Early Acquisition of Basic Word Order in Japanese

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Running Head: Early Acquisition of Word Order in Japanese

Abstract

The acquisition of word order has been one of the central issues in the study of child language. One striking finding from the detailed investigation of various child languages is that from the earliest observable stages children are highly sensitive to the basic word order of their target language. However, the evidence so far comes mainly from the acquisition of rigid word-order languages. In light of this background, this study presents new evidence that such early sensitivity to basic word order can be observed even in the acquisition of Japanese, a free word-order language.

1. Introduction

The acquisition of word order has been one of the central issues in the study of child language. One striking finding from the detailed investigation of various child languages is that from the earliest observable stages children are highly sensitive to the basic word order of their target language. For example, in the acquisition of English, children's multiword utterances hardly deviate from the basic order that places the verb before its object (e.g. Bloom 1970; Brown 1973). Yet, the evidence so far comes mainly from the acquisition of rigid word-order languages, such as English, French, and Italian. Then, a question arises as to whether such early sensitivity to basic word order can be observed even in the acquisition of a free word-order language like Japanese.

It has been noted in several studies that Japanese-learning children know the basic order of object-verb from very early (see e.g. Clancy (1985, section 5.2)). Yet, as far as I can see, no corpus-based syntactic evidence has been presented that support this view. Sugisaki (2005) attempted to provide such evidence, by demonstrating children's knowledge of the structural constraint on the reversed, verb-object order. Building on Sugisaki (2005), this study analyzes a much wider range of data, and presents syntactic evidence that Japanese-learning children before the age of three know that the object-verb order is the basic word order of their target language. This finding suggests that the early setting of the word-order parameter holds even for the acquisition of a free word-order language.

2. VO Sentences in an OV Language

In Japanese, word order is flexible. For example, both Subject-Object-Verb (SOV) and OSV orders are possible for a simple transitive sentence.[1]

(1) a. SOV: Eri-ga sushi-o tabeta yo.
Eri-Nom sushi-Acc ate Excl(amation)
‘Eri ate sushi.’

b. OSV: Sushi-o Eri-ga tabeta yo.
sushi-Acc Eri-Nom ate Excl

In addition, English-like SVO order is available.

(2) SVO: Eri-ga tabeta yo, sushi-o.
Eri-Nom ate Excl sushi-Acc

Yet, such SVO sentences exhibit various syntactic restrictions that do not apply to SOV order. First, SVO order cannot appear in embedded contexts.

(3) a. Ken-ga [Eri-ga sushi-o tabeta to] omotteiru.
Ken-Nom Eri-Nom sushi-Acc ate C think

b. * Ken-ga [Eri-ga tabeta, sushi-o to] omotteiru.
Ken-Nom Eri-Nom ate sushi-Acc C think
‘Ken thinks that Eri ate sushi.’

Second, idiom chunks that consist of a verb and an object lose their idiomatic interpretation when the object is located after the verb (Tanaka (2001, 575)).

(4) a. Eri-ga hara-o tateta yo.
Eri-Nom stomach-Acc set up Excl

b. ??Eri-ga tateta yo, hara-o.
Eri-Nom set up Excl stomach-Acc.
‘Eri got upset.’

Third, the SVO order is incompatible with direct-object *wh*-questions.

(5) a. Eri-ga nani-o tabeta (no)?[2]
Eri-Nom what-Acc ate Q

b. * Eri-ga tabeta (no), nani-o?
Eri-Nom ate Q what-Acc
'What did Eri eat?'

The existence of these restrictions on SVO sentences suggests that this is a marked order, derived in some way from the basic SOV order, which has more freedom. In other words, the contrasts exhibited in (3)-(5) indicate that Japanese is an SOV language that takes the head-final value of the head-complement parameter.

We will not go into the discussion of why the (b) examples in (3)-(5) are ungrammatical, which is orthogonal to the acquisitional investigation to be pursued here (see e.g. Tanaka (2001) for a concrete syntactic analysis). Instead, we will use their ungrammatical status as a 'tool' to investigate when Japanese-learning children reach the correct setting of the head-complement parameter.

3. VO Sentences in Child Japanese

Japanese-learning children around the age of 2;5 (years;months) sometimes produce utterances that contain VO order.[3] Some examples are provided in (6).

(6) a. Yomoo, koko.
read this part
'Let's read this part.' (Aki, 2;7: Miyata (2004a))

b. Akete, kore.
open this
'Open this.' (Ryo 2;5: Miyata (2004b))

c. Morattekita, kore.
got this
‘(I) got this.’ (Tai 2;2: Miyata (2004c))

d. Tabenaino, nanimo.
eat-Neg anything
‘(You) don’t eat anything’ (Jun 2;6: Ishii (2004))

There are two possible syntactic sources for these VO sentences in child Japanese. One possibility is that the child has already figured out that the target language takes the head-final value of the head parameter, and that VO sentences are derived from the OV order in exactly the same way as in the adult grammar. The other possibility is that children are still entertaining both values of the head parameter, and that sentences like those in (6) stem from the head-initial value. If the former possibility is right, then VO sentences in the child’s speech should obey the constraints on this order discussed in the previous section. On the other hand, if the latter possibility is correct, then OV and VO sentences should have the same syntactic status in the child grammar, and hence VO order should show no restrictions compared to the OV order.

4. Transcript Analysis

In order to determine which of the two possibilities discussed in the previous section is correct, I analyzed four longitudinal corpora for Japanese from the CHILDES database (MacWhinney (2000)), which provide a total sample of more than 70,000 lines of child speech. Since embedded sentences and idiom chunks are extremely rare in early child speech, I focused on the restriction on direct-object *wh*-questions exemplified in (5), repeated here as (7).

(7) a. Eri-ga nani-o tabeta (no)?
Eri-Nom what-Acc ate Q

b. * Eri-ga tabeta (no), nani-o?
Eri-Nom ate Q what-Acc
'What did Eri eat?'

Every sentence with either OV order or VO order that appeared after the first clear use of a direct-object *wh*-question was picked out by hand.[4] The corpora analyzed in this study are summarized in Table 1, and the results of my transcript analysis are presented in Table 2. Some actual utterances are given in the Appendix.

[Insert Tables 1&2 around here]

All the four children showed a clear contrast between (S)OV and (S)VO sentences: Both VO sentences and direct-object *wh*-questions occurred reasonably often, but there was only a single (apparent) example of an object *wh*-question with VO order.[5] This contrast suggests that young Japanese-learning children already know that the head-final value is the correct setting, and that VO sentences have the same syntactic basis as for adults.[6]

If VO sentences in child Japanese are completely adult-like, we might reasonably expect that the frequency of these sentences in the child's spontaneous speech approximates that of child-directed speech. In order to obtain a representative case, I analyzed the child-directed speech in the first twenty files of Aki corpus (Aki01-Aki20), which provide a total sample of approximately 6,000 lines of the mother's speech. The results are summarized in Table 3.

[Insert Table 3 around here]

By comparing Table 2 and Table 3, we can see that the degree to which children produce VO utterances are not quite different from that of adults. This is consistent with the above conclusion that VO order in child Japanese has the same grammatical basis as for adults.

5. Conclusion

The results of my transcript analysis have revealed that VO sentences in child Japanese obey a key syntactic restriction that holds for adult Japanese, which in turn demonstrates that young Japanese-learning children already know that OV is the basic word order. This finding constitutes a new piece of syntactic evidence for the early acquisition of basic word order in Japanese.

One theoretical implication of this study is as follows. Based on the findings from the acquisition of Germanic and Romance languages, Wexler (1996, 1998) proposed the hypothesis of *Very Early Parameter-Setting* (VEPS):

(8) *Very Early Parameter-Setting* (Wexler 1998, 25):

Basic parameters are set correctly at the earliest observable stages, that is, at least from the time that the child enters the two-word stage, around 18 months of age.

According to Wexler (1998, 29), 'basic parameters' include at least the following:

(9) a. Word order, e.g. VO versus OV (e.g. Swedish versus German)

b. V to I or not (e.g. French versus English)

c. V2 or not (e.g. German versus French or English)

d. Null subject or not (e.g. Italian versus English or French)

In light of (8) and (9), the data from child Japanese reported in this study is consistent with Wexler's claim that the parameter determining the basic word order in a given language falls under VEPS.[7,8]

However, our results would also be consistent with the view that, based on large amounts of input data, children derived a surface generalization that VO order is incompatible with direct-object *wh*-questions. In order to exclude this possibility and to confirm that children assign adult-like, abstract syntactic representations to VO sentences, it would be necessary to demonstrate that Japanese-learning children are also sensitive to other restrictions to the VO order (for example, the restriction that VO order is limited to the matrix clause). Unfortunately, given the limitation of the available data, I have to leave this task for future research.

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Appendix: Examples from Child Japanese

Examples from Aki's speech:

a. (S)OV: koko juusu utteru.
here soft drinks sell
'This (shop) sells soft drinks.' (file 36: 2;7.12)

b. *wh*-question: empitsu doko ittano@fp?[9]
pencil where went-Q
'Where did the pencil go?' (file 36: 2;7.12)

c. (S)VO: a mite, kore!
hey look this
'Hey, look at this!' (file 36: 2;7.12)

Examples from Ryo's speech:

a.	(S)OV:	Hirokun	no	tsukue	ni	notta.
		Hiro	Poss	desk	Dat	got on
		'(I) got on Hiro's desk.'				(file r20927: 2;9.27)
b.	*wh*-question:	nani	yatteru	no@fp ?		
		what	doing	Q		
		'What (are you) doing?'				(file r20927: 2;9.27)
c.	(S)VO:	Ryookun	wa	iku,	gakkoo.	
		Ryo	Top	will-go	school	
		'Ryo will go to school.'				(file r20913: 2;9.13)

Examples from Tai's speech:

a.	(S)OV:	bokujoo	motteru	yo.		
		ranch	have	Excl		
		'(I) have a ranch.'				(file t940414: 2;0.4)
b.	*wh*-question:	hoochoo	wa	doko	itchatta?	
		kitchen knife	Top	where	went	
		'Where did the kitchen knife go?'				(file t940714: 2;3.4)
c.	(S)VO:	jibun	de	motteru,	kore.	
		oneself	by	keep	this	
		'(I) keep this by myself.'				(file t940526: 2;1.16)

Examples from Jun's speech:

a.	(S)OV:	hai, reezooko	mottekita .		
		here fridge	brought		
		'Here, I brought a fridge."			(file 20628: 2;6.28)
b.	*wh*-question:	nani	yuuteru ?		
		what	saying		
		'What is it saying?'			(file 20628: 2;6.28)
c.	(S)VO:	mekuttaro,	kore mo .		
		turn over	this also		
		'I will turn this over, too.'			(file 20628: 2;6.28)

Table 1: Corpora Analyzed

Child	*Age*	*Number of child utterances*	*Collected by*
Aki	2;6.15 - 3;0.0	12,415	Miyata (2004a)
Ryo	2;4.25 - 3;0.30	5,901	Miyata (2004b)
Tai	1;9.3 - 3;1.29	29,980	Miyata (2004c)
Jun	2;3.23 - 3;0.1	22,444	Ishii (2004)

(years;months.days)

Table 2: Results of the Transcript Analysis

	Aki		Ryo		Tai		Jun	
	(S)OV	(S)VO	(S)OV	(S)VO	(S)OV	(S)VO	(S)OV	(S)VO
Total number of utterances	518	38	252	43	1120	50	754	120
Number of direct-object *wh*-question	185	0	40	0	70	1	140	0
% of direct-object *wh*-question	38.7	0	15.9	0	6.3	2	18.6	0

Table 3: Analysis of Child-directed Speech in Aki Corpus

	Aki's Mother	
	(S)OV	(S)VO
Total number of utterances	505	25
Number of direct-object *wh*-question	114	0
% of direct-object *wh*-question	22.6	0

1. For arguments that OSV order is derived from SOV order via movement (scrambling), see Saito (1985) and Nemoto (1999), among many others.

2. The Q-particle *no* can be omitted when the sentence is pronounced with an appropriate question intonation. See Yoshida and Yoshida (1997) and Ko (2005) for detailed discussion of the Q-particle drop phenomenon.

3. As a reviewer correctly points out, the object in the VO order tends to be a demonstrative expression (see also the examples given in the Appendix). In adult Japanese, postverbal objects often express materials that are highly presupposed in the context (Kuno (1978)). Then, this observation suggests that young children are already sensitive to the pragmatic functions of the postverbal objects, which is consistent with the main claim of this study that Japanese-learning children acquire the basic OV order at a very early age. Clancy (1985) and Nomura (2007) provide a detailed discussion on the pragmatic properties of the postverbal objects in child Japanese.

4. OV and VO sentences include not only sentences that contain a verb and a nominal object but also those that contain a verb and a prepositional complement.

5. The single apparent example of an object *wh*-question with VO order is given in (i). A plausible analysis of this example would be that the child intended to say the sentence in (ii) (which is grammatical in adult Japanese) but mispronounced *dokoka-ni* ‘somewhere’ as *doko-ni* ‘where’.

(i)	minna	haitta	no-ka-na,	doko-ni .	
	everyone	entered	Q	where	(Tai 2;10.6: file t950216)
(ii)	minna	haitta	no-ka-na,	dokoka-ni .	
	everyone	entered	Q	somewhere	

'Did everyone enter somewhere?'

6. Each file in the corpora contained approximately the same number of VO utterances (two to five sentences), which suggests that the grammatical basis for this construction did not change in the course of acquisition. I thank an anonymous reviewer for relevant discussion.

7. See Chen (2001) for evidence from the acquisition of American Sign Language, which also has a variable word order.

8. Yet, recent acquisition studies have also revealed that not every parameter falls under VEPS. See Snyder (2001) and Sugisaki (2003) for detailed discussion.

9. The symbol "@fp" stands for "final particle".