3.

Go Mizumoto – *Kyushu University*

Can Japanese children postulate clause boundary by prosody?

gonchi@lit.kyushu-u.ac.jp

In this snippet, I discuss the role of prosodic information in young children's comprehension of language, and examine experimentally whether children can detect clause boundaries by using prosody.

The experiment was the following: first, three stimulus sentences which are ambiguous as to the position of the clause boundary were auditorily presented to the subjects (48 children, 47-82 months; 10 adults as a control group). After presenting each stimulus, the experimenter asked a question to the child. This question examined where the subjects postulate a clause boundary. (1) is an example of the stimulus sentences:

(1) usagisan-ga henna kao-o site tatteiru pandasan-o waraw-ase-masita
rabbit-NOM make a face standing panda-ACC laugh-CAUS-PAST
a. [$_S$ usagisan-ga henna kao-o site], tatteiru pandasan-o waraw-ase-masita
'The rabbit's making a face made the standing panda laugh. '
b. usagisan-ga [[$_S$ henna kao-o site tatteiru] pandasan-o] waraw-ase-masita
'The rabbit made the standing panda that is making a face laugh. '

(1) is ambiguous as to the position of clause boundary. In (1a), the first four words constitute a clause and modify the matrix predicate *waraw-ase-masita*. In this type of sentence, a clause-initial boundary is postulated sentence-initially, but no sentence internal left boundary exists. In (1b), the words from *henna* to *tatteiru* constitute a clause, and as a relative clause, this modifies *pandasan-o*. In this example, a left clause boundary is set sentence-initially and a clause-internal left boundary is postulated between *usagisan-ga* and *henna*. In each reading, auditory stimuli were prepared with the following properties in clause boundary position: final segments were lengthened, pitch resetting occurred, and a pause was set. After presenting the stimuli, the experimenter asked the question "who made a face?" If the subjects identify the clause boundary correctly, they should answer *usagisan* in the case corresponding to (1a) and *pandasan* in the case corresponding to (1b).

The result of the experiment was that the subjects answered correctly to (1a) type stimuli (a percentage of correct answers 84.7%, cf. 100% in adults) but most subjects answered incorrectly in (1b) type stimuli (29.2%, cf. 100% in adults).

This result leads us to some conclusions:

(i) (1a) type postulation of clause boundaries is preferred;

(ii) prosodic information for the non-preferred reading is not working. (In other words, prosodic cues are unavailable in children's sentence comprehension.);

(iii) The unavailability of prosodic cues suggests that young children's comprehension of sentences could be performed on the basis of some strategy which is formed earlier in the course of language acquisition (such as word order (Bever (1970), Hayashibe (1975)) or some innate knowledge of language.

To examine which factor induces the (1a) preference is germane to the problem of language learnability. By verifying that this preference did not come into existence by experience, e.g., using the frequency of word order as a clue (Matthews *et al.* (2005)), it could be revealed what the innate knowledge of language is.

For more information about our experiment, see Mizumoto (2006) (written in Japanese) or please access the following URL (a short manuscript written in English): http://www.lit.kyushu-u.ac.jp/linguist/doc/miz/Snippets_exp.pdf.

References

Bever, T. G. (1970) "The Cognitive Basis for Linguistic Structures," in *Cognition and the Development of Language*, ed. J.R. Hayes. New York: Wiley, 279-362.

Hayashibe, H. (1975) "Word order and particles: A developmental study in Japanese." *Descriptive and Applied Linguistics* 8, 1-18.

Matthews, D., E. Lieven, A. Theakston and M. Tomasello (2005) "The Role of Frequency in the Acquisition of English Word Order." *Cognitive Development* 20, 121-136.

Mizumoto, G. (2006) "Yojino bunrikai ni okeru inritsujoho no yakuwari" (The Role of Prosody in Children's Sentence Comprehension), paper presented at the First Regular Meeting in the Year 2006 of the Fukuoka Linguistic Conference, Fukuoka, Japan, 15 April 2006. (Available from the following URL: http://www.lit.kyushu-u.ac.jp/linguist/doc/miz/FLC_mizumoto_06_04_15.pdf)