THE ACQUISITION OF SUBJECTS IN 2L1 ROMANIAN

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Abstract: The present paper charts the acquisition of Romanian subjects in a Romanian-Hungarian bilingual context, on the basis of two longitudinal corpora. The main results reveal early acquisition of subject use and relatively early sensitivity to the pragmatic constraints governing overt pronominal subjects. A higher percentage of overt subjects which differs both from the input and from what has been reported for L1 Romanian may however indicate that this is an area vulnerable in bilingual acquisition as a syntax/pragmatics interface phenomenon.

Keywords: Romanian-Hungarian bilinguals, subjects, syntactic-pragmatic interface

1. Introduction

The overuse of overt subject pronouns in null subject languages in bilingual contexts has been studied both in combinations involving one null subject language and one non-null-subject language (Paradis and Navarro 2003, Haznedar 2007, Serratrice 2002, 2007, Dal Pozzo 2012, Hinzelin 2003, Juan-Garau and Perez-Vidal 2000, Zwanziger et al. 2005, Serratrice 2013, Argyri and Sorace 2007, Villa-Garcia and Suárez-Palma 2016) and those involving two null subject languages (Bonfieni 2018, Sorace et al. 2009, Bel 2003). One common explanation is that the null/overt subject alternation is a phenomenon at the syntax/discourse interface (Sorace and Filiaci 2006, Sorace 2011) which makes it more vulnerable, especially in 2L1 acquisition.

The present paper documents the acquisition of Romanian subjects in a Romanian-Hungarian setting, in the early stages of acquisition. The fact that both languages allow null subjects in finite clauses makes this particular bilingual context suitable for examining whether the effects of bilingualism are visible in the acquisition of subjects, independent of cross-linguistic interference.

The paper is organized as follows. Section 2 describes and compares the realization of subjects in Romanian and Hungarian. Section 3 presents previous research on the acquisition of subjects in null subject languages, with particular emphasis on bilingual contexts, as well as on the acquisition of subjects in L1 Romanian. Section 4 contains the study itself, and section 5 discusses the results.

2. Romanian and Hungarian subjects

2.1 Romanian subjects

Romanian is an Inflection-licensed null subject language (Coene and Avram 2008). As such, it allows null subjects in finite sentences (1a) and lacks expletives (1b).

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Another property of Inflection-licensed null subject languages is the availability of pre- and postverbal subjects (2a, b). In Romanian, both lexical and auxiliary verbs move to Inflection (Dobrovie-Sorin 1994, Avram 1999, Alboiu 2002). The basic word order is VSO (Dobrovie-Sorin 1994, Alboiu 2002). According to Cornilescu (1997), preverbal subjects occupy a TopicP in the left periphery of the clause; Alboiu (2002) on the other hand, in line with Dobrovie-Sorin (1994), argues that in Romanian the topicalized subject moves to the Specifier of the IP, an A-bar position. The postverbal subject is base-generated inside the VP and receives Nominative case from the verb which has moved to Inflection (Dobrovie-Sorin 1994, Avram 1999, Alboiu 2002).

Knowledge of subject use is also a matter of discourse pragmatics. According to Alboiu (2002), preverbal subjects normally indicate old/presupposed information, whereas new information is usually conveyed by means of presentational focus and should occur postverbally. Contrastively focused elements may optionally move to the left periphery. Alboiu (2002) proposes that the landing site of the focused constituent is SpecIP, due to the verb adjacency requirement: no constituents can intervene between the preverbal focused constituent and the verb. However, the movement is not syntactically required and the focused element may well remain in postverbal position, with phonological stress indicating focus. Consider the sentences in (3a):

Overt pronominal subjects are felicitous when contrastively focused – such as (3b) above – or when indicating topic shift. On the other hand Zafiu (2008) argues that Romanian may in certain circumstances allow overt pronominal subjects with topic continuity function (see example 5, taken from Teodorescu 2017). Consequently, the subject in (4a) can be interpreted as having both topic shift and topic continuity
interpretation (that is the pronoun subject can be coindexed with either the subject or the object of the previous clause). Occasionally, pronominal subjects may serve to disambiguate in the case of different gender (see example 4b).

(4)  
a. Ion îl caută pe Petre, dar el a plecat.  
Ion him look for PE Petre but he has left  
‘Ion is looking for Petre, but he has left.’

b. Ion o caută pe Maria, dar ea a plecat.  
Ion her look for PE Maria but she has left  
‘Ion is looking for Maria, but she has left.’

(5)  
Cărtărescu a revoluționat romanul românesc contemporan.  
Cărtărescu has revolutionized novel-the Romanian contemporary  
?(El) a scris mai multe romane.  
he has written more many novels  
‘Cărtărescu revolutionized the contemporary Romanian novel. He wrote several novels.’

When not evidently informative, however, pronominal subjects should be omitted. The overt personal pronoun subject in (6) is pragmatically odd.

(6)  
Copilul a venit acasă, ??el a mâncat și ??el și- a .  
child-the has come home he has eaten and he himself has  
scris temele  
written homework-the  
‘The child came home, he ate, and he did his homework.’

2.2 Hungarian subjects

Hungarian, just like Romanian, is also an Inflection-licensed null subject language, with the verb moving to Inflection. It allows null subjects and does not have expletives (É. Kiss 2004).

Pronominal subjects are syntactically optional. They may be expressed when indicating focus (7a), topic shift, but also sometimes topic continuity (É. Kiss 1992). Kocsány (1995) argues that the personal pronoun subject may also have topic continuity interpretation. Consider example (7b) below: if the pronoun (Ő ‘he/she’) is unstressed, it indicates topic shift and will refer to the boy. Whereas, if stressed, it will indicate topic continuity and will refer to the girl (The girl was telling the boy to hurry, as she, for her part, had immediately understood).

(7)  
a. ÖK jöttek.  
they came  
‘It is they who came.’

b. A lány már sürgette a fiút. Ő rögtön megértette,  
the girl already hurried the boy he/she immediately understood…  
‘The girl was already telling the boy to hurry up. She/He immediately understood.’
Additionally, the overt personal pronoun subject may appear in certain sentences with null copula. Hungarian copula is null in the 3rd person singular, present tense. With certain types of predicatives, such as the definite DP in example (8) below, an overt subject is required to render the sentence grammatical.1

(8) Ő a bajnok.
    he/she  the champion
    ‘He/she is the champion.’

The personal pronoun subject is restricted to [+human] entities and has no gender feature. Hungarian allows both pre- and postverbal subjects, although generally speaking Hungarian sentences are mostly verb-final (MacWhinney 1985). Postverbal subjects remain in situ, where they are generated (see example 9). Preverbal subjects are either topics, are focused, or function as verb modifiers (É. Kiss 2004).

(9) Hazajött Mari.
    home-came Mari.
    ‘Mari came home.’

Hungarian sentences consist of a topic and a predicate; the topic, conveying old information, occurs in sentence initial position (see example 8). It may but need not be identical to the syntactic subject, and it may also be absent (É. Kiss 2004).

(10) Mari haza ment.
    Mari home went.
    ‘Mari went home. (As for Mari, she went home.)’

Focused constituents must necessarily move to the specifier of the Focus projection; the verb moves to the head of this projection. Accordingly, in (11a), the focused subject appears to the left of and adjacent to the verb. Aside from contrastive focus, a frequent phenomenon is identificational focus (where one element is singled out of an open set – thus conveying new information), again requiring the movement of the focused element to the left of the verb. Inherently focused elements (for instance in the case of the particle is ‘too’) must also appear preverbally (É. Kiss 2004).

(11) a. MARI ment haza.
    Mari went home
    ‘Mari went home. / It is Mari who went home.’

b. Mari is ment.
    Mari too went.
    ‘Mari went, too.’

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1 The overt pronominal subject is not always obligatory. Note: Szőke. (He/She is) blond.
The category of preverbal subjects includes non-specific (bare) nouns which are interpreted as aspectual verb modifiers and must occur preverbally, in the specifier position of an Aspect Phrase whose head hosts the verb (É. Kiss 2004) (unless the sentence is negative or another element is focused).

(12) Levél érkezett.
letter came
‘A letter has come.’

2.3 A comparison of Romanian and Hungarian subjects

As described in the two previous sections, Romanian and Hungarian are both Inflection-licensed null subject languages. Overt pronominal subjects are felicitous when focused or when signalling topic shift. However, both languages also accept personal pronoun subject with topic continuity interpretation. By and large, the null/overt subject alternation is similar in the two languages.

Both languages allow pre- and postverbal subjects. However, the discourse rules governing word-order differ.

Focused subjects, whether contrastive, identificational or inherent focus, must move to the specifier position of the Focus Phrase, while the verb moves to the Focus head (É. Kiss 2004). See for example sentence (13a), where the focused subject is only felicitous in preverbal position. In Romanian, by contrast, contrastively focused constituents may, but need not, move to the left of the verb. Therefore a contrastively focused subject may very well remain in situ to the right of the verb (Alboiu 2002). In (13b), the focused subject is felicitous both pre- and postverbally.

(13) a. MARI ment haza./ ?? Hazament MARI.
Mari went home
‘It is Mari who went home.’ (Hungarian)

b. MARIA a plecat, nu Ana. A plecat MARIA, nu Ana.
Maria has left not Ana has left Maria not Ana
‘It is Maria who left, not Ana.’ (Romanian)

Generally, in Romanian, subjects introducing new information to the discourse are preferred in post-verbal position, as presentational focus (Alboiu 2002). Indefinite DPs are only allowed preverbally under certain conditions (e.g. if they are contrastively focused, if they have partitive value, etc.) (Alboiu 2002). See for example sentence (14b), where the indefinite subject is odd in preverbal position. By contrast, in Hungarian new information may also be conveyed by means of identificational focus (obligatorily preverbal), where an element is singled out of an open set (É. Kiss 2004). Additionally, Hungarian non-specific subjects (indefinite or bare) function as verb modifiers and must occur in preverbal position (É. Kiss 2004). Compare the two equivalent sentences under (14): the Romanian version is felicitous with a postverbal subject, whereas the Hungarian subject is preverbal.
3. Previous research on the acquisition of subjects in null subject languages

Most studies on the acquisition of subjects in null subject languages assume that children are aware from the very beginning that null subjects are allowed in their language, although descriptions of the early status of the null subject vary (Hyams 1986, Rizzi 1994, Wexler 1994, Bel 2003, Grinstead 2004). The early convergence hypothesis (Valian 1991, Wexler 1994, Bel 2003) states that the pro-drop parameter is set very early and null and overt subjects are attested from the first productions, as are pre- and postverbal subjects. Other studies however claim that subjects are not target-like from the beginning (Valian 1991, Valian and Eisenberg 1996, Grinstead 2004, Grinstead and Spinner 2009). Serratrice (2005), in a study on child Italian, finds that very young children are already sensitive to the pragmatic constraints governing the null/overt subject alternation, although maturation is observable over time. Avram and Coene (2010) argue that in L1 Romanian the earliest subjects are not necessarily used in a target-like manner and that the pro-drop parameter is not set from the very beginning (see section 3.2). An early “no subject” stage has been identified in some studies (Bates 1976, Grinstead 2000, Villa-García 2013 in Villa-García and Suárez-Palma 2016), although other studies cast some doubt on the general validity of this conclusion (Bel 2003, Serratrice 2005, Villa-García and Suárez-Palma 2016).

3.1 The acquisition of subjects in 2L1

Some studies on the acquisition of subjects in a bilingual context report a different subject use pattern in 2L1 compared to L1 development, explained as cross-linguistic influence (Müller and Hulk 2000): certain interpretable (syntactic/pragmatic) features in particular syntactic structures in one language may become underspecified and subsequently considered optional if the other language lacks a similar requirement. Thus, in combinations of a null subject language and a non-null subject language, it may be expected that the bilinguals will have a different rate of subject realization than their monolingual peers. Alternatively, bilinguals may not show sensitivity to the discourse factors governing null/overt subject use realization, under the influence of the other language.

For example, the Spanish-English bilingual child in the longitudinal study by Paradis and Navarro (2003) showed transfer from English in the realization of her Spanish subjects, with a higher rate of overt pronominal subjects than her monolingual
peers. Haznedar (2007) finds an overuse of overt subjects in Turkish with a Turkish-English bilingual child, compared to a monolingual child.

In an experimental study testing the interpretation of overt pronominal subjects in 2L1 Italian, Serratrice (2007) found that the group of Italian-English 8-year-olds performed differently from the control group, most likely under the influence of English.

Dal Pozzo (2012) finds a different ratio of Italian postverbal subjects introducing new information with a group of Finnish-Italian children compared to a group of Italian controls, although the bilinguals do exhibit sensitivity to the discourse factors involved in the use of postverbal subjects. However, the lower rate of postverbal subjects with the bilingual group can be explained by cross-linguistic influence since Finnish has SV word-order in similar contexts.

By contrast, other studies found no evidence of cross-linguistic influence with respect to the subject use pattern of bilingual speakers, despite the differences between the two languages in question. Hinzelin (2003) suggests no cross-linguistic influence with two German-Portuguese bilingual children in their early use of subjects. Juan-Garau and Perez-Vidal (2000) study the acquisition of subjects by an English-Catalan bilingual child; no differences are found when the results are compared to English monolingual (Valian 1991, Ingham 1992) and Catalan-Spanish bilingual children (Cortes et al. 1994). The English-Inuktitut bilingual children in Zwanziger et al. (2005) are similar in their English and Inuktitut development to monolingual English and monolingual Inuktitut children, respectively. The English-Italian bilingual child in Serratrice (2002) produces a significantly lower number of overt subjects in Italian than in English, showing that he is very early on aware of the different properties of the two languages.

The overuse of overt subjects has also been attested with bilingual speakers of two null subject languages. Bonfieni (2018) brings evidence in support of the linguistic effects of bilingualism independent of cross-linguistic differences in a study on pronoun interpretation by Italian-Sardinian bilinguals. Sorace et al. (2009) found a higher acceptability ratio for overt subjects with a group of Italian-Spanish bilinguals, compared to their monolingual peers.

In fact, the overuse of pronominal subjects has been reported for L1 Italian (Antelmi 1997 in Serratrice 2002, Serratrice 2007) and L1 Romanian (Teodorescu 2017) as well, showing that this phenomenon may also be somewhat vulnerable in L1 acquisition.

Since in null subject languages the interpretation and overt realization of subjects is dependent on discourse factors, that bilinguals show delay or a different pattern from monolinguals is expected, as predicted by the Interface Hypothesis (Sorace and Filiaci 2006, Sorace 2011): certain phenomena at the syntax-semantics/pragmatics interface may be vulnerable in bilingual acquisition.

Bilinguals may underperform due to the fact that cognitive control affects sentence-processing abilities (Sorace and Serratrice 2009, Sorace et al. 2009, Sorace 2011, 2018). When using anaphors, speakers need to inhibit irrelevant pronoun-antecedent mappings, integrate the changes in the context, and guess at what the interlocutor knows. This takes up considerable cognitive resources. But with bilinguals some cognitive resources are always taken up by the inhibitory control necessary to suppress the unwanted language. Bilingualism is a state active at all times, the other
language can never be switched off completely. There is consequently a trade-off between inhibitory control and the integration/updating of the context (Sorace et al. 2009, Sorace 2018). This is why interface features – such as the overt/null subject choice – may be vulnerable even when the two languages do not differ in that particular respect (Sorace and Serratrice 2009).

Bilinguals tend to be “overexplicit” (Sorace 2018); bilingualism itself enhances the awareness of potential ambiguities and also the ability to understand the mental state of the interlocutor. It has been speculated that bilingualism improves Theory of Mind abilities (Kovács 2009 in Bonfieni 2018): since bilinguals are very early aware of the distinction between languages and the fact that different individuals may speak different languages – it has been shown that very young bilinguals adapt to the interlocutor and make the correct choice of language – they are also better capable to accept that other people have a different mental state. The downside is that bilinguals are more concerned with what the interlocutor may or may not know and tend to over-explain, or, in the case of pronominal subjects, use overt subjects in contexts where they are not needed for clarification to ensure that they are not misunderstood. Alternatively, bilinguals may use the redundant form as a default, to minimize effort (Sorace 2018): hence they overgeneralize the use of overt subjects to forego the cognitive effort of deciding whether the context is or is not informative enough for the hearer.

Another issue where bilinguals have been found to perform differently than their monolingual peers is the correct placement of the subject in pre- or postverbal position in null subject languages. Villa-García and Suárez-Palma (2016), in a study on several simultaneous Spanish-English bilingual children, find variation with respect to the preferred word-order pattern: while with three of the children post-verbal subjects predominate, the dominant target-like word order, the other two favoured preverbal subjects in almost 70% of the contexts. Similar patterns have been attested with combinations of two null subject languages, such as Spanish and Catalan in Bel (2003), or with Spanish monolinguals (Villa-García 2009 in Villa-García and Suárez-Palma 2016). While with the Spanish-English bilinguals the different pattern could certainly be attributed to cross-linguistic influence, in the case of bilinguals speaking two null subject languages or in the case of monolingual children showing such preference, it may be an effect of the input (as suggested in Paradis and Navarro 2003, Villa-García and Suárez-Palma 2016). Alternatively, bilinguals favouring a different word order pattern from their monolingual peers may do so as an effect of bilingualism per se (Sorace 2011).

3.2 The acquisition of subjects in L1 Romanian

Previous studies on the acquisition of subjects in L1 Romanian (Avram and Coene 2010, Teodorescu 2017, this issue) show that subjects emerge early, before the age of 2. Nevertheless, Avram and Coene (2010) argue that the earliest subjects are not target-like. In the two longitudinal corpora3 that their study analyses (A., 1:9-2:11, B., 1:5-2:11), pre- and postverbal subjects indeed emerge at the same time, with all classes of

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2 For example, as early as 1:6 in the case of the two bilinguals in the present study (see Tomescu 2017).
3 First described in Avram (2001).
The acquisition of subjects in 2L.1 Romanian

The acquisition of subjects in 2L.1 Romanian verbs: transitives, unaccusatives and unergatives. In one of the corpora (B.), Avram and Coene (2010) identify a stage where no overt subjects are attested, between 1;5-1;9. According to these authors, the value of the pro-drop parameter is not unambiguously set in null subject languages until the first null subject appears in a context where it is not attested in non-null-subject languages, not even in child language (as observed by Valian 1991) – namely, in finite embedded clauses. This occurs early, at 2;3 and 2;1 respectively in the A. and B. corpus. Avram and Coene (2010) also report a slight increase in the rate of overt subjects in both corpora.

A qualitative analysis of early subjects also supports the idea that they are not entirely target-like. The earliest overt subjects in child Romanian are demonstratives or proper names and more rarely definite DPs, therefore exclusively with an inherent or situation-bound reference. Personal pronoun subjects only seem to appear after the setting of the pro-drop parameter. Overt pronominal subjects increase in number, to the detriment of demonstrative subjects.

Teodorescu (2017, this issue) finds a similar developmental path with a monolingual Romanian girl, Cristina (2;1-3;1). The first recordings contain both pre- and postverbal subjects with all classes of verbs. Null subjects in embedded clauses first appear at 2;2, just before the emergence of pronominal subjects.

As regards the rate of pro-drop in child Romanian, both Avram and Coene (2010) and Teodorescu (2017, this issue) report data similar to what has been reported for other null subject languages: Italian (Lorusso et al. 2004), Spanish and Catalan (Bel 2003) and Portuguese (Valian and Eisenberg 1996). Avram and Coene (2010) find a percentage of 24% and 22% overt subjects in the early files, before the setting of the pro-drop parameter, and Teodorescu (2017, this issue) 16%.

Postverbal subjects are more numerous than preverbal subjects in both studies: 65% and 72% for the two children in Avram and Coene (2010) and 64% in Teodorescu (2017, this issue).

Teodorescu (this issue) reports a slight overuse of pronominal subjects, as indication of some vulnerability in the acquisition of overt pronominal subjects as a syntax/pragmatics interface phenomenon.

4. The study

4.1 Research questions

The present study documents the acquisition of subjects in 2L1 Romanian, in a Romanian-Hungarian bilingual contexts. As shown above in section 2, Romanian and Hungarian are both null subject languages (É. Kiss 2004, Avram and Coene 2008, etc.), and the discourse requirements governing the null/overt subject alternation do not differ significantly in the two languages. Therefore no cross-linguistic interference is to be expected. On the other hand, since the use of overt and null subjects in null subject languages is a phenomenon at the syntax/pragmatics interface, some vulnerability may be

4 First described in Teodorescu (2014).
observable in a bilingual context, as predicted by the Interface Hypothesis (Sorace and Filiaci 2006, Sorace 2011). Bilinguals have been shown to perform worse than their monolingual peers with respect to the use and interpretation of null and overt subjects due to processing difficulties as an effect of bilingualism proper (Sorace and Serratrice 2009, Sorace et al. 2009, Sorace 2011, Sorace 2018).

Furthermore, Romanian and Hungarian do differ with respect to the felicitousness of pre- and postverbal subjects, depending on focus, on whether the subject represents new or old information or on the morphology of the subject itself. Hungarian subjects must obligatorily move to the preverbal position in a number of cases (when contrastively focused, when introducing new information to the discourse under the form of identificational focus or in the case of non-specific subjects functioning as aspectual verb modifiers) (É. Kiss 2004), whereas Romanian has no obligatory movement in the case of focused constituents, and subjects introducing new information are preferred postverbally, as presentational focus (Alboiu 2002). Besides, indefinite subjects are only allowed in preverbal position under certain conditions (if they are focused, if they have partitive value or if they are anchored by means of a locative phrase) (Alboiu 2002).

The first question addressed in the present study is whether the rate of overt/null subjects differs from what has been reported for monolingual Romanian (Avram and Coene 2010, Teodorescu this issue). It is expected that the bilinguals produce a higher rate of overt subjects, as an effect of bilingualism, as predicted by the Interface Hypothesis (Sorace and Filiaci 2006, Sorace 2011).

Secondly, the paper investigates whether bilinguals produce pre-/postverbal subjects in a different ratio or qualitatively in a different way from Romanian monolinguals. The expectations are that the bilinguals may produce a higher rate of preverbal subjects and possibly produce infelicitous preverbal subjects under the influence of Hungarian. Since word-order requirements are at the syntax/pragmatics interface in both languages, they may be vulnerable in bilingual acquisition as an interface phenomenon (Sorace and Filiaci 2006, Sorace 2011), and in this case cross-linguistic influence may occur (Müller and Hulk 2000).

4.2 Corpora and method

The study makes use of two longitudinal corpora, Toma (1;10-2;11, MLU 2.5-4.51) and Petru (1;10-2;8, MLU 1.47-3.79) (Tomescu 2013), two brothers living in Bucharest. The children were recorded approximately one hour per week. Their mother is Romanian-Hungarian bilingual and their father Romanian monolingual. The two children are unbalanced bilinguals, their Hungarian being on the whole the weaker language, since Romanian is the language of the community.

All Romanian child utterances with a finite verb were extracted, with the exception of imperatives. Mixed Romanian-Hungarian utterances were not taken into account. Imitations, songs, etc. were also excluded. The utterances were coded for overt and null subjects, as well as main and subordinate clauses. Overt subjects were further coded as pre- and postverbal, as well as according to category: proper nouns, definite DPs, indefinite DPs, demonstratives (including nouns accompanied by a demonstrative adjective), personal pronouns, other (quantifiers, relative pronouns).
Table 1 sums up the data:

<table>
<thead>
<tr>
<th>Child</th>
<th>Age</th>
<th>MLU</th>
<th>Number of verbal utterances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toma</td>
<td>1;10 – 2;11</td>
<td>1.26 – 4.51</td>
<td>4161</td>
</tr>
<tr>
<td>Petru</td>
<td>1;10 – 2;8</td>
<td>1.30 – 3.79</td>
<td>3067</td>
</tr>
</tbody>
</table>

A number of 4468 Romanian utterances of child directed speech (the mother) were also used in the analysis. The coding was identical to the one described above.

Furthermore, a closer scrutiny of the contexts containing personal pronoun subjects was performed to see whether these pronouns were used appropriately. To this end, all pronominal subjects were further coded into two (broad) categories: (i) felicitous, that is unmistakably informative, signalling contrastive focus, such as (15a), or topic shift, such as both nominative pronouns in (15b); (ii) superfluous, subjects that had no contribution information-wise to the sentence and could or should arguably be omitted, such as (16).

(15) a. **EU** pun
I put
‘I’ll put it.’

b. **eu** mă joc cu Henry. **Tu** cu astea.
I myself play with Henry you with these
‘I’m playing with Henry. You (play) with these.’

(16) nu pot să dezlipesc aște. **eu** l-am lipit cu lipici not can **SBJ** take-off these. I it have stuck with glue
‘I can’t take these off. I glued them on.’

Lastly, in order to more accurately decide whether any cross-linguistic interference occurred in the pre-/postverbal placement of Romanian subjects, the Hungarian part of the corpora was also examined. All verbal utterances were extracted and coded for null subject, preverbal subject, postverbal subject. Table 2 sums up the data for Hungarian:

<table>
<thead>
<tr>
<th>Child</th>
<th>Age</th>
<th>MLU</th>
<th>Number of verbal utterances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Toma</td>
<td>1;9 – 2;11</td>
<td>1.12 – 2.81</td>
<td>723</td>
</tr>
<tr>
<td>Petru</td>
<td>1;10 – 2;8</td>
<td>1.06 – 1.31</td>
<td>151</td>
</tr>
</tbody>
</table>

4.3 Results

4.3.1 Null vs. overt subjects

No ‘no overt subject’ stage has been identified in either corpus. The first subjects are attested in the first verbal utterances, at 1;10: see examples (17).
(17) a. vine taxi
    comes taxi
    (Toma 1;10)

b. Tulu Tico merge
    Tulu Tico goes
    Intended: ‘It is the Tico that Grandfather is driving.’
    (Petru 1;10)

Overall, overt subjects are produced in 39% (n = 1607) of the totality of contexts
with finite verbs in the Toma corpus (1;10 – 2;11), and in 50% (n = 1545) of the contexts
in the Petru corpus (1;10 – 2;8). We notice a decreasing trendline in both corpora (see
Figures 1 and 2): overt subjects decrease in number over time with both children. Null
subjects in embedded clauses are attested concurrently with the first subordinate clauses,
at 2;1 in the Toma corpus, and at 2;2 in the Petru corpus (see examples 18).

(18) a. vreau să văd telefon(u(l)
    want-1SG SBJV see phone-the
    ‘I want to see the phone.’
    (Toma 2;0)

b. vreau să vorbească
    want-1SG SBJV talk-3SG
    ‘I want it to talk.’
    (Petru 2;2)
On examining the child directed speech (CDS), the results show that the bilingual mother produces 38% overt subjects \((n = 1702)\).

In the early months the rate of overt subjects is noticeably higher in the Toma corpus. For the interval 1;10-2;1 (MLU 1.26-2.98), Toma produces 47% overt subjects; the difference compared to the rate of overt subjects in the input is statistically significant \((\chi^2 = 19.496, \text{df} = 1, p < 0.0001)\). After 2;2, however, we notice a moderately decreasing tendency and the rate of overt subjects is similar to the one in CDS \((\chi^2 = 0.443, \text{df} = 1, p = 0.5)\).

For Petru, in the same interval (1;10-2;1, MLU 1.3-2.93) overt subjects are produced in 49% of the totality of contexts; the difference compared to the input is also statistically significant \((\chi^2 = 25.332, \text{df} = 1, p < 0.0001)\). But with Petru the rate of overt subjects remains high in the following months. The difference between the rate of overt subjects produced by Petru overall and the rate of overt subjects in the input is statistically significant \((\chi^2 = 106.904, \text{df} = 1, p < 0.0001)\).

### 4.3.2 Pre- vs. postverbal subjects

In both corpora, as early as 1;10, the corpus contains both preverbal (example 19a and 20a) and postverbal subjects (examples 19b and 20b):

\[(19)\]
\[
\begin{align*}
a. & \quad \text{asta e blocu(l)}
\quad \text{this is building-the} \\
& \quad \text{‘This is the building.’} \\
\end{align*}
\]

\[
\begin{align*}
b. & \quad \text{trece (tram)vaiu}
\quad \text{passes tram-the} \\
& \quad \text{‘The tram is passing.’}
\end{align*}
\]

\[(20)\]
\[
\begin{align*}
a. & \quad \text{muzica nu merge}
\quad \text{music-the not works} \\
& \quad \text{‘The music is not playing.’} \\
\end{align*}
\]

\[
\begin{align*}
b. & \quad \text{nu merge muzica}
\quad \text{not works music} \\
& \quad \text{‘The music is not playing.’}
\end{align*}
\]

Moreover, a characteristic feature of the Toma corpus is that the child keeps rephrasing the same context with variable word order (examples 20, 21, and 22). He produces SVO, VSO structures in sequence, as well as VO, VS with null subject/object, as if trying out all available structures of the target language.

\[(21)\]
\[
\begin{align*}
a. & \quad \text{Petru m(ăn)âncă (o)rez.}
\quad \text{Petru eats rice} \\
\end{align*}
\]

\[
\begin{align*}
b. & \quad \text{m(ăn)âncă Petru (o)rez.}
\quad \text{eats Petru rice} \\
\end{align*}
\]
c. m(ăn)âncă Petru.
eats    Petru
d. m(ăn)âncă (o)rez.
eats    rice
‘Petru is eating rice.’

(22) a. Matei ține.
Matei holds
b. Matei ține (tele)fonu(l).
Matei holds phone-the
c. ține Matei (tele)fonu(l).
holds Matei phone-the
‘Matei is holding the phone.’

(Toma 1;10)

Left-dislocated subjects are available early in the Toma corpus, topicalized to the
left of the wh-word in questions.

(23) (ma)șina unde e?
car-the where is
‘Where is the car? (As for the car, where is it?)’

(Toma 1;11)

Postverbal subjects are found in the bilingual corpora with both unergative
(examples 24) and transitive (examples 21, 22) verbs, showing that verb movement to
Inflection is attested early.

(24) a. zboară (ra)cheta5.
flies rocket-the
‘The rocket is flying.’

(Toma 1;10)

b. plânge Petru
cries  Petru
‘Petru is crying.’

(Toma 1;11)

b. *joc6 ei
play they
‘They are playing.’

(Petrği 1;10)

5 Activity reading, atelic.
6 The verb should carry a reflexive clitic, consistently omitted at this age. In addition, Petru tends to truncate
the third person plural form of the first conjugation class with all verbs (see Tomescu 2017). Here it should
have been se joacă.
Overall, postverbal subjects represent 40% of the totality of overt subjects in the Toma corpus, and 34% in the Petru corpus. In CDS, the rate of postverbal subjects is 62%.

Nevertheless, no infelicitous preverbal subjects were attested. Indefinite DPs, which can only appear preverbally under certain conditions (Alboiu 2002) (see section 2), are correctly postverbal (25a), introducing new information. The few preverbal indefinites have partitive value (25b).

(25) a. mai e o mașină de gunoi.
more is a truck of garbage
‘There is another garbage truck.’

b. unu e galben unu e portocalie
one is yellow one is orange
‘One (of them) is yellow, one is orange.’

4.3.3 A qualitative analysis

A qualitative analysis of the subjects reveals some differences between the two brothers and indicates that there is a development in the use of subjects from a pragmatic perspective.

In the Toma corpus, most early subjects are proper names: 46% (n = 6) at 1;10, 80% (n = 132) at 1;11, and 86% (n = 90) at 2;0; after which the ratio gradually decreases (44% at 2;1, 37% at 2;2, 18% at 2;3), as other categories take over (see Figure 3). Many (n = 100 total) are instances of self reference (e.g. 26a). Toma uses his name when referring to himself up until 2;3 (there is one isolated occurrence at 2;4 as well) and in parallel with the first occurrences of the personal pronoun subject (26b) as well as with null subject first person verbs (26c). While this is also an effect of motherese (and such third person utterances are present in the input), it may also be a sign of immaturity in subject use.

(26) a. Toma plânge
Toma cries
‘Toma is crying’

b. eu nu pot
I not can
‘I can’t.’

c. am făcut toate
have done all
‘I have done them all’
A few rare cases of infelicitous and superfluous repetition of the proper name subject in answers are attested (e.g. 27, 28).

(27) MOTHER: Unde a plecat Matei? where has left Matei ‘Where did Matei go?’
TOMA: Matei a plecat cu mașina. Matei has left with car-the ‘Matei left in the car.’

(28) MOTHER: cu ce se joacă Matei? with what himself play Matei ‘What is Matei playing with?’
TOMA: xx7 joacă Matei. plays Matei Intended: ‘It is with xx that Matei is playing.’

Toma uses the first personal pronouns at 2;0, but at 2;1 pronouns already represent 15% of all overt subjects.

At around 2;2-2;3, there is an obvious change in the range of DPs Toma uses as subjects. They become more varied with respect to their morphology: indefinite DPs emerge (29a), personal pronouns increase in number (see below), a greater variety of quantifiers and other pronouns is also attested (see 29b, c). Subjects no longer refer to surrounding or familiar objects or persons but also to distant or hypothetical entities (29d).

(29) a. se mai vede un burete itself more see a sponge ‘Another sponge is visible.’

b. nu le ia nimeni not them takes nobody ‘Nobody is going to take them.’

c. a intrat cineva la volan has entered somebody at wheel ‘Somebody got behind the wheel.’

d. există balaur roșu? exists dragon red ‘Do red dragons exist?’

Name of toy is unclear.
In the Petru corpus, personal pronouns are already attested at 1;10 and represent 25% of all contexts at this age. The first person singular predominates (30a) (there are two occurrences of the third person plural at 1;10: see example 24b above). The second person pronoun only emerges at 2;2 (30c), but is quite well represented from then on: 12% of all nominative personal pronouns in the interval 2;2-2;8. Possessive pronouns in subject position are also attested starting with 2;1 (30d).

(30)  

a. eu vreau pâine  
     I want bread  
     ‘I want bread.’  
       (Petru 1;10)

b. trecem NOI ici  
    pass we here  
    ‘We’ll pass this way.’  
    (Petru 1;10)

c. spălat⁸ -o TU?  
    washed it you  
    ‘Did you wash it?’  
    (Petru 2;2)

d. (a) mea are șurub  
    mine has screw  
    ‘Mine has a screw.’  
    (Petru 2;1)

Quantifiers and indefinite DPs (31 a, b) emerge at 2;1 in the Petru corpus, as well as interrogative pronouns (31c).

(31)  

a. toate sunt ale mele  
    all are of mine  
    ‘all are mine’  
    (Petru 2;2)

b. și aici e un claxon  
    also here is a horn  
    ‘There is another horn here.’  
    (Petru 2;1)

c. cine merge?  
    who goes?  
    ‘Who is going?’  
    (Petru 2;1)

⁸ Note the omission of the auxiliary of the perfect compus, which still occurs at this age.
With Petru it is demonstratives that predominate (45% overall). While not used in an evidently inappropriate manner, their early frequency (60% n = 32 at 2;0; 62% n = 135 at 2;1) seems to mirror Toma’s early preference for proper names. They are used especially with topic shift interpretation, deictically indicating the toys that the child is currently playing with (while he provides a sort of running commentary, see example 32). Proper names and definite DPs, fewer in the early files, seem to be used only to inquire about absent entities (see the examples under 33).

(32) ăsta oprește. ăsta era gară
this stops. this was station
Intended: ‘This one stops. This one was (in the) station.’

(Petru 2;0)

(33) a. când (se) (in)toarce tata?
when (himself) returns father?
‘When is father coming back?’

(Petru 1;10)

b. unde -i (va)go(a)nele?
where is carriages-the?
Intended: ‘Where are the carriages?’

(Petru 2;0)

We notice in the Toma corpus a trade-off between proper names and personal pronouns and in the Petru corpus a similar trade-off between demonstratives and personal pronouns, as shown in Figures 3 and 4, indicating a maturation of subjects over time.

Figure 3. Toma: Proper names and personal pronouns (%).
As regards the appropriateness of overt personal pronoun subjects, on the whole the children seem sensitive to the relevant discourse rules. 68% of pronominal subjects in the Toma corpus and 87% in the Petru corpus are evidently informative. Omitting the overt pronoun would change the meaning of the sentence or render it infelicitous. The pronouns are either contrastively focused (34a), appear in the emphatic și eu construction (example 34b), or signal topic shift, especially during games where the children assign roles to themselves or each other. Consider the examples under (35) from the Petru corpus, where the utterances represent an excerpt of conversation between the three brothers during play.

(34)  

|a. | EU am pus aici  
|   | I have put here  
|   | ‘I’m the one who put it here.’ (Toma 2;1) |

|b. | ș i eu am (b)uzunar  
|   | also I have pocket  
|   | ‘I have a pocket too.’ (Petru 2;1) |

(35)  

|MATEI: | tu n-aveai9.  
|   | you not had  
|   | ‘you didn’t have one’ |

|PETRU: | eu mergeam cu pasărea  
|   | I was going with bird-the  
|   | ‘I was flying the bird.’ |

---

9 Note the use of the modalized “role-play” imperfect.
TOMA: și tu întrebai: ce vrei de la mine.
and you were asking what want from me
‘and you were asking: what do you want from me’
(Petru 2;3, Toma 3;9, Matei 7;1).

The rest (32% and 13% respectively) do not appear to be informative and can be omitted with no loss of meaning, or may even be downright infelicitous. See examples (36), where the pronoun does not signal topic shift or contrastive focus; no other possible antecedents are present in the discourse context.

(36) a. și apă și lapte. eu vreau lapte.
also water also milk I want milk
‘Both water and milk. I want milk.’

b. ăsta să mănânc. eu mănânc unu mică mică mică.
this SBJV eat I eat one small small small
Intended: ‘I’ll eat this one. I’ll eat a very small one.’

(36) c. eu nu scriu invers. eu scriu.
I not write right-to-left I write
‘I am not writing right-to-left. I am not writing. I am writing.’

4.3.4 Hungarian pre- and postverbal subjects

Subjects are attested earlier in Hungarian than in Romanian: at 1;9 in the Toma corpus and at 1;8 in the Petru corpus. Both preverbal and postverbal subjects are attested, as well as null subjects. The subject was placed postverbally in 55% of the cases in the Toma corpus and in 68% in the Petru corpus.

(37) a. kapta Matei
got Matei
‘Matei got it.’

b. Toma hány
Toma vomits
‘Toma vomits’

(37) c. tegyünk krém
put-SBJV cream
Intended: ‘Let’s put cream on it.’

(39) a. alszik gyerek
sleeps child
Intended: ‘The child is sleeping.’
5. Discussion

5.1 Null vs. overt subjects

The first question addressed in this study was to what extent the use of null and overt subjects in 2L1 Romanian is similar to what was found for L1 Romanian. The prediction, based on previous 2L1 studies, was that the bilinguals would produce more overt subjects. The data confirms this prediction. Overt subjects emerge very early, in the first verbal utterances, similarly to L1 Romanian. But the Romanian-Hungarian children in this study produce a higher number of overt subjects than Romanian monolinguals (Avram and Coene 2010, Teodorescu this issue), especially in the early months (see Table 3). Importantly, the rate is also higher than in CDS. The rate of overt subjects remains constant with Petru but in the Toma corpus the rate of overt subjects decreases after 2;2 and overall it is similar to what has been found in CDS.

This difference cannot be accounted for in terms of cross-linguistic interference effects; both Romanian and Hungarian are null subject languages. Overuse of overt subjects with bilingual children acquiring two null subject languages has also been reported in other studies (Sorace et al. 2009, Bonfieni 2018) and has been explained as an effect of bilingualism (Sorace and Serratrice 2009, Sorace et al. 2009, Sorace 2011), vulnerability at the syntax/discourse interface (Sorace and Filiaci 2006, Sorace 2011).

<table>
<thead>
<tr>
<th>Table 3. Overt and postverbal subjects. Comparison with L1 data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child</td>
</tr>
<tr>
<td>------------------------</td>
</tr>
<tr>
<td>Toma (1;10 – 2;1)</td>
</tr>
<tr>
<td>Petru (1;10 – 2;1)</td>
</tr>
<tr>
<td>Toma (1;10 – 2;11)</td>
</tr>
<tr>
<td>Petru (1;10 – 2;8)</td>
</tr>
<tr>
<td>B. (1;10 – 2;1) (Avram and Coene 2010)</td>
</tr>
<tr>
<td>A. (1;9 – 2;2) (Avram and Coene 2010)</td>
</tr>
<tr>
<td>Cristina (2;1) (Teodorescu 2017)</td>
</tr>
<tr>
<td>Cristina (2;1 – 3;1) (Teodorescu 2017)</td>
</tr>
</tbody>
</table>

From a pragmatic perspective, some development is observable over time. In the Toma corpus, before and around the second birthday subjects are overwhelmingly proper
names. Some of these are used (repeated) in contexts where a null subject would have been more appropriate. Indefinite DPs, pronouns and quantifiers are not yet attested or attested only sporadically. Admittedly, in the Petru corpus personal pronouns emerge very early, and indefinite DPs and quantifiers also emerge earlier than in the Toma corpus. In both corpora, in these early recordings, subjects exclusively refer to entities in the immediate surroundings. After 2;1, however, the picture changes: embedded clauses emerge, with null subjects, personal pronoun subjects dramatically increase in number, and indefinite DPs and quantifiers make their appearance; the referents of subjects also come to be chosen from a larger array. There is a trade-off between proper names and personal pronouns in the Toma corpus and demonstratives and personal pronouns in the Petru corpus; a similar trade-off was noticed for L1 Romanian between demonstratives and personal pronouns by Avram and Coene (2010), who suggest that this signals a more target-like system.

Remarkably, both bilinguals start using personal pronouns earlier than the three monolinguals in Teodorescu (2017) and Avram and Coene (2010). Overall, a high number of personal pronoun subjects is recorded in the bilingual corpora. This is similar to findings in L1 Romanian (Avram and Coene 2010, Teodorescu 2017), as well as other languages (Serratrice 2002, 2005 for Italian). Of the overt pronominal subjects, 32% in Toma’s case and 13% in Petru’s case (exclusively first person singular) do not seem to have been used felicitously. However, the preference for using a first person pronoun subject even when not focused or otherwise relevant in the discourse is not uncommon with children, whose egocentric view of the world implies that they consider it important to talk about themselves (see also Serratrice 2005). In a similar analysis of child Italian, Serratrice (2005) found a percentage of 26% first person pronoun subjects that did not seem to have any obvious pragmatic function. For L1 Romanian, Teodorescu (2017) also finds a slight delay in the acquisition of the pragmatic constraints governing the realization of overt personal pronouns. Her corpus also contains utterances where the overt personal pronoun subject was not informative, although not quite as frequent as in the bilingual corpora described here.

5.2 Pre- and postverbal subjects

The second question addressed in the paper was whether the bilinguals would produce pre-/postverbal subjects in a different ratio from monolinguals and/or whether they would produce infelicitous preverbal subjects, under the influence of Hungarian. Cross-linguistic interference (Müller and Hulk 2000) might have been expected since the rules governing word-order are different in the two languages and are at the syntax/pragmatics interface (Sorace and Filiaci 2006, Sorace 2011).

The findings show that more than half of all subjects are preverbal in both bilingual corpora. The results differ from what has been reported for L1 Romanian (Avram and Coene 2010, Teodorescu 2017), where it is postverbal subjects that predominate.

Crucially, no infelicitous preverbal subjects were attested in the Romanian utterances in the corpus. While the ratio differs from L1, no constraints are violated in Romanian in any of the utterances the children produce.
The question arises whether the different word order from L1 children could be interpreted as cross-linguistic influence. It is true that the preferred Hungarian pattern is verb-final (MacWhinney 1985). However, longitudinal studies on L1 Hungarian report variable results regarding early word order preferences (Wéber 2007, MacWhinney 1985). Additionally, a look at the Hungarian utterances of the two children in the present study contradicts the hypothesis. In both corpora, it is postverbal subjects that predominate in Hungarian: in 55% and 68% of the contexts respectively, overall. The influence of the input can also be discounted: in CDS postverbal subjects outnumber preverbal subjects.

As has been detailed in section 3.1, higher percentages of preverbal subjects have also been attested with other learners of null languages: Spanish-English bilinguals (Paradis and Navarro 2003, Villa-García and Suárez-Palma 2016), and Spanish-Catalan bilinguals (Bel 2003, Silva-Corvalán 2014 in Villa-García and Suárez-Palma 2016). It has been proposed that bilinguals perform differently in this respect because of the effect of bilingualism itself as a hindering factor (Silva-Corvalán 2012 in Villa-García and Suárez-Palma 2016), or under the influence of a similar pattern in the input (Paradis and Navarro 2003, Villa-García and Suárez-Palma 2016); cross-linguistic influence could of course have been a factor with the Spanish-English bilinguals (Paradis and Navarro 2003, Villa-García and Suárez-Palma 2016). In addition, monolinguals have also been found to favour SV constructions in a null subject language like Spanish (Villa-García 2009 in Villa-García and Suárez-Palma 2016) or Catalan (Bel 2003).

In our case, the results match neither the input nor the Hungarian pattern of the two bilinguals. Importantly, the preverbal subjects are never used in an infelicitous manner and do not violate any pragmatic constraints for Romanian. It is proposed here that in the present instance the difference from L1 is accidental and has no special significance. No ungrammaticality or pragmatic inappropriateness is observable that would require an explanation.

Consequently, the prediction that the different constraints governing word order in the two languages might result in some delay/erroneous constructions with the bilinguals, is not confirmed by the data.

6. Conclusions

The data show that the pro-drop parameter is set very early in 2L1 Romanian. In the early months, the two bilinguals produce a significantly higher number of overt subjects than Romanian monolinguals (Avram and Coene 2010, Teodorescu 2017) and that there are in the input. I argued that this difference can be interpreted as an effect of bilingualism per se (Sorace 2011).

The bilinguals seem on the whole sensitive to the discourse factors governing the null/overt subject alternation, from very early on. They do occasionally produce, nevertheless, infelicitous (uninformative) overt pronominal subjects: Toma does so to a greater extent than Petru. The overuse of personal pronoun subjects confirms the prediction that this area is vulnerable in bilingual acquisition as an interface phenomenon (Sorace and Filiaci 2006, Sorace 2011).
The bilinguals produce a higher number of preverbal than postverbal subjects. In the input, it is postverbal subjects that predominate. The bilingual children also differ from the pattern favoured by monolingual Romanian children (Avram and Coene 2010, Teodorescu 2017, this issue). But there are no infelicitously placed subjects that might violate the Romanian pragmatic constraints governing word order. The comparison with the rate of pre- and postverbal subjects in the Hungarian utterances of the children revealed that the preference for preverbal subjects cannot be interpreted as the effect of cross-linguistic interference.

References