Backward *kes*-Modification in (Spoken) Korean: Internally-Headed Relative Clauses vs. Multiple Case Marking Constructions*

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Ryu, Byong-Rae. 2025. **Backward *kes*-Modification in (Spoken) Korean: Internally-Headed Relative Clauses vs. Multiple Case Marking Constructions.** *Korean Journal of Linguistics,* 50-1, 33-62. This paper examines a unique type of noun-modifying construction in Korean: the backward *kes*-modification construction. We identify nine grammatical properties of this construction and argue that previous studies characterizing it as an internally-headed relative clause (IHRC) fail to adequately account for them. We propose that *kes* functions as a nominalizing anti-clitic that subcategorizes for an adnominal clause and saturates one of the theta roles associated with the preceding predicate. Based on this insight, we suggest that this construction is more accurately described as a multiple case marking construction (MCMC), where a noun and one or more *kes*-nominals are linked via adjunction and share identical case marking. We provide several pieces of evidence supporting this alternative analysis. **(Chungnam National University)**

Key words: Backward *kes*-Modification Constructions, Internally-Headed Relative Clauses, Multiple Case Marking Constructions, Anti-clitics, *-Kes*, Bound Noun Constructions

1. Introduction

This paper examines a distinct type of noun-modifying construction in Korean, illustrated in (1) and (2). The construction consists of a noun — often, though not necessarily, without a case marker — followed by *kes* (thing), which is

immediately preceded by an adnominal clause. In the absence of an established term, this study refers to it as the backward *kes*-modification construction.

Despite its seemingly limited frequency and scant attention, the backward *kes*-modification construction poses a significant challenge to traditional grammatical analyses. Its investigation is essential for a comprehensive understanding of Korean syntax, as it questions existing theories of complementation, relativization, and case marking, thereby enhancing our knowledge of how these processes interact in spoken Korean. Moreover, uncovering the principles underlying this construction offers critical insights into the intricate interplay between morphology, syntax, and semantics in everyday language use.

The examples in (1) are drawn from the Modern Spoken Korean Corpus, compiled as part of the 21st Century Sejong Project.[1]

(1) a. keki   cwupyen-ey   [NP sem   ccoykkumanha-n key]
    there outskirts-LOC   island be.tiny-REL   thing-NOM
    toykey manh-ketunyo.
    very be.many-DECL
    'There are so many tiny islands.' (5CM00060.txt)

 b. [NP umlyoswu ttattusha-n   ke]   hana sata tuli-ess-e.
      beverage be.warm-REL thing   one   buy give-PAST-DECL
    '(I) bought (someone) a warm beverage.' (5CM00043.txt)

 c. cepeney   [NP ccinppang   khu-n   ke]
    at that time   steamed bred be.big-REL thing
    sass-nuntay   isscanha   keki-ey.
    bought-however you know there-LOC
    '(I) bought a big steamed bread at that time. You know? There
    ...' (5CM00050.txt)

However, such instances are not limited to spoken corpora. This construction

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is also frequently attested in everyday conversation and novels with colloquial contexts, as illustrated in (2).

(2) a. kockam-un   [$_{NP}$ kam   mali-n
       dried persimmon-TOP   persimmon   dry-ADN
       kes]-ita.
       thing-be-DECL
       'Dried persimmons are persimmons that have been dried.'
    b. pwuke-nun   [$_{NP}$ myengtay   paccak   mali-n
       dried pollock-TOP   Alaska pollock fully   dry-REL
       kes]-ita.
       thing be.DECL
       'Dried pollock is Alaska pollock that has been fully dried.'

In this construction, case markers are often omitted after the nominal, though this omission is not obligatory, as in spoken Korean. When a case marker is present, it must match the one attached to *kes*. Additionally, in spoken Korean, *kes* (thing) is frequently realized as *ke*, with the nominative or accusative case marker not overtly expressed. In some cases, the combination '*kes* + nominative marker' appears as *ke-ka*, while in others, it is realized as *key*. The distribution of *kes*-related lexical items in the Modern Spoken Korean Corpus is shown in Table 1.

Table 1. Statistics of *kes*-related Lexical Items in the
Modern Spoken Korean Corpus

Form	Morphosyntactic structure	Frequency
ke	*kes* + ϕ (nominative or accusative marker)	5,639
key	*kes* + nominative marker	2,977
ke-l	*kes* + accusative marker	835
kes	*kes* + ϕ (nominative or accusative marker)	803
kes-i	*kes* + nominative marker	606
kes-ul	*kes* + accusative marker	428
ke-lul	*kes* + accusative marker	325
ke-ey	*kes* + locative marker	138
kes-ey	*kes* + locative marker	58
ke-ka	*kes* + nominative marker	24
kes-uy	*kes* + genitive marker	8

Although the backward *kes*-modification construction has received limited attention in Korean linguistics, previous studies — notably Cho (2016), Jhang (2020), and Song (2021) — have consistently treated it as an internally-headed relative clause (IHRC).

Cho (2016) collected 99 examples from the Modern Spoken Korean Corpus to demonstrate the existence of IHRCs) in Korean. He argued that IHRCs are subject to specific syntactic and semantic-pragmatic constraints, and that only subjects and direct objects referring to concrete entities can be relativized. Notably, direct object IHRCs occurred nearly twice as often as subject IHRCs (69.7% vs. 30.3%).

In contrast, Jhang (2020) reexamined the same dataset and found that not all 99 sentences identified as IHRCs met the criteria. He reclassified 21 sentences as free relatives or noun complement clauses, reducing the number of true IHRCs to 78. Furthermore, he challenged Cho's (2016) claim that IHRCs can only involve subjects and direct objects, showing that IHRCs with indirect objects and oblique arguments also occur in Korean.

Song (2021) examines the construction from a different perspective, aiming to subclassify IHRCs based on the semantic relationship between the antecedent and the referent of *kes*. His classification criteria include the replacement test (whether a common noun can substitute for *kes*) and the 'among' test (whether the internal head can co-occur with *cwungey* (among)). Using these criteria, he identifies five subtypes of IHRCs: Type I (identification), Type II (predication), Type III (change of status), Type IV (class-member relationship), and Type V (single predicate).[2]

In sum, previous studies, including Cho (2016), Jhang (2020), and Song (2021), have assumed that the backward *kes*-modification construction is an instance of IHRCs. We refer to the research conducted under this assumption as the IHRC hypothesis in this paper. In the following sections, we demonstrate that

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[2] Among the five types proposed by Song (2021), Types II (predication), III (change of status), and IV (class-member relationship) exhibit properties consistent with the backward *kes*-modification construction. The remaining two types—Type I (identification) and Type V (single predicate)—fall outside the scope of this study. We suggest that Type I and Type V are better understood as instances of 'event-for-participant' metonymy, rather than IHRCs (see Ryu (2023b) for a more detailed discussion).

the IHRC hypothesis is untenable and argue against it, ultimately proposing the multiple case marking construction (MCMC) hypothesis as a more compelling explanation.

The main claims of the MCMC hypothesis, as proposed in this study, can be summarized as follows. First, *kes* functions as an anti-clitic, saturating one of the theta roles associated with the immediately preceding predicate. Second, *kes* and the preceding adnominal clause form a word-level noun (N), and its maximal projection subsequently combines with the preceding nominal via an adjunction rule. Third, a default case-copying mechanism ensures consistent case marking. We provide multiple pieces of evidence showing that the backward *kes*-modification construction may not be correctly analyzed using the IHRC hypothesis. We argue that the MCMC hypothesis offers a deeper understanding of this construction.

This paper is structured as follows. After the introduction, Section 2 identifies nine grammatical properties of the backward *kes*-modification construction. Section 3 establishes the anti-clitic nature of *kes* in this construction, distinguishing it from complementizers and noun lexemes. Section 4 introduces the core ideas of the IHRC hypothesis as applied to this construction, discussing why it may not provide an adequate analysis. We then offer a detailed examination of the backward *kes*-modification construction within the framework of the MCMC hypothesis, highlighting its theoretical and descriptive advantages. Finally, Section 5 summarizes the findings of this study and explores their broader implications.

2. Backward *kes*-Modification Constructions

In this section, we provide a detailed examination of the backward *kes*-modification construction, focusing on its grammatical properties.

2.1. Optionality of the First Nominal Constituent

The backward *kes*-modification construction consists of two components: the first nominal constituent and the combination of the adnominal clause and

kes. As shown in (3a) and (3b), these two components can also occur independently.

(3) a. sem-i   manh-ta.
      island-NOM   be.many-DECL
      'There are many islands.'
    b. ccoykkumanha-n kes-i   manh-ta.
      be.tiny-REL   thing-NOM   be.many-DECL
      'There are many tiny things.'

Note that the grammaticality of (3b), despite the absence of a pivot noun phrase, suggests that such a noun phrase is not obligatory. This phenomenon indicates that the first nominal constituent and the predicate of the adnominal clause do not necessarily form a single clausal unit.

2.2. Multiple *kes*-Modification

In principle, multiple instances of the [adnominal clause + *ke/key/kes*] structure can follow the first nominal constituent, as shown in (4).

(4) sem   [cito-eyto   an   nao-nun ke] [ccoykkumanha-n
    island map-on-even NEG nao-REL thing be.tiny-REL
    key]   toykey   manhkhetunyo.
    thing-NOM very   be.many-DECL
    'There are so many tiny islands that are not even on the map.'

Note that the second and third occurrences of [adnominal clause + *ke/key/kes*] in (4) are neither coordinated nor subordinated. Thus, (4) demonstrates that these occurrences do not form a clause with the sentence-initial noun phrase.

2.3. Identical Case Marking

Although the first nominal constituent may lack a case marker, its occurrence follows a systematic pattern rather than being arbitrary. A case marker can

be attached to both the first nominal constituent and *ke/kes*, but only if they share the same marker, as shown in (5).

The case marking on *kes* is initially determined by the predicate of the main clause. For example, in (5a), the adjective predicate requires the first nominal constituent to take nominative case. In contrast, in (5b), the verb *satatulita* (buy and give) assigns accusative case to *kes* when it occupies the object position. Crucially, when *kes* functions as an object, as in (5b), the first nominal constituent must also take accusative case, not nominative.

(5) a. umlyoswu-{ɸ, *lul, ka}   ttattusha-ta.
       beverage-{ɸ, *ACC, NOM} be.warm-DECL
       'The beverage is warm.'
    b. umlyoswu-{ɸ, lul, *ka}   ttattusha-n   kes-{ɸ, ul, *i}
       beverage-{ɸ, ACC, *NOM} be.warm-REL thing-{ɸ, ACC,*NOM}
       hana satatukyesse.
       one buy-DECL
       '(I) bought (someone) a warm beverage.'

This provides compelling evidence that the first nominal constituent and the adnominal clause preceding *ke/key/kes* do not form a single clausal unit.

2.4. Genitive Case Marking

The backward *kes*-modification construction can function as a host for a possessive marker, enabling possessive formation, as shown in (6). However, not all combinations of the adnominal clause and *kes* can serve as hosts for a possessive marker, as illustrated in (7).

(6) [myengtay   mali-n   kes]-uy   tayangha-n   ilum
    alaska pollock dry-ADN   thing-GEN various-ADN   name
    'The various name of the pollock that has been dried.'

(7) *[[totwuk-i   unhayng-eyse nao-nun]   kes]-uy   chinkwu
    thief-NOM   bank-LOC   come out-ADN kes-GENC friend

The combination of the adnominal clause and *kes* in (7) represents a typical configuration assumed by the IHRC hypothesis. This suggests that analyzing the backward *kes*-modification construction as an IHRC may pose challenges.

2.5. Plural Marking

The backward *kes*-modification construction allows plural marking, as shown in (8), though not all combinations of the adnominal clause and *kes* permit this.

(8) khemphwuthe kocangna-n   kes-tul-ul   changko-ey
    computer   be.broken-ADN thing-PL-ACC storage-LOC
    twu-ela.
    put-IMP
    'Put the broken computers into storage.'

(9) *[[totwuk-i   unhayng-eyse nao-nun]   kes]-tul-ul
       thief-NOM   bank-LOC   come out-ADN kes-PL-ACC
     cheyphoha-la.
     arrest-IMP

The specific combination of the adnominal clause and *kes* in (9), which is typically seen as supporting the IHRC hypothesis, highlights an important distinction. In particular, the patterns of genitive case and plural marking provide key insights, suggesting that the backward *kes*-modification construction cannot be conclusively classified as an IHRC

2.6. Selectional Restrictions

In Korean, incomplete nouns such as *kes* are subject to semantic selectional restrictions, which are specified by features like [±HUMAN] and [±ANIMATE]. The following examples illustrate that *kes* is specified for the [−HUMAN] feature, while *nom* (person) is specified for the [+ANIMATE] feature.

(10) a. sem   ccokkumanha-n{ke,   *nom}   toykey manhketunyo.
        island be.tiny-ADN {thing, *person} very   be.many-DECL.
        'There are many tiny islands.'
     b. haksayng ttokttokha-n {*ke,   nom}   han myong
        student   be.smart-ADN {*thing, person} han person
        teylyeo-ass-e.
        bring-PAST-DECL
        '(I) brought a smart student.'
     c. kangsci kwiyewu-n   {?ke,   nom}   han mari
        puppy   be.cutty-ADN {thing, person} one entity
        teylyeo-ass-e.
        take in-PAST-DECL
        '(I) took in a cutty puppy.'

Given that semantic selectional restrictions ([±HUMAN, ±ANIMATE]) are inherent to noun phrases, the examples in (10) provide evidence supporting the classification of *kes* as a noun, rather than as a complementizer or another functional category.

2.7. Substitution

The first nominal constituent preceding the adnominal clause can replace *ke/kes*, allowing for doubling. Although acceptability judgments vary across speakers, such constructions are not categorically ungrammatical.

(11) umlyoswu↘ ttattusha-n   {ke,   ?umlyoswu} hana
     beverage↘ be.warm-ADN {thing, ?beverage} one
     satatukyesse.
     buy-PAST-DECL
     '(I) bought (someone) a warm beverage.'

The observed substitution pattern suggests that the first nominal constituent and *ke/kes* belong to the same lexical category, as they exhibit complementary distribution.

2.8. Falling Intonation and Pause

The first nominal constituent exhibits falling intonation, followed by a pause before the adnominal clause. In Korean, pauses typically occur between the topic and the comment, not between grammatical elements and their predicates.

(12) cepeney   ccinppang↘   khu-n   ke   sass-nuntay
     at that time steamed bred   be.big-ADN thing bought-however
     isscanha   keki-ey.
     you know there-LOC
     '(I) bought a big steamed bread at that time. You know?
     There ...' (5CM00050.txt)

The falling intonation and pause observed suggest the presence of a topic-comment structure in this construction, while simultaneously challenging the hypothesis that the first nominal constituent and the following predicate form a single clause.

2.9. Mutual Dependence between the Adnominal Clause and *kes*

The adnominal clause and *kes* are mutually dependent. A key observation from (13) is that *kes* must always be preceded by an adnominal clause and cannot occur in isolation; the omission of either element renders the construction ungrammatical.

(13) *(ccoykkumanha-n) *(kes)
       be.tiny-ADN   thing
       'something tiny'

The mutual syntactic dependence between the adnominal clause and *kes* can be easily accounted for if *kes* subcategorizes for the preceding clause. This interpretation aligns with analyses that treat *kes* as a complementizer (Jhang 1994), a bound noun (Kim 1999), or an anti-clitic (Ryu 2023a).

3. *kes* as Nominalizing Anti-Clitics

In traditional Korean grammar, *kes* has typically been classified as a dependent or bound noun. However, its varied usage contexts have sparked ongoing debates about its precise nature. Despite extensive research over the past three decades, no clear consensus has emerged regarding its status.

Four major competing hypotheses have been proposed. The first posits that *kes* functions as a complementizer (e.g., Jhang 1994), a view primarily found in studies analyzing (1) as an IHRC. The second classifies *kes* as a nominal (e.g., Chung and Kim 2003; Cha 2005), a perspective commonly adopted in the analyses within the framework of Head-driven Phrase Structure Grammar (HPSG). The third argues that *kes* functions as an E-type pronoun (e.g., Kim (2004); see Grosu (2010) for a detailed critique of this view). The final hypothesis treats *kes* as a nominalizer (e.g., Kim 1984).[3]

Notably, *kes* occurs independently, unlike other nominalizing morphemes such as *-um*, *-ki*, and *-m*, which are dependent morphemes. In recent work, Ryu (2023a) introduced the concept of the anti-clitic in Korean linguistics, which we adopt in this paper. Anti-clitics are phonologically and morphologically independent words that function as affixes (see Zúñiga (2014) and Zingler (2022) for further discussion). In contrast, the closely related term 'clitic' refers to a phonologically independent but morphologically dependent element that must attach to a preceding word. The use of *kes* as an anti-clitic is sharply distinguished from its two commonly assumed functions: as a complementizer and as a nominal lexeme. We first outline these two functions before clarifying the role of *kes* as an anti-clitic in the following subsections

3.1. *kes* as a Complementizer

One of the diverse functions of *kes* is as a complementizer, as illustrated in (14). *kes* functions as a complementizer only when it heads a complementizer

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[3] Analyzing *kes* in backward *kes*-modification constructions as a nominalizer has been criticized for failing to account for its syntactic independence, as it must be written as a separate morpheme in Korean orthography.

phrase (CP) subcategorized by a matrix predicate. This usage should be distinguished from its role in backward *kes*-modification constructions, where *kes* typically occurs in NP positions.

(14)[_{CP} emenim-i   tochakha-n kes]-ul   {al,   tul,
      mother-NOM arrive-ADN that-ACC {know,   hear,
   po}-ass-ta.
   see}-PAST-DECL
   '(I) {knew, heard, saw} that my mother arrived.'

The view that *kes* functions as a complementizer (e.g., Jhang (1994)) is primarily found in studies that analyze the backward *kes*-modification construction as an IHRC. However, the use of *kes* as a complementizer must be distinguished from its role in this construction.

3.2. *kes* as a Noun Lexeme

The word *kes* can function as a noun lexeme that subcategorizes for a determiner or a genitive noun phrase, as illustrated in (15).

(15)[_{NP} {i,   ku,   ce,   say,   hen, Chelswu-uy,   ...} kes]-i
      {this, the, that, new, old, Chelswu-GEN, ...} one-NOM
   coh-ta.
   be.good-DECL
   '(I) like {this, the, that, new, old, Chelswu's, ...} one.'

In these contexts, however, *kes* does not refer to a specific entity; instead, it refers to an unspecified referent marked with the feature [-HUMAN].[4] Therefore, this nominal use of *kes* should be distinguished from its role in the backward *kes*-modification construction.

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[4] Although rare, *kes* as a noun lexeme can be used to refer to a [+HUMAN] referent in a demeaning manner.

3.3. *kes* as Nominalizing Anti-clitics

The third type among various uses of *kes* is nominalizing anti-clitics. In this use, *kes* subcategorizes an adnominal clause and simultaneously saturates one of the arguments associated with the predicate of the adnominal clause. The entire combination of the adnominal clause and *kes* results in a lexical-level noun, N0.

Evidence that the combination of the adnominal clause and *kes* functions as a noun can be observed in the following examples. Yang (1972: 43) analyzes the construction in (16) as a class-member double subject construction, where the latter member constituent, *ttu-nun hay* (the rising sun), is unequivocally a noun.[5]

(16) hay-ka   ttu-nun   {hay-ka, (*ce)   kes-i}
     sun-NOM   rise-ADN   {sun,   (*that) thing}-NOM
     mesiss-ta.
     be.beautiful-DECL
     'The rising sun is beautiful.'

Furthermore, as shown in (16), when the noun *hay* (sun) is replaced with *kes*, the resulting expression still serves as the member constituent within the same construction. This strongly suggests that *kes*, in this context, functions as a noun.

(*ce) kes-i in (16) indicates that *kes* in this example is not functioning as a noun lexeme. The unacceptability of the demonstrative *ce* (that) preceding *kes* suggests that *kes* in (16) differs from the typical noun lexeme discussed earlier. Following Ryu (2023a), we propose that *kes* in (16) and in the backward *kes*-modification construction functions as a nominalizing anti-clitic.

Anti-clitics are conceptually the opposite of clitics in that they are

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[5] The two sentences presented in (16) belong to different types of multiple case marking constructions. According to Ryu (2013), (16a) falls under Type 7, the Class-Member type, while (16b) belongs to Type 9, the Object-Quality type. Furthermore, Ryu (2013) states that in multiple case-marking constructions, the order of noun phrases is subject to constraints, requiring them to appear in a fixed sequence.

phonologically independent but functionally resemble affixes. Consequently, they must be written separately in Korean orthography. While anti-clitics behave like affixes in terms of function, they exhibit morphological independence, distinguishing them from canonical affixes. Thus, anti-clitics can be conceptualized as 'non-canonical affixes' or 'non-canonical words.'

Certain Korean bound nouns, such as *kes*, *nom*, *ca*, and *pa*, are more accurately categorized as anti-clitics (see Ryu (2023a) for a more detailed discussion). The subcategories of anti-clitics identified by Ryu (2023a) are illustrated in Figure 1.[6]
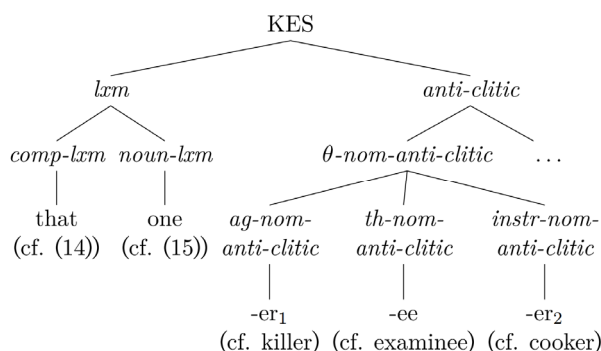

Figure 1. Classification of the Types of *kes* (Ryu 2023a)

The most important observation is that, despite being an independent lexical item, *kes* can satisfy one of the arguments associated with the predicate of the adnominal clause. For instance, *kes*, as an agent nominalizing anti-clitic, saturates the agent argument in (17). This is why the NP *kay-ka* (dog-NOM) cannot be realized within the adnominal clause. This subtype of anti-clitic functions similarly to the English agent nominalizing suffix *-er*$_1$, as seen in the derivations of *barker*, *runner*, and *watcher*.

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[6] The idea of *kes* as an anti-clitic can be extended to other uses of *kes*, as indicated by the symbol '. . .' in Figure 1. For instance, Ryu (2023a) also posited the existence of an event-nominalizing anti-clitic and a degree anti-clitic. For reasons of space and time, we will not address all potential instances of *kes* as anti-clitics further in this paper.

(17) [_{NP}[_S (*kay-ka)   cic-nun]   kes]-un   mwul-ci
       dog-NOM   bark-ADN   thing-TOP   bite-AF
anh-nun-ta.
do not-PRES-DECL
'Any barking entity does not bite.'

Likewise, the theme nominalizing anti-clitic (th-nom-ac) saturates the theme argument subcategorized by the predicate. This subtype of anti-clitic functions similarly to the English nominalizing suffix *-ee*, as seen in the derivations of *examinee*, *interviewee*, and *employee*. As illustrated in (18), when the predicate of the adnominal clause subcategorizes for a theme argument, an additional noun phrase referring to the theme cannot appear within the adnominal clause, since the theme argument is already saturated by *kes*.

(18) [_{NP}[_S pwukkukkom-i   (*yene-lul)   mek-nun] kes]-ul
       polar bear-NOM (*salmon-ACC)   eat-ADN   thing-ACC
nayelhaypo-sio.
list-IMP
'List what a polar bear eats.'

The third subtype is the instrument nominalizing anti-clitic (instr-nom-ac), which functions similarly to the English instrumental nominalizing suffix *-er2*, as seen in words like *mixer* and *cooker*. As shown in (19), a noun phrase referring to the instrument cannot appear within the adnominal clause when combined with *kes*.

(19) [_{NP}[_S (*naympi-lo) ramyen kkulhi-n   kes]-ulo   khephi-to
       (*pot-INST)   ramen   cook-ADN   thing-INST   coffee-DEL
kkulh-ess-ta.
brew-PAST-DECL
'I made coffee in the same pot I used for cooking ramen.'

This supports the argument that the instrument noun, conceptually required by the predicate of the adnominal clause, is already saturated by *kes*.

4. Backward *kes*-Modification as Multiple Case Marking Constructions

In Section 2, we thoroughly examined nine grammatical properties of the construction under investigation and critically addressed the linguistic issues associated with each. In Section 3, we established that *kes* functions as a nominalizing anti-clitic that saturates one of the theta roles associated with the immediately preceding predicate.

The foundational tenets of the MCMC hypothesis, as proposed in this study, are built upon the finding that *kes* is a nominalizing anti-clitic. In this section, we demonstrate how this proposal resolves the problems encountered by the IHRC hypothesis. We further argue that *kes* and the preceding adnominal clause form an NP, which subsequently combines with the preceding nominal via an adjunction rule. Finally, we present a default case-copying mechanism to ensure consistent case marking.

Before proceeding, we scrutinize the core assumptions of the IHRC hypothesis proposed in previous studies and expose its theoretical and empirical flaws.

4.1. The Core Ideas of the IHRC Hypothesis

In general, relative clauses are characterized by two key properties: (i) they function as subordinate clauses, and (ii) they are syntactically and semantically connected to the main clause through a pivot constituent (see de Vries (2002: 14) for further discussion). When the pivot constituent appears outside the relative clause, the construction is classified as an externally-headed relative clause (EHRC); when it appears inside, it is classified as an IHRC (see Cole (1987), among others). Relative clauses can be further categorized based on the presence of an internal gap: if a relative clause contains a gap, it is classified as a gapped relative clause; if not, it is classified as a gapless relative clause. From this perspective, EHRCs are inherently gapped, whereas IHRCs are, by definition, gapless.

The sentences in (20) illustrate typical EHRCs in Korean. While EHRCs represent the prototypical type of relative clause across languages, IHRCs have

also been attested in certain languages. The assertion that Korean possesses IHRCs as a distinct type of relative clause is substantiated by examples such as (21).
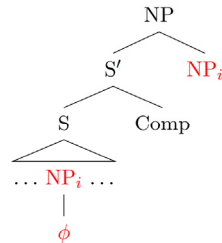
(20) kyengchal-i   [_____ unhayng-eyse   nao-nun]
     police officer-NOM   bank-LOC   come out-ADN
     totwuk-ul   cheypoha-ess-ta.
     thief-ACC   arrest-PAST-DECL
     'The police officer arrested the thief who came out of the bank.'

(21) kyengchal-i   [[totwuk-i unhayng-eyse   nao-nun]
     police officer-NOM thief-NOM   bank-LOC   come out-ADN
     kes]-ul   cheypoha-ess-ta.
     kes-REL   arrest-PAST-DECL
     'The police officer arrested the thief as he was coming out of the bank.'

In the IHRC example (21), the direct object of the matrix predicate *cheypoha-ess-ta* (arrested) can be interpreted as a noun phrase within the relative clause.[7] Based on this observation, the claim that constructions consisting of a preceding adnominal clause and *kes* constitute IHRCs in Korean was first proposed in the early 1990s (see Jhang 1991; Jung 1995, among others). Following Jhang (1994), the structural configurations of EHRCs and IHRCs can be schematically represented as follows.[8]

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[7] As noted by Ryu (2022), the fact that sentences like (21) appear in Korean and can be interpreted similarly to the EHRC example in (20) does not necessarily imply the existence of IHRCs in Korean. This is because such sentences could potentially be analyzed as constructions other than relative clauses. Indeed, Ryu (2023b) demonstrates that examples like (21) can be adequately analyzed through the mechanism of 'event for participant' metonymy.

[8] Some proponents of the IHRC hypothesis argue that lexical items like *kes* in (22b) undergo grammaticalization, transitioning into a functional category through an intermediate stage. See Jhang (1994) for a more detailed discussion.

(22) a. Structure of EHRCs   b. Structure of IHRCs
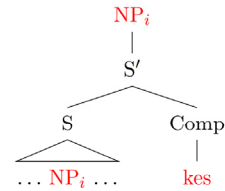
The IHRC hypothesis posits that the initial nominal constituent and the predicate immediately preceding *kes* form a single clausal unit. We challenge this central assumption in the following subsection.

4.2. The Arguments Against the IHRC and for the MCMC Hypothesis

In Section 2, we outlined key grammatical properties of the backward *kes*-modification construction. In subsection 2.1, we demonstrated that the first nominal constituent, as well as the combination of the adnominal clause and *kes*, can appear independently. This phenomenon suggests that the first nominal constituent and the predicate of the adnominal clause do not necessarily form a single clausal unit.

4.2.1. The Possible Absence of a Pivot NP

In Section 2.1, we highlighted the optionality of the first nominal constituent observed in the backward *kes*-modification construction. Since the IHRC hypothesis posits that the first nominal constituent and the predicate of the adnominal clause form a single clause, this optionality directly contradicts a fundamental assumption of IHRCs. An IHRC lacking a pivot noun phrase within the adnominal clause would be inherently inconsistent with its definition, as IHRCs are, by definition, gapless relative clauses.

Supporting the IHRC hypothesis would necessitate an additional *ad hoc* assumption: that the subject argument within the relative clause in (3b), though

not overtly realized, has undergone *pro-drop*. Such an assumption significantly undermines the validity of the IHRC hypothesis.

By positing *kes* as an anti-clitic, we can naturally account for the potential absence of a pivot NP. The optional absence is explained within the MCMC framework, as there is no requirement that the adnominal clause preceding *kes* be gapless. *kes* merely requires a predicate in adnominal form, primarily serving to nominalize the clause.

4.2.2. The Obligatory Non-Presence of a Pivot NP

A more compelling argument against the IHRC hypothesis arises from sentences in which all required arguments are realized within the adnominal clause, yet *kes* can refer to neither the subject nor the object NP, as demonstrated in (17)–(19). For readability, we repeat the example (18) as (23).

(23) [$_{NP}$[$_{S}$ pwukkukkom-i   (*yene-lul)   mek-nun] kes]-ul
        polar bear-NOM (*salmon-ACC)   eat-ADN   thing-ACC
    nayelhaypo-sio.
    list-IMP
    'List what a polar bear eats.'

Furthermore, the example in (23) demonstrates that *yene-lul* (salmon-ACC), the direct object of the adnominal clause, cannot appear in the adnominal clause. This phenomenon is completely incompatible with the IHRC hypothesis.

Since *kes* is a nominalizing anti-clitic in the MCMC hypothesis, we can naturally account for the obligatory absence of a pivot NP. In this case, the absence is obligatory because *kes* saturates one of the arguments associated with the predicate of the adnominal clause.

4.2.3. Genitive Marking

In allegedly typical IHRC examples such as (21), the combination of the adnominal clause and *kes* does not form a grammatical sequence when a

possessive marker is attached to *kes*, as shown in (24a).

(24) a. *kyengchal-i   totwuk-ul cap-un   kes-uy
      police officer-NOM thief-ACC   arrest-REL thing-GEN
      chinkwu (IHRC)
      friend
   b. [_{NP} pwukkukkom-i   mek-un   kes]-uy   moklok (MCMC)
       polar bear-NOM eat-ADN   thing-GEN   list
    'the list of things the polar bear ate'

The backward *kes*-modification can serve as a host for a possessive marker as pointed out in section 2.4. In this construction, *kes* subcategorizes for an adnominal clause and inherits one of the arguments of the predicate of that clause. The combination of the adnominal clause and *kes* as an anti-clitic results in a lexical-level noun. As a natural consequence, a genitive case marker can attach.
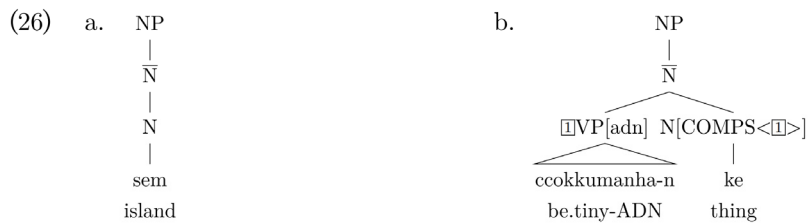
4.2.4. Plural Marking

In Section 2.5, we demonstrated that plural marking can be attached to *kes* in the backward *kes*-modification construction. However, in typical IHRC examples such as (21), plural marking is not permitted after *kes*, indicating that the IHRC hypothesis is an untenable analysis of the backward *kes*-modification construction.

(25) *Chelswu-ka   [khemphwuthe-ka kocangna-n]
    Chelswu-NOM   computer-NOM   be.broken-ADN
    kes-tul-ul   kochi-ess-ta.
    kes-PL-ACC   fix-PAST-DECL

In the same vein, we treat *kes* as a nominalizing anti-clitic. The combination of the adnominal clause and *kes* as an anti-clitic results in a lexical-level noun. It is quite natural that plural marking can be attached to *kes* in the analysis proposed in this paper, just as common nouns can be pluralized.

4.3. Multiple Occurrence of *kes* as Adjunction

We demonstrated that while a noun can naturally appear independently, as in (26a), a construction consisting solely of an adnominal clause and *kes*, without a pivot noun phrase, can also stand independently, as shown in (26b).

(26)   a.
```
        NP
        |
        N̄
        |
        N
        |
       sem
      island
```
   b.
```
             NP
             |
             N̄
            /    \
    ①VP[adn]   N[COMPS<①>]
       /  \          |
ccokkumanha-n        ke
 be.tiny-ADN        thing
```
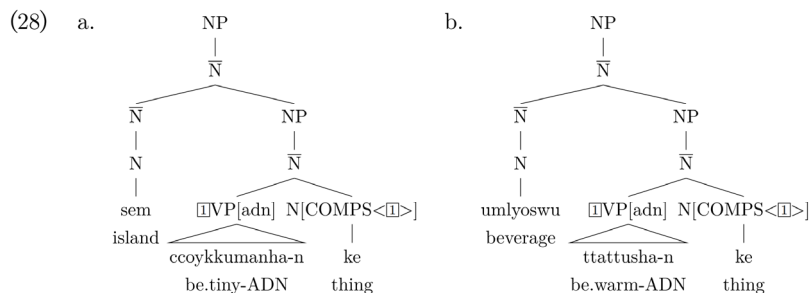
We now aim to clarify how two noun phrases combine recursively to form larger linguistic units. To this end, we propose an adjunct rule based on the principles of X-bar theory.

(27) Backward *kes*-Modification as Adjunction (preliminary)

$$\overline{X} \rightarrow \overline{X}\ YP$$

Unlike the specifier-head and complement-head rules in X-bar theory, the adjunction rule proposed above allows an intermediate category and a maximal projection to combine, thereby forming another intermediate category. The repeated occurrence of the *kes*-nominalized phrase can be formed by applying the rule (27).

(28)   a.
```
              NP
              |
              N̄
            /    \
         N̄        NP
         |         |
         N         N̄
         |       /    \
        sem  ①VP[adn]  N[COMPS<①>]
      island   /  \        |
        ccoykkumanha-n     ke
          be.tiny-ADN     thing
```
   b.
```
               NP
               |
               N̄
            /     \
         N̄         NP
         |          |
         N          N̄
         |        /    \
      umlyoswu ①VP[adn]  N[COMPS<①>]
      beverage   /  \        |
          ttattusha-n        ke
           be.warm-ADN      thing
```

Since the intermediate projection can recursively combine with another noun phrase consisting of an adnominal clause and *kes* at any stage, the proposed rule allows repeated application. Consequently, as demonstrated in the following examples, multiple consecutive occurrences of noun phrases composed of an adnominal clause and *kes* can be systematically analyzed without issue.

(29)
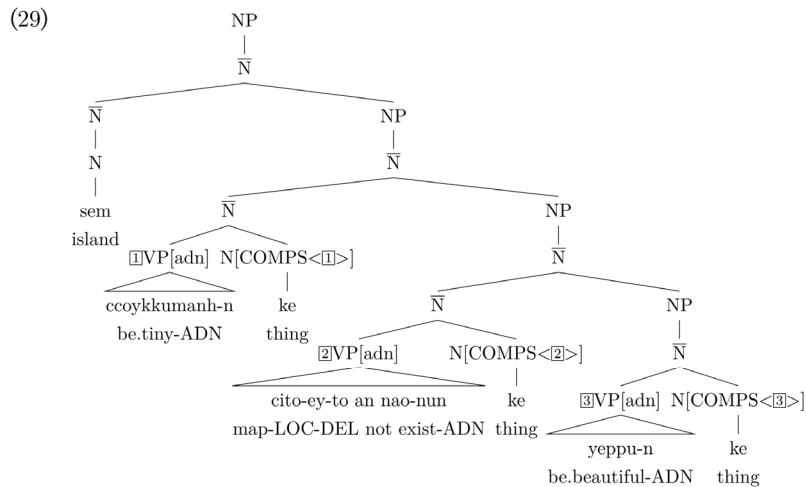
Thus far, we have established an analytical framework that decisively accounts for the multiple occurrences of the backward *kes*-modification construction. In the following section, we confront the persistent issue of multiple identical case marking, demonstrating how the proposed framework overcomes this challenge.

4.4. Backward *kes*-Modification as a Multiple Case Marking Construction

A case marker may be omitted after the first nominal constituent, a phenomenon particularly prevalent in spoken Korean. However, a case marker can also be affixed to both the first noun phrase and *ke/kes*. When case marking occurs, it must remain consistent throughout the entire construction, as established in Section 2.3.

This case-sharing phenomenon poses a formidable challenge to the IHRC hypothesis, as the presence of the accusative case marker on the first nominal constituent directly contradicts the assumption that the first nominal constituent and the adnominal clause preceding *ke/key/kes* form a single clause. Crucially, we observed that the nominative case marker is consistently attached to each *kes*-nominalized phrase in (4). Moreover, the sentence in (5) reveals a striking asymmetry: while the accusative case marker can appear on both the first nominal constituent and the *kes*-nominalized phrase, the nominative case marker cannot.

Using (30) as an example, I will demonstrate why the IHRC hypothesis fails to account for the case-sharing phenomenon, whereas the MCMC hypothesis proposed in this paper correctly predicts it. In (30), *key* is a colloquial variant of *kes* followed by a nominative case marker. The first nominal constituent, *kwul* (oyster), can appear without an explicit case marker. Crucially, when a case marker is present, it must match the case attached to *kes*, as shown in (30a).

(30) a. [_{NP} kwul-i   kkepcil   ccay ttao-nun
      b. *[_{NP} kwul-ul   kkepcil   ccay ttao-nun
           oyster-NOM/*-ACC} shell   with harvest-ADN
       key]   singsingha-ta
       thing-NOM   be.fresh-DECL
       'The oysters harvested with their shells are fresh.'

The IHRC hypothesis predicts that *kwul* (oyster) should be marked accusative, as it functions as the object in the adnominal clause. However, the accusative case is categorically ruled out in practice, revealing a critical flaw in the hypothesis. This misprediction arises from the assumption that the first nominal constituent and the adnominal clause predicate form a single clausal unit. The evidence presented here calls for a reassessment of this core assumption.

To reflect these syntactic properties, we extend the adjunct rule initially proposed in (27), modifying it as in (31) so that the final noun phrase and the constituent composed of the adnominal clause and *kes* receive the same case marking. Here, we tentatively assume that the [CASE] feature may take

grammatical case values, specifically nominative (*nom*) and accusative (*acc*).

(31) Backward *kes*-Modification as Adjunction with the identical Case
(final)

$$\overline{X}\left[\text{CASE } \boxed{1}\right] \rightarrow \overline{X}\left[\text{CASE } \boxed{1}\right] \text{YP}\left[\text{CASE } \boxed{1}\right]$$

According to the rule in (31), only identical case markers can be realized within this construction. This formulation precisely captures and explains the observed case-marking constraints in the data.

(32)
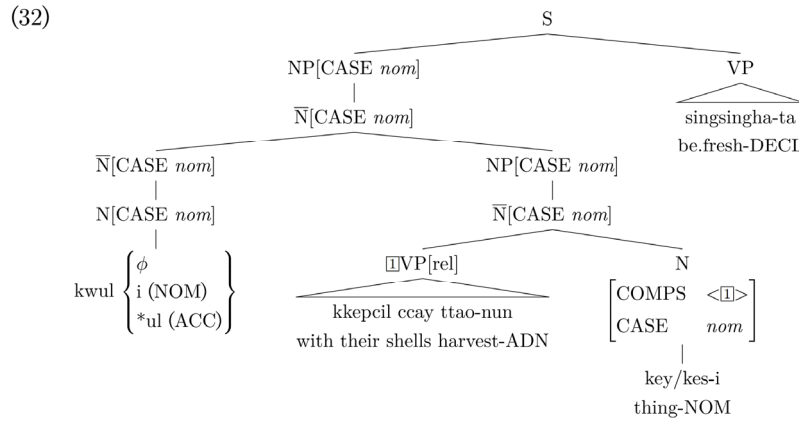
Notably, the matrix predicate in (32) is intransitive. Since *kes* is marked with the nominative case, the first nominal constituent must also receive the same case marking. The proposal in this study naturally explains why the first nominal constituent must be marked with the nominative case, as shown in (32). Furthermore, we can predict that the covertly realized case, represented as ϕ, is nominative.

A key property to note in (30)–(32) is that when the first nominal constituent and the [adnominal clause + *ke/key/kes*] construction form a MCMC, the case marker attached to the first nominal constituent must be identical to the one attached to the entire noun phrase. This pattern is straightforwardly accounted for by the rule in (31), which ensures that all constituents within the construction bear the same case marking.

A final point to clarify is that a strict ordering constraint exists between the first nominal constituent and the [adnominal clause + *kes*] structure. This constraint arises because backward *kes*-modification belongs to the Type 9 object–quality category among the multiple case-marking constructions classified by Ryu (2014). Constructions in which the word order is reversed are not permitted. For a more detailed discussion of multiple case-marking construction types, see Ryu (2014).

4.5. Semantics of Backward *kes*-Modification

Thus far, we have analyzed the combination of the first nominal constituent and [adnominal clause + *kes*] as an instance of two independent noun phrases merging via the adjunction rule. In this analysis, the first nominal constituent is treated as a general noun phrase, and the combination of the adnominal clause and *kes* is also analyzed as a general noun phrase.

In Montague semantics, a general noun is represented as a unary predicate that takes an entity as an input and returns a truth value (true or false). From a set-theoretic perspective, the noun island can be interpreted as the set of entities that satisfy the property of being an island, represented as $\{x|island(x)\}$ (i.e., 'the set of islands').

Similarly, since cakun *kes* (small thing) is also a general noun phrase, it can be interpreted within a set-theoretic framework as the set of entities that satisfy the property being small, represented as $\{x|small(x)\}$. This relationship is schematically represented in (33).

(33)   a.   [sem]
$$= \lambda x[island(x)] = A$$

b.   [ccoykkumanha-n kes]
$$= \lambda y[be.tiny(y)] = B$$
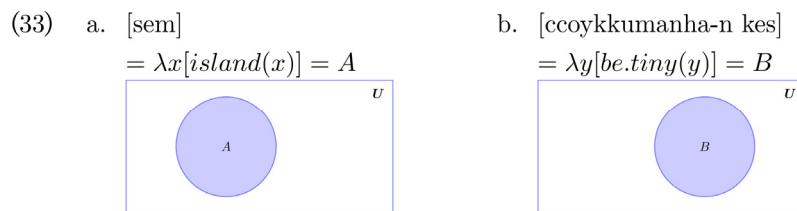
From a semantic perspective, the meaning of expressions such as [*sem cakun kes*] (tiny island), where two general noun phrases combine via the adjunction rule, is represented as in (34). This semantic representation is fundamentally identical

to that of English noun phrases modified by relative clauses, as shown in (35).

(34)   a. $[[\text{sem}]\ [\text{ccoykkumanha-n kes}]] = \lambda x[island(x) \wedge \lambda y[tiny(y)](x)]$
$= \lambda x[island(x) \wedge tiny(x)] = A \cap B$
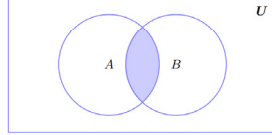
(35) $[_{\text{CNP}}\ [_{\text{CNP}}\ \text{sun}]\ [_{\text{REL}}\ \text{that rises}]] = \lambda x[\text{CNP}'(x) \wedge \text{REL}'(x)]$
$= \lambda x[sun(x) \wedge \lambda y[rise(y)](x)] = \lambda x[sun(x) \wedge rise(x)]$

As previously mentioned, the number of [adnominal clause + *kes*] constituents that can combine with the first noun phrase is not limited to one. In principle, two or more such constituents may attach to the first noun phrase via the adjunct rule. An example of this is provided in (36).

(36) $[[\text{sem}]\ [\text{cito-eyto an nao-nun ke}]\ [\text{ccoykkumanha-n key}]]$
$= \lambda x[island(x) \wedge tiny(x) \wedge \neg on\_the\_map(x)] = A \cap B \cap C$
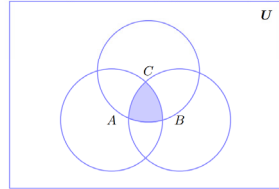
In this case, if we denote the meaning of the final constituent, *cidoeyto an naonun kes* (something not even appearing on a map), as set C, then the overall interpretation is determined by entities belonging to the intersection of sets A, B, and C, as described above.

5. Conclusion

Despite its seemingly limited attention, the backward *kes*-modification construction increasingly challenges existing theories of Korean syntax,

particularly those concerning complementation, relativization, and case marking. A precise understanding of this construction is crucial for fully grasping the multifaceted use of the homophonous and often elusive word *kes*, including its morphological status and syntactic role. This investigation not only deepens our understanding of how these grammatical processes interact in spoken Korean, but also sheds light on the dynamic interplay between morphology, syntax, and semantics in everyday language use.

We identified nine key linguistic properties of the backward *kes*-modification construction, including the optionality of the first nominal constituent, multiple *kes*-modification, identical case marking, genitive case marking, plural marking, selectional restrictions, substitution, falling intonation and pause, and the mutual dependence between the adnominal clause and *kes*.

In Korean linguistics, an unsubstantiated view persists that *kes*-related clauses are IHRCs, including, unsurprisingly, the backward *kes*-modification construction. Typological and theoretical inquiries into the combination of *kes* and its preceding adnominal clause in Korean demand both a rigorous clarification of the linguistic nature of *kes* and a substantiation of the purported IHRC hypothesis. While the former has garnered considerable attention, the latter has largely been neglected, resulting in the misclassification of various *kes*-adnominal clause combinations as IHRCs. In recent work, Ryu (2022) argued that the alleged IHRCs in Korean fail to meet the definition of IHRCs in other languages, highlighting their lack of core grammatical properties typically associated with IHRCs. According to his argument, these so-called IHRCs in Korean are a misnomer, necessitating a fundamental reassessment of their linguistic justification.

As part of pursuing this long-term objective, we critically examined and challenged the prevailing claim that the backward *kes*-modification construction constitutes a type of IHRC. The core tenet of the IHRC hypothesis asserts that the clause preceding *kes* must form a subordinated, saturated clause and include an argument that can be coindexed with *kes*. Our conclusion, however, is unequivocal: the backward *kes*-modification construction is not an IHRC. To substantiate this claim, we provide compelling evidence from six key phenomena: the possible absence of a pivot NP, the obligatory non-presence of a pivot NP, genitive case marking, plural marking, multiple occurrences

of *kes*, and multiple identical case marking.

As an alternative, we proposed analyzing this construction as an instance of MCMCs. The central tenets of the MCMC hypothesis, as outlined in this study, can be summarized as follows. First, *kes* functions as a nominalizing anti-clitic, saturating one of the theta roles associated with the immediately preceding predicate. Anti-clitics are phonologically and morphologically independent words that behave as affixes. In the backward *kes*-modification construction, *kes* acts as an anti-clitic, subcategorizing for a predicate and forming a word-level noun in conjunction with it. Second, *kes* and the preceding adnominal clause form an NP, which then combines with the preceding nominal via an adjunction rule. Third, a default case-copying mechanism ensures uniform case marking. Finally, we demonstrated that, from a semantic standpoint, this construction can ultimately be represented in a formal semantic structure equivalent to that of relative clauses.

If the conclusions reached in this paper are correct, they call for a fundamental reassessment of the unsubstantiated claim that *kes*-related clauses are IHRCs. While a detailed analysis of the purported IHRC example (21) in Section 4.1 is beyond the scope of this study, the insights offered here may prove valuable for future investigations of this example, as well as (pseudo-)cleft sentences, copular constructions, and comparative sentences. These and other related topics are left for future research.

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