Nuku-ka o-si-ass-nunci-lul/ka/uy/ey]
 who-Nom come-Hon-Past-NM-Acc/Nom/Gen/Dat
 'who came'
- b. [Nuku-ka o-si-ass-nunka-lul/ka/uy/ey]
 who-Nom come-Hon-Past-NM-Acc/Nom/Gen/Dat
 'who came'

Like interrogative ending *-nya*, the nominalizers *-nunci* and *-nunka* license wh-words. The interrogative *-nya* differs from *-nunci* and *-nunka* in that the former can be selected either by verbal suffixes or nominal suffixes, whereas the latter can be selected only by nominal suffixes.

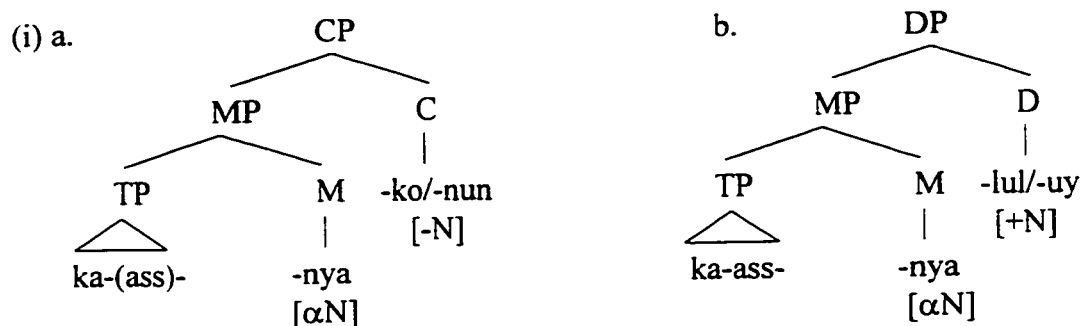
- (ii) a. [Nuku-ka o-si-ass-nya-lul/ko] mul-ass-ta.
 who-Nom come-Hon-Past-Int-Acc/C ask-Past-Dec
 'pro asked who came.'
- b. [Nuku-ka o-si-ass-nya-uy/nun] muncey
 who-Nom come-Hon-Past-Int-Gen/C question
 'the question who came.'
- (iii) a. [Nuku-ka o-si-ass-nunci-lul/*ko] mul-ass-ta.
 who-Nom come-Hon-Past-NM-Acc/C ask-Past-Dec
 'pro asked who came.'
- b. [Nuku-ka o-si-ass-nunka-uy/*nun] muncey
 who-Nom come-Hon-Past-NM-Gen/C question
 'the question who came.'

10. An alternative is suggested by Yoon (1993). He argues that the nominalizer *-um* is the head C with the feature [+N], whereas the complementizer *-ko* is the head C with the feature [-N]. Based upon this, he suggests that the subject DP of *-um* constructions may be assigned genitive by the head C, i.e., the nominalizer *-um*. The internal structure of *-um* constructions, however, favors the proposed analysis over Yoon's (1993) analysis.

11. The fact that the so-called delimiters can be licensed in both verbal and nominal projections suggests that they are not specified for N-features. Observe the following examples.

- (i) a. Joe-ka Sue-eykey-man/to panci-lul cu-ass-ta.
 Joe-Nom Sue-Dat-Del ring-Acc give-Past-Dec
 'Joe gave a ring only/also to Sue.'
- b. Joe-ka [Sue-ka o-ass-ta-ko-man/to] malha-ass-ta.
 Joe-Nom Sue-Nom come-Past-Dec-C-Dec say-Past-Dec
 'Joe only/also said that Sue came.'

12. As we have seen in chapter 3, the underspecification of N-features in case of the interrogative *-nya* allows the projections of *-nya* to be selected either by the nominal suffixes or by the verbal suffixes.



13. Alternatively, it is argued that ECM verbs take an IP complement instead of a CP complement (Stowell 1981 and 1982 and Johnson 1989).

14. Chomsky (1992) argues that structural accusative is checked by V in terms of the spec-head agreement when V raises to the functional head AgrO. I have argued in chapter 4 that structural accusative is licensed by Agr not by V.

15. See Lee (1988) and Lee (1992) who observe certain restrictions on ECM in Korean. Lee (1988), for example, observes that ECM crucially depends upon the stativity of the predicate and presents a generalization as stated in (i).

- (i) In *believe* type constructions, ECM can take place if the embedded predicate is [+stative], whereas ECM cannot take place if the embedded predicate is [-stative].

The generalization (i) is based upon the distinction between (iia) and (iib), which show that there is a restriction on ECM.

- (ii) a. Joe-ka [Sue-lul chuncay-i-ass-ta-ko] mit-ass-ta.
 Joe-Nom Sue-Acc genius-be-Past-Dec-C believe-Past-Dec
 'Joe believed that Sue was a genius.'
- b. *Joe-ka [Sue-lul Tom-lul manna-ass-ta-ko] mit-ass-ta.
 Joe-Nom Sue-Acc Tom-Acc meet-Past-Dec-C believe-Past-Dec
 'Joe believed that Sue met Tom.'

The embedded CP in (iia) is distinguished from the embedded CP in (iib) only in that the former has [+stative] predicate and the latter [-stative] predicate.

Lee (1992), on the other hand, observes that ECM can take place only if the embedded predicate lacks the ability to assign case, which can also account for the distinction between (iia) and (iib).

16. See Jeong (1989) and Hwang (1997) for alternative analyses of ACC-ING constructions. Jeong (1989) suggests that the subject of ACC-ING construction is assigned accusative not by the matrix verb but by the empty COMP, whereas Hwang

(1997) proposes that the subject of ACC-ING construction is assigned accusative by default.

Bibliography

- Abney, S. (1986) Functional Elements and Licensing, paper presented at GLOW.
- Abney, S. (1987) *The English Noun Phrase in its Sentential Aspect*, Doctoral Dissertation, MIT.
- Ahn, H.-D. (1991) *Light Verbs, VP-Movement, Negation and Clausal Architecture in Korean and English*, Doctoral Dissertation, University of Wisconsin.
- Ahn, H.-D. and H.-J. Yoon (1989) Functional Categories in Korean, in S. Kuno et al. (eds) *Harvard Studies in Korean Linguistics* 3: 79-88.
- Alsina, A. (1996) Passive Types and the Theory of Object Asymmetries, *Natural Language and Linguistic Theory* 14: 673-723.
- Alsina, A. and S. Mchombo (1990) The Syntax of Applicatives in Chechewa: Problems for a Theta Theoretic Asymmetry, *Natural language and Linguistic Theory* 8: 493-506.
- Authier, J. (1991) V-governed Expletives, Case Theory, and the Projection Principle, *Linguistic Inquiry* 22: 721-740.
- Bak, J.-S. (1990) *Accord Casuel et Sujets Multiples en Coreen*, Doctoral Dissertation, University of Paris VIII.
- Baker, M. (1985) The Mirror Principle and Morphosyntactic Explanations, *Linguistic Inquiry* 16: 373-416.
- Baker, M. (1988a) *Incorporation: A Theory of Grammatical Function Changing*, University of Chicago Press, Chicago.

- Baker, M. (1988b) Theta Theory and the Syntax of Applicatives in Chechewa, *Natural Language and Linguistic Theory* 6: 353-389.
- Bayer, J. (1984) Towards an explanation of certain that-t phenomenon, in W. de Geest and Y. Putseys (eds), *Sentential Complementation*, Dordrecht: Foris.
- Belletti, A. (1988) The Case of Unaccusatives, *Linguistic Inquiry* 19: 1-34.
- Belletti, A. and L. Rizzi (1988), Psych Verbs and Theta Theory , *Natural Language and Linguistic Theory* 5: 291-352.
- Bennis, H. and L. Haegeman (1984) On the Status of Agreement and Relative Clauses in West-Flemish. in W. de Geest and Y. Putseys (eds), *Sentential Complementation*. Dordrecht: Foris.
- Bittner, M. and K. Hale (1996a) The Structural Determination of Case and Agreement, *Linguistic Inquiry* 27: 1-68.
- Bittner, M. and K. Hale, (1996b) Ergativity: Toward a Theory of a Heterogeneous Class. *Linguistic Inquiry* 27: 531-604.
- Bobaljik, J. and D. Jonas (1996) Subject Positions and the Roles of TP, *Linguistic Inquiry* 27: 195-236.
- Borsley, R. D. (1997) Relative Clauses and the Theory of Phrase Structure, *Linguistic Inquiry* 28:629-647
- Bresnan, J. (1979) *Theory of Complementation in English Syntax*, New York: Garland.
- Choe, H.-S. (1988) *Restructuring Parameters and Complex Predicates: A Transformational Approach*, Doctoral Dissertation, MIT.

- Chomsky, N. (1981) *Lectures on Government and Binding: The Pisa Lectures*, Dordrecht: Foris.
- Chomsky, N. (1986a) *Knowledge of Language: Its Nature, Origin, and Use*, New York: Praeger.
- Chomsky, N. (1986b) *Barriers*, Cambridge, Massachusetts: MIT Press.
- Chomsky, N. (1989) Some Notes on Economy of Derivation and Representations, in Laka, L. and A. Mahajan (eds), *Functional Heads and Clause Structure*, MIT.
- Chomsky, N. (1992) A Minimalist Program for Linguistic Theory, *MIT Occasional Papers in Linguistics 1*.
- Chomsky, N. (1994) Bare Phrase Structure, *MIT Occasional Papers in Linguistics 5*.
- Chomsky, N. (1995) *The Minimalist Program*, Cambridge, Massachusetts: MIT Press.
- Clark, L. (1973) Case Markers and Complementizers: A Maori Example, *Working Papers on Language Universals 12*: 145-147, Stanford University.
- Contreras, H. (1985) Clausal Case-Marking and the CRP, in L. King and C. Maley, eds., *Selected Papers from the 13th Linguistic Symposium on Romance Languages*: 19-30.
- Dubinsky, S. and K. Williams (1995) Recategorization of Prepositions as Complementizers: The Case of Temporal Prepositions in English, *Linguistic Inquiry 26*: 125-137.
- Emonds, J. (1976) *A Transformational Approach to English Syntax: Root, Structure-Preserving, and Local Transformations*, New York: Academic Press.

- Emonds, J. (1984) *A Unified Theory of Syntactic Categories*, Dordrecht: Foris.
- Enç, M. (1989) The Semantics of Specificity, ms., University of Wisconsin-Madison, in
Linguistic Inquiry 22: 1-25.
- Fabb, N. (1990) The Difference between English Restrictive and Non-restrictive Relative
Clauses, *Journal of Linguistics* 26:57-77
- Fassi Fehri (1989) Generalized IP Structure, Case and VS Word Order, in I. Laka and A.
Mahajan (eds.), *MIT Working Papers in Linguistics* 10:75-113.
- Ferguson, C. A. (1970) Grammatical Categories in Data Collection, *Working Papers on
Language Universals* 4, Stanford University.
- Freidin, R. (1991) *Principles and Parameters in Comparative Grammar*, Cambridge,
Massachusetts: MIT Press.
- Fukui, N. (1986) *A Theory of Category Projection and Its Applications*, Doctoral
Dissertation, MIT.
- Gorbet, L. (1973) Case Markers and Complementizers in Diegueño, *Working Papers on
Language Universals* 11: 219-222, Stanford University.
- Grimshaw, J. (1990) *Argument Structure*, Cambridge, Massachusetts: MIT Press.
- Grimshaw, J. (1991) Extended Projection, ms., Brandeis University.
- Grimshaw, J. and A. Mester (1988) Light Verbs and θ -Marking, *Linguistic Inquiry* 19:
205-235.
- Guilfoyle, E., H. Hung, and L. Travis (1992) Spec of IP and Spec of VP: Two Subjects in
Austronesian Languages, *Natural language and Linguistic Theory* 10: 375-414.

- Haegeman, L. (1991) *Introduction to Government and Binding Theory*, Oxford: Basil Blackwell.
- Halle, M. and A. Marantz (1992) Distributed Morphology and the pieces of inflection, ms., MIT. [Published (1993), in K. Hale and S. Keyser (eds), *The View from Building 20: Essays in Linguistics in Honor of Sylvain Bromberger*, Cambridge, Massachusetts: MIT Press, 111-176.]
- Han, H.-S. (1987) *The Configurational Structure of the Korean Language*, Doctoral Dissertation, University of Texas at Austin.
- Han, H.-S. (1989) Nominative Case Assignment in Korean: Against the Asymmetrical Case Marking Hypothesis, *Language Research* 25: 611-644.
- Han, H.-S. (1991) The Case of Korean Adjectives and Passive Verbs, *Studies in Generative Grammar* 2: 219-249.
- Hazout, I. (1995) Action Nominalizations and the Lexicalist Hypothesis, *Natural language and Linguistic Theory* 13: 355-404.
- Hinds, J. (1973) Case Markers and Complementizers: Korean and Japanese, *Working Papers on Language Universals* 13: 93-96, Stanford University.
- Hoekstra, T. (1984) Government and the Distribution of Sentential Complementation in Dutch, in W. de Geest and Y. Putseys (eds), *Sentential Complementation*, Dordrecht: Foris.
- Hong, Y.-T. (1994) Theory of the Incorporation and the Distributions of Case Morphemes, *Studies in Generative Grammar* 4: 1-43.

- Horn, G. (1974) *The Noun Phase Constraints*, Doctoral Dissertation, University of Massachusetts.
- Horn, G. (1975) On the Nonsentential Nature of the POSS-ING Construction, *Linguistic Analysis* 1: 333-387.
- Hwang, K.-H. (1997) *Nominative and Default Case Checking in Minimalist Syntax*, Doctoral Dissertation, University of Washington.
- Jeong, Y.-K. (1989) *Gerundive Construction in English*, MA Thesis, Seoul National University.
- Jeong, Y.-K. (1997) Complementizers as Case Markers in Korean, in *the Proceedings of the thirteenth Northwest Linguistics Conference*. University of British Columbia, Canada.
- Jeong, Y.-K. (1998a) COMPs as Case Realizations, to appear in *the Proceedings of the eleventh International Conference on Korean Linguistics*, University of Hawaii.
- Jeong, Y.-K. (1998b) COMP -Ko as Inherent Accusative Marker, in *University of Washington Working Papers in Linguistics* 16, University of Washington.
- Johnson, K. (1988) Clausal Gerunds, the ECP and Government, *Linguistic Inquiry* 19: 583-609.
- Joseph, B. D. (1975) Case Marking and Complementizers in Persian, *Working Papers on Language Universals* 17: 141-144, Stanford University.
- Jung, Y.-J. (1992) *A Restrictive Theory of Functional Categories and Their Parametric Variation*, Doctoral Dissertation, University of Washington.

- Kang, M.-Y. (1988) *Topics in Korean Syntax: Phrase Structure, Variable Binding and Movement*, Doctoral Dissertation, MIT.
- Kaplan, T. and J. Whitman (1995) The Category of Relative Clauses in Japanese, with Reference to Korean, *Journal of East Asian Linguistics* 4: 29-58.
- Kayne, R. (1984) *Connectedness and Binary Branching*, Dordrecht: Foris.
- Kayne, R. (1994) *The Antisymmetry of Syntax*, Cambridge, Massachusetts: MIT Press.
- Kempchinsky, P. (1991) *Clausal Complements and Case Theory in Romance*, ms., University of Iowa.
- Kim, S.-W. (1991) *Chain Scope and Quantification*, Doctoral Dissertation, Brandeis University.
- Kim, T.-S. (1996) *Functional Features in Korean: A Minimalist Approach*, Doctoral Dissertation, University of Washington.
- Kim, Y.-J. (1990) *The Syntax and Semantics of Korean Case: The Interaction between Lexical and Syntactic Levels of Representation*, Doctoral Dissertation, Harvard University.
- Kim, Y.-J. (1991) Nominative Case-Marking in Korean, *Studies in Generative Grammar* 2: 113-148.
- Kiss, K. (1990) Why Noun-Complement Clauses Are Barriers, in Mascaro, J. and M. Nespó (eds.), *Grammar in Progress*, Foris: Dordrecht.
- Kitahara, H. (1995) Target α : Deducing Strict Cyclicity from Derivational Economy, *Linguistic Inquiry* 26: 47-78.

- Koizumi, M. (1995) *Phrase Structure in Minimalist Syntax*, Doctoral Dissertation, MIT.
- Koopman, H. (1984) *The Syntax of Verbs: From Verb Movement Rules in the Kru Languages to Universal Grammar*, Dordrecht: Foris
- Koopman, H. (1992) Licensing Head, ms., UCLA.
- Lamontagne, G. and L. Travis (1987) The Syntax of Adjacency, in *Proceedings of the 6th West Coast Conference on Formal Linguistics*: 173-186.
- Lapointe, S. (1996) Comments on Cho and Sells, "A Lexical Account of Inflectional Suffixes in Korean", *Journal of East Asian Linguistics* 5: 73-100.
- Larson, R. (1988) On the Double Object Construction, *Linguistic Inquiry* 19: 335-391.
- Lasnik, H. & M. Saito (1992) *Move- α : Conditions on its Application and Output*, Cambridge, Massachusetts: MIT Press.
- Lasnik, H. (1992) Case and Expletives: Notes toward a Parametric Account, *Linguistic Inquiry* 23: 381-406.
- Lasnik, H. (1993) Lectures on Minimalist Syntax, *University of Connecticut Working Papers in Linguistics* 1.
- Lasnik, H. (1995) Case and Expletives Revisited: On Greed and Other Human Failings, *Linguistic Inquiry* 26: 615-633.
- Lee, J.-S. (1992) *Case Alternation in Korean: Case Minimality*, Doctoral Dissertation, University of Connecticut.
- Lee, J.-S. (1994) Exceptional Case Marking As Case Regulated, *Language Research* 30: 799-824.

- Lee, J.-S. (1994) The Role of Case in Exceptional Case Marking, *Studies in Generative Grammar* 5: 265-317
- Lee, Y.-S. (1994) Scrambling as Case-driven Movement, *Studies in Generative Grammar* 4: 495-533.
- Lim, D.-H. (1995) Syntax and Syntactic Unit, *Language Research* 31: 87-138.
- Mahajan, A. (1990) *The A/A-Bar Distinction and Movement Theory*, Doctoral Dissertation, MIT.
- Longobardi, J. (1990) Evidence for the Structure of Determiner Phrases and N-Movement in the Syntax and in LF, *GLOW Newsletter* 24.
- Maling, J. (1989) Adverbials and Structural Case in Korean, in S. Juno et al. (eds.), *Harvard Studies in Korean Linguistics* 3: 297-308
- Manzini, M. (1992) *Locality: A Theory and Some of Its Empirical Consequences*, Cambridge, Massachusetts: MIT Press
- Marantz, A. (1984) *On the Nature of Grammatical Relations*, Cambridge, Massachusetts: MIT Press.
- Massam, D. (1985) *Case Theory and the Projection Principle*, Doctoral Dissertation, MIT.
- McCawley, J. (1988) *The Syntactic Phenomena of English*, Chicago: University of Chicago Press.
- Moravcsik, E. (1972) On Case Markers and Complementizers, *Working Papers on Language Universals* 8: 151-152, Stanford University.

- Murasugi, K. (1992) *Crossing and Nested Paths: NP Movement in Accusative and Ergative Languages*, Doctoral Dissertation, MIT.
- Neeleman, A. (1997) PP-Complements, *Natural Languages and Linguistic Theory* 15: 89-137.
- Nishigauchi, T. (1990) *Quantification in the Theory of Grammar*, Dordrecht: Kluwer Academic Publishers.
- Noguchi, T. (1993) Pronominal Binding and Syntactic Categories. in *Proceedings of NELS 23*: 351-365
- Olsen, S. (1989) Agr(eement) in the German Noun Phrase, in Bhatt, C., E. Lobel, and C. Schmidt (eds.), *Syntactic Phrase Structure Phenomena in Noun Phrases and Sentences*.
- Park, Y.-W. (1993) Object Raising and Case Assignment, in *Studies in Generative Grammar* 3: 187-219.
- Plann, S. (1986) On Case-Marking Clauses in Spanish: Evidence against the Case Resistance Principle, *Linguistic Inquiry* 17: 336-345
- Pollock, J. (1989) Verb Movement, Universal Grammar, and the Structure of IP, *Linguistic Inquiry* 20: 365-424.
- Postal, P. (1969) Anaphoric Islands, in R. Binnic, A. Davison, G. Green, and J. Morgan (eds), *Papers from the 5th Regional Meeting of the CLS*: 205-239.
- Reuland, E. (1985) A Feature System for the Set of Categorical Heads, in P. Muysken & H. Riemsdijk (eds.), *Features and Projections*, Dordrecht: Foris.

- Reuland, E. (1983) Governing *-ing*, *Linguistic Inquiry* 14: 101-136.
- Ritter, E. (1987) NSO Noun Phrase in Modern Hebrew, in J. McDonough and B. Plunkett (eds.), *Proceedings of NELS* 17: 521-537.
- Ritter, E. (1995) On the Syntactic Category of Pronouns and Agreement, *Natural language and Linguistic Theory* 13: 405-443.
- Rizzi, L. (1991) *Relativized Minimality*, Cambridge, Massachusetts: MIT Press.
- Rothstein, S. (1992) Case and Licensing, *Natural language and Linguistic Theory* 10: 119-139.
- Rothstein, S. (1995) Pleonastics and the Interpretation of Pronouns, *Linguistic Inquiry* 26: 499-529.
- Safir, K. (1985) *Syntactic Chains*, Cambridge: Cambridge University Press.
- Saito, M. (1983) Case and Government in Japanese, in *Proceedings of the 2nd West Coast Conference on Formal Linguistics*: 247-259.
- Schütze, T. (1994) Case, Verb Morphology and Argument Structure in Choctaw: A Minimalist Account, in *Proceedings of NELS* 25: 441-455.
- Schachter, P. (1976) A Nontransformational Account of Gerundive Nominals in English, *Linguistic Inquiry* 7: 205-241.
- Schachtl, S. (1989) Morphological Case and Abstract Case: Evidence from the German Genitive Construction, in Bhatt, C., E. Lobel, and C. Schmidt (eds.), *Syntactic Phrase Structure Phenomena in Noun Phrases and Sentences*.
- Sells, P. (1995) Korean and Japanese Morphology from a Lexical Perspective, *Linguistic*

Inquiry 26: 277-325.

Shim, S.-W. (1995) A Study on the Korean Subjunctive Complementizer '-Ki', *Language Research* 31: 55-86.

Research 31: 55-86.

Shlonsky, U. (1988) Complementizer-Cliticization in Hebrew and The Empty Category

Principle, *Natural language and Linguistic Theory* 6: 191-205.

Siloni, T. (1991) Noun Raising and the Structure of Noun Phrases, in J. Bobljik and T.

Bures (eds), *MIT Working Papers in Linguistics* 14: 255-270.

Siloni, T. (1995) On Participial Relatives and Complementizer D⁰: A Case Study in

Hebrew and French, *Natural language and Linguistic Theory* 13: 445-487.

Speas, M. (1990) *Phrase Structure in Natural Language*, Dordrecht: Kluwer.

Sportiche, D. (1992) Clitic Constructions, ms., UCLA.

Starosta, S. (1972) The Faces of Case, *Working Papers in Linguistics* 4.1, Hawaii.

Stowell, T. (1981) *Origins of Phrase Structure*, Doctoral Dissertation, MIT.

Stowell, T. (1982) The Tense of Infinitives, *Linguistic Inquiry* 13: 561-570.

Stowell, T. (1989) Raising in Irish and the Projection Principle, *Natural language and*

Linguistic Theory 7: 317-359.

Suñer, M. (1991) Indirect Questions and the Structure of CP, in H. Campos and F.

Martines-Gil eds., *Current Studies in Spanish Linguistics*, Georgetown University

Press.

Suzuki, T. (1988) *The Structure of English Gerunds*, Doctoral Dissertation, University of

Washington.

- Szabolcsi, A. (1987) Functional Categories in the Noun Phrases, in Kenesei (ed.), *Approaches to Hungarian 2*: 167-189
- Szabolcsi, A. (1989) Noun Phrases and Clauses: Is DP analogous to IP or CP?, in, J. Payne (ed.), *The Structure of Noun Phrases*, Mouton.
- Taraldsen, K. (1984) The Internal Structure and External Distribution of Tensed Clausal Complements in English, French, and Norwegian, in W. de Geest and Y. Putseys (eds), *Sentential Complementation*, Dordrecht: Foris.
- Tateishi, K. (1989) A Topic-like Operator in Japanese, in *Proceedings of NELS 20*:
- Thrainsson, H. (1984) Different Types of Infinitival Complements in Icelandic, in W. de Geest and Y. Putseys (eds), *Sentential Complementation*, Dordrecht: Foris.
- Tomaselli, A. (1990) COMP⁰ as a Licensing Head: An Argument based upon Cliticization, in Mascaro, J. and M. Nesper (eds.), *Grammar in Progress*, Dordrecht: Foris.
- Tsai, W.-T. D. (1995) Visibility, Complement Selection and the Case Requirement of CP, *Journal of East Asian Linguistics* 4: 281-312.
- Tsujimura, N. (1992) Licensing Nominal Clauses: The Case of Deverbal Nominals in Japanese, *Natural language and Linguistic Theory* 10: 477-522.
- Watanabe, A. (1996) Nominative-Genitive Conversion and Agreement in Japanese: A Cross-Linguistic Perspective, *Journal of East Asian Linguistics* 5: 373-410.
- Webelhuth, G. (1995) *Government and Binding Theory and the Minimalist Program*, Oxford: Blackwell.

- Wechsler, S. Y.-S. Lee (1996), The Domain of Direct Case Assignment, *Natural Language and Linguistic Theory* 14: 629-664.
- Whitman, J. (1989) Topic, Modality, and IP Structure, in S. Kuno et al (eds), *Harvard Studies in Korean Linguistics* 3: 341-356.
- Whitman, J. (1991) String Vacuous V-to-Comp, paper presented at GLOW.
- Woolford, E. (1997) Four-Way Case Systems: Ergative, Nominative, Objective, and Accusative, *Natural language and Linguistic Theory* 15:181-227.
- Yang, D.-W. (1993) The Minimalist Theory and the Structure of Korean, presented at the 2nd Seoul International Conference on Generative Grammar.
- Yang, H.-K. (1993) On Categorial Selection and "Plato's Problem", in *Studies in Generative Grammar* 3: 1-24.
- Yang, I.-S. (1972) *Korean Syntax: Case Marking, Delimiters, Complementation and Relativization*, Paekhapsa, Seoul.
- Yoon, H.-J. (1993) Functional Categories and ECM, in *Studies in Generative Grammar* 3: 131-159.
- Yoon, J. H-S. (1990) *A Restrictive Theory of Morphosyntactic Interaction and its Consequences*, Doctoral Dissertation, University of Illinois at Urbana-Champaign.
- Yoon, J. H-S. (1994) Korean Verbal Inflections and Checking Theory, *The Morphology-Syntax Connection: Papers from January 1994 MIT Workshop*, MIT Working Papers in Linguistics 22: 251-270.

- Yoon, J. H-S. (1995) Nominal, Verbal, and Cross-Categorical Affixation in Korean, *Journal of East Asian Linguistics* 4: 325-356.
- Yoon, J. H-S. (1996) Ambiguity of Government and the Chain Condition, *Natural Language and Linguistic Theory* 14: 103-162.
- Yoon, J.-M. (1991) *The Syntax of A-Chains: A Typological Study of ECM and Scrambling*, Doctoral Dissertation, Cornell University
- Yoon, J.-M. (1993) Non-Clause-Bounded A-Movement: A Cross-Linguistic Study of ECM Constructions, *Language Research* 29: 495-534.
- Yoon, J.-R. (1990) *Korean Syntax and Generalized X-Bar Theory*, Doctoral Dissertation, University of Texas-Austin.
- Zaenen, A., J. Maling and H. Thrainsson (1985) Case and Grammatical Functions: The Icelandic Passive, *Natural language and Linguistic Theory* 3: 441-483.
- Zaring, L. (1994) On the Relationship between Subject Pronouns and Clausal Arguments, *Natural Languages and Linguistic Theory* 12: 515-569.

VITA

Yongkil Jeong

Birth: September 22, 1963, Poemun, Chungchengbukdo, Korea

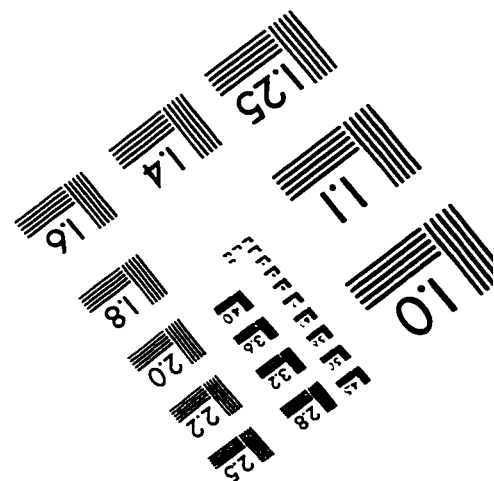
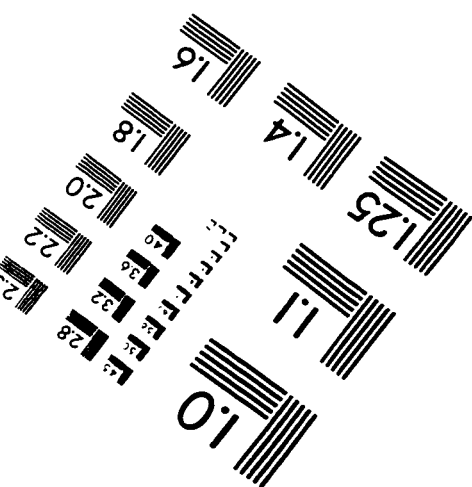
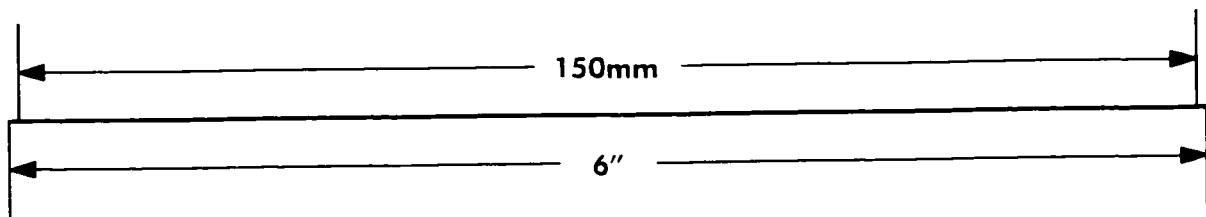
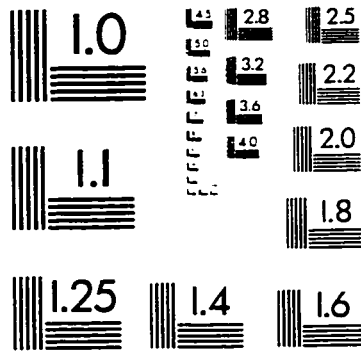
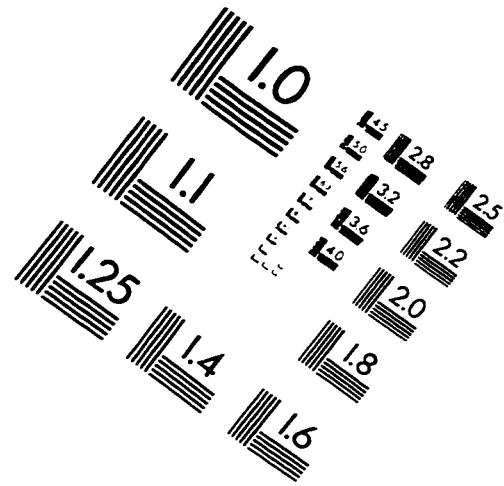
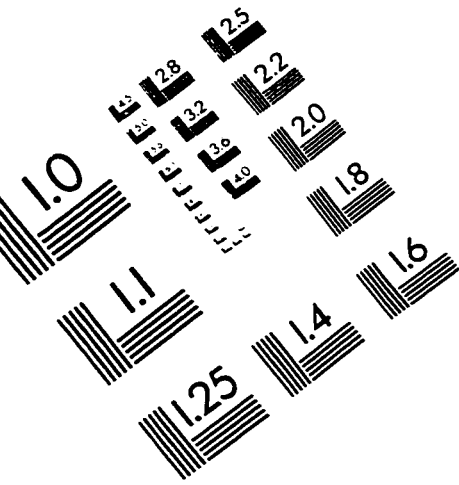
Education:

- 1987 B.A., Department of English Language and Literature
Seoul National University, Korea
- 1989 M.A., Department of English Language and Literature
Seoul National University, Korea

Publications:

- 1989 *Gerundive Constructions in English*, MA Thesis, Seoul National University, Korea.
- 1996 A Case-Tier Approach to Finnish: Feature-based Definition of Case Domain, *University of Washington Working Papers in Linguistics* 13.
- 1997 COMPs as Case Markers in Korean, *The Proceedings of Northwest Linguistic Conference* 13, University of British Columbia, Canada.
- 1998a COMPs as Case Realizations, to appear in *the Proceedings of the 11th International Conference on Korean Linguistics*, University of Hawaii.
- 1988b COMP -Ko as Inherent Accusative Marker, to appear in *University of Washington Working Papers in Linguistics* 16.

IMAGE EVALUATION TEST TARGET (QA-3)



APPLIED IMAGE, Inc
1653 East Main Street
Rochester, NY 14609 USA
Phone: 716/482-0300
Fax: 716/288-5989

© 1993, Applied Image, Inc., All Rights Reserved