New information subjects in bilingual and monolingual child production*

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This pilot experimental study concerns new information subjects in bilingual and L1 acquisition of Italian. The experimental design is based on the video test first used by Belletti and Leonini (2004) and Belletti, Bennati and Sorace (2007) in the domain of L2 acquisition of Italian, a null subject language, by speakers of non null subject languages. The original experimental design was re-designed by using plasticized cartoons of Mickey Mouse, and the same pragmatic conditions of the original video test were maintained. The contribution of this study is twofold: (i) to pinpoint different developmental stages with respect to answering strategies and new information subjects that emerge in bilingual and L1 acquisition, and (ii) to detect possible crosslinguistic influences between Finnish, a partial null subject language, and Italian, a null subject language.

1. Introduction
Null Subject Languages (NSL) such as Italian typically adopt subject-verb inversion (resulting in the VS order) when answering with a full clause to questions concerning the subject of the clause (cf. (1)); Non Null Subject Languages (NNSL) such as French and English instead adopt different types of answers, such as (reduced) clefts (cf. (3)) and in situ focalization in Subject-Verb structures in which the subject is associated to a special intonation (Belletti 2001, 2004, Belletti, Bennati & Sorace 2007), as exemplified in (2):

(1) a. Chi ha parlato? (Italian)
   who spoke
   b. Ha parlato Pietro.
        has spoken Peter

(2) a. Who came? (English)
   b. John came.

* This contribution is devoted to professor Luigi Rizzi in honor of his 60th birthday. I thank him for the remarkable and valuable years I had the opportunity to spend at the CISCL at the University of Siena as a doctoral student.
As thoroughly discussed in the literature, the possibility of having subject-verb inversion (henceforth Free Inversion (FI), cf. Belletti 2001) is strictly related to the pro-drop parameter (going back to Rizzi 1982, Burzio 1986 and subsequent literature). More recent studies suggest that also discourse factors are highly relevant in licensing this kind of inversion in NSLs: it is typically adopted in contexts like (1), where the subject is interpreted as new information (Belletti 2001, Belletti 2004b, Belletti, Bennati & Sorace 2007). Belletti (2001, 2004) has proposed a low vP-peripheral focus position dedicated to new information subjects which is exploitable by NSL. However, recent work on answering strategies (cf. Belletti 2009) has shown that this position is not exploitable by NNSL, which adopt different structures to focalize the new information subject (as in (2)-(3) above). Consequently, a relation exists between the possibility of instantiating FI (with the subject interpreted as new information) and (referential) null subjects in NSL.

In a crosslinguistic perspective, it has been observed that the answering strategies adopted in different and unrelated languages seem to fall within the possibilities sketched out in (1)-(3) (Belletti 2009). The case of Finnish is particularly interesting in this respect. In recent studies (Holmberg et al. 2009, Holmberg & Sheehan 2010) it is argued that Finnish has a special status for the Null Subject Parameter, namely, it is a Partial Null Subject Language (PNSL) in the sense that it allows for 1st and 2nd person null subjects but not for 3rd person null subjects in main clauses or verb initial sentences. Consequently, Finnish does not allow FI of the type observed in Italian and exemplified in (1). In Finnish, new information subjects are typically in the preverbal position, thus resulting in the SV order. This crucial difference between the two languages will be the main focus of the following discussion.

This pilot experimental study reports novel results of an oral elicitation experiment which tests the use of new information subjects in child L1 Italian and bilingual Finnish-Italian speech production. The main results show that in the Finnish-Italian bilingual population, postverbal subjects are used, even though to a smaller extent than in the L1 Italian monolingual group. Hence, sensitivity to the discourse factors involved in the use of postverbal subjects is attested in both groups. Moreover, the lower rate of use of postverbal subjects in the bilingual population can plausibly be accounted for by a crosslinguistic influence of Finnish on Italian.

2. The experimental design: the test and participants

2.1 The test
The original experimental task (Belletti and Leonini 2004) consists of a video test in which 22 short videos are shown to each participant individually; after each video the participant is presented 1-3 questions to which s/he is asked to answer in

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2 Cf. also Huang (2000) for a classification of PNSLs or semi NSLs.
the most spontaneous way. Such a test was not suitable for pre-school age children. Hence, in order to make the video task more accessible to young children, it was modified: a new experimental design was created, in which new items and a slightly different methodological procedure were introduced. 25 plasticized cards with characters from the Mickey Mouse cartoon were created. The plasticized cartoons are colored and are more interactive than short videos shown on the screen as they can be comfortably handled by young children. The test was preceded by a warm up in which a puppet showed how to answer with a full sentence, i.e. by using “many words”. After the warm up, the experiment itself was run. The cards were shown to each child separately and the investigator asked a subject question about the scene (e.g. Chi ha aperto la lettera? “Who opened the letter?”, Chi ha bevuto il latte? “Who drank the milk?”) and asked the child to answer “with many words”. The test consisted of 20 items and 5 fillers and included 8 transitive verbs, 6 unergative verbs, 6 unaccusative verbs. The answers were recorded and transcribed afterwards.

2.2 Participants
The participants of this study consist of three Finnish/Italian bilingual children and three monolingual Italian controls, who were all tested in Italian. The three bilingual children (age: 5;2, 5;6 and 8;2, the first and the third are siblings) at time of testing all lived in Italy in similar linguistic environments: the mother, a native speaker of Finnish, was spending more time with the child than the Italian speaking father and she only spoke Finnish to them, whereas the father spoke Italian. The L1 Italian children (age: 3;1, 3;11, 4;6) all lived in Italy in monolingual families at the time of testing.

3. Results

3.1 New information subjects in bilingual children
The results show that SV order is the preferred answering strategy. Postverbal new information subjects are present, although at a low rate, from early on. The use of postverbal new information subjects in the bilingual data attests sensitivity to the discourse-pragmatic factors that play a role in the availability of the relevant new information focus position, according to Belletti’s (2001, 2004) analysis.

Graph 1 shows the overall results of SV/VS orders in answering to questions on new information subjects in Finnish-Italian bilingual children. Below Graph 1, the individual data are reported. The age of each child is indicated near the initial letter of the name.
Internet celebration for Luigi Rizzi’s 60th birthday

CISCL, Siena

Individual data (bilingual Finnish/Italian):

M., 5;2

<table>
<thead>
<tr>
<th></th>
<th>tr. V</th>
<th>unacc. V</th>
<th>unerg. V</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>VS</td>
<td>45,8% (11/24)</td>
<td>11,1% (2/18)</td>
<td>38,8% (7/18)</td>
<td></td>
</tr>
<tr>
<td>SV</td>
<td>45,8% (11/24)</td>
<td>88,8% (16/18)</td>
<td>55,5% (10/18)</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>8,3% (2/24)</td>
<td>-</td>
<td>5,5% (1/18)</td>
<td></td>
</tr>
</tbody>
</table>

S=subject, V=verb, O=object, Other=only DP in the answer

Individual data (bilingual Finnish/Italian):

J., 5;6

<table>
<thead>
<tr>
<th></th>
<th>tr. V</th>
<th>unacc. V</th>
<th>unerg. V</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>SVO(DP)</td>
<td>50% (4/8)</td>
<td>100% (6/6)</td>
<td>83,3% (5/6)</td>
<td></td>
</tr>
<tr>
<td>SO(cl)V</td>
<td>25% (2/8)</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>(O(cl))VS</td>
<td>12,5% (1/8)</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

S=subject, V=verb, O=object, cl= clitic
3.2 New information subjects in monolingual Italian children

In addition to the data collected in the bilingual population, also the data from the monolingual Italian control group seem to be quite interesting. Gathering this kind of elicited speech required much effort in young children, as “multi-word” answers are hard to elicit in contexts in which the subject is new information. Data were collected from three young preschool children, whose age was 3;1, 3;11 and 4;6 at the time of testing. There seems to be a clear developmental path from the youngest one to the oldest one, as illustrated in Graph 2: the production of postverbal subjects, resulting in (Ocl)VS (object clitic-verb-subject) structures, increase over time, even though it is not completely absent in the production of the youngest child (age 3;1). Individual data are provided below Graph 2.

Graph 2: Postverbal subjects in child L1 Italian

<table>
<thead>
<tr>
<th>Structure</th>
<th>SVO(DP)</th>
<th>VO(DP)S</th>
<th>(O(cl))VS</th>
</tr>
</thead>
<tbody>
<tr>
<td>V, 3;1</td>
<td>25% (2/8)</td>
<td>66.7% (4/6)</td>
<td>33.4% (2/6)</td>
</tr>
<tr>
<td>O, 3;11</td>
<td>25% (2/8)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>C, 4;6</td>
<td>50% (4/8)</td>
<td>33.4% (2/6)</td>
<td>66.7% (4/6)</td>
</tr>
</tbody>
</table>

S=subject, V=verb, O=object, cl=clitic
Individual data (monolingual Italian L1):

V., 3;1

<table>
<thead>
<tr>
<th></th>
<th>tr. V</th>
<th>unacc. V</th>
<th>unerg. V</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>SVO(DP)</td>
<td>50% (4/8)</td>
<td>16.6% (1/6)</td>
<td>16.6% (1/6)</td>
<td></td>
</tr>
<tr>
<td>(O(cl))VS</td>
<td>12.5% (1/8)</td>
<td>50% (3/6)</td>
<td>16.6% (1/6)</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>37.5% (3/8)</td>
<td>33.3% (2/6)</td>
<td>66.6% (4/6)</td>
<td></td>
</tr>
</tbody>
</table>

S=subject, V=verb, O=object, cl=clitic, Other=only DP in the answer

O., 3;11

<table>
<thead>
<tr>
<th></th>
<th>tr. V</th>
<th>unacc. V</th>
<th>unerg. V</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>SVO(DP)</td>
<td>25% (2/8)</td>
<td>33.4% (2/6)</td>
<td>50% (3/6)</td>
<td></td>
</tr>
<tr>
<td>VO(DP)S</td>
<td>37.5% (3/8)</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>(O(cl))VS</td>
<td>25% (2/8)</td>
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<td></td>
</tr>
<tr>
<td>Other</td>
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<td>16.7% (1/6)</td>
<td>16.7% (1/6)</td>
<td></td>
</tr>
</tbody>
</table>

S=subject, V=verb, O=object, cl=clitic, Other=only DP in the answer

C, 4;6
4. Discussion
The results presented in the previous section point to three main conclusions:
(i) postverbal new information subjects are used from early on in both bilingual and monolingual populations;
(ii) thus, children seem to be sensitive to the discourse factors involved in the use of postverbal subjects and, according to Belletti’s analysis here adopted, the low vP-peripheral focus position is activated;
(iii) the lower rate of postverbal subjects adopted by the bilingual group could be explained as a crosslinguistic influence, since in Finnish the overwhelmingly preferred strategy in this kind of contexts is SV(O).

From an acquisitional perspective, the Italian speaking child has to learn not only the syntactic constraints related to preverbal and postverbal subjects, but also the discourse-pragmatic factors that regulate their distribution. Similarly to other Romance null subject languages (see a.o. Villa-García 2011 for Spanish and the references therein), the factors related to discourse also play a crucial role in the production (and acquisition) of null/overt subjects.

In particular, recent research on the acquisition of subjects in Spanish shows the difficulty in pinpointing the developmental path in the acquisition of postverbal subjects. Among several relevant studies let us quote just two. Casielles et al. (2006), on the basis of the longitudinal data collected from a bilingual Spanish/English child, propose that postverbal subjects are easier to use for a Spanish speaking child, since they stay in situ and thus need less effort from a computational point of view. Grinstead (1998, 2000) comes to different conclusions, showing that in Catalan and Mexican-Spanish preverbal and postverbal subjects appear simultaneously in the production of young children. Similar findings, which uphold the assumption of a simultaneous emergence of preverbal and postverbal subjects, are also reported in Villa-García (2011), corroborated by robust statistical evidence. A common point to these studies is that children are sensitive to information structure from early on, an assumption that we also adopt in the present study, in line with Serratrice (2005)3.

In the present data postverbal subjects in VS structures are produced from early on. Comparing the bilingual data with the monolingual child data, it seems that a similar developmental path emerge: in both child groups, the occurrence of VS structures sensibly increases with time. Similar findings are also reported by Tumino (2011) who investigated the use of postverbal subjects in five L1 Italian children (age: 3;1-4;9).

It is plausible to assume that the development of syntactic properties (such as the acquisition of object clitics in Italian, which is highly relevant in inversion structures with transitive verbs, cf. Guasti 1993-1994, Hamann et al. 1996, Schaeffer 2000, Serratrice, Sorace and Paoli 2004 a.o.) and the maturation of other cognitive factors involved in language acquisition (together with the prolonged exposure to the linguistic input) are highly relevant in the distribution

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3 Serratrice (2005) investigates the distribution of null and overt subjects in a longitudinal study. The overall results show that Italian children are sensitive from early on (MLW 2.0) to discourse-pragmatic constraints that regulate the distribution of null/overt subjects in NSL. Hence, it is suggested that discourse-pragmatic factors should be taken into account in models of language development, as only syntactic-based or performance deficit-based approaches cannot fully explain the observed acquisitional facts.
of preverbal and postverbal subjects. It might be important to note that it does not seem to be the case that postverbal subjects are acquired later with respect to preverbal subjects: from the individual data we see that postverbal subjects are already available from the age of 3;1, thus showing sensitivity to the relevant discourse-syntax interface properties, which is a welcome output in light of the aforementioned crosslinguistic observations on Spanish. Although children are sensitive to discourse factors related to new information focus, the complete mastery of the syntax-discourse properties that regulate the activation of the low vP-peripheral focus position (and in relation with the preverbal EPP position) is prone to maturational constraints.

5. Conclusions and implications for future research
This survey on answering strategies in bilingual and monolingual child speech production provides further support to the assumption that children are sensitive to information structure from early on. However, the (target) use of postverbal subjects in contexts in which the subject is new information increases over time in both the bilingual and the monolingual population. Crucially, the bilingual children maintain a wider preference for the SV order than the monolingual children, in whose production preverbal new information subjects disappear completely by the age of 4;6. This hints to a crosslinguistic influence of Finnish on Italian. Naturally, due to the small size of the two groups, further research on the developmental aspects in the discourse-pragmatics domain is needed in order to strengthen the findings.

References


