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

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<u>Introduction</u> It has been found that indexicals in the complements to attitude verbs can be interpreted with respect to the reported context instead of the actual speech context in many languages, such as Amharic (Schlenker 1999), Zazaki (Anand and Nevins 2004), Uyghur (Sudo 2012), Nez Perce (Deal To appear), etc., a phenomenon known as 'indexical shift'. The main goal of this paper is, first, to show that Korean is also a language that indexicals can optionally shift under certain attitude predicates, and to propose that there are two different *monsters*, i.e. context-shift operators, for person and adverbial indexicals, given the different properties of the two types of indexicals. This paper also presents novel data on the interactions between the indexicals and the long-distance reflexive/logophor *caki*: context-shift operators cannot intervene between *caki* and an antecedent of *caki*, which I dub the 'IS (indexical shift)-Blocking Effect.'

**Indexicals in Korean** I first show that both the 1<sup>st</sup>/2<sup>nd</sup> person pronouns and the temporal/locative adverbials, e.g. *yeki* 'here', *onul* 'today', *ece* 'yesterday', etc., are indeed indexicals in Korean, since they cannot co-vary with a quantifier unlike the expressions 'the speaker', 'same day', etc. (Kaplan 1989). Then, I present evidence that indexicals can shift in an indirect speech. For example, the shifted interpretation in (1) cannot be due to direct quotation, given the fact that the wide scope interpretation of the *in-situ* wh-phrase in the embedded clause is available. I also show that these facts are not due to partial quotation (Maier 2007) using arguments against to this approach developed by Sudo (2012).

(1) a. Mary-ka **nay**-ka **nwukwu**-lul cohahanta-ko malhayss-ni?

Mary-Nom I-Nom who-Acc like-C said-Q

'Who did Mary say {I like, Mary likes}?'

b. New York-eyse Mary-ka **nwuka yeki**-eyse thayenassta-ko malhayss-ni?

New York-in Mary-Nom who-Nom here-at be.born-C said-Q

'In New York, who did Mary say was born {here, in New York}?'

Person vs. Adverbial indexicals I next show that there are several key contrasts between person and adverbial indexicals in Korean. First, while the person indexicals can be shifted only under the predicates of communication, e.g. 'say', 'tell', etc., the adverbial indexicals are shiftable under other attitude verbs as well, such as 'think', 'believe', etc. Second, the person and adverbial indexicals do not have to shift together, while indexicals of the same type do. For example, unlike the two person indexicals in (2), the person and adverbial indexicals in (3) can shift independently, so that there is a four-way ambiguity.

(2) *Context*: John and Mary are having a conversation.

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John: Tom-i Sue-eykey [nay-ka ne-lul cohahanta-ko] malhayssta.
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Tom-Nom Sue-to I-Nom you-Acc like-C said

Lit. 'Tom said to Sue that I like you.'

a. 'I' = John, 'you' = Mary (Neither Shift) b. 'I' = Tom, 'you' = Sue (Both Shift)

c. \*'I' = Tom, 'you' = Mary (Speaker Shift) d. \*'I' = John, 'you' = Sue (Addressee Shift)

(3) *Context*: John and Mary are having a conversation in Seoul.

John: New York-eyse Tom-i [nay-ka yeki-eyse thayenassta-ko] malhayssta.

New York-at Tom-Nom I-Nom here-at be.born-C said

Lit. 'Tom said in New York that I was born here.'

a. 'I' = John, 'here' = Seoul (*Neither* Shift) b. 'I' = John, 'here' = New York (*Adverbial* Shift)

c. 'I' = Tom, 'here' = Seoul (*Person* Shift) d. 'I' = Tom, 'here' = New York (*Both* Shift)

Third, when occurring in the same clause as the long-distance reflexive/logophor *caki*, person indexicals do not receive the shifted interpretation (4), but adverbial indexicals can (5).

(4) *Context*: John and Mary are having a conversation.

John: Tom-i Sue-eykey [caki-ka **ne**-lul cohahanta-ko] malhayssta.

Tom-Nom Sue-to caki-Nom you-Acc like-C said

'Tom<sub>i</sub> said to Sue that he<sub>i</sub> likes {Mary, \*Sue}.'

(5) Context: John and Mary are having a conversation in Seoul.

[caki-ka yeki-eyse thayenassta-ko] malhayssta. John: New York-eyse Tom-i

Tom-Nom caki-Nom here-at be.born-C New York-at

'In New York, Tom; said that he; was born {in Seoul, in New York}.'

Two Monsters Following Anand & Nevins (2004) and Anand (2006), I assume that indexical shift is the result of a context-shift operator that overwrites the context parameter on the interpretation function (6). However, given the different properties of the two types of indexicals, especially the fact that they do not have to shift together, I argue that there are two separate operators,  $OP_{PER}$  and  $OP_{ADV}$ , for person and adverbial indexicals in Korean (Deal To appear for Nez Perce). OP<sub>PER</sub> only overwrites the author and hearer coordinates of the context parameter with those of the index parameter, while  $OP_{ADV}$  overwrites the location and time coordinates (6).

(6) Semantics of the two context-shift operators

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a. OP_{PER}: [[\mathbf{OP}_{PER} \ [\alpha]\ ]]^{<Ac, Hc, ...>, i,g} = [[\alpha]]^{<Ai, Hi, ...>, i,g}
b. OP_{ADV}: [[\mathbf{OP}_{ADV} \ [\alpha]\ ]]^{<..., Tc, Lc>, i,g} = [[\alpha]]^{<..., Ti, Li>, i,g}
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b. 
$$OP_{ADV}$$
:  $[[\mathbf{OP}_{ADV}[\boldsymbol{\alpha}]]]^{<..., \text{Tc, Lc}>,i,g} = [[\boldsymbol{\alpha}]]^{<..., \text{Ti, Li}>,i,g}$ 

Also, I argue that the incompatibility between caki and shifted person indexicals (4) is due to a presupposition born by caki. Unlike long-distance reflexives in other languages, in Korean, it is not possible for *caki* to have 1<sup>st</sup> or 2<sup>nd</sup> person antecedents. Consequently, I propose that *caki* bears the 3<sup>rd</sup> person phi-features, [-1<sup>st</sup>, -2<sup>nd</sup>] (Schlenker 2003). Thus, if the context-shift operator in (6a) appears by the subordinate clause in (4), caki will be unable to refer to John, the speaker of the reported context. Finally, since the operator in (6b) only shifts the time and location coordinates, caki can refer to John in (5).

Interactions between shifted indexicals and caki Finally, I discuss a second key interaction between shifted indexicals and caki: the context-shift operators in (6) cannot intervene between caki and its antecedent, if they are separated by more than one clause boundary. To illustrate, in (7a), we find that if the antecedent of caki is Bill, then the operator in (6a) can sit above the clause containing Bill, causing embedded 'I' to be shifted to John. In (7b), however, we see that if the antecedent of *caki* is *John*, then the operator in (6a) cannot sit above the clause containing Bill, nor can it sit above the clause minimally containing caki (thus no shifted reading of embedded 'I' is possible). This leads us to the generalization in (8), the 'IS-BLOCKING EFFECT'.

- (7) [John-i [Bill-i [caki-uv emma-ka na-lul silhehanta-ko] malhavssta-ko] malhavssta. John-Nom Bill-Nom caki-Gen mom-Nom I-Acc hate-C said-C said
  - a. 'John<sub>i</sub> said that Bill<sub>i</sub> said that his<sub>i</sub> mother hates me (=John, \*Bill, Speaker).'
  - b. 'John; said that Bill; said that his; mother hates me (=\*John, \*Bill, Speaker).'
- (8) **IS-BLOCKING EFFECT**: If *caki* and its antecedent are separated by more than one clause, a context-shift operator cannot intervene between them.

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*[CP1 NP<sub>1</sub> ... [CP2 NP<sub>2</sub>... OP_{PER/ADV}[CP3 caki_1... ind_2...]]]
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I relate (8) to the obligatorily de se interpretation of caki. Unlike caki that is always interpreted de se, the 3<sup>rd</sup> person pronoun can be interpreted either de re or de se in Korean, as in many other languages. When *caki* is replaced by 'he' in (7), the 1<sup>st</sup> person pronoun can be shifted to 'Bill', while 'he' refers to the matrix subject, 'John', unlike caki in (7b). However, 'his' can only get a de re reading but not a de se reading in this case. Given this, I also suggest that this effect might be extended to more general cases regarding de se.