

A comparative view on answering strategies and new information subjects in Brazilian Portuguese and Finnish

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The paper presents a comparative study on subject focalization in Brazilian Portuguese (BP) and Finnish, and in particular on the structures displayed by these languages to focalize subjects in context of new information focus (SNI). The interest of studying subject focalization in BP and in Finnish comes from their peculiar status as partial null subject languages (PNSL), even if at different degrees (cf. Kato (2000); Holmberg 2009). Data have been collected through the experimental design used by Belletti & Leonini (2004) and Belletti, Bennati & Sorace (2007) on answering strategies (cf. Belletti 2006, 2008) which has been administrated to adult native speakers of BP and Finnish. It will be shown that interestingly, both in BP and in Finnish the VS order is not adopted in the relevant SNI focus contexts. When occurring, the VS order is restricted to syntactic-pragmatic conditions which are not observed in the parallel structure in languages like Italian. Hence, the observations on the BP and Finnish data are relevant not only for a comparative analysis of focalization strategies in two PNSL but also because they provide further evidence to the cartographic approach that we are assuming (cf. Cinque (2002), Rizzi (2004), Belletti (2004)).

0. Introduction

The aim of this work is to present a comparative study between subject focalization in Brazilian Portuguese (BP) and in Finnish. More specifically, we will be concerned with the structures displayed by these languages to focalize subjects in context of new information focus (SNI). The data in the present study have been collected through the experimental design (cf. § 6 for a detailed description) first successfully used by Belletti & Leonini (2004) and Belletti, Bennati & Sorace (2007) on answering strategies (cf. Belletti 2006, 2008). From a theoretical point of view, the research is based on relevant recent literature within the cartographic framework (cf. Cinque (2002), Rizzi (2004), Belletti (2004)) and assumes, in particular, the analyses proposed by Rizzi (1997) for contrastive focus and topic constructions and those assumed by Belletti (2001, 2004, 2005) for sentences with new information focus.

The interest of studying subject focalization in BP and in Finnish comes from their peculiar status as partial null subject languages (PNSL), even if at different degrees (cf. (Kato 2000); Holmberg 2009). Hence, the observations on the BP and Finnish data are relevant not only for a comparative analysis of

focalization strategies in two PNSL but also because they provide further evidence to the subject focalization theory that we are assuming.

Data coming from the Brazilian Portuguese and Finnish versions of the experimental task provide interesting results. In both languages the VS order is excluded in the relevant SNI focus contexts. When occurring, the VS order is restricted to syntactic-pragmatic conditions which are not observed in the parallel structure in languages like Italian (cf. Mioto (2003) for a parallel description of BP and Holmberg (2002) for Finnish). This suggests that the VS order produced in BP and in Finnish does not have the same kind of derivation proposed for the VS structures in languages like Italian (cf. Belletti (2004, 2005)). Thus, our results provide further support to the analysis proposed in Belletti (2001, 2004) and, in particular, to the assumption that the VS strategy is related to the presence of a referential, but not expletive, *pro* in the relevant language (Belletti (2005)).

The paper is organized as follows: sections 1 and 2 outline the theoretical framework of our work, section 3 provides a brief introduction to the research which have been carried out on answering strategies and subject focalization as new information focus. Subsequently, section 4 is devoted to the relevant characteristics of subjects in Brazilian Portuguese and in Finnish, resumed in section 5 together with the research questions and in section 6 the experimental design used to collect the data is explicated. In section 7 data and results are discussed and finally section 8 concludes the paper.

1. Baselines of the theoretical framework

As introduced, the theoretical background of the present work about subject focalization in BP and in Finnish is within the cartographic framework. More specifically, we are taking into account two of the main contributions given under this approach.

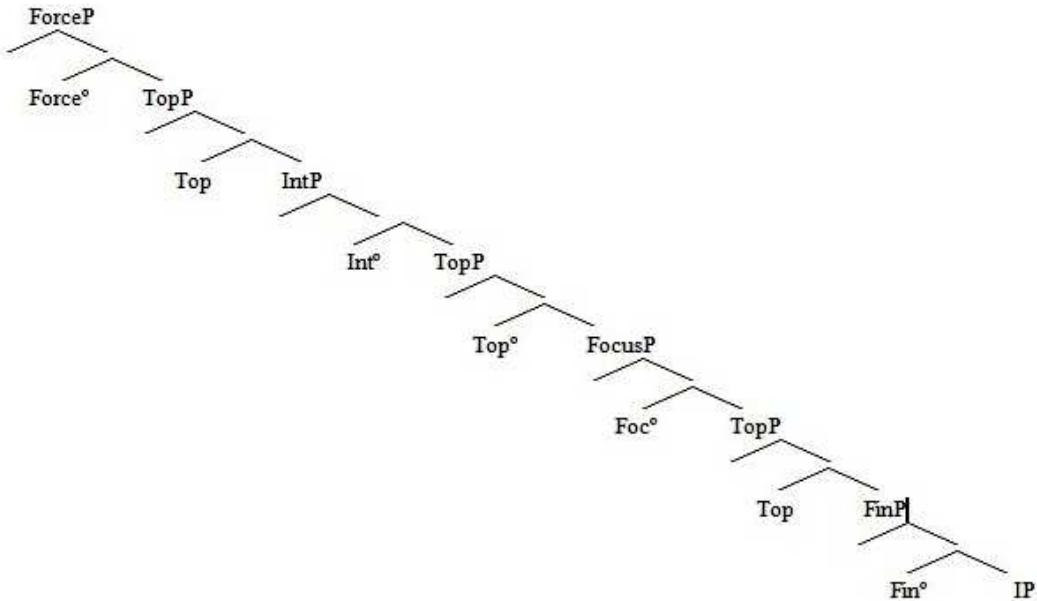
The first one is the proposal that the left periphery of the clause is an articulated area composed by distinct functional heads and their corresponding projections. Rizzi (1997, 2001) has proposed the structure in (1) for the complementizer system based on the interaction of different elements in the left periphery of Italian⁴³:

⁴³ Notice that the structure in (1) concerns the matrix CP system. For embedded contexts the structure in (i) has been proposed (Rizzi 2001):

(i) ... Force (TOP*) INT (TOP*) FOC (TOP*) Wh (TOP*) ...

For the purposes of the present work we will deal only with the structure in (1).

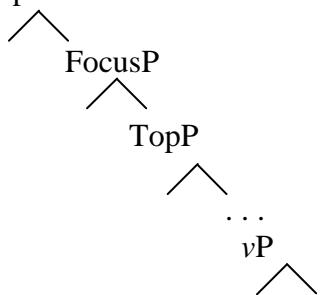
(1)



Considering the CP system in (1) as divided into a fixed and an accessory component, we are dealing with the latter, in particular with the projection of the focus head. According to Rizzi (Rizzi 1997:288), this is activated when necessary, i.e. whenever a constituent has a focus feature to be satisfied by a Spec-head criterion.

Along the same lines comes the second contribution we are referring to: Belletti (2001 and subsequent works) identifies a vP periphery with a FocusP surrounded by Topic projections, in the spirit of the left periphery proposed by Rizzi, as exemplified in (2).

(2) TopP



The structure in (2) accounts for the phenomenon of *free inversion* (henceforth FI) observed in languages such as Italian and illustrated in (3)a-b.

(3) a. Ha parlato Gianni
 has spoke Gianni
 b. E' partito Gianni
 has left Gianni

The postverbal subject in (3) can be interpreted in different ways depending on the context: as new information focus, (4), as contrastive focus, (5), or as topic, (6). Moreover, a postverbal subject is pragmatically correct also in all-new contexts, (7).

(4) a. Chi è partito / ha parlato ?
who has left / has spoken
b. E' partito / ha parlato Gianni
has left / has spoken Gianni

(5) a. Sara ha mangiato la mela.
b. No, l'ha mangiata Lucia.
No CL has eaten Lucia

(6) a. Che cosa ha poi fatto Gianni?
What has then done Gianni
b. Ha (poi) parlato, Gianni
has (then) spoken Gianni

(7) a. Che cosa è successo?
what has happened
b. Ha telefonato Piero
has telephoned Piero

Belletti's work mainly concerns the subject as new information focus. She shows that in Italian the postverbal subject has a very low position in the clause as it always follows low adverbs such as *completamente* "completely", *bene* "well", and *tutto* "all" (cf. Cinque 1999).

(8) a. ?Capirà completamente Maria.
understand-FUT.3sg completely Maria
b. ?Spiegherà completamente Maria al direttore.
explain-FUT3sg completely Maria to the director
c. ?Capirà/ spiegherà bene Maria (al direttore).
understand/explain-FUT3sg well Maria (to the director)
d. Capirà/ spiegherà tutto Maria (al direttore).⁴⁴
understand/explain-FUT3sg everything Maria (to the director)

(9) a. *Capirà/ spiegherà Maria completamente (al direttore).
understand/explain-FUT3sg Maria completely (to the director)
b. *Capirà/ spiegherà Maria bene (al direttore).
understand/explain-FUT3sg Maria well (to the director)
c. *Capirà/ spiegherà Maria tutto (al direttore).
understand/explain-FUT3sg Maria everything (to the director)

⁴⁴ On the different grammaticality judgements for (3d) and (a,b,c) cf. Belletti (2004).

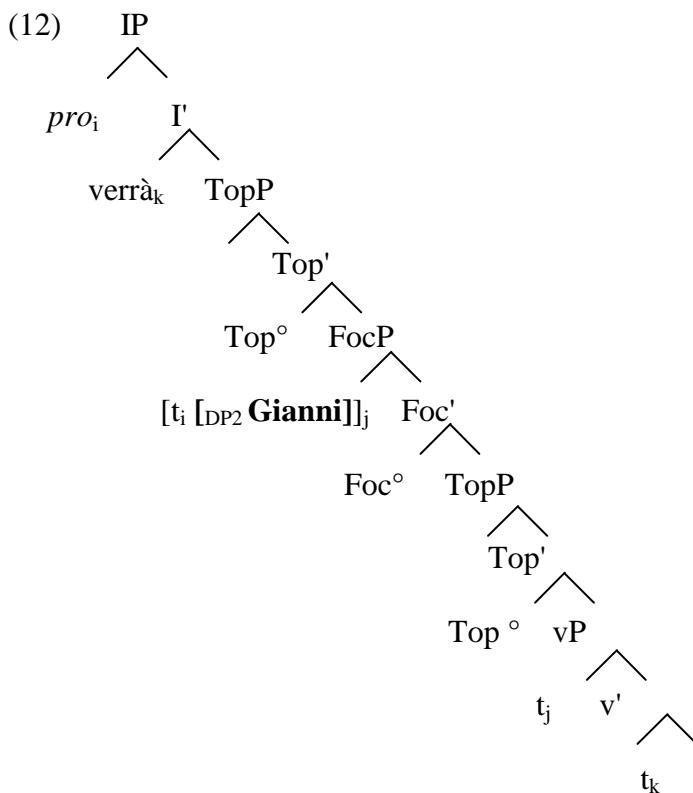
One of the basic assumptions of the cartographic approach is that the interpretation of new information focus results from its being in the Spec position of a dedicated head, namely a Focus head. If the postverbal subject occurs very low in the linear order of the clause, then it should be in a low phrase internal focus position.

Assuming the vP periphery introduced in (10), Belletti (2001, 2004, 2005) proposes that in Italian a sentence with SNI, as in (4)b, has the structure in (11). The subject is in Spec,FocP in the vP periphery, the verb moves to a head higher than FocP and a *pro* satisfies the EPP requirement in the canonical preverbal subject position.

(10) [CP ... [TP [TopP ... [FocP **Foc** [TopP vP]]]]]

(11) [CP ... [TP *pro*... ha parlato ... [Top [FocP Gianni [TopP [VP...]]]]]]

A subsequent proposal (Belletti 2005) consists of the presence of a Big DP in which a subject and a *pro* are base-generated. The latter moves to the position in which it is assigned nominative case and the rest of the Big DP containing the subject moves to Spec,FocP in the vP periphery, as shown in (12).



2. On *pro* and on the agreement with the postverbal subject

The approach in Belletti (2005) further assumes that the *pro* element involved in the inversion structures is referential and not expletive. Thus, it is proposed that *pro* shares the same features with the postverbal noun phrase. Consequently, if

pro has the same features of the noun phrase in the vP-peripheral focus position, the verbal agreement with the postverbal subject, as well as the nominative case assignment, follow from the presence of the referential *pro* in the canonical preverbal subject position.

Hence, the two important assumptions are: i) the movement of the postverbal subject to the Focus position of the vP periphery, and ii) the availability of a referential *pro*. Consequently, the focalization of the subject in a postverbal position is assumed not to take place in non null subject languages (NNSL), as showed in Belletti (2009). NNSL typically focalize the subject through two different structures: i) SV structures with a particular intonation on the subject, as in English (13)a-b, and ii) (reduced) cleft sentences, as in French (cf. (14)b).

(13) a. Who came?
b. *John* came

(14) a. Qui a parlé?
Who spoke?
b. C'est Jean.
ce is Jean
'It's Jean'

3. Previous studies on answering strategies and new information subjects

Previous empirical studies on the use of new information subjects have given inspiration to the present work. This section is devoted to their main results.

As hinted in the Introduction, the task used in the present study was first created and used by Belletti & Leonini (2004). Their work on the interface between syntax and pragmatics concerns the use of new information subjects and in particular of the FI structure in the L2 Italian of 26 adult learners with different L1s. Moreover, also the use of null subjects in the target L2 language was observed. From the results the authors observe that these two linguistic phenomenon don't seem to be correlated since the FI inversion is used to a minor extent with respect to null subjects, at least in the interlanguage grammar under discussion. Thus, a *pro* is licensed but the vP peripheral focus position, which is assumed to host the new information subject in null subject languages, is not (extensively) activated. It is argued that the interlanguage grammar has a difficulty at the interface level between the computational system and discourse, since the unavailability of FI could not be due to the unavailability of an expletive *pro*.

The second research has been done few years later by Belletti, Bennati & Sorace (2007). Taking as a starting point Belletti & Leonini's (2004) findings, the study aimed at further restricting the investigation domain on the syntax of subjects in Italian L2 at a very high (*near native*, cf. White & Genesee 1996) level of attainment. It is observed that the unbalanced correlation between the use of postverbal new information subjects and the use of null subjects persist and it cannot be considered a developmental effect. At a near-native level null subjects

are correctly used at a higher rate with respect to postverbal subjects. Hence, the results strengthen the previous important observation that the positive setting of the null subject parameter is a necessary but not sufficient condition for licensing postverbal subjects in L2 Italian.

4. Interest of the present study

The present study shows data coming from the Brazilian Portuguese and Finnish adaptations of the test. Differently from the previous studies, it does not deal with acquisition issues but focuses on data coming from native speakers of the two languages. The main contribution comes from the nature of BP and Finnish as partial null subject languages (PNSL) and to the consequent use of different structures available in these languages in answers with the subject interpreted as new information focus. Before presenting the experimental design we will briefly introduce the main facts about BP and Finnish as for their PNSL nature.

4.1 Overview on null/overt subjects in Brazilian Portuguese

The weakening of verbal morphology in Brazilian Portuguese has led this language to the loss of referential null subjects⁴⁵. However, there are two types of referential null subjects which are still widely used. The first is the null subject in matrix clauses illustrated in (15). The second is the embedded null subject coreferent with the subject in the matrix clause, as illustrated in (16).

(15) Comprei um carro novo ontem.
bought-PAST1sg a new car yesterday
'I bought a new car yesterday.'

(16) João_i disse que *ec*_i comprou um carro novo.
John_i say-PAST3sg that *ec*_i buy-PAST3sg a new car
'John said that he bought a new car.'

More detailed studies have pointed out that these subject omissions have some peculiarities which are not found in null subject languages. As noticed by Figueiredo-Silva (1996) e Rodrigues (2002), null subjects in matrix clauses like (15) are restricted to the first position in the clause and must refer to an element contained in the previous discourse. The restriction to the first position can be illustrated through the examples *a* in (17)-(19), in which the subject is preceded by a *wh*-element, a contrastive focus and a topic, respectively. In order to be grammatical, these sentences must have a full pronoun, as shown in the examples *b*⁴⁶.

(17) a.*O que (que) *ec* comprei ontem?
b. O que (que) eu comprei ontem?
'What **ec*/I have bought yesterday?'

⁴⁵ There is a wide literature concerning the loss of referential null subjects in BP as well as its correlation with the reduction of the inflectional paradigm. See the diachronic studies by Duarte (1996), the work by Figueiredo-Silva (1996) and the papers in Kato & Negrão (2000), among others.

⁴⁶ Examples extracted from Figueiredo-Silva (1996) and Rodrigues (2002).

(18) a.*O VINHO *ec* vai trazer (nao a sobremesa).
 b. O VINHO ele vai trazer (-nao sobremesa).
 ‘The wine **ec/he* will bring (not the dessert).’

(19) a.*O João, *ec* acho que vai ser despedido.
 b. O João, eu acho que vai ser despedido.
 ‘The John, **ec/I* think that will be fired’

As pointed out by Rodrigues (2002), this restriction in the use of the matrix null subject is a peculiarity of contemporary PB. According to the author, in vernacular theatre pieces it is possible to find null subjects together with a *wh*-element, (20)a , or a topic, (20)b.

(20) a. E o que *ec* direi da menina?
 and what *ec* say-FUT1sg of the girl?
 ‘And what will I say about the girl?’
 b. Mas, olha, o meu vestido está quase pronto, e o teu, *ec* nao sei quando estará.
 But look my dress is almost ready, and yours, *ec* don’t know when it will be.

(Rodrigues (2002) examples 10-11, p. 163)

As for the embedded null subject illustrated in (16), one of its main characteristics in contrast to null subjects in *pro*-drop languages is that it must have an antecedent located in a higher clause. Sentences like those illustrated in (21), where there is no antecedent for the embedded null subject, are ungrammatical in BP⁴⁷.

(21) a.*A Mariai disse que *ec*; canto bem.
 Mariai said that *ec*; sing well
 ‘Maria said that I sing well.’ (Figueiredo-Silva, example 28, p. 133)
 b. **pro*-expl parece que *ec* tinha telefonado.
pro-expl seems that *ec* has called
 ‘It seems that she has called.’ (Rodrigues (2002) example 19, p. 165)

The peculiar behaviour of the null subjects illustrated in (12) and (13) has led some researchers to hypothesize that these subject omissions are not genuine null pronouns. Consequently, a new branch of research started in order to identify which grammatical properties could determine their existence.

Regarding null subjects in matrix clauses, the fact that it is restricted to the first position and must refer to an element salient in the discourse has led some scholars (cf. Figueiredo-Silva (1996), Rodrigues (2002) and Modesto (2008)) to interpret it as an instance of Topic Drop, a phenomenon found in languages like German. As for the null subject in the embedded clause in (13), on the other hand, different analyses have been proposed in order to explain its nature (cf. Figueiredo-Silva (1996); Rodrigues (2002), Ferreira (2004), Guessier

⁴⁷ For a detailed discussion about the properties of embedded null subjects in Brazilian Portuguese, see Rodrigues (2002), Ferreira (2004) and Guessier (2007a).

(2007, 2007a)). Even though we will not discuss in detail these analysis, it is important to notice that all they all agree on the fact that the omission of subjects in embedded contexts in BP is due to grammatical properties different from those assumed to be involved in the licensing and identification of null subjects in *pro-drop* languages (cf. Rizzi (1984) and subsequent work).

To conclude, null referential subjects are not allowed in contemporary BP. Null expletives and arbitrary null subjects are widely used, as illustrated in (19), even they can be full in some cases as shown by the examples in (23)a-b, extracted from Duarte (1999), where the expletive null subject can alternate with a demonstrative pronoun (for a more detailed discussion on the different strategies exploited to fulfil the non-referential subject position, see Duarte (1999)).

(22) a. Choveu a noite inteira.
rain-PAST3sg the all night
'It rained the whole night'
b. Não usa mais chapéu.
not use-PRES3sg anymore hat
'(people) don't use anymore hats'
c. Parece que João passou por aqui
seem-PRES3sg that J. pass-PAST3sg for here
'It seems that João was here'

(23) a. **pro_{expl}** era em torno de dez pessoas.
be-PAST3sg about of ten persons
'There were about ten persons'
b. **Isso** era em torno de dez pessoas.
this be-PAST3sg about ten persons
'It was around ten persons'

4.2 Overview on null/overt subjects in Finnish

Finnish allows null subject for first and second person singular and plural, but not for third. Observe the paradigm in (24):

(24) a. (minä) tule-n
(I) come-PRES1sg
b. (sinä) tule-t
(you) come-PRES2sg
c. hän tule-e
(s)he come-PRES3sg
d. (me) tule-mme
(we) come-PRES1pl
e. (te) tule-tte
(you) come-PRES2pl
f. he tule-vat
they come-PRES3pl

Notice that the optionality of an overt 1st or 2nd person subject might be apparent: the use of an overt pronoun is often interpreted as stressed. There exists however a difference between standard and colloquial Finnish: in

colloquial Finnish a shortened pronominal form is commonly used and stress is not involved⁴⁸. Nonetheless, 3rd person null subjects are allowed under special circumstances:

(i) in subordinate clauses when the subject is co-referential with the subject of the main clause, observe the different interpretation between the null subject in (25)a and the overt one in (25)b:

(25) a. Jussi_i sanoi, että _{i/*k} soittaa myöhemmin
 Jussi-NOMsg say-PAST3sg that _i call-PRES3sg later
 ‘Jussi said that he will call later’

 b. Jussi_i sanoi, että häni_{i/k} soittaa myöhemmin.
 Jussi-NOMsg say-PAST3sg that (s)he-NOMsg call-PRES3sg later
 ‘Jussi said that (s)he will call later’

(26) Jussin_i vaimosta_k oli mukavaa, että häni_{i/k} _{i/*k} pääsi aikaisin töistä.
 Jussi-GEN wife-ELA was nice-PART that (s)he-NOM came ear
 ELA (adapted from Holmberg 2005)

Finally, a null expletive pronoun is found in extraposed clauses, (28)a and with weather verbs, (28)b. Notice that in colloquial Finnish the expletive pronoun can be optionally overt in both cases. In the extraposed sentence it is considered referential whereas with weather verbs it is often referred to as a quasi-auxiliary or quasi-referential auxiliary (Hulhava & Nikunja 2002).

(28) a. __ oli kiva, että soitit.
be-PAST3sg nice that call-PAST2sg
'It was nice that you called'

b. __ sataa.
rain-PRES3sg
'It rains'

The observation which follows from the examples above is that Finnish has both an embedded null subject and a null generic subject, as first observed by Holmberg (2005). Interestingly, Finnish besides having null subjects also has an

⁴⁸ We are referring to the colloquial variety spoken in the Southern part of Finland around Helsinki. Here, a non overt pronoun would not be the preferred choice following native speakers' judgements. Further research on the topic is needed in order to define its status as for the *pro-drop* parameter.

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overt expletive pronoun *sitä*⁴⁹ (cf. Holmberg & Nikanne 2002, Holmberg 2005).
This expletive is observed in the colloquial register.

(29) Sitä viihtyy saunaassa
(from Holmberg 2005)
sitä-EXPL feel-good sauna-INEsg
'One feels good in sauna'

The use of the expletive pronoun *sitä* in (29) is related to the well-known characteristic that Finnish does not allow verb initial sentences when the sentence is impersonal or when there is a potential topic that can appear sentence-initially⁵⁰. Hence, the possible ways to recover (30) are shown in (30)b-c-d.

(30) a. *puhui Jussi eilen kokouksessa
speak-PAST3sg Jussi-NOM yesterday meeting-INE
'Jussi spoke at the meeting yesterday'
b. kokouksessa puhui Jussi
meeting-INE speak-PAST3sg Jussi-NOM
c. eilen puhui Jussi
yesterday speak-PAST3sg Jussi-NOM
d. Jussi puhui kokouksessa
Jussi-NOM speak-PAST3sg meeting-INE

Impersonal verb initial sentences can also be recovered through an expletive (see also (29)):

(31) a. *leikkii lapsia kadulla (from
Holmberg & Nikanne 2002)
play-PRES3sg children-PARTpl street-ADE
b. sitä leikkii lapsia pihalla
sitä-EXPL play-PRES3sg children street-ADE
'There are children playing in the street'

Interestingly, in the collected data we observe instances of 3rd person verb initial sentences with a referential null subject, as exemplified in (32). Such kind of sentences are generally considered ungrammatical in standard Finnish and by prescriptive grammars. The fact seems similar to the lack of subjects in first position interpreted as topic drop in BP.

(32) a. Mitä hän oli tekemässä?
What (s)he was doing?

⁴⁹ *Sitä* is the partitive case of the demonstrative pronoun *se* 'this/it'.

⁵⁰ This characteristic has been interpreted as a consequence of the assumption that Finnish is a topic-prominent language: the external argument can be any category that can be the topic of the sentence and consequently the EPP can be satisfied by any category that can function as the topic of the sentence (Holmberg & Nikanne 2002). Holmberg & Nikanne (2002) also discuss the grammaticality of some verb initial sentences.

b. __ leikkasi peukaloa
 __ cut finger
 'She was cutting her finger'

To conclude this overview, we have observed that Finnish is a partial null subject language in the sense that it allows 1st and 2nd person null subjects but it doesn't allow 3rd person null subjects nor verb initial sentences, when in 3rd person. Moreover, it has an expletive which can be used in subjectless constructions, such as expressions with non-referential subjects (extraposed clauses, weather verbs, impersonal sentences). We are not dealing any longer with the nature of this expletive pronoun⁵¹, the interested reader is sent to Holmberg & Nikanne (2002), (2008), Holmberg (2005), for extensive discussion.

5. Interim summary and research questions

We summarize in Table 1 the main characteristics observed for null subjects in BP and Finnish:

	BP	Finnish
Null subject in finite clauses	*	Only for 1 st and 2 nd persons
Null subject as <i>topic-drop</i> , (cf. Figueiredo-Silva 1996, Rodrigues 2002, Modesto 2008)	✓	Similar pattern for 3 rd person
Null subject in embedded clause when co-referent with an argument in the matrix clause	✓	✓
Non-referential null subject	✓	✓
Overt expletive pronoun	*	✓

Table 1

Holmberg et al. (2009), in their recent discussion about the null subject parameter, identify three properties that characterize a language as a PNS language. According to these authors, in PNS languages subject omissions are allowed under 3 conditions:

- when the subject is non-thematic
- when the subject is a generic pronoun corresponding to English 'one'
- when the subject is controlled by an argument in a higher clause

As we can observe from the description about null subjects in BP and Finnish, summarized in Table 1, both languages follow the criteria established by Holmberg et al. (2009), and can thus be classified as PNSLs.

⁵¹ If standard and colloquial Finnish would be considered as distinct grammars it would not be surprising, under the theoretical framework assumed here, that colloquial Finnish (the Southern variety around Helsinki) is non *pro-drop* and has an expletive.

On the basis of the partial null subject nature of BP and Finnish described above, the questions to which the present study aims at answering are the followings:

- (i) Do PNSL such as Brazilian Portuguese and Finnish show VS structures in answers with subject as new information (SNI)?
- (ii) Which other strategies, if any, native speakers resort to in SNI contexts?

6. Answering strategies in SNI contexts: the experimental design

The experimental task used in the study of new information subject focalization in BP and in Finnish was created by Belletti & Leonini (2004) and successively also used in Belletti, Bennati & Sorace (2007). It consists in an elicitation task which present 22 short videos with female and male actors. The original language of the video task is Italian and it has been doubled in BP and Finnish by native speakers of the two languages. Each video shows a scene in which one of the actors asks a question about it and the participant has to answer orally to the question in the most spontaneous way. Afterwards, one to three recorded questions were presented to the participant. The test also included filler questions. Each subject was tested individually and recorded. The answers were transcribed and only sentences containing a verb were considered. The verbs were classified in transitives, unergatives and unaccusatives. The participants were all adult native speakers of BP (n=20) and Finnish (=15).

Finally, notice that using the same experimental design has been important for ensuring us with the same discourse-pragmatic contexts in which subjects are effectively focalized as new information.

7. Results and discussion

In this section we will present the results for BP and Finnish, respectively. We will consider the kind of strategies used in SNI information contexts, the occurrence of VS order and finally, the kind of structures in which the focalized subject can appear in a postverbal position.

7.1 Brazilian Portuguese

The answers to the target items can be divided into six types as exemplified in (33)-(38).

(33) a. Quem respondeu o telefone?
SV
‘Who answered the phone?’
b. A Clara respondeu ao telefone.
the Clara answered to the phone
‘Clara answered the phone’

(34) a. Quem chegou?
VS
‘Who arrived?’

b. Chegou um homem.
arrived a man
'A man arrived'

(35) a. Quem deixou a televisão ligada?
CLEFT
'Who has left on the television?'

b. Foi a Maria que deixou a televisão ligada.
was the Clara that left television on
'It was Clara who has left the TV on'

(36) a. Quem telefonou?
REDUCED CLEFT
Who called?

b. Foi a Elisa.
was the Elisa
'It was Elisa'

(37) a. Quem comeu a maçã?
PSEUDO CLEFT
'Who ate the apple?'

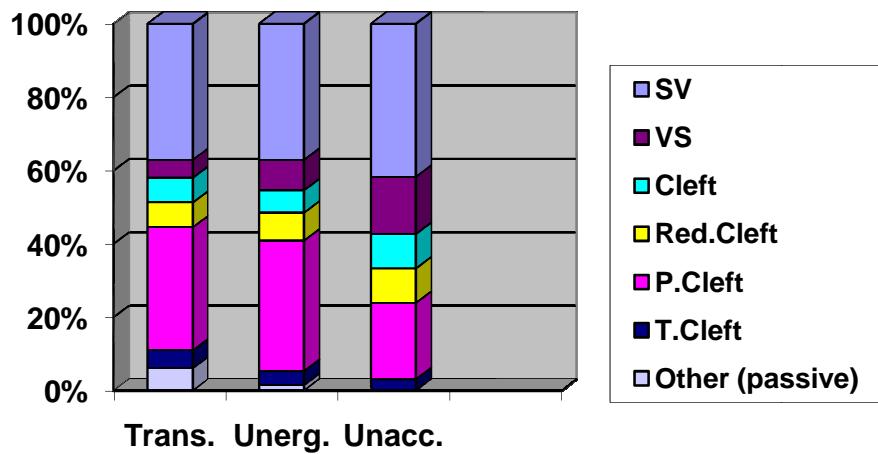
b. Quem comeu a maçã foi uma senhora.
who ate the apple was a woman
'It was a woman who ate the apple'

(38) a. Quem varreu o chão?
TRUNCATED CLEFT
who swept the ground?

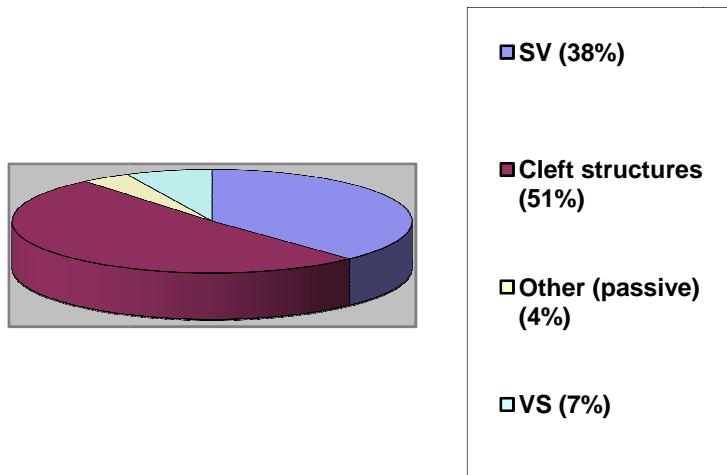
b. A menina que varreu o chão.
the girl that swept the ground
'It was the girl who swept the ground'

The results are shown in Graph 1. Two main answering strategies stand out: SV (37,7%) and Pseudo-Cleft (31,6%). Other strategies include Cleft, Reduced Cleft, Truncated Cleft and to a minor extent passive sentences.

Graph 1: Strategies of subject focalization in BP



Summing the different types of cleft structures (35)- (38) we obtain the picture in Graph 2:



Graph 2: Distribution of cleft sentences in the data.

7.1.1 VS structures

In Table 2 we report the numerical data of the different answering strategies according to the verb class.

Verb	SV	VS	Cleft	R.Cleft	P.Cleft	T.Cleft	Passive	Tot.
Trans.	36,7% 115	4,8% 15	6,7% 24	6,7% 21	33,3% 104	4,8% 15	6,1% 19	313
Unacc.	41,7% 40	15,6% 15	9,4% 9	9,4% 9	20,8% 20	3,1% 3	0% 0	96
Unerg.	37,1% 49	8,3% 11	6,1% 8	7,6% 10	35,6% 47	3,8% 5	1,5% 2	132

Table 2: Total amount of answers/BP

The data in Table 2 show that VS structures are displayed across all verb classes, even if a low rate. Having a closer look to the individual data we observe that it is only one experimental subject (S8) who produces the majority of VS structures (25/41). Examples are given in (39)-(42) for all verb classes.

- (39) a. Quem tossiu?
who coughed
- b. Tossiu a senhora de camisa amarela [...]
coughed the woman with yellow shirt
- (40) a. Quem abriu a janela?
who opened the window
- b. Abriu a janela a menina de blusa preta e saia azul.
opened the window the girl with black shirt and blue skirt
- (41) a. Quem jogou as flores fora?
who threw the flowers away
- b. Jogou as flores fora a senhora de blusa vermelha, de blusa amarela.
threw the flowers away the woman with red shirt, yellow shirt
- (42) a. Quem se levantou nessa cena?
who stood up in this scene
- b. Se levantou nessa cena o senhor Giusepe [...]
stood up in this scene Giuseppe

We can interpret these cases as topicalization of the VO chunk. That this analysis can be on the right track is suggested by the production of VOS structures like those in (40) and (41), which are possible only in cases of topicalization of the VO chunk (cf. Mioto (2003), Quarezmin (2005) and Guessier (2007) for further discussion on BP data). A similar situation is found in Italian, as pointed out by Belletti (2004) (cf. 43b)⁵².

- (43) a. Chi capirà il problema?
who understand-FUT3sg the problem
- b. ??Capirà il problema Gianni.
Understand-FUT3sg the problem Gianni

Hence, excluding the data of subject S8, the results for VS order in subject focalization showed in Table 2 are represented in Table 3:

⁵² The VS order with transitive verbs becomes acceptable when the object is cliticized, as in (i), or when it contains the quantifier *tutto* 'all', as in (ii).

(i) Lo capirà Gianni
(ii) Capirà tutto Maria

On the acceptability of this kind of sentences versus the marginality of sentences such as (43)b, see Belletti (2001, 2004).

Transitive	0	—	313
Unergative	4	3,03%	132
Unaccusative	11	11,46%	96

Table 3: VS order for verb class

It is worth noticing that VS structures are almost all restricted to unaccusative verbs. Below are shown some examples of this type of answers, directly drawn from the corpus.

(44) a. Quem chegou?
who has answered?
b. Chegou um homem.
arrived a man

(45) a. Quem saiu?
who went out
b. Saiu um rapaz.
went out a boy

7.2 Results: Finnish

As is shown from Graph 3 and Table 3, the preferred answering strategy in the Finnish data is overwhelmingly SV(O).

Graph 3: Strategies of subject focalization in Finnish

Verb	SV	VS	O(DP)VS	O(pr)VS	SO(pr)V	Cleft	R. Cleft	Loc/cleft	Tot.
Trans.	82% 234	0% 0	2% 5	8% 24	0,3% 1	3,8% 11	4,2% 12	0,0% 0	287
Unacc.	88% 38	7% 3	0% 0	0% 0	0% 0	2,3% 1	2,3% 1	0,0% 0	43
Unerg.	84,9% 129	4,6% 7	0% 0	0% 0	0% 0	3,9% 6	3,9% 6	2,6% 0	152

Table 4: Total amount of answers/Finnish

Nonetheless, other types of answers are not excluded. In particular an O/Adv VS order is available, where O/Adv is the topic/known information and S is new information focus. The clause-initial direct object is generally a pronoun which is co-referent with the DP in the question. Other strategies include clefts, reduced clefts and locative clefts. The answer types are exemplified in (46)-(51):

(46) a. Kuka tuli?
 SV(O)
 ‘Who came?’
 b. Sakari tuli
 Sakari come-PAST3sg

(47) a. Kuka söi omenan?
 OVS
 ‘Who ate the apple?’
 b. omenan söi vaalea nainen
 apple-ACCsg eat-PAST3sg blond woman-NOMsg
 ‘The blond woman ate the apple’

(48) a. Kuka puhui videossa?
 AdvVS
 ‘Who spoke in the video?’
 b. videossa puhui se poika
 video-INE speak-PAST3sg that boy-NOMsg
 ‘In the video spoke that boy’

(49) a. Kuka vastasi?
 CLEFT
 ‘Who answered?’
 b. Se oli tuo tyttö, joka vastasi
 it was that girl-NOMsg who-NOMsg answered

(50) a. Kuka soitti?
 REDUCED CLEFT
 ‘Who called?’
 b. Se oli Kaisa
 it was Kaisa-NOM

(51) a. Kuka on lakaissut?
 LOCATIVE/CLEFT
 ‘Who has swept?’
 b. Siinä oli yksi tyttö, joka lakaisti
 there was one girl who swept

7.2.1 (O)VS structures

From Graph in 3 it emerges that in Finnish the VS order, which is typical of null subject languages such as Italian in **Errore. L'origine riferimento non è stata trovata.**, is excluded in the relevant SNI focus contexts. Notice that VS can be licensed only when there is a phonetically expressed topic/known information in the preverbal sentence-initial position, e.g. a direct object with transitive verbs, (52), or an adverbial with unergative and unaccusative verbs, (53). As is evident from Graph 3 and Table 3, the verb class is not relevant for the (O/Adv)VS order.

(52) a. Kuka söi omenan?
who ate the apple?
b. Sen söi vaalea nainen.
it-ACC eat-PAST3sg blond-NOMsg woman-NOMsg
'A blond woman ate it'

(53) a. Kuka puhui videossa?
who spoke in the video?
b. Videossa puhui se poika
video-INEsg speak-PAST3sg that-NOMsg boy-NOMsg
'In the video spoke that boy'

The OVS order is attested in the 10% (28/287) of the total amount of answers with transitive verbs and in the 5,1% with unergative and unaccusative verbs. At the discourse level, OVS is possible when O is a topic in the sense of known/given information and S new information (cf. Vilkuna 1995, Holmberg 2002). Syntactically, two derivations seem to be possible: i) parallel to V2 languages, and ii) OV is first obtained by topicalization of the object in the low part of the clause and then the OV chunk is fronted into the left periphery, as exemplified in (54) and (55), respectively. The exact reason for the first low topicalization in (55) is unclear and needs further investigation. Notice however, that also the intermediate step SOV is a possible order in SNI contexts and that whenever the object undergoes leftward movement it can only be interpreted as known (topic).

(54) [CP O1 V2 [TP S3 [t1 t2 t3]]]

(55) [[CP [OV1] [TP S [...t1...]]]

In line with recent literature (cf. Holmberg 2002) we assume that a contrastively focalized subject moves to CP to check some focus features. Recall that in the present data the subject is new information focus in all answer contexts. We propose that when the subject is new information focus it remains *in situ*, independently of the linear order, parallel to non null subject languages as English, which however doesn't allow the free constituent order typical to Finnish.

As a consequence, in the SOV and SVO linear orders observed at a low rate in the elicited production data, in which the subject can be interpreted as

contrastive focus or new information focus, the subject moves to CP in the former case and stays in situ in the latter

8. Discussion

The data collected in the present study shows two main results: on the one hand BP allows various answering strategies in the relevant SNI contexts. In particular, two strategies outstand: SV strategy and cleft strategies. On the other hand, Finnish data show that the preferred answering strategy is overwhelmingly SV, even though other strategies like the O/AdvVS order, clefts and reduced clefts are also displayed.

8.1.1 SV and VS strategies

As for SV strategies we assume that in both languages the SV order is an instance of *in situ* focalization, along the lines of Belletti (2008, 2009). Thus, under this analysis, the new information subject in the canonical SV(O) order, as in (56)b and (57)b for BP and Finnish respectively, would have the derivation in (58), where the peculiar intonation together with the interpretation of the subject are a consequence of the activation of a DP-internal focus projection.

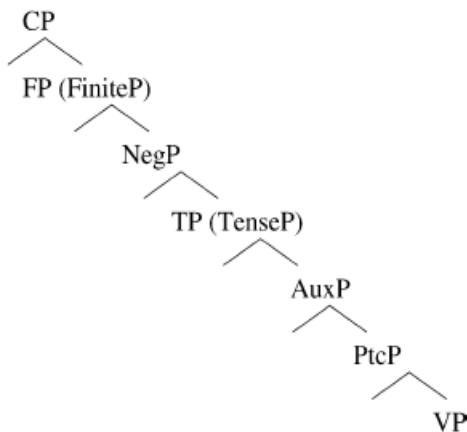
(56) a. Quem comprou o livro?
‘Who bought the book?’
b. A Maria comprou o livro.
‘Mary bought the book’

(57) a. Kuka osti kirjan?
‘Who bought the book?’
b. Maria osti kirjan
‘Mary bought the book’

(58) [CP [IP A Maria/Maria Iº comprou/ostti [vP... o livro/kirjan]]]	S	V	O
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As far as Finnish is concerned, this analysis further refines the mapping of the functional projections proposed by Holmberg & Nikanne (2002) referring in particular to focalized elements. As we can see from the structure in (59), Holmberg & Nikanne propose that (i) in Finnish the contrastively focalized constituents are located in Spec,CP, (ii) that Spec,FP hosts subjects and non-subject topics, and F° hosts finite V, and (iii) that TP hosts “information focus”/non-contrastive arguments (in the sense of Vallduvi & Engdahl 1996).

(59)



Even though we adopt in principle this analysis, our approach aims at implementing it as far as it concerns new information focus constituents. More specifically, we assume that in Finnish a new information focalized subject is always focalized *in situ*, as schematized in (58). In addition, the assumption of the *in situ* focalization process also accounts for the O/AdvVS strategies observed in (52) and (53) and represented in (60) as an alternative to (61) proposed by Holmberg & Nikanne (2002):

(60) [CP [FP [NegP [TopP **O/Adv**V₃ [...[TP S₁ (FOC *in situ*) [...[Top **O/Adv**₂...[VP t₁ V [t₂]]]]]]]]

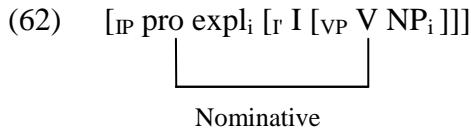
(61) a. Tämän kirjan on kirjoittanut Graham Greene.
 this-ACC book-ACC has written Graham-NOM Green-NOM
 b. [FP [Tämän kirjan]_i [F_i on_k [TP t_i [T' t_k [AuxP t_k [PrtP kirjoittanut_k [VP Graham Green [V_i t_k t_i]]]]]]]

Under the analysis in (58), we observe that BP and Finnish are similar for the fact that both make use of *in situ* focalization for subjects of new information. On the other hand, the two languages differentiate for the VS order: in Finnish it is never allowed but BP can make use of this strategy. As discussed in § 7.1.1, this strategy is mainly restricted to unaccusative verbs⁵³.

As well known, unaccusative verbs have a special status because they allow subject inversion also in contexts in which subject focalization or topicalization are not involved, differently from non-unaccusative verbs. As assumed in Burzio (1986) the occurrence of this kind of subject inversion is due to the property of licensing the subject in the object position, in which it is base-generated, as schematized in (62). In (62) the subject remains in the object position and forms a chain with an expletive *pro* in the preverbal subject position to which nominative case is assigned. The chain between *pro* and the

⁵³ As we can see in Table 3, BP allows VS with unergative verbs, even if to a very limited extent. A possible explanation would be to assume that these VS occurrences result from VP topicalization, as was the case of VS structures with transitive verbs discussed in 7.1.1.

postverbal DP is thus responsible for the assignment of nominative case to the latter⁵⁴.



A frequently observed phenomenon with unaccusative VS order is the *Definiteness Effect* (cf. Belletti, 1988), as shown in (63) for English: in the SV order the subject can be definite or indefinite, whereas the postverbal subject is indefinite.

(63) a. There arose a storm here.
 b. * There arose the storm here.
 (Belletti 1988)

Notice that in Italian also a new information definite postverbal subject is possible, as in (64). This can be explained by the possibility of having the postverbal subject in the specifier position of the vP peripheral Focus projection as proposed in Belletti (2001, 2004, 2005) and previously illustrated. The crucial difference with the analysis assumed in (62) is that nominative case is assigned through the connection with a referential *pro* in the canonical preverbal subject position. Hence, the two derivations are different and no definiteness effects is expected.

(64) È arrivato il ragazzo.
 is arrived the boy

Summing up, in languages such as Italian VS order with unaccusative verbs can have two different derivations, as illustrated in (62) and (65). In (62) the subject is not contrastively focalized nor it is topicalized whereas in (65) the subject is interpreted as new information focus.

(65) [CP ... [TP *pro_{ref}*... è arrivato ... [Top [FocP il ragazzo [TopP [vP...]]]]]]

In light of these analysis, notice that it is not possible to assume none of the analysis for the unaccusative VS structure with new information subjects in BP. On the one side, BP does not have a referential *pro*, as discussed earlier, and hence cannot have the derivation in (65) proposed by Belletti (2001, 2004, 2005). On the other side, the unaccusative analysis proposed in (62) is not adequate because the focalized subject can also be definite, as in (66)b.

(66) a. Quem saiu?
 who left?

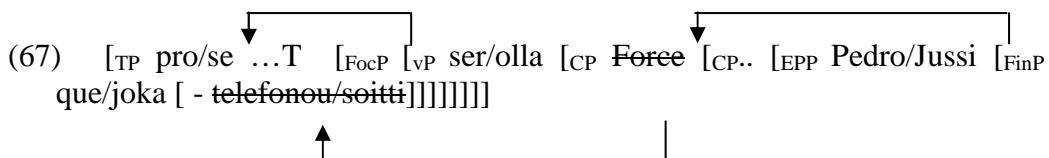
⁵⁴ Subsequently, different analysis have been proposed, cf. Belletti (1988) among others, who offers a different point of view regarding the Case assignment mechanism.

b. *Saiu o seu namorado.*
left your boyfriend

Unaccusative verbs are characterized by an expletive *pro* in preverbal position. Hence, the proposal that we assume is the one originally discussed in Quarezmin (2005). According to her, in unaccusative VS structures containing a new information subject the expletive *pro* is involved. This *pro* is necessary to license the subject in the Spec,FocP of the vP periphery. The consequence is twofold: on the one hand we can explain the possibility of having new information postverbal subjects in unaccusative structures. On the other hand, we can account for the impossibility of having new information subjects in VS structures with transitive verbs in BP.

8.1.2 Cleft structures

Cleft structures in BP and in Finnish would merit a deeper discussion which is beyond the scope of this paper. In the present work, we propose that the cleft structures with new information subjects can be analyzed as in (67), along the lines of Belletti (2009, 2010)⁵⁵.



In (67) we observe that:

- the copula selects a CP endowed with a [+ focus] feature;
- the CP complement is reduced, a small CP, whose higher position is FocusP (cf. Rizzi, 1997, 2001);
- the CP complement contains an EPP feature, which expresses a relation of predication between the subject in CP and the rest of clause that follows it. This position is also responsible for the impossibility of focalizing an object as new information (for further discussion cf. Belletti, 2009, 2010);
- the subject first moves from its external merge position in the embedded CP to the EPP position; afterwards, it moves to the Spec,FocP in the vP periphery of the copula⁵⁶.
- the copula moves to a higher functional head;
- the preverbal subject position is occupied by an expletive *pro* in BP and by the overt expletive *se* in Finnish.

⁵⁵ For discussion on the syntax of cleft structures in BP cf. Mioto (2003), Resenes (2009), Guesser (2011) among others.

⁵⁶ Belletti (2010) assumes that the cleft sentences with new information such as (67) involve the vP peripheral focus position, coherently with the relevant cartographic analysis on focalization in non-cleft sentences in languages like Italian (Rizzi 1997, Belletti 2001, 2004 and related works).

Reduced clefts (see examples (36) for BP and (50) for Finnish) result from leaving unpronounced the part of the sentence following the focalized subject, as illustrated in (68).

Other strategies in the cleft family which however are only observed in BP consist of truncated clefts (see example (38)) and pseudoclefts (see example (37)). For the first we assume the analysis in (69) with a further deletion of the copula. As far as pseudoclefts are concerned, we refer the interested reader to Mioto (2003, 2011), Resenes (2009, 2011) for discussion on the syntax of these structures. Here we assume, in the spirit of the analysis proposed for the clefts sentences, that the new information subject is interpreted in the Spec, FocusP of the vP periphery of the copula in the matrix clause, as exemplified in (70).

(69) {TP null expl. copula- [FocP S [vP [CP EPP [FinP complementizer [TP ...]]]]]]

(70) [CP wh-clause]_k copula ... [Foc S_j [... [VP t_i [SC t_j t_k]]]]]

9. Conclusion

The research aimed at observing the answering strategies adopted in contexts of new information subject focalization in BP and in Finnish. We first investigated the occurrences of null referential subjects in BP and in Finnish and we observed that both languages can be classified as partial null subject languages, in the sense of Holmberg (2009). Then, we analysed the data on subject focalization in light of the traditional theories on the null subject parameter and of the more recent analysis in the cartographic framework on subject focalization. In order to test the same discourse-pragmatic conditions in both languages, we used the same aural elicitation task adapted from Belletti & Leonini (2004), as described in § 6.

The data coming from BP and Finnish show that different answering strategies are possible in these languages, as discussed in § 7. The main answering strategies available in these languages are SV and cleft strategies for BP and SV for Finnish. For both languages the SV strategy has been analysed as an instance of *in situ* focalization, parallel to what happens in non null subject languages like English, along the lines of Belletti (2009).

As for VS strategies, we observed that BP and Finnish differ. In Finnish, VS is only allowed with a preverbal object or adverbial, namely a topic. We analyse this kind of structure as involving the same focalization process assumed for SV structures: *in situ* focalization. On the other hand, in BP subject focalization through a VS strategy is restricted to unaccusative structures, which have been analysed as involving a subject in Spec,FocP in the vP periphery and an expletive *pro* in the preverbal subject position. Finally, the analysis for cleft

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strategies share the basic assumptions that (i) the subject is focalized in the vP periphery of the copula and (ii) a referential pro is not involved. Hence, BP and Finnish do not show any instance of subject focalization through a VS strategy of the kind observed in Italian. When occurring, the VS order does not have the same kind of derivation proposed for VS structures in languages like Italian in the subject of new information contexts (Belletti 2001, 2004, 2005). This provides further support to the analysis proposed in Belletti (2001, 2004) and, in particular, to the assumption that the VS strategy is related to the presence of a referential *pro* in the relevant language (Belletti 2005).

References

Belletti, A. (1988) "The case of Unaccusatives". *Linguistic Inquiry*, 19, 1-34.

Belletti, A. (2001) "Inversion as focalization", in *Subject Inversion in Romance and the theory of Universal Grammar*, A. Hulk and J.Y. Pollock (eds.), 60-90. New York: Oxford University Press.

Belletti, A. (ed) (2004) *Structures and Beyond. The Cartography of Syntactic Structures*, vol. 3, New York: Oxford University Press.

Belletti, A. (2005) "Extended Doubling and the VP periphery" in *Probus*, 17,1:1-35.

Belletti, A. (2009) *Structures and Strategies*, London: Routledge.

Belletti, A. (2010) "Revisiting the CP of *clefts*". Università di Siena Centro Interdipartimentale Studi Cognitivi sul Linguaggio sito web.

Belletti, A. & C. Leonini (2004) "Subject inversion in L2 Italian" in S. Foster-Cohen, M. Sharwood Smith, A. Sorace, M. Ota (eds.) *Eurosla Yearbook 4*, Amsterdam/Philadelphia: John Benjamins.

Belletti, A., E. Bennati, A. Sorace (2007) "Theoretical and developmental issues in the syntax of subjects: Evidence from near-native Italian". *NLLT* 25:657-689.

Burzio, L. (1986) *Italian Syntax*. Dordrecht: Reidel.

Ferreira, M., (2004) "Hyperraising and Null Subjects in Brazilian Portuguese". In *MIT Working Papers in Linguistics 47: Collected Papers on Romance Syntax*, 57-85.

Figueiredo Silva, M. C. (1996) *A Posição Sujeito no Português Brasileiro: Frases Finitas e Infinitivas*. Campinas: Editora da Unicamp.

Cinque, G. (ed). (2002) *Functional Structure in DP and IP. The Cartography of Syntactic Structures*, vol. 1, New York: Oxford University Press.

Guesser, S. (2007) *Soggetto nullo e focalizzazione del soggetto in portoghese-brasiliiano*, Master Thesis, University of Siena.

Guesser, S. (2007a) Il soggetto nullo incassato in Portoghese Brasiliano: problemi legati al movimento a posizioni tematiche. *Rivista di Grammatica Generativa*, p. 39 – 64.

Guesser, S. (2011) La sintassi delle frasi cleft in portoghese brasiliano. Ph.D. Thesis. University of Siena.

Holmberg, A. (2002) "Deriving OV order in Finnish", in Svenonius, P. (ed.). *The Derivation of VO and OV*. Benjamins, Amsterdam.

Holmberg, A. (2005) "Is there a little pro? Evidence from Finnish", in *Linguistic Inquiry* 36:4, pp. 533-564.

Holmberg, A. (2009) "Three partial null-subject languages: a comparison of Brazilian Portuguese, Finnish and Marathi", in *Studia Linguistica* 63:1, Wiley-Blackwell Publishing.

Holmberg A; U. Nikanne (2002) "Expletives, Subjects and Topics in Finnish", in (ed.) P. Svenonius, *Subjects, expletives and the EPP*. Oxford: Oxford University Press.

Holmberg, A. (2008) Subject doubling in Finnish: the role of deficient pronouns. In: S. Barbiers, O. Koeneman, M. Lekakou, (eds.) *Microvariations in Syntactic Doubling*. Bingley, Emerald, pp. 325-349.

Kaiser, Elsi, & J. C. Trueswell (2004). "The role of discourse context in the processing of a flexible word-order language", in *Cognition* 94, pp. 113-147.

Kaiser, Elsi (2006) "Negation and the left periphery in Finnish", in *Lingua* 116, pp. 314-350.

Kato, Mary, 2000 "Partial Pro-Drop Nature and the Restricted VS Order in Brazilian Portuguese. In: M. Kato e E. Negrão, *Brazilian Portuguese and the null subject parameter*. Madrid: Iberoamericana.

Kato, Mary & Negrão, Esmeralda (eds.), 2000, *Brazilian Portuguese and the Null Subject Parameter*. Vervuert – Iberoamericana.

Mioto, C. (2001) “Sobre o Sistema CP no Português Brasileiro”. *Revista Letras* 56, Curitiba, p. 97-139

Mioto, C. (2003) “Focalização e quantificação” in *Revista Letras* 61, Editorada UFRP, Curitiba, pp. 169-189.

Mioto, C. (2011) *Reduced pseudoclefts*. Presentation at the Brazilian-Italian Comparative Syntax, Semantics and Acquisition workshop, University of Siena, Italy.

Modesto, M. (2008) “Topic prominence and null subjects”. In T. Biberauer (ed.) *The Limits of Syntactic Variation*, pp. 375–409. Amsterdam: John Benjamins.

Quarezemin, S. (2005) *Focalização do Sujeito no Português Brasileiro*. Dissertação de Mestrado. Florianópolis: UFSC.

Resenes, M. (2009) *Sentenças Pseudoclívidas no Português Brasileiro*. Dissertação de Mestrado. Florianópolis: UFSC.

Resenes, M. (2011) *Pseudoclefts in Brazilian Portuguese: an analysis of partial copying*. Presentation at the Brazilian-Italian Comparative Syntax, Semantics and Acquisition workshop, University of Siena, Italy.

Rizzi, L. (1986) “Null Objects in Italian and the Theory of pro”. *Linguistic Inquiry*, 17:501-557

Rizzi, L. (1997) “The Fine Structure of the Left Periphery”, in L. Haegeman (ed.) *Elements of Grammar*, Dordrecht: Kluwer Publications.

Rodrigues, C. (2002) “Morphology and null subjects in Brazilian Portuguese”. In D. Lightfoot (ed.), *Syntactic Effects of Morphological Change*, 160-178. Oxford & New York: Oxford University Press.

Vilkuna, M. (1989) *Free Word Order in Finnish. Its Syntax and Discourse Functions*, Suomalaisen Kirjallisuuden Seura, Helsinki.

Vilkuna, M. (1995) “Discourse Configurationality in Finnish”. In: É.K. Kiss (ed.), *Discourse Configurational Languages*. Oxford University Press, Mass.