The Korean Sluicing: As a Family of Constructions

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1 Introduction

The Korean (or Japanese) sluicing construction, exemplified in (1), has recently been a main topic of research on the mismatch between form and meaning.

(1) Mimi-nun nwukwunka-lul manass-nuntey, nwukwu-i-nci molukessta
Mimi-TOP someone-ACC met-but who-COP-QUE not.know
‘Mimi met someone, but I don’t know who.’

The second clause in (1) contains a wh-phrase linked to the overt correlate in the preceding clause, but needs to have an interrogative clause interpretation (see, among others, Kim 1997, Park 2001, Jo 2005, and Choi 2012). This kind of Korean sluicing construction seems to be similar to English one, but there are several important differences including the obligatory presence of the copula verb i-ta. In this paper we show that the Korean sluicing shares some properties with pseudo-cleft as well as copula constructions, but at the same time bears its own distinctive properties. In particular, we argue that these distinctive properties make it implausible to derive sluicing from any of the two, and further that sluicing belongs to a family of copula constructions together with pseudo-cleft, supporting the ‘constructional view’ of the grammar.

2 Previous Analyses and Some Key Properties

Considering that the sluiced construction is interpreted as an indirect question as in (1), it seems to be quite intuitive to assume the Korean sluicing (like English) involves a wh-movement process in which the wh-phrase moves to the focus position, Spec of CP, followed by the deletion of the clause expression TP (see Kim 1997):

(2) ...I-TOP [CP nwukwui-lul [TP Mimi-nun manass-nunci] molukeyssta

Note that unlike English, to yield the proper surface structure the deletion process requires the language particular rule, obligatory insertion of the copula verb. A further implication arises the possibility of having the Spec of CP filled with a non-wh-phrase (Sohn 2000, Jo 2005):

(3) Mimi-nun nwukwunka-lul mananss-nuntey, Nami-i-n-ci molukeyssta
Mimi-TOP someone-ACC met-but Nami-COP-QUE not.know
‘Mimi met someone, but I don’t know whether it is Nami.’

The absence of the trigger for movement implies that the simple wh-movement and deletion approach requires additional mechanisms to account for the language difference.

Encountering the problems of the deletion analysis and observing certain similarities between the Korean sluicing and pseudocleft, literature has taken the pseudo-cleft as the putative source for the Korean sluicing. That is, the source sentence of the sluicing is a type of pseudo-cleft and the application of the deletion would generate a sluicing structure (see Kim, J. 2012 and Kim, S. 2012):

(4) [Mimi-ka manan-kes-un] nwuku-i-nci molukeyssta
Mimi-NOM meet-MOD KES-TOP who-COP-QUE not.know
‘(I) do not know who (Mimi met).’

This position, compared to the movement and deletion rule, can explain the obligatory presence of the copula as well as the syntactic connectivity. However, there are issues of how to capture certain discrepancies between pseudo-clefting and sluicing. For example, we cannot cleft multiple expressions, but the Korean sluicing allows multiple wh-remnants (Sohn 2000, Park 2001):

1 For the main analysis of English sluicing, see Merchant (2001, 2006) and Sag and Nykiel (2011).
Mimi-ka ecey mwuesinka-lul nwukwunka-eykey cwuess-nuntey, mwues-ul
Mimi-NOM yesterday something-ACC somebody-DAT give-but what-ACC

nwukwu-eykey-i-nci molukessta
who-DAT-COP-QUE not.know
‘Mimi gave something to someone yesterday, but I do not know whom to what.’

Recognizing the problems of deriving sluicing from psuedocleft, we could assume the relevant part to be just as a copula construction with a null pronominal subject, as suggested by Sohn (2000), Jo (2005), and Choi (2012). However, sluicing has other peculiar properties, distinctive from typical copula constructions. For example, sluicing must involve the interrogative marker -nci and possibly with a wh-expression. Sluicing seems to be thus a specific type of copula constructions, with its own idiosyncrasies.

3 A Construction-Based HPSG Analysis

It is true that sluicing shares some properties with cleft and copula, but the two cannot be identified as the same source. As a way of accounting for the behavior of sluicing, we adopt the constructional view of grammar (Goldberg and Jackendoff 2004, Goldberg 2006, Michaelis 2012) and claim that sluicing, just like cleft, belongs to a family of copula constructions requiring an optional subject pronoun ku kes and an interrogative wh-phrase complement. This direct-licensing approach to the Korean sluicing presupposes less syntactic structure. For example, there is no pseudo-cleft structure underlyingly. There is no deleted expression or phonetically unrealized expression. The analysis supports the ‘Direct Interpretation’ to sluicing (Ginzburg and Sag 2000, Culicover and Jackendoff 2005) in which the remnant clause is generated ‘as is’ as a family of the copula constructions (not ellipsis constructions). Meanwhile, its proper interpretation is obtained from the relation between the subject pronoun ku kes ‘the thing’ and its ‘linguistic’ antecedent in the preceding clause. The paper shows that this construction-based view of the Korean sluicing provides a simpler way to explain a variety of its functional aspects.

Even though in the surface structure there is only one wh-expression together with the copular and the interrogative marker, it needs to function as an interrogative clause. In addition, all the sluicing-like construction in the language can add the pronoun ku kes as its subject, roughly corresponding to ‘the thing’:

(6) Mimi-nun nwukwunka-lul manass-nuntey, (ku kes-i) nwukwu-i-nci molukessta
Mimi-TOP someone-ACC met-but the thing-NOM who-COP-QUE not.know
‘Mimi met someone, but I don’t know who.’

The bound noun kes cannot in general refer to an animate individual: it refers to either an nonanimate entity or a situation:

(7) a. Mimi-ka nwukwunka-lul manase, ku salam-kwa/*ku kes-kwa iyakihayessta
Mimi-NOM someone-ACC meet-so, the person-with/the KES-with talked
‘Mimi met someone, and talked with him.’

b. Mimi-ka mwuesinka-lul cwuess-nuntey ku kes-ul yelepoassta
Mimi-NOM what-ACC pick.up-but the KES-ACC opened
‘Mimi picked up something, and opened it.’

As shown in the typical example (7a), ku kes cannot refer to an animate person. In (7b), it is linked to the nonanimate NP mwuesinka ‘something’ while in (7c), it refers to the previous state of affairs.

What we assume here is that this optional subject refers to the situation (event) in the preceding clause (or context) whose proposition contains a variable. This proposition is similar to the specification cleft which can, as suggested by Heycock and Kroch (1999), evoke an iota operator representing a definite description.

2The iota operator is defined as following:
For example, in (6), the pronoun *ku kes* here linked to the preposition with the iota variable in (8a), denoting the iota variable ‘x’ and the *wh*-remnant questions this variable as in (8b):

(8) a. \(\iota x[Mimi \text{ met } x]\)  
    b. \(\iota x[Mimi \text{ met } x] = Qx\)

That is, the optional pronoun mediates the *wh*-remnant and the antecedent clause. Given this system, the interpretation of the sluicing may then depend on how the optional subject *ku kes* is linked to the prepositional content with the iota variable, and the sluicing functions as questioning the value of this variable. We thus suggest that sluicing in Korean basically denotes a proposition like (8b). In terms of the syntactic structure of sluicing, we would generate a structure like the following:

(9)

The structure reflects two important properties: interrogative clausal property and the optionality of the subject. Sluicing is a type of VP-structure, requiring an optional subject that denotes an iota variable. The sluiced part, combing with the copula, projects a VP which in turn is mapped into an interrogative clause (QUE +) due to the interrogative marker *-nci*. This is why the sluiced part occurs only in the environment where an interrogative clause is licensed. Sluicing is a construction whose utterance meaning is that of an interrogative clause optionally including a *wh*-variable, and this is why sluicing occurs only in contexts where an indirect question can be semantically licensed:

(10) *na-nun (ku kes-i) nwukwu-i-nci mit-ess-ta  
    I-TOP the KES-NOM who-COP-QUE believe-PAST-DECL

The predicate ‘believe’ selects a declarative clause, not an interrogative clause. The syntactic and semantic features of sluicing are thus distinctive from other typical copula constructions. What this means is that sluicing is a type of copula constructions, but it has its own constructional constraints as sketched in the feature structure system of HPSG (see Sag et al. 2002 and Kim and Sells 2008):

(11) Korean Sluicing Construction

\[(i) \quad \iota y[f(y)] \text{ denotes } \alpha \text{ iff } f(\alpha) \text{ AND } (\forall z)(f(z) \text{ iff } z \leq \alpha).\]
As specified here, the Korean sluicing requires the optional subject denoting an iota variable which in turn is linked to the wh-expression in the complement daughter. Because there is a question operator Qx binding the wh-expression, the sluice is interpreted as an embedded question. The function ‘F’ denotes a propositional content, indicating that the linking processing is context-dependent and indirectly licensed. Consider examples like the following where there is no overt correlate of the wh-remnant:

(12) Mimi-ka nakassnuntey, ku kes-i nwukwu-wa-i-nci/way-i-nci/encey-i-nci
    Mimi-NOM go.out-but the KES-NOM who-with-COP-QUE/why-COP-QUE/when-COP-QUE
    molukeyyssta
    not.know
    ‘Mimi went out of the house, but I do not know with whom/why/when.

This sentence contains no indefinite correlate, but the context provides what the pronoun ku kes may refer to, as roughly represented in the following Davidson event structure:

(13) a. \( \iota x \exists e \left[ \text{go.out}(m, e) \& \text{reason}(x, e) \right] \)
    b. \( \iota x \exists e \left[ \text{go.out}(m, e) \& \text{reason}(x, e) \right] = Qx \)

The variable ‘x’ here can mean ‘with whom’, ‘why’, or even ‘when’, depending on the context. The role of the wh-phrase is thus determined indirectly: its semantic role is ‘indirectly licensed’ at a distance by virtue of its connection to the antecedent (see Culicover and Jackendoff 2005 too).

Note that this analysis opens the possibility of having multiple wh-remnants. The only thing we need to modify is to allow the multiple elements in the COMPS-DTR, adding the operator ‘Kleene Plus’ as in (10):

(14) \( \left[ \text{COMPS-DTR} \left( \text{XP}^+ (\text{WH} +) \right) \right] \)

This then allows more than one wh-expression in the complement daughter with the wh-value, as attested from the following corpus example: 3

(15) a. encey nwukwu-i-nci al swu-ka epsta
    when who-COP-QUE know possibility-NOM not.exist
    ‘It is not possible to know when and who.’
    b. encey, etise, nwuka, kuliko way-i-nci amwuto molunta
    when where who and why-COP-QUE nobody not.know
    ‘Nobody knows when, where, who, and why.’

These multiple sluiced wh-remnants can thus receive proper interpretations within the present system. Note that the multiple complement expressions need to have the identical Wh-value. For example, the present system does not allow examples like the following where only one is a definite NP:

\[ \text{As a reviewer points out, when there are multiple remnants, the assumed subject pronoun ku kes ‘the thing’ seems not to be overt. This idiosyncrasy may ask for teasing out such cases from the sluicing with a single remnant. In addition, we conjecture that in terms of processing the maximum number of wh-phrases is two as that of typical complements. This is why we have the conjunction in (15a).} \]
The present analysis can also account for island insensitivity cases like the following repeated data:

(17) a. Seoul-uy han tayhak-ey tani-nun haksayng-ul chotayhayss-nuntey, etten tahak-i-nci Seoul-GEN one college-at attend-MOD student-ACC invited-but which college-COP-QUE molukessta not.know
‘I invited the student who attends a college at Seoul, but I don’t know which university.’

Since the present analysis refers not to the syntactic structure, but to the flat event structure, it is possible to question the variable as given in the following simple representation:

\[(18) \; \tau x[\text{invite}(i,j), \text{attend}(j, x\text{-university})] = Qx\]

The analysis thus can offer us a way for the *wh*-remnant to be linked with an indefinite NP located within the island.

As shown by Chung et al. (1995), sluicing requires the presence of a free variable in the first conjunct, that is, requiring an indefinite NP. However, as we have pointed out earlier, the presence of an *wh*-phrase is not a mandatory condition, whose data we repeat here:

(19) a. nwukwunka-ka o-ass-nuntey ku kes-i Mimi-i-nci molukessta someone-NOM come-PAST-but the KES-NOM Mimi-COP-QUE not.know
‘Somebody came, but I am not sure if it is Mimi.’

b. Mimi-ka o-ass-nuntey ku kes-i atul ttaymwun-i-nci molukessta Mimi-NOM come-PAST-but the KES-NOM son because-COP-QUE not.know
‘Mimi came, but I am not sure it is because of her son.’

There is no *wh*-expression in the second conjunct. There is no variable denoting expression in the second conjunct. What the second conjunct questions is if the variable’s value is Mimi or not, as represented in (20b):

(20) a. \( i x[x \text{ came}] \)

b. \( i x[x \text{ came}] = Q[i x[x \text{ came}](m)] \)

Within the present system, the only thing we need to modify is to remove the WH value condition on the complement in (11) or make this value as an optional. This gives one clear piece of linguistic difference between Korean and English: Korean sluicing requires the QUE value inherited from the interrogative marker -nci while English sluicing requires the WH value.

### 4 Conclusion

It is true that sluicing shares some properties with cleft and copula, but the two cannot be identified as the same source. As a way of accounting for the behavior of sluicing, we have adopted the constructional view of grammar (Goldberg and Jackendoff 2004, Goldberg 2006, Michaelis 2012) and claim that sluicing, just like cleft, belongs to a family of copula constructions requiring an optional subject pronoun *ku kes* and an interrogative *wh*-phrase complement.
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References