Syntactic and Semantic Identity in Merger and Sprouting

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Nov 8, 2013
Workshop on Sluicing and Related Phenomena
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1 Introduction

2 Comparison between Merger and Sprouting: General Properties

3 Semantic Identity

4 Syntactic Identity in Sprouting

5 Fragments

6 An analysis
   - Question Under Discussion and Sluicing
   - Direct and Embedded sluicing in Korean
   - Merger with an overt correlate
   - Sprouting with a covert correlate

7 Conclusion
The so-called sluicing in English is an ellipsis phenomenon where all but the interrogative *wh*-phrase of a constituent question is elided, and the *wh*-phrase is linked to the overt (Merger) or covert (Sprouting) correlate in the preceding clause or in the context.

(1) a. He looked like *someone* I know, but I can’t think *who* .
    b. We always knew he would succeed at *something*, but we didn’t know *what*.
    c. He came in here *somewhere*, but we don’t know *where*.

(2) a. She is complaining, but we don’t know about *what*.
    b. Unfortunately, the supply seems to have dried up. I don’t know *why*.
    c. They know it is coming, but they don’t know *when*.
It has been observed that sluicing is widespread cross-linguistically (see Chung et al. 1995, 2010, Merchant 2001, 2006). Korean seems to be not an exception as seen from the following where the *wh*-remnant is linked to the overt correlate in the preceding clause (merger-type).

(3) a. kapcaki mwuesinka-ka nal-a o-ass-nuntey, suddenly something-NOM fly-CONN come-PAST-but mwues-i-nci molukeyssta what-COP-QUE not.know
   ‘Something suddenly flew in, but but I do not know what.’

b. ku-nun nwukwunka-lul talm-ass-nuntey, nwukwu-i-nci he-TOP someone-ACC resemble-PAST-but who-COP-QUE molukeyssta not.know
   ‘He resembles someone, but I do not know who.’
Sprouting cases in Korean

It is also possible to have no correlate in the preceding clause (sprouting-type):

(4) a. Mimi-ka pap-ul mek-ess-nuntey nwukwu-wa-i-nci
Mimi-NOM meal-ACC eat-PAST-but, who-with-COP-QUE
molukessta
not.know
‘Mimi ate a meal, but I don’t know with whom.’

b. mwullayng-i patakna-ss-nuntey, way-i-nci molukeyssta
stock-NOM bottom-PAST-but, why-COP-QUE not.know
‘The item is out of stock, but I do not know why.’

c. pi-ka o-n-ta-ko ha-yess-nuntey,
rain-NOM come-PRES-DECL-COMP say-PAST-but
encey-i-nci molukeyssta
when-COP-QUE not.know
‘It was said that it would rain, but I do not know when.’
All the sluicing (merger or sprouting) sentences have the same interpretations as the corresponding constituent questions.

(5) a. He looked like someone I know, but I can’t think \textbf{who} \textless \textit{he looked like}\textgreater
     
     b. She is complaining, but I don’t know \textbf{what} \textless \textit{she is complaining about}\textgreater

How to obtain these identical interpretations? Any semantic and syntactic (identity) constraints?

Is sluicing (ellipsis) controlled by syntactic or semantic identity?
In this talk we try to:

- show that the Korean sluicing construction is similar to the English one, but there are several important differences.
- argue that the Korean sluicing, with its own distinctive properties, is a subtype of copula constructions and functions as a predicate fragment.
- suggest that the Korean sluicing is licensed by both syntactic as well as semantic identity conditions.
1 Introduction

2 Comparison between Merger and Sprouting: General Properties

3 Semantic Identity

4 Syntactic Identity in Sprouting

5 Fragments

6 An analysis
   - Question Under Discussion and Sluicing
   - Direct and Embedded sluicing in Korean
   - Merger with an overt correlate
   - Sprouting with a covert correlate

7 Conclusion
The wh-remnant is a clause in both merger and sprouting

- The obligatory presence of the copula *i*- followed by the interrogative-clause marker *(nu)nci* (or -*nyako*)

(6) a. John-un [Mary-ka mwues-ul
John-TOP Mary-NOM whatACC
sa-ass-nunci/*ko] molu-ass-ta
buy-PAST-QUE/COMP-ACC not.know-PAST-DECL
‘John didn’t know what Mary bought.’

b. John-i [Mary-ka ku chaky-ul
John-TOP Mary-NOM the book-ACC
sa-ass-ta-ko/*nci] malha-yess-ta
buy-PAST-DECL.COMP/QUE say-PAST-DECL
‘John told Mary that he bought the book.’

- Even though there is only one overt wh-expression in the second conjunct, the remnant wh-phrase here functions like an interrogative clause selected by the matrix predicate *molu*- ‘not.know’
Optional subject: merger

In merger, the ‘unrealized’ subject can be naturally replaced by the pronoun *kukey* ‘it’ or *ku kes* ‘the thing’:

(7) Mimi-ka nwukwunka-lul manna-ss-nuntey *ku kes-i*
Mimi-NOM someone-ACC meet-PAST-but the KES-NOM
*nwukwu-i-nci* molukeyssta
who-COP-QUE not.know
‘Mimi met someone, but I do not know who (it is).’

Note that *ku kes* cannot refer to an animate individual in normal context

(8) Mimi-ka o-ass-ta. *ku kes-i* nay chinkwu-i-ta
In sprouting, the realization of the overt subject in the sluicing clause seems to be possible too.

(9) a. ?mwullayng-i patakna-ss-nuntey, ku kes-i
stock-NOM bottom-PAST-but, the KES-NOM
way-i-nci molukeyssta
why-COP-QUE not.know
‘The item is out of stock, but I do not know why (it is).’

b. pi-ka o-n-ta-ko ha-yess-nuntey, ku
rain-NOM come-PRES-DECL-COMP say-PAST-but the
kes-i encey-i-nci molukeyssta
KES-NOM when-COP-QUE not.know
‘It was said that it would rain, but I do not know when.’
In English sluicing, there needs to be an indefinite correlate NP linked to the *wh*-phrase in the sluicing (Merchant 2001, Chung et al. 2010). The same situation holds in Korean too (Sohn 2000, Park 2001):


b. *Mimi-ka tongsayng-eykey ku chayk-ul cwuess-nuntey, Mimi-NOM sister-DAT the book-ACC gave-but nwukwu-i-nci molukeyssta who-COP-QUE not.know ‘Mimi gave the book to the sister, but I do not know who.’
Merger sluicing in English is not sensitive to islands.

(11) a. Bo talked to the people who discovered something, but we don’t know what (*Bo talked to the people who discovered). [CNPC/Subjacency]

b. Terry wrote an article about Lee and a book about someone else from East Texas, but we don’t know who (*Terry wrote an article about Lee and a book about) [CSC (Element Constraint)]

c. He wants a detailed list, but I don’t know how detailed (*he wants a list). [LBC] (Merchant 2001, p. 167)
CNPC and CSC cannot be repaired easily, but the presence of the overt subject seems to improve it (cf. Merchant 1998):

(12) a. Mimi-ka [nampyon-i mollay mwuesinka-lul Mimi-NOM husband secretly something-ACC saasski-ttaymwuney] hwa-ka nasstako ha-tentey, bought-because angry-NOM become said-but kukey mwues-i-nci molukessta that what-COP-QUE not.know
   ‘It seems that Mimi was angry [because her husband bought something secretly], but I don’t know what.’

b. Mimi-ka [nampyon-eykey mwuesinka-lul cwu-n Mimi-NOM husband something-ACC give-PNE salam-ul] manass-nuntey, kukey mwues-i-nci man-ACC met-but that what-COP-QUE molukessta not.know
LBC can be repaired: The correlate of the *wh*-expression in Korean can be also within an island (see Sohn 2000, Park 2001, Ok and Kim 2012).

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

b. Mimi-ka khun cha-lul sass-nuntey, elmana khu-nci Mimi-\text{NOM} big\text{-MOD} car\text{-ACC} bought\text{-but} how big\text{-QUE} molukeyssta not.know ‘Mimi bought a big car, but I don’t know how big.’
Optionality of the Case Marking

- **Merger:** The Case Marking of the remnant *wh*-phrase is optional:

  \[(14) \] Mimi-ka etten haksayng-ulopwuthe senmwul-ul
  Mimi-NOM some person-DAT present-ACC
  pat-ass-nuntey, na-nun nwukwu-(ulopwuthe)-i-nci
  receive-PAST-but I-TOP who-(from)-COP-QUE
  molukeyssta
  not.know
  ‘Mimi received a present from a student,
  but I do not know from which student.’

- **Sprouting:** the case marking in the remnant *wh*-phrase is obligatory

  \[(15) \] Mimi-ka pinan pat-ass-nuntey,
  Mimi-NOM criticism receive-PAST-but
  nwukwu-*(ulopwute)-i-nci molukeyssta
  who-(from)-COP-QUE not.know
  ‘Mimi received a criticism (from someone),
  but I do not know from whom.’
Multiple foci are possible in merger cases:

(16) a. ?Mimi-ka ecey mwuesinka-lul nwukwunka-eykey
   Mimi-NOM yesterday something-ACC somebody-DAT
cwuess-nuntey, mwues-ul nwukwu-eykey-i-nci molukeyssta
give-but what-ACC who-DAT-COP-QUE not.know
   ‘Mimi gave something to someone yesterday,
   but I do not know whom to what.’

b. ?Nwukwunka-ka cip-eyse mwueinka-lul
   someone-NOM home-at something-ACC
hwumchekass-nuntey, nwu-ka mwuress-i-nci molukeyssta
steal.go-but who-NOM what-COP-QUE not.know
   ‘Someone stole something from my home,
   but I don’t still who and what.’
Multiple Wh-sluicing: sprouting

Multiple foci are possible in sprouting:

(17) a. pemin-i caphiess-nuntey, encey nwukwueykey-i-nci
    criminal-NOM caught-but when by.whom-COP-QUE
    molukessta
    not.know
    ‘The criminal was caught, but I don’t know by whom and when.’

b. Mimi-ka o-ko iss-nuntey etise why-i-nci
    Mimi-NOM come-CONN exist-but where why-COP-QUE
    molukessta
    not.know
    ‘Mimi is coming, but I don’t know from where and why.’
Introduction

Comparison between Merger and Sprouting: General Properties

Semantic Identity

Syntactic Identity in Sprouting

Fragments

An analysis
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Conclusion
Semantic identity in sluicing

Sluicing: syntactic identity is not possible

(18) A: nwukwunka-ka na-lul ttalao-ko iss-e
   someone-NOM me-ACC follow-CONN be-DECL
   ‘Someone is following me.’

   B: nwukwu-i-nci kwungkumha-ney
   who-COP-QUE wonder-DECL
   ‘(I) wonder who ___ (= is following A ≠ who is following B)’
Semantic identity in sluicing

Syntactic identity is not possible in a variety of authentic examples where there is no overt correlate:

    enu    chung-i-nci? which floor-COP-QUE?
Sprouting cases constitute a problem for syntactic isomorphism since there is no overt antecedent:

(20) John ate, but I don’t know what.

The implicit argument cannot be the antecedent of a pronoun:

(21) a. *John ate pro₁ at the cafe. He says it₁ was very yummy.
    b. John ate something₁ at the cafe. He says it₁ was very yummy.

The antecedent clause does not have a variable to be bound by the wh-phrase why

(22) John left, but I don’t know why [John left]
Semantic identity in ‘sprouting’

- Semantic identity based on Merchant’s entailment is enough?
- Merchant’s (2001: 31) condition that a TP can be deleted only if $VP_A$ entails $VP_E$ it is e-given where e-given is defined as following:

  (23) An expression $E$ counts as e-given iff $E$ has a salient antecedent $A$ and modulo $\exists$-type shifting.
  
  (i) $A$ entails $F$-clo($E$) and 
  (ii) $E$ entails $F$-clo($A$)

- Problem: Since the proposition ‘John left’ does not entail that ‘John left for $x$’ since one could leave without any reason.

  (24) a. $F$-clo($TP_A$) = $\exists x$(John left)
  
  b. $F$-clo($TP_E$) = $\exists x$(John left for $x$)
1 Introduction

2 Comparison between Merger and Sprouting: General Properties

3 Semantic Identity

4 **Syntactic Identity in Sprouting**

5 Fragments

6 An analysis
   - Question Under Discussion and Sluicing
   - Direct and Embedded sluicing in Korean
   - Merger with an overt correlate
   - Sprouting with a covert correlate

7 Conclusion
Unlike VP Ellipsis, sluicing does not tolerate voice mismatches:

(25) a. The problem was to have been looked into, but obviously nobody did <look into the problem>.
   b. I have implemented it with a manager, but it doesn’t have to be <implemented with a manager>.

(26) a. *Someone shot Ben, but I don’t know by whom <Ben was shot>.
   b. *Someone was shot, but I don’t know whom <they shot>.

Raising, double object, tough also require syntactic identity:

(27) a. *Ben believes that someone is insane, but I cannot tell whom <Ben believes to be insane>.
   b. ??Ben gave someone the bike, but I cannot tell to whom <Ben gave the bike>.
   c. *Someone is impossible for Ben to please, but I don’t know whom <it is impossible for Ben to please>.
Case matching

The postposition (case marking) of the \textit{wh}-remnant is optional, but if the semantic case is present at the \textit{wh}-remnant, it needs to match with the correlate’s semantic case:

(28) a. Mimi-\textit{ka} \textbf{nwukwunka-\textit{lopwuthe} senmwul-ul} Mimi-\textsc{nom} someone-from present-\textsc{acc}
pat-ass-nuntey, \textbf{nwukwu-(\textit{lopwuthe})-i-nci molukeyssta} receive-\textsc{past}-but who-(from)-\textsc{cop-que} not.know
‘Mimi received a present from someone, but I do not know (from) which one.’

b. *\textbf{.... nwukwu-(ekey)-i-nci molukeyssta}
Further complication arises from the fact that unlike merger cases with an overt correlate, sprouting requires the presence of the semantic case on the *wh*-remnant matching with the case value of the covert correlate:

(29) a. pise-ka hwa-lul nay-ss-nuntey, secretary-NOM anger-ACC raise-PAST-but nwkwu-*(eykey)-i-nci molukessta who-COP-QUE not.know ‘The secretary get angry, but I don’t know at whom.’

b. cek-i hwutoy-lul ha-yess-nuntey, eti-*(kkaci)-i-nci enemy-NOM retreat-ACC do-PAST-but where-to-COP-QUE molukessta not.know ‘The enemy retreated, but I do not know up to where.'
A similar syntactic identity condition is also observed in passive (Merchant 2013, Chung 2013). Observe a contrast between passive merger and passive sprouting:

(30) a. pemin-i nwukwunka-eykey cap-hi-yess-nuntey, criminal-NOM somebody-by catch-PAS-PAST-but nwukwu-(eykey)-i-nci molukessta who-by-COP-QUE not.know ‘The criminal was caught by someone, I don’t know (by) whom.’

b. pemin-i cap-hi-yess-nuntey, nwukwu-* (eykey)-i-nci criminal-NOM catch-PAS-PAST-but who-by-COP-QUE molukessta not.know ‘The criminal was caught, but I do not know by whom.’
As noted by Chung et al. (2010), sluicing in English does not tolerate argument structure mismatches involving ditransitive verbs in English.

(31) a. He sent a package, but I can’t find out who to.
    b. *He sent a package, but I can’t find out who.

Unlike the sprouting in (31b), the merger (31a) requires no overt case matching: the case is optional. The same fact holds in Korean too:

(32) Mary-ka senmwul-ul ponassynun-tey
    Mary-NOM present-ACC sent-but
    *nwukwu/nwku-eykey-i-nci
    who/who-DAT-COP-QUE
    molukessta
    not.know
    ‘Mary received a present, but I do not know *(from) whom.'
Semantic identity in merger and sprouting imply that sluicing is fundamentally anaphoric and licensed by semantic conditions.

Syntactic identity in sprouting indicates that even though sluicing is basically semantic in nature, we need to have an access to syntactic information, e.g., argument-structure (Chung 2010, 2013).
Introduction

Comparison between Merger and Sprouting: General Properties

Semantic Identity

Syntactic Identity in Sprouting

Fragments

An analysis

- Question Under Discussion and Sluicing
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- Merger with an overt correlate
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Conclusion
Korean has fragment utterances. In some cases, they are predicates:

    b. iss-e; eps-e. (‘(He) is.’; (He) isn’t.’) (Yes; No.)

arguments

(34) A: Kim-i nwukwu-lul manna-ss-ni?
    ‘Who did Kim meet?’
    B: chelswu. chelswu-lul. *chelswu-ka.
Interrogative fragments – direct sluicing

- merger-type with an overt correlate: the fragment answer cannot be verbal.

(35) A: Mimi-ka nwukwunka-lul mannasse.
   Mimi-NOM someone-ACC meet-PAST-DECL
   ‘Mimi met someone.’

   B: nwukwu? nwukwu-lul? *nwukwu-i-ni?
   who? who-ACC? who-COP-Q?

- sprouting type with no overt correlate: case matching with a covert correlate

(36) A: Mimi-ka pinanpat-ko isse.
   Mimi-NOM criticism.receive-CONN be
   ‘Mimi is being criticized.’

   B: nwukulo-pwuthe?/*nwuku/*nwukwu-lul/way?/ettehkey?
   who-from?/who?/who-ACC?/why?/how?
Only the predicate-type, such as the one with the copula in the last example, can be embedded in Korean sluicing.

merger-type with an overt correlate

(37) A: Mimi-ka nwukwunka-lul mannasse.
   Mimi-NOM someone-ACC meet-PAST-DECL
   ‘Mimi met someone.’

B: (ne-n) (kukey) nwukwu-i-nci al-ni?
   you-TOP it-NOM who-COP-QUE know-QUE
   ‘(Do you know) who it is?’
sprouting type with no overt correlate: the *wh*-remnant case-matches with its covert correlate

(38) A: Mimi-ka pinanpat-ko isse.
Mimi-NOM criticism.receive-CONN exist
‘Mimi is being criticized.’

B: **nwukulo-pwuthe**-i-nci al-ni?
who-from-COP-QUE know-QUE

B: *nwuku-i-nci al-ni?
who-COP-QUE know-QUE
There are two different types of interrogative fragments: direct sluicing (DS) and embedded sluicing (ES). The former is nonverbal-headed while the latter is headed by the copula with an Q-marker.

In both types, slightly different from merger, sprouting requires the \textit{wh}-remnant requires case-matching with its covert correlate.

A uniform analysis for all these would be more desirable.
Introduction

Comparison between Merger and Sprouting: General Properties

Semantic Identity

Syntactic Identity in Sprouting

Fragments

An analysis

- Question Under Discussion and Sluicing
- Direct and Embedded sluicing in Korean
- Merger with an overt correlate
- Sprouting with a covert correlate

Conclusion
Three possible directions

- Deletion (Ross 1969, Sag 1976, Merchant 2001 for English) Classified as Surface Anaphora by Hankamer and Sag 1976 and Sag and Hankamer 1984
  1. wh-clause deletion (Kim 1999)
  2. pseudo-cleft clause source deletion (Park 2002)
- LF Copying (Williams 1977, Chung, Ladusaw, & McCloskey 1995)
- Direct Interpretation (Ginzburg & Sag 2000, Culicover & Jackendoff 2005)
Our direction

- Direct generation of sluiced clauses (likewise stripping (BAE). Ginzburg and Sag 2000)
- Indirect licensing of wh-remnants by elements of surrounding context [Ginzburg & Sag 2000]
- Simpler Syntax Hypothesis [Culicover and Jackendoff 2005] and Concrete Minimalism [Culicover 1999]
Questions are propositional abstracts (G&S 00). In GS00, a question meaning is built from a proposition meaning by abstracting out one or more parameters from the proposition.

(39) a. Unary wh-question: \( \lambda \{ \pi^i \} [\text{love}(K, i)] \) (Who does Kim love?)

b. Multiple wh-question: \( \lambda \{ \pi^i \pi^j \} [\text{love}(j, i)] \) (Who loves who?)

c. Polar question: \( \lambda \{ \} [\text{love}(K, L)] \) (Does Kim love Lee?)

A parameter consists of an index and a set of restricting propositions.

Semantic content of who: \( \pi^i \{ \text{person}(i) \} \)
(40)

Semantics: tree representation

\[ S \]
\[ \begin{array}{c}
\text{WH \{} \\
\lambda \{ \pi^i \} [\text{meet}(M, i)] \\
\text{SEM} \\
\text{PARAMS} \{ \pi^i \} \\
\text{RELS} \text{meet}(M, i)
\end{array} \]

\[ \begin{array}{c}
\text{NP} \\
\text{VP}
\end{array} \]

Mimi-ka

\[ \begin{array}{c}
\text{WH} \{ \pi^i \} \\
\text{NWUKWU-LUL}
\end{array} \]

\[ \begin{array}{c}
\text{HEAD | MOOD} \textit{inter} \\
\text{SUBJ} \langle 1 \rangle \\
\text{COMPS} \langle 2 \rangle \\
\text{manna-ass-ni?}
\end{array} \]
from Ginzburg, Jonathan. in press. The Interactive Stance: Meaning for Conversation. Oxford University Press.

Dialogues are described via a Dialogue GameBoard (DGB) where the contextual parameters are anchored and where there is a record of who said what to whom, what/who they were referring to, ...

DGB monitors which questions are under discussion, what answers have been provided, by whom, etc.

The conversational events are tracked by various conversational ‘Moves’ that have specific preconditions and effects.

The main claim is that Non-Sentential Utterances (NSU)s are resolved to the contextual parameters of the DGB.
Sluicing again

Just about any Indexed NP can be a Correlate:

(41) a. Indefinite NP: Some senator is arriving. Who?
    b. Quantified NP: I talked to most of the players. Oh yeah, Who, exactly?
    c. Definite NP: The tallest guy on the team is here. Who else?
    d. Proper Noun: I met Kim. Who else?
    e. Pronoun: She came to the party. Who else?
When the Dialogue cannot accommodate a Compatible MAX-QUD (Maximal Question-under-Discussion):

(42) a. No one arrived. *Who? (The question of who arrived is no longer under discussion)
   b. Kim arrived. *Who? (The question of who arrived is no longer under discussion)
   c. Kim arrived. Who else? (else changes the MAX-QUD)
Resolved questions cannot be under discussion.

(43) Question Introduction Condition (QIC)
A question $q$ can be introduced into QUD by $A$ only if there does not exist a fact $\tau$ such that $\tau \in \text{FACTS}$ and $\tau$ resolves $q$. 
Introduction

Comparison between Merger and Sprouting: General Properties

Semantic Identity

Syntactic Identity in Sprouting

Fragments

An analysis

- Question Under Discussion and Sluicing
- Direct and Embedded sluicing in Korean
- Merger with an overt correlate
- Sprouting with a covert correlate

Conclusion
There are two different types: direct sluicing (DS) and embedded sluicing (ES). The former is nonverbal-headed while the latter is headed by the copula with an Q-marker.

These two types of sluicing behave differently in several respects (e.g., only the ES accompanies a copula and Q-marking), but may call for a uniform analysis.
Condition

(45) Merger Sluicing Construction:

Merger with the overt correlate in both DS and ES: Interpret the variable evoked by the antecedent of the $wh$-remnant in the QUD (question under discussion).

In the ‘merger’ type of sluicing, the meaning of one $wh$-phrase substitutes for the meaning of a quantificational phrase in the contextually given utterance. ("Kim met someone but I don’t know [who].")
Direct Sluicing with an overt correlate

This is a basic form of a fragment phrase; it has a category and a content in the context of a Salient Utterance (which essentially defines the form that the fragment has to be compatible with).

\[
\begin{bmatrix}
\text{SYN} & S \\
\text{SEM} & \lambda \Sigma \Phi \\
\text{CXT} & \begin{bmatrix}
\text{FOCAL-UTT} & \left\{ \begin{bmatrix}
\text{SYN} & \text{CAT} & \text{nonverbal} \\
\text{SEM} & \text{IND} & i
\end{bmatrix}\right\} \\
\text{MAX-QUD} & \lambda \{ \} \Phi
\end{bmatrix}
\end{bmatrix}
\rightarrow
\begin{bmatrix}
\text{SYN} & \text{CAT} & \text{non-verbal} \\
\text{SEM} & \text{IND} & i \\
\text{WH} & \Sigma
\end{bmatrix}
\]
Direct sluicing: non-verbal fragment

- examples
  
     B: cengmal? nwukwu-lul/*nwukwu-ka
  
- there is no Q-marking; subjacency need not be observed.
This is a type of predicate fragment headed by the copula verb and it is embedded.

\[
\begin{array}{c}
\text{SYN} & S \\
\text{SEM} & \lambda \Sigma \Phi \\
\text{CXT} & \left[ \begin{array}{c}
\text{FOCAL-UTT} \\
\text{MAX-QUD}
\end{array} \right] \left\{ \text{XP} \right\} \\
\end{array}
\rightarrow
\begin{array}{c}
\text{SYN} \\
\text{CAT} \\
\text{ARG-ST}
\end{array} \left[ \begin{array}{c}
copula \\
\text{MOOD que} \\
\{ } \Phi \\
\end{array} \right] \\
\begin{array}{c}
\text{SEM} \\
\text{INDi}
\end{array} \left[ \begin{array}{c}
\Sigma \\
\text{NP[pro], } \text{XP[wh+]} \\
\end{array} \right]
\end{array}
\]
Context updating:

- syntax and semantic information

\[
\begin{align*}
\text{(47)} & \quad \begin{bmatrix}
\text{FORM} & \langle \text{Kim meet someone} \rangle \\
\text{SEM} & \text{someone}^i[\text{meet}(K, i)]
\end{bmatrix} \\
\text{uttering this sentence will activate the following DGB (discourse game board)}
\end{align*}
\]

\[
\begin{align*}
\text{(48)} & \quad \begin{bmatrix}
\text{dgb} \\
\text{QUD} & \begin{bmatrix}
\text{Q} & \lambda \{ \pi^i \}[\text{meet}(K, i)] \\
\text{FOCAL-UTT} & \begin{bmatrix}
\text{SYN NP} \\
\text{SEM} & \text{someone}^i
\end{bmatrix}
\end{bmatrix}
\end{bmatrix}
\end{align*}
\]
merger

(49) \[
\begin{align*}
&\text{FORM} \left< \text{Kim met someone, but I don’t know who.} \right> \\
&\text{SEM someone}^i[\text{meet}(K, i)] \land \lambda \{\pi^i\} [\text{not.know}(I, i)]
\end{align*}
\]

uttering this sentence will activate the following DBG

(50) \[
\begin{align*}
&\text{dbg} \\
&\text{QUD} \left[ \text{Q} \lambda \{\pi^i\} [\text{meet}(K, i)] \right] \\
&\text{FOCAL-UTT} \left[ \left< \text{SYN NP SEM someone}^i \right>, \left< \text{SYN NP SEM who}^i \right> \right]
\end{align*}
\]
- Since the context provides the over correlate, Q just needs to refer to its index value.
- That’s why semantic identity is enough here.
Sprouting with no overt correlate

(51) Sprouting Sluicing Construction:
The ‘sluicing (sprouting) construction’ evokes a covert variable by context, and the wh-remnant introduced by the copula is asking the value of this variable. In doing so, reuse available syntactic information such as argument structure (à la Chung et al. 2010, Chung 2013).

In the ‘sprouting’ type of sluicing, the extra parameter is abstracted out of the proposition. (“Kim went to Reno but I don’t know [for how long].” )
Context updating: sprouting


\[
\begin{align*}
\text{(52)} & \quad \begin{bmatrix}
\text{FORM} \left\langle \text{Kim is criticized} \right\rangle \\
\text{ARG-ST} \left\langle \text{NP, PP[ini]} \right\rangle
\end{bmatrix} \\
\text{Uttering} \text{ Kim is criticized} & \text{ evokes the introduction of the uninstantiated agentive PP.}
\end{align*}
\]

\[
\begin{align*}
\text{(53)} & \quad \begin{bmatrix}
\text{dgb} \\
\text{QUD} \\
\text{FOCAL-UTT} \\
\text{Q} \lambda \{ \pi^i \}[\text{be.criticized(K, i)}]
\end{bmatrix} \\
\text{SYN PP[ini, uyhay]} \\
\text{SEM someone}_i
\end{align*}
\]
To refer to the context-providing correlate, the DGB needs to refer to the \textit{ini} expression including both syntax and semantics.

This is why we need to have syntactic identity too.
As discussed, sprouting requires an obligatory case marking on the \textit{wh}-remnant

(54) pise-ka hwa-lul nay-ss-nuntey, secretary-NOM anger-ACC raise-PAST-but nwkwu-*(eykey)-i-nci molukessta who-COP-QUE not.know

‘The secretary get angry, but I don’t know at whom.’

Reuse the argument structure information in the antecedent clause

(55) pise-ka nwkwu-*(eykey) hwa-lul nay-ss-nunci secretary-NOM who-at anger-ACC raise-PAST-but molukessta not.know

‘The secretary get angry, but I don’t know at whom.’
We have seen that in sprouting the optional subject *kukey* ‘it’ is disfavored or unnatural:

(56) a. Mimi-ka sonnim-eykey taycepha-yess-nuntey, (*kukey)  
    Mimi-NOM guest-DAT treat-PAST-but it  
    mwues-i-nci molukessta  
    what-COP-QUE not.know  
    ‘Mimi served the guest, but I don’t know what.’

b. Mimi-ka cha-lul swulihayess-nuntey, (??kukey)  
    Mimi-NOM car-ACC fix-but, it  
    ettehkey-i-nci molukessta  
    how-COP-QUE not.know  
    ‘Mimi fixed the car, but I don’t know how.’
Reuse the argument structure information in (56b):

(57) a. Mimi-ka ettehkey cha-lul swuliha-yess-nunci
    Mimi-NOM how car-ACC fix-PASTQUE
    molukessta
    not.know
    ‘I don’t know how Mimi fixed the car.’

b. *[Mimi-ka cha-lul swuliha-n kes-un] ettehkey-i-nci
    Mimi-NOM car-ACC fix-PNE KES-TOP, how-COP-QUE
    molukessta
    not.know
    ‘(int.) I don’t know how is it that Mimi fixed the car.’
Concluding Remarks

- Unified analysis of sluicing (merger and sprouting) in both DS and ES environments
- Relies on discourse information and constantly evolving Questions-under discussion.
- But also refers to syntactic information when there is no overt correlate to ensure what is the focal (salient) establishing element.
- This direct-licensing approach to the Korean sluicing presupposes less syntactic structure.
- Together with semantic identity, sluicing requires limited syntactic identity. The limited syntactic identity condition involves argument structure at least, as suggested by Chung (2013).
References


