

THE SUBJECT – OBJECT ASYMMETRY IN THE ACQUISITION OF *WH*-QUESTIONS IN ROMANIAN

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Abstract: The literature on the acquisition of subject and object *wh*-questions reports different results with respect to how children acquire these two types of questions. According to several studies, there is an asymmetry between the acquisition of subject and object *wh*-questions. Although children acquire the syntax of *wh*-questions very early, object questions are significantly more difficult than subject questions (O’Grady 1997 for an overview, Guasti 2002, a.o.). Stromswold (1995), on the other hand, provides longitudinal data showing that children acquire subject and object questions concurrently. The aim of this paper is to investigate early subject and object *wh*-questions in child Romanian with a view to identifying whether the asymmetry reported for other languages is also attested in Romanian. The longitudinal data investigated reveal that subject and direct object *wh*-questions emerge concurrently. There is, however, a clear difference between subject *who* questions and subject *what* questions, with an obvious preference for the former. With *what*, one notices a clear preference for direct object questions.

Keywords: subject *wh*-question, object *wh*-question, child Romanian, longitudinal study

1. Introduction

Research on the acquisition of *wh*-questions has focused on the subject-object asymmetry both on the basis of longitudinal and of experimental data. Previous studies report different findings with respect to the emergence and early use of subject (1a) and object (2a) *wh*-questions:

- (1) a. Who _ is helping the boy?
b. Who(m) is the boy helping _?

The picture which emerges from most of the available studies is that subject *wh*-questions are acquired earlier than object *wh*-questions (see O’Grady 1997 for an overview of earlier studies, Guasti et al. 2010, del Puppo et al. 2014). There are, however, studies which provide data which show that the two *wh*-question types emerge and are acquired concurrently. This is the case of Stromswold (1995) for English. Other studies show that the asymmetry is found only with d-linked *wh*-questions (Hickock and Avrutin 1996, Goodluck 2005, 2008, Friedmann and Novogrodsky 2010 for impaired populations; Friedmann et al. 2009, Bentea 2015 for TD children), i.e. only d-linked object *wh*-questions, illustrated for Hebrew in (2), are acquired late:

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- (2) a. d-linked subject *wh*-question
 Eize kelev noshex et ha-xatul?
 which dog bites ACC DEF-cat
 ‘Which dog bites the cat?’
- b. d-linked subject *wh*-question
 Et eize kelev ha-xatul noshex?
 ACC which dog DEF-cat bites
 ‘Which dog does the cat bite?’ (Friedmann et al. 2009:9)

If this distinction is on the right track, Stromswold’s results are not that surprising, since she does not investigate the early use of d-linked vs. non-d-linked *wh*-questions. On the other hand, one can easily notice that her study, which reports concurrent acquisition of subject-object *wh*-questions, used exclusively longitudinal data. And though she argues that object *wh*-questions are not acquired later than subject *wh*-questions, she mentions, however, that the former are less frequently attested in the corpora investigated. She also mentions a difference between *who* and *what* questions. Unlike *who* *wh*-questions, the results for *what* and *which* questions suggest that, as predicted by the Antecedent Government Hypothesis (Stromswold 1995), children acquire subject questions later than object questions.

The aim of the present study is to extend the investigation of the early emergence of subject and object *wh*-questions to child Romanian, a language in which the acquisition of *wh*-questions is understudied. Extending the investigation to other languages might help shed light on the attested subject-object asymmetry as well as on the possible cause(s) underlying it. Finally, most previous studies of the acquisition of *wh*-questions in Romanian focused on comprehension (Sevcenco 2013, Sevcenco and Avram 2015, Bentea 2009, 2015), with the exception of Avram and Coene (2006). Their study, however, investigates the emergence of the CP layer, and therefore does not address the issue of a possible subject-object asymmetry. In the present study, I investigate the production of subject and object *wh*-questions in child Romanian on the basis of longitudinal data.

The paper is organized as follows. In section 2 I offer a brief overview of previous studies, focusing on the subject-object asymmetry in the production of *wh*-questions. Section 3 summarizes the main properties of subject and object *wh*-questions in Romanian. The longitudinal study is presented in section 4. I analyze the early use of subject and object *wh*-questions in two longitudinal corpora of monolingual Romanian. The results indicate simultaneous emergence of subject and object *wh*-questions and individual variation with respect to the number of subject and object questions. However, they also reveal that overall there is an asymmetry between subject *who* and subject *what* questions with an obvious preference for the former, as well as an asymmetry between object *who* and object *what* questions, with a preference for the latter. Section 5 summarizes the main findings of the study.

2. Previous studies on the acquisition of subject/object *wh*-questions

2.1 The subject-object asymmetry in production

The aim of this section is to present the main findings reported in the previous literature which investigated the asymmetry between subject and object *wh*-questions in production. In the last part of this section I present the results on *wh*-questions in child Romanian which are reported in the few available studies. I focus on those results which are directly relevant to the asymmetry issue addressed in the present paper.

Stromswold (1995) examined *wh*-questions in child English in order to find out the order of emergence of subject and object *wh*-words (*Who will I help?* vs. *Who will help me?*). She evaluated three predictions as far as the acquisition of *wh*-questions is concerned:

(i) The *wh*-subject *in situ* prediction (WISH): The acquisition of subject *wh*-questions takes place before the acquisition of object *wh*-questions. Unlike object *wh*-words, matrix subject *wh*-words remain in their original position within the IP:

(3) [CP [C' [IP Who [I' will [VP meet the President?]]]]] (Stromswold 1995:11)

(ii) The vacuous movement prediction (VHM): The acquisition of subject *wh*-questions occurs at the same time with the acquisition of object *wh*-questions. Like *wh*-objects, matrix *wh*-subjects move from their original position within the IP to a sentence initial position, leaving a trace/gap behind.

(4) [CP who_i [C' [IP t_i [I' will [VP meet the President?]]]]] (Stromswold 1995:10)

(iii) The antecedent government prediction: The acquisition of object *wh*-questions happens before the acquisition of subject *wh*-questions.

Subject traces, but not object traces are antecedent governed.

(5) [CP Who_i [C' will_j [IP Barbara Walters [I' e_j [VP meet t_i?]]]]]

(6) [CP Who_j [C' [IP t_i [I' [VP met the President?]]]]] (Stromswold 1995:14)

Stromswold (1995) discusses five possible reasons why children should acquire subject *wh*-questions before object *wh*-questions: (i) the distance from the *wh*-word to the gap is shorter for subject *wh*-questions; (ii) subject *wh*-questions have fewer words; (iii) subject *wh*-questions never have Subject-Auxiliary Inversion; (iv) subject *wh*-questions do not require do-support; (v) superficially, subject *wh*-questions are homologous in structure with simple declaratives.

She used the transcripts of 12 English speaking children (6 boys and 6 girls) with ages from 1;2 – 2;6 to 2;3 – 6;0. On the basis of these longitudinal data, Stromswold (1995) concludes that English-speaking children acquire subject and object *wh*-questions at the same age. The first scorable subject question is attested at the mean age of 2;5.2 and the first scorable object question at the mean age of 2;3.4. These results are in favor of the The Vacuous Movement Prediction.

However, in the case of *what* questions, children acquire subject questions later than object questions, which would confirm the Antecedent Government Prediction. There was a clear preference for *what* object questions over subject questions which, nevertheless, is not different from adult speech where inanimate subjects are also relatively rare in *wh*-questions.

There is also an asymmetry in the case of *who* questions; children produced significantly more subject questions than object questions (63% of the *wh*-questions were answered as subject questions).

Stromswold (1995) concludes that children do not acquire subject *wh*-questions before object *wh*-questions. The acquisition of subject questions patterns more closely with the acquisition of object questions rather than adjunct questions.

The findings reported in experimental studies are not different. Tyack and Ingram (1977, in O'Grady 1997) report results which clearly show that English children (age range 3;0-5;5) have a strong preference for *who* subject questions. They give 80% correct answers to *who* subject questions in comparison with 56% correct answers for *who* object questions. They perform correctly for *who* object questions only slightly above 50% for all age groups.

Another study which investigated the production of *wh*-questions was conducted by Wilhelm and Hanna (1992). The younger children had problems with both subject and object questions and the older children did better with subject questions than with the object questions. It is interesting to notice that the most common error they made was to use a subject question when an object question was elicited. The reverse error, on the other hand, was extremely rare.

Yoshinaga (1996) reports experimental data from 21 English-speaking children (3 2-year-olds, 9 3-year-olds, 11 4-year-olds). The results show a statistically significant preference for subject *wh*-questions. An intriguing result is the fact that subject questions are not the most frequent type of *who* questions. It seems that there is a significant preference for subject *what* questions both in the case of children and in the case of adults. According to the authors, a possible explanation could be that object *wh*-questions differ from subject *wh*-questions in undergoing subject-auxiliary inversion or not:

- (7) a. Subject *wh*-question:
 Who **is** helping Mary?
 subject verb object (uninverted auxiliary)
- b. Object *wh*-question:
 Who **is** Mary helping?
 object subject verb (inverted auxiliary)
 (in O'Grady 1997: 135)

It might be the case that the inverted structure in (7b) is more difficult for the young language learners as it has a more complicated pattern. Or it may be the “distance” between the sentence initial *wh*-word and the gap it is associated with. It has been long acknowledged in the literature that processing difficulty for adults increases with the “distance” between the gap and its “filler”. The complexity of a structure increases with the number of XP categories between a gap and the element with which it is associated (O'Grady 1997).

2.2 The subject-object asymmetry in child Romanian: previous studies

Wh-questions in child Romanian have been the topic of a relatively small number of studies, which used exclusively experimental data. Most of these studies focused on comprehension (Bentea 2009, 2015, Măniță 2012, 2013, Sevcenco 2013, 2014, Sevcenco and Avram 2015, Sevcenco et al. 2015).

Bentea (2015) investigated the acquisition of subject and object *wh*-questions in Romanian with a view to assessing the intervention effects of the NP feature on children's comprehension of *wh*-questions. She also examined the role that case-marking plays on the comprehension of object *wh*-dependencies. She tested 44 participants across two age groups (21 4-year olds and 23 6-year olds) and a control group of 10 adult native Romanian speakers (age range 18–40).

Bentea (2015) tested the comprehension of subject and object *wh*-questions introduced by various types of *wh*-elements: (i) subject questions with a bare *wh*-word *cine* 'who'; (ii) object bare questions introduced by *cine* 'who' preceded by the case-marker *pe*; (iii) a subject *which* +NP question where the *wh*-phrase *care* 'which' is followed by a lexical noun; (iv) an object *which* +NP question, hence the presence of *pe* at the onset of the *wh*-expression; (v) and (vi) the *which* –NP conditions, subject and object questions also introduced by the *wh*-element *care* 'which', but without a lexical noun.

The overall results suggest that there is no difference in children's comprehension of subject and object *who* questions (0.88 versus 0.87 proportion of correct responses). The comprehension scores of subject and object *which* questions without a lexical restriction are almost the same (0.86 versus 0.81 correct responses). A subject-object asymmetry is reported only with *which* +NP questions; Romanian children have fewer problems with the comprehension of subject *which* +NP questions than of object *which* +NP questions.

Sevcenco (2013) looked at the comprehension of d-linked and non d-linked subject and object *wh*-questions. She tested 23 monolingual typically developing children (age range 5;1 and 5;10). The results show that there is a d-linked versus non d-linked asymmetry across question types: subject non d-linked *wh*-questions (60.86%) are better understood than their d-linked counterpart (42.02%). The same asymmetry is present when it comes to object *wh*-questions (56.52% on target answers to non d-linked *wh*-questions versus 43.36% correct answers to d-linked *wh*-questions). However, subject and object *wh*-questions are understood equally well regardless of question type (d-linked or non d-linked). Sevcenco (2013) concludes that Romanian children find it difficult to integrate the syntactic representation of d-linked questions with the discourse-related constraint that is necessary for the pragmatically felicitous use of d-linked questions. Even if no significant asymmetry can be identified between subject and object *wh*-questions, there is a significant asymmetry between the errors with theta-role reversal with the d-linked questions: more role reversal errors were found with object questions than with their subject counterpart. The author accounts for this asymmetry in terms of movement chains in the derivation of the two types of questions: the object chain crosses over the subject position in object questions.

Another study which focused on the acquisition of *wh*-questions in Romanian is Sevcenco et al. (2015). They report results which show that overall there is no asymmetry in the acquisition of non d-linked subject and object *wh*-questions with 5 year olds. A more complex picture emerges for the d-linked *wh*-questions: the overall results indicate the absence of the asymmetry, but error analysis shows that more theta role reversal answers were given when object *wh*-questions were elicited, endorsing the conclusion that d-linked object questions pose more difficulties. The authors explain their findings in line with Friedmann et al. (2009). They show that object *wh*-questions without a lexical NP restriction can cross an intervening subject without causing problems; hence, no asymmetry appears with non d-linked questions. D-linked object questions have a lexical NP restriction; when the object crosses a subject with lexical NP restriction, difficulties arise. Language specific properties related to case checking are argued to also play a part. Romanian DPs check case in their first Merge position (Alboiu 2002). On such an account, *who* objects are fully specified for case within the vP phase, before crossing over an intervening (case marked) subject; intervention effects might be alleviated by case specification.

The available studies focus on comprehension. But the acquisition literature signals a general asymmetry between comprehension and production (see e.g. Grimm et al. 2011 for an overview). Some studies report such an asymmetry between the production and comprehension of *what* questions (Seidl et al. 2003). In the present study I extend the investigation to the production of (non-d-linked) *wh*-questions in child Romanian, with focus on the (direct)object-subject asymmetry.

3. On subject-object *wh*-questions in Romanian

Subject and object bare non-d-linked *wh*-questions in Romanian are introduced by two *wh*-elements: *cine* ('who') for [+animate] and *ce* ('what') for [-animate].

- (8) Cine spală câinele?
 who washes dog-DEF.M.SG
 'Who washes the dog?'
- (9) Pe cine spală fetița?
 PE who washes girl.DEF.F.SG
 'Whom is the girl washing?'
- (10) Ce bea fetița?
 what drinks girl-DEF.F.SG
 'What does the girl drink?'
- (11) Ce zboară pe cer?
 what flies on sky
 'What is flying in the sky?'

As can be seen in examples (8)-(11), *wh*-phrases in Romanian show adjacency with the verb complex. The *wh*-movement proceeds to a position that is adjacent to the verbal complex and no constituent is allowed to intervene between the verb phrase and the

verbal complex. In object *wh*-questions the subject can only surface in post-verbal position, never between the displaced *wh*-phrase and the verb:

- (12) a. *Pe cine/ce Ion a desenat?
 PE who/what Ion has drawn
 ‘Whom/ what has Ion drawn?’
 b. Pe cine/ ce a desenat Ion?
 pe.ACC who/ what has drawn Ion
 ‘Whom/ what has Ion drawn?’

There is, however, a set of adverbials that can intervene between the raised *wh*-phrase and the verb.

- (13) Pe cine **abia** îl aşteaptă bunicii?
 PE who hardly CL.ACC.3SG.M wait grandparent-M.PL-DEF
 ‘Whom can the grandparents hardly wait for?’ (Alboiu 2002: 167)

A similar situation is attested in Spanish, where the *wh*-phrase verb adjacency rule is violated by some adverbs.

- (14) [_{TP} **A quién** [_{TP} jamás [_{TP} ofenderías tú con tus acciones]]]?
 whom never offend- COND.2SG you with your actions
 ‘Whom would you never offend with your actions?’ (Zubizarreta 1998:185)

Zubizarreta (1998) accounts for the Spanish example above by proposing a structure in which more than one specifier of I^0 is allowed and at most one of them may enter into a feature checking relation with I^0 . For Romanian, Alboiu (2002) argues that there is a number of adverbial clitics that can only appear adjacent to the verb, i.e. adverbial intensifiers such as: *mai* ‘more’, *prea* ‘too’, ‘very’, *tot* ‘still’, *cam* ‘little’, a bit’, *şi* ‘also’. She argues that Romanian *wh*-phrases are hosted by the IP, which she shows to be a discourse-related projection in this language. Alboiu (2002) proposes that I^0 in Romanian is a syncretic head capable of hosting the syntactic [+*wh*] feature which attracts raising and merging of *wh*-phrases into the specifier of IP. According to this analysis, *wh*-question formation involves movement to IP, and not to CP. In terms of learnability, it is plausible to assume that the emergence of *wh*-questions should be independent of the emergence of the C-layer. And since movement is shorter, only as far as Spec IP, *wh*-questions might be acquired earlier in Romanian than in languages in which the *wh*-phrase moves to the Spec of CP.

Another property of Romanian subject *wh*-questions is the possible instantiation of clitic doubling, which requires the direct object to be additionally marked by *pe*, a differential case marker similar to the Spanish *a*:

- (15) Cine *l-* a desenat pe copil?
 who CL.ACC.3SG.M has drawn PE child
 ‘Who has drawn the child?’

In the subject *wh*-question illustrated above the marked direct object *pe copil* is doubled by a co-indexed clitic pronoun.

For direct object *wh*-questions, the distribution of clitic pronouns is illicit in non-lexically-restricted interrogatives; however, it is obligatory with lexically-restricted *wh*-phrases:

- (16) *Pe cine_i *l_i-* a interviavat profesorul?
 PE who_i CL.ACC.3.SG. has interviewed professor.SG.M-DEF
 ‘Whom did the professor interview?’
- (17) *Pe care (student) a interviavat profesorul?
 PE which student has interviewed professor.SG.M-DEF
 ‘Which student did the professor interview?’

The obligatory presence of clitic doubling in *wh*-questions with lexically-restricted *wh*-phrases creates one extra dependency, besides the one between the displaced *wh*-phrase and its trace. Such *wh*-questions may be, therefore, more difficult to acquire than *wh*-questions with non-lexically-restricted *wh*-phrases.

Ce ‘what’ questions, illustrated in (10)-(11), differ from *cine* ‘who’ questions with respect to case marking on the *wh*-phrase in object questions. In object questions, *ce* ‘what’ is not *pe*-marked. *Cine* ‘who’, as shown in the examples above, must be case marked with *pe*. This may be due to the fact that the use of *pe*, a differential case marker, is constrained by animacy in Romanian.

4. A subject-object asymmetry in early *wh*-questions in child Romanian?

4.1 Aim

The aim of the present study is to investigate the acquisition of subject and object *wh*-questions in Romanian on the basis of the analysis of spontaneous speech. This is, as far as I know, the first longitudinal study which focuses on the subject-object asymmetry in the production of *wh*-questions in child Romanian.

Stromswold (1995, presented in section 2), in a longitudinal study which investigated early *wh*-question production in child English, showed that subject and object *wh*-questions emerge concurrently, in accordance with the Vacuous Movement Prediction. But *wh*-question production is different with *what* and with *who* questions. English children acquire *what* subject questions later than object questions, in accordance with the Antecedent Government Prediction. But they also produce more *who* subject questions than object questions.

The main questions which I address in the present study are:

- (i) Do subject and object *wh*-questions emerge concurrently in child Romanian?
- (ii) Is there an early subject-object asymmetry in the production of *who* and *what* questions?

The answers to these questions will allow an evaluation of the predictions discussed in Stromswold (1995), on the basis of Romanian data:

- (i) The *wh*-subject *in situ* prediction (WISH), according to which subject *wh*-questions should emerge before object *wh*-questions;
- (ii) The Vacuous Movement Prediction (VHM), according to which subject and object *wh*-questions should emerge concurrently;
- (iii) The Antecedent Government Prediction, according to which object *wh*-questions should emerge before subject *wh*-questions.

4.2 Data

I analyzed the use of subject and object *wh*-questions in two longitudinal corpora of monolingual Romanian: the B. corpus (described in Avram 2001, available on CHILDES) and the I. corpus¹. The two corpora include transcripts of audiorecorded spontaneous conversations between the child and a caretaker. For the present study, I analyzed one hour of transcribed spontaneous speech conversation per month (Table 1).

Table 1
Longitudinal corpus

| Child | Age | MLU | Files (hours) | Child utterances |
|-------|------------|---------------|---------------|------------------|
| B. | 1;9 - 2;11 | 1.344 - 2.790 | 17 (17h) | 9,202 |
| I. | 1;10 - 3;1 | 1.110 - 2.912 | 16 (16h) | 8,180 |

Child directed speech has also been analyzed in 10 files in the B. corpus and in 5 files in the I. corpus.

4.3 Method

The files were examined by hand to determine the first attested *wh*-questions, i.e., the first example of clear and correct questions which are also contextually adequate. I also looked at the frequency of subject and object *wh*-questions and the grammaticality of the attested questions.

The analysis did not include obvious routines (i.e. *ce crezi?* ‘*what do you think?*’), imitations and *wh*-words or *wh*-phrases which appear isolated (no verb present).

¹ We thank Ioana Stoicescu for generously allowing us to use this corpus (described in Stoicescu 2013).

4.4 Results

4.4.1 Bianca

In the B. corpus, the first attested argumental *wh*-question is a *cine* ‘who’ subject question, at age 1;9 (see 18), followed by a *ce* ‘what’ object question at age 2;1 (see 19). Subject *ce* ‘what’ questions are first attested at 2;3 (see 20).

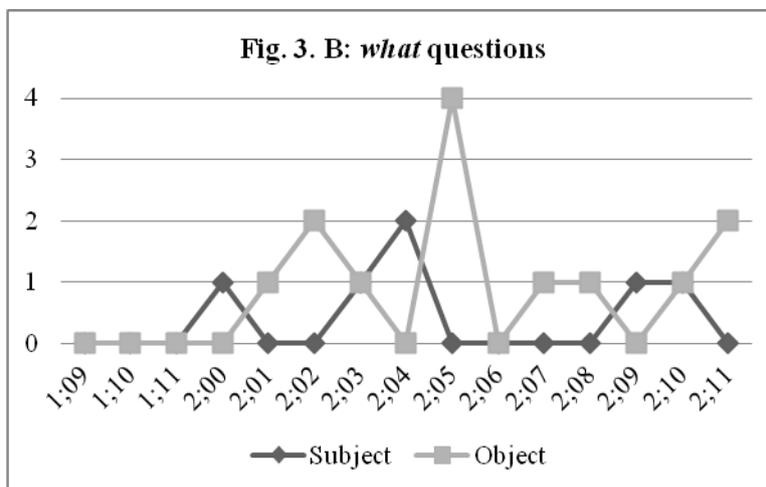
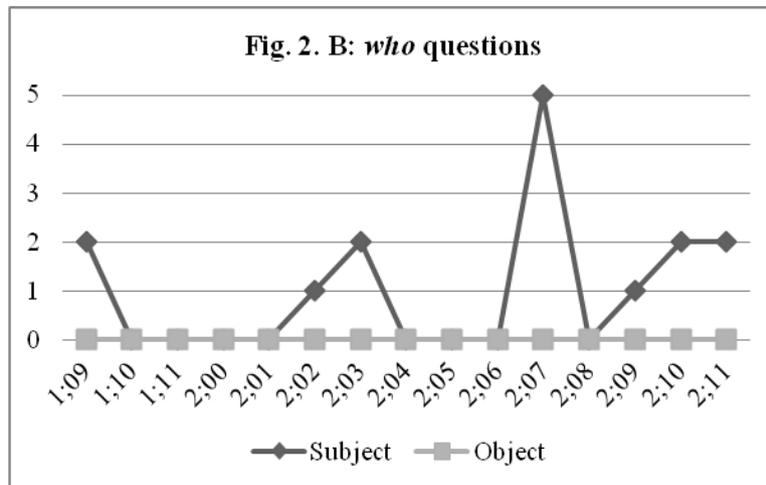
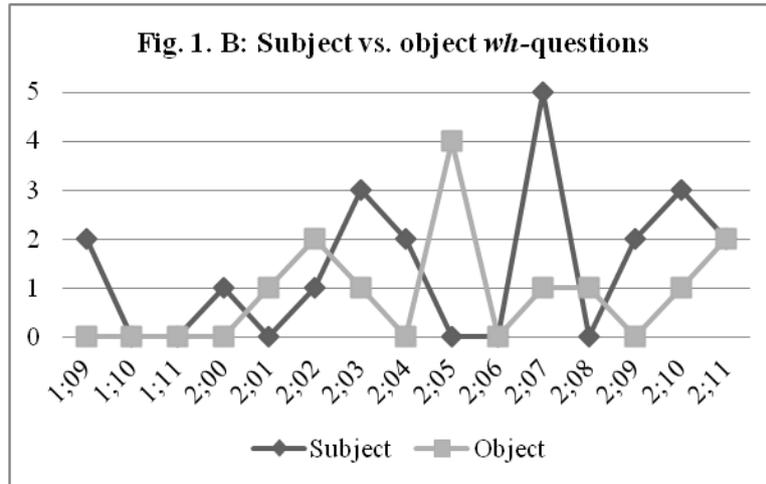
- (18) Cine e?
who is
‘Who is it?’ (B. 1;9)
- (19) Ce faci?
what do.2 SG
‘What are you doing?’ (B. 2;2)
- (20) Acolo ce e?
there what is
‘What’s there?’ (B. 2;3)

No object *wh*-questions with *cine* ‘who’ were found in the analyzed files. The main findings are summarized in Table 2.

Table 3
B. corpus: Age of first attested subject and object *wh*-questions

| | WHO | Age | Total |
|-----------------------------|-----------------------------------|------|-------|
| Subject <i>wh</i> -question | 1 st attested question | 1;9 | 14 |
| | 2 nd attested question | 2;2 | |
| | WHAT | Age | Total |
| Subject <i>wh</i> -question | 1 st attested question | 2;3 | 5 |
| | 2 nd attested question | 2;4 | |
| Object <i>wh</i> -question | 1 st attested question | 2;1 | 16 |
| | 2 nd attested question | 2;2 | |
| | 2 nd attested question | 2;11 | |

The longitudinal picture of argumental *wh*-question production in the B. corpus reveals a slight overall preference for subject *wh*-questions across files (Figure 1). But it also reveals a strong preference for subject questions within *who* questions (Figure 2) and for object questions within *what* questions (Figure 3).



4.4.2 Iosif

In the I. corpus, the first attested *wh*-question is also a *cine* ‘who’ subject question, at 2;1 (see 21) but the second *who* subject question is attested only three months later. Similarly, a *ce* ‘what’ object question is first attested at 2;0 (see 22) but the next *what* object question is attested only several months later, at 2;4 (23). *Ce* ‘what’ subject questions emerge early, at 2;5 (see 24); however, no other *what* subject question was found in the analyzed files until 2;11. No *cine* ‘who’ object questions were found in the analyzed files from this corpus.

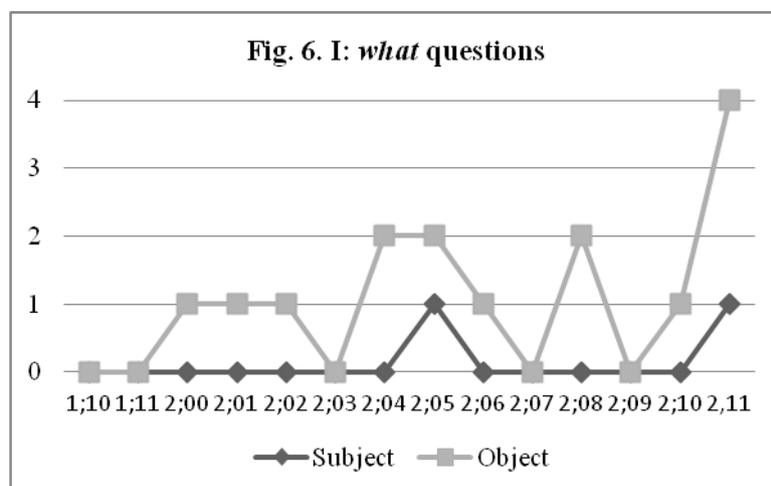
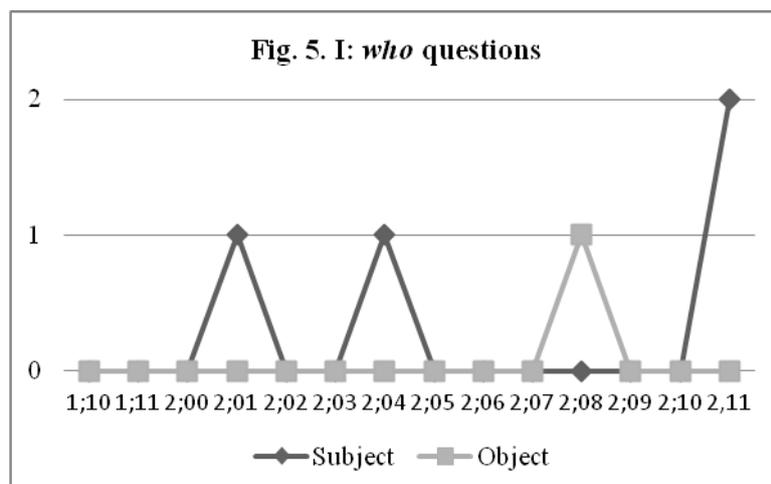
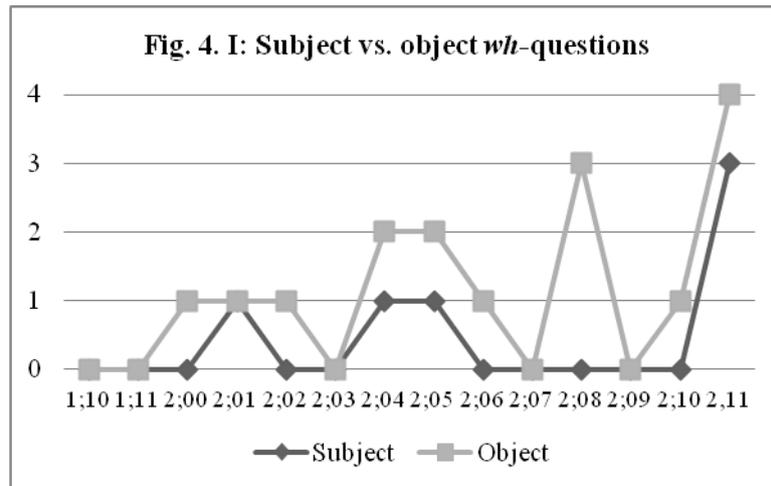
- (21) Cine sună?
who rings
‘Who is ringing [the bell]?’ (I. 2;1)
- (22) Ce faci?
what do.2 SG
‘What are you doing?’ (I. 2;0)
- (23) Ce-ți alegi?
what CL DAT 2 SG choose.2 SG
‘What do you choose for yourself?’ (I. 2;4)
- (24) Ce sună?
what rings
‘What is ringing?’ (I. 2;5)

The comparison between the emergence of *who* and *what* questions in the I. corpus is given in Table 3.

Table 3
I. corpus: Age of first attested subject and object *wh*-questions

| | WHO | Age | Total |
|-----------------------------|-----------------------------------|------|-------|
| Subject <i>wh</i> -question | 1 st attested question | 2;1 | 8 |
| | 2 nd attested question | 2;4 | |
| | WHAT | Age | Total |
| Object <i>wh</i> -question | 1 st attested question | 2;0 | 21 |
| | 2 nd attested question | 2;4 | |
| Subject <i>wh</i> -question | 1 st attested question | 2;5 | 2 |
| | 2 nd attested question | 2;11 | |

The longitudinal picture of argumental *wh*-question production in the I. corpus reveals an overall preference for object *wh*-questions across files (Figure 4). But it also reveals a strong subject bias within *who* questions (Figure 5) and a strong object bias within *what* questions (Figure 6).



4.5 Discussion

The data from the two corpora reveal that Romanian children start producing subject and object *wh*-questions at around the same age, with a low degree of individual variation. At first sight, the longitudinal data seem to be different from the experimental data reported in previous studies, according to which in child Romanian there is a subject-object asymmetry in the comprehension of *wh*-questions (Bentea 2015, Sevcenco et al. 2013). However, the asymmetry reported in these studies is found mainly with *care* ‘which’ questions. Such questions were not found in the files which I examined, revealing delayed acquisition. The longitudinal data also reveal a strong overall preference for subject *who* questions and object *what* questions. B. is more restrictive with respect to *who* object questions, I. is more restrictive with respect to *what* subject questions (see Tables 4-5).

Table 4
B.corpus : *what* vs. *who* questions

| | Subject | Object |
|-----------------------|---------|-----------|
| <i>Who</i> questions | 100% | 0% |
| <i>What</i> questions | 33.3% | 66.7% |

Table 5
I. corpus: *what* vs. *who* questions

| | Subject | Object |
|-----------------------|-----------|--------|
| <i>Who</i> questions | 66.7% | 33.3% |
| <i>What</i> questions | 0% | 100% |

The findings of this study are similar to the ones reported for child English in Stromswold (1995) with respect to order of emergence. The Romanian data, just like the English data in Stromswold (1995), provide support in favour of the Vacuous Movement Prediction.

The results of the present study are similar to the ones in Stromswold (1995) in one more respect: the subject-object asymmetry within *what* and *who* questions. Both English and Romanian children produce more subject *who* questions and more object *what* questions. For Romanian, the analysis of child directed speech reveals the same pattern. In the B. corpus, adult speech in 10 files contained a total number of 196 *cine* ‘who’ questions, out of which 10 are object (5%) and 118 (60.2%) are subject questions. In the I. corpus, the analysis of *wh*-questions in child directed speech in 5 files shows that adults have the same preference for subject *who* questions and object *what* questions. Out of the 342 *ce* ‘what’ questions, 186 (54.4%) were direct object questions and 36 (10.5%) subject questions. The corpus contained 111 *who* questions: 62 (56%) subject and 18 (29%) direct object questions. The children, however, seem to be more conservative in associating *who*, which is [+animate], with subjects and *what*, which is [-animate], with

direct objects. This strong preference suggests that animacy might play an important part in the early production of *wh*-questions.

In Romanian, however, both subject and object *wh*-questions are attested earlier. The comparison with respect to the emergence of *wh*-questions (first attested *wh*-questions) in English and Romanian is summarized in Table 6 below:

Table 6
Age of first attested subject and object *wh*-questions
in child Romanian and child English

| | English children | Romanian children |
|---|------------------|-------------------|
| 1 st subject <i>wh</i> -question | 2;5 | 1;9 |
| 1 st object <i>wh</i> -question | 2;3 | 2;0 |

This difference might reflect the difference between the syntax of *wh*-questions in the two languages. According to Alboiu (2002), in Romanian the *wh*-element moves to Spec IP, i.e. lower than in English, where it moves to Spec CP.

5. Conclusions

The goal of the present study was to investigate the early production of *wh*-questions in spontaneous speech in child Romanian. The data reveal that both subject and object *wh*-questions emerge early. In accordance with Stromswold's (1995) Vacuous Movement Prediction, Romanian children acquire subject and object *wh*-questions at approximately the same age. The analysis of *who* and *what* questions reveals a subject-object asymmetry. With *who*, there is a strong preference for subject questions. With *what*, object questions are preferred. This preference mirrors the pattern found in child directed speech, but it is stronger with children. I suggest that this may be due to the fact that children conservatively associate *who* with subjects and *what* with objects. I leave this issue for further research.

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