Early Acquisition of Basic Word Order:  
New Evidence from Japanese  

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1. Introduction

Over the past twenty years, language acquisition studies within the Principles-and-Parameters approach (Chomsky 1981) have convincingly demonstrated that the invariant principles of UG constrain the course of acquisition from virtually the very beginning, namely as soon as the child becomes able to use relevant lexical items and structures (see Otsu 1981 and Crain & Thornton 1998, among many others). Recent progress has revealed that this conclusion should be extended to the settings of several parameters. According to Wexler (1996, 1998), parameters relevant to word order and null subjects are set correctly at the earliest observable stages, contrary to the traditional expectation that parameter-setting takes time, given its experience-dependent nature. In this study, I will provide a new piece of evidence favoring Wexler’s view, by showing that Japanese-learning children know the basic object-verb order from the earliest stages. This finding succinctly indicates that the early setting of the word-order parameter holds even for the acquisition of a free word-order language. More importantly, such early acquisition of language-particular knowledge lends further support to the postulation of innate constraints on language variation.

2. Very Early Parameter-Setting

It has been observed at least since Brown (1973:156) that in the early speech of English-learning children, “the violations of normal [word] order
are triflingly few.” The correct word order of verb-object (or more accurately, head-complement) is displayed quite early, which suggests that children reach the correct value of the head parameter at an extremely young age.

The same observation has been made in the acquisition of German. Poeppel & Wexler (1993) report that early child German exhibits a strong correlation between the structural position of the verbs and their finiteness: [+finite] verbs systematically appear in second clausal position, and [-finite] verbs consistently remain in final position, after the object.2

(1) a. Ich hab ein dossesn Ball.  S-V [+fin]-O
   I  have a big  ball
b. Thorsten Caesar haben.  S-O-V [-fin]
   Thorsten C. (= doll) have

(Poeppel & Wexler 1993:5-6)

Under the assumption that [-finite] verbs occupy their base-generated position, sentences like (1b) show that child German has the underlying object-verb order, the basic word order of German that can be detected in subordinate clauses in the case of adult grammar. Again, the data from child German suggest that the setting of the head-complement parameter is completed quite early.

Going back to the acquisition of English, it is well-known that before or around the age of two, children produce sentences that lack overt subjects, as in (2):

(2) a. See window.
   b. Want more apple.          (Hyams 1986:63)

Given that the availability of null subjects is a notable characteristic of adult Italian and Spanish, Hyams (1986) proposed that subjectless sentences in child English stem from the early non-adult-like setting of the null-subject parameter.

Yet, Wexler (1996, 1998) has provided an alternative explanation, based on the observation that in the acquisition of many non-null-subject languages, the use of null subjects is largely contingent on the use of non-finite main verbs.3 Wexler argues that the majority of early null-subjects are PRO

1. Still, incorrect object-verb order is observed occasionally. See Koizumi (2002) for a minimalist analysis of these OV sentences in child English.


3. See also Hyams (2001:36) for a detailed discussion.
licensed by matrix infinitives, and hence that null-subject parameter is not mis-set by children.

In light of these findings from the acquisition of Germanic (and Romance) languages, Wexler (1996, 1998) proposed the hypothesis of Very Early Parameter-Setting (VEPS):

(3) **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:

(4) 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)

The hypothesis of VEPS is quite stimulating, since it goes against the traditional view (adopted in Hyams 1986) that parameters are set relatively late, only after the child has been exposed to sufficient experience. Yet, the universality of this hypothesis remains as an important question. In the following sections, I will put VEPS to a further empirical test, by examining whether this hypothesis holds for the acquisition of Japanese, a free word-order language.

3. **VO Sentences in an OV Language**

   In Japanese, word order is flexible. For example, both SOV and OSV orders are possible for a simple transitive sentence:

<table>
<thead>
<tr>
<th>(5)</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td>Dylan-ga</td>
<td>chaahan-o</td>
<td>tabeta  yo.</td>
</tr>
<tr>
<td></td>
<td>Dylan-Nom</td>
<td>fried rice-Acc</td>
<td>ate Excl</td>
</tr>
<tr>
<td>b.</td>
<td>Chaahan-o</td>
<td>Dylan-ga</td>
<td>tabeta yo.</td>
</tr>
<tr>
<td></td>
<td>Fried rice-Acc</td>
<td>Dylan-Nom</td>
<td>ate Excl</td>
</tr>
<tr>
<td></td>
<td>‘Dylan ate fried rice.’</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

   In addition, English-like SVO order is available:

4. For arguments that OSV order is derived from SOV order via movement (scrambling), see Saito (1985) and Nemoto (1999), among many others.
Yet, such SVO sentences exhibit various restrictions that do not apply to SOV order. First, SVO order cannot appear in embedded contexts.

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).

Third, the SVO order is incompatible with direct-object \textit{wh}-questions, as illustrated in (9).

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 (7) - (9) indicate that Japanese is an SOV language that takes the head-final value of the head-complement parameter.

Following Kuno (1978), Tanaka (2001) argues that SVO sentences in Japanese consist of two independent sentences. Under Tanaka’s analysis, the first sentence contains \textit{pro} in its object position, and the second sentence undergoes scrambling of the object and deletion of a clausal constituent. Thus,

5. The Q-particle \textit{no} can be omitted when the sentence is pronounced with an appropriate question intonation. See Yoshida & Yoshida (1997) for a detailed discussion of Q-particle drop.
the sentence in (6) is derived in the following manner:

(10) Dylan-ga \textit{pro} tabeta yo, Dylan-ga chaahan-o tabeta yo. \\
\hspace{1cm} \downarrow \textit{scrambling of the object} \\
\hspace{1cm} Dylan-ga \textit{pro} tabeta yo, chaahan-o\{Dylan-ga \textit{t}_1\ \textit{tabeta yo}\}. \\
\hspace{1cm} \downarrow \textit{deletion} \\
\hspace{1cm} Dylan-ga \textit{pro} tabeta yo, chaahan-o\{Dylan-ga \textit{t}_1\ \textit{tabeta yo}\}. \\

The assumption that the object of the first clause is \textit{pro} (and not a trace) is supported by the fact that the gap can be filled with an overt lexical item, as shown in (11) (Tanaka 2001:552).

(11) Dylan-ga \textit{sono ryouri-o} tabeta yo, chaahan-o. \\
\hspace{1cm} \text{Dylan-Nom that dish-Acc eat Excl fried rice-Acc} \\
\hspace{1cm} ‘Dylan ate that dish, fried rice.’

Tanaka’s (2001) analysis neatly accounts for the three restrictions on SVO sentences discussed above. The incompatibility with embedding illustrated in (7) is explained by whatever rules out the repetition of the subordinate clause:

(12) *Susan-ga [ Dylan-ga chaahan-o tabeta, Dylan-ga \\
\hspace{1cm} Susan-Nom Dylan-Nom fried rice-Acc eat Dylan-Nom \\
\hspace{1cm} chaahan-o tabeta to ] omotteiru. \\
\hspace{1cm} fried rice-Acc eat C think \\
\hspace{1cm} ‘Susan thinks that Dylan ate fried rice, Dylan ate fried rice’

The loss of idiomatic interpretation with the SVO order stems from \textit{pro} in the first clause. Under Tanaka’s analysis, the sentence in (8b) has the following underlying structure:

(13) [\hspace{1cm} (S1 Dylan-ga \textit{pro} \textit{tateta yo}), [\hspace{1cm} (S2 hara-o\{Dylan-ga \textit{t}_1\ \textit{tateta yo}\}) \\
\hspace{1cm} Dylan-Nom set up Excl stomach-Acc \\
\hspace{1cm} Dylan-Nom set up Excl]

The first clause in (13) contains an incomplete idiom: The object is an empty pronoun, which cannot constitute an idiom chunk with the verb. The impossibility of direct-object \textit{wh}-questions with SVO also results from this empty pronoun. The underlying structure for (9b) is represented in (14).
A wh-phrase in a question is inherently focused and bears new information. Thus, it cannot be an empty pronoun in S1, making the sentence ungrammatical.

To summarize this section, we have seen that Japanese permits both SOV and SVO orders. Yet, the latter exhibits various restrictions that do not apply to the former, which suggests that the head-final order is the basic one. According to Tanaka (2001), the marked SVO order in fact consists of two separate sentences, the latter of which undergoes scrambling and deletion.

4. VO Sentences in Child Japanese and Very Early Parameter-Setting

Japanese-learning children around the age of 2;5 (years;months) sometimes produce utterances that contain VO order. Some examples are provided in (15)

   Read this part
   ‘Let’s read this part.’

   Open this
   ‘Open this.’

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 in exactly the same way as in the adult grammar (namely, the derivation in (10)). This is what is predicted by VEPS, the hypothesis which claims that the word-order parameter is correctly set from the earliest stages. The other possibility, which is consistent with a more traditional view of parameter-setting, is that children are still entertaining both values of the head parameter, and that sentences like those in (15) 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.
5. Transcript Analysis

In order to determine which of the two possibilities discussed in the previous section is correct, I analyzed two longitudinal corpora for Japanese (Miyata 1992, 1995) from the CHILDES database (MacWhinney 2000), which provide a total sample of more than 33,000 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 (9), repeated here as (16).

(16) a. Dylan-ga nani-o tabeta (no)?
Dylan-Nom what-Acc ate Q
b. * Dylan-ga tabeta (no), nani-o?
Dylan-Nom ate Q what-Acc
‘What did Dylan 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. The corpora I analyzed are summarized in (17), and the results of my analysis are presented in (18). Some actual utterances are given in the Appendix.

(17) Corpora analyzed:

<table>
<thead>
<tr>
<th>files</th>
<th>age</th>
<th>collected by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aki</td>
<td>32 – 56</td>
<td>2;6.15 – 3;0.0</td>
</tr>
<tr>
<td>Ryo</td>
<td>r20425 – r30030</td>
<td>2;4.25 – 3;0.30</td>
</tr>
</tbody>
</table>

(18) Results of the transcript analysis:

<table>
<thead>
<tr>
<th></th>
<th>AKI</th>
<th>RYO</th>
</tr>
</thead>
<tbody>
<tr>
<td>(S)OV</td>
<td>(S)VO</td>
<td></td>
</tr>
<tr>
<td>Total # of utterances</td>
<td>518</td>
<td>38</td>
</tr>
<tr>
<td># of direct-object wh-question</td>
<td>185</td>
<td>0</td>
</tr>
<tr>
<td>% of direct-object wh-question</td>
<td>35.7 %</td>
<td>0 %</td>
</tr>
</tbody>
</table>

Both Aki and Ryo have shown an extremely clear contrast between (S)OV and (S)VO sentences: While direct-object wh-questions appeared with (S)OV order to a significant extent, they never did so with (S)VO order. 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. Thus, the acquisition of word order in Japanese

6. 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.
provides a new piece of evidence for the recent proposal of VEPS.

Let us recall that, under Tanaka’s (2001) analysis, the incompatibility of direct-object *wh*-questions with the VO order stems from the presence of *pro* in the first clause. If this analysis is on the right track, the fact that children never produce VO sentence with an object *wh*-phrase indicates that the object *pro* is correctly represented in the clause structure of children. Then, the contrast reported in (18) also suggests that the null-argument parameter is correctly set from the earliest period of Japanese acquisition, a result that is again consistent with VEPS.

6. Conclusion

The results of my transcript analysis have revealed that VO sentences in child Japanese obey the 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 not only constitutes a new piece of evidence for the early acquisition of basic word order in Japanese, but also succinctly shows that VEPS holds even for the acquisition of a free word-order language. More importantly, such early acquisition of language-particular knowledge would lend further support to the postulation of innate constraints on language variation.

Appendix: Examples from Children’s Speech

(19) Examples from Aki’s speech:
   a. (S)OV: koko juusu utteru.
      ‘This (shop) sells soft drinks.’ (file 36: 2;7.12)
   b. *wh*-question: empitsu doko ittano@fp?
      ‘Where did the pencil go?’ (file 36: 2;7.12)

7. In other words, the finding excludes the possibility that even though the verb and the object in child VO sentences originate from two different clauses, the verb is the sole constituent of the first clause as a result of structure truncation in the sense of Rizzi (1993/1994). The results indicate that the first clause always contains a verb and an object *pro*.

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

10. The symbol “@fp” stands for “final particle”.
c. (S)VO: a mite, kore!
   hey look this
   ‘Hey, look at this!’ (file 36: 2;7.12)

(20) Examples from Ryo’s speech:
  a. (S)OV: Hirokun no tsukue ni notta.
         ‘(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)

References


