The Structure of Sluicing and the Availability of Strict and Sloppy Readings in Child Japanese

Akari Ohba, Hiroyuki Shimada, and Kyoko Yamakoshi

1. Introduction

In the literature, syntactic analyses of sluicing have received much attention within the framework of generative grammar since Ross (1969). According to Merchant (2006: 271), sluicing is an ellipsis phenomenon “in which the sentential portion of a constituent question is elided, leaving only a wh-phrase remnant,” as illustrated in (1).

(1) Jack bought something, but I don’t know \[CP what; C^0 \[TP he bought\].

(Merchant 2006, p. 273)


(2) Abby-ga dareka-o mi-ta ga,
Abby-Nom someone-Acc see-Past but
watasi-wa dare ka wakaranai.
I-Top who Q know.not
‘Abby saw someone, but I don’t know who.’ (Merchant 2001, p. 84)

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According to Shimoyama (1995), Nishiyama, Whitman and Yi (1995), Kizu (1997, 2005), Saito (2004), and Hiraiwa and Ishihara (2012), among others, the syntactic derivation of Japanese sluicing as in (2) is quite different from that of English sluicing. In their view, Japanese sluicing such as (2) derives from the ellipsis of cleft constructions. Thus, under this view, it is predicted that there should be no preschoolers who have acquired sluicing, but not ellipsis and/or cleft constructions.

In the acquisition literature, Sugisaki (2013) and Otaki (2014) reported that Japanese preschoolers have acquired knowledge of argument ellipsis, and Fujiwara (2017) also claimed that Japanese children have knowledge of VP-ellipsis. In short, Japanese children seem to have adult-like knowledge of ellipsis at around age five. Furthermore, Ohba and Yamakoshi (forthcoming) reported that Japanese children at around age five showed adult-like behavior with respect to Japanese cleft constructions. In light of these acquisition studies, it is expected that Japanese children should have adult-like knowledge of sluicing as well since they seem to have knowledge of ellipsis and cleft constructions.

To our knowledge, however, the acquisition studies of Japanese sluicing have received much less attention. Although Sugisaki (2016) examined Japanese children’s sensitivity to the ban on the voice mismatches in sluicing and reported that Japanese children seem to be sensitive to the Syntactic Identity Condition on ellipsis (Merchant 2013), it is still inconclusive whether Japanese children have the same syntactic knowledge of sluicing as adults have. In particular, as we will see, Japanese standard sluicing has two types of underlying structures: One involves pro, and this derivation forces a strict reading of anaphor. In contrast, the other derivation does not involve pro, and this derivation yields a sloppy reading, but not strict reading of the anaphor. Hence, it would be intriguing to see whether Japanese preschoolers have knowledge of the two types of underlying structures in Japanese standard sluicing, which allows both strict and sloppy readings of the anaphor zibun ‘self.’ Furthermore, we will compare children’s interpretations of Japanese standard sluicing with that of Japanese pronominal sluicing, the latter of which only allows strict readings of the anaphor zibun ‘self.’

This study reports the results of our experiment, which examined Japanese children’s interpretations of sluicing. We will show that Japanese children at around age five correctly allow both of the underlying structures of Japanese (standard) sluicing. Given the previous syntactic analyses of Japanese sluicing and the acquisition studies of Japanese ellipsis phenomena and cleft constructions, this observation is consistent with the expectation for the course

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1 As for the acquisition of sluicing in other languages, Wood (2009) and Hyams, Mateu and Winans (2017) examined the acquisition of sluicing in English, and Lindenbergh et al. (2015) examined the acquisition of sluicing in Dutch.
of language development, and the results of this study provide a piece of supporting evidence for the observations in Sugisaki (2016).

The organization of this paper is as follows. We will briefly review the previous studies of the syntax of Japanese sluicing in Section 2. In Section 3, we will survey Sugisaki (2016), which reports that Japanese children are sensitive to the Syntactic Identity Condition with respect to sluicing. In Section 4, we will report the details of our experiment. Finally, in Section 5, we will discuss the experimental results and conclude this paper.

2. Previous Studies on the Syntax of Japanese Sluicing

As noted in Section 1, we focus on two types of sluicing in Japanese: Japanese pronominal sluicing (JPS) and Japanese standard sluicing (JSS).

(3) is an example of JPS:

(3) Japanese pronominal sluicing (JPS)

Taroo-wa zibun-ga doko-de sikarareru ka sitteiru ga,
Taroo-Top self-Nom where-at is.scolded Q know but

Hanako-wa [ sore-ga doko-de (da) ka] siranai.
Hanako-Top it-Nom where-at Cop Q not.know

‘Though Taroo knows where he will be scolded, Hanako doesn’t know where it is (= where Taroo will be scolded).’ (Takita 2009, p. 579)

In (3), the pronoun sore-ga ‘it-Nom’ in the second conjunct only refers to the place where Taroo will be scolded, not the place where Hanako will be scolded. This shows that JPS only allows the strict reading.

Given that Japanese allows a phonologically null pronoun (i.e., pro), it is plausible to consider that the pronoun sore can be substituted by pro. In fact, Merchant (2006: 284) suggested this analysis for Japanese standard sluicing (JSS), as shown in (4):

(4) Japanese Standard Sluicing (JSS)

Taroo-wa zibun-ga doko-de sika-reru ka sitteiru ga,
Taroo-Top self-Nom where-at is.scolded Q know but

Hanako-wa [pro doko-de (da) ka] siranai.
Hanako-Top where-at Cop Q know.Neg

‘Though Taroo knows where he will be scolded, Hanako doesn’t know where Taroo/Hanako will be scolded.’ (based on Takita 2009, p. 578, 580)

2 Nakao and Yoshida (2005) propose that JPS is derived from a deletion of a cleft. See Nakao and Yoshida (2005) for the details of their analysis.
It is natural to consider that pro in (4) refers to the place where Taroo will be scolded, based on the interpretation in JPS in (3). Thus, the pro analysis can explain why (4) allows the strict reading, i.e., ‘Hanako doesn’t know where Taroo will be scolded.’

However, JSS also allows a sloppy reading. The availability of sloppy readings probably cannot be accounted for by a structure involving pro, as pointed out by Saito (2004) and Takita (2009). To explain the availability of sloppy readings in JSS, Nishiyama, Whitman and Yi (1995), Shimoyama (1995), Kizu (1997, 2005), Takita (2009), Hiraiwa and Ishihara (2012) and others, suggest that JSS is derived from the structure involving a cleft sentence as in (5):

(5) Taroo-wa zibun-ga doko-de sikarareru ka sitteiru ga,
    Taroo-Top self-Nom where-at is.scolded Q know Neg

    Hanako-wa [ zibun-ga sikarareru no wa doko-de (da)] ka siranai.
    Hanako-Top self-Nom is.scolded C Top where-at Cop Q know.Neg

‘Though Taroo knows where Taroo will be scolded, Hanako doesn’t know where Taroo/Hanako will be scolded.’ (Takita 2009, p. 580)

In (5), the bracketed part zibun-ga sikarareru no wa doko-de (da) ‘self-Nom is.scolded C Top where-at Cop’ is the cleft sentence. Then, the Topic phrase which demonstrates a presupposition, zibun-ga sikarareru no wa ‘self-Nom is.scolded C Top,’ is deleted, and only the focus doko(-de) ‘where-at’ and the optional copula da are retained in JSS. The cleft analyses have been proposed because the copula da appears optionally in JSS.

The cleft analysis can explain the availability of the sloppy reading, unlike the pro analysis, because zibun ‘self’ in the second conjunct in (5) can refer to the subject of the second conjunct, Hanako.

Could the cleft analysis explain the availability of strict readings in JSS, in addition to sloppy readings? We suppose that the cleft analysis cannot account for the availability of strict readings because zibun ‘self’ in the second conjunct may not refer to the subject of the first conjunct, Taroo, in (5). This can be attested by the fact that the overt counterpart of JSS does not have a strict reading. Therefore, we assume a structure involving pro for the strict readings of JSS and a structure derived from clefts for the sloppy readings of JSS.

In the next section, we report on an experiment to investigate whether children acquiring Japanese have knowledge of the two underlying structures of JSS by examining whether children have access to both the strict and sloppy readings of JSS. Furthermore, by comparing the results for JSS with those for JPS, we will be able to show that Japanese children do not always give strict and sloppy readings for all kinds of sluicing. Rather, we will show that the children actually distinguish strict and sloppy readings of JSS based on the two different underlying structures: pro and clefts.
The acquisition of sluicing in English and that of Dutch have been examined in several studies such as Wood (2009), Lindenbergh et al. (2015), and Hyams, Mateu and Winans (2017). In this section, we review a previous study on the acquisition of sluicing in Japanese: Sugisaki (2016).

Sugisaki showed that 4- to 6-year-old children acquiring Japanese respected a constraint on sluicing, the ban on voice mismatches between the sluiced part and its antecedent. According to Merchant (2013), elided material and its antecedent must match in voice in sluicing. If the antecedent clause is in the passive voice, then the elided clause must also be in the passive voice, and vice versa. Therefore, (6) is ungrammatical, because the antecedent is in the passive voice, but the elided part is in the active voice.

(6) *Joe was murdered, but we don’t know who < murdered Joe>.

(Merchant 2013, p. 81)

Now let us look at Sugisaki’s test sentences in Japanese:

(7) Dareka-ni kaminoke-o hippar-are-ta tte raionsan-ga itteta kedo, [dare-ni ka] wakaru ?
who-to/ by Q know
‘The lion said that his hair was pulled by someone, but do you know to whom/ by whom?’

(8) Dareka-ga kaminoke-o hippatta tte raionsan-ga itteta kedo, [dare-ni ka] wakaru ?
who-to Q know
‘The lion said that someone pulled his hair, but do you know to whom?’

(Sugisaki 2016, p. 354)

In (7) and (8), the wh-remnants in the sluiced parts in the brackets contain a dative marker, ni. The use of ni in Japanese is ambiguous: it can be used like to in English, expressing the Goal or like by in English, indicating the agent of a

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3 According to Merchant (2013), the ban on voice mismatches is a constraint on clausal ellipsis and it does not apply to other ellipsis constructions such as VP ellipsis as in (i):
(i) The system can be used by anyone who wants to <use it>. (Merchant 2013, p. 79).
passive sentence. In (7), *dare-ni* ‘who-to/by’ can be interpreted either as the Goal of the verb *say* in the matrix clause or as the agent of the passivized verb *pulled* in the embedded clause. On the other hand, in (8), *dare-ni* ‘who-to’ can only be interpreted as the Goal of the verb *say*. If *dare-ni* is interpreted as the agent of the passive sentence in (8), this causes a voice mismatch because its antecedent is in the active voice. Thus, Sugisaki tested whether the children interpreted *dare-ni* as the Goal of the verb *say* and whether they were sensitive to the ban on voice mismatches in sluicing.

Sugisaki showed that Japanese-speaking children between the ages of 4 and 6 interpreted *ni*-phrases in sluicing like (8) as the Goal of the verb *say* in the matrix clause 91.7% of the time, whereas the children interpreted *ni*-phrases in sluicing like (7) as *by*-phrases associated with the embedded verbs 100% of the time. Hence, Sugisaki proposed that the children at this age have already acquired the ban on voice mismatches in sluicing. As such children have knowledge of this constraint on sluicing, we expect that they also interpret Japanese standard sluicing in an adult-like way.

4. Experiment and Results

4.1. Goal of the Experiment

The goal of our experiment is to examine whether children acquiring Japanese know that Japanese standard sluicing (JSS) has two underlying structures, one with a null pronoun *pro* and the other a cleft. In order to investigate this issue, we tested two types of sluicing in Japanese: Japanese standard sluicing (JSS) and Japanese pronominal sluicing (JPS). These constructions differ in terms of the availability of sloppy readings as discussed in Section 2: JSS allows both strict and sloppy readings, whereas JPS allows only strict readings. If children are aware of the two underlying structures in JSS, we predict that they will accept both strict and sloppy readings for JSS, but they will only accept strict readings for JPS.

4.2. Subjects and Method

The subjects in our experiment were 18 Japanese monolingual children aged from 4;3 to 6;11 (Mean: 5;6), who were in a kindergarten in Shizuoka Prefecture, and 12 Japanese college students in Tokyo. We tested the children individually in a quiet room. We divided the subjects into two groups, and presented only Japanese standard sluicing (JSS) to nine children (4;3-6;9, mean=5;6) and six adults in Group 1, and only Japanese pronominal sluicing (JPS) to nine children (4;8-6;11, mean=5;6) and six adults in Group 2. The reason for dividing the subjects into two groups is that JSS and JPS are quite similar except for the presence of the pronoun *sore-ga* ‘it-Nom’ in JPS. Because of their similarity, we divided the subjects into two groups so that the interpretations of JSS and JPS do not affect each other.
We used the Truth Value Judgment Task (Crain and Thornton 1998). The procedure of the experiment is as follows. First, we showed a short movie to each child and to one of the experimenters who played the role of a puppet. Then, the puppet, who was watching the movie with the child, was asked to describe the story. After the puppet described the story, the child was asked to judge whether the puppet’s utterance was correct or incorrect. Before testing sluicing, we conducted a practice session.4

Next, we presented test sentences and sample stories in the main session. In addition to the two types of test sentences, i.e. JSS and JPS, there were two types of stories. Type 1 stories made strict readings true, while Type 2 stories made sloppy readings true. Each story had one test sentence to judge at the end. We included two JSS and two JPS with Type 1 stories, and two JSS and two JPS with Type 2 stories.

First, let us present a sample story of Type 1 in (9). Type 1 stories such as (9) make strict readings true and sloppy readings false. The test sentences are shown in (10). (10a) is JSS, which allows both strict and sloppy readings, whereas (10b) is JPS, which only allows a strict reading.

<Type 1 Stories> Strict Reading: True, Sloppy Reading: False
(9) Sample story: An elephant and a pig each picked up a treasure box. They did not try to open their boxes because they decided to open them after going back to their houses. But the elephant wanted to know what the pig picked up, so he asked the pig to open the pig’s box. The pig refused the elephant’s request and turned away. But the elephant was very cunning, and he secretly opened the pig’s treasure box.

4 In the practice session, children in both groups were tested whether they could comprehend sentences with zibun ‘self.’ In addition to the test of zibun ‘self,’ the children in Group 1, who were provided JSS, were tested whether they could understand conjoined sentences. The children in Group 2, who were provided JPS, were tested whether they could comprehend conjoined sentences with the overt pronoun sore ‘it.’ The practice session consisted of six questions including three questions in true conditions and three questions in false conditions (two practices for the Truth Value Judgment Task, two tests of zibun ‘self,’ and two conjoined sentences). After the practice session, we excluded three children who accepted most of the practice questions. As a result, 18 children who correctly answered to all the practice questions took the main session.
Test sentences

a. [JSS] Butasan-wa zibun-ga nani-o hirotta ka mite-nai kedo, Pig-Top self-Nom what-Acc picked.up Q check-Neg but

Zousan-wa [ nani ka ] mi-ta yo.5
Elephant-Top what Q check-Past SFP

‘Though the pig did not check what the pig picked up, the elephant checked what.’
Strict reading: ok what the pig picked up. (True)
Sloppy reading: ok what the elephant picked up. (False)

b. [JPS] Butasan-wa zibun-ga nani-o hirotta ka mite-nai kedo, Pig-Top self-Nom what-Acc picked.up Q check-Neg but

Zousan-wa [ sore-ga nani ka ] mi-ta yo.
Elephant-Top it-Nom what Q check-Past SFP

‘Though the pig did not check what the pig picked up, the elephant checked what it was.’
Strict reading: ok what the pig picked up. (True)

(10a) is JSS and it allows both strict and sloppy readings. If the children have adult-like knowledge of sluicing, the children may either accept or reject JSS in (10a) for the story (9). On the other hand, (10b) is JPS and it only allows strict readings. Thus, if the children have adult-like knowledge, we expect that the children accept JPS in (10b) for the story (9). Although JPS does not allow sloppy readings, if the children allow them, they may reject JPS in (10b) for the story (9).

Next, we present a sample story of Type 2 in (11). Type 2 stories like (11) make strict readings false and sloppy readings true. The test sentences are shown in (12).

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5 In the experiment, we used non-case-marked sluicing, in which remnants do not include case markers, even though it is argued that non-case-marked sluicing and case-marked sluicing have different syntactic characteristics (e.g. island (in)sensitivity). Hiraiwa and Ishihara (2012: 165) argue that sluicing containing sore-ga ‘it-Nom’ (i.e. JPS) cannot hold a case maker on the remnant (e.g. sore-ga nani(*-o) (da) ka ‘it-Nom what(*-Acc) (Cop) Q’). In order to make minimal pairs of JSS and JPS, we did not attach case markers on wh-remnants in JSS and JPS.
Sample story: A cow and a mouse each received a present. The cow opened his present because he could not wait. The mouse did not open his present because he decided to open it after going back to his house. But the cow wanted to know what the mouse received, so he asked the mouse to open his present. However, the mouse refused the cow’s request, so the cow gave up asking.

Test sentences

a. [JSS] Nezumisan-wa zibun-ga nani-o morat-ta ka mite-nai kedo, mouse-Top self-Nom what-Acc receive-Past Q check-Neg but

Usisan-wa [ nani ka ] mi-ta yo. cow-Top what Q check-Past SFP

‘Though the mouse did not check what the mouse received, the cow checked what.’
Strict reading: ok what the mouse received. (False)
Sloppy reading: ok what the cow received. (True)

b. [JPS] Nezumisan-wa zibun-ga nani-o morat-ta ka mite-nai kedo, mouse-Top self-Nom what-Acc receive-Past Q check-Neg but

Zousan-wa [ sore-ga nani ka ] mi-ta yo. Elephant-Top it-Nom what Q check-Past SFP

‘Though the mouse did not check what the mouse received, the elephant checked what it was.’
Strict reading: ok what the mouse received. (False)

(12a) is JSS. Since it allows both strict and sloppy readings, the children may either reject or accept JSS in (12a) for the story (11). On the other hand, because JPS only allows strict readings, if the children have adult-like knowledge, we expect that the children reject (12b). Although JPS does not allow sloppy readings, if the children allow them, they may accept JPS in (12b) for the story (11). The next section will give the results of the experiment.
4.3. Results

Tables 1 and 2 below show the results of the experiment. First, Table 1 shows children’s and adults’ acceptance rates of strict readings in Type 1 stories, for which strict readings are true. Table 1 demonstrates the acceptance rates of JSS such as (10a) (Group 1) and JPS such as (10b) (Group 2) in stories like (9).

### Table 1: Children’s and adults’ acceptance rates of strict readings in Type 1 stories

<table>
<thead>
<tr>
<th>Age</th>
<th>Group 1 (JSS) (Correct)</th>
<th>Group 2 (JPS) (Correct)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 (N=2/N=2)</td>
<td>75.0% (3/4)</td>
<td>75.0% (3/4)</td>
</tr>
<tr>
<td>5 (N=3/N=4)</td>
<td>83.3% (5/6)</td>
<td>100% (8/8)</td>
</tr>
<tr>
<td>6 (N=4/N=3)</td>
<td>100% (8/8)</td>
<td>100% (6/6)</td>
</tr>
<tr>
<td>Total (N=9/N=9)</td>
<td>88.9% (16/18)</td>
<td>94.4% (17/18)</td>
</tr>
<tr>
<td>Adults (N=6/N=6)</td>
<td>75.0% (9/12)</td>
<td>100% (12/12)</td>
</tr>
</tbody>
</table>

As shown in Table 1, the children in both Group 1 and Group 2 correctly accepted strict readings at high rates (Group 1: 88.9%, Group 2: 94.4%), as did adults (Group 1: 75.0%, Group 2: 100%). These results show that both children and adults allow strict readings for JSS and JPS.

Next, let us consider the results in Table 2, which shows children’s and adults’ acceptance rates of sloppy readings in Type 2 stories. Table 2 indicates the acceptance rates of JSS such as (12a) (Group 1) and JPS such as (12b) (Group 2) in stories like (11).

### Table 2: Children’s and Adults’ acceptance rates of sloppy readings in Type 2 stories

<table>
<thead>
<tr>
<th>Age</th>
<th>Group 1 (JSS) (Correct)</th>
<th>Group 2 (JPS) (Incorrect)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 (N=2/N=2)</td>
<td>50.0% (2/4)</td>
<td>25.0% (1/4)</td>
</tr>
<tr>
<td>5 (N=3/N=4)</td>
<td>100% (6/6)</td>
<td>12.5% (1/8)</td>
</tr>
<tr>
<td>6 (N=4/N=3)</td>
<td>62.5% (5/8)</td>
<td>16.7% (1/6)</td>
</tr>
<tr>
<td>Total (N=9/N=9)</td>
<td>72.2% (13/18)</td>
<td>16.7% (3/18)</td>
</tr>
<tr>
<td>Adults (N=6/N=6)</td>
<td>100% (12/12)</td>
<td>0% (0/12)</td>
</tr>
</tbody>
</table>

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6 There was no statistically significant difference between the acceptance rates of strict readings for JSS (Group 1) and JPS (Group 2) ($\beta = -0.53$, SE = 1.62, $z = -0.33$, $p = 0.74$).
There is a great difference in the acceptance rates of sloppy readings in Group 1 and Group 2. The children in Group 1 correctly accepted sloppy readings for JSS 72.2% of the time (13/18). On the other hand, the children in Group 2 accepted sloppy readings for JPS only 16.7% of the time (3/18). Adults showed the same tendency, in that adults in Group 1 accepted sloppy readings for JSS 100% of the time (12/12), whereas nobody in Group 1 accepted sloppy readings for JPS. These results suggest that the children acquiring Japanese correctly distinguished JSS and JPS. Hence, the Japanese children were able to interpret JSS in an adult-like way.

Concerning the results in Tables 1 and 2 together, the children in Group 1 accepted both strict and sloppy readings in JSS (strict: 88.9%, sloppy: 72.2%), as did adults (strict: 75.0%, sloppy: 100%). This indicates that both children and adults have knowledge of the two underlying structures for JSS: pro and cleft. Hence, this shows that Japanese children assume the same underlying structures for JSS as adults do.

To summarize, we examined whether children acquiring Japanese know that Japanese Standard Sluicing (JSS) has two underlying structures, a null pronoun pro and a cleft, and whether the children distinguish JSS from JPS. Our experimental results show that children acquiring Japanese have knowledge of the two underlying structures and distinguish JSS from JPS.

5. Discussion and Conclusion

This study investigated whether Japanese children have the same linguistic knowledge of sluicing as adults. Our study was motivated by several previous acquisition studies. First, Ohba and Yamakoshi (forthcoming) recently showed that Japanese children correctly comprehended clefts, which are underlying structures of Japanese sluicing. Second, Sugisaki (2013), Otaki (2014), Fujiwara (2017), and others reported that Japanese children have adult-like grammar of argument ellipsis and VP-ellipsis. As for sluicing, Sugisaki (2016) studied the acquisition of Japanese sluicing and reported that children were sensitive to the ban on voice mismatches of sluicing. Considering these previous findings, we examined whether Japanese children interpret sluicing in Japanese in an adult-like way. Specifically, our study was based on the view that Japanese standard sluicing involves two types of underlying structures, pro and an ellipsis of a cleft. We tested whether Japanese children allow both strict and sloppy readings for Japanese standard sluicing like adults. Furthermore, we tested whether children distinguish Japanese standard sluicing (JSS) from Japanese pronominal sluicing (JPS), which only allows strict readings.

7 The difference between the acceptance rates of sloppy readings for JSS (Group 1) and JPS (Group 2) was statistically significant ($\beta = 10.23$, SE = 3.98, $z = 2.57$, $p = 0.01$).
The major finding of our experiment is that the Japanese children interpreted JSS as adults and correctly distinguished between JSS and JPS in terms of the interpretational differences. More specifically, the Japanese children accepted strict readings for JSS 88.9% (16/18) of the time and JPS 94.4% (17/18) of the time, just as adults did (standard sluicing: 75.0%, pronominal sluicing: 100%). In contrast, the Japanese children accepted sloppy readings for JSS 72.2% (13/18) of the time but for JPS only 16.7% (3/18) of the time. Adults showed the same tendency, in that they accepted sloppy readings for JSS 100% (12/12) of the time, but for JPS 0% (0/12) of the time.

Our experimental results were consistent with previous findings on argument ellipsis by Sugisaki (2013) and Otaki (2014) and on VP ellipsis by Fujiwara (2017), which suggested that Japanese children had the adult-like knowledge of ellipsis constructions. Our results can be a piece of supporting evidence for Sugisaki (2016), which showed that Japanese children have adult-like knowledge of the Syntactic Identity Condition on JSS.

To conclude, the fact that Japanese children correctly allowed both strict and sloppy readings for JSS indicates that the children have adult-like knowledge of the two types of underlying structures for JSS, pro and an ellipsis of a cleft. Furthermore, the results of our experiment show that Japanese children correctly distinguished between JSS and JPS.

References


