Interactions between (pseudo-) cleft and copular constructions in Korean*

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Kim, Jong-Bok and Peter Sells. 2013. Interactions between (pseudo-) cleft and copular constructions in Korean. Linguistic Research 30(1), 93-139. The Korean noun kes ('thing, fact') has a variety of uses. Among these, it can be involved in different types of constructions which appear to be counterparts of clefts and pseudoclefts in English, and these are the focus of our paper. These cleft-like uses of kes also involve the copula, and we argue in this paper that the kes-constructions simply inherit the information structure properties of copular clauses, and have no special syntax of their own. The key aspects in the analysis of kes are (i) whether the phrase that it heads is referential or not and (ii) where the partition in the copular clause between GIVEN and NEW information falls.

Keywords Korean, kes, copula, cleft, information structure

1. Introduction

The formal noun *kes* in Korean has a variety of uses, but in terms of its morphosyntactic properties, it can be classified either as a pure nominalizer, nominalizing a clause, or as a noun meaning 'fact' or 'thing'. Examples in (1) illustrate its canonical uses. Korean is an underlyingly SOV language with a nominative-accusative case system. Due to the head-final character of the language, the noun *kes* is always preceded by any modifying clause, determiner, or other NP-internal modifier:

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(1) a. nay kes-i kes-pota khu-ta ne my thing-NOM your thing-more big-DECL '(Lit.) My thing is bigger than your thing.' mek-un] kes]-ul b. [[John-i mek-ess-ta eat-MOD thing-ACC John-NOM eat-PAST-DECL '(We) ate the thing that John ate.' c. [[John-i talli-nun] kes]-ul moll-ass-ta John-NOM run-MOD KES-ACC not.know-PAST-DECL '(We) didn't know that John was running.'

In (1a) kes is a referential noun and combines with a determiner, while in (1b) it heads a relative clause and intuitively fills a missing object argument within the clause. The verb preceding kes takes a special noun-modifying form in Korean and is glossed here as 'MOD'. In these first two examples, kes refers to a concrete entity of some kind. In contrast in (1c) kes nominalizes the preceding clause, and if it refers at all, it refers to the event denoted by the clause. There are two different types of kes that have been recognized as being relevant to the constructions we discuss in this paper: one referring to an entity (or individual) and the other functioning as a clausal nominalizer. Beyond there, there are other uses of kes. Kim (2009) presents a formal syntactic and semantic analysis of some of these other uses of kes.

The expression *kes* also can introduce cleft-like constructions which are employed to mark a certain constituent as discourse-prominent. There are two syntactic frames for these cleft-like structures with *kes*, as in (2). For presentational purposes, we will use the labels "cleft" and "inverted cleft" to refer to different superficial syntactic structures:

(2) a. Cleft:

[John-i ___i ilk-un kes]-un [kacca]_i-i-ta

John-NOM read-MOD KES-TOP fake-COP-DECL

The clausal nominalizer kes is simply glossed here as KES as the details of its analysis are considered in the paper. In the literature, kes in (1c) has been treated by some researchers as a noun and by some as a complementizer (cf. Jhang (1995) and Sohn (2004)). We argue below that all uses of kes are nominal.

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'What John read is a fake.'
b. Inverted Cleft:
  [i chayk]<sub>i</sub>-i
                    palo [John-i
                                           ilk-un
                                                        kes]-i-ta
                    very John-NOM
  this book-NOM
                                            read-MOD
                                                        KES-COP-DECL
  'This book is (really) what John read.'
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In fact, (2a) looks rather like an English pseudocleft, and consists of a cleft clause with a missing position coindexed with the pre-copula expression kacca 'fake'. The inverted structure in (2b) has the nominative phrase i chayk 'this book' as the pivot XP, notionally coindexed with a missing position in the following cleft-like clause. In these two cleft-like structures, the pivot XP is linked to the content of the cleft clause introduced by kes, though the exact semantic function is different. For example, in (2a), the XP is predicated of the individual that the cleft clause refers to, whereas in the inverted structure in (2b), the XP and the individual are in an identity (coreference) relation.

We will argue in this paper that it is misleading to assume that Korean has anything like a true cleft or pseudocleft construction familiar from a language like English. Rather, Korean has copular constructions, and it has a way of nominalizing clauses with kes. Korean has no overt operator movement, and no expletives, so the surface form of the Korean examples gives us no clue as to the distinction familiar from English between clefts and pseudoclefts. Apart from a partitioning into given and new information, and the interpretation types of copular clauses into the familiar interpretations of equational, predicational, specificational (see Heycock and Kroch 2002, Mikkelsen 2005, among many others) — we argue that it is not necessary to postulate any special syntax for constructions containing kes-phrases, for they are just types of copular constructions.

A representative example that looks cleft-like in some way is (3), from Lee and Ramsey (2000, 103), where a PP is related to a backgrounded clause:

(3) [ilpon-i hanca-lul tuli-e kes]-un ka-n [Japan-NOM character-ACC take.in-COMP go-MOD KES]-TOP [hankwuk-ulo-pwuthe]-i-ess-ta [Korea-direction-from]-COP-PAST-DECL 'Japan taking in Chinese characters was from (the direction of) Korea.' Such examples are routinely accepted as clefts in the syntactic literature on Korean, though it is not clear if there is straightforward cleft or pseudocleft form in English which expresses the meaning — perhaps "It is from Korea that Japan took Chinese characters". However, there is no doubt that the pre-copular PP presents new or noteworthy information against the background of the *kes*-clause.

In this paper we focus on examples like those in (2) and (3). For completeness in the area of cleft-like structures, we note that there is also an 'eventive' or 'inferential' cleft construction which nominalizes a whole preceding S, highlighting the described event, as in (4) (cf. Jhang 1995, Sohn 2004, Hiraiwa and Ishihara 2002 (on Japanese)):

(4) a. [ku ttay sako-ka na-n kes]-i-ya
[that moment accident-NOM happen-MOD KES]-COP-DECL
'The fact is that at that moment, an accident happened.'
b. [ku yeca-ka John-ul manna-n kes]-i-ya
that woman-NOM John-ACC meet-MODt KES-COP-DECL
'The fact is that [that woman met John].'

The clausal complement of *kes* here is all presented as new information, as shown by the fact that an eventive cleft can be an appropriate answer to a question like the following:

(5) mwusun il-lo kulehkey solansulep-ess-ni? what thing-by so noisy-PAST-QUE 'Why was it so noisy?'

With regard to the core cleft-like examples in (2)-(3), we investigate their properties from the point of view of copular clauses in general in Korean. The rest of the paper is organized as follows. In section 2 we present in more detail the relevant facts that have to be accounted for. In section 3 we discuss the relation between copula and Korean cleft constructions. In section 4, we briefly consider the syntactic status of *kes*. Finally in section 5, we present our account of Korean cleft examples in terms of the range of information structure profiles and semantic interpretations independently available in copular clauses.

2. Grammatical properties of the kes-constructions

In this section we present various grammatical properties of the kes-constructions, as well as certain diagnostic tests which we will use later in the paper. In particular, we focus on syntactic properties of the constructions which show that they are rather different from clefts and pseudoclefts in English.

2.1 Syntactic properties of the cleft clause

2.1.1 Inversion of pre-copular NPs

One aspect of the construction that has implicitly guided previous analyses is the formal status of kes; this, naturally, is a Korean-specific property. kes is an inanimate noun and is usually translated as 'fact' or 'thing'; yet in these copular constructions, the XP headed by kes can be an animate-denoting NP, and is apparently inter-substitutable with a noun like salam ('person'):

- (6) a. [John-i sa-n kes]-un mwues-i-ni? [John-NOM buy-MOD KES]-TOP what-COP-QUE 'What is it that John bought?'
 - b. [John-i manna-n kes]-un nwukwu-i-ni? [John-NOM meet-MOD KES]-TOP who-COP-QUE
 - 'Who is it that John met?'
- seysang-eyse ceyil alumtaw-un salam/kesl-un nwukwu-ci? most beautiful-MOD person/KES]-TOP who-QUE [this world-LOC 'Who is the most beautiful (person) in the world?'
 - b. ſi pang-eyse ceyil ttokttokha-n salam/kes]-un nwukwu-ci? most smart-MOD person/KES]-TOP who-QUE [this room-LOC 'Who is the smartest (person) in this room?'
 - c. [ku il-ul ha-l swu iss-nun salam/kes]-un [that work-ACC do-can-MOD person/KES]-TOP ne-ppwun-i-ta you-just-COP-DECL

'The person/one who can do the work is just (=only) you.'

In all these examples with *kes*, it appears that the pre-copular XP is formally syntactically removed from the clause modifying *kes*, where *kes* itself is a formal marker of the construction, as a kind of cleft. The reason for this analysis is that *kes* shows no sensitivity to animacy, which it otherwise does, in other contexts. That is, *kes* in examples like (6b) and (7) could not be the referential inanimate noun *kes*, but must have some other use, perhaps just marking the construction.

Picking up on this distinction, Jhang (1995, Ch. 3) and Kang (2006) notes the asymmetry shown in (9a)-(9b) (relative to the lack of asymmetry in the examples in (8). The examples in (9) involve the inverted construction with the *kes*-phrase in pre-copular position:

- (8) a. [John-i sa-n kes]-un i chayk-i-ta
 [John-NOM buy-MOD KES]-TOP this book-COP-DECL
 'What John bought is this book.'
 - b. [John-i manna-n kes]-un ku yeca-i-ta[John-NOM meet-MOD KES]-TOP that woman-COP-DECL'Who John met is that woman.'
- (9) a. i chayk-un [John-i sa-n kes]-i-ta (inanimate topic) this book-TOP [John-NOM buy-MOD KES]-COP-DECL 'This book is the one that John bought.'
 - b. *ku yeca-nun [John-i manna-n kes]-i-ta (animate topic) that woman-TOP [John-NOM meet-MOD KES]-COP-DECL 'That woman is the one who John met.'

Although (9b) is unacceptable, an acceptable example can be created, simply by putting the animate head noun *salam* in the pre-copular position, as in (10):²

(10) ku yeca-nun [John-i manna-n salam]-i-ta that woman-TOP [John-NOM meet-MOD person]-COP-DECL 'That woman is the person who John met.'

The string in (9b) can be acceptable as focusing the whole event (cf. (4)), with the interpretation of ku yeca-nun 'that woman' as topical information — "As for that woman, the news is that John met her".

The acceptability of (10) shows that kes in (9b) must also be used as a true noun, with a referential interpretation, and hence it is incompatible with the meaning of yeca due to the clash in (in)animacy. If this is so, then why does kes in (8b) not have the same analysis? - Why is there no animacy clash? Now although (10) is grammatical, the information structure is different from (8b) (see Section 5 for further discussion). In (10) 'that woman' is given information, and the new information is somewhere in the pre-copular part, most likely by contrastive emphasis on John-i or manna-n. In order to present the subject NP as new information, it should have nominative case; yet the same pattern of acceptability emerges as in (9):

- (11) a. i chayk-i [John-i kes]-i-ta (inanimate subject) sa-n this book-NOM [John-NOM buy-MOD KES]-COP-DECL 'This book is the one that John bought.'
 - b. *ku veca-ka [John-i manna-n kes]-i-ta (animate subject) that woman-NOM [John-NOM meet-MOD KES]-COP-DECL 'That woman is the one who John met.'

We show below that a kes-phrase in pre-copular position must be used referentially, as suggested in the English translations for these examples. A truly referential use of a kes-phrase always has an inanimate referent, as part of the lexical information of kes, and this means that there is an animacy clash in examples like (11b). Hence, only non-inverted examples like (8) do not show sensitivity to animacy, and the full explanation for the contrast in (9) lies in the fact that there are a variety of cleft-like or kes-constructions, which superficially look the same but which are distinguishable in terms of more subtle properties, as we investigate below.

2.1.2 No inversion of pre-copular non-NPs

The pre-copular position in a cleft is an XP which can be instantiated by several different categories and can function as either an argument or an adjunct. In some examples, a postposition or semantic case marker associated with the XP is optional, as shown in the examples in (12):

- (12) a. [John-i Mary-lul manna-n kes]-un [kongwen-(eyse)]-i-ta [John-NOM Mary-ACC meet-MOD KES]-TOP park-at-COP-DECL 'It was (at) the park that John met Mary.'
 - b. [John-i Mary-lul manna-n kes]-un [tosekwan-(eyse)]-i-ta John-NOM Mary-ACC meet-MOD KES-TOP library-at-COP-DECL 'Where John met Mary is (at) the library.'
 - c. [John-i Mary-eykey senmwul-ul cwu-n kes]-un John-NOM Mary-DAT present-ACC give-MOD KES-TOP [wupyen(-ulo)]-i-ta mail(-by)-COP-DECL

'The way John gave Mary a present is (by) mail.'

Other examples show a less direct connection between the clause and the pivot XP:

(13) [swum-i taptapha-n kes]-un [sanso-ka breath-NOM choking-MOD KES-TOP oxygen-NOM pwucokhay-se]-i-ta short.do-because-COP-DECL

'It is because of lack of oxygen that it is hard to breathe.'

(lit.) 'What is hard to breathe is (due to) lack of oxygen.'

In this example, the pre-copular expression provides the new information regarding the difficulties in breathing described by the subject.

One issue that arises in the analysis of copular structures is the potential invertability of the two arguments of the copula. In the case of cleft structures, in marked contrast to the examples above, no non-NP phrase is grammatical in an apparently inverted cleft (cf. (2b)):3

(14) a. *[kongwen-(eyse)]_{PP}-ka [John-i Mary-lul manna-n park-at-NOM [John-NOM Mary-ACC meet-MOD kes]-i-ta

KES]-COP-DECL

³ For minimalist syntax approaches to examples like these, see Jhang (1995) and Choi (2011).

- b. *[sanso-ka pwucokhay-se]-ka [swum-i taptapha-n oxygen-NOM short.do-because-NOM breath-NOM choking-MOD kes]-i-ta KES-COP-DECL
- Mary-lul c. *[tosekwan-(eyse)]-ka [John-i manna-n Mary-ACC meet-MOD library-at-NOM John-NOM kes]-i-ta KES-COP-DECL
- d. *[ecey]-ka [John-i Mary-lul manna-n kes]-i-ta yesterday-NOM John-NOM Mary-ACC meet-MOD KES-COP-DECL

The initial phrase in the inverted construction can only be an NP; the contrast between (13) and (14) also suggests that the inverted constructions are not simply literal syntactic inversions of the cleft structures (see also (8-9) below).4 Even without (postpositional) case markers on the initial phrases in the examples in (14), the examples are unacceptable. As we will see below, this is because the only possible interpretation is the equational, in which the initial phrase must have an identical referential value with the pre-copular kes clause. However, the initial phrases in the examples do not support this interpretation.

It is important to note that there is nothing about the potential meanings of these examples that could be the source of their unacceptability. For instance, (14a) contrasts with (15), an equational NP-NP structure with the referent of a place ensured by the head noun kos:

(15) i kongwen-i [John-i Mary-lul manna-n kos]-i-ta this park-NOM [John-NOM Mary-ACC meet-MOD place]-COP-DECL 'This park is the place (where) John met Mary.'

2.1.3 Multiple/amalgam clefts — no movement

Korean and Japanese seem to allow 'multiple clefts' (Hiraiwa and Ishihara 2002, Kim and Lee 2008, Cho et al. 2008) where multiple elements appear in the

⁴ See Yoon (2003) and Kim et al. (2007) for discussion of some of the syntactic properties of simple Korean canonical and inverse constructions involving the copula.

(16) [mina-ka ku chayk-ul sa-n kes]-un cak.nyen
[Mina-NOM that book-ACC buy-MOD KES]-TOP last.year
L.A.-eyse-i-ta
L.A.-LOC-COP-DECL
'Where/when Mina bought that book is last year in L.A.'

Cho et al. (2008) argue that these have an analysis as 'amalgam clefts', and we adopt some aspects of their proposal. They show that the important properties of amalgam clefts are not derived by movement — either of multiple constituents out of the host *kes*-clause, or by movement of a larger constituent containing the apparently clefted phrases — but from ellipsis in a copular clause taking the *kes*-clause as background (in the information structure sense). In their proposal, the example in (16) is derived by ellipsis of the struck-through parts of the larger structure in (17):

(17) [mina-ka ku chayk-ul sa-n kes]-un
[Mina-NOM that book-ACC buy-MOD KES]-TOP
[mina-ka ku chayk-ul cak.nyen L.A.-eyse sa-ss-ta]
[Mina-NOM that book-ACC last.year L.A.-LOC buy-PAST-DECL]
-i-ta
-COP-DECL
'Where/when Mina bought that book is Mina bought that book last year in L.A.'

These multiple clefts do not have a syntactic derivation in which the focal part(s) must be moved out of the backgrounded constituent, to pre-copular position. Rather, the matching information (the deleted parts) is generated in two places in the structure, and elided in the second part. If this general approach to the syntax is correct, the question arises as to how the information structure of such amalgam clauses is determined, which we take up in section 5. Clearly *kes* marks the boundary between given and new information. The amalgam clefts show that the

Not all speakers of Korean allow multiple clefts, but examples like (16) are reported as acceptable in a certain context in the literature cited, and appear to be fully grammatical.

new information is not restricted by the syntax to being expressed in a single constituent.

2.1.4 No pseudoclefts

One interesting property of Korean is that it is possible to have a wh-word or -phrase in the pre-copular position of a cleft-like example, as in (18) from Kim and Lee (2008) (the copula is phonetically silent in this particular example):

(18) [Sue-ka Bonn-eyse palphyoha-nun kes]-un encey-ya? Sue-NOM Bonn-LOC present-MOD KES]-TOP when (-COP)-QUE 'When is it that Sue is presenting in Bonn?'

Such examples are significant in that the acceptability of wh-phrases actually implies what would be in English a kind of cleft structure (as also in a/c below), rather than literally a pseudocleft structure (as in b/d below):

- (19) a. When is it [that Sue is presenting in Bonn]?
 - b. ??When is [when Sue is presenting in Bonn]?
 - c. Who is it [that met Sue]?
 - d. ??Who is [who met Sue]?

In fact, examples like those in b/d and their contrasting grammatical variants in Japanese led Merchant (1998) to argue that Japanese lacks pseudoclefts. Korean has all the same relevant properties as Japanese. If there are no pseudoclefts in Korean, this supports our position that all the relevant properties of 'cleft-like' constructions are derivable from the syntax and interpretation of copular clauses.

In summary, there is no simple way to partition the examples into cleft and pseudocleft types, and there seems to be some evidence against even trying to assign these labels. There is reason to believe that a movement-based derivation is not appropriate, both for theoretical reasons (see e.g., Cho et al. (2008)), and also due to the empirical facts on the restricted possibilities of inverted structures. Given all these considerations, we suggest that the organising principles of the syntax of Korean 'clefts' should be investigated from a different starting point in syntax than

the usual analysis of English clefts and pseudoclefts.

2.2 Tests with kes: kes-phrases used referentially

In considering exactly which uses of *kes* are truly referential, we have found a few specific contexts which force the *kes*-phrase subject to be referential, and therefore incompatible with an animate referent in pre-copular position (such as (8b)). We do not fully understand why these contexts force referentiality, but consider it useful to present the data in this subsection as providing more detail about the use of *kes*.

First, if the kes-phrase is referential, it is possible to conjoin kes-phrases:

- (20) a. [John-i sa-n kes]-kwa [Mary-ka pha-n kes]-un [John-NOM buy-MOD KES]-CONJ [Mary-NOM sell-MOD KES]-TOP motwu kacca-i-ta
 - all fake-COP-DECL
 - 'What John bought and what Mary sold are all fake.'
 - b. i chayk-tul-i [John-i sa-n kes]-kwa [Mary-ka this book-PL-NOM [John-NOM buy-MOD KES]-CONJ [Mary-NOM ilk-un kes]-tul-i-ta read-MOD KES]-PL-COP-DECL

'These books are what John bought and what Mary read.'

As expected from the fact that *kes* must refer to an inanimate individual, such a coordinated phrase cannot have an animate referent (cf. 8b):

(21) [John-i cohaha-nun kes]-kwa [Mary-ka chotayha-n kes]-un [John-NOM like-MOD KES]-CONJ [Mary-nom invite-MOD KES]-TOP ku yeca-i-ta the woman-COP-DECL 'The [one that John likes] and [one that Mary invited] is the woman.'

This example contrasts with (22), which has conjoined clauses under kes:

(22) [[John-i cohaha-ko] [Mary-ka chotayha-n] kes]-un [[John-NOM like-CONJ] [Mary-nom invite-MOD] KES]-TOP ku yeca-i-ta the woman-COP-DECL 'The one that [John likes] and that [Mary invited] is the woman.'

Second, future tense also forces a referential meaning. Consider first the pair of English examples in (23), where a is formed from a cleft, and b is not.

(23) a. What is it that you want to do? b. What do you want to do?

These seem like an unremarkable pair. However, in English, there is a clear asymmetry in the acceptability of the following future tense examples, for any V:

(24) a. ?*What is it that you will V tomorrow? b. What will you V tomorrow?

A search for the string in (24a) with the verb *do* for 'V' on Google in November 2010 yielded 1 hit, while a search at the same time for (24b) yielded 864,000 hits. While there is a large amount of unusable data in simple string searches, the massive difference in these numbers can be taken as an indicator of the degraded status of the future cleft construction in (24a). Our conjecture for this kind of semantic restriction is that it relates to the status of the cleft clause, which canonically describes background information: somehow a future tense clause cannot function to express given information.

Korean is no different, and a *kes*-construction with a future form inside the modifying clause (marked by -(u)l) also yields a diagnostic about the construction types. The examples in (25) and (26) are all acceptable:

(25) a. ne-nun nayil mwues-ul ha-keyss-ni?
you-TOP tomorrow what-ACC do-FUT-QUE
'What do you want to do tomorrow?'
b. [ney-ka nayil ha-l kes]-un mwues-i-ni?

- (26) a. [John-i tayhak-eyse kongpwu ha-l kes]-un mwues-i-ni?
 [John-NOM university-at study-MOD KES]-TOP what-COP-QUE
 'What will John study at university?'
 - b. [John-i tayhak-eyse kongpwu ha-l kes]-un
 [John-NOM university-at study-MOD.FUT KES]-TOP
 enu kwamok-i-ni?
 which subject-COP-QUE
 'Which subject will John study at university?'

However, a *kes*-construction containing a future form cannot be used if the target referent is animate, as in (27)-(28), while present or past forms are generally acceptable:⁶

- (27) a. [ku mwuncey-lul phwu-l kes]-un John-i-ta [that problem-ACC solve-MOD.FUT KES]-TOP John-COP-DECL 'Who will solve that problem is John.'
 - b. [ku mwuncey-lul phwul-eya ha-nun kes]-un John-i-ta [that problem-ACC solve-must-MOD.PRES KES]-TOP John-COP-DECL 'Who must solve that problem is John.'
- (28) a. [John-i pangmwun ha-l kes]-un Mary-i-ta
 [John-NOM visit-MOD.FUT KES]-TOP Mary-COP-DECL
 'Who John will visit is Mary.'
 - b. [John-i pangmwun ha-n kes]-un Mary-i-ta[John-NOM visit-MOD.PAST KES]-TOP Mary-COP-DECL'Who John visited is Mary.'

The reason for this behaviour with the future tense is unidentifiable at this point; yet clearly the effect is that the future form in the *kes*-clause forces *kes* to be interpreted in its true nominal form, meaning 'fact' or 'thing', and therefore incompatible with an animate focal referent. The observation can therefore provide a useful diagnostic

To keep the glosses simple, we only formally mark whether the modifier forms preceding kes are past, present or future in this subsection, where the difference is relevant.

in categorizing the types of kes-constructions, and casts further doubt on there being any simple syntactic relationship between the two parts of cleft-like examples. Whether a kes-phrases refers or not will be an important consideration in the following sections.

3. Relations between copular and cleft constructions

In this section we look at basic properties of copular clauses. We start from the familiar partition into three interpretations for copular constructions: predicational, equational, specificational. We also consider the mapping of GIVEN and NEW in information structure. The goal is to show that the range of interpretations in 'cleft' constructions is exactly the range that already exists for copular constructions — in other words, cleft constructions have no special interpretive properties.

3.1 Copular constructions

All of the kes-constructions of interest have the copula as the matrix verb. Hence, it is important to understand the (information structure) properties of the copula as part of a study of kes. It is familiar from works such as Heycock and Kroch (2002) or Mikkelsen (2005) that there are a variety of interpretations with the copula: predicational, equational, and specificational. Illustrative examples are given in (29):

(29) Predicational:

- a. The hat is big.
- b. The hat/present/thing I bought for Harvey is big.
- c. What I bought for Harvey is big.

(30) Equational:

- a. Sylvia Obernauer is HER.
- b. Cicero is Tully.

(31) Specificational:

- a. The director of 'Anatomy of a Murder' is Otto Preminger.
- b. The only director/person/one I met was Otto Preminger.
- c. Who I met was Otto Preminger.

With the predicational copula in English, the post-copular element predicates a property of the subject. The equational copula equates the referents of the two surrounding expressions. Hence the subject in both of these interpretations is referential. Finally, with the specificational copula, the subject expression sets up a variable — so it does not refer — and the post-copular expression provides the value for this variable. In addition, as we can see in these examples, (29b) and (31c) are predicational and specificational pseudoclefts, respectively (Higgins 1979, Heycock 1994).

Copula constructions in Korean can also be classified into these three types, as illustrated in (32):

(32) a. Predicational:

i moca-nun kacca-i-ta this hat-TOP fake-COP-DECL 'This hat is fake.'

b. Equational:

Chelswu-ka palo ku salam-i-ta Chelswu-NOM very that person-COP-DECL 'Chelswu is that very person.'

c. Specificational:

nay-ka manna-n salam-un Chelswu-i-ta
I-NOM meet-MOD person-TOP Chelswu-COP-DECL
'The person I met is Chelswu.'

Under each interpretation, the arguments typically have different referential properties as shown in (33), modified from Mikkelsen (2011). NP1 is the linearly first phrase and XP is the second; in some cases XP is an NP, of course. Naturally the relative position of the copula is different in English (medial) and Korean (final), but this does not affect any of the interpretive properties of the constructions:

(33) Copular clauses

Interpretation	NP1	XP
predicational	referential	non-referential
equational	referential	referential
specificational	non-referential	referential

NP1 and XP are syntactic positions which are potentially orthogonal to the information structure profile that is expressed. We see that if NP1 is referential, the clausal interpretation cannot be specificational, and that if XP is referential, the interpretation cannot be predicational. This is why it is useful to be able to determine whether a given phrase is used referentially or not (see section 2.2 above). We do not go here into detail of the precise nature of what is meant above by 'referential' and 'non-referential', as it is not crucial to the main points that we wish to make. For Mikkelsen, 'referential' indicates an entity of type <e>, while nonreferential is identified with type <e,t>. Other authors, such as Schlenker (2003) have taken a more (formal) pragmatic approach and proposed that at least the specificational copula cases are interpreted like question-answer pairs. For more discussion, see Mikkelsen (2011).

3.2 Cleft constructions as copular constructions

Now we look at these different interpretations of the copula, within the cleft-like constructions introduced above.

3.2.1 Predicational interpretation

Starting with predicational uses of the copula, one important aspect of this interpretation is that the subject is referential, and the pre-copular position is nonreferential.⁷ The pre-copular part describes a property of the entity denoted by the subject.

An example like (34a) might look like a cleft of some kind, but in fact it is a predicational use of the copula — the predicative phrase kacca is not referential. We

⁷ For some tests to determine the predicational or referential status the XP in pre-copular position in Japanese, see Komagata (1996).

can determine this, as the example cannot be inverted as in (34b), and for inversion, it has to be that both NPs are referential:

(34) a. [John-i ceyil cohaha-nun kes]-un sasil(-un) like-MOD KES]-TOP in.fact [John-NOM most acwu kacca-i-ta fake-COP-DECL very 'What John likes most is in reality a fake.' b. *kacca-nun/ka [John-i ceyil cohaha-nun kes]-i-ta fake-TOP/NOM [John-NOM most like-MOD KES]-COP-DECL

What the uninvertibility in (34b) shows is that (34a) is not example in which a referential XP is 'extracted' from the preceding *kes*-clause. (34a) is simply a copular construction whose subject happens to be constructed with a phrase headed by *kes*. If this is a possibility in the grammar, we should explore how widely it can be applied.

Now let us consider the examples in (35), which are (intended to be) predicative constructions. (35a) is ungrammatical, and we can understand this because *kes*-phrase refers — and if so, it cannot have an animate referent. In contrast, (35b) is acceptable, with an inanimate referent:

(35) a. *[John-i kyelhon ha-n kes]-un alumtap-ta
[John-NOM marry-MOD KES]-TOP beautiful-DECL
'The one who John married is beautiful.'
b. [John-i sa-n kes]-un acwu pissa-ta
[John-NOM buy-MOD KES]-TOP very expensive-DECL
'What John bought is very expensive.'

Mikkelsen (2011) also notes that in a predicational use, the copula can be replaced by the verb *become*:

(36) a. Mina-nun uysa-i-ta

Mina-TOP doctor-COP-DECL

'Mina is a doctor.'

b. Mina-nun uysa-ka toy-ess-ta Mina-TOP doctor-NOM become-PAST-DECL 'Mina became a doctor.'

Like the complement of 'become', the pure predicational copular construction introduces or involves no new referents, but simply provides more descriptive content about the subject. Hence if Mary became a doctor, it makes no (literal) sense to talk about the doctor who Mary became.

Continuing this line of reasoning, while (37a) and especially (37b) might taken to be predicational cleft-like uses, the total unacceptability of (37c) shows that this is incorrect. We must conclude that the kes-phrase in these constructions does not refer, in contrast to the clearly predicational examples in (36), which do have referential subjects.

- (37) a. [John-i kyelhon ha-n kes]-un Mina-i-ta KES]-TOP Mina-COP-DECL [John-NOM marry-MOD 'The one who John married is Mina.'
 - b. [John-i kyelhon ha-n kes]-un uysa-i-ta [John-NOM marry-MOD KES]-TOP doctor-COP-DECL 'The one who John married is a doctor.'
 - c. [John-i kyelhon ha-n kes]-un uysa-ka [John-NOM marry-MOD KES]-TOP doctor-NOM toy-ess-ta become-PAST-DECL 'The one who John married became a doctor.'

Hence, in the predicational construction, the kes-phrase is used referentially and must have an inanimate referent. Any examples which are acceptable with animate referents — such as the acceptable examples with animate referents in (37) — are not predicational. They are also not equational, as the kes-phrase must refer in an equational interpretation, necessarily to an inanimate individual; see the next subsection. This means that acceptable examples with animate referents such as (37) are specificational.

3.2.2 Equational interpretation

The equational use of the copula identifies two expressions of the same semantic type (Heycock and Kroch 2002, Mikkelsen 2011). For simplicity in this paper, we will consider both phrases to be referential, and so both the subject NP1 and pre-copular XP either are or describe the same (individual or event) object. Due to this property, the construction is invertible, and different positions may be associated with given or with new information (see for example Heycock and Kroch 2002 or Mikkelsen 2005). In the English parts of the examples below, the new information is shown in italics.

- (38) Who is John's favorite colleague?
 - a. John's favorite colleague is this person.
 - b. This person is John's favorite colleague.

The same patterns are found in Korean, as in (39) with a regular common noun head, parallel in the relevant senses to (38):

(39) a. [John-i ceyil cohaha-nun hoysa tonglyo]-nun [John-NOM most like-MOD company colleague]-TOP salam-i-ta this person-COP-DECL 'John's favorite colleague is this person.' salam-un [John-i ceyil cohaha-nun this person-TOP [John-NOM most like-MOD tonglyo]-i-ta hoysa company colleague]-COP-DECL 'This person is John's favorite colleague.'

The equational construction is truly invertible in the sense that the information structure of (39a) can be maintained with the reversed order, as long as the subject *i salam* is marked with the nominative rather than topic marker. With prosodic emphasis on the subject, (40) has the same information structure as (40a) (*this person* is the new information):

(40) i salam-i [John-i ceyil cohaha-nun this person-NOM [John-NOM most like-MOD hoysa tonglyo]-i-ta company colleague]-COP-DECL 'This person is John's favorite colleague.'

It is also possible to create equational structures in Korean where one phrase is a *kes*-phrase, as in (41)-(42):

- (41) a. [John-i sa-n kes]-un i chayk-i-ta
 [John-NOM buy-MOD KES]-TOP this book-COP-DECL
 'What John bought is *this book*.'
 - b. i chayk-i [John-i sa-n kes]-i-ta this book-NOM [John-NOM buy-MOD KES]-COP-DECL 'This book is what John bought.'
- (42) a. [ney-ka hay-ya ha-nun kes]-un [software-lul mence [you-NOM do-COMP must-MOD KES]-TOP [software-ACC first cwumwunha-nun kes]-i-ta order-MOD KES]-COP-DECL 'What you must do (to solve your problem) is order the software first.'
 - b. [software-lul mence cwumwunha-nun kes]-i [ney-ka [software-ACC first order-MOD KES]-NOM [you-NOM hay-ya ha-nun kes]-i-ta do-COMP must-MOD KES]-COP-DECL 'Order the software first is what you must do.'

In these equational examples, we take it that both arguments of the copula refer to entities of the same kind, though it is also possible that the a-examples can be interpreted specificationally as well (see the next section), as they have the GIVEN-NEW information structure. The b-examples are necessarily equational as they have the NEW information in initial position.

3.2.3 Specificational interpretation

In the canonical cases, the subject of the specificational copular clauses, specifying who (or what) someone (or something) is, sets up a variable and the post-copular expression provides the value for that variable. This is why the pre-copular XP is referential (and therefore is an NP) while the subject is not referential, and provides a description. As Mikkelsen (2011) summarizes, the classic specificational use is providing a list of one or more items which answer a question described by the subject of the construction, as in (43):

- (43) a. [nay-ka sa-ya ha-nun kes]-un mangchi-wa mos-i-ta [I-NOM buy-COMP do-MOD KES]-TOP hammer-and nail-COP-DECL 'What I need to buy is a hammer and nails.'
 - b. [Sam-i hyukacha ka-n kos]-un Seoul-i-ta
 [Sam-NOM vacation go-MOD place]-TOP Seoul-COP-DECL
 'Where Sam went for vacation is Seoul.'

Another important property of specificational copular clauses is that their information structure is fixed, in that the XP that is the complement of the copula must present NEW information, as Heycock and Kroch (2002) illustrate with English examples:

- (44) A: Who was the culprit? (John or Bill?)
 - B: The culprit was *John*.
- (45) A: What was John? (Was John the culprit or the victim?)
 - B: *The culprit was John.

A similar situation holds in Korean, where (47B') corresponds to (45B):

⁸ The issue of the referentiality of the subject in the specificational copula constructions is controversial. As argued by Mikkelsen (2005), the possibility of pronominalizing the subject in tag questions shows that the subject of a specificational copular clause is non-referential, or at least, it does not to refer to an individual person, given the contrast between the (a) and (b) examples:

⁽i) a. The guest of honor was happy, wasn't she/*it? (Predicational)b. The director of the movie is Otto Preminger, isn't it/??he? (Specificational)

- (46) A: nwu-ka pemin-i-ya? who-NOM culprit-COP-QUE 'Who is the culprit?'
 - B: pemin-un John-i-ya culprit-TOP John-COP-DECL 'The culprit is John.'
- (47) A: John-i mwues-i-la-ko? John-NOM what-COP-QUE-COMP 'What did you say John is?'
 - B: John-i pemin-i-ya John-NOM culprit-COP-DECL 'John is the culprit.'
 - B': *pemin-i John-i-va culprit-NOM John-NOM-DECL 'The culprit is John.'

These examples show us that the information structure in the Korean specificational clause is also fixed, GIVEN-NEW (see Mikkelsen 2005). This condition on the information structure of specificational clauses accounts for the contrast between the examples below:

- (48)(Do I have to order the software first?) A:
 - B: ??[ney-ka hav-va [software-lul ha-nun kes]-i do-COMP must-MOD KES]-TOP [software-ACC you-NOM mence cwumwunha-nun kes]-i-ta KES]-COP-DECL first order-MOD 'What you must do is order the software first.'
- (What should I do?) (49) A:
 - kes]-un [software-lul B: [ney-ka hay-ya ha-nun must-MOD KES]-TOP [software-ACC [you-NOM do-COMP mencecwumwunha-nun kes]-i-ta KES]-COP-DECL firstorder-MOD 'What you must do is order the software first.'

In (48), the nominative marked subject is intended to be linked to NEW information whereas the pre-copular expression is GIVEN, as set up by the prior question. As the information structure order is NEW-GIVEN, the example is highly unnatural on a specificational interpretation. However (49), in which the subject is linked to the previous context while the pre-copular represents new information, is felicitous since it observes the information structure condition. What we can further observe from this contrast is that the difference with the predicational use is that the predicational use adds descriptive content to an existing referent; in contrast, the specificational use adds (at least) one new referent, updating the given information that way. The *kes*-phrase in an example like (49) marks off the information of the clause up to a certain point, and the pre-copular part presents new information — what we refer to below as 'descriptive update'.

From the observations that we have made above, we can now diagnose the distribution of referential properties in (50a-b). As these examples are acceptable with animate referents we can conclude that the *kes*-phrases in (50a-b) do not refer, and therefore the interpretation could not be predicational or equational, nor could the example be derived as an inversion of a predicational structure. We know independently that a pre-copular *kes*-phrase must refer to an inanimate entity, and so it follows that the animate-signifying⁹ initial NPs in (50) are not underlyingly related to the pre-copular position:

(50) a. [John-i kyelhon ha-n kes]-un Mina-i-ta
[John-NOM marry-MOD KES]-TOP Mina-COP-DECL
'The one who John married is Mina.'
b. [John-i kyelhon ha-n kes]-un alumtaw-un
[John-NOM marry-MOD KES]-TOP beautiful-MOD

yeca-i-ta woman-COP-DECL

'The one who John married is a beautiful woman.'

⁹ We need to introduce a term for examples which are intuitively 'about' animate referents, but in which the kes-phrase does not refer, according to our analysis. We use the term "animate-signifying" to classify such examples, in which the kes-phrase is present but not used referentially, and where the whole example is intuitively 'about' an animate individual.

Many of the examples considered in this paper must in fact be specificational, for the kes-phrase is not used referentially, including (50), and also (51), where the pre-copular XP John provides new information:

mwuncey-lul phwul-eya ha-nun kes]-un (51) [ku John-i-ta [that problem-ACC solve-must-MOD KES]-TOP John-COP-DECL 'Who must solve that problem is John.'

The account of such animate-signifying specificational examples is given below in section 5.3.

To conclude this subsection, we note that while some copular examples look at first glance to be specificational, they must in fact be equational. The diagnostics that we have developed above help us to categorize the examples correctly. Consider (52), which is animate-referring, but does not involve kes:

(52) [John-i cohaha-nun hoysa tonglyo]-ka cevil [John-NOM most like-MOD company colleague]-NOM salam-i-ta this person-COP-DECL 'John's favorite colleague is this person.'

This example might appear to be specificational, but it cannot be, as it would violate the information structure constraint mentioned above, because it is the subject that presents the NEW information. As we will see further below, only equational examples allow NEW information in the initial position (NP1), and hence this example must be equational. The whole construction is animate-referring because the head noun of the subject is.

If the equational interpretation is not compatible with the context, then there is no well-formed expression with NEW information in the initial position. Consider the inanimate-referring kes-examples in (53):

(53) A: (What is this book?) chayk-un [John-i B: kes]-i-ta sa-n this book-TOP [John-NOM buy-MOD KES]-COP-DECL 'This book is the one that John bought.'

B': [John-i sa-n kes]-i i chayk-i-ta [John-NOM buy-MOD KES]-NOM this book-COP-DECL 'What John bought is this book.'

There is no issue of an animacy clash in either example, so whatever makes (53B') marginal is not that. Given the context created by the set-up question, a specificational interpretation is expected, and (53B) is fully acceptable. However, (53B') would only be grammatical as an equational structure, but this is not compatible with the context.

In summary, the various interpretations that examples containing *kes*-phrases can have are just those interpretations that are available in copular constructions.

4. The syntactic status of kes

As mentioned above, Kang (2006) presents a syntactic account of the contrast in the examples in (8-9), repeated here and annotated to show her analysis. The proposal is framed in terms of the category of *kes*, claiming that *kes* is either C or N, and therefore heads a CP in some cases and an NP in others:

- (8) a. [John-i sa-n kes]_{CP}-un i chayk-i-ta [John-NOM buy-MOD KES]-TOP this book-COP-DECL 'What John bought is this book.'
 - b. i chayk-un [John-i sa-n kes] $_{NP}$ -i-ta (inanimate topic) this book-top [John-NOM buy-MOD KES]-COP-DECL 'This book is what John bought.'
- (9) a. [John-i manna-n kes]_{CP}-un i yeca-i-ta
 [John-NOM meet-MOD KES]-TOP this woman-COP-DECL
 'Who John met is this woman.'
 - b. *i yeca-nun [John-i manna-n kes] $_{NP}$ -i-ta (animate topic) this woman-TOP [John-NOM meet-MOD KES]-COP-DECL 'This woman is who John met.'

Kang's idea is very simple: as a complementizer, kes creates a CP structure which does not represent animacy, and hence such an initial kes-phrase can be compatible with any referent in the pre-copular position. In its other category, kes creates an NP with the feature [-animate], coming from the lexical specification of kes, and hence this is incompatible with an animate subject, as in (9b).

Other studies on kes have concluded that it is nominal. Jhang (1995) argues that kes is an N in all of the relevant cleft-like uses here, and the accounts in Kim (2009) of three different kes constructions take it to be N in all cases. There is no evidence for the categorial ambiguity of kes as N or C – it shows no evidence of being a C, syntactically. For example, canonical CPs in Korean headed by ko may not host case markers, while all phrases headed by kes host a case marker (unless it is supplanted by the topic marker -nun).

(54) Mina-ka [John-i uysa-ka Mina-NOM [John-NOM doctor-NOM toy-ess-ta]-ko(*-ka/*-lul) sayngkakha-n-ta become-PAST-DECL]-COMP(*-NOM/*-ACC) think-PRES-DECL 'Mina thinks that John became a doctor.'

Verbs in Korean do not take a prenominal ending form before true complementizers, as seen in (54), while a verb immediately preceding kes must necessarily be in the prenominal form. That is to say, replacing the verb inflection in (54) by the prenominal form leads to total ungrammaticality *toy-n-ko, while replacing a true prenominal form before kes with the regular declarative form used in (54) also leads to total ungrammaticality, toy-n kes vs. *toy-ess-ta kes.

In summary, the C analysis of kes can work descriptively, as we do not expect C to be categorized for animacy. But there is no morpho-syntactic support for such a syntactic analysis — quite the opposite in fact — and, in addition, the N/C proposal raises at least one further issue. If the two possibilities of CP or NP exist in the grammar, can any kes-clause be ambiguous between CP and NP? If so, why can there not be an analysis of (9b) with the animacy-free CP in the pre-copular position? This would be the analysis in (55):

(55) *i yeca-nun [John-i kes_{CP}-i-ta (animate topic) manna-n

this woman-TOP [John-NOM meet-MOD KES]-COP-DECL 'This woman is who John met.'

The example is unacceptable on the intended interpretation (cf. footnote 2), yet there is nothing apparently ill-formed about the syntactic analysis shown in (55). In fact, the distribution of the animacy-insensitive *kes*-phrase is very restricted, a fact which would be difficult to explain merely in terms of NP vs. CP. It is only in structures exactly like (8b), and no others, that *kes* does not head a phrase restricted to referring to or describing an inanimate entity.

The basis of the facts above surely involves information structure. Unless there is a pure and unexplained formal restriction that CP cannot occupy the pre-copular position, the analysis in (55) has to be ruled out by consideration of how the example would be interpreted. This is exactly what we propose below.

5. The information structure properties of the constructions

In this section we show the Korean examples can each find an analysis within the known information structure profiles of copular clauses, along with constraints on the interpretation of *kes*-phrases.

The crucial partition is between GIVEN and NEW information within the clause. We use a simple pseudo-logic for presentational purposes. For indices for variables we use x, y, etc., and for constants we use alphabetic characters from b to w (for referents from 'this book' to 'that woman'). The notation is illustrated for (56)-(57):

(56) John met Mina. He chatted with her.

First sentence:

a. GIVEN: meet(j,x)

b. NEW: m=x

(57) Second sentence:

a. GIVEN: meet(j,m)

b. NEW: chat-with(y,z), j=y, m=z

The first part of (56) is the GIVEN information — that John met someone. The new

information is that this someone is Mina. All of this is the context against which (57) is interpreted. We assume that each sentence contains some NEW information which is added into the context, which is the previous discourse plus GIVEN information from the current clause.

5.1 Basic properties of information structure

For a cleft-like example in (58), if it has the GIVEN-NEW articulation just described, we would expect the same kind of update as in (56).

Note that it is possible that the kes-phrase does not refer to anything here. It simply marks the partition between the GIVEN information and the NEW information. We take this to be formally a kind of specificational construction, and we elaborate on this below in section 5.2.

To put our account of kes-phrases in proper context, they can appear in copular clauses with any of the three interpretations summarized in (59). Some NEW information is introduced, and it either provides more information about a GIVEN referent, or else NEW information is provided about the event (such as further specification of time, location, or even of the core participants). Our claim is that all of this follows from (33), and from the possible interpretive relations between NP1 and XP.

(33) Copular clauses

Interpretation	NP1	XP
predicational	referential	non-referential
equational	referential	referential
specificational	non-referential	referential

(59) a. Predicational use:

The kes-phrase (NP1) refers and extra descriptive content (XP) is provided about the referent.

b. Equational use:

The *kes*-phrase (NP1) refers and some other referential phrase (XP) is presented as being coreferential with it.

c. Specificational use:

A new referent and new information about that referent (XP) is added to the information structure described by the *kes*-phrase (NP1).

As summarized in (59), the predicational and equational uses present some further information about the referent of NP1; the specificational use provides a wider range of possible information, related to the content of NP1. The specificational use is presented in some detail in section 5.2.

Now for the predicational use, consider (35), repeated here:

(35) [John-i sa-n kes]-un acwu pissa-ta
[John-NOM buy-MOD KES]-TOP very expensive-DECL
'What John bought is very expensive.'

In the interpretation, *very expensive* is predicative, and this means that there must be some referent of the subject of this predication — a subject headed by the noun *kes*.

(60) a. GIVEN: ∃y[buy(j,y)]b. NEW: very.expensive(y)

For the equational use, consider (41), repeated here:

(41) a. [John-i sa-n kes]-un i chayk-i-ta
[John-NOM buy-MOD KES]-TOP this book-COP-DECL
'What John bought is this book.'
b. i chayk-i [John-i sa-n kes]-i-ta
this book-NOM [John-NOM buy-MOD KES]-COP-DECL
'This book is what John bought.'

The new information here is 'this book', which can be inverted into the subject

position as in (41b). For (41a) we have the interpretation in (61):

(61) a. GIVEN: $\exists y[buy(j,y)]$

"There is some thing, that was bought by John"

b. NEW: book(b), b=y

"This book_b has the same_v referent"

We need to show the equational interpretation; and then (41b) has the same interpretation, and differs only from (41a) in that the order of GIVEN and NEW information in the syntactic structure is reversed.

To be fully explicit, we need to consider all of the analytical possibilities that we have raised. We have proposed that the types of copular clause in (33) interactions with the GIVEN-NEW partition. In theory, then, there should be six types of clause, as indicated in (62), an elaboration of (33):

(62) Copular clauses and information structure

Interpretation	NP1	XP
a. predicational	referential/GIVEN	non-referential/NEW
b. predicational	referential/NEW	non-referential/GIVEN
c. equational	referential/GIVEN	referential/NEW
d. equational	referential/NEW	referential/GIVEN
e. specificational	non-referential/GIVEN	referential/NEW
f. specificational	non-referential/NEW	referential/GIVEN

The canonical predicational construction is (62a), the equational construction and its inverse are (62c-d), and the canonical specificational construction is (62e). What about the other possibilities?

(62f) is not possible as the specificational structure cannot invert with the identical information structure (Mikkelsen 2005; see section 3.2.3). This might be considered to be an instance of a potential structure that is too 'marked' - the property of having a non-referential subject and a referential phrase in the predicate is already a marked option, and then imposing a marked information structure of NEW-GIVEN leads to an unacceptable level of markedness (cf. Mikkelsen 2008).

However, (62b) is a possible structure in Korean. It should have these properties:

NP1 is a *kes*-phrase, which refers, and which expresses NEW information; and the predicative XP should be given information. As the *kes*-phrase refers, we expect that it is restricted to inanimates, and this is confirmed by the contrast in (63) and (64). In these examples, the content of the XP predicate is GIVEN, so the content of the *kes*-phrase is the NEW part:

(63) A:(Of all the things that were bought, which one was most expensive?)

```
B:[John-i sa-n kes]-i ceyil pissa-n
[John-NOM buy-MOD KES]-NOM most expensive-MOD kes-i-ta
thing-COP-DECL
'What John bought was the most expensive one.'
```

(64) A:(Of all people who were invited to the party, which one was really happy?)

```
B:*[John-i chotayha-n kes]-i cengmal hayngpokha-n
[John-NOM invite-MOD KES]-NOM very happy-MOD
salam-i-ta
person-COP-DECL
'(The one) who John invited was a really happy person.'
```

These examples fit the profile of (62b), and hence the only possibility in (62) that is not attested is (62f), which is already known to be impossible as a copular structure in English.

In summary, for the Korean examples, the referential properties of the phrases NP1 and XP in the three types of copular constructions determine the range of interpretations of examples in which NP1 or XP is a KES-phrase. We showed above in section 2.1.2 that inversion from the basic copular structures is only possible when both phrases are NPs, and as discussed immediately above, inversion within a specificational structure is not possible. Additionally, we have shown that when a *kes*-phrase refers, it necessarily refers to an inanimate entity.

The effect of these restrictions is that the specificational pattern in Korean is the only one which can be taken to apply to a wide range of examples: all of those in which XP is not an NP, all of those in which XP is an NP of animate reference, and

through the structure of the amalgam cleft, those examples in which a sequence of phrases is in pre-copular position. These are all the different types which we have introduced so far in the paper as showing behavior that is unexpected of canonical clefts or pseudoclefts, and we concentrate on their analysis in the remainder of the paper.

5.2 Specificational structures and information update

The structure that we have classified above as specificational, summarized in (59c), has a wider range of uses beyond canonical examples involving two NPs. We continue in this subsection with examples which involve locations, starting with those in (65), in which NP1 is headed by the lexical head noun kos ('place'). XP in (65a) is a bare NP, and in (65b) it is an AP.

- (65) a. [John-i Mary-lul teyli-ko kos]-un ka-n [John-NOM Mary-ACC take-COMP go-MOD place]-TOP kongwen-i-ta park-COP-DECL 'The place where John took Mary is the park.' b. [John-i Mary-lul teyli-ko kos]-un ka-n acwu [John-NOM Mary-ACC take-COMP go-MOD place]-TOP very alumtaw-ass-ta beautiful-PAST-DECL 'The place where John took Mary is very beautiful.'
- (65a) is most likely an equational structure (and it can be inverted see (15)). (65b) is a predicational structure, due to the predicative nature of the XP. In both of these examples, NP1 uncontroversially refers.

Let us now try to make (65a) structurally more like (12a), by making the XP part a PP. The result is total ungrammaticality:

(66)*[John-i Mary-lul teyli-ko kos]-un ka-n [John-NOM] Mary-ACC take-COMP place]-TOP go-MOD kongwen-eyse-i-ta

park-COP-DECL

'The place where John took Mary is at the park.'

As NP1 refers to a location, the PP *kongwen-eyse* would have to support either a predicational or an equational interpretation. The ungrammaticality of the example shows that this is not possible.

Next, we change the head noun of NP1 in (65) from *kos* ('place') to *kes*. The pattern of grammaticality changes in that only (67a) is now grammatical:

(67) a. [John-i Mary-lul teyli-ko ka-n kes]-un
John-NOM Mary-ACC take-COMP go-MOD kes-TOP
kongwen-i-ta
park-COP-DECL
'Where John took Mary is the park.'}
b. *[John-i Mary-lul teyli-ko ka-n kes]-un

b. *[John-i Mary-lul teyli-ko ka-n kes]-un acwu John-NOM Mary-ACC take-COMP go-MOD KES-TOP very alumtaw-ass-ta beautiful-PAST-DECL 'Where John took Mary is very beautiful.'

The predicational example (67b) is ungrammatical, and this strongly suggests that NP1 here cannot refer. Simply put, if it did refer, we would expect the example to have the same status as (65b). Now (67a) is as acceptable as (65a), but the examples do not have the same formal status. (65a) is equational, but (67a) must be specificational, as in (65a) the XP *kongwen* refers, but we know that the *kes*-phrase NP1 does not, so the example has the pattern of (62e).

The intriguing fact, in contrast to what we see with (66), is that XP can be PP when the head of NP1 is *kes*. The example is (12a), repeated here:

(12a) [John-i Mary-lul manna-n kes]-un kongwen-eyse-i-ta [John-NOM Mary-ACC meet-MOD KES]-TOP park-at-COP-DECL 'It was at the park that John met Mary.'

This is also a specificational structure, and we know from (67b) above that the

kes-phrase (NP1) does not refer (to a place, in this instance). Yet NP1 is certainly providing GIVEN information, intuitively about an event. With this in mind, for such an example, as well as others discussed below, we propose to represent events directly as a kind of individual, and allow new linguistic information to further specify the properties of the event or its participants (e.g., Parsons 1990). There is then a simple skeletal interpretation for examples such as (67): an event of John meeting Mary is the given information, and the PP provides new information about that event.

```
(68) a. GIVEN: \exists e[meet(e,j,m)]
        ("There is an event e and in e, John met Mary.")
      b. NEW: park(p), Location(e,p)
        ("The location of an event e is the park.")
```

We refer to this kind of informational update as 'descriptive update', and it is the mechanism for interpretation in a variety of examples, such as (3), repeated here:

```
(3) [ilpon-i
                 hanca-lul
                                tuli-e
                                                        kes]-un
                                               ka-n
                 character-ACC take.in-COMP
                                                        KES]-TOP
   [Japan-NOM
                                              go-MOD
   hankwuk-ulo-pwuthe-i-ess-ta
   Korea-direction-from-COP-PAST-DECL
   'Japan taking in Chinese characters was from (the direction of) Korea.'
```

Just like (12a), it seems reasonable in this example also that the kes-part does not refer, so this would suggest a specificational interpretation. However, as the XP in the pre-copular position is not an NP, it itself does not obviously refer. It does, though, provide new information relative to what is given in the kes-part. Adopting the idea sketched in Heycock and Kroch (2002) and Mikkelsen (2008), we suggest that the referential property of the XP in the specificational construction is effectively overridden, to fulfil the information-structure condition. That is, we suggest that examples like this are a variation on the specificational construction the precopular expression is not referential, but the overall information structure profile is GIVEN-NEW.10

Note that this analysis can provide a way of explaining amalgam examples and

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other examples with a non-NP XP in the precopular position. The role of the copula in the amalgam cleft (16), repeated here, is as a place holder for the main predicate of the clause. As a copular structure, though, it is straightforward to map the constituents to a GIVEN-NEW profile, and this meshes naturally with the syntactic analysis of the amalgam cleft above (section 2.1.3):

(16) [mina-ka ku chayk-ul sa-n kes]-un cak.nyen
[Mina-NOM that book-ACC buy-MOD KES]-TOP last.year
L.A.-eyse-i-ta
L.A.-LOC-COP-DECL
'Where/when Mina bought that book is last year in L.A.'

Clearly the interpretation is not predicational or equational. The syntax of the amalgam cleft provides a means to express information in the GIVEN-NEW profile, which is the generalized scheme of the specificational interpretation. This particular construction is also found in all the examples with animate referents in the XP position, such as (50) and (51), as NP1 must be non-referential in such examples (see section 5.3 below).

Given that there is such a general construction which allows descriptive update, other elements such as adverbials can also provide the new information. Once again, such examples cannot plausibly have a predicational or equational interpretation. Some speakers only allow the relevant examples if the adverbial is categorically a nominal, such as *ecey* as in (69a), but not *chenchenhi* as in (69b).

(69) a. [John-i Mary-eykey senmwul-ul cwu-n kes]-un
[John-NOM Mary-DAT present-ACC give-MOD KES]-TOP
[NP ecey]-i-ta
[yesterday]-COP-DECL
'It is yesterday when John gave Mary a present.'
b. %[John-i talli-n kes]-un [Adv chenchenhi]-i-ta

Instead of an analysis purely based on information-structure, following Mikkelsen (2011), we might assume that the NP1 of a specificational clause needs to be a higher type than the pre-copular XP. That is, the kes-phrase denotes a function from the type of the XP to a proposition. See section 3.4 in Mikkelsen (2011) for further discussion of (English) examples involving non-NPs.

```
[John-NOM run-MOD KES]-TOP [slowly]-COP-DECL
'(lit.) The way John ran is slowly.'
```

Yet some speakers do accept examples like (69b) (indicated by the '%' notation). And some speakers show a broader pattern of acceptance in the pre-copular position (cf. Cho et al. 2008), allowing in principle any clause-level constituent, or any sequence of constituents, as in (16), repeated here:

```
(16) [mina-ka
                 ku chayk-ul
                                 sa-n
                                          kes]-un
                                                   cak.nyen
     [Mina-NOM that book-ACC
                                buy-MOD KES]-TOP last.year
     L.A.-eyse-i-ta
     L.A.-LOC-COP-DECL
      'Where/when Mina bought that book is last year in L.A.'
```

The syntactic ellipsis in the amalgam cleft proposed by Cho et al. (2008) allows the possibility that what survives ellipsis is a sequence of constituents. An example like (16) cannot have an interpretation that is predicational or equational — if it did, the kes-phrase would have to refer. However the simple notion of descriptive update fits the example perfectly. The information up to kes is GIVEN, and the rest is NEW:

```
(70) a. GIVEN: \exists e[buy(e,m,b)]; book(b)
      b. NEW: last.year(t), Time(e,t)
      c. NEW: L.A.(1); Location(e,1)
```

Hence (16) means that the given event of Mina buying a book is further specified as having been last year and in L.A.

This event-based approach also provides an account for a clear constraint on descriptive update, which is that it does not extend to subparts of clause-level constituents. Examples like those in (71) where a numeral quantifier provides the update are not acceptable. (Compare (71a) with (72).)

```
(71) a. *[John-i
                      chayk-ul
                                  sa-n
                                           kes]-un
                      book-ACC
                                  buy-MOD KES]-TOP
         [John-NOM
               kwen]-i-ta
        [sey
```

[three volume]-COP-DECL

'What John bought books was three.'

b. *[John-i salam-ul manna-n kes]-un person-ACC meet-MOD KES]-TOP [John-NOM myeng]-i-ta sey [three person]-COP-DECL

'What John met people was three.'

c. *[haksayng-i chayk-ul ilk-un kes]-un [student-NOM book-ACC read-MOD KES]-TOP sey myeng]-i-ta [three person]-COP-DECL 'What students read books was three.'

(72) [John-i kes]-un [chavk sev kwen]-i-ta sa-n [John-NOM buy-MOD KES]-TOP [book three volume]-COP-DECL 'What John bought was three books.'

The new information in (71) does not plausibly provide information about the events described by the kes-phrases, while that in (72) does.

In summary, the generalized specificational structure based on the syntactic amalgam cleft structure allows a wide range of examples fitting the GIVEN-NEW profile. The specificational analysis must apply to examples where XP is a PP, or some kind of adverbial, as they can be shown not to be predicational or equational.

5.3 Referring kes-phrases are always inanimate-referring

The key difference between the specificational interpretation and the other two interpretations is that NP1 is not referential in the former. We have gone into some detail here to show that if NP1 is a kes-phrase, in an example that is not inanimatedenoting, then the example is not predicational or equational. For instance, we argued in the previous subsection that (12a) is a specificational structure.

Similarly, it must be the case that a simple example like (73) is specificational:

kes]-un (73) [John-i chwuchenha-n chelswu-i-ta [John-NOM recommend-MOD.PAST] KES]-TOP Chelswu-COP-DECL 'Who John recommended is Chelswu.'

We present some tests here which show that (73) only has a specificational interpretation. First, we showed above in section 2.2 that changing the tense within the clause modifying kes from past or present to future has an effect on the referentiality of the kes-phrase, and when it contains future tense within it, it must necessarily refer. Hence the rather surprising prediction is that a change of tense within the kes-phrase in (73) will lead to ungrammaticality, as the structure can no longer be specificational. As (74a) shows, the prediction is true; and (74b) shows that the example is inanimate-referring (to a book), confirming that the referential properties of the subject changed between (73) and (74a):

```
(74) a. *[John-i
                    chwuchenha-l
                                        kes]-un
                                                  chelswu-i-ta
         [John-NOM recommend-MOD.FUT KES]-TOP
                                                  Chelswu-COP-DECL
        'Who John will recommend is Chelswu.'
     b. [John-i
                   chwuchenha-l
                                       kes]-un [chelswu-ka
       [John-NOM recommend-MOD.FUT KES]-TOP [Chelswu-NOM
       ssu-n
                   chayk]-i-ta
       write-MOD book]-COP-DECL
        'What John will recommend is the book that Chelswu wrote.'
```

For one more illustration of the difference between predicational and specificational interpretations, we use a test mentioned in Mikkelsen (2005) — that the specificational interpretation requires the presence of an overt manifestation of tense. Mikkelsen presents examples like those in (75):

```
(75) a. I consider Susan (to be) my best friend. (predicational)
      b. I consider my best friend *(to be) Susan. (specificational)
```

Korean has a small clause type of structure, with the predicate marker with the postposition (u)lo, and an example like (76) is essentially a mirror of the predicational English example (75a):

[nay-ka ceyil cohaha-nun chinkwu]-lo (76) na-nun Susan-ul

I-TOP Susan-ACC [I-NOM most like-MOD friend]-as yeki-n-ta consider-PROC-DECL
'I consider Susan the friend I like most.'

As expected, the two phrases in the small clause cannot be reversed in (76) as in (77a), to give a specificational structure, as there is no overt manifestation of tense; the specificational interpretation needs an overt copula (with default present tense), as in (77b):

(77) a. na-nun [nay-ka ceyil cohaha-nun chinkwu]-lul I-TOP [I-NOM most like-MOD friend]-ACC Susan-ulo veki-n-ta consider-PROC-DECL Susan-as 'I consider the friend I like most Susan.' b. na-nun nay-ka ceyil cohaha-nun chinkwu-ka І-тор I-NOM most like-MOD friend-NOM Susan-i-la-ko yeki-n-ta/sayngkakha-n-ta consider/think-PROC-DECL Susan-COP-DECL-COMP 'I consider/think the friend I like most is Susan.'

We take these contrasts to show that (76) definitely involves a predicational structure.

The prediction then is that if the subject of the predicational structure is headed by *kes*, it must necessarily refer to an inanimate entity, and the examples in (78) confirm this. (78a) has an inanimate-referring *kes*-phrase as subject, and is grammatical. (78b) has an animate-signifying phrase as subject, headed by the noun *salam* ('person'), and is grammatical. (78c) replaces *salam* by *kes*, and suddenly the example is ungrammatical.

(78) a. na-nun [Mary-ka na-eykey cwu-n kes]-ul choyko
I-TOP [Mary-NOM I-DAT give-PAST KES]-ACC best
senmwul-lo yeki-n-ta
present-as consider-PROC-DECL

'I consider what Mary gave me the best present.'

- b. na-nun [Mary-ka na-eykey sokayhay salam]-ul I-TOP [Mary-NOM I-DAT introduce give-PAST person]-ACC choyko hwupo-lo yeki-n-ta best candidate-as consider-PROC-DECL
 - 'I consider the person who Mary introduced to me the best candidate.'
- c. *na-nun [Mary-ka na-eykey sokayhay cwu-n kes]-ul I-TOP [Mary-NOM I-DAT introduce give-PAST KES]-ACC choyko hwupo-lo veki-n-ta best candidate-as consider-PROC-DECL 'I consider who Mary introduced to me the best candidate.'

The ungrammaticality of (78c) shows clearly that when a kes-phrase refers, in a predicational structure, it must refer to an inanimate. This in turn means that any grammatical examples which have a kes-phrase in the NP1 position and which are animate-signifying are not predicational.

Finally, we return to the contrast in the examples in (8-9), repeated here. We have seen that the pre-copular expression can be either animate or inanimate, with the subject providing given information:

(8) a. [John-i kes]-un i chayk-i-ta sa-n [John-NOM buy-MOD KES]-TOP this book-COP-DECL 'What John bought is this book.' b. [John-i manna-n kes]-un yeca-i-ta [John-NOM meet-MOD KES]-TOP this woman-COP-DECL 'Who John met is this woman.'

The form of each example is consistent with a descriptive update interpretation what is in the pre-copular position provides additional new information. (8a) is also consistent with an equational interpretation, in which both the kes clause and the pre-copular expression are referential. (8b) cannot be interpreted as an equational structure, as this would lead to an animacy clash, for the kes-phrase refers only to inanimate entities. This is confirmed by inverting the examples: the initial NP is now given information (marked with the topic marker), with the new information being the *kes*-phrase, a referential phrase in an equational structure. Here, the animacy clash makes (9b) unacceptable.

- (9) a. i chayk-un [John-i sa-n kes]_{NP}-i-ta (inanimate topic) this book-TOP [John-NOM buy-MOD KES]-COP-DECL 'This book is what John bought.'
 - b. *i yeca-nun [John-i manna-n kes]_{NP}-i-ta (animate topic) this woman-TOP [John-NOM meet-MOD KES]-COP-DECL 'This woman is who John met.'

We must ask now if there is any other potential analysis of the string in (9b). It is easily shown, in fact, that a pre-copular *kes*-phrase must always refer. Consider the simple predicative example in (79a) and the completely ungrammatical *kes*-variant in (79b):

- (79) a. i yeca-nun alumtap-ta this woman-TOP beautiful-DECL 'This woman is beautiful.'
 - b. *i yeca-nun [alumtaw-un kes]-i-ta this woman-TOP [beautiful-MOD KES]-COP-DECL
 - c. i yeca-nun [alumtaw-un salam]-i-ta this woman-TOP [beautiful-MOD person]-COP-DECL 'This woman is a beautiful person.'

If (79b) had an interpretation in which the pre-copular part simply updates the information structure already given — as (79a) — then (79b) would be acceptable. However, what the example demonstrates is that a pre-copular *kes*-phrase always refers (noted by Jhang 1995), and therefore examples like (9b) are unacceptable. The fact that (79b) refers to an inanimate entity is confirmed by the contrast with (79c), where *kes* is replaced by *salam* ('person'). Replacing the inanimate noun with an animate one makes the construction grammatical.

Now the fact that pre-copular kes always refers to an inanimate entity is part of a larger generalization — that kes always refers to an inanimate entity, with only one

exception: in examples like (8b), with GIVEN-NEW articulation in the specificational or updating interpretation, an account for the contrast between (8) and (9) here follows naturally.

5.4 Wh-phrases in pre-copular position

We return now to the analysis of wh-phrases cooccurring with kes-phrases, as in examples such as (80):

(80) a. [John-i kes]-un mwues-i-ni? sa-n [John-NOM buy-MOD KES]-TOP what-COP-QUE 'What is it that John bought?' b. [John-i manna-n kes]-un nwukwu-i-ni? [John-NOM meet-MOD KES]-TOP who-COP-QUE 'Who is it that John met?'

What is the information structure of (80b)? Assuming that the example presupposes that John met someone, then the relevant new information will be the descriptive content about that person. Note that the kes-phrase has no referent in the interpretation in (80) — the construction is the specificational one, in this instance, looking for some informational update.11

It can be shown that the examples above are some kind of specificational structure by contrasting them with clear predicational examples. The fact that (80b) is animate-signifying already shows that the structure is specificational, as this is the only grammatical structure for animate-signifying examples. Just to be sure, though, we can consider a clear predicational example like (81a), with the animate-denoting head noun salam. This is a predicational structure as it asks about a property of the subject. Replacing salam by kes in the cleft-like structure (81b) leads to ungrammaticality:

(81) a. [John-i chwuchenha-n salam]-un ettay-ss-ni [John-NOM recommend-MOD person]-TOP how-PAST-DECL

¹¹ The acceptable examples in (19) also appear to have the property of requiring descriptive update.

The ungrammaticality of (81b) shows that the *kes*-phrase in (80) (or to be precise, in (80b)) does not refer, and hence the examples are specificational.

If we reverse the syntax in (80) and put the *kes*-phrase in pre-copular position, it is forced to refer. The expectation is then that any animate-signifying *wh*-phrase will be bad in subject position, as there will be an animacy clash with the *kes*-phrase in pre-copular position. This expectation is borne out, either with a simple *wh*-phrase like *nwukwu* or a 'D-linked' one like *enu salam*:

(82) a. *nwukwu-ka [John-i manna-n kes]-i-ni?
who-NOM [John-NOM meet-MOD KES]-COP-QUE
'Who is the one that John met?'
b. *enu salam-i [John-i manna-n kes]-i-ni?
which thing-NOM [John-NOM meet-MOD KES]-COP-QUE
'Which person is the one that John met?'

These are bad because the *kes*-phrase is used referentially, and hence there is an animacy clash with an animate referent.

Switching to inanimate *wh*-phrases, to avoid the animacy clash, leads to an interesting pattern:

(83) a. ??mwues-i [John-i sa-n kes]-i-ni? what-NOM [John-NOM buy-MOD KES]-COP-QUE 'What is the thing that John bought?' kes-tul-cwung mwues-i [John-i sa-n this thing-PLU-among what-NOM [John-NOM buy-MOD kes]-i-ni? KES]-COP-QUE 'Among these things, what is the thing that John bought?' [John-i c. enu kes-i sa-n kes]-i-ni? which thing-NOM [John-NOM buy-MOD KES]-COP-QUE

'Which thing is the thing that John bought?'

We know that the pre-copular part must refer to 'the thing that John bought', as given information. The interpretations of the English translations roughly parallel the Korean – (83a) is rather unnatural. The use of *mwues/what* is concerned with a very rough grain of specificity, and no necessary link to the current discourse or context, while of course enu kes/which one asks for the identity of one member of an already-given set.

This suggests to us that whenever new information is presented (or asked for) in the subject position of a copular clause in Korean, marked with nominative case, the interpretation of that subject has to be anchored in the context in some way - either as being one member of a given set, or as a deictically anchored phrase such as 'this book' in (53a). The last two examples in (83) meet this desideratum.

6. Conclusion

In summary, the Korean noun kes ('thing, fact') has a variety of uses including cleft-like uses with the copula. We have shown that the cleft-like uses of kes or the constructions that have been taken to be similar to English counterparts of clefts or pseudo-clefts are indeed simply subtypes of copular constructions. We have shown that the kes cleft-like constructions inherit the main grammatical as well as information-structure properties of the predicational, equational, and specificational copular constructions, supporting our claim that their syntax and semantics are basically not different from the corresponding copular constructions.

In particular, we have proposed here that kes is morphosyntactically a noun in all of its uses, and that Korean examples containing kes sometimes look like English clefts or pseudoclefts due to information-structure properties shared with copular constructions (summarized in (62)). What we have shown about the interpretation of kes is that when it is affixed with nominative case, or it is in pre-copular position, then it necessarily refers, and therefore refers to an inanimate entity. When affixed with the topic marker un, which signals that something is given information, there are two options: kes may once again refer to an inanimate entity, or it may simply provide some given information. In this last circumstance, which is generated in the

syntax as the 'amalgam cleft' (section 2.1.3), kes does not refer, but rather simply marks the boundary between given and new information. Apart from the amalgam cleft structures, there are no special mechanisms in syntax or in interpretation which are necessary for us to analyze these cleft-like constructions.

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