Children's Acquisition of Scope Assignment in Non-Canonical Word Order: (Anti-)Reconstruction Properties in Right Dislocation and Clefts in Japanese

Introduction: In this study, we experimentally show that Japanese children allow reconstruction of a right-dislocated NP in Japanese right dislocation (JRDs) while they disallow the reconstruction of a focused NP in Japanese cleft constructions (JCs) as Japanese adults do, although JRDs and JCs have very similar word order, namely, SVO. Our finding indicates that Japanese children's scope assignment in non-canonical word order sentences (i.e., SVO) is also based on syntactic positions/derivations as adults' scope assignment.

In the literature, the anti-reconstruction property is reported in JCs (Mihara and Hiraiwa 2006, Hiraiwa and Ishihara 2012). As shown in (1), an NPI cannot appear in the focus position of JC, which shows that an NPI cannot be c-commanded by negation on its surface structure and it cannot be reconstructed in the presuppositional clause in JCs. Shimada et al. (2019) have shown that Japanese children are sensitive to the anti-reconstruction property in JCs. However, there is a possibility that the children assigned the wider-scope interpretation to the focused NP since it appears right-most. On the other hand, in JRDs in (2), NPIs can appear in the position following the verb (Takita 2011, a.o.). This means that the right-dislocated element can be reconstructed in JRDs, unlike the element in the focus position in JCs. In our study, we focused on this difference between JRDs and JCs and examined whether children know the (anti-)reconstruction properties of JRDs and JCs.

Experiment: Our experiment examined the (anti-)reconstruction of the universally quantified objects with *zenbu* 'all' under negation in JCs and JRDs. The subjects were 20 monolingual Japanese children and 23 Japanese adults. They were tested in two groups, the JC group (4;11-6;6, mean=5;8) and the JRD group (4;8-6;6, mean=5;9) by the Truth Value Judgment Task. The details of the subjects and the test items in each group are in Table 1. In the JRD group, we examined whether children accepted either neg>all or all>neg readings to JRDs. The scenario and the test sentence are in (3) and (4). If the children were able to give the neg>all reading to JRD in (4), they were expected to accept this. If the children could only give the all>neg reading to (4), they were expected to reject it. In the JC group, on the other hand, children were expected to give only the all>neg readings in (5), according to Shimada et al. Although the focus elements in JCs could appear without Case markers, we added the accusative Case markers to the focus to make them parallel to the right-dislocated elements with Case markers in JRDs. Furthermore, to examine whether children gave the all>neg reading to both JRDs and JCs, we tested (7) and (8) with the scenario in (6).

Results and Discussion: The results are shown in Table 2. The acceptance rates of the all>neg readings for JCs and JRDs were high: 90.0% (18/20) for JCs and 100% (20/20) for JRDs. This shows that the children highly accepted all>neg readings for JCs and JRDs as well as adults did. The acceptance rate of the neg>all reading for JCs was only 10.0% (2/20), which shows that all the children except for one correctly rejected the neg>all readings in JCs. In contrast, the acceptance rate of the neg>all readings in JRDs was 60.0% (12/20). This rate may not seem to be very high, but it is quite natural since JRDs allow both neg>all and all>neg readings. (Adults also accepted neg>all readings in JRDs 54.5% of the time (12/22), which rate is very similar to that of children.) This difference between JCs (10.0%) and JRDs (60.0%) was statistically significant ($F(1,18)=6.818$, $p=0.018$ ($p<.05$)). These results indicate that Japanese children's scope assignment is not based on the word order of JRDs and JCs (SVO) but on syntactic positions/derivations even when a sentence contains non-canonical word order.

(1) **JC with NPI in the focus**

*[Naoya-ga denwasi-nakat-ta no]-wa dare-ni-mo da.
Naoya-Nom call-Neg-Past C -Top who-Dat-NPI Cop
'(Lit.) It was anyone that Napya didn't take.' (Hiraiwa and Ishihara 2012, p. 171)

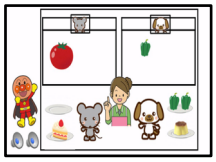
(2) **JRD with NPI in the right-dislocated position**

Taroo-ga Δ_i yom-ana-katta-yo, LGB-sika$_i$.
Taroo-Nom read-Neg-Past-Prt LGB-only
'(Lit.)Taroo read Δ_i, only LGB$_i$.' (Takita 2011, p. 383)

Table 1: Children's ages and the test items

JC group (N=10)	JRD group (N=10)
Age: 4;11-6;6 (Mean=5;8)	Age: 4;8-6;6 (Mean=5;9)
Test Items: (4) and (7)	Test Items: (5) and (8)

(3) **Scenario:** (Dog's turn) There were three green peppers and a pudding. The dog took the pudding and two green peppers on the dog's plate, but it left one of the green peppers. ('neg>all' reading)



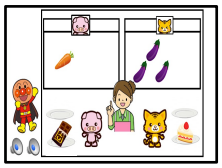
(4) **Test Sentence: Cleft**

Inu-san-ga tora-nakat-ta no wa piiman zenbu-o da yo.
dog-Nom take-Neg-Past C Top green pepper all-Acc Cop Prt
'It is all the green peppers that the dog didn't take.' (all>neg, *neg>all)

(5) **Test Sentence: Right Dislocation**

Inu-san-ga tora-nakat-ta yo, piiman zenbu-o.
dog-Nom take-Neg-Past Prt green pepper all-Acc
'The dog didn't take, all the green peppers.' (all>neg, neg>all)

(6) **Scenario:** (Cat's turn) There were three eggplants and a piece of cake. The cat took a piece of cake on the cat's plate, but it left all the eggplants. ('all>neg' reading)



(7) **Test Sentence: Cleft**

Neko-san-ga tora-nakat-ta no wa nasu zenbu-o da yo.
cat-Nom take-Neg-Past C Top eggplant all-Acc Cop Prt
'It is all the eggplants that the cat didn't take.' (all>neg, *neg>all)

(8) **Test Sentence: Right Dislocation**

Neko-san-ga tora-nakat-ta yo, nasu zenbu-o.
cat-Nom take-Neg-Past Prt eggplant all-Acc
'The cat didn't take, all the eggplants.' (all>neg, neg>all)

Table 2: The acceptance rates of 'neg>all' or 'all>neg' readings

	JC group		JRD group	
	'neg>all' (4)	'all>neg' (7)	'neg>all' (5)	'all>neg' (8)
Children JC (N=10), JRD (N=10)	10.0% (2/20)	90.0% (18/20)	60.0% (12/20)	100% (20/20)
Adults JC (N=12), JRD (N=11)	0.0% (0/24)	100% (24/24)	54.5% (12/22)	94.5% (21/22)

Selected References: Hiraiwa, K. and S. Ishihara 2012. *Syntax* 15: 142-180; Shimada et al. 2019. *BUCLD* 43; Takita, K. 2011. *Japanese/Korean Linguistics* 18, 380-391.