Korean Children's Acquisition of Reciprocal Sentences with Active and Stative Verbs

김 미 숙
상지대학교
meesook@sangji.ac.kr

I. Introduction

Considerable research on language acquisition has been conducted to examine whether children have certain linguistic knowledge and whether that knowledge is part of innate universal grammar. In this paper, I primarily focus on the interpretation of reciprocal anaphor *each other* with active and stative verbs. More specifically, I investigate whether the subtle differences in semantic interpretations of reciprocal sentences with active and stative verbs is found cross-linguistically, and whether knowledge of the different interpretations in reciprocal sentences caused by different types of verbs is present in young children's grammar.

Fiengo and Lasnik (1973) first observed the subtle differences in semantic interpretations of reciprocal sentences with active and stative verbs, as illustrated in (1) and (2).

(1) The men in the room are hitting each other.

(2) The men in the room know each other.

Example (1) with an active verb allows both weak and strong interpretations for reciprocity. That is, (1) is interpreted as meaning that every one of them in the room is hitting every other one (strong interpretation). In addition, one more interpretation of example (1) with an active verb is that when four people (A, B, C, and D) are engaged in the action, it does not require every member to hit each other member (weak interpretation). In contrast, example (2) with a stative verb allows only a weak interpretation for reciprocity. For example, (2) is only interpreted as meaning that every one of them in the room know every other one. That is, example (2) with a stative verb does not allow an interpretation of "A knows B, B knows A, C knows D, and D knows C".

Matsuo (2000) investigated whether English-speaking children aged 3 to 5 could distinguish two different types of verbs in the semantic interpretation of reciprocal sentences illustrated in (1) and (2). She found that young English children know the different interpretations in reciprocal sentences caused by different types of verbs at an early age. In addition, she claimed that this contrast in interpretations of reciprocal sentences with stative and active verbs is found across languages. Therefore, she suggests that

children's ability of understanding this semantic distinction must be innate.

Given that fact, it would be interesting to investigate whether Korean like other languages will show the subtle semantic differences of reciprocal sentences caused by two types of verbs. In addition, it would be interesting to see whether Korean-speaking children have the linguistic ability of the semantic distinction. Therefore, by testing Korean speakers of children aged 4-5 and adults, I investigate whether the contrast in interpretations of reciprocal sentences with stative and active verbs is universally found cross-linguistically, and whether this linguistic knowledge is innately given to children. In particular, I use the Truth Value Judgment Task (TVJT) methodology, which was developed by Crain and McKee (1985) and Crain and Thornton (1998) in their experimental study of L1 acquisition.

II. Experiments

In this section, I discuss two sets of experiments to investigate what kind of semantic intuitions children have in understanding reciprocal sentences with active and stative verbs. Experiment 1 investigates whether Korean children would know the basic meaning of *each other*. Experiment 2 examines whether both adult speakers of Korean and Korean children would have knowledge of the subtle semantic differences of reciprocal sentences with active and stative verbs.

2.1. Participants

The participants were 15 girls and 11 boys at Jecheon kindergarten. They ranged in age from 3;8 to 5;10 with a mean age of 4;5. 15 adults were also participated in this experiment. They were all undergraduate students of Sangji University.

2.2. Procedure

As in the experiment for English-speaking children by Matsuo (2000), Korean participants were tested using the Truth Value Judgment Task methodology (Crain & McKee, 1985; Crain & Thornton, 1998), which has been mainly used in the experimental study of L1 acquisition. This task involved some pictures and two experimenters. Unlike the previous study by Matsuo (2000), this experiment was administrated on a portable computer. Both the children and adults were shown an array of four pictures for each story. The first experimenter explained four pictures for each story and the second experimenter (Mickey) mentioned the target sentence containing reciprocal anaphor with active and stative verbs. At the end of the story, the second experimenter provided an answer. The subjects had to determine whether the second experimenter's statement was correct or not. Each subject was tested individually. Notice that Korean subjects were tested through similar materials as the ones used by Matsuo (2000).

2.3. Materials

The target sentences of Experiment 1 are given in (3) to (6):

(3) The cow and the horse gave a present to each other

Expected response: Yes

(4) The frogs washed each other.

Expected response: Yes

(5) The mother and the dog dressed each other.

Expected response: No

(6) The horse and the cow scratched each other.

Expected response: No

Example in (5), is the situation where the dog dressed the mother but the mother did not dress the dog. Instead, the mother dressed her son and the expected response is "no".

Next, the target sentences of Experiment 2 are given in (7) to (10):

(7) These kids could hear each other. (stative)

(8) These horses fed each other. (active)

(9) They know each other. (stative)

(10) These sheep combed each other. (active)

2.4. Results

The results of Experiment 1 show that both Korean-speaking children and adult speakers of Korean accepted the sentences when there were simple reciprocal sentences (89% vs. 100%). In addition, the results of Experiment 2 show that Korean-speaking children gave us a correct answer 87.5% of the time, whereas adults gave us a correct answer 90% of the time. That is, both children and adult speakers of Korean accepted strong and weak readings with reciprocal sentences containing active verbs, whereas they rejected weak readings with reciprocal sentences containing stative verbs. Even though children did slightly worse than adults in this experiment, no significant difference between children and adults was found ($p = .754$).

III. Conclusion

In this paper, I investigated whether Korean children would know the basic meaning of *each other*. Furthermore, I investigated whether both adult speakers of Korean and Korean children would have knowledge of the subtle semantic differences of reciprocal sentences with active and stative verbs. The results of Experiment 1 revealed that both Korean-speaking children and adult speakers of Korean accepted the sentences when there were simple reciprocal sentences (89% vs. 100%). In addition, the

results of Experiment 2 demonstrated that both children and adult speakers of Korean accepted strong and weak readings with reciprocal sentences containing active verbs, whereas they rejected weak readings with reciprocal sentences containing stative verbs. Based on the two sets of experiments, I conclude that children at an early age know not only the basic meaning of the reciprocal anaphor, *each other,* but also the semantic distinction between two different types of verbs, supporting that children's this ability must be innate.

References

Crain, S., & McKee, C. (1985). Acquisition of structural restriction on anaphora. In S. Berman, J. Choe & J. McDonough (Eds.), *Proceedings of the 15th North East Linguistic Society* (pp. 94-110). Amherst, MA: GLSA, University of Massachusetts.

Crain, S., & Thornton, R. (1998). Investigations in universal grammar: A guide to research on the acquisition of syntax and semantics. Cambridge, MA: The MIT Press.

Fiengo, R. and Lasnik, H. (1973). The logical structure of reciprocal sentences in English. *Foundation of Language, 9*, 37-57.

Hoji, H. (1985). *Logical form constraints and configulational structures in Japanese.* Unpublished doctoral dissertation, University of Washington.

Inhelder, B., & Piaget, J. (1964). *The early growth of logic in the child.* London: Routledge and Kegan Paul.

Kratzer, A. (1995). Stage-level and individual-level predicates. In G. N. Carlson and F. J. Pelletier (Eds.), *The Generic Book.* The University of Chicago Press, Chicago, Illinois.

MacWhinney, B. and Snow, C. (1990). The child language data exchange system: An update. *Journal of Child Language, 17*, 457-472.

Matsuo, A. (2000). Children's acquisition of reciprocal sentences with stative and active predicates. *Language Acquisition, 8(1),* 1-22.

May, R. (1977). *The grammar of quantification.* Unpublished doctoral dissertation, MIT.

May, R. (1985). *Logical form: Its structure and derivation.* Cambridge, MA: MIT Press.

Toratani, K. (1995). *Strong crossover in second language acquisition: Adult Japanese ESL learners' knowledge of principle C.* Unpublished manuscript, Ohio University.