Language Acquisition and Development

Proceedings of GALA 2013

Edited by
Cornelia Hamann and Esther Ruigendijk

Cambridge Scholars Publishing
The Acquisition of Syntactic Microvariation in Silent Categories

JOÃO COSTA, ELAINE GROLLA AND MARIA LOBO

1. Introduction

It is well established that most parameters are set quite early, arguably at pre-lexical or pre-syntactic stages, during the first year of life. This has been argued for the null subject parameter (e.g. in Hyams and Wexler 1992), for the V2 parameter (e.g. in Verrills and Weissenborn 1992), for the V-to-I parameter (e.g. in Guasti 1993/1994), and for the directionality parameter (Nesp et al. 1996). Much of these findings in the 90s relate to major parametric differences, also known as macroparameters. For many of these parameters, the research of the last two decades revealed that what was conceived as a single parameter breaks down into more detailed crosslinguistic differences. To quote just one example, the view that a language could have null subjects or not is now known to be oversimplified, since it is well established that some languages allow for null subjects only in some contexts, and null subjects are not of the same type in all languages. Facts of this type have drawn the attention to the need for having research on microparameters for a clearer picture of language variation to emerge. As noted by Kayne (2005), once microparameters are established, there is no need for macroparameters.

This research on variation is relevant for language acquisition. If it is established that the study of adult grammars is richer when focused on microvariation, it is no longer so relevant to focus on the acquisition of macroparameters. Instead, it must be examined whether there is evidence for early sensitivity to microparameter setting.

This paper is an exploratory study of the acquisition of microparametric variation in the behavior of null categories. Previous results on the acquisition of European Portuguese reveal that children know that this is a null object language, but, at age 5, they have not yet attained an adult-like knowledge of the interpretive properties of the null object. This contrasts with findings for Japanese, a language in which null categories are all of the same type – topic licensed. This led Costa and Lobo (2013) to
hypothese the uniformity of Japanese null categories speeds up the
development, contrary to what happens in Portuguese, a language in
which null subjects and null objects are different in type. Since the
literature on adult grammar in Brazilian Portuguese indicates that the
system of null categories is more uniform than in European Portuguese,
the prediction is that the acquisition of Brazilian Portuguese null
categories will be faster than what is found in European Portuguese.
In order to test this prediction, we ran two experiments in the two languages.
As we will demonstrate, the results are not yet entirely conclusive, but
there is some general tendency supporting the prediction made.
The paper is structured as follows: in section 2, we review the relevant
data on the acquisition of null categories, in particular what is known
about null subjects and null objects in European and Brazilian Portuguese.
We also put forward the hypothesis that complexity may have a predictive
role in determining stabilization of some syntactic knowledge. Two
experiments previously run on European Portuguese are presented in
section 3. We ran the experiments in Brazilian Portuguese, and the results
for the two variants of the language are presented. Finally, section 4 offers
a discussion of the results, and signals the developments to be made for the
sake of attaining more conclusive findings.

2. Null subject and null object: facts from adult and child
language

The question we may start with is whether children know null
categories. The literature has evidence in favor of affirmative and negative
answers to this question. On the one hand, there is sound evidence
showing that children produce null subjects like adults do in Romance (see
Guasti 2002 for a review). The same holds for null subjects in English:
Rizzi (1994) shows that null subjects used in child English have properties
similar to those used in diary style. Similarly, there is good evidence
showing that, in their earliest productions, children utter structures with
VP-ellipsis (cf. Santos 2006, who shows that verbal answers to yes-no
questions in European Portuguese instantiate adult cases of VP-ellipsis). In
Costa and Lobo (2010), it is shown that children have a null object
grammar in European Portuguese, since they are able to interpret verbs
without an overt complement transitively in the appropriate context. All
these data converge to an affirmative answer to the question: it is clear that
children know null categories.

On the other hand, some studies reveal that children may not know all
the properties of the null categories they use. This becomes particularly
evident in comprehension studies. Costa and Ambulate (2010) and Silva
(2013) have shown that some referential properties of null subjects in
embedded contexts are not understood as in adult grammar, since children
give broader interpretations to null subjects than adults do. Likewise,
Friedmann and Costa (2010) have shown that null subjects in
dependencies with coordination, of the type John saw Peter and ___
smiled, are not comprehended as in the adult grammar, since its
interpretation is affected by intervention effects (i.e. by the fact that a
potential antecedent is in the way between the matrix subject and the gap).
Also, Costa and Lobo (2009) show that not all properties of null objects
are comprehended in an adult-like fashion, in spite of the fact that children
have a null object grammar. This is shown by the fact that children, unlike
adults, accept reflexive readings for null objects and allow for null objects
to refer to 1st and 2nd person referents.

All these facts appear to indicate that children know null categories but
may have a delay in the stabilization of their referential properties.
However, this is not fully consistent with some results available in the
literature. For instance, Sugisaki (2009) observes that children acquiring
Japanese display adult behavior of the interpretive properties of null
subjects and null objects at the age of three, which is at odds with the
findings just reported.

This type of crosslinguistic difference calls for an explanation. In
Costa and Lobo (2013), we hypothesized, on the basis of previous results,
that input variability induces delays in acquisition. We based this
hypothesis on two independent results. For clitic production, we argued
that the optionality between clitics and null objects in European
Portuguese makes Portuguese children have a slower development of clitic
production in obligatory contexts than what has been found for other
languages. Also, in Costa, Fiéis and Lobo (2013), we claimed that the
sensitivity to proclitic environments is dependent on the variability of
proclisis contexts. This hypothesis makes a clear prediction for language-
internal and crosslinguistic variation: languages may differ in terms of
pace of acquisition depending on their inherent complexity. In order to test
this hypothesis, we studied language-internal and crosslinguistic variation
in the acquisition of null categories in Brazilian and in European
Portuguese. Let us, then, review the relevant features of these categories in
the two varieties of Portuguese.

Let us start by null subjects: European Portuguese is a null subject
language of the typical Romance type: it has a pro subject with the
standard properties associated to it. Brazilian Portuguese, on the contrary, has null subjects in limited contexts and with different referential properties. For reasons of space, we cannot illustrate all differences, and we refer the reader to Duarte (1995) and to Modesto (2008), among others. Nevertheless, we list the following set of properties that distinguish the null subject in Brazilian Portuguese from pro in the other null subject Romance languages: i) it is less frequent; ii) it is topic-oriented; iii) it is a root context phenomenon and it is much less frequent in embedded contexts; iv) whenever found in embedded contexts, it is controlled by a matrix antecedent. Although there is no consensus in the literature regarding the status of null subjects in Brazilian Portuguese, it has been argued to act like a variable, requiring an antecedent binding it (Modesto 2008). Most analyses converge on assigning it properties that are not typical of a pronoun in an A-position.

The properties of null objects are also different in the two varieties. Raposo (1986) has argued that the null object is a variable in European Portuguese, due to its inability to surface inside strong islands. Differently, Cyrino and Lopes (2012) have argued that the null object in Brazilian Portuguese is a case of PF-deletion. There are several properties differentiating the two, but most of the argumentation is based on the similarities between null objects and VP-ellipsis.

VP-ellipsis is one of the cases in which the two languages pattern alike: both in European and in Brazilian Portuguese, VP-ellipsis is a case of PF-deletion, which explains properties such as the insensitivity to islands, as discussed in Matos (1992) and Cyrino and Lopes (2013). Summing up, the differences are represented in Table 1.

Table 1: Types of empty categories in BP and EP

<table>
<thead>
<tr>
<th>Category</th>
<th>Brazilian Portuguese</th>
<th>European Portuguese</th>
</tr>
</thead>
<tbody>
<tr>
<td>Null Subject</td>
<td>Variable</td>
<td>pro</td>
</tr>
<tr>
<td>Null Object</td>
<td>PF-deletion</td>
<td>variable</td>
</tr>
<tr>
<td>VP-ellipsis</td>
<td>PF-deletion</td>
<td>PF-deletion</td>
</tr>
</tbody>
</table>

The crucial difference between the two varieties of Portuguese is that two of the silent constructions involve deletion in Brazilian Portuguese, but they are more mixed in European Portuguese. None of the systems is uniform, unlike what happens in a language like Japanese, in which both null subject and null object are variables, but Brazilian Portuguese is more uniform than European Portuguese. Based on the complexity hypothesis formulated above, we are predicting that Brazilian Portuguese silent categories will be acquired faster than European Portuguese given the higher inherent complexity of the latter. Testing this prediction is the goal of next section.

3. Experiments on the acquisition of null categories and their interpretive properties

In order to test children's knowledge of the properties of null subjects and null objects in the two varieties of Portuguese, we conducted two experiments with children acquiring Brazilian Portuguese that had been previously applied to children exposed to European Portuguese.

3.1. Test on comprehension of null objects

The first experiment, used in Costa and Lobo (2010) for European Portuguese, aimed at disentangling clitic omission of the type found in the acquisition of French from a generalization and overuse of null objects by children. This experiment is an adaptation of Grütter’s (2006) test for French and English, which tests whether children can interpret a verb without an overt complement transitively. In order to do so, Costa and Lobo (2010) adapted Grütter’s test for Portuguese, using verbs that could be used both transitively and intransitively, creating a transitive context and having a puppet utter the verb without a complement. For instance, for a figure like 1, the verb “mergulhar”/dive would be used. This verb can be transitive or intransitive in European Portuguese. If children do not have a null object grammar, if they hear a sentence like “O Rui mergulhou.”/Rui dove, they will only assign it an intransitive reading, and assume that this is true only in the context where Rui is jumping in the pool. In a null object grammar, when the antecedent for the object is highly salient in the discourse, the sentence may also be true in the context in which Rui is putting the dog into the water. A transitive use of the verb with a full object would be a sentence like “O Rui mergulhou o cão na piscina”.

Children acquiring English and French rejected cases like this, whereas 5-year old children acquiring European Portuguese accepted them just like adults did. Unlike adults, though, children overaccepted null objects in islands and in reflexive contexts, two contexts in which null objects are ruled out in adult grammar. In Costa and Lobo (2010), we interpreted this as evidence to the claim that children acquiring European Portuguese, at
the age of 5, know that the language has null objects, but do not yet master all their interpretive properties.

Figure 1

We replicated this experiment in Brazilian Portuguese, with 33 children aged between 4;0 and 4;11 (13 children), and between 5;0 and 5;11 (20 children). Additionally, a group of 20 adults was used as control. The conditions were the same as in the test applied to children acquiring European Portuguese. The test included conditions with null objects in root clauses, null objects in islands and a set of control conditions to discard the possibility that children did not yet master transitivity (these included superfluous arguments, both clitics and DPs). We expected similar results for the root clauses, since the two languages do not vary in terms of the availability of null objects in root clauses. As for the island context, we predicted that there should be a difference between European Portuguese and Brazilian Portuguese, since only the former rules out null objects in island given their status as variables.

In Table 2 we summarize the results, adding those obtained for European Portuguese in the study by Costa and Lobo. Note that the first row of results refers to the acceptance of null objects in root clauses, whereas the second row refers to the rejection of null objects in island contexts.

These results are not entirely conclusive, in particular because of the Brazilian control group. As reported above, children acquiring European Portuguese accept null objects in root contexts, but fail to reject them in islands, unlike adults, which argues for an overuse of the null object. For Brazilian Portuguese, we predicted acceptance in all contexts, but the island condition did not confirm this expectation, and no difference was found between Brazilian and Portuguese children. Note, however, that the adult control group had lower performances than the Portuguese group. We interpret these results as the effect of a variable we did not control: animacy effects. According to some descriptions, the null object in Brazilian Portuguese is better with inanimate antecedents, which was not the case in the experiment. This may have affected the results, and probably explains the lower performance of Brazilian adults (although children were less sensitive to it than adults). In future work, we intend to repeat this experiment controlling for animacy.

<table>
<thead>
<tr>
<th></th>
<th>European Portuguese</th>
<th>Brazilian Portuguese</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Children</td>
<td>Adults</td>
</tr>
<tr>
<td>Acceptance of null object in root contexts</td>
<td>80%</td>
<td>92%</td>
</tr>
<tr>
<td>Rejection of null objects in islands</td>
<td>30%</td>
<td>92%</td>
</tr>
</tbody>
</table>

Note, however, that in spite of this insufficiency, this experiment served its basic goal: in the two varieties of the language, children accepted null objects in the root context, which acts as evidence to the claim that their grammar is a null object grammar.

3.2. Experiment on interpretive properties of null subjects and null objects

The second experiment tested the knowledge of the fine differences between empty categories. Oka (1998) and Miyagawa (2009) show that pro and variable differ with respect to their interpretive possibilities: whereas pro is only compatible with strict readings, variable allows for strict and sloppy readings. This is illustrated in the following examples for European Portuguese:

(1) O Pedro disse que os pais são simpáticos, mas o João disse que pro são horríveis.

the Pedro said that the parents are nice, but the João said that pro are horrible

"Pedro said his parents are nice, but João said that they are horrible".

The sentence in (1) is only grammatical if the null subject is interpreted as "Pedro’s parents", that is, under a strict reading for the null subject. The sloppy reading for the null subject is ungrammatical in European Portuguese (note that this does not hold in Brazilian Portuguese, where the
null subject is arguably not pro). This contrasts with what happens with a null object:

(2) O Pedro abraçou os pais, mas o João beijou vbl.
   the Pedro hugged the parents, but the João kissed
   “Pedro kissed his parents, but João kissed them.”

Sentence (2) is ambiguous, since João may have kissed either his parents or Pedro’s parents. This is not different from what happens with VP-ellipsis (Matos 1992), illustrated in (3):

(3) O Pedro tinha abraçado os pais e o João também tinha.
   the Pedro had hugged the parents and the João also had
   “Pedro had hugged his parents, and João had too.”

In order to find out if children differentiate the interpretive properties of the several types of silent category, in Costa and Lobo (2009), we ran a truth value judgment task with null subjects and null objects. For null subjects, we used pictures such as Figure 2 with a description like “O Moreno disse que os pais estavam sentados e o loiro disse que pro tinham chapéu.” The dark-haired said that the parents were sitting and the blond said that pro had a hat. If children know that pro forces strong readings, they will accept this sentence.

For null objects, we used pictures such as Figure 3 with a description like “O loiro abraçou os pais e o Moreno beija”. The blond hugs the parents and the dark-haired kisses. Again, if children know that variables are compatible with sloppy readings, they will accept this sentence as a good description of the picture.

The test included the following conditions, with 5 items per condition plus 17 fillers aimed at balancing the test for true and false situations:

- a) Strict reading for null subjects (True)
- b) Sloppy reading for null subjects (False)
- c) Strict reading for null objects (True)
- d) Sloppy reading for null objects (True)
- e) Strict reading for VP-ellipsis (True)
- f) Sloppy reading for VP-ellipsis (True)

The participants for European Portuguese in Costa and Lobo (2009) were 20 children aged 5, with an average age of 5 years and 5 months, and an adult control group with 15 participants. For Brazilian Portuguese, 20 children aged 5, with an average age of 5 years and 8 months were tested. An additional group of 16 adults acted as control. In Table 3 we present the target results for all the groups per condition.

<table>
<thead>
<tr>
<th>European Portuguese</th>
<th>Brazilian Portuguese</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Children</td>
</tr>
<tr>
<td>Sloppy reading for null subjects (EP: False) (BP: True)</td>
<td>51%</td>
</tr>
<tr>
<td>Strict reading for null subjects (True)</td>
<td>64%</td>
</tr>
<tr>
<td>Strict reading for null object (True)</td>
<td>71%</td>
</tr>
<tr>
<td>Sloppy reading for null object (True)</td>
<td>71%</td>
</tr>
<tr>
<td>Strict reading for VP-ellipsis (True)</td>
<td>69%</td>
</tr>
<tr>
<td>Sloppy reading for VP-ellipsis (True)</td>
<td>86%</td>
</tr>
</tbody>
</table>

The data obtained for the two varieties are not entirely comparable, since, again, the control groups did not behave alike, with only the Portuguese group behaving at ceiling or almost at ceiling in all conditions. There are, however, a couple of facts that can be described. First, in European Portuguese, children perform worse than adults, and they do not appear to know that pro forces strict readings. For these two reasons, Costa and Lobo (2009) concluded that children do not master all interpretive features of silent categories.
When we focus on the data from Brazilian Portuguese, as mentioned, it is clear that the test needs to be improved and that there is great variation. However, what is crucial is that children and adults do not behave differently. The results of a t-test reveal that, unlike what happens in European Portuguese, the difference between Brazilian children and adults is never significant (p> 0.05).

5. Discussion and conclusions

Although we cannot consider these results entirely conclusive, and it appears to be obvious that we need to work on the tests for Brazilian Portuguese, in particular to control for animacy effects with null objects, we think that some conclusions can be drawn from these results.

First, the first experiment clearly indicates that Portuguese and Brazilian children exhibit early knowledge of null objects. In other words, in the two variants of the language, it is clear that children know that their language has null objects.

Second, the second experiment reveals that there is a higher similarity between the performance of children and adults in Brazilian Portuguese than in European Portuguese. By hypothesis, this may indicate that the stabilization of the properties of null categories is earlier in Brazilian Portuguese than in European Portuguese, since similar rates of variation obtain. Yet, Brazilian Portuguese children are not like what Sugisaki (2009) describes for Japanese. This is consistent with several independent results.

Cyrino and Lopes (2013) claim that null objects in Brazilian Portuguese are instances of ellipsis. Santos (2006) shows that ellipsis is mastered early. If it is the case that null subjects are of the A-bar type in Brazilian Portuguese, the system of null categories in this variety is more uniform than the one in European Portuguese. Therefore, the system of null arguments will be more complex in European Portuguese, and it may be the case that this higher variability delays the stabilization of the knowledge of null categories in this grammar, which is consistent with the results for clitic placement and clitic production. Differently, we may consider that in Brazilian Portuguese there is higher uniformity and, consequently, a higher similarity between children and adults indicating a quicker convergence with adult grammar.

As mentioned in the introduction, this study is exploratory and we are aware of the fact that one of its most important results is the need to refine some of the test items for Brazilian Portuguese, in order to reach ceiling in the adult control groups. Nevertheless, we hope to have demonstrated how an investigation of microparametric variation may be a good window into the fine-grained distinctions that need to be acquired by children.

References


(IN)DEFINITENESS AND NEAR-NATIVENESS: ARTICLE CHOICE AT INTERFACES

LENA DAL POZZO AND SIMONA MATTEINI

1. Introduction

In this paper we will investigate the mastery of a second language, L2, by an oral and a written task by near-native speakers whose first language, L1, may or may not realize the D system morphologically. The reasons are twofold:

(i) We are particularly interested in the use of articles since it seems to be an excellent candidate for detecting incomplete acquisition phenomena in its ultimate attainment (Lardiere 1998, 2000, Montrul 2011 among many others) due to a complex interplay of linguistic and extralinguistic (discourse) conditions which regulate the use of determiners in Italian;

(ii) We want to explore the use of offline tasks to see whether or not they have an effect on non-native speakers performance and if yes, in what way.

Concerning the nature of ultimate attainment (point (i)), much research has focused on L2 article choice in speakers with an intermediate or advanced level of proficiency (Ionin, Ko and Wexler 2004 and subsequent work) or by heritage speakers (Montrul and Ionin 2010 and others). The issue of article use at near-native level of proficiency is a relatively unexplored domain in the current debate. During the last decade, the nature of L2 ultimate attainment and non-native speakers’ endstate grammar has received an increasing level of attention; more specifically the issue of “interface phenomena” in L2 acquisition has been intensively investigated. Adopting the concept of interface, we intend to follow Sorace (2011, 2012), who defines an interface as a device comprising different types of conditions for syntactic realization. The approach standardly assumes “that these conditions have to be satisfied in order for the structure to be grammatical and/or felicitous” (Sorace 2011:6).

One of the most influential approaches in this field is the Interface Hypothesis (IH) originally proposed by Sorace (2005, 2006) and successively refined (Sorace and Filiaci 2006, Sorace and Serratrice 2009,