The Acquisition of the Island Effect in Japanese Right Dislocation

Introduction This study investigates whether Japanese children are sensitive to the island effect in Japanese Right Dislocation (JRD), which has not been examined before. Japanese canonical word order is SOV as in *John-ga LGB-o yondayo* 'John read LGB.' In JRD, a constituent appears to the right of a matrix verb like *John-ga yondayo*, *LGB-o* 'John read LGB.' It has been reported that Japanese right dislocation shows the island effect as shown in (1) (Simon 1989, Endo 1996, Abe 1999, 2019, Tanaka 2001, Takita 2011, 2012).

(1) *Hanako-ga $[[\Delta \text{ inu-o hirot-ta}] \text{ hito}]-\text{o sit-teiru-yo, ano kooen-de.}$ Hanako-Nom dog-Acc pick up-Past person-Acc know-Prg-Prt that park-in 'Hanako knows [the person [who picked up a dog Δ]], in that park.

(Takita, 2012, p. 150)

On the other hand, Japanese right dislocation allows a long-distance interpretation as in (2).

(2) John-ga [Mery-ga yon-da to] it-ta-yo, LGB-o. John-Nom Mary-Nom read-Past Comp say-Past-Prt LGB-Acc 'John said that Mary read LGB.'

(Tanaka, 2001, p. 556)

Previous Studies Some studies explain that scrambling causes the violation of the island condition in JRD. Double preposing approach (3) predicts scrambling of XP and the remnant movement of YP (Kurogi 2007, Miyata 2018). Repetition + deletion approach (4) predicts two near-identical clauses. In the second clause, scrambling of XP takes place and the rest of YP is deleted (Kuno 1978, Abe 1999, Tanaka 2001, Yamashita 2008, Takita 2011).

$$(3) [_{ZP} XP_i [_{YP...t_i...V}]] \rightarrow [_{WP} [_{YP...t_i...V}]_{j, [ZP} XP_i t_j]]$$

$$(4) [_{YP...\Delta_i...V}], [_{ZP} XP_i [_{YP...t_i...}]]$$

$$(Takita, 2011, p. 381)$$

Sugisaki and Murasugi (2017) revealed that Japanese children (4;11-6;11) have the knowledge of long-distance scrambling and its island effect. In their study, scrambled elements overtly appeared at the beginning of the sentences. In our study, we investigated whether children know the island effect in JRD, where a right-dislocated element appears at the end of the sentence.

Experiment The subjects were 16 mono-lingual Japanese children (5;0-6;10, mean: 5;8). In the experiment, a child listened to short stories with four pictures on a laptop computer as in the sample pictures in (5).

(5) The sample pictures in the experiment



In this sample story, the rabbit caught the butterfly in the beach and let it go in the flower garden. The rabbit said the episode to the bear in the park. At the end of the story, a famous anime character in the screen explained the story as shown in (6) and (7).

- (6) Usagisan-ga tukamae-ta choucho-o nigasi-ta-yo, umi-de. Rabbit-Nom catch-Past butterfly-Acc release-Past-Prt beach-in 'The rabbit let the butterfly that she caught go, in the beach.'
- (7) Usagisan-ga choucho-o nigasi-ta to it-ta-vo. ohanabatake-de. Rabbit-Nom butterfly-Acc release-Past Comp say-Past-Prt flower garden 'The rabbit said that she let the butterfly in the garden go.'
 - 'The rabbit said in the garden that she let the butterfly go.'

The child judged whether the explanation was true or false. If children are sensitive to the island effect, we expected that children reject (6) because the right dislocated element umi-de 'in the beach' modifies only the matrix verb nigasi-ta 'released.' It cannot modify tukamae-ta 'caught' in the complex NP because of the island effect. On the other hand, (7) allows two possible answers. When the right-dislocated element modifies the verb in the embedded clause, the expected answer is true. When it modifies the matrix verb, the expected answer is false.

Results and Discussion The results of the experiment are shown in Table 1.

	Complex NP		Embedded clause	
Judgement	True	False	True	False
Grammaticality	Incorrect	Correct	Correct	Correct
Children (N=14)	14.3% (8/56)	85.7% (48/56)	82.1% (46/56)	17.9% (10/56)
Adults (N=12)	6.3% (3/48)	93.8% (45/48)	45.8% (22/48)	54.2% (26/48)

Table 1: The children and adults' judgment in the experiment

The results of 2 children at the age of five were excluded because they did not understand what they were asked in the experiment. According to the table, children disallowed interpreting the right-dislocated elements in the complex NPs 85.7% of the time (48/56). As for (7), the children interpreted the right-dislocated elements in the embedded clauses 82.1% of the time (46/56). This shows that children know that JRD allows long-distance interpretation even though right-dislocated elements are closer to main verbs than embedded verbs on the surface order. The results show that the children accepted the long-distance interpretation at the high rates when the sentence included the embedded clause. On the other hand, the children did not accept the interpretation in which the rightdislocated elements modify verbs in the complex NPs. Therefore, the results of our experiment show that Japanese children are sensitive to the island effect in JRD.

Selected References: Abe, J. 1999. "On Directionality of Movement: A Case of Japanese Right Dislocation," Abe, J. 1999. "On Directionality of Movement: A Case of Japanese Right Dislocation," ms., Nagoya University. Abe, J. 2019. "Two Types of Japanese Right Dislocation under the Bi-Clausal Analysis," *Proceedings of WAFL 11*. Kuno, S. 1978. *Danwa-no bunpoo* [The grammar of discourse]. Tokyo: Taishukan-shoten. Kurogi, A. 2007. *Nihongo Uhooteni-bun no Sahoo-idoo Bunseki* [A Leftward Movement analysis of Japanese Right Dislocation]. Doctral dissertation, Tohoku University. Takita, K. 2011. Argument ellipsis in Japanese right dislocation. *Japanese/Korean Linguistics* 18, 380-391. Tanaka, H. 2001. "Right dislocation as Scrambling," *Journal of Linguistics* 37, 551-579. Sugisaki, K and K. Murasugi. 2017. Scrambling and its locality constraints in child Japanese. In *Studies in Chinese and Japanese Language Acquisition: In honor of Stephen Crain*. ed. by M *in Chinese and Japanese Language Acquisition: In honor of Stephen Crain,* ed. by M. Nakayama, Y. Su and A. Huang, 147–164. Amsterdam/Philadelphia: John Benjamins.