Indexicals and the long-distance reflexive *caki* in Korean

Yangsook Park · *University of Massachusetts Amherst*

Introduction

- Anand (2006) proposes two different mechanisms for obligatory *de se* elements:
  - Semantic (context-overwriting): *e.g.* shifted indexicals.
  - Syntactic (binding by operator): *e.g.* Yoruba logophor *oun*, Japanese long-distance reflexive *zibun*, etc.
- I show that Korean is a language where the two types of *de se* elements exist, *i.e.* shifted indexicals and the LD-reflexive *caki*.
- **Question:** How would these two elements interact with each other? (Under Anand's analysis, no interaction is predicted since the syntactic and semantic mechanisms for *de se* ascriptions are independent from each other.)

Indexical Shift in Korean

- First, I show that the shifted interpretations of the person and adverbial indexicals in an indirect report are available in Korean (1)-(2).

(1) Mary-ka [nwuka na-lul coahanta]-ko malhayss-ni?
Mary-Nom who I-Acc like-C said-Q
'Who did Mary say likes {me, Mary}?'

(2) *Utterance in New York*
Amherst-eyse Mary-ka [nwuka yeki-eyse
Amherst-at Mary-Nom who-Nom here-in
thayenassta]-ko malhayss-ni?
be.born-C said-Q
'Who did Mary say in Amherst was born in {New York, Amherst}?'

- The shifted indexicals in Korean share the well-known properties of indexical shifting observed by Schlenker (2003), Anand & Nevins (2004).
  - SHIFT TOGETHER: The shift-together constraint proposed by Anand and Nevins (2004) holds for both the person and adverbial indexicals in Korean.
  - OBLIGATORY *de se* INTERPRETATION: Both the person and adverbial shifted indexicals in Korean receive obligatory *de se* interpretations.

Shift Independently

- Interestingly, person and adverbial indexicals do not have to shift together, although the same type of indexicals must shift together.

(3) *Context*: John and Mary are having a conversation in NY.
John: Tom-i Amherst-eyse nay-ka yeki-eyse
Tom-Nom Amherst-at I-Nom here-at
thayenassta-ko malhayssta.
be.born-C said
Lit. 'Tom said in Amherst that I was born here.'

a. 'I' = John, 'here' = New York (*No Shift*)
b. 'I' = John, 'here' = Amherst (*Location Shift*)
c. 'I' = Tom, 'here' = New York (*Person Shift*)
d. 'I' = Tom, 'here' = Amherst (*Both Shift*)

Two Context-shift Operators

- Anand and Nevins (2004) and Anand (2006): Indexical shift is the result of a context-shift operator that overwrites the context parameter on the interpretation function with the index.
- **Proposal:** To account for both SHIFT TOGETHER and SHIFT INDEPENDENTLY, I argue that there are two separate operators, OP_{PER} and OP_{ADV}, for person and adverbial indexicals in Korean.

(4) Two context-shift operators

a. $[\![\ \text{OP}_{PER}\ [\alpha]\ ]\!]^{<A_c,\ H_c,\ T_c,\ L_c>,i} = [\![\alpha]\!]^{<A_i,\ H_i,\ T_c,\ L_c>,i}$
b. $[\![\ \text{OP}_{ADV}\ [\alpha]\ ]\!]^{<A_c,\ H_c,\ T_c,\ L_c>,i} = [\![\alpha]\!]^{<A_c,\ H_c,\ T_i,\ L_i>,i}$

(5) Sample illustration of SHIFT INDEPENDENTLY

a. John said [OP_{PER} I was born here].
b. Truth-conditions: $[\![$ (6a) $]\!]^{c,i,g} = 1$ *iff*
∀i' ∈ Say(John,i): AUTH(*i'*) was born in LOC(*c*) in WORLD(*i'*)

The Long-distance Reflexive *caki*

- *Caki* allows both local and long-distance binding.

(6) John-un Tom-i caki-lul silhehanta-ko sayngkakhanta.
John-Top Tom-Nom self-Acc dislike-C think
'John_i thinks that Tom_j dislikes him_i/himself$_j$.'

- The long-distance *caki* must be interpreted *de se*, as *ziji* in Chinese (Pan 1997, Huang and Liu 2001, a.o.).
- Multiple long-distance *caki*s in an embedded clause must find the same antecedent, as observed in Chinese.

(7) John-i [Bill-i [caki-uy emma-ka caki-lul silhehanta]-ko
John-Nom Bill-Nom caki-Gen mother-Nom caki-Acc hate-C
sayngkakhanta]-ko malhayssta.
think-C said

a. 'John_i said that Bill_j thought that $\text{his}_{i/j}$ mother hates $\text{him}_{i/j}$.'
b. *'John_i said that Bill_j thought that $\text{his}_{i/j}$ mother hates $\text{him}_{j/i}$.'

- I assume that *caki* is a *de se* element that is bound by a syntactic operator, OP-LOG, within the scope of attitude verbs (Anand 2006).

(8) $[\![\text{OP-LOG}_j\ [\alpha]\ ]\!]^{c,\ i,\ g} = \lambda i'.\ [\![\alpha]\!]^{c,\ i',\ g[j \to \text{AUTH}(i')]}(i)$

Puzzle: Between shifted indexicals and *caki*

(9) [John said [that Bill said [that *caki*'s mother hates me.]]]

a. 'John_i said that Bill_j said that self (=**Bill**)'s mother hates me (=**John**)'
b. *'John_i said that Bill_j said that self (=***John**)'s mother hates me (=**Bill**)' ⇒ No *caki* binding after indexical shift!

IS (Indexical Shift)-Blocking Effect

- The interaction between the shifted indexicals and *caki* can be described as in (10).

(10) **IS-Blocking Effect**
If *caki* and its antecedent are separated by more than one clause, a context-shift operator cannot intervene between them.

$$*[_{CP1}\ \overbrace{NP_1 ... [_{CP2}\ \underbrace{NP_2 ... [_{CP3}\ \mathbf{OP_{PER/ADV}} ... caki_1 ... ind_2 ...]}_{\text{X}}]}]]$$

- **Key Question:** How can we account for this one-way blocking effect between the shifted indexicals and *caki*?

Deriving the IS-Blocking Effect

- Basic assumptions (von Stechow 2003, Anand 2006, a.o.):
  - The *de se* elements like *caki* always bear the syntactic feature [+log].
  - The *de se* elements that bear [+log] must be bound by the closest operator that also takes the [+log] feature.
- New assumptions:
  - The syntactic operator can take either [+log] or [−log].
  - The context-shift operators always bear [+log].
  - When the OP-LOG and the context-shift operator occur in the same embedded clause, they must agree in the feature [+log].

  ⇒ *Upshot*: The two different operators for shifted indexicals and *caki* interact with each other rather than be independent!

(11) Deriving the IS-blocking effect:

*John_j said [λ_j^{+log} Bill_i said [λ_k^{+log} $\text{OP}_{PER}{}^{+log}$ $\text{caki}_j{}^{+log}$'s mother hates me_i]]

(12) No blocking effect

John_j said [$\lambda_j{}^{+log}$ $\text{OP}_{PER}{}^{+log}$ Bill said [$\lambda_k{}^{+log}$ $\text{caki}_k{}^{+log}$'s mother hates me_j]]

Further consequences

Our proposal also captures the interaction between multiple *caki*s.

(13) Deriving the restriction on multiple *caki*s

a. John said [$\lambda_j{}^{+log}$ Bill said [$\lambda_k{}^{+log}$ $\text{caki}_k{}^{+log}$'s mother hates $\text{caki}_k{}^{+log}$]]
b. *John said [$\lambda_j{}^{+log}$ Bill said [$\lambda_k{}^{+log}$ $\text{caki}_k{}^{+log}$'s mother hates $\text{caki}_j{}^{+log}$]]
c. *John said [$\lambda_j{}^{+log}$ Bill said [$\lambda_k{}^{+log}$ $\text{caki}_j{}^{+log}$'s mother hates $\text{caki}_k{}^{+log}$]]
d. John said [$\lambda_j{}^{+log}$ Bill said [$\lambda_k{}^{-log}$ $\text{caki}_j{}^{+log}$'s mother hates $\text{caki}_j{}^{+log}$]]

Selected References & Acknowledgements

I thank Seth Cable, Rajesh Bhatt, Vincent Homer, and Angelika Kratzer for their helpful comments and insightful discussion, as well as audiences at the LSA 2014 and GLOW 37.
[1] Anand, P. 2006. De de se. Doctoral Dissertation, Massachusetts Institute of Technology. [2] Anand, P., and A. Nevins. 2004. Shifty operators in changing contexts. In *Proceedings of SALT XIV*, ed. Robert B. Young, 20D37. Cornell University, Ithaca, NY: CLC Publications. [3] Schlenker, Philippe. 2003. A plea for monsters. *Linguistics and Philosophy* 26:29D120. [4] von Stechow, A. 2003. Feature Deletion under Semantic Binding: Tense, Person, and Mood under Verbal Quantifiers. In *Proceedings of NELS 33*, eds. M. Kadowaki and S. Kawahara, 397-403. Amherst MA: GLSA.

yangsook@linguist.umass.edu (Handout available upon request.)