The Lack of Agent-Orientation for Zibun and Its Implications in L1 Acquisition

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**Aim:** This study demonstrates that Japanese children correctly choose an internal argument (Theme argument) of full unaccusatives as the antecedent of a Japanese anaphor zibun while they do not choose a *ni*-phrase (Agentive argument) as zibun’s antecedent. This indicates that, although there is a possibility that Japanese children depend on thematic roles of DPs that are assigned to external arguments (e.g., Agent / Experiencer) in choosing zibun’s antecedent (henceforth what I call ‘agent-orientation’), they do not adopt this option. This result suggests that the possibility of the agent-orientation for zibun is excluded from possible grammars due to some guidance by innateness. In addition, the current study casts doubt on the previous studies’ view that internal arguments of unaccusatives in child Japanese initially remain in the direct object position unlike adults (Miyamoto et al. 1999, Murasugi & Watanabe 2009).

**Background:** The Japanese anaphor zibun is subject-oriented (Kuroda 1965) as in (1). Only the (nominative-marked) subject can be zibun’s antecedent, but the (dative-marked) indirect object cannot be.

(1) Taro,-ga Hanako,-ni [zibun,,-gen e]-o mise-ta
Taro-NOM Hanako-DAT self-GEN picture-ACC show-PAST
‘Taro showed Hanako a picture of zibun’.

Otsu (1997) showed that Japanese children at age 3-5 correctly choose zibun’s antecedent in (1). In addition, Sano et al. (2014) demonstrated that Japanese children at around age 5 do NOT choose the nominative-marked object as zibun’s antecedent in (2). Their observation indicates that Japanese children do not depend on the existence of the nominative Case marker *ga* in choosing zibun’s antecedent.

(2) Inu,-ni-wa buta,-ga [zibun,,-gen no kami-no naka-de] itiban omosiro-i
dog-DAT-TOP pig-NOM [self-GEN class-GEN in] most interesting-PRES
‘The dog is interested the most in the pig’s class.’

These earlier studies seem to indicate that Japanese children at around age 5 have already acquired the subject-orientation property of zibun.

**Child-directed Speech:** However, concerning the children’s adult-like performance in (1) and (2), there is another possibility; they depend on thematic roles of DPs that are assigned to external arguments such as ‘Agent’ or ‘Experiencer’ (i.e., the agent-orientation). To what extent is the agent-orientation likely? To answer this question, the current study examines child-directed speech in corpora of four Japanese-speaking children at age roughly from 3 to 5 in the CHILDES database. In total, we found 149 Mothers’ utterances with zibun out of nearly 100,000 utterances in total. However, out of the 149 Mothers’ utterances with zibun, there was no instance of zibun with non-agentive antecedents. In other words, there is no instance of counterexamples to the agent-orientation. Thus, if Japanese children acquire the grammatical knowledge about zibun by experience-based learning, it is possible that zibun in child Japanese is not subject-oriented but agent-oriented unlike adults. Hence, the results of the experiments given in Otsu (1997) and Sano et al. (2014) could be accounted for by the agent-orientation. In addition, according to Miyamoto et al. (1999) and Murasugi & Watanabe (2009), internal arguments of unaccusatives in child Japanese initially remain in the direct object position. How do Japanese children acquire the knowledge regarding the movement of internal arguments? The word order could not be decisive input for the movement in Japanese as shown in (3) since the word order does not change whether or not there is object-to-subject movement in SOV languages unlike in SOV languages.

(3) Unaccusatives

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<td>[TP DP,T-NOM [VP t V ]]</td>
<td>[TP [VP DP-NOM V ]]</td>
<td>[TP DP,T-NOM [VP V t ]]</td>
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According to Miyamoto et al. (1999) and Murasugi & Watanabe (2009), internal arguments of unaccusatives in child Japanese remain in the direct object position at first. Then, since they do not receive decisive input for the object-to-subject movement until at least at age 5, it is expected that internal arguments of unaccusatives still remain in-situ at even age 5 under the experience-based learning scenario. Assuming that the subjecthood of internal arguments of (full) unaccusatives is assigned at a higher position (e.g., vP spec or TP Spec) than the direct object position (Saïto 2009, Ura 2011), internal arguments remaining in the direct object position do not have the subjecthood. In other words, internal arguments of unaccusatives in child Japanese are expected not to have the subjecthood at even age 5.

**Experiment:** In order to address this issue, I conducted an experiment. The test sentences are given in (4) and (5), which are full unaccusative sentences (Sano et al. 2001).

(4) Target sentence: Canonical word order with zibun
   
   Zousan-ga butasan-ni [zibun_i/-j_no niwa-de] tsukamat-ta  
   elephant-NOM pig-DAT self-GEN garden-in catch (Unaccusative)-PAST  
   ‘The elephant, was caught by the pig in zibun_i/-j’s garden.’

(5) Target sentence: Scrambled word order with zibun
   
   Butasan-ni zousan-ga [zibun_i/-j_no niwa-de] tsukamat-ta  
   pig-DAT elephant-NOM self-GEN garden-in catch (Unaccusative)-PAST  
   ‘The elephant, was caught by the pig in zibun_i/-j’s garden.’

In (4), the nominative-marked DP, which is the Theme argument, can be zibun’s antecedent. In contrast, the ni-phrase (i.e., the dative-marked DP), which is the Agentive argument, cannot be. If zibun in child Japanese is agent-oriented and the internal argument does not have the subjecthood, then it is predicted that children should not choose the Theme argument as zibun’s antecedent. Rather, if zibun is agent-oriented, then it is predicted that they wrongly choose the Agentive argument as zibun’s antecedent. The scrambled word order sentence given in (5) was also tested in order to investigate whether the word order affects children’s interpretation. If children choose zibun’s antecedent based on the word order (e.g., the 1st NP in the sentence), they choose the Theme argument in (4) but they choose the Agentive argument in (5) as zibun’s antecedent. I examined 40 Japanese children using Truth-Value Judgement Task. They were divided into two groups. One group (Group 1: N=20, 5;3-5;11, mean 5;7) was tested to investigate whether they choose the Theme argument as zibun’s antecedent. The other group (Group 2: N=20, 5;3-6;4, mean 5;9) was tested to investigate whether they do NOT choose the Agentive argument as zibun’s antecedent. There were two target trials for each participant. The results are given in Table 1. The target sentences such as (4) and (5) were given in the situation where the elephant was caught by the pig in the elephant’s garden (for Group 1) or in the pig’s garden (for Group 2).

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<tr>
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<th>Group 1: Matching Condition</th>
<th>Group 2: Mismatching Condition</th>
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<tr>
<td>Correct Answer</td>
<td>Canonical = (4)</td>
<td>Scrambled = (5)</td>
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<tr>
<td></td>
<td>Accept</td>
<td>Accept</td>
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<tr>
<td>Correct Response Rate</td>
<td>32/40 (= 80%)</td>
<td>37/40 (= 92.5%)</td>
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<td>35/40 (= 87.5%)</td>
<td>32/40 (= 80.0%)</td>
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<td>Total</td>
<td>69/80 (86.2%)</td>
<td>67/80 (83.7%)</td>
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As shown in Table 1, Japanese children at around age 5 correctly choose the Theme argument as zibun’s antecedent in (4) and (5) while they do NOT choose the agentive argument as zibun’s antecedent like adults.

**Conclusion:** Despite the lack of the counterexamples to the agent-orientation for zibun in the input from adults, Japanese children do not adopt the agent-orientation. This suggests that the agent-orientation for zibun is excluded from possible grammars due to some guidance by innateness. Furthermore, according to this study, given that the internal argument in (4) and (5) is a subject in child Japanese, children have already acquired the knowledge regarding the object-to-subject movement despite the lack of decisive input from adults at least until around age 5. This observation casts doubt on the previous studies’ view that internal arguments of unaccusatives in child Japanese initially remain in the direct object position.