Online parsing of Korean reflexive *caki*: Evidence for direct retrieval of antecedent

Namseok Yong
The Graduate Center - CUNY

Introduction: Reflexives typically co-refer with a local NP (cf. (1)). Several prior studies examined whether such syntactic constraint is the only information available in the initial processing of the reflexive or other non-syntactic sources of information are also available. But, results reported have been mixed: Syntax only [1][2] vs. parallel access model [3]. The present study explores whether animacy manipulation of a grammatically illicit potential antecedent (*PA) causes a change in the online reference resolution of Korean reflexive *caki* ‘self’. Along with this, we further examine if the locality of a grammatical antecedent (√PA) affects antecedent retrieval and how it interacts with *PA’s* animacy. As presented in (2), *caki* strongly prefers a nonlocal subject antecedent even when a local subject can antecede it [4][5]. This seems somewhat counter-intuitive given previous reports of parsing advantage of a recent lexical target near a retrieval probe [6][7].

Experiment: To examine these issues, a self-paced reading experiment was conducted. As seen in (3a-d), two linguistic aspects of antecedent were manipulated: locality of √PA and animacy of *PA, based on the facts that *caki* only refers to a 3rd-person, animate antecedent and strongly prefers a nonlocal subject antecedent. Also, two sentences with no *PA (3e-f) were included in each set of experimental stimuli to see whether √PA’s locality influences online reading of *caki* when the parser need not consider *PA. 24 Korean native speakers (Male=11) were recruited. They were asked to read sentences word-by-word and then to answer subsequent Yes/No comprehension questions.

Results: Mean response accuracy was 82%. All data from one participant were excluded due to low accuracy (<70%). Within-subject statistical analyses of residual RTs were performed for each region of the sentence. In the pre-critical regions (R1~R5; Figure 1), no significant difference in RTs was found across conditions. In the critical region (R6) and the spillover region (R7), no main effect of “locality of √PA” was found (F<1). But, there was a significant main effect of “animacy of *PA” (p<0.05): *caki* was read faster when *PA* was inanimate than when animate, regardless of √PA’s structural position. No interaction effect in both regions (F<1). This suggests that the parser can access/use PA’s animacy feature during the initial parsing stage, contra the prediction of “Syntax only” approach to reflexive reference. The RT latency observed in the animate *PA conditions may result from competition for selection between √PA and *PA that match in animacy (i.e., a type of inhibitory interference). Finally, for sentences with no *PA, the locality manipulation did not induce significant changes in RT in all regions, which further displays no role of locality in the initial processing of *caki* (Figure 2).

Conclusion: The present study revealed no effect of PA locality but significant main effect of *PA’s* animacy in *caki’s* reference resolution, indicating that *caki* initially accesses non-syntactic cue(s) in retrieving its antecedent. Moreover, this further suggests that, using various syntactic and non-syntactic cues, *caki* “directly” retrieves its antecedent from memory, which can be nicely captured by the direct content-addressable memory model [8].
(1) John said that Tom hated himself.

(2) John-un Tom-i caki-i-lul silhasastak-k malhasas.

‘John said that Tom hated self.’

(3) a. [statement-t-TOP] [lawyer-i-NOM murderer-k-NOM be revealed when self-v-by-k-GEN client-ACC emotionally shriveled-COMP pointed out] Local √PA/Animate *PA

‘The statement pointed out that the lawyer made self’s client emotionally withdrawn when the murderer was revealed.’

b. [statement-t-TOP] [lawyer-i-NOM murderer-k-NOM be revealed when self-v-by-k-GEN client-ACC emotionally shriveled-COMP pointed out] Local √PA/Inanimate *PA

‘The statement pointed out that the lawyer made self’s client emotionally withdrawn when the murder motive was revealed.’

c. [lawyer-t-TOP] [statement-i-NOM murderer-k-NOM be revealed when self-v-by-k-GEN client-ACC emotionally shriveled-COMP pointed out] Nonlocal √PA/Animate *PA

‘The lawyer pointed out that the statement made self’s client emotionally withdrawn when the murder motive was revealed.’

d. [lawyer-t-TOP] [statement-i-NOM murderer-k-NOM be revealed when self-v-by-k-GEN client-ACC emotionally shriveled-COMP pointed out] Nonlocal √PA/Inanimate *PA

‘The lawyer pointed out that the statement made self’s client emotionally withdrawn when the murder motive was revealed.’

e. [statement-t-TOP] [lawyer-i-NOM self-v-by-GEN client-ACC emotionally shriveled-COMP pointed out] Local √PA (No *PA)

‘The statement pointed out that the lawyer made self’s client emotionally withdrawn’

f. [lawyer-t-TOP] [statement-i-NOM self-v-by-GEN client-ACC emotionally shriveled-COMP pointed out] Nonlocal √PA (No *PA)

‘The lawyer pointed out that the statement made self’s client emotionally withdrawn.’

Fig. 1 Residual RTs in each region of sentence with *PA (Error bar indicates standard error).

Fig. 2 Residual RTs in each region of sentence with no *PA (Error bar indicates standard error).