Clitic-Climbing in Child Spanish and the Theory of Parameters

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1. Introduction

One of the parametric differences that have been of central interest in the comparative syntax of Romance languages is the possibility of clitic-climbing. As illustrated in (1), Spanish permits the pronoun lo ‘it’ to appear as a clitic either (i) on the infinitival verb by which it is selected or (ii) on the matrix verb. The latter option is known as the phenomenon of clitic-climbing. French, in contrast, does not allow this option, as exemplified in (2).

(1) Spanish:
   a. non-climbing:   Quiero ver+lo.
       want-1Sg see+MSg  ‘I want to see it.’
   b. clitic-climbing:   Lo quiero ver.
       MSg want-1sg see

(2) French:
   a. non-climbing:   Je veux le voir.
       I want MSg see  ‘I want to see it.’
   b. clitic-climbing:  * Je le veux voir.
       I MSg want see

In this study, we show that Spanish-learning children use clitic-climbing from the earliest stages, and that they never go through a period in which they avoid clitic-climbing by relying solely on non-climbing forms. Our results provide support for Kayne’s (1989) parametric proposal that the possibility of clitic-climbing is closely tied to the null-subject parameter, which acquisition studies have independently shown to be set very early (e.g. Bloom 1990, Hyams 2001, Wexler 1998).


Given the intriguing contrast between Spanish and French illustrated above, a number of syntactic studies have addressed the issue of what parameter is responsible for this difference between these closely-related languages.

Kayne (1989) proposed that the cross-linguistic variation in clitic-climbing is tightly connected to another notable difference between Spanish and French: the possibility of null-subjects. Spanish permits null subjects by taking the positive value of the null-subject parameter, as shown in (3). In contrast, French takes the negative setting and disallows null

* We are grateful to Nina Hyams and to the audience at BUCLD 29 poster session for valuable comments. The present research was supported in part by Mie University COE Research Award (Sugisaki).
subjects, as shown in (4).

(3) Spanish:
   a. overt subject: Él está en la escuela. he is at the school ‘He is at the school.’
   b. null subject: __ Está en la escuela. is at the school

(4) French:
   a. overt subject: Il est à l’ école. he is at the school ‘He is at the school.’
   b. null subject: * __ Est à l’ école. is at the school

Under Kayne’s analysis, the correlation between the availability of clitic-climbing and the licensing of null subjects is obtained in the following way. He postulates that the null-subject parameter consists of two values, which distinguish between languages with ‘strong’ INFL and languages with ‘weak’ INFL.

(5) Null-Subject Parameter: INFL is {strong, weak}.

Spanish selects the ‘strong’ value, and French takes the ‘weak’ one. The ‘strong’ INFL has the following two properties. First, it licenses null subjects in its specifier position. Second, it L-marks its VP complement.

In order for a clitic to move up from an infinitival complement to the matrix clause, it must be able to escape from the infinitival VP. Yet, VP is potentially a barrier to antecedent government, and it loses its barrierhood only when it is L-marked by a ‘strong’ INFL. Thus, clitic-climbing is possible only in languages with the ‘strong’ INFL that licenses null subjects.1,2

3. Very Early Setting of the Null Subject Parameter

It is widely known that in the acquisition of obligatory subject languages such as English, young children optionally omit subject pronouns, as illustrated in (7).

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1 Under Kayne’s account, wh-movement in French escapes VP by adjoining to this maximal projection. Clitics do not have this option because clitics, being heads, may adjoin to another head but never to a maximal projection.

2 For a minimalist implementation of Kayne’s parametric proposal, see Ogawa (2003).
The seminal work by Hyams (1986) proposed a grammar-based parametric account for this phenomenon. Based on the observation that the availability of null-subject sentences is a distinctive property of adult Italian and Spanish, Hyams suggested that subject omission in the child’s speech follows from the early non-adult-like setting of the null-subject parameter.

Yet, this parametric account of null subjects ran up against a number of empirical challenges (see e.g. Bloom 1990 and Valian 1991). A compelling argument against this analysis came from the distribution of null subjects in child language. As summarized in Hyams (2001:36), various studies have shown that in a number of non-null-subject languages, there is a strong contingency between the omission of subjects and the expression of finiteness on the verb: In these languages, the use of null subjects is largely contingent on the use of non-finite main verbs. Since finite clauses permit null subjects in adult Italian and Spanish, this observation is directly at odds with the parametric account.

In light of these findings, Wexler (1996, 1998) argues that the majority of early null-subjects are PRO licensed by matrix infinitives, and hence that the null-subject parameter is not mis-set by children. More generally, he 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)

4. **Prediction for the Acquisition of Spanish**

Under Kayne’s (1989) parametric system, the availability of clitic-climbing follows from the positive setting of the null-subject parameter. As for child language, Wexler (1996, 1998) argues that the null-subject parameter is set correctly from the earliest observable stages. If both of these claims are correct, then the essential prerequisite for clitic-climbing is available to children from very early and hence we make the following prediction.

(10) Prediction for Acquisition:

a. Spanish-learning children will begin to use clitic-climbing as soon as they acquire other relevant knowledge (specifically, clitics and infinitival complements).
b. In other words, they will never go through a stage in which the non-climbing option (as in (1a)) is consistently chosen over clitic-climbing (as in (1b)).

5. Transcript Analysis

In order to evaluate the acquisition prediction in (10), we selected five longitudinal corpora for Spanish from the CHILDES database (MacWhinney 2000), which provide a total sample of more than 23,000 lines of child speech. The corpora we analyzed are summarized in (11).

(11) Corpora Analyzed

<table>
<thead>
<tr>
<th>Child</th>
<th>Age</th>
<th># of child utterances</th>
<th>Collected by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Juan</td>
<td>2;8 – 4;8</td>
<td>2,520</td>
<td>Linanza</td>
</tr>
<tr>
<td>Koki</td>
<td>1;7– 2;11</td>
<td>4,303</td>
<td>Montes (Montes 1987, 1992)</td>
</tr>
<tr>
<td>María</td>
<td>2;0 – 3;10</td>
<td>7,706</td>
<td>Ornat (López Ornat 1994)</td>
</tr>
<tr>
<td>Eduard</td>
<td>1;4 – 3;10</td>
<td>1,560</td>
<td>Serra</td>
</tr>
<tr>
<td>Emilio</td>
<td>2;5 – 4;6</td>
<td>7,129</td>
<td>Vila</td>
</tr>
</tbody>
</table>

The results are summarized in (12). We take the age of acquisition for a construction to be “the age of first clear use, followed soon after by additional uses” (Stromswold 1996, Snyder & Stromswold 1997). One child (Eduard) produced only clitic-climbing forms by the end of his corpus. The remaining four children showed uses of both non-climbing and clitic-climbing forms. Among these four, two children (Koki and Emilio) produced the non-climbing option first, and the other two children (Juan and María) produced the clitic-climbing form first. The former type of children is potentially problematic for the prediction in (10), which maintains that Spanish-learning children should never acquire the non-climbing option significantly earlier than clitic-climbing.

In order to determine whether the observed age differences between the acquisition of the non-climbing form and the acquisition of clitic-climbing is statistically significant in the development of these two children, we counted the number of clear uses of non-climbing forms before the first clear use of clitic-climbing. We next calculated the relative frequency of the two constructions in the child’s own speech, starting with the transcript after the first clear use of clitic-climbing, and continuing through the end of the corpus. We then used a Binomial Test to obtain the probability of sampling the observed number of tokens of the non-climbing construction simply by chance, before the first use of the clitic-climbing construction, under the null hypothesis that both became available concurrently and had the same relative probability of use as in later transcripts (Stromswold 1996, Snyder & Stromswold 1997).

The results of the statistical analysis have shown that the age-discrepancy did not reach significance ($p > .10$ by Binomial Test). Thus, our results have borne out the prediction in (10): We found no child who acquired non-climbing form significantly earlier than clitic-climbing.
Acquisitional Findings:

<table>
<thead>
<tr>
<th>Child</th>
<th>non-climbing</th>
<th>clitic-climbing</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Koki</td>
<td>1;7</td>
<td>2;1</td>
<td>p &gt; .10</td>
</tr>
<tr>
<td>Emilio</td>
<td>2;5</td>
<td>2;8</td>
<td>p &gt; .10</td>
</tr>
<tr>
<td>Juan</td>
<td>2;1</td>
<td>2;8</td>
<td>N/A</td>
</tr>
<tr>
<td>María</td>
<td>3;9</td>
<td>2;8</td>
<td>N/A</td>
</tr>
</tbody>
</table>

6. Conclusion

Even though the results are still preliminary, in that the number of children investigated is relatively small, our findings provide acquisitional support for Kayne’s (1989) parametric proposal that the possibility of clitic-climbing follows directly from the positive setting of the null-subject parameter. The findings also support Wexler’s (1996, 1998) claim that this constitutes one of the early-set parameters. A broader implication of this study is that the time course of child language acquisition provides an important testing ground for parametric proposals (Snyder 2001, Snyder & Stromwold 1997, Sugisaki 2003).

Appendix: First Clear Uses

(13) Koki

a. non-climbing (1;7):
   no puede cerrar+lo
   ‘I cannot close it.’

b. clitic-climbing (2;1):
   me voy a hacer popó
   ‘I’m going to make poo poo.’

(14) Emilio

a. non-climbing (2;5):
   voy a poner+la aquí
   ‘I’m going to put it here.’

b. clitic-climbing (2;8):
   hoy no me puedo levantar
today not 1pSg-CL can stand up
   ‘I cannot stand up today.’

(15) Juan

a. clitic-climbing (2;8):
   te tiene que bajar
   ‘He has to put you down.’

b. non-climbing (3;9):
   todos a coger+la
everybody to catch+3pFSg-CL
   ‘Everybody go to catch it.’
(16) María
   a. clitic-climbing (2;0):
      me vas a comprar unos?
      1pSg go to buy ones ‘Are you going to buy me some ones?’
   b. non-climbing (2;1)
      vamos a guardar+los
      go to lock+3pMPI-CL ‘Let’s lock them.’

(17) Eduardo
   a. clitic-climbing (3;10):
      la voy a poner
      3pFSg go to put ‘I’m going to put it.’
   b. non-climbing: not attested

References

Montes, Rosa. 1987. *Secuencias de clarificación en conversaciones con niños (Morphe 3-4)*. Universidad Autónoma de Puebla.
