Some Remarks on Korean Nominalizer kes and Information Structure*

Jong-Bok Kim and Peter Sells
(Kyung Hee Univ. & Stanford University)

We argue that uses of the Korean form *kes* in copular sentences, in which it appears to function sometimes as a nominalizer and sometimes as a marker of a cleft or pseudo-cleft construction. All of these fall under a simple analysis once the information-structure properties of copular clauses are taken into consideration: that they have predicative and equative uses (independently of *kes*). We propose that a *kes*-phrase may identify an all-new referent, or it may refer to a previously-established one; but it may not have a predicative use — it may not provide further descriptive information about a referent already established.

Keywords: kes, copula, cleft, information structure, file card semantics

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 VP or S, or as a noun meaning 'fact' or 'thing'. Here we look at some uses of *kes*, aiming to show that the properties of the constructions follow primarily from the meaning of the copula interacting with information-structure constraints on syntax.

First of all, *kes* can nominalize a whole preceding S, highlighting an event, as in (1). We simply indicate *kes* as *kes* in the glosses (cf. Jhang (1995), Sohn (2004)):

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(1) 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-MOD   KES-COP-DECL
       'The fact is that [that woman met John].'

The clausal focus of *kes* here is all presented as new information, as can be
attested by the fact that these examples can be an appropriate answer to the
question in (2):[1]

(2) mwusun il-i-ni?
    what   thing-COP-Q
    'What happened?'

In terms of the file card semantics approach in Engdahl and Vallduvi (1996), the
kes-phrase here in (1) introduces a new file card with (new) information on it.
     Similarly, *kes* may present new information relative to a topic which is
already given in the context:

(3)   Today is a holiday, so why did Chelsoo go to school?

    a. chelwsu-nun [onul hyuil-i-nci   moll-ass-ta]
       Chelsoo-TOP [today holiday-COP-COMP not.know-PAST-DECL]
       'Chelsoo did not know that today is a holiday.'
    b. chelwsu-nun [onul hyuil-i-nci   moll-ass-ten
       Chelsoo-TOP [today holiday-COP-COMP not.know-PAST-MOD
       kes]-i-ess-ta
       KES]-COP-PAST-DECL
       'The fact is that Chelsoo did not know that today is a holiday.'

It is possible to present the new information as a canonical VP, as in (3a), or
with a bit more drama using the *kes*-form in (3b). Intuitively, these are *VP-focus*
examples which present a noteworthy fact, about a given individual. Typically, it
is possible to present the whole content as new, e.g., a nominative marker is also

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[1] See Hiraiwa and Ishihara (2002) for discussion of similar Japanese examples.

possible on *chelswu* in (3b).

Other uses of *kes* have uses that look more like English clefts, pseudo-clefts, or somehow inverted constructions. However, it seems to us to be only misleading to assume that Korean has anything like a true cleft or pseudo-cleft construction: it simply has copular clauses. We will show that no special constructional assumptions need to be made, once the properties of copular clauses are more properly considered. This is our main goal in this paper.

Consider first the examples in (4):

(4) a. [John-i   ilk-un   kes]-un   i   chayk-i-ta
       [John-NOM   read-MOD   KES]-TOP   this   book-COP-DECL
       'What John read is this book.'
   b. i   chayk-un   [John-i   ilk-un   kes]-i-ta
       this   book-TOP   [John-NOM   read-MOD   KES]-COP-DECL
       'This book is what John read.'

These examples may look like simple inverses of each other, but in fact they have different information structure properties. (4a) provides new information relative to the given information that John read something, namely that it was a book. (4b) takes 'this book' as topic and equates it with the object given from the *kes*-phrase, something that John read. Consequently, a closer parallel to the inverse of (4a) is the example in (5) with a nominative subject:

(5) i   chayk-i   [John-i   ilk-un   kes]-i-ta
    this   book-NOM   [John-NOM   read-MOD   KES]-COP-DECL
    'It is this book that John read.'

In this example *i chayk* is presented as new information, along with the fact that it is equated with the object that John is known to have read. (5) has to be read with strong emphasis on the subject, to contrast it as new information. Even so, as we will show below, there are nevertheless interpretive differences between (4a) and (5), tied to the different syntactic structures, which can be brought out by consideration of the information structure properties of the different examples.

In arguing for a particular syntactic analysis of *kes*, which we consider in more detail below, Kang (2006) notes the asymmetry shown in (7a-b) (relative to the lack of asymmetry in the examples in (6)):

(6) 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 this woman.'

(7) 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 (7b) is unacceptable, an acceptable example can be created, simply by putting an animate head noun in the predicate position, as in (8):[2]

(8) i   yeca-nun   [John-i   manna-n salam]-i-ta
    this woman-TOP [John-NOM meet-MOD person]-COP-DECL
    'This woman is the person who John met.'

This shows that *kes* in (7b) is also a true noun, used referentially, 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 (6b) not have the same analysis?—Why is there no animacy clash in that example?

In (6a) and (6b), *kes* looks like a pure nominalizer of a property; if this is the correct diagnosis, we need to find out why *kes* only has this specific function in this syntactic position. A further and deeper question is, what properties of grammar guarantee the referential use of *kes* in (7b) and allow the nominalizer use in (6b) as well as (6a)?

We suggest that the answers to these questions lie in the nature of copular constructions, which can be predicative or equative. We discuss these properties in section 2. After that we consider further the contrast in the examples in (7). Then, in section 4, we present our account of the range of examples with *kes*. The analysis will be given informally, but in terms of file card semantics (see e.g., Engdahl and Vallduví (1996)), which provides a useful view of the

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[2] (7b) can be acceptable as focusing the whole event, with the interpretation of *ku yeca-nun* 'that woman' as contrastive information.

information structure properties that we consider to be crucial.

2. Copular sentences

We will describe copular sentences as having a subject position and a predicate position, both filled by nouns or noun phrases. These are syntactic positions which are somewhat orthogonal to the information types of the examples, which may be predicative or equative.[3]

In very simple copular examples, we find the following patterns of information-structure expression, which show differences depending on the partition of given and new information. The facts are familiar from the work of Heycock and Kroch (2002) and Mikkelsen (2005) and are essentially no different from those found in English and in various Germanic languages.

Heycock and Kroch (2002) discuss English examples like the following:

(9)   What is John?
    a. John is the mayor.
    b. *The mayor is John.
(10)   Who is the mayor?
    a. John is the mayor.
    b. The mayor is John.

(9) illustrates a predicative use, with the new descriptive information in the predicate position. (10) shows equative or specificational examples, with new information being possible either from the subject position or the predicate position.

Consider now the examples in (11):

(11)   mina-nun   cikep-i mwe-ni?   ('What is Mina's occupation?')
    a. mina-nun   kyoswu-i-ta
       Mina-TOP   professor-COP-DECL
    b. *kyoswu-nun   mina-i-ta
       professor-TOP   Mina-COP-DECL
    c. *kyoswu-ka   mina-i-ta
       professor-NOM   Mina-COP-DECL

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[3] See Yoon (2003) and Kim et al. (2007) for discussion of some of the syntactic properties of canonical and inverse copula constructions in Korean.

The question here asks for some property of the topic 'Mina', and the data show that what is new can only be expressed in the predicate position.

In terms of file card semantics, we have a card for 'Mina' and we have to write some new property onto it (that she is a professor). The card will have information like [25, Mina(25)], to which we add [professor(25)], where '25' is an arbitrary index for the card. This is the formal manifestation of a 'predicative' use:

(12) Predicative use:
     Update descriptive information on an existing file card.

This is of course no different from a simple focal use of a phrase in a simple sentence.

The examples in (11b-c) are bad. (11b) is bad because the topic marker *nun* requires the existence of a referent who is a professor to be given information, but the question is precisely asking for this information. The unacceptability of (11c) is a little more subtle: a nominative-marked subject can provide new information in Korean, but such examples are necessarily equative, effectively meaning 'The professor is Mina', which is again not compatible with the question asked.

The contrast between predicative and equative uses of the copula is clear when we consider examples which presuppose the existence of the property in question. If we form a question asking who is the one with that property, the new information can be expressed either in subject position or as part of the predicate:

(13)   nwukwu-ka i pan pancang-i-ni? ('Who is the speaker of this class?')

     a. i   pan   pancang-un   mina-i-ta
        this   class speaker-TOP Mina-COP-DECL
     b. mina-ka   i   pan   pancang-i-ta
        Mina-NOM   this   class speaker-COP-DECL

In these equative uses, the given and new information may appear either in subject or predicate positions, for the constructions are literally of the form x=y. English is just like Korean in this regard, and answers to the question can be of the form 'The speaker of this class is Mina' or 'Mina is the speaker of this

class'. While the new information is in the predicate position in (13a), it is in the subject position in (13b). Note that in context, the individual Mina would be given, so the new information is precisely the identity of that individual with the individual who is the speaker of the class.

In terms of information structure update, we have a file card with [x, class-speaker(x)] on it, where the question asks for the value for x: the examples mean that the value is the same as the index of the file card for 'Mina'. It is possible for a new file card to be introduced, as new information, with its index equated with that of another card.

(14) Equative use:
    The indices of two file cards are identical.
    (One file card may be introduced as a new one.)

In passing, we simply note here that the 'file card' metaphor leads to some complications which are solved if the information states are considered as part of a more dynamic relational database (see Fry and Kaufmann (1998)), but for our purposes here, descriptions in terms of file card operations will suffice.

In summary, in the predicative use of the copula, the predicate part of the example updates information on an existing file card, and such update cannot come from the subject/topic position. In the equative use of the copula, the new information is that the index of an existing card is the same as the index of the card given by the question, and the new information can either be in predicate or in subject position.

3. Why information structure is relevant

Kang (2006) presents a syntactic account of the contrast in the examples below, mentioned in the introduction. She frames her proposal 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:

(15) 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.'

(16) 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.'

Her idea is very simple: as a complementizer, *kes* creates a CP structure within which animacy is not represented, and hence such a *kes*-phrase can be compatible with an inanimate or an animate referent in the predicate 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 (16b). As a side issue, we note that canonical CPs in Korean headed by *ko* do not take case markers, while all phrases headed by *kes* do.

Now, if the two possibilities of CP or NP exist in the grammar, we can also see that (17b) will be ungrammatical on the analysis shown, but not (17a), due once again to a clash in animacy in the latter example:

(17) a. [John-i sa-n kes]_{NP}-un i chayk-i-ta
     b. [John-i manna-n kes]_{NP}-un i yeca-i-ta

Yet the existence of these alternatives raises more questions: What is the difference between (15a) and (17a)? And, more tellingly, why can there not be an analysis of (16b) with the animacy-free CP in the predicate position? This would be the analysis in (18):

(18) i   yeca-nun [John-i   manna-n kes]_{CP}-i-ta   (animate topic)
     this woman-TOP [John-NOM meet-MOD   KES]-COP-DECL

The answers to both questions just raised surely involve information structure. Unless there is a pure and unexplained formal restriction that CP cannot occupy the predicate position, the analysis in (18) has to be ruled out by consideration

of what the example would mean, and what goes wrong with the interpretation. Similarly, the difference between (15a) and (18) is surely an interpretive one, somehow related to the difference between predicative and equative interpretations.

4. Predication and equation with kes

In this section we show how examples with *kes* precisely follow the patterns of predicative or equative uses of copular clauses. In fact, we know of no evidence for the idea that Korean has 'cleft' sentences, or that it has 'pseudo-cleft' sentences, beyond the idea that it has copular sentences. Once the copular properties are understood, there is little extra needed to account for a variety of *kes*-examples. It is useful to translate some Korean examples as English clefts or pseudo-clefts, but this does not reflect any part of the actual analysis.

4.1. Descriptive update

The equative nature of the construction in (15) is shown by the contrasts in (19): in these uses *mwues* 'what' typically asks for a property, while *enu kes* 'which one' looks to identify one member of a given set. The improvement in (19b) over (19a) shows that the question is supposed to be about the value of an index (an equative use), not some descriptive property:

(19) a. ??mwues-i   [John-i   sa-n   kes]-i-ni?
         what-NOM   [John-NOM   buy-MOD   KES]-COP-Q
         'What is the thing that John bought?' (Cf. (21a) below)
     b. ?i   kes-tul-cwung   mwues-i [John-i   sa-n   kes]-i-ni?
         this thing-PLU-among what-NOM [John-NOM buy-MOD KES]-COP-Q
         'Among these things, what is the thing that John bought?'
     c. enu   kes-i   [John-i   sa-n   kes]-i-ni?
         which thing-NOM [John-NOM buy-MOD KES]-COP-Q
         'Which thing is the thing that John bought?'

In the equative use of the copula, intuitively both subject and predicate are referential. This is so in the examples in (15), and those in (20), which happen to have *kes* in them:

(20) 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 buy the software first.'
   b. [software-lul   mence   cwumwunha-nun kes]-i   [ney-ka   hay-ya
       [software-ACC first   order-MOD   KES]-NOM [you-NOM do-COMP
       ha-nun   kes]-i-ta
       must-MOD KES]-COP-DECL
       'Buy the software first is what you must do.'

These are equative uses and are reversible: they provide information that the index of one file card given by a question (or, the question under discussion) is the same as the index of another file card recoverable from context, or presented as new information.

In contrast to (19a), once we have a true predicative construction, *mwues* is perfectly acceptable, as is *nwukwu*:

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

Interestingly, as in English, the answer to 'Who are you?' involves a predicative, not an equative structure:

(22)   Who are you?
   a. Na-nun John-i-ta.
      'I am John.'
   b. *John-i na-ta.
      'John is I.'

The questions in (21) ask for further information to add to an existing file card. Following an initial observation by Fry and Kaufmann (1998), it is important to note that the file card which is updated is that for **John**, even if the answer to (22b) is 'Mina'. Hence an example like (23):

(23) [John-i   manna-n kes]-un Mina-i-ta
     [John-NOM meet-MOD KES]-TOP Mina-COP-DECL

involves a predicative use of the copula as it updates descriptive information on the file card for John. Recall the informal characterization of the predicative use:

(12) Predicative use:
     Update descriptive information on an existing file card.

In (23), the kes-phrase simply picks out the file card associated with 'John', and this card is updated. There is no file card for kes itself, and, more importantly, kes is not taken as proxy for the referent of 'who John met'. Due to this fact, it is misleading to consider (23) to correspond either to a cleft or a pseudo-cleft in English.

As long as constraints on copular clauses can be satisfied, any kind of descriptive update can be provided. In (24a) PP is providing the new information:

(24) [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.'

Once again, this is a predicative use, updating John's file card, containing the information in (25a), with the new information in (25b):

(25) a. 43; John (43)
        meet (43, 54)
        Mary (54)
     b. Loc (meet, at-park (67))

The fact that this is predicative use of the PP is confirmed by the unacceptability of variant examples which force an equative interpretation:[4]

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4 (26a) is acceptable when it is interpreted as predicative.

(26) a. *[John-i   Mary-lul   manna-n kes]-i   kongwen-eyse-i-ta
         [John-NOM Mary-ACC   meet-MOD KES]-NOM park-at-COP-DECL
     b. *kongwen-eyse-ka [John-i   Mary-lul   manna-n kes]-i-ta
         park-at-NOM   [John-NOM Mary-ACC meet-MOD KES]-COP-DECL

In other words, (24) does not have any analysis which is parallel to an English
cleft structure like 'It is in the park where John met Mary' or 'Where John met
Mary is in the park'.

4.2 Predicative vs. equative uses

What we have seen above can be characterized in part as follows: predicative
uses of the copula are only possible if the predicate part is more informative
than the subject, in some way; in fact, as we discuss now, the type of the head
noun seems to matter. Looking for some contrasts with different nouns provides
an informal diagnostic for predicative vs. equative uses. Consider the examples in
(27):

(27) a. i   salam-i   [John-i   manna-n   sinsa]-i-ta
        this person-NOM [John-NOM meet-MOD gentleman]-COP-DECL
        'This person is the gentleman that John met.'
     b. i   yeca-ka   [John-i   manna-n yeca]-i-ta
        this woman-NOM [John-NOM   meet-MOD woman]-COP-DECL
        'This woman is the woman that John met.'
     c. ??i   salam-i   [John-i   manna-n namca]-i-ta
          this person-NOM [John-NOM meet-MOD   man]-COP-DECL
        'This person is the man that John met.'

The slightly redundant examples in (27a-b) are perfectly acceptable, as equative
uses. However, (27c) seems much less acceptable, even though it looks like it
ought to be perfectly fine. In this case, the fact that *namca* is more informative
than *salam* favors a predicative interpretation, but in context, if we know who
'this person' (*i salam-i*) is, we can see that he is a man. If we alter the example
to have a truly informative head noun in the predicate position, along with more
informational content, this example is once again perfect:

(28) i   salam-i   [John-i   ceyil cohaha-nun hoysa
      this person-NOM [John-NOM most like-MOD   company
      tonglyo]-i-ta
      employee]-COP-DECL
      'This person is the employee that John likes best.'

In addition to this informativeness constraint on the predicate position, the phrases are not reversible, the hallmark of a predicative construction. The predicates in the next two sets of examples are chosen to force a predicative interpretation:

(29) a. camcali-nun   konchung-i-ta
         dragonfly-TOP   insects-COP-DECL
         'The dragonfly is an insect.'
     b. ??konchung-un   camcali-i-ta
         insect-TOP   dragonfly-COP-DECL
(30) a. [John-i   ceyil   cohaha-nun   kes]-un kacca-i-ta
         John-NOM   most   like-MOD   KES-TOP fake-COP-DECL
         'What John likes most is a fake.'
     b. ??kacca-un/ka   [John-i   ceyil   cohaha-nun kes]-i-ta
         fake-TOP/NOM   John-NOM most   like-MOD   KES-COP-DECL

Consider now examples in which the head noun in predicate position is less informative than the head noun of the subject, such as (31):

(31) i   chayk-i   [John-i   sa-n   kes]-i-ta
      this book-NOM [John-NOM buy-MOD KES]-COP-DECL

This must have an equative interpretation, hence *kes* is interpreted referentially. As expected, the construction is reversible:

(32) [John-i   sa-n   kes]-un   i   chayk-i-ta
      [John-NOM buy-MOD KES]-TOP   this book-COP-DECL

Finally, we can return to the problematic example:

(33) *i   salam-un   [John-i   manna-n   kes]-i-ta
     this   person-TOP   [John-NOM   meet-MOD   KES]-COP-DECL

As *kes* is less informative than *salam*, the example can only have an equative use, and so *kes* must be used referentially (leading to the clash in animacy). Note that no matter how informative the predicate part is made, the non-informativity of *kes* remains constant and the example remains bad:

(34) *i   salam-un   [hoysa tonglo-tul-cwung   John-i   ceyil
     this   person-TOP   [company employee-PLU-among John-NOM   most
     cohaha-nun   kes]-i-ta
     like-MOD   KES]-COP-DECL

There is a generalization which unifies all the uses of *kes* in the cleft-like constructions: a *kes*-phrase can describe an existing file card, whose index can then be equated with the index of another card (equative or identificational use), or which can be updated by new information (predicative use). What it cannot do is update an existing card, which is precisely what the function of the predicate part of a predicative copular construction is for. This is why there is a contrast in (32) and (33). The contrast here is in the way *kes* is used, not in its category. The contrast appears because the equative cleft requires the referents of the two NPs are identical. There is a mismatch between the reference value of 'this woman' and that of the cleft clause headed by the noun *kes*.

5. Conclusion

In summary, Korean *kes* constructions exactly follow the pattern of simple copular clauses, with predicative and equative interpretations. A *kes*-phrase picks out a file card, either of its own referent, or of another referent whose card is to be descriptively updated. As *kes* always involves picking out some file card, a *kes*-phrase cannot descriptively update an existing card, and this is why (33) is unacceptable.

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Jong-Bok Kim
School of English
Kyung Hee University
1, Hoegi-dong, Dongdaemoon-gu
Seoul, 130-701
Korea

jongbok@khu.ac.kr

Peter Sells
Department of Linguistics
Stanford University
Stanford, CA 94305
USA

sells@stanford.edu