Argument Ellipsis in Child Japanese: A Preliminary Report

Koji Sugisaki

MIE UNIVERSITY

1.   Introduction

Japanese is a language that allows productive use of null arguments in finite clauses. In (2), which constitutes replies to (1), either the matrix subject or the matrix object is not overtly expressed. Similarly, in (3), both the subject and the object of the embedded clause are phonologically empty.

(1)   Taroo-wa   doo   shimashita   ka?
       Taroo-TOP   how   did   Q
       'What happened to Taroo?'

(2)   a.   *e*   ano kaisya-ni   syuusyoku   shimashita.
                            that company-DAT   employment   did
                 'He got employed by that company.'
       b.   Ano kaisya-ga   *e*   saiyou   shimashita.
                 that company-NOM   recruitment   did
                 'That company recruited him.'

(3)   Hanakoo-ga   Taroo-ni   [*e*   *e*   saiyou   suru
       Hanako-NOM   Taroo-DAT   recruitment   do
       to   ]   yakusokusita.
       that   promised

'Hanako promised Taroo that she will recruit him.'

It has been observed at least since Otani and Whitman (1991) that null objects in Japanese allow sloppy-identity interpretation when their antecedent contains the anaphor *zibun* 'self'. For example, the sentence with a missing object in (4b) is ambiguous: It means either that Taroo discarded Hanako's letter (strict-identity interpretation) or that Taroo discarded his own letter (sloppy-identity interpretation). Oku (1998) observes that the same is true with null subjects: The missing embedded subject in (5b) can be construed either as Hanako's student or as Taroo's student.

(4) a. Hanako-wa   zibun-no   tegami-o   suteta.
         Hanako-TOP   self-GEN   letter-ACC   discarded
         'Hanako$_1$ discarded her$_1$ letter.'
     b. Taroo-mo   *e*   suteta.
         Taroo-also   discarded
         Lit. 'Taroo also discarded   *e*   .'

(5) a. Hanako-wa   [zibun-no gakusei-ga   siken-ni
         Hanako-TOP   self-GEN student-NOM   exam-DAT
         tootta   to   ]   omotteiru.
         passed   that   think
         'Hanako$_1$ thinks that her$_1$ student passed the exam.'
     b. Taroo-mo   [*e*   siken-ni   tootta   to   ]
         Taroo-also   exam-DAT   passed   that
         omotteiru.
         think
         Lit. 'Taroo also thinks that   *e*   passed the exam'

This study is an interim report of my ongoing experiment which investigates whether Japanese-speaking preschool children allow the sloppy-identity interpretation of phonologically null subjects illustrated in (5). Even though preliminary, the results suggest that the relevant knowledge is already in the grammar of Japanese-speaking preschoolers, which is consistent with the recent parametric proposal that the availability of sloppy interpretation of null arguments is tightly connected to other prominent properties of Japanese (Oku 1998, Saito 2007, Takahashi 2008).

2.   Argument Ellipsis in Japanese

The availability of sloppy reading in examples like (4) is unexpected if the object position is occupied by a null pronoun *pro*, since pronouns do not permit sloppy interpretation, as exemplified in (6b).

(6) a.   Hanako-wa   zibun-no   tegami-o   suteta.
          Hanako-TOP   self-GEN   letter-ACC   discarded
          'Hanako$_1$ discarded her$_1$ letter.'
     b.   Taroo-mo   sore-o   suteta.
          Taroo-also   it-ACC   discarded
          'Taroo also discarded it. / *Taroo$_1$ also discarded his$_1$ letter.'

An influential study by Otani and Whitman (1991) put forth the idea that the sloppy-identity interpretation of null-object sentences in Japanese as in (4b) stems from VP-ellipsis. One of the fundamental assumptions of their analysis is that Japanese has overt V-to-T raising, and hence the sentences in (4) are represented as in (7) in overt syntax. In LF, the antecedent VP is copied onto the empty VP, yielding (8), which contains an anaphor in its object position as well. The LF representation in (8) accounts for the sloppy interpretation of the sentence involving a null object in (4b).

(7) a. [$_{TP}$ Hanako-wa   [$_{T'}$ [$_{VP}$ zibun-no tegami-o t_V]
         Hanako-TOP   self-GEN letter-ACC

     [$_T$ sute$_V$-ta$_T$]]]
         discarded

     'Hanako$_1$ discarded her$_1$ letter.'

  b. [$_{TP}$ Taroo-mo   [$_{T'}$ [$_{VP}$ e]   [$_T$ sute$_V$-ta$_T$]]]
         Taroo-also   discarded

     Lit. 'Taroo also discarded e .'

(8) [$_{TP}$ Taroo-mo   [$_{T'}$ [$_{VP}$ **zibun-no tegami-o** t_V] [$_T$ sute$_V$-ta$_T$]]]
      Taroo-also   self-GEN letter-ACC   discarded

Even though the VP-ellipsis analysis successfully explains why null objects in Japanese permit sloppy interpretations, it faces a variety of problems (see Hoji 1998, Oku 1998, Saito 2007, and Takahashi 2008).[1] Most notable is the observation by Oku (1998) that even null subjects allow the sloppy-identity reading, as illustrated in (5) and also in (9): The sentence in (9b) can mean either that Taroo also thinks that Taroo's proposal will be accepted (the sloppy reading), or that Taroo also thinks that Hanako's proposal will be accepted (the strict reading). Given that subjects arguably stay outside of VP in overt syntax and in LF, the VP-ellipsis analysis by Otani and Whitman (1991) would predict that the former interpretation should not be possible with null subjects, contrary to facts.

(9) a. Hanako-wa   [zibun-no teian-ga   saiyousareru
         Hanako-TOP   self-GEN proposal-NOM accepted-be

         to   ]   omotteiru.
         that   think

'Hanako₁ thinks that her₁ proposal will be accepted.'

b.　Taroo-mo　　　　[　*e*　saiyousareru　to　]　　omotteiru.

Taroo-also　　　　　　　accepted-be　that　　think

Lit. 'Taroo also thinks that　*e*　will be accepted.'

In order to accommodate both the null-object examples as in (4) and the null-subject examples as in (5) and (9), Oku (1998), Saito (2007) and Takahashi (2008) (among others) put forth an alternative analysis in which only the relevant argument DP (not the VP) is elided.[2] Under their argument-ellipsis analysis, the sentences in (9) have the representations in (10) in overt syntax. After the derivation enters into LF, the antecedent DP, namely the anaphoric subject in (10a), is copied onto the empty subject position in (10b), resulting in the LF representation in (11), which successfully yields the sloppy interpretation of the null subject.

(10) a.　Hanako-wa　　　[$_{CP}$　[$_{DP}$　zibun-no　teian-ga　]

Hanako-TOP　　　　　　　　self-GEN　proposal-NOM

[$_{T'}$　saiyousareru　]　　to　]　　omotteiru.

accepted-be　　　that　　think

'Hanako₁ thinks that her₁ proposal will be accepted.'

b.　Taroo-mo　　　[$_{CP}$　[$_{DP}$　*e*　]　[$_{T'}$　saiyousareru　]

Taroo-also　　　　　　　　　　　accepted-be

to　]　　omotteiru.

that　　think

Lit. 'Taroo also thinks that　*e*　will be accepted.'

(11) Taroo-mo   [CP **[DP zibun-no teian-ga]** [T' saiyousareru]
Taroo-also   self-GEN proposal-NOM accepted-be

to] omotteiru.
that think

According to Oku (1998), the availability of argument ellipsis is subject to cross-linguistic variation: Argument ellipsis is permitted in Japanese but is not allowed in languages like Spanish or English.[3] As illustrated in (12b), Spanish permits null subjects, but these null subjects cannot have sloppy interpretation: (12b) only means that Juan believes that Maria's proposal will be accepted, and it never means that Juan believes that Juan's proposal will be accepted. In the English example (13), which contains a verb that optionally allows a missing object, the second clause simply means that John did some eating activity, and never permits a sloppy reading.

(12) a.   Maria   cree   [que su propuesta   será
      Maria   believes that her proposal   will-be

aceptada] y
accepted   and
'Maria$_1$ believes that her$_1$ proposal will be accepted and …'

b.   Juan   también cree   [que *e* será   aceptada]
      Juan   too   believes that   will-be   accepted
      Lit. 'Juan also believes that   *e*   will be accepted.'

                                 (Oku 1998:305)

(13) Bill$_1$ ate his$_1$ shoe, and John ate, too.   (Oku 1998:311)

To account for the cross-linguistic difference between Japanese on one hand and English and Spanish on the other, Oku (1998) and Takahashi (2008)

proposed that the availability of argument ellipsis in a given language is tightly connected to the availability of (Japanese-type) scrambling.[4] They argue that both of these properties stem from the parameter proposed by Bošković and Takahashi (1998), which can be called the Parameter of θ-feature Strength.

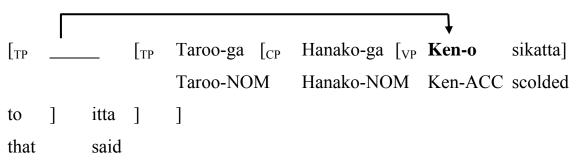(14) The Parameter of θ-feature Strength: θ-features are {strong, weak}.

According to Bošković and Takahashi (1998), θ-features of a verb are weak in Japanese, while they are strong in non-scrambling languages like English and Spanish. Given their weak nature, θ-features of Japanese verbs need not be checked in overt syntax. This property of Japanese makes it possible for an argument to be base-generated in a 'scrambled' position, as shown in (15a). In the LF component, the 'scrambled' object undergoes a lowering operation and merges with the predicate, in order to check the selectional features of the verb.

(15) a. *In overt syntax*:

[$_{TP}$ Ken-o [$_{TP}$ Taroo-ga [$_{CP}$ Hanako-ga [$_{VP}$ sikatta]
Ken-ACC Taroo-NOM Hanako-NOM scolded

to] itta]]
that said

Lit. 'Ken, Taroo said that Hanako scolded.'

b. *In the LF component*:

[$_{TP}$ _____ [$_{TP}$ Taroo-ga [$_{CP}$ Hanako-ga [$_{VP}$ **Ken-o** sikatta]
Taroo-NOM Hanako-NOM Ken-ACC scolded

to] itta]]
that said
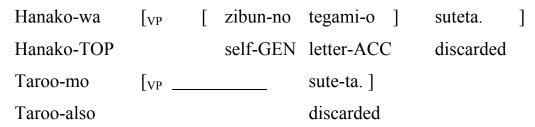
Such a derivation is not available in English or Spanish, since θ-features in these languages are strong and hence they must be checked in overt syntax soon after verbs are introduced into the derivation.

Building on Bošković and Takahashi's LF analysis of scrambling, Oku (1998) and Takahashi (2008) argue that the possibility of argument ellipsis in Japanese also follows from the weakness of θ-features. Since θ-features of Japanese verbs need not undergo checking in overt syntax, an argument position can be literally absent in Japanese, as shown in (16a). At LF, the second clause in (16b) comes to have a licit transitive configuration through the LF-copying of an antecedent DP.

(16) a. *In overt syntax*:

Hanako-wa	$[_{VP}$	[zibun-no	tegami-o	]	suteta.	]
Hanako-TOP		self-GEN	letter-ACC		discarded	
Taroo-mo	$[_{VP}$	_____			sute-ta.]	
Taroo-also					discarded	

Lit. 'Hanako$_1$ discarded her$_1$ letter. Taroo also discarded   *e* .'

b. *In the LF component*:

| Hanako-wa | $[_{VP}$ | [zibun-no | tegami-o |] | suteta. |] |
| Hanako-TOP | | self-GEN | letter-ACC | | discarded | |

LF-Copy

| Taroo-mo | $[_{VP}$ | **[zibun-no** | **tegami-o** | **]** | suteta. |] |
| Taroo-also | | self-GEN | letter-ACC | | discarded | |

This way, Oku (1998) and Takahashi (2008) attribute both the availability of scrambling and that of argument ellipsis to a single parametric property of Japanese: the property that θ-features are weak.

In contrast, building on Kuroda's (1998) proposal that the main source of the various differences between English and Japanese is the presence vs.

absence of obligatory agreement, Saito (2007) claims that argument ellipsis in Japanese arises from the absence of overt agreement in this language. According to Chomsky (2000), agreement is a probe-goal relation induced by a set of uninterpretable φ-features on a functional head (T or *v*). In the case of object agreement illustrated in (17), the uninterpretable φ-features of *v* agree with the matching, interpretable φ-set of the object DP. The object satisfies the condition that the goal must have an uninterpretable Case feature (the Activation Condition), and hence qualifies as a goal. The agreement relation results in the deletion of the uninterpretable φ-features on *v* and the uninterpretable Case feature of the DP.

(17)

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                    vP
                  /    \
               v        VP
         [φ-features]  /   \
                      V      DP
                        [φ-features, Case feature]
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Saito (2007) argues that the agreement relation illustrated above is obligatory in languages like English and Spanish, and that this obligatoriness of agreement excludes argument ellipsis from these languages. For example, in the English example in (18), the object DP *his friend* in (18a) must be copied into the object position of (18b) at LF for the latter sentence to be properly interpreted. If we assume that only LF objects can be employed in LF-copying, the DP *his friend* must be copied into (18b) from the LF representation of (18a).[5] However, this DP has already agreed with its *v* in (18a) and hence, its uninterpretable Case feature has already been deleted. Then, given the Activation Condition, it does not qualify as a goal in the required agreement relation in (18b), and consequently, the derivation crashes due to the remaining uninterpretable φ-features of *v*.

(18) a.   John brought [$_{DP}$ his friend].

   b. *   But Bill did not bring _____.

The corresponding derivation converges in Japanese, however, given that Japanese lacks overt agreement. In (19), the object DP *zibun-no tomodati* 'self's friend' is copied from the LF representation of (19a) into the object position of (19b), as in (20). Since Japanese does not have obligatory agreement, *v* in (19b) need not have uninterpretable φ-features. Thus, the object DP in (19a) can be successfully copied into (19b) even though its uninterpretable Case feature has already been deleted, and the derivation converges.

(19) a.   Taroo-wa   [$_{DP}$ zibun-no   tomodati-o]   turetekita.
           Taroo-TOP   self-GEN   friend-ACC   brought
           'Taroo$_1$ brought his$_1$ friend.'

   b.   Demo   Hanako-wa   _____   tureteko-nakatta.
           but   Hanako-TOP   brought-not
           'But Hanako$_1$ did not bring her$_1$ friend.'

(20) Demo   Hanako-wa [$_{DP}$ **zibun-no tomodati-o]**   tureteko-nakatta.
     but   Hanako-TOP   self-GEN friend-ACC   brought-not

   To summarize this section, we have seen evidence that Japanese permits ellipsis of argument DPs. Oku (1998) and Takahashi (2008) proposed that the presence of argument ellipsis in Japanese and its absence in English and Spanish are correlated with the availability of (Japanese-type) scrambling. In contrast, developing the idea of Kuroda (1998), Saito (2007) claimed that the possibility of argument ellipsis in Japanese is closely tied to the absence of overt agreement in this language. Even though these proposals significantly differ in their details, they share the fundamental assumption that a parameter of UG establishes a

tight connection between the availability of argument ellipsis and other prominent properties of Japanese. My experiment to be presented below is an attempt to evaluate this basic insight of their proposals, by investigating the acquisition of Japanese.

3.   Prediction for Child Japanese

As we have seen in the previous section, theoretical studies of Japanese suggest that argument ellipsis is closely related to other prominent characteristics of Japanese, such as scrambling or the lack of overt agreement. Previous acquisition literature reports that both scrambling and agreement are acquired fairly early, at least by the age of three. For example, using an act-out task, Otsu (1994) investigated whether Japanese-speaking three- and four-year-olds can correctly interpret scrambled sentences as in (21b). The results showed that young children had virtually no difficulty in understanding scrambled sentences, once the discourse context was provided by adding a sentence as in (21a).[6]

(21) a.   Kooen-ni   ahirusan-ga   imashita.
           park-in   duck-NOM   was
           'There was a duck in the park.'
     b.   Sono   ahirusan-o   kamesan-ga   osimashita.
           the   duck-ACC   turtle-NOM   pushed
           'A turtle pushed the duck.'

Hyams (2002) summarizes the results of various acquisition studies, and observes that children acquiring "rich" agreement languages such as Italian and Catalan obey subject-verb agreement requirements from the earliest stage (before or around the age of two), even before they produce all the forms in a paradigm. For example, singular verb morphology is typically acquired before plural morphology, and first- and third-person forms appear earlier than

second-person forms. Nevertheless, agreement is almost always correct for those forms that are used. According to Hyams (2002), across children and languages, agreement errors are under 4%. Given the finding that agreement errors are extremely rare in the acquisition of "rich" agreement languages, we can reasonably speculate that children acquiring agreementless languages like Japanese would also be sensitive to the absence of overt agreement from the early stages of acquisition.

Given that we have reasons to believe that the properties that are allegedly connected to argument ellipsis are acquired early, the parametric proposals by Oku (1998), Saito (2007), and Takahashi (2008) should make the following prediction:

(22) *Prediction for Child Japanese:*
    Japanese-speaking preschool children should have knowledge of argument ellipsis.

Matsuo (2007) and Sugisaki (2007) conducted an experiment to investigate how Japanese-speaking children interpret null-object sentences as in (23).

(23) a. Zousan-ga   zibun-no oyatsu-o   tabeteru   yo.
        elephant-NOM self-GEN snack-ACC   eating   EXCL
        'An elephant$_1$ is eating his$_1$ snack.'
     b. Penginsan-mo   *e*   tabeteru   yo.
        penguin-also   eating   EXCL
        'A penguin is also eating   *e*   .'

Their results revealed that children between the age of four and six permit sloppy-identity interpretation for null-object sentences like (23b), which is consistent with the prediction in (22) that argument ellipsis should be in

children's grammar. However, given that these experiments used sentences involving null objects, there remained a possibility that children may have employed VP-ellipsis, not argument ellipsis, to derive the sloppy interpretation. This possibility gains more plausibility in light of the proposal by Takahashi (2008) that Chinese has VP ellipsis but does not have argument ellipsis. As observed by Huang (1991) and Otani and Whitman (1991), null objects in Chinese exhibit the sloppy interpretation: The null object in (24b) can mean either rumors about Zhangsan (strict reading) or rumors about Mali (sloppy reading). In sharp contrast, according to Takahashi (2008), null subjects in Chinese do not permit sloppy interpretation: The missing subject in (25b) may refer to Zhangsan's child but cannot refer to Lisi's child.

(24) a. Zhangsan bu xihuan guany ziji de yaoyan.
  Zhangsan not like about self GEN rumor
  'Zhangsan does not like rumors about himself.'

  b. Mali ye bu xihuan *e* .
  Mali also not like
  Lit. 'Mali does not like *e* either.'

(25) a. Zhangsan shuo ziji de haizi mei na qian.
  Zhangsan say self GEN child take not money
  'Zhangsan said that his child did not take money.'

  b. Lisi ye shuo *e* mei na qian.
  Lisi too say take not money
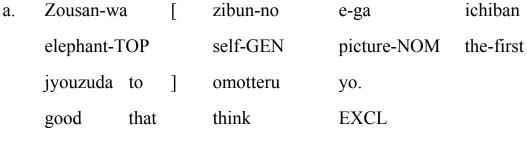 Lit. 'Lisi also said that *e* did not take money.'

  (Takahashi 2008:415)

This observation suggests that UG permits two options to derive the sloppy interpretation of null objects: VP-ellipsis (preceded by overt V-to-T raising) as in

Chinese, and argument ellipsis as in Japanese. In order to make sure that child Japanese is not like adult Chinese and that it indeed has argument ellipsis, the new experiment reported in the next section makes use of sentences that contain a null argument in the subject position, as illustrated in (5) and (9).

4.   Experiment

In order to re-evaluate the validity of the prediction in (22), we conducted an experiment with 10 Japanese-speaking children, ranging in age from 4;11 (years;months) to 5;11 (mean age, 5;03). These children were divided into two groups. One group of children (Experimental Group) was presented test sentences involving an embedded clause with a null subject, as in (26). The other group of children (Control Group) was presented test sentences involving an overt pronoun in the embedded subject position, as in (27). Both types of sentences were accompanied by exactly the same stories.

(26) Test sentence involving a null subject:

    a.   Zousan-wa   [zibun-no   e-ga   ichiban

        elephant-TOP   self-GEN   picture-NOM   the-first

        jyouzuda to]   omotteru   yo.

        good   that   think   EXCL

        'The elephant$_1$ thinks that his$_1$ picture is the best.'

    b.   Raionsan-mo   [*e*   ichiban   jyouzuda   to   ]

        lion-also   the-first   good   that

        omotteru   yo.

        think   EXCL

        'The lion also thinks that   *e*   is the best."

(27) Test sentence involving an overt pronominal subject:

a. Zousan-wa   [zibun-no   e-ga   ichiban

      elephant-TOP   self-GEN   picture-NOM   the-first

      jyouzuda   to   ]   omotteru   yo.

      good   that   think   EXCL

      'The elephant$_1$ thinks that his$_1$ picture is the best.'

b. Raionsan-mo   [<u>sore-ga</u>   ichiban   jyouzuda   to   ]

      lion-also   it-NOM   the-first   good   that

      omotteru   yo.

      think   EXCL

      'The lion also thinks that <u>it</u> is the best."

Each child was presented with four target trials and two filler trials. Among the four target trails, two of them were aimed at investigating whether children allow sloppy interpretation for null subjects or overt pronouns, and the other two of them were aimed at investigating whether children allow strict interpretation for null subjects or overt pronouns. The task was truth-value judgment (Crain and Thornton 1998). In each trial, a child was told a story, which was accompanied by a series of pictures presented on a laptop computer. At the end of each story, a puppet described verbally what he thought had happened in the story, using sentences as in (26) or (27). The task for the child was to judge whether the puppet's description was correct or wrong, by pointing at one of the cards the puppet had in his hands: ○ (circle, which means 'correct') or × (cross, which means 'wrong'). Sample stories are given in (28) and in (29).

(28) *Sample Story 1* (which investigates the availability of sloppy reading):

An elephant, a lion, and a monkey are drawing their portraits. The elephant said to the lion, "Hey, look at this! I think my portrait is the best." Looking at the elephant's portrait, the lion replied, "Your portrait looks very good, but I think mine is the best."

Puppet:

Zousan-wa	[	zibun-no	e-ga	ichiban
elephant-TOP		self-GEN	picture-NOM	the-first

jyouzuda	to	]	omotteru	yo.
good	that		think	EXCL

'The elephant$_1$ thinks that his$_1$ picture is the best.'

Raionsan-mo	[	*e* / <u>sore-ga</u>	ichiban	jyouzuda
lion-also		it-NOM	the-first	good

to	]	omotteru	yo.
that		think	EXCL

'The lion also thinks that   *e* / it   is the best."

(Expected Answer: "Yes" with a null subject, "No" with a pronominal subject)

(29) *Sample Story 2* (which investigates the availability of strict reading):

A rabbit, a squirrel, and a dog are reading their picture books. The rabbit said to the squirrel, "Hey, look at this! I think my picture book is the most

amusing." Looking at the rabbit's picture book, the squirrel replied, "Yes, I agree. My picture book is very good, but I think yours is the most amusing."

Puppet:

Usagisan-wa   [zibun-no   ehon-ga   ichiban

rabbit-TOP   self-GEN   picture book-NOM   the-first

omosiroi   to   ]   omotteru   yo.

amusing   that   think   EXCL

'The rabbit$_1$ thinks that her$_1$ picture book is the most amusing.'

Risusan-mo   [*e* / sore-ga   ichiban   omosiroi

squirrel-also   it-NOM   the-first   amusing

to   ]   omotteru   yo.

that   think   PART

'The squirrel also thinks that   *e* / it   is the most amusing."

(Expected Answer: "Yes" both with a null subject and a pronominal subject)

The results are summarized in Table 1. Children permitted a strict-identity interpretation both for the sentences with a null subject and the sentences with an overt pronominal subject. In contrast, children showed a strong tendency to allow sloppy-identity interpretation only when the sentence contains a null subject, and to disallow this reading when the sentence involves an overt pronominal subject.

These results are in conformity with the prediction in (22), and suggest that the knowledge of argument ellipsis is already in the grammar of Japanese-speaking preschool children.

	strict-identity interpretation		sloppy-identity interpretation	
	# of acceptance	% of acceptance	# of acceptance	% of acceptance
Sentences involving a null subject	10/10	100%	08/10	80%
Sentences involving an overt pronoun	10/10	100%	02/10	20%

Table 1: Summary of the Results

5. Conclusion

Even though the results are still preliminary in that the number of children tested is relatively small at this point, we obtained a clear indication that Japanese-speaking preschool children permit sloppy-identity interpretation for null-subject sentences. The results of my experiment provide evidence that Japanese-speaking preschoolers already have knowledge of argument ellipsis, in conformity with the prediction in (22). The evidence presented in this study is more convincing than the one presented in Sugisaki (2007), given that the new experiment made use of sentences involving null subjects, and hence that the sloppy interpretation children provided for these empty elements cannot be attributed to VP-ellipsis. The findings of this study are consistent with the parametric proposals by Oku (1998), Saito (2007), and Takahashi (2008) that the availability of argument ellipsis in Japanese is closely related to other

prominent characteristics of this language. A broader implication of this study is that child language acquisition constitutes an important testing ground for the evaluation of parametric proposals (Sugisaki 2003, Snyder 2007).

Notes

[1] Even though the VP-ellipsis analysis of null objects may not be valid for Japanese, it may be valid for Chinese. See Takahashi (2008:414-415), and the discussion in Section 3 of this paper.

[2] Kim (1999) provides compelling evidence that argument ellipsis is available in Korean.

[3] See also Takahashi (2007) for a detailed cross-linguistic survey concerning the availability of argument ellipsis.

[4] See also Saito (2003) for a related proposal.

[5] See Saito (2007) for evidence that only LF objects can be employed in the LF-copying operation involved in argument ellipsis.

[6] See also Murasugi and Kawamura (2005) for early acquisition of scrambling in Japanese.

References

Bošković, Ž. and D. Takahashi (1998) Scrambling and last resort. *Linguistic Inquiry*, *29*, 347-366.

Chomsky, N. (2000) Minimalist inquiries: The framework. In R. Martin, D. Michaels and J. Uriagereka (Eds.), *Step by Step: Essays on Minimalist Syntax in Honor of Howard Lasnik* (pp. 89-15). Cambridge, Massachusetts: MIT Press.

Crain, S. and R. Thornton (1998) *Investigations in Universal Grammar: A Guide to Experiments on the Acquisition of Syntax and Semantics*. Cambridge, Massachusetts: MIT Press.

Hoji, H. (1998) Null object and sloppy identity in Japanese. *Linguistic Inquiry*, *29*, 127-152.

Huang, C.-T. J. (1991) Remarks on the status of the null object. In R. Freiden (Ed.), *Principles and Parameters in Comparative Grammar* (pp. 56-76). Cambridge, Massachusetts: MIT Press.

Hyams, N. (2002) Clausal structure in child Greek: A reply to Varlokosta, Vainilla and Rohbacher and a reanalysis. *The Linguistic Review*, *19*, 225-269.

Kim, S.-W. (1999) Sloppy/strict identity, empty objects, and NP ellipsis. *Journal of East Asian Linguistics*, *8*, 255-284.

Kuroda, S.-Y. (1988) Whether we agree or not: A comparative syntax of English and Japanese. *Linguisticae Investigationes*, *12*, 1-47.

Matsuo, A. (2007) Differing interpretations of empty categories in English and Japanese VP ellipsis contexts. *Language Acquisition, 14*, 3-29.

Murasugi, K. and T. Kawamura (2005) On the acquisition of scrambling in Japanese. In J. Sabel and M. Saito (Eds.), *The Free Word Order Phenomenon: Its Syntactic Sources and Diversity* (pp. 221-242). Berlin: Mouton de Gruyter.

Oku, S. (1998) LF copy analysis of Japanese null argument. *Proceedings of CLS 34*, 299-314.

Otani, K. and J. Whitman (1991) V-raising and VP-ellipsis. *Linguistic Inquiry, 22*, 345-358.

Otsu, Y. (1994) Early acquisition of scrambling in Japanese. In T. Hoekstra and B. D. Schwartz (Eds.), *Language Acquisition Studies in Generative Grammar* (pp. 253-264). Amsterdam: John Benjamins.

Saito, M. (2003) On the role of selection in the application of Merge. *Proceedings of NELS 33*, 323-345.

Saito, M. (2007) Notes on East Asian argument ellipsis," *Language Research, 43*, 203-227.

Snyder, W. (2007) *Child Language: The Parametric Approach*. New York: Oxford University Press.

Sugisaki, K. (2003) *Innate Constraints on Language Variation: Evidence from Child Language*. Ph.D. dissertation, University of Connecticut, Storrs.

Sugisaki, K. (2007) The configurationality parameter in the minimalist program: A view from child Japanese. *Proceedings of BUCLD 31*, 597-608.

Sugisaki, K. (in preparation) Argument ellipsis in child Japanese.

Takahashi, D. (2007) Argument ellipsis from a crosslinguistic perspective: An interim report. Paper presented at GLOW in Asia 6, The Chinese University of Hong Kong.

Takahashi, D. (2008) Noun phrase ellipsis. In S. Miyagawa and M. Saito (Eds.), *The Oxford Handbook of Japanese Linguistics* (pp. 394-422). New York: Oxford University Press.

(sugisaki@human.mie-u.ac.jp)