# The Factive, IHRC, and Cleft constructions in Korean 

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#### Abstract

This article aims to develop a Cognitive Grammar (CG) analysis of three grammatical constructions in Korean, all of which employ the bound noun kes. The data under examination includes the Factive, Internally Headed Relative Clause (IHRC), and Cleft constructions. We propose a uniform treatment of the three types of kes by arguing that it denotes a schematic noun that profiles a thing (noun) and has some role in the process of the adnominal clause. Different interpretations of these constructions arise due to different types of conceptualizations involved in each instance. In so doing, we point out that previous proposals that deal with kes are neither general enough to capture the commonalities observed in all three constructions nor can account for the new observations we present.


Keywords: Cleft construction , Cognitive Grammar (CG), Factive construction, Internally Headed Relative Clause (IHRC) construction, kes the schematic noun, Korean

## 1. Introduction ${ }^{1}$

This article aims to develop an analysis of three grammatical constructions in Korean from a Cognitive Grammar (CG) perspective. The three constructions all of which involve the bound noun kes are illustrated in (1-3) kes. ${ }^{2}$

## (1) The Factive construction

Mia-ka [Gio-ka swuhak-ul cenkongha- $\varnothing$-n] kes-ul al-ass-ta.

[^0]M-NOM G-NOM math-ACC major.in-PST-ADN KES-ACC know-PST-DCL 'Mia knew that Gio majored in mathematics.'
(2) The Internally Headed Relative Clause (IHRC) construction

Mia-ka [kangaci-ka tallyeka-nu-n] kes-ul cap-ass-ta.
M-NOM puppy-NOM run-PRS-ADN KES-ACC catch-PST-DCL
'Mia caught the puppy, who was running away.
(3) The Cleft construction ${ }^{3}$
a. Mia-ka kuliwe-ha- $\varnothing$-n kes-un Gio-i-ta.

M-NOM miss-do-PST-ADN KES-ADN G-COP-DCL
'What Mia missed is Gio.'
b. ?? Gio-nun Mia-ka kuliwe-ha- $\varnothing$-n kes-i-ta. G-TOP M-NOM miss-do-PST-ADN KES-COP-DCL 'Gio is what Mia missed.'

In (1), what Mia knew is the whole adnominal clause, and these two events-the events described by the matrix and adnominal clauses-are mediated by kes. While kes is a direct object, what is really functioning as an object is the adnominal clause. As such, it exhibits the property of zone activation; kes is the profiled participant, whereas the adnominal clause constitutes the active zone with respect to its participation in the matrix-clause event. ${ }^{4}$ Example (2) exhibits a typical case of metonymy. While the grammatical object is the kes-clause, what Mia caught is the puppy-the agent of the action denoted by the adnominal clause. Induced by the matrix predicate, a metonymic interpretation of the adnominal clause becomes available through the ACTION FOR AGENT metonymy. Considering that metonymy and zone activation are intricately related, the similarities between (1) and (2) are expected. The kes in (3a-b) has the same semantic base as the other two constructions, which is devoid of any contentful meaning.

[^1]In the Copula construction required for (3a), the predicative nominal Gio is equated with the schematic theme of the adnominal clause. We argue that the reason the inversion of (3a) is only marginally acceptable, as in (3b), is also attributed to the schematic nature of kes, which does not exhibit referentiality.

The organization of this article is as follows. We provide descriptive properties of these constructions in Section 2 through Section 4. Then, after a brief introduction to the CG notions germane to our analysis in Section 5, our technical CG analysis is presented in Section 6. Section 7 summarizes our findings and analysis. The data presented in this article comes from two sources: other researchers' published works and our intuition as native Korean speakers. Following the guidelines suggested by the Austin Principles of Linguistic Data Citation (BerezKroeker et al., 2018), when an example is directly cited from a published work, its source is identified with the author's name, publication year, and page numbers. Unannotated examples refer to those created by our intuition. ${ }^{5}$
2. The Factive construction

The kes in the Factive construction can felicitously alternate with the contentful noun sasil 'fact', as shown in (4a-b).
(4) a. na-nun [Mia-ka sakwa-lul cohaha-nu-n] kes-ul al-ass-ta. I-TOP M-NOM apple-ACC like-PRS-ADN KES-ACC know-PST-DCL 'I knew that Mia liked apples.'
b. na-nun [Mia-ka sakwa-lul cohaha-nu-n] sasil-ul al-ass-ta. I-TOP M-NOM apple-ACC like-PRS-ADN fact-ACC know-PST-DCL 'I knew the fact that Mia liked apples.'

[^2]This does not mean the kes in (4a) is a contenful noun; rather, its interchangeability with sasil is an epiphenomenon of the Factive construction. The Factive construction like (4a) presupposes the adnominal clause as a factual statement, as indicated by the negation test in (5). The presupposition 'Mia likes apples' from (4a) survives the negation test, maintaining the same presupposition. Owing to the factive predicate, the factual interpretation of the adnominal clause is warranted. The matrix predicate and the factivity of the admonial clause are then mediated by kes; as such, kes gives rise to the meaning of 'fact'.
(5) na-nun [Mia-ka sakwa-lul cohaha-nu-n]

I-TOP M-NOM apple-ACC like-PRS-ADN
kes-ul al-ci mos-hay-ss-ta.
KES-ACC know-NEG NEG-do-PST-DCL
'I didn't know that Mia liked apples.'

The kes in (4a) is different from the contentful kes shown in (6a). While the contentful kes may be modified by an adjectival expression, as in (6b), the same type of modification results in a marginally acceptable sentence with the schematic kes, as shown in (6c). The contentful kes cannot refer to a human entity, as in (7).
(6) a. nay-ka ku kes-ul po-ko siph-ta

I-NOM that thing-ACC see-COMP desire-DCL
'I want to see that thing.'
$\begin{array}{llllll}\text { b. nay-ka } & \text { ku } & \text { alumtawu-n } & \text { kes-ul } & \text { po-ko } & \text { siph-ta } \\ \text { I-NOM } & \text { that } & \text { beautiful-ADN } & \text { thing-ACC } & \text { see-COMP } & \text { desire-DCL }\end{array}$ 'I want to see that beautiful thing.'
c. ?? na-nun [nay-ka kongpwu-lul anh-ha- $\varnothing$-n] paposulewuessten

I-TOP I-NOM study-ACC not-do-PST-ADN stupid
kes-ul hwuhoy-ha-n-ta.
KES-ACC regret-do-PRS-DCL
'I regret that I stupidly didn't study.'
(7) * Mia-ka cip-ey eps-nuntey, na-nun ku kes-i


Note that the Factive construction may allow ku kes 'that thing' instead of kes, as in (8a). When it happens, $k u$ kes 'that thing' may be further modified by adjectival expressions, as in (8b). It is important to point out that there is no empirical evidence to identify the kes in $k u$ kes as the schematic kes because the kes in this case refers to a non-human entity; it cannot normally refer to a human. ${ }^{6}$ As discussed later, the schematic kes can refer to either a human or a non-human entity. Then, it is reasonable to identify the kes in ku kes as the contentful kes modified by the demonstrative $k u$, which gives rise to the pronominal $k u$ kes. Our observation that $k u$ kes in (8a) is a pronominal is based on the examples ( $8 \mathrm{~b}-\mathrm{d}$ ). While $k u$ kes is compatible with adjectival modification, kes is not.

| a. na-nun | [nay-ka | kongpwu-lul | anh-ha- $\varnothing$-n] |
| :--- | :--- | :--- | :--- | :--- | :--- |
| I-TOP | I-NOM | study-ACC | not-do-PST-ADN |

[^3]ridiculous KES-ACC yesterday know-PST-DCL
Intended: 'Yesterday, I discovered the ridiculous fact that Mia majored in mathematics'

This behavior is shared with other pronominals, such as $k u$ 'he/him' and kunye 'she/her', as shown in (9). By contrast, any type of adjectival modification yields an awkward or unacceptable result with the schematic kes, as in (8d) as well as in (6c). We therefore provide different translations for the examples that include $k u$ kes.
(9) c. mengchengha-n ku-ka na-lul himtul-key hay-ss-ta.
stupid-ADN he-NOM I-ACC difficult-ADV do-PST-DCL
'(That) stupid guy made things difficult for me.'
d. ttottokha-n kunye-ka wuli hoysa-ey khun towum-i toy-n-ta. smart-ADN she-NOM our company-LOC big help-NOM become-PRS-DCL 'That smart woman is a big help for our company.'

The kes in the Factive construction cannot be pluralized when the described situation denotes multiple events, as shown in (10). Conversely, the contenful kes can be pluralized like common nouns, as in (11). Just like other pronominals, $k u$ kes can be pluralized, as shown in (12).
(10) * na-nun [[Mia-ka sakwa-lul cohaha-ko Gio-ka pay-lul I-TOP M-NOM apple-ACC like-CONJ G-NOM pear-ACC cohaha-nu-n] kes]-tul-ul al-ass-ta. like-PRS-ADN KES-PL-ACC know-PST-DCL 'I knew that Mia liked apples and Gio liked pears.'
(11) na-nun London-eyse [manh-un kes]-tul-ul twulle po-ass-ta. I-TOP L-at many-ADN thing-PL-ACC around see-PST-DCL 'I looked around various things (places) in London.'

| a. na-nun ku kes-tul-ul | sa-ss-ta. |
| :--- | :--- | :--- |
| I-TOP that thing-PL-ACC | buy-PST-DCL |
| 'I bought those things.' |  |

b. ku-tul-i nolay-ul pwull-ess-ta.
he-PL-NOM song-ACC sing-PST-DCL
'They sang the song.'
c. kunye-tul-i tochak-hay-ss-ta.
she-PL-NOM arrive-do-PST-DCL
‘They (females) arrived.

In sum, the kes employed in the Factive construction exhibits the properties of a schematic noun, as opposed to a contentful noun.
3. The IHRC construction

The second construction that employs kes is the IHRC construction. A typical example of the IHRC construction is introduced in (13). While the grammatical object is the kes-clause, what Mia saved is Gio, which is an argument of ppaci- 'fall' in the adnominal clause.
(13) Mia-nun [[Gio-ka pata-ey ppaci-nu-n] kes]-ul kwuhaynay-ess-ta. M-TOP G-NOM ocean-in fall-PRS-ADN KES-ACC save-PST-DCL 'Mia saved Gio, who fell in the ocean.'

The properties of the IHRC construction are extensively discussed in earlier works, including but not limited to Hoshi (1995); Shimoyama (1999, 2001); Grosu (2010); Grosu \& Landman (2012); Landman (2016); Grosu \& Hoshi (2016, 2018, 2019); and Kitagawa (2019). The data these scholars analyze almost exclusively consists of Japanese, which exhibits substantial typological similarities to Korean. For Korean as well, we find noteworthy proposals from Y.-B Kim (2002); Chung \& J.-B. $\operatorname{Kim}(2003)$; and M.-J $\operatorname{Kim}(2007,2009)$, among others. There is also a group of linguists publishing in Korean from a traditional Korean linguistics perspective. While this group's research has not been widely available for scholars outside of Korea, we note that their work provides valuable generalization concerning the IHRC construction. Some of the
representative works include S.-Y. Moon (2012, 2017); H.-J. Park (2019); C.-H Lee (2020); and J.-E Lee (2020).

### 3.1 Properties of the IHRC construction

Dixon (2010) identifies the properties of the IHRC construction in (14). While (14a) and (14b) are shared with other relative clauses, (14c) is a unique property of the IHRC construction. In defining the IHRC, we use Dixon's term common argument in (14c) inclusively, encompassing unexpressed semantic entities, such as the result of an action. The common argument does not have to be linguistically coded in the adnominal clause.
(14) a. The underlying structures of the main and relative clauses must share an argumentcommon argument.
b. The relative clause functions as a syntactic modifier of the common argument in the main clause. At the semantic level, it will normally provide information about the common argument which assists in focusing - or restricting - the reference of the common argument.
c. The fullest statement of the common argument is in the relative clause.
(Dixon, 2010, pp.314-318)

Cinque (2020) discusses the IHRC construction in Lakhota, Japanese, Korean, Quechua, Chamorro, Hidatsa, Navajo, and Gur, but the behaviors of Korean do not fall under the same classification as the other languages. S.-Y Moon $(2012,2017)$ points out that the IHRC construction in Korean differs from other languages; it exhibits the additional properties listed in (15).
(15) a. The head of the adnominal clause can be either definite or indefinite.
b. The predicate of the adnominal clause is generally non-stative.
c. The events described by the adnominal and the matrix clauses are meaningfully related.
d. The property of kes is different from other languages' nominalizers; it is not fully
grammaticalized as a nominalizer.

More specifically, S.-Y Moon (2012, p.55) notes that the kes in the IHRC construction exhibits a combination of properties found in nominalizers, pronominals, and complementizers. Both (16a) and (16b) show that the kes in these examples exhibits all of the properties identified by S.-Y Moon in (15).
(16) a. [[ce mellise pesui-ka on-nu-n] kes $\left._{i}\right]$-ul palkyen-hay-ss-ta. that far.distance bus-NOM come-PRS-ADN KES-ACC discover-do-PST-DCL '(I) noted the bus, which was coming from far away.'
b. na-nun [[kami-i namwu-eyse tteleci- $\varnothing$-n] kesi]-ul I-TOP persimmon-NOM tree-from fall-PST-ADN KES-ACC cwuwe-se mek-ess-ta. pick.up-CONN eat-PST-DCL 'I picked up and ate a persimmon, which had fallen from the tree.'

We demonstrate that the properties listed in (15) are symptomatic of the metonymic nature of the IHRC construction. It is also demonstrated that the kes in the IHRC construction is a schematic noun as opposed to a fully grammaticalized nominalizer. Put differently, the kes in the IHRC construction is the same as the kes employed in the Factive construction. The difference between the two constructions lies in the degree of zone activation. While the whole adnominal clause serves as the active zone with respect to the matrix-clause event in the Factive construction, one participant of the adnominal clause serves as the active zone in the IHRC construction. Detailed discussion of the difference is presented in Section 6.
3.2 Restrictions on predicate types

Researchers, such as Chung \& J.-B. Kim (2003); M.-J Kim (2007, 2009); and J.-B. Kim (2016), claim that the matrix predicate of the IHRC construction must be non-stative. Therefore, (17) which includes the perception verb, po- 'see', is not an IHRC construction to these scholars; rather, it is a Perceptive construction. According to them, the Perceptive construction permits only one interpretation, as indicated in (17).
(17) na-nun [[Mia-ka cip-ey o-nu-n] kes]-ul po-ass-ta. I-TOP M-NOM home-to come-PRS-ADN KES-ACC see-PST-DCL 'I saw the scene that Mia was coming home.'

However, a vexing problem arises when we consider (18). Though the matrix predicate is a perception verb, only the IHRC reading is permitted, which is contradictory to the aforementioned researchers' claim. In our view, (17) may also be interpreted as an IHRC construction, where what the protagonist saw was Mia as opposed to the whole scene. ${ }^{7}$ Our view does not pose a challenge with (18) either, because perception verbs do not block the IHRC reading.

| sensayngnim-i | [[nay-ka inthenes-ey | swukchey- |
| :---: | :---: | :---: |
| teacher-NOM | I-NOM internet-on | homework-ACC |
| olli- $\varnothing$-n] | kes]-ul po- | -ess-ta. |
| upload-PST-AD | KES-ACC see | HON-PST-DCL |
| '(My) teacher | the homework, wh | uploaded on the |

[^4]The other piece of evidence that perception verbs are allowed in the IHRC construction comes from (19). There, what the protagonist saw is the completely burnt paper, not the scene of the paper burning; the non-IHRC reading is not available.
na-nun ku cip-ey tulekaca-maca
I-TOP that house-LOC enter-as.soon.as
[[congi-ka wancenhi tha-peli- $\varnothing$-n] kes]-ul po-ass-ta. paper-NOM completely burn-AUX-PST-ADN KES-ACC see-PST-DCL
Intended: 'As soon as I entered the house, I saw the ashes of the completely burnt paper.'

Now, let us consider another perception verb, tut- 'hear'. To M.-J. Kim, (20) is a Perceptive construction, rather than an IHRC construction. The kes in this example is interpreted as the product of Mia's playing the viola-a sound. M.-J Kim (2009) resolves this issue by stipulating logical forms for (19) and (20), which can be applied to the Perceptive construction.
(20) na-nun [Mia-ka piolla-ul yencwu-ha-nu-n] kes-ul tul-ess-ta.

I-TOP M-NOM viola-ACC play-do-PRS-ADN KES-ACC hear-PST-DCL
'I heard the sound of Mia playing the viola'

We are not convinced by a proposal that treats the kes in (17) and (20) differently from that of IHRC examples; there is no empirical justification to account for the rise of the meaning 'scene' and 'sound' in that approach. More importantly, this type of situation is not just limited to perception verbs. Let us consider (21), where the matrix verb is a non-perceptive stative verb. According to H.-J. Park (2019), (21a) shows a three-way ambiguity; the third interpretation involves the product of the writing done by the child, although the predicate is not a perception verb. If we adhere to M.-J Kim's approach, we need a different type of stipulation for (21a) because the matrix predicate is stative but non-perceptive. In addition, the perception verb, tut-
'hear' can have a shared argument that originates in the adnominal clause as well, as shown in (21b). Furthermore, (21c) illustrates another example of the IHRC construction with a nonperception stative verb.


The data presented shows that the matrix predicate can be stative in the IHRC construction, and a perception verb is indeed permitted in that construction.

### 3.3 Pragmatic restrictions

The IHRC construction is not freely available even when all syntactic and semantic conditions are met. The examples in (22) and (23) are not acceptable, although their grammatical patterns are parallel to those of (17) and (20). According to Y.-B. Kim (2002), purely structure-based approaches, such as S.-E. Jhang (1991) and D. Chung (1999), fail to account for the unacceptability.


Based on Kuroda's (1976) claim that relevancy is the pivotal notion in the grammar of the IHRC construction, Y.-B. Kim (2002) proposes that the adnominal clause and the matrix predicate must be meaningfully related to sanction a felicitous IHRC construction. For example, the event denoted by the adnominal clause in (24), [the action of the babies going to their mothers], is meaningfully related to [the action of Mary stopping the babies] in the sense that Mary caught them because the event of [babies going to their mothers] might cause trouble.

| Mary-nun | [[emma-eykeylo | ka-nu-n] | aki-tul]-ul | cap-ass-ta. |
| :--- | :---: | :--- | :--- | :--- |
| M-TOP mom-toward | go-PRS-ADN | baby-PL-ACC | catch-PST-DCL |  |
| 'Mary caught the babies while they were going to their mothers.' |  |  |  |  |

In Section 3.2, we discussed that the IHRC construction prefers a non-stative predicate in the adnominal clause. Researchers, such as M. Lee (2004) and M.-J Kim (2009), claim that the

Perceptive construction, which we view as an IHRC, cannot contain an individual-level predicate. One of M.-J Kim's examples is provided in (25).

| (25) | * John-un | [Mary-ka | cangnankkwuleki-i-Ø]-n | kes]-ul | po-ass-ta |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | J-TOP | M-NOM | mischievous.kid-COP-PRS-ADN | KES-ACC | see-PST-DCL |
|  | Intended: (M.-J Kin | John saw $\text { , 2009, p. } 3$ | Mary, who was a mischievous kid.' 1) |  |  |

Unlike M.-J Kim's observation, (26) is completely acceptable despite the individual-level predicate contained in the adnominal clause.

| (26) | na-nun | [[Gio-ka | emcheng | ki-ka | khu-n] |
| :--- | :--- | :---: | :--- | :--- | :--- |
|  | I-TOP | G-NOM | extremely | height-NOM | big-ADN |
| kes]-ul | ollyeta | po-ass-ta |  |  |  |
|  | KES-ACC look.up see-PST-DCL |  |  |  |  |
|  | 'I looked up at Gio, (because) she was extremely tall.' |  |  |  |  |

In our view, (26) is an IHRC construction, and its acceptability can also be explained with the relevancy constraint: [Gio's being extremely tall] and [my looking up] are meaningfully related through a causal relationship. It is true that (25) is either unnatural or awkward, but the reason has nothing to do with the property of the predicate of the adnominal clause. In (25), it is not easy to establish a coherent relation between [Mary's being a mischievous kid] and [John's visually perceiving it]; therefore, (25) does not easily satisfy the relevancy requirement.

### 3.4 Metonymic interpretations

Metonymic properties of the IHRC construction have drawn even less attention from researchers in the literature of Korean linguistics. Let us consider the examples in (27). In both (27a) and
(27b), the arguments shared by the adnominal and matrix clauses are not overtly realized; what Mia wiped up is the spilled water in (27a), and what Mia dusted off from her pants is dust in (27b).

| a. Mia-ka [[khep-uy mwul-i | nemchi-n] | kes]-ul | tak-ass-ta. |
| :--- | :--- | :--- | :--- |
| M-NOM cup-GEN water-NOM | overflow-ADN | KES-ACC | wipe-PST-DCL |
| 'Mia wiped up the water, which overflowed from the cup.' |  |  |  |
| (Modified from Chung \& J.-B. Kim, 2003, p.52) |  |  |  |
| b. Mia-ka [[paci-ka | telewe-ci-n] | kes]-ul | thel-ess-ta. |
| M-NOM pants-NOM | dirty-become-ADN | KES-ACC | dust.off-PST-DCL |
| 'Mia dusted off her pants.' |  |  |  |
| (Modified from Chung \& J.-B. Kim, 2003, p.57) |  |  |  |

These examples have puzzled researchers, and different types of proposals have been put forward. Chung \& J.-B. Kim (2003) posit a constructional constraint, which states that examples like $(27 a-b)$ are permitted if and only if a perceptive-result relation can be established between the perceived state of the adnominal clause and the implicit semantic head. M.-J. Kim's (2007) formalism stipulates that the denotation of kes in (27b) receives 'Theme' and 'dirty' as its values, thereby yielding the construal of 'dirty stuff.'

While these researchers' proposals work for the examples in (27), they miss the general property of the phenomenon. There are also many examples with an implicit argument, which cannot be accounted for by their proposals. In (28a), since what one can pick up should be a tangible object, the metonymic elaboration of the adnominal clause arises; the ACTION stands for RESULT in the adnominal clause. Here, the RESULT equals the broken branch, and the ACTION refers to the event of the branch's breaking off from the tree. The same type of metonymic elaboration occurs in (28b). Examples (28c) and (28d) can be explained in a similar way; ACTION stands for OBJECT and CAUSE stands for EFFECT, respectively.
$\begin{array}{lllll}\text { a. Mia-nun [[khun } & \text { namwu-ka } & \text { pwuleci- } \varnothing \text {-n] } & \text { kes]-ul } & \text { cip-ess-ta. } \\ \text { M-TOP } & \text { big } & \text { tree-NOM } & \text { broken-PST-ADN } & \text { KES-ACC }\end{array}$ Intended: 'Mia picked up a branch that broke off from the big tree.'
[ACTION FOR RESULT]
b. Mia-nun [ $[$ nal sayngsen-ul cal malli- $\varnothing$-n] kes]-ul mek-ess-ta. M-TOP raw fish-ACC well dry-PST-ADN KES-ACC eat-PST-DCL Intended: 'Mia ate jerky, which was properly dried from raw fish.' [ACTION FOR RESULT]
c. Mia-nun [[khaphwuchino-ka khep-ey katukcha olu-nu-n] M-TOP cappuccino-NOM cup-LOC full rise-PRS-ADN kes]-ul talun megu-ey tel-e nay-ss-ta. KES-ACC different mug-LOC move-COMP AUX-PST-DCL Intended: 'Mia moved the rising cappuccino foam into a different mug.' [ACTION FOR OBJECT]
d. na-nun [[pakk-eyse mwun-i yelli-nu-n] kes]-ul tul-ess-ta. I-TOP outside-LOC door-NOM open-PRS-ADN KES-ACC hear-PST-DCL Intended: 'From outside, I heard the sound caused by opening the door.' [CAUSE FOR EFFECT]

Note that these types of metonymic shifts do not occur freely; they are induced by the matrix predicate together with kes. In the examples in (28), the predicates are compatible with a tangible object, and kes further ensures that the referential shift caused by metonymy is a nominal expression. Here, kes exhibits characteristics of nominalizers, sharing a common property with phrasal/clausal nominalizers, $-u m$ and $-k i .{ }^{8}$ Nevertheless, IHRC readings do not arise with these nominalizers even when the matrix predicate is compatible with a tangible object, as shown in (29). Though a metonymic shift of the adnominal clauses in (29a) and (29b) can certainly be introduced by the matrix predicate, the examples are lacking the mediator. As we have been discussing, the function of kes is to mediate the adnominal clause and the matrix predicate; the shifted sense in the adnominal clause is equated to kes. Owing to the presence of kes, there is no semantic conflict between the adnominal clause and the matrix predicate in (28). In (29a) and

[^5](29b), -um and -ki do not have the mediator function; they just reify the adnominal clauses. As a result, the shifted meaning in the adnominal clause cannot be directly associated with the matrix predicate; the matrix predicate cap-ass-ta 'caught' is not compatible with the reified process.
a. *Mia-nun [[Gio-ka tomangka]-um]-ul cap-ass-ta. M-TOP G-NOM run.away-NMZ-ACC catch-PST-DCL Intended: 'Mia caught Gio, who was running away’
b. *Mia-nun [[Gio-ka tomangka]-ki]-lul cap-ass-ta. M-TOP G-NOM run.away-NMZ-ACC catch-PST-DCL Intended: 'Mia caught Gio, who was running away’

The examples above demonstrate that kes plays a crucial role in the rise of the IHRC construction. Different from -um and -ki, kes does not reify an event; rather it denotes a schematic noun. As such, it transparently mediates an entity in the adnominal clause and the matrix predicate. What this means is discussed in detail when we provide a CG analysis in Section 6.

Examples like (28) abound when we carefully examine the IHRC construction. Similar types of examples in Japanese have been discussed under the name of "headless IHRCs" by Horie (1993); Hoshi (1995); Tonosaki (1996, 1998); and Nomura (2000), among others. In particular, Nomura (2000) analyzes Japanese examples like (30) with the notion of metonymy. According to him, both sentences in (30) are IHRC constructions. For instance, (30a) involves the metonymy 'shave one's face' for 'shave one's beard.' Similarly, the adnominal clause in (30b) expresses an event-drying raw fish—which results in a specific product.

| a. [[kesa | ka | sotta] | no]-ga | yuugata-ni-wa |
| :---: | :---: | :---: | :---: | :---: |
| s.morning | face-ACC | shaved | NMZ-NOM | evening-LOC-TO |
| mata nobite | kita |  |  |  |

again growing came.
'I shaved my face in the morning, which (=beard) started to grow again in the evening.' (Nomura, 2000, p.119)
b. Hanako-wa [[Taroo-ga namazakana-o hosita] no]-o tabeta H-TOP T-NOM raw.fish-ACC dried NO-ACC ate
'Taro dried raw fish, which (=dried fish) Hanako ate.'
(Horie, 1993, p.450)

Korean linguists, such as H.-J Park (2019) and J.-E Lee (2020), observe a wide variety of ambiguities in the IHRC construction. However, they do not pinpoint the source of the ambiguities, simply leaving the issue as a task for pragmatics. We observe that metonymy is at the heart of the IHRC construction, and herein lie various ambiguities. The reason we argue that metonymy is the fundamental source of the interpretations of the IHRC is because all IHRC examples exhibit metonymic properties to some degree.

Another set of examples that demonstrate the metonymic nature of the IHRC is provided in (31). While (31a) and (31b) are acceptable, (31c) is not when it is used with the intended meaning.

[^6]In (31a), what the protagonist caught is Mia; the ACTION stands for the AGENT. Example (31b) is acceptable because Gio is not just a patient here; she is construed as a victim of violent beating and the object of the speaker's protection. Therefore, Gio is construed as the semantic head of the adnominal clause through the ACTION FOR OBJECT metonymy. On the other hand, (31c) contrasts with the other two examples; what the protagonist caught in (31c) is Gio. In order for this interpretation to be available, the action should stand for the patient. However, the ACTION FOR PATIENT metonymy is not attested in Korean, while the ACTION FOR ACTION metonymy is ubiquitously observed. In addition, Mia in (31a) and Gio in (31b) are more natural as active zones than the other participants with respect to their corresponding matrix predicates. In (31c), Gio's participation as an active zone in the matrix-clause event is not natural or requires heavy contextual information. The examples presented in (31) show that one participant in the adnominal clause directly interacts with the event denoted by the matrix clause through the zone activation process, which is a species of metonymy.
3.5 The properties of kes in the IHRC construction

The kes utilized in the IHRC construction exhibits the same behavior as that of the Factive construction. Just like the Factive construction, kes in the IHRC construction cannot be pluralized nor modified by an adjectival expression, as demonstrated in (32a-d). These restrictions are maintained without respect to the predicate types.
(32) a. *Mia-ka [[Gio-ka ttwi-nu-n] ppalun kes]-ul cap-ass-ta. M-NOM G-NOM run-PRS-ADN fast KES-ACC catch-PST-DCL Intended: 'Mia caught Gio, who was running fast.'
b. *Mia-ka [[Gio-ka ttwi-nu-n] ppalun kes]-ul po-ass-ta. M-NOM G-NOM run-PRS-ADN fast KES-ACC see-PST-DCL

Intended: 'Mia saw Gio, who was running fast.'
c. *Mia-ka [[Gio-ka ttwi-ko Kiho-ka ket-nu-n]

Mia-NOM G-NOM run-CONJ K-NOM walk-PRS-ADN
kes]-tul-ul cap-ass-ta.
KES-tul-ACC catch-PST-DCL
Intended: 'Mia caught Gio and Kiho, who were running and walking, respectively.'
d. *Mia-ka [[Gio-ka ttwi-ko Kiho-ka ket-nu-n]

M-NOM G-NOM run-CONJ K-NOM walk-PRS-ADN
kes]-tul-ul po-ass-ta.
KES-PL-ACC see-PST-DCL
Intended: 'Mia saw Gio and Kiho, who were running and walking, respectively.'

The IHRC construction does not generally permit ku kes 'that thing' in the position of kes, as shown in (33).
(33) * Mia-ka [[Gio-ka ttwi-nu-n] ku kes]-ul cap-ass-ta. M-NOM G-NOM run-PRS-ADN that KES-ACC catch-PST-DCL Intended: 'Mia caught Gio, who was running fast.'

However, ku kes may occur in certain situations as in (34a). When it does, an adjectival modification of $k u$ kes is also permitted, as shown in (34b).
a. [[nay-ka cchokci-lul ponay- $\varnothing$-n] ku kes]-ul pat-ass-ni?

I-NOM note-ACC send-PST-ADN that KES-ACC receive-PST-Q
'Did you receive that thing, which I sent to you-the note?'
b. [[nay-ka ecey Mia-eykey senmwul-ul ponay- $\varnothing$-n] I-NOM yesterday M-DAT gift-ACC send-PST-ADN palo ku kes]-ul Mia-ka onul peli-ess-ta. exactly that KES-ACC M-NOM today throw.away-PST-DCL 'Mia threw away that thing today, which I sent to her yesterday-the gift.'

To us, examples in (34) are interpreted like appositives. In these examples, cchokci 'note'and senmwul 'gift' are metonymically represented for the events described by the adnominal clauses, which is the same as typical IHRC examples. Then, these nominals are equated with the
pronominal $k u$ kes, giving rise to the appositive construction. Since $k u$ kes is a pronominal that can only refer to a non-human entity, it cannot be used when the metonymic interpretation of the adnominal clause is human, as shown in (33).

## 4. The Cleft construction

Previous discussions on the Cleft construction revolve around two questions. The first concerns whether the kes employed in the Cleft construction is different from the kes in other constructions. The second involves the inversion puzzle; while some inversions are acceptable, others are not. In this section, after presenting our observations, we conclude that the kes in the Cleft construction is identical to the kes in the two constructions previously discussed. These two issues are addressed in the following subsections.

### 4.1 On the Korean Copular construction

Before we discuss the Cleft construction, it is necessary to identify the properties of the Korean Copular construction because the Cleft construction requires a Copular structure. J.-B. Kim \& Sells (2007) and J.-B. Kim (2016) identify three types of Copular constructions in Korean: predicative, equative, and specificational. ${ }^{9}$ An example of each is illustrated in (35a-c). Note that specificational clauses resemble question-answer pairs, as in (35c). ${ }^{10}$

[^7]a. Predicative copula
ku tocaki-nun sasil kacca-i-ta.
that china-TOP in.fact fake-COP-DCL
'That china is, in fact, a fake.'
b. Equative copula

Mia-ka palo ku uysa-i-ta.
M-NOM exactly that doctor-COP-DCL
'Mia is exactly that doctor.'
c. Specificational copula

Q: mikwuk-uy taythonglyeng-un nwukwu-nya?
America President-TOP who-Q
'Who is the President of the Unites States of America?'
A: mikwuk-uy taythonglyeng-nun Paitun-i-ta!
America-GEN President-TOP Biden-COP-DCL
'The Present of the Unites State of America is Biden.'

The distinguishing property of each use in (35) concerns whether the nominals in the Copular construction are referential. In (35a), the subject nominal is referential, whereas the predicative nominal is not. When the copula is used equatively, both the subject and predicative nominals are referential. Example (35c) shows the opposite case of (35a); while the subject is nonreferential, the predicative nominal is referential. Our description is comparable to Mikkelson's (2011) for English and Danish; Mikkelson's summary of the referentiality of the Copular construction is provided in (36).
(36) Referentiality of the Copular construction

|  | NP1 | Copula | NP2 |
| :--- | :--- | :---: | :--- |
| Predicational | Referential | be | Non-referential |
| Equative | Referential | $b e$ | Referential |
| Specificational | Non-referential | be | Referential |

(Mikkenlson, 2011, p.1810)

Among the three patterns shown in (35), only the equative Copular structure permits inversion, as in (37b). When inverted, the other two structures yield unacceptable results, as shown in (37a) and (37c). ${ }^{11}$

```
a. * kacca-nun sasil ku tocaki-i-ta.
    fake-TOP in.fact that china-COP-DCL
    Intended: 'A fake is, in fact, that china.'
b. ku uysa-nun Mia-i-ta.
    that doctor-TOP M-COP-DCL
    'That doctor is Mia.'
c. *Paitun-un mikwuk-uy taythonglyeng-i-ta!
    Biden-TOP America-GEN President-COP-COP-DCL
    'Biden is the President of the United States of America!'
```

The notion of referentiality needs to be clearly defined because scholars use the term with different meanings, which has become a source of confusion. We use the term to refer to a grounded noun, which is identified as a specific nominal in a given discourse context. ${ }^{12}$ Grounding is a notion introduced in CG (Langacker, 2008, 2009). In CG, nouns- things- serve their classificatory function by making type specifications. ${ }^{13}$ For example, book specifies a type of thing with indefinitely many instances, which fails to single out any particular instance. To single out one instance, we need the mental operation that turns a type into an instance; this is called grounding. Through grounding, a noun, like book, is distinguished from other members of

[^8]its category and identified for an immediate discourse purpose. In English, nominal grounding is achieved through overt, covert, intrinsic, and indirect methods, as in (38a-d), respectively.
(38) a. They bought the book.
b. They drank beer.
c. Haruki Murakami wrote that book.
d. Jon's car broke down again.

Referentiality and grounding are not identical because grounded nominals do not have to refer to a specific entity. While The winner of the title Miss World USA 1972 is grounded by the definite article, it does not refer to any specific entity when (39a) is used as the answer to the question, Who was the winner of the title Miss World USA 1972?
(39) The winner of the title Miss World USA 1972 was Lynda Carter.

While Korean also utilizes all four grounding methods for nouns, the covert method is widely adopted even for common nouns, as in (40a-c).
a. nay-ka senmwul-ul Mia-eykey ponay-ess-ta. I-NOM gift-ACC M-DAT send-PST-DCL 'I sent a gift to Mia.'
b. chayk-i newmu ilk-ko siph-ta. book-NOM very read-COMP desire-DCL '(I) really want to read books.'
c. achim-ey Mia-ka cip-ul chengso-hay-ss-ta morning-in M-NOM house-ACC clean-do-PST-DCL 'Mia cleaned the house in the morning.'

The examples in (40) contain common nouns that do not include overt grounding elements. As indicated by the translations, however, they are construed as grounded nouns-nominals. Among
these, senmwul 'gift' and cip 'house' refer, while chayk 'book' does not in the given contexts. Varying judgements of Korean sentences concerning referentiality stems from this widely adopted method of grounding.
4.2 The property of kes in the Cleft construction.

At first glance, the kes in the Cleft construction appears to be different from that of the other two constructions. The adnominal clause in (41a) is gapped, and it is tempting to analyze it like (41b). However, as shown in (41c), kes cannot be felicitously reconstructed in the adnominal clause, which demonstrates that kes in (41a) is not an argument nominal that originates in the adnominal clause.


In fact, the kes in the Cleft construction exhibits the same behaviors as the kes of the other two constructions, as illustrated in (42); it cannot be pluralized, nor modified by an adjective.
(42) a *[[nay-ka manna- $\emptyset$-n] kes]-tul-un Mia-wa Gio-i-ta. I-NOM meet-PST-ADN KES-PL-TOP M-CONJ G-COP-DCL Intended: 'What I met was Mia and Gio.'
b. *[[nay-ka manna- $\varnothing$-n] alumtawun kes]-un Mia-i-ta. I-NOM meet-PST-ADN beautiful KES-TOP M-COP-DCL Intended: 'The beautiful thing I met was Mia.'

Yeom (2014) observes puzzling examples in (43). Although the predicative nominal is human, (43a) is fully acceptable. When kes is marked plural, the result is marginally acceptable, as in (43b). By contrast, (43c) is fully acceptable, where the predicative nominal is non-human.

| a. $\left[\begin{array}{lll}{[\text { Inho-ka }} & \text { manna- } \varnothing \text {-n }] & \text { kes }]-\mathrm{un} \\ \text { I-NOM } & \text { meet-PST-ADN } & \text { KES-TOP }\end{array}\right.$ | uysa-i-ta. <br> doctor-COP-DCL |
| :--- | :--- | :--- | :--- |
| 'What Inho met was a doctor.' |  |


| b. ?? [[Inho-ka | manna- $\varnothing$-n] | kes]-tul-un | uysa-i-ess-ta. |
| ---: | :--- | :--- | :--- |
| I-NOM | meet-PST-ADN | KES-PL-TOP | doctor-COP-PST-DCL | Intended: 'What Inho met were doctors.'

c. [[Inho-ka sa- $\varnothing$-n] kes]-tul-un kapang-i-ess-ta.

I-NOM buy-PST-ADN KES-PL-TOP bag-COP-PST-DCL
'What Inho bought were bags.'

The examples in (43) illustrate that kes can refer to either a human or a non-human entity when it is singular; when it is marked plural, however, it is not compatible with a human entity. Under the assumption that the two instances of kes in (43a) and (43c) have identical functions, B. Kang (2006) argues that the insensitivity of kes to animacy in the Cleft construction is due to the syntactic property of kes as a complementizer. If this is the case, we cannot explain why the complementizer can be pluralized, as in (43c). The fact that the kes-clause can be felicitously case-marked cannot be explained either, because Korean complementizers cannot be marked with any case. More seriously, the question of why only (43c) is compatible with the plural marking remains unanswered in B. Kang's analysis.

In his formal semantic analysis, Yeom (2014) proposes that the kes in the Cleft construction refers to a concept of a person or a thing. We believe Yeom made a valid point; the kes in (43b) is different from that of $(43 \mathrm{c})$. In support of his position, let us consider the examples in (44).

The adjectival modification is blocked in (44a), whereas it is fully compatible with the kes in (44b).
$\begin{array}{clll}\text { a. } *[[\text { Inho-ka } & \text { manna- } \varnothing-\mathrm{n}] & \text { yumyenghan } & \text { kes }]-\mathrm{un} \\ \text { I-NOM } & \text { meet-PST-ADN famous } & \text { KES-TOP } & \text { doctor-COP-PST-DCL } \\ \text { Intended: 'The famous thing Inho met was a doctor.' }\end{array}$
b. [[Inho-ka sa- $\varnothing$-n] pissa-n kes]-un kapang-i-ess-ta. I-NOM buy-PST-ADN expensive-ADN KES-TOP bag-COP-PST-DCL 'The expensive thing Inho bought was a bag.'

This is a piece of evidence which indicates that the kes in (44b) is the contentful kes, while the kes in (44a) is a schematic noun. Note that the schematic kes is not compatible with the adjectival modification or with the plural marking. Our observation entails that an example like (45) is ambiguous. We therefore can analyze kes in (45) as a schematic noun, which gives rise to the Cleft construction. Moreover, it can also be construed as the contentful kes, which in turn is an argument of the adnominal clause.

| $[[I n h o-k a$ | sa- $\varnothing-\mathrm{n}]$ | kes $]-\mathrm{un}$ |
| :--- | :--- | :--- | | kapang-i-ta. |
| :--- |
| I-NOM |
| 'Why-PST-ADN |
| 'What Inho bought was a bag.' |
| KES-TOP |
| bag-COP-DCL |

J.-B. Kim \& Sells (2013) argue that when kes refers, it is possible to conjoin kes-clauses, as in (46). However, they state that they "do not fully understand why these contexts force referentiality" (J.-B. Kim \& Peter Sells, 2013, p.104).
(46) a. [[[John-i sa- $\varnothing$-n] kes]-kwa [[Mary-ka pha- $\varnothing$-n] kes]]-un

```
    J-NOM buy-PST-ADN KES-CONJ M-NOM sell-PST-ADN KES-ADN
    motwu kacca-i-ta.
    all fake-COP-DCL
    'What John bought and what Mary sold are all fake.'
    (J.-B. Kim & Sells, 2013, p.104)
b. i chayk-tul-i [[[John-i sa-\emptyset-n kes]]-kwa
this book-PL-NOM J-NOM buy-PST-ADN KES-CONJ
[[Mary-ka ilk-un] kes]]-tul-i-ta
M-NOM read-ADN KES-PL-COP-DCL
'These books are what John bought and what Mary read.'
(J.-B. Kim & Sells, 2013, p.104)
```

The authors' observation is correct, but conjunction itself does not force the referentiality of the kes-clause. The reason the examples in (46) are construed referentially is because of the plurality that kes denotes in (46a-b); only the contentful kes may be referential and pluralized. In fact, the kes-clause in (47), which does not involve conjunction, is construed referentially due to its plurality.
(47) i chayk-tul-i [[John-i sa- $\varnothing$-n] kes]-tul-i-ta. this book-NOM J-NOM buy-PST-ADN KES-PL-COP-DCL 'These books are what John bought.'

In other words, the kes in (46) and (47) is a grounded entity; while the kes in (46a) is covertly grounded as a plural nominal, the kes in (46b) and (47) is grounded with the overt plural marking, similar to English plurals. Therefore, kes in these examples is not identical to the schematic kes observed in other examples.

### 4.3 The inversion puzzle

J.-B. Kim (2016) observes Cleft structures with all three types of the Copular construction, as in
a. Predicational
[[John-i sa- $\varnothing$-n] kes]-un cengmal kacca-i-ta. J-NOM buy-PST-ADN KES-ADN really fake-COP-DCL 'What John bought is a real fake.' (J.-B. Kim, 2016, p.101)
b. Equative
[[John-i penyekha- $\varnothing$-n kes]-un i chayk-i-ta. J-NOM translate-PST-ADN KES-ADN this book-COP-DCL
'What John translated is this book.'
(J.-B. Kim, 2016, p.102)
c. Specificational
Q. Kisayngchwung-ul kamtok-ha-n salam-un nwukwu-i-ni? Parasite-ACC direct-do-ADN person-TOP who-COP-Q 'Who is the director of the movie Parasite?
A: Kisayngchwung-ul kamtok-ha-n salam-un Bong Joon-ho-i-ta! Parasite.the.move-ACC direct-do-ADN person-TOP Joon-ho Bong-COP-DCL 'The director of the movie Parasite is Joon-ho Bong!'

Just like the examples of the Copular construction, only the equative Cleft construction permits inversion, which is illustrated in (49a-c). Note that the answer in (49c) is acceptable as an independent statement, but it cannot be a felicitous answer for the given question.
a. Predicational
*cengmal kacca-nun [[John-i sa- $\varnothing$-n] kes]-i-ta really fake-TOP J-NOM buy-PST-ADN KES-COP-DCL Intended: 'A real fake is what John bought.'
b. Equative
i chayk-un [[John-i penyekha- $\varnothing$-n] kes]-i-ta this book-TOP J-NOM translate-PST-ADN KES-COP-DCL 'This book is what John translated.'
c. Specificational Q. Kisayngchwung-ul kamtok-ha-n salam-un nwukwu-i-ni? Parasite-ACC direct-do-ADN person-TOP who-COP-Q
'Who is the director of the movie Parasite?

$$
\begin{array}{lll}
\text { A: \# Bong Joon-ho-nun } & \text { Kisayngchwung-ul } & \text { kamtok-ha-n } \\
\text { Joon-ho Bong-TOP } & \text { Parasite-GEN-i-ta. } & \text { direct-do-ADN person-COP-DCL } \\
& \text { 'Joon-ho Bong is the person who directed Parasite.' }
\end{array}
$$

J.-B. Kim \& Sells $(2007,2013)$ and J.-B. Kim (2016) argue that the kes-clause in the Cleft construction inherits properties of the information structure from the Copular clause. They further argue that no special syntax needs to be posited for the cleft construction. In their view, the acceptability of the Cleft and inverted Cleft constructions results from the referentiality of the kes-clause as well as the information structure involved. The inversion of the Cleft construction is allowed when the partition in the Copular clause is divided into GIVEN and NEW for the subject and the predicative nominal, respectively. For example, the subject in (49a) is not interpreted as given information nor referential, thereby resulting in an unacceptable inversion. The subject of the answer in (49c) is new information as well as referential, thereby violating the GIVEN-NEW chain and the referentialtiy requirement for the specificational Copular construction.

While it is reasonable to assume that the Copular construction manifests the information structure to some degree, we believe Kim \& Sells's claim needs further elaboration based on the non-referentiality of the schematic kes; the schematic kes is always non-referential. When we observe kes used referentially, it is the contenful kes that refers to a concrete non-human entity.

## 5. Basic CG notions

This section introduces two CG notions germane to our analysis: zone activation and reference point. Langacker uses three distinct terms in relation to metonymy: metonymy, zone activation,
and reference point. In his series of work, Langacker (2008, 2009, among others) argues that these are all related phenomena, at the heart of which is indeterminacy. Figure 1 shows indeterminacy, which Langacker uses to illustrate a case of active-zone/profile discrepancy. The diagram is meant for expressions like reluctant agreement and informed consent, where the adjectives describe an attitude or mental state. In Figure 1, the left rectangle represents the adjectives, the right rectangle represents the nouns, and the circles denote participants. In the example of reluctant agreement, there is a participant for the adjectival relation and the nominalized process. While we expect a modified noun to be a person in the example because of the semantic nature of the adjective, it is an abstract entity that is not capable of mental experience. The incompatibility is compromised as follows in Figure 1. The nominal agreement is a reified process which is indicated by the elliptic circle in the right rectangle. Though the whole reified event is profiled, as indicated by the bold ellipse, what is interacting with the adjective is the individual that participates in the reified event, which is notated by the shaded circle. Langacker calls this apparent incompatibility active-zone/profile discrepancy. While the profile is the reified relation designated by the word agreement, the active-zone is the shaded portion of the profile relevant within the particular utterance, 'the person who agrees.' For this reason, Langacker (2008, p.332) states that "the active-zone mediates the profiled entity's participation in the adjectival relationship."


Figure 1. Active-zone/profile discrepancy, reproduced from Langacker (2008, p.331)

In Figure 1, $t r$ refers to trajector which is the most prominent participant, and the dotted line represents a correspondence relation, indicating that the left circle and the right shaded circle represent the same entity. The dashed arrow indicates that the entity is engaged in a mental activity. In this diagram, the rectangles do not have any significance other than grouping two separate units.

Perhaps a more helpful example for our analysis concerns the English Subject-to-Object Raising (SOR) construction. Langacker (1995) attempts to explain the transparency of the raising construction with the notion of zone activation; any element is permitted to occur in the raised position in the matrix clause if it occurs in an appropriate position in the embedded clause. That is, the structural motivation comes from the raised NP's role in the embedded clause, not from the matrix clause. In analyzing a typical SOR example like (50), Langacker provides a schematic structure as illustrated in Figure 2, which automatically sanctions transparency.
(50) I expect John to leave.


Figure 2. English SOR with the expect verb, reproduced from Langacker (1995, p.40)

Figure 2 captures the nature of SOR precisely. The schematic process-the shaded portionconstitutes the landmark's active zone with respect to its participation in the matrix-clause event.

It is worth noting that the trajector, $I$, does not directly interact with the profiled landmark, John. The interaction between the trajector and the landmark is mediated by the processual active zone; the raising example exhibits a typical instance of active-zone/profile discrepancy.

Another unique term used in CG is reference point, which is defined as an invoked "conception of one entity in order to establish 'mental contact' with another" (Langacker, 2008, p.83). For example, in the possessive expression John's car, John is the reference point and car is the target, which is accessed via the invoked reference point. The reference point relationship resembles zone activation, as illustrated in Figure 3.


Figure 3. Reference point vs. zone activation, modified from Langacker (2009, p.46)

In Figure 3, $T$ refers to target, which is an entity accessed through the reference point by $C$, the conceptualizer. A set of target entities is called the dominion, D , and $a z$ refers to active zone. The dashed arrows illustrate mental paths, and bold circles represent profiled things.

Before we move on, we need further clarification of the term zone activation concerning its connection with metonymy. Paradis (2004) argues that some of Langacker's examples for zone activation must be situated somewhere between metonymy and zone activation, positing a new categorization called facetization. By contrast, Ruiz de Mendoza Ibáñez (2011, p.106) describes
facetization as "another level for what Croft (1993) called domain highlighting." Because of the different uses and definitions of the notion, Geeraerts and Peirsman (2011, p.91) describe zone activation as "[maybe] one of the least homogeneous concepts of cognitive linguistics."

With this in mind, we use the term metonymy in a broader sense in accordance with Langacker (2000, p.67), where he states that "active-zone/profile discrepancy is a special case of metonymy." That is, metonymy is a phenomenon that includes zone activation. In particular, we use zone activation when there is a discrepancy between a grammatically encoded active-zone and the profile associated with it. Reference point is used when there is a need to express one nominal in order to access a specific meaning: a mental address of sorts. Otherwise, we use metonymy for all other cases. Note that this is not a theoretical statement. Rather, it is a terminological choice for convenience, particularly because the finer-grained distinctions do not play a significant role in the present article.

## 6. Analysis

We have thus far focused on the descriptive properties of the three constructions together with some impressionistic CG accounts. This section provides a technical CG analysis of each construction.

### 6.1 The Factive construction

We have discussed the Factive construction with examples like (51), and we have also argued that the 'fact' interpretation of kes in (51) is an epiphenomenon of the factive verb. Since (51)
presupposes the factual statement triggered by the adnominal clause, the schematic noun kes is construed as 'fact'.
$\begin{array}{lllllll}\text { (51) } & \text { na-nun } & {[[\mathrm{Mia-ka}} & \text { swuhak-ul } & \text { kongpwu-ha- } \varnothing \text {-n }] & \text { kes }]-\mathrm{ul} & \text { al-ass-ta. } \\ \text { I-TOP M-NOM } & \text { math-ACC } & \text { study-do-PST-ADN } & \text { KES-ACC } & \text { know-PST-DCL } \\ \text { 'I }\end{array}$ 'I knew that Mia studied mathematics.'

Figure 4 illustrates the semantic structure of (51), where the matrix subject and predicate are intentionally omitted. The lower left rectangle denotes the adnominal clause. The smaller rectangle inside the larger one denotes the adjectival relation represented by the adnominal clause; an adjective profiles a relationship between a thing and an entity. The lower right square denotes kes, which profiles a thing characterized as having some role in a process.

In this example, the process corresponds to the adnominal clause, as indicated by the dotted line. Note that kes is the profile determinant (head), as indicated by the bold square. The upper left rectangle illustrates the composite structure of the bottom two components. In a larger grammatical context, the adnominal clause serves as the active zone with respect to the matrixclause event, while the clause headed by kes denotes a nominal profile. The zone activation process is illustrated in the upper right rectangle, where the shaded interior rectangle indicates the active zone.


Figure 4. The Factive construction with the schematic kes

As we discussed in Section 2, when the Factive construction occurs with ku kes 'that thing', it has a different interpretation, where kes is contentful with the meaning 'thing.' An example including ku kes is illustrated in (52).
(52) na-nun [[Mia-ka swuhak-ul kongpwu-ha- $\emptyset$-n] ku kes]-ul al-ass-ta. I-TOP M-NOM math-ACC study-do-PST-ADN that KES-ACC know-PST-DCL 'I knew that thing, that Mia studied mathematics.'

As illustrated in Figure 5, ku kes 'that thing' is a grounded nominal. In the lower right rectangle, the bold circle enclosing $n h$ (non-human) indicates that kes profiles a thing characterized as being non-human. The small circle labelled G indicates that the thing is grounded; in other words, $k u$ kes is a grounded version of the non-human pronominal kes. The topmost rectangle denotes the adnominal clause headed by ku kes.


Figure 5. The Factive construction with the pronominal ku kes

While Figure 5 is similar to Figure 4, the kes illustrated in Figure 5 contrasts with that of Figure 4. The kes in Figure 5 is construed as a nominal grounded by the demonstrative $k u$. Unlike the schematic kes in Figure 4, this kes exhibits a concrete meaning-a non-human entity-without respect to its grounding status.

### 6.2 The IHRC Construction

The semantic structure of the IHRC construction illustrated in (53) is provided in Figure 6.


The kes in the IHRC construction is identical to that of the Factive construction shown in Figure 4. As indicated in the bottom right square in Figure 6, kes profiles a schematic noun, which is
involved in the process profiled by the predicate in the adnominal clause. Here, P stands for 'puppy'.


Figure 6. The IHRC construction

Zone activation takes place in a larger grammatical context. While the kes-clause is the nominal profile, the active zone-the puppy-constitutes the primary participant in the adnominal clause with respect to the matrix-clause event. The IHRC construction then demonstrates another instance of zone activation.

### 6.3 The Cleft Construction

Since the Cleft construction occurs in the Copular structure, we need to provide an analysis of the Copular construction first. Figure 7 illustrates the two types of the identity Copular construction in Korean: topical and non-topical. An example of each construction is provided in (54). Diagrams in Figure 7(a) and Figure 7(b) illustrate (54a) and (54b), respectively.
a. Mia-nun nay tongsayng-i-ta.

M-TOP my sister-COP-DCL
'Mia is my sister.'
b. Mia-ka ku kyoswu-i-ta.

M-NOM that professor-COP-DCL
'Mia is that professor.'

Figure $7(\mathrm{a})$ is comparable to the description of the predicative nominal construction proposed by Kumashiro (2016) for Japanese. Here, Mia is associated with the predicative nominal tongsayng 'sister' (S). Note that the predicative nominal (S) functions as target (T) and evokes a reference point (R). The autonomous nominal forms its own clause (indicated by the rectangle), and the predication relationship (denoted by the bi-directional dashed arrow) is established between Mia and nay tongsayng 'my sister' to incorporate the former into the sentential structure.

Establishment of the predication relationship is assisted by the correspondence relationship. In this figure, tongsayng 'sister' is indirectly grounded by the reference point nay 'my.' Figure 7(b) contrasts with Figure 7(a) in that there is no reference point relationship invoked. The noun kyoswu 'professor' $(\mathrm{P})$ is grounded by the demonstrative $k u$ 'that,' and the predication relationship is established by the correspondence relationship between Mia and ku kyoswu 'that professor.'


Figure 7. Two types of the identity Copular construction

Let us move on to show how the Copular structure is incorporated into the Cleft construction in (55). The semantic structure of (55) is illustrated in Figure 8.

| (55) | $[$ Mia-ka | manna- $\varnothing$-n $]$ | kes]-un | Gio-i-ta. |
| :---: | :--- | :--- | :--- | :--- |
| M-NOM | meet-PST-ADN | KES-TOP | G-COP-DCL |  |
|  | 'What Mia met was Gio.' |  |  |  |

The bottom layer of Figure 8 is almost identical to that of the Factive and IHRC constructions. Just like in the two constructions, kes in the Cleft construction is a schematic noun, which indicates that it is involved in the process profiled by the embedded predicate. The only difference concerns the correspondence of kes to the schematic theme nominal-the person or thing Mia met-symbolized by the dashed circle in the adnominal clause. The upper left rectangle shows the composite structure of the bottom components. This structure is extended with the Copular construction symbolized in the upper right portion of Figure 8. The schematic kes stands in the identity relationship with the predicative nominal Gio, which evokes a schematic reference point (R), denoted by the dashed circle. The predication relationship between kes and the predicative nominal-Gio-is established with the help of the correspondence relationship. While Gio is grounded either intrinsically or via the schematic reference point, the adnominal clause headed by kes is not. Since this kes is a schematic noun devoid of a specific contentful meaning, it cannot be grounded. In other words, the kes-clause is non-referential, whereas Gio does refer, which is the characterization of the specificational type of Copula summarized in Section 4.1.


Figure 8. The Cleft construction

In fact, examples like (55) are most natural when they are used as an answer to the question like (56), which is a characteristic of the specificational Copular construction.
(56) Mia-ka nwukwu-lul manna-ss-ni?

M-NOM who-ACC meet-PST-Q
'Who did Mia meet?'

The last construction we discuss is the inverted Cleft construction, which is marginally acceptable at best, as shown in (57).

$$
\begin{array}{lll}
\text { ?? Gio-nun }[[\mathrm{Mia-ka} & \text { manna- } \varnothing-\mathrm{n}] & \text { kes]-i-ta }  \tag{57}\\
\text { G-TOP } & \text { M-NOM } & \text { meet-PST-ADN }
\end{array}
$$ 'Gio is what Mia met.'

The diagram provided in Figure 9 explains why the inversion is not desirable. The bottom layer of Figure 9 is identical to that of Figure 8, and the upper right portion is as well. The only
difference concerns the Copular construction shown in the upper left portion. As discussed, inversion is permitted only in the identity Copular construction. To denote identity, both the subject and the predicative nominal must refer. In Figure 9, Gio is grounded intrinsically; therefore, it is referential. However, the pre-copula portion, Mia-ka manna- $\varnothing$-n kes, does not exhibit referentiality. As a schematic noun, kes cannot be grounded; therefore, it cannot refer.


Figure 9. The inverted Copular construction

In the upper left portion of Figure 9, the target, the kes clause, evokes a schematic reference point which may indirectly ground the target nominal. However, this is not a viable option due to the schematic nature of kes; kes cannot be grounded or referential. As a result, (57) is unacceptable or very awkward.
7. Conclusion

This article was a modest attempt to provide a uniform analysis of three kes-constructions in Korean. While these constructions appear to be unrelated, they all involve the bound noun kes, which we have demonstrated plays a crucial role in all three constructions. To illustrate that, we first identified two types of kes in Korean. While one has a specific contentful meaning'thing', the other exhibits a schematic meaning that indicates its involvement in the process profiled by the predicate in the adnominal clause.

In discussing the Factive construction, we pointed out the fact-like interpretation of kes is an epiphenomenon of the property of the factive predicate coupled with the schematic nature of kes. In that construction, kes mediates the adnominal clause with the matrix predicate. Since what is presupposed by the factive predicate is a factual statement, the fact interpretation of kes arises. In other words, the factual statement denoted by the adnominal clause constitutes the active zone with respect to its participation in the matrix-clause event, while kes modified by the adnominal clause is the nominal profile. The IHRC construction exhibits a similar property to the Factive construction in that it involves kes as well as zone activation. The meaning of kes in the IHRC construction is identical to that of the Factive construction. Induced by the matrix predicate, one particular participant constitutes the active zone with respect to its participation in the matrixclause event, while the kes-clause is the nominal profile. Unlike the Factive construction, kes corresponds to the active zone, which we argued is the core property of the IHRC construction. We also demonstrated other types of metonymic IHRCs, which arise through various types of metonymies, such as AGENT FOR ACTION and RESULT FOR ACTION. The third construction we dealt with concerns the Cleft construction and its inverted variety. We argued that the unacceptability or undesirability of the inverted Cleft construction is caused by the semantic properties of the Copular construction in conjunction with the schematic nature of kes. Because
of its high degree of schematicity, the kes-clause can neither be grounded nor referential. Since a non-referential subject cannot be paired with a referential predicative nominal in the identity Copular construction, the inverted version is not acceptable or desirable.

As discussed throughout the article, CG views grammar as fundamentally metonymic, and thus, we expect to observe a widespread use of metonymy in grammatical phenomena. This type of observation is not limited to CG. In analyzing Korean examples, J. Park (2016) identifies numerous grammatical constructions that exhibit metonymic properties. In this article, we have demonstrated that the three constructions that employ kes exhibit metonymic properties in one way or another. The implication of our paper is that those constructions are just specific instances of human beings' general cognitive processing. In other words, these constructions share a crucial commonality with other seemingly unrelated constructions such as double subject and Subject-to-Object Raising constructions, which also present metonymic properties, as argued by C. Park (2019). Then, it will be worth investigating what other constructions share the same property as the ones we have discussed, and how those constructions arise through metonymy.

Throughout this article, we demonstrated that our CG-based analysis provides a uniform treatment of the three constructions that appear to be unrelated other than for the involvement of kes. While each of the three constructions has been thoroughly examined by previous researchers, a uniform treatment of these constructions is rarely found in the literature, let alone a successful one. We hope our proposal fills the gap in the literature by providing reasonable explanation of the presence of kes in all three constructions.

## References

Bach, K. On referring and not referring. (2008). In J. K. Gundel \& N. Hedberg (Eds.), Reference: Interdisciplinary Perspective (pp. 13-58). Oxford: Oxford University Press.
Berez-Kroeker, A. L., H. N. Andreassen, L. Gawne, G. Holton, S. S. Kung, P. Pulsifer, \& L. B. Collister, The Data Citation and Attribution in Linguistics Group, and the Linguistics Data Interest Group. (2018). The Austin Principles of Data Citation in Linguistics. Version 1.0. https://site.uit.no/linguisticsdatacitation/austinprinciples/ Accessed [June 7, 2021]

Choi, K. (2011). kes in the Korean cleft construction: kes filling in an empty NP. Studies in Generative Grammar, 21(1), 21-47 [Written in Korean].
Cinque, G. (2020). The Syntax of Relative Clauses. Cambridge: Cambridge University Press.
Chung, C. \& J.-B. Kim. (2003). Differences between externally and internally headed relative clause construction. In J.-B. Kim \& S. Wechsler (Eds.), The proceedings of the $9^{\text {th }}$ International Conference on HPSG (pp. 43-65).
Chung, D. (1999). A complement analysis of the head internal relative clauses. Language and Information 3, 1-12.
Croft, W. (1993). The role of domains in the interpretation of metaphors and metonymies. Cognitive Linguistics, 4(4), 335-370.
den Dikken, M., A. Meinunger, \& C. Wilder. (2000). Pseudoclefts and ellipsis. Studia Linguistica 54, 41-89.
Dixon, R. M. W. (2010). Basic Linguistic Theory: Grammatical Topics, Vol. 2. Oxford: Oxford University Press.
Geeraerts, D. \& Y. Peirsman. (2011). Zones, facets, and prototype-based metonymy. In R. Benczes, A. Barcelona, \& F. J. Ruiz de Mendoza Ibáñez (Eds.), Defining Metonymy in Cognitive Linguistics: Towards a Consensus View (pp. 89-102). Amsterdam and Philadelphia: John Benjamins Publishing Company.
Grosu, A. (2010). The status of the internally-headed relatives of Japanese/Korean within the typology of definite relatives. Journal of East Asian Linguistics 9, 231-274.
Grosu, A. \& F. Landman. (2012). A quantificational disclosure approach to Japanese and Korean internally headed relatives. Journal of East Asian Linguistics 21, 159-196.
Grosu, A. \& K. Hoshi. (2016). Japanese internally headed relatives: Their distinctness from potentially homophonous constructions. Glossa: A Journal of General Linguistics 1(1), 32, 1-31.
Grosu, A. \& K. Hoshi. (2018). On the unified analysis of three types of relative clause construction in Japanese and on the salient reading of the internally headed type. A reply to Erlewine \& Gould (2016). Glossa: A Journal of General Linguistics 3(1), 34, 1-16.
Grosu, A. \& K. Hoshi. (2019). Japanese internally-headed and doubly-headed relative constructions, and a comparison of two approaches. Glossa: A Journal of General Linguistics 4(1), 128, 1-23.
Heycock, C. \& A. Kroch. (2002). Topic, focus, and syntactic representations. In L. Mikkelson et al. (Eds.), Proceedings of the West Coast Conference on Formal Linguistics 21 (pp. 101125). Somerville, MA: Cascadilla Press.

Higgins, R. F. (1979). The Pseudo-cleft Construction in English. New York: Garland.
Horie, K. (1993). Internally headed relative clauses in Korean and Japanese: Where do the differences come from? In S. Kuno et al. (Eds.), Harvard Studies in Korean Linguistics V (pp. 449-458). Seoul: Hanshin Publishing Company,

Hoshi, K. (1995). Structural and interpretive aspects of head-internal and head-external relative clauses. Rochester, NY: University of Rochester dissertation.
Jhang, S.-e. (1991). Internally headed relative clauses in Korean. In S. Kuno et al. (Eds.), Harvard Studies in Korean Linguistics VI (pp. 235-248). Seoul: Hanshin Publishing Company.
Kang, B. (2006). Some peculiarities of Korean kes cleft constructions. Studia Linguistica 60, 251-281.
Kim, J.-B. (2016). The Syntactic Structures of Korean: A Construction Grammar Perspective. Cambridge: Cambridge University Press.
Kim, J.-B \& P. Sells. (2007). Some remarks on Korean nominalizer kes and information structure. Studies in Generative Grammar 17, 479-494.
Kim, J.-B. \& P. Sells. (2013). Interactions between (pseudo-) cleft and copular construction sin Korean. Language Research 30(1), 93-139.
Kim, M.-J. (2007). Formal linking in internally headed relatives. Natural Language Semantics 15, 279-315.
Kim, M.-J. (2009). E-type anaphora and three types of kes-construction in Korean. Natural Language \& Linguistic Theory 27, 345-377.
Kim, Y.-B. (2002). Relevancy in internally headed relative clauses in Korean. Lingua 112, 541559.

Kitagawa, C. (2019). The pro-head analysis of the Japanese internally-headed relative clause. Glossa: A Journal of General Linguistics 4(1), 62, 1-31.
Kumashiro, T. (2016). A Cognitive Grammar of Japanese Clause Structure. Amsterdam \& Philadelphia: John Benjamins Publishing Company.
Kuroda, S.-Y. (1976). Headed relative clauses in Modern Japanese and the relevancy condition. Berkeley, CA: Proceedings of the Second Annual Meeting of the Berkeley Linguistics Society II (pp. 269-279). Retrieved from https://escholarship.org/uc/item/41v9f24f.
Landman, F. (2016). Japanese internally headed relatives: A hybrid analysis with Kuroda functions. Glossa: A Journal of General Linguistics 1(1), 36, 1-35.
Langacker, R. W. (1987). Foundations of cognitive grammar: Theoretical prerequisites, Vol. 1. Stanford, CA: Stanford University Press.
Langacker, R. W. (1995). Raising and transparency. Language 71(1), 1-62.
Langacker, R. W. (2000). Grammar and conceptualization. Berlin \& New York: Mouton de Gruyter.
Langacker, R. W. (2008). Cognitive grammar: A basic introduction. Oxford: Oxford University Press.
Langacker, R. W. (2009). Investigations in cognitive grammar. Berlin \& New York: Mouton de Gruyter.
Lee, C.-H. (2020). The syntax of the dependent noun 'kes' in Korean Internally Headed Relative Clause constructions and clefts. Han-Geul 81(1), 45-81 [Written in Korean].
Lee, J.-E. (2020). A study of Internally Headed RC and its resemblant constructions marked by '-un kesi' and '-un kesul'. Kwuehak 'Journal of Korean Linguistics' 95, 167-210 [Written in Korean].
Lee, M. (2004). Focus-induced constraints in head-internal relatives. In S. Kuno et al. (Eds.), Harvard Studies in Korean Linguistics X (pp. 568-581). Seoul: Hanshin Publishing Company.

Mikkelson, L. (2005). Copular Clauses: Specification, Predication and Equation. Amsterdam \& Philadelphia: John Benjamins.
Mikkelson, L. (2011). Copular clauses. In K. von Heusinger et al. (Eds.), Semantics (pp. 18051829). Berlin \& New York: Walter de Gruyter.

Moon, S.-y. (2012). A study on Korean relative clauses in typological perspective. Kaysinemwunyenkwu 35, 31-68 [Written in Korean].
Moon, S.-y. (2017). 'kes' clausal nominalization in the Korean language from a typological perspective. Journal of Korean Linguistics 84, 33-88 [Written in Korean].
Nomura, M. (2000). The Internally-Headed Relative Clause Construction in Japanese: A Cognitive Grammar Approach. San Diego, CA: University of California dissertation.
Paradis, C. (2004). Where does metonymy stop?: Senses, facets, and active zone. Metaphor and Symbol 19(4), 245-264.
Park, C. (2019). Reference Point and Case: A Cognitive Grammar Exploration of Case. Amsterdam \& Philadelphia: John Benjamins Publishing Company.
Park, H.-j. (2019). The syntax and semantics of Internally-Headed relative clauses in Korean. Pankyoemwunyenkwu 52, 88-118 [Written in Korean].
Park, J. (2016). Syntactic applications of metonymy. Proceedings of the Linguistics Society of Korea Conference 2016, 318-396 [Written in Korean].
Ross, J. R. 1(972). Act. In D. Davidson \& G. Harman (Eds.), Semantics of Natural Language (pp. 70-126). Dordrecht: Reidel.
Ruiz de Mendoza Ibáñez, F. J. (2011). Metonymy and cognitive operations. In R. Benczes, A. Barcelona, \& F. J. Ruiz de Mendoza Ibáñez (Eds.), Defining Metonymy in Cognitive Linguistics: Toward a Consensus View (pp. 103-123). Amsterdam and Philadelphia: John Benjamins Publishing Company.
Schlenker, P. (2003). Clausal equations (a note on the connectivity problem). Natural Language \& Linguistic Theory 21, 157-214.
Shimoyama, J. (1999). Internally headed relative clauses in Japanese and E-type anaphora. Journal of East Asian Linguistics 8, 147-182.
Shimoyama, J. (2001). Wh-constructions in Japanese. Amherst, MA: University of Massachusetts Amherst dissertation.
Strawson, P. F. (1950). On referring. Mind 59, 320-344.
Tonosaki, S. (1996). Change of state head-internal relative clauses in Japanese. Gengokagaku Kenkyu 2, 31-47.
Tonosaki, S. (1998). Change-relatives in Japanese. Journal of Japanese Linguistics 16, 143-160.
Yeom, J.-I. (2014). The syntax of the dependent noun kes in Korean internally headed relative clause constructions and clefts. Language and Information 18(2), 103-122 [Written in Korean].
Yoon. J. H. (2003). What the Korean copula reveals about the interaction of morphology and syntax. In P. M. Clancy (Ed.), Japanese/Korean Linguistics, Vol. 11 (pp. 34-49). CSLI, Stanford University Association.

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[^0]:    ${ }^{1}$ Abbreviations used in the gloss are as follows. ACC: Accusative, ADN: Adnominalizer, ADV: Adverbializer, AUX: Auxiliary, CONJ: Conjunction, COMP: Complementizer, CONN: Connective, COP: Copula, DCL:
    Declarative, DAT: Dative, DPST: Discontinuous past, END: Sentence ender, GEN: Genitive, HON: Honorific, KES: kes, LOC: Locative, NEG: Negation, NMZ: Nominalizer, NOM: Nominative, PL: Plural, PRG: Progressive, PRS: Present, PST: Past, Q: Question, TOP: Topic.
    ${ }^{2}$ We gloss kes as KES instead of NMZ (Nominalizer) because its function is different from other clausal nominalizers, as discussed in Section 3.4.

[^1]:    ${ }^{3}$ J.-B. Kim \& Sells (2007) state that the term 'Cleft construction' is misleading in dealing with Korean. However, we use the term following the conventional identification.
    ${ }^{4}$ Profile and active zone are CG notions. Profile is a maximally prominent entity designated by a predication, which can be thought of as a kind of focal point (Langacker, 1987, p.118). In the sentence, the cigarette in her mouth was unlit, a particular portion of the cigarette was contained in a particular portion of the mouth. These particular portions constitute active zones of the cigarette and of the mouth with respect to the in relationship. Here, what we take to be the referents of mouth and cigarette are profiles (Langacker, 2009, p.43). We revisit these notions in Section 5.

[^2]:    ${ }^{5}$ The intuition-based examples are also crosschecked by two other native speakers of Korean.

[^3]:    ${ }^{6}$ kes may refer to a person if the speaker intends to refer to him disparagingly.

[^4]:    ${ }^{7}$ Nomura (2000) also observes that the Japanese example comparable to (17) is ambiguous between the IHRC and verb complement readings. According to him, IHRCs and verb complements form a gradation in terms of degree of the active zone/profile discrepancy.

[^5]:    ${ }^{8}$ Most scholars who deal with the Japanese IHRC construction identify no, which is comparable to kes, as a nominalizer.

[^6]:    a. na-nun [[Mia-ka Gio-lul ttayli-nu-n] kes]-ul cap-ass-ta. I-TOP M-NOM G-ACC beat.up-PRS-ADN KES-ACC catch-PST-DCL 'I caught Mia, who was beating up Gio.'
    b. na-nun [[Mia-ka Gio-lul ttayli-nu-n] kes]-ul

    I-TOP M-NOM G-ACC beat.up-PRS-ADN KES-ACC
    kamssa an-ass-ta.
    covering hold-PST-DCL
    Intended: 'I held and covered up Gio, who Mia was beating up.'
    c. *na-nun [[Mia-ka Gio-lul ttayli-nu-n] kes]-ul cap-ass-ta. I-NOM M-NOM G-ACC beat.up-PRS-ADN KES-ACC catch-PST-DCL Intended: 'I caught Gio, who Mia was beating up.'

[^7]:    ${ }^{9}$ Their identification is based on Higgins (1979); Heycock \& Kroch (2002); Mikkelson (2005); and Mikkelson (2011). Researchers who deal with Korean generally agree upon this categorization. Most researchers accept the view that there are at least two Copular constructions in Korean: predicative and equative. Please refer to J. Yoon (2003); K. Choi (2011), and C.-H. Lee (2020) for detailed discussion.
    ${ }^{10}$ This is a pragmatic definition proposed by Ross (1972); den Dikken, Meinungen, \& Wilder (2000); and Schlenker (2003).

[^8]:    ${ }^{11}$ Note that (37a) is not acceptable with the intended meaning. Example (37a) can also be interpreted as 'That fake (thing) is that china' due to the covert grounding of the subject nominal. This is explained in (40). (37c) is not acceptable as an answer for the question mikwuk-uy taythonglyeng-un nwukwu-nya' 'Who is the President of the United States of America?'
    ${ }^{12}$ Our view is parallel to that of Bach (2008). He adopts Strawson's (1950) position that referring is something a speaker does, not something an expression does. Bach (2008) elaborates Strawson's view from an interpersonally oriented position. Bach views speaker reference as part of an act of communication, which is inherently audiencedirected, whereby a speaker uses an expression to refer an audience to an individual.
    ${ }^{13}$ In CG, noun (or thing) refers to an ungrounded noun, and nominal refers to a grounded noun. For example, book is a noun, while $a$ book is the nominal.

