On the Syntax of Subjects in Brazilian Portuguese: Using the 'Split' Pronominal System as the Basis for an Alternative Analysis

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ABSTRACT
The goal of this article is to investigate the syntax of subjects in Brazilian Portuguese (BP), developing a unified analysis for referential and non-referential subjects, on the one hand, and for the so-called topic-subject constructions, VS word order clauses, third person subjects with a generic interpretation without the indefinite pronoun ‘se’, existential and meteorological predicates, on the other hand. By hypothesis, in these contexts, the subject is filled by a (null or overt) DP with (spatial/ temporal) locative interpretation. It is claimed that the relevant facts can be accounted for if the pronominal/inflational system of BP is analysed as displaying a split in two subsystems: one, which is constituted by the first and second person, being inherently definite/ referential, and the other, which is constituted by the third person, being underspecified for the definite/referential feature. Our proposal is that the split in the pronominal/inflational system is the key to account for the distribution of third person (spatial/ temporal) locative subjects, either lexical or null in BP, both in matrix and embedded clauses. In the discussion, we present previous analyses on the syntax of subjects of BP, pointing out that the absence of consensus is due to their theoretical implementation (which is often complementary), although their contribution converge with respect to the properties of the third person, as well as to the role of discourse orientation, allowing for the presently proposed unification.

KEYWORDS: null and overt subjects; Brazilian Portuguese; split pronominal/inflational system

RESUMO
O objetivo deste artigo é investigar a sintaxe do Português Brasileiro (PB), desenvolvendo uma proposta unificada para os casos de orações com sujeitos referenciais e não-referenciais, por um lado, e de orações

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Introduction

The syntax of (lexical and null) subjects in Brazilian Portuguese (henceforth BP) has been carefully investigated, back to Tarallo’s (1983) and Duarte’s (1993) pioneer studies. In this article, we provide a critical overview of the main analyses, pointing out that the (apparent) absence of consensus is due to their theoretical implementation (which is often complementary), with implications for the identification of the relevant data. Our proposal is that the contribution of these analyses converges with respect to the properties of the third person, as well as to the role of discourse orientation, allowing for a unified analysis of a number of constructions apparently distinct.

As widely shown, the following facts characterize the BP grammar (as opposed to European Portuguese (EP) and other canonicknull subject languages (NSL):

(i) BP does not display third person null subjects in ‘out of the blue’ contexts, contrary to what has been recurrently reported for NSL, although third person null subjects...
(ii) With referential subjects, BP displays a tendency for an overt realization of the subject position in the full paradigm, as a correlate of the loss/reduction of inflectional morphology on the verb, due to pronominal reanalysis (by which ‘você’, a honorific pronoun triggering third person agreement, is grammaticalized as a second person personal pronoun), as originally noted in Tarallo’s (1983) and Duarte’s (1993, 1995) seminal works; although overt subjects are more recurrently found with first and second person subjects, a tendency for subject drop was noted in [-human] third person contexts (cf. Cyrino, Duarte and Kato, 2000);

(iii) BP displays the so-called topic-subject constructions, in which locative/possessive phrases in preverbal position trigger agreement on the verb, as originally noted in Pontes (1986), a phenomenon further including constructions with existential and meteorological predicates, as pointed out in Kato and Duarte (2008a, 2008b);

(iv) BP displays VS word order as a type of locative inversion, in which a deictic anchoring is required, being provided by a (spatial/temporal) locative – whether overt or null, as proposed in Pilati (2006).

We will argue that the facts in (i), (ii), (iii) and (iv) are crucially linked to constructions with third person (overt/null) subjects, under a requirement on discourse orientation, which is satisfied by a (spatial/temporal) deictic locative in the structure of the predicate. This condition does not apply to first and second person subjects, as they are inherently deictic (and discourse oriented), their overt or null distribution being determined by independent properties, as can be inferred by the facts described in (ii).

Descriptively, the facts in (i) to (iv) demonstrate that the pronominal/inflectional properties of the subject in BP are not uniform, constituting empirical evidence for discarding the idea of a single property affecting the full paradigm. In particular, we will propose that a unified analysis for the above-mentioned facts is possible, if we take the pronominal/inflectional system of BP to be split into two subsystems: one constituted by first and second person, which are inherently marked as definite/referential; another constituted by the third person, which is underspecified for
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the definite/referential feature, an idea that stems on Rabelo’s (2010) analysis of null subjects in BP.

Our proposal is that a split in the pronominal/inflectional system involving the above-mentioned features constitutes the key for accounting not only for the distribution of (spatial/temporal) locative third person subjects (whether overt or null), but also for the condition on the distribution of VS word order. As already mentioned, the proposal is based on two previous approaches: on the one hand, we assume Pilati’s (2006) analysis of VS word order in BP as a type of locative inversion, in which a requirement on discourse anchoring/ orientation is met through merge of a (spatial/temporal) locative (DP/pro LOC) in subject position, while the logical subject remains in situ, in the domain of vP (or in a focus position in the middle field of the clause); on the other hand, we adopt Pilati, Naves and Salles’ (2015, 2017a/b) analyses, in which the properties of third person, as opposed to first and second person, subjects provide an account clustering different phenomena, namely: topic-subject constructions and meteorological and existential constructions with a preverbal locative DP triggering agreement on the verb, as well as third person null subjects constructions with a generic interpretation on the subject (without the indefinite pronoun ‘se’), in which a requirement on discourse anchoring/orientation is obtained either pragmatically or through insertion of a (spatial/temporal) locative DP in subject position (exactly as in VS constructions).

The contribution of the present analysis is then twofold: firstly, we will provide a formal account for the syntactic properties of the above-mentioned facts concerning BP subjects; secondly, we will provide a novel setting for the previous analyses, in which their fine insights and their theoretical complementarity will be acknowledged.

The article is organized as follows. The first section provides the relevant data, as well as their bibliographic source, followed by an overview of the literature on the syntactic and semantic properties of BP subjects, focusing on the main proposals, which are divided in three lines of research: the parametric change hypothesis, the BP as a topic-prominent language hypothesis, and the BP as a partial null-subject language hypothesis.1 The next section discusses the main data, showing the importance of

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1 An anonymous reviewer notes that the hypotheses as presented in the structure of the paper describe parametric analyses, thus rendering inappropriate that the reference to parameter change in the title of the section be restricted to the first one. We are aware that all the proposals, being stated within the Principles and Parameters framework, provide an account for language change in terms of parametric change – including the one presently given. However, by using the label ‘parametric change hypothesis’ (only) in
viewing BP’s pronominal/inflectional paradigm as a system split into two subsystems – one, containing the first and second person pronouns/inflections, and the other, containing the third person pronoun/inflection; viewing the paradigm in this fashion allows us to advance the understanding into the licensing of null subjects in this language. The following section presents a theoretical proposal for explaining the BP data, and is followed by the final considerations.

1. An overview of the studies examining overt and null subjects in BP

1.1. The relevant data

It is worth recognizing that, since the 1980's, a number of studies have investigated the syntactic and semantic properties of null subjects and overt subjects in BP. As already mentioned, these studies have demonstrated that there is a growing tendency in BP to use overt subjects, notwithstanding those contexts in which null subjects are the only admissible option (such as in existential constructions, for example). Despite the sheer number of studies dedicated to overt and null subjects in BP, there is still no single analysis which enjoys widespread acceptance with respect to the whole set of data involving the filling of the subject position – a conclusion we attribute to the fact that the previous works dealt with different range of empirical data. Somewhat surprisingly, though, there is relatively little disagreement over the status of the relevant facts themselves, which can be illustrated as follows:

A. Third person singular null subjects are disallowed in declarative clauses, when uttered in an ‘out of the blue’ context. Third person plural null subjects (with a
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generic/ indefinite interpretation), as well as first and second person null subjects, are allowed in this environment.3

(1) a. Ø1SG/PL Comi1SG/Comemos1PL o chocolate./ Ate1SG/1PL the chocolate.
b. Ø3PL Comeram3PL o chocolate./ Ate3PL the chocolate.
c. *Ø3SG Comeu3SG o chocolate./ *Comeu3PL the chocolate.

B. Independent of the person and number values borne by the null subject, null subjects are licensed in question and answer contexts, as well as under coordination.

(2) a. A: Maria/ você/ o João/ as crianças comprou(aram) o bolo? ‘Did Maria/ you/ John/ the children buy the cake?’
   B: Comprei/ Comprou/ Compraram. ‘I/He/João/They did.’

An anonymous reviewer noted that “nenhuma língua licencia um sujeito nulo de terceira pessoa em contextos out of the blue” [our translation: no language licenses a third person null subject in ‘out of the blue’ contexts], pointing out the well-known example Parla italiano, which is recurrently used to illustrate canonic null subject languages (NSL), further adding that this sentence “só é gramatical se o sujeito de terceira pessoa tem necessariamente um antecedente identificado pelo contexto precedente ou pragmaticamente)” [our translation: is only grammatical if the third person subject necessarily has an antecedent which is identified in the context or pragmatically], an observation that also applies to the third person pronoun in Lui parla italiano, as the reviewer concludes. What we would like to say is that an antecedent/referent is indeed required for a referential interpretation, however utterances produced in ‘out of the blue’ do not imply non-referential subjects, rather what they essentially imply is wide focus. Hence, the example, as presently given, recalls the well-known example in most theoretical approaches to canonic NSL, back to Rizzi (1982), among many others. Interestingly a minimal pair, which is quoted in Pilati, Naves and Salles (2015), illustrates how speakers of BP e EP react to the same question, depending on how they interpret the reference of third person inflection on the verb (the data was tested with speakers of both dialects): while the EP reply indicates that the null subject is interpreted as referential, the BP one shows that the sentence is interpreted as existential. We will return to these facts.

(i) A: Tem pão?/ Have3s bread? (PILATI, NAVES and SALLES, 2015)
   PE: Tenho, mas não há ainda./ Have1s, but there isn’t yet
   PB: Tem./ Have3s[=non-referential] [= There is bread]

Besides, it is worth mentioning that the presence of an overt pronoun in canonic NSL such as Italian should give rise to a marked interpretation, thus disallowing the intended generalization as postulated by the reviewer.

b. Você tem que sair (...) Tudo isso você tem que fazer, (cv) não pode parar assim. Tu não morreu, pô! (cv) Aposentou, mas tu ‘tá vivo, pô!

(DUARTE, 2003, p. 10)

‘You must leave (...) All this you have to do, (cv) [you] can’t stop like that. You haven’t died! (cv) [you] Retired, but you are alive!’

C. Third person, referential null subjects are allowed in embedded clauses when the subject of the matrix clause controls the null subject – a context in which null subjects freely vary with overt subjects:

(3) Mariai disse que ela/Øi come chocolate quando ela/Øi está chateada./ Mary said that she/Øi eats when she/Øi is annoyed.

D. There are also contexts in which a subject is bound by a quantificational antecedent. In such contexts, the third person null subject is the only option available:

(4) a. Ninguém, aqui acha que *ele(a)/Øi vai perder./ Nobody, here believes that *(s)he/Øi will loose.

b. Quem, acha que *ele(a)/Øi vai perder?/ Who believes that *(s)he/Øi will loose.

To the facts A to D above, we add the empirical observations in E, below, which are in the present work taken as additional syntactic contexts involving the filling of the (third person) subject position in BP – the unified account of the syntactic and semantic properties of the subject position in the relevant contexts being the strong point of the present analysis:

E. Postverbal third person subjects are only possible in sentences denoting an event that has recently taken place or that coincides with the moment in which the sentence is uttered (cf. (5a-b)); by hypothesis, in such sentences, the preverbal position is filled by a (spatial/ temporal) locative, which is either null or overt, the
latter being filled either by a locative DP (triggering agreement) or by a pronoun/adverb (aqui/ali/lá ‘here’/ ‘there’ (proximal)/‘there’ (distal)) (also found in Italian, cf. PINTO, 1997). A type of alternation involving the subject position is found in topic-subject constructions (cf. (6)), in constructions with existential verbs (cf. (7)), with meteorological verbs (cf. (8)), and with subjects interpreted as arbitrary/indefinite, in which the pronoun ‘se’ is absent (cf. (9)).

(5) a. Morreu Pavarotti. (acabou de acontecer)/ Died Pavarotti. (it has just happened)
   b. Ergue o braço o juiz. / Raises his hand the referee.
   c. Ali entrou Dante./ There entered Dante.

(examples adapted from PILATI, 2006)

(6) a. Cabe muita roupa dessa(s) mala(s)/ Fits lots of clothes in these suitcases.
   b. Essa(s) mala(s) cabe(m) muita roupa./ This(These) suitcase(s) fit 3SG(PL) lots of clothes.
   c. Furou o pneu do carro./ Punched 3SG(PL) the car tire.
   d. O(s) carro(s) furou/furaram o pneu./ The car(s) tire(s) punched 3SG(PL). 4

(examples adapted from PONTES, 1986)

(7) a. Tem monumentos lindos em Brasília/ lá/ Has monuments beautiful in Brasília/there.
   b. Brasília/ Lá tem monumentos lindos. / Brasília/There has beautiful monuments.

(examples adapted from PILATI, NAVES and SALLES, 2015)

(8) a. Chove pouco nessa(s) cidade(s)/ aqui./ Rains little in this(these) town(s)/ here.
   b. Essa(s) cidade(s) chove(m) pouco./ This/ These town(s) rain 3SG(PL) a little bit.
   c. Aqui chove pouco./ Here rains a little bit.

4 In a wide sense, we take the possessor phrase to denote a locative interpretation (cf. FREEZE 1992).
Summarizing: as is well known, there is a tendency to use overt subjects rather than null subjects in BP. Third person singular null subjects are ungrammatical in ‘out of the blue’ contexts, though they are licensed in specific contexts such as when they are in an embedded clause and controlled by the matrix subject. Third person (spatial/temporal) locative subjects are found in constructions such as (5) through (9); in these contexts, the verb exhibits plural agreement with non-pronominal plural locative subjects. Finally, the subject is obligatorily null in those contexts in which it functions as a variable bound by a quantificational antecedent.

Given the relative consensus over the status of the data presented above, coupled with the lack of consensus over how to best analyze these data, our intention in the present article is to argue that a split in the pronominal/inflectional system of BP is the key property characterizing the syntactic change undergone by BP, which in Minimalist terms amounts to parametric variation in the formal features of functional categories, as will be argued below.

1.2. The parametric change hypothesis

As is well known, the sociolinguistic research that was conducted originally by Fernando Tarallo and his collaborators (cf. TARALLO 1983 and subsequent works) has brought significant evidence for the hypothesis that the syntax of BP is undergoing a change in its pronominal system, which encompasses both pronominal subjects and pronominal objects – the latter, concerning the syntax of BP clitics. With regard to subjects, Tarallo’s research inaugurated a line of thinking based on an idea originally formulated in Chomsky (1981, 1986) and Rizzi (1982), according to which there is a direct relation between the tendency found in BP toward ceasing to be a null subject

(9) a. Vende CD nessa loja./ Sell CD in this shop.
   b. Essa(s) loja(s) vende(m) CD./ Aqui vende CD./ This(These) shop(s) sell$_{3SG(PL)}$ CD./ Here sells CD.

(Examples adapted from PILATI, NAVES and SALLES, 2015)
language and the impoverishment in the verbal inflectional system as a result of a reanalysis in the pronominal system.

Duarte (1993, 1995), through an examination of dialogues taken from theatrical plays from the 19th and 20th centuries, and from synchronic data from speech, respectively, demonstrates that BP is indeed exhibiting the tendency argued for by Tarallo (1983). As the Table 1 shows, the relative frequency of overt referential subjects in BP has risen over the past two centuries:

(10)

<table>
<thead>
<tr>
<th>Period</th>
<th>Percentage of null subjects</th>
</tr>
</thead>
<tbody>
<tr>
<td>1845</td>
<td>74%</td>
</tr>
<tr>
<td>1882</td>
<td>67%</td>
</tr>
<tr>
<td>1937</td>
<td>50%</td>
</tr>
<tr>
<td>1955</td>
<td>20%</td>
</tr>
<tr>
<td>1975</td>
<td>23%</td>
</tr>
<tr>
<td>1992</td>
<td>25%</td>
</tr>
</tbody>
</table>

Table 1: Occurrence of null subjects in BP (adapted from DUARTE 1993: 112): 

Duarte's (1993) seminal work shows that a series of changes has taken place in the system of verbal agreement, giving rise to an impoverishment in the verbal’s inflectional morphology due to a reanalysis of the pronominal system – specifically, with the grammaticalization of você ‘you’ as a second person singular pronoun and of a gente ‘the people’ as a first person plural pronoun, both of which inducing third person singular agreement on the verb. The development of the inflectional paradigms is illustrated on Table 2:
Both Tarallo (1983) and Duarte (1993; 1995) contend that the facts above point to the conclusion that BP is undergoing a parametric change affecting the syntax of subjects. In particular, they argue that BP is ceasing to be a null subject language, starting to display the properties of a non null subject language. In this respect, Duarte (2003, p. 115) writes:

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5 This approach followed in the footsteps of the theoretical framework inaugurated by Tarallo and Kato, which came to be known as Parametric Sociolinguistics because it made use of quantitative data drawn from instances of real speech, on the one hand, while offering analyses couched within the Principles and Parameters framework, as found in Chomsky (1981, 1986), on the other hand.

6 The translation is ours. The original is: Diferentes trabalhos com base em dados de língua oral (Lira 1982, Duarte 1995, 2000) e na escrita de cartas (Paredes Silva 1988) ou de peças de teatro popular (Duarte 1993) têm mostrado que o português do Brasil apresenta índices de preenchimento do sujeito pronominal bem superiores aos apresentados pelas chamadas línguas românicas de sujeito nulo, como o espanhol, o italiano e a variedade europeia do português. De modo geral, o fenômeno tem sido associado à simplificação ocorrida em nossos paradigmas flexionais verbais, que contam com a mesma forma para a segunda e terceira pessoas do singular e, com frequência cada vez maior, para a primeira do plural, graças ao crescente uso da forma “a gente” em detrimento de “nós” (Duarte, 2003, p.115).
Different studies based on data from the spoken language (Lira 1982, Duarte 1995, 2000) and collected from letters (Paredes Silva 1988) and popular theatrical plays (Duarte 1995) have shown that Brazilian Portuguese exhibits rates of overt subject use much higher than what is exhibited by null subject Romance languages such as Spanish, Italian, and the European variety of Portuguese. Typically, this phenomenon has been associated with the simplification that has occurred in our verbal inflectional paradigms, which use the same form for second and third person in the singular and, with increasing frequency, for first person in the plural, thanks to the rise in the use of the form a gente ‘the people’ as a substitute of the form nós ‘we’.

At this point, the main contribution of the sociolinguistic studies is that they revealed, through quantitative analysis, that BP has begun opting for the use of overt subjects over null subjects. Adopting the Principles and Parameters framework, and taking into consideration the effect of the pronominal system’s reanalysis on the verbal inflectional paradigm, it was possible to analyze these quantitative results in terms of a parametric change, according to which BP develops towards becoming a non-null subject language. Seen from a minimalist perspective (CHOMSKY, 1995), in which parametric change involves the features of functional categories, the null subject parameter can be defined in terms of the operation AGREE and the formal features on Tº. Since Tº is involved, the connection between the null subject parameter and the richness of the inflectional morphology on the verb is straightforwardly captured.

This idea is given a formalization in Galves’ (2001) analysis, in terms of the properties a Person head (implying that Agr is not present), which captures the fact that the third person morpheme in BP is incapable of assigning reference to a null subject. When only the third person inflection is used, it receives a generic or an indefinite interpretation (for example, as in (9) above). This behavior is different in EP, in which a null third person is a referential subject (just like in typical pro-drop languages) and the generic interpretation is obtained only when there is an overt pronoun ‘se’.

The results obtained in previous works (particularly in DUARTE, 1993) are refined in Duarte, Mourão and Santos (2012), who show that the behavior of first, second, as opposed to third person subjects, is not uniform, as the former displays a higher tendency for being overt. “If, on one hand, it is true that the third person is affected by the change, on the other hand, it is also true that this change occurs in a
different way” (Duarte, Mourão and Santos, 2012, p. 25). According to these authors, third person overt subjects are inhibited in the presence of the [-human] feature on the antecedent. Conversely, the results also point to a correlation between the occurrence of (third person) overt subjects and the semantic features [+specific] and [+human] on the referent. These facts are then analysed in terms of a referential hierarchy, as proposed in Cyrino, Duarte and Kato (2000).

Within the theoretical framework presently adopted, the referential hierarchy does not have a proper formulation, as it cannot be translated in terms of formal features, in spite of being indeed revealing. Instead, we will propose an alternative analysis in which the formal features of the functional categories involved in subject licensing are taken into consideration. Interestingly, Duarte, Mourão and Santos’ (2012) observation that the change does not affect the person paradigm uniformly corroborates our hypothesis that the pronominal/inflectional system of BP manifests a split. In our approach, the absence of a referential feature on the relevant head is a necessary condition for the occurrence of third person non-argumental/locative subjects, an option that is not available for first and second person, as they are inherently referential.8

1.3. BP as a topic-prominent/discourse-oriented language hypothesis

Building on Negrão’s earlier work (NEGRÃO, 1999), Negrão and Viotti (2000) argue that the impoverishment in BP’s inflectional morphology is not the cause of the change in the licensing of null subjects in this language, being it quite the opposite. The impoverishment is a consequence of the fact that BP is becoming a discourse-oriented language – a typological pattern that characterizes languages such as Chinese, in which the topic position, situated in the periphery of the clause, determines the organization of the clause at the expense of the subject (and object) position.

For Negrão and Viotti (2000), it is the specialization of forms, rather than the loss of null pronouns, which explains the asymmetries in the distribution of null and overt...
subjects in BP. That is, it is not the case that BP is becoming a non-null subject language; rather, overt and null subjects in BP have simply undergone a specialization, whereby null subjects in this language can be interpreted as bound variables, and overt subjects cannot.

The interpretation of sentences such as those found in (12) constitutes one of the arguments put forward by the authors in support of their hypothesis:

(12)  

\[ \begin{align*}  
\text{a. } & \text{Só o Maluf}^1 \text{ acha que } ec^1 \text{ vai ganhar as eleições. (os outros candidatos} \\
& \text{não acham)/ Only Maluf believes that } ec^1 \text{ will win the elections. (the} \\
& \text{other candidates do not believe so)} \\
\text{b. } & \text{Só o Maluf}^1 \text{ acha que ele}^1 \text{ vai ganhar as eleições. (ninguém mais acha} \\
& \text{que ele irá ganhar)/ Only Maluf believes that he will win the elections.} \\
& \text{(nobody else believes that he will win)} 
\end{align*} \]

The interpretation of (12a) is: “The only x such that x thinks that x will win the elections is Maluf”, or, in other words: Maluf is the only candidate who thinks that he, himself, will win the elections; none of the other candidates think they will win the elections. The interpretation of (12b), on the other hand, is that Maluf is the only person who thinks that Maluf will win the elections; none of the other candidates think that Maluf will win the elections. Thus, the empty category obligatorily functions as a bound variable, whereas the overt pronoun must be construed as referential.

Following Negrão (1999), Negrão and Viotti (2000) apply Huang’s (1989) proposal for Chinese to BP, arguing that BP is a type of discourse-oriented language; as such, it exhibits the properties of languages of this type. In particular, in discourse-oriented languages, the subject-predicate relation does not form the basic relation around which the sentence is structured. Accordingly, the predication relation around which the sentence is formed does not necessarily involve the nominal expression functioning as the subject, and occupying SpecTP, and the verbal expression functioning as the predicate (as in a predicate relation formally marked through agreement); rather, the predication relation around which the sentence is formed may
involve a constituent situated in the specifier of a projection in the left periphery of the clause and the rest of the sentence.

Modesto (2000, and subsequent works) develops Negrão’s (1999) hypothesis that BP is a topic-prominent language, like Chinese. Based on an examination of null subjects in embedded clauses in BP, Finnish, and Chinese, Modesto (2008) argues that verbal agreement plays no role in the licensing and identification of null embedded subjects. According to Modesto, in these languages, the subject of matrix clauses is located in a non-marked topic position, which enables the null subject of embedded clauses to be licensed and identified. This derivational process of licensing and identifying null subjects is what, according to the author, defines these languages as discourse-oriented. Adapted examples from the author are given below (op. cit., p. 382):

\[
\begin{align*}
(13) & \quad [\text{O amigo do Feco}_2]_1 \text{ disse que } e_{1/2/3} \text{ ganhou a competição.} \quad \text{[BP]} \\
& \quad \text{[Feco’s friend]}_1 \text{ said that } e_{1/2/3} \text{ won the competition.} \\
(14) & \quad [\text{Veljeni}_2 \text{ vaimo}]_1 \text{ oli niin iloinen, ettei } e_{1/2/3} \text{ voinut nukkua.} \quad \text{[Finnish]} \\
& \quad \text{brother.gen spouse was so happy that not could sleep} \\
& \quad \text{‘My brother’s wife was so happy that she could not sleep.’} \\
(15) & \quad [\text{Zhangsan}_2 \text{ fangwen de ren}]_1 \text{ xiwang } e_{1/2/3} \text{ neg ying.} \quad \text{[Chinese]} \\
& \quad \text{Zhangsan visit DE person hope can win} \\
& \quad \text{‘The person that Zhangsan visited expected that she could win.’}
\end{align*}
\]

The author shows that embedded subjects always refer to the matrix subject in sentences such as these and contends that the embedded subjects cannot be interpreted as coreferential with another expression in the sentence including the object and that it cannot be interpreted as deictic. This leads Modesto to propose that matrix subjects in these languages are situated in an A’-position, and that the null subject is therefore a variable.

Two observations regarding the hypothesis put forward by Negrão (1999) and Negrão and Viotti (2000) are in order. First, these studies have the merit of having observed that the third person overt pronoun and the third person null pronoun have
undergone a specialization whereby the former must function as a referential pronoun, and the latter, as a bound variable – a novel observation. Second, the authors’ proposal refers to third person pronouns without making additional reference to number. This proves problematic, given that third person plural null pronouns do not exhibit the bound variable reading, contrary to what the authors' proposal would lead us to expect (cf. (16b)):

(16)  
a. Os meus carros₁, e₁,₂ bateram e eu nem vi./ O meu carro, e₁,₂ bateu e eu nem vi.  
My cars, e₁,₂ crashed and I did not even see it/ My car e₁,₂ crashed and I did not even see it  

b. Os meus carros₁, eles₁,₂ bateram e eu nem vi./ O meu carro₁, ele₁ bateu e eu nem vi.  
My cars, they₁,₂ crashed and I did not even see it/ My car they₁,₂ crashed and I did not even see it

Another relevant point is that EP, like BP, is considered a topic-prominent language, as defended in Raposo (1987), and Kato and Raposo (2005). Therefore, the fact that BP is a topic-prominent language does not, by itself, explain the syntactic change undergone by BP (as opposed to EP).

In our view, Modesto (2000), and subsequent studies, contributed to the understanding of null subjects in BP in demonstrating that the licensing of third person null subjects in this language may be compared to that of Chinese (following NEGRÃO, 1999). Nonetheless, even if the author is correct with respect to the syntactic properties of third person pronouns in BP, the posited behavior of this pronoun does not explain the properties of the entire pronominal system in this language. By invoking discourse orientation as a crucial condition in overt subject realization, it is inferred that all persons display identical properties, being uniformly affected (see also (RABELO, 2010). As already mentioned, in present terms, the third person is distinct from first and second person in the expression of the referential properties in the pronominal/inflectional system.
1.4. BP as a Partial Null-Subject Language hypothesis

The hypothesis of analyzing BP as a partial null-Subject language (PNSL) is originally investigated in Rodrigues’ (2004) study, in which it is shown that third person, as opposed to first and second person, null subjects in BP can be compared to Finish (following the lead of Holmberg and Nikkane (2002)). According to Rodrigues, in both languages, agreement with possessives and third person subjects is morphologically weak allowing non-emphatic overt pronouns to occur in subject position. In particular, differently from NSL, in which pro is assumed to be the inflectional morpheme on the verb, “in BP and Finnish 3rdP [3rd person] verbal agreement morphemes (Agr) underwent a degradation (…) and, as a consequence, were reanalyzed as part of the verb”, the EPP feature being checked by the D feature of the reanalyzed Agr morpheme under V adjunction to T (RODRIGUES 2004, p. 353-354).

Coupled with the hypothesis that BP and Finnish are not null subject languages, the author concludes that in languages of this type, the EPP feature of the relevant head licensing the subject is checked by a strategy other than the one involving the specifier (DP) subject/ head (Agr) relation. As a consequence of the above-mentioned morphological change: “1stP [1st person] null subjects are formed via movement to a topic position and deleted later, in accordance to a topic-deletion analysis, [while] embedded 3rdP null subjects are formed via A-movement of a DP inserted as an argument of an embedded finite clause to a non-expected A-movement outside a Case domain, before Case is checked. Being the residue of A-movement, third person null subjects in these languages are ‘salient copies of their antecedents’” (RODRIGUES 2004, p. 1) – and not null pronouns.

Again the contrast between third person, as opposed to first and second person subjects, is given a formal approach in the account of the syntax of subjects in BP, as proposed in Rodrigues (2004). Although we will not assume this formal proposal, we will retain the distinctive properties associated to PNSL (as opposed to NSL).

More recently, Duarte and Kato (2008a, 2008b) also propose that BP is a partial null-subject language. However, in their analysis, the label PNSL refers to a system that displays overt referential subjects, as well as non referential null subjects, which are properties that do not coincide with those described in Rodrigues (2004) and
Holmberg’s (2005) previous work. In particular, Duarte and Kato’s (2008a, 2008b) analysis is based on Cardinaletti’s (2004) proposal of distinguishing two projections for subjects: the specifier of SubjP, responsible for checking the feature “subject of predication”, and the specifier of TP, responsible for checking both the Case feature and phi-features. Accordingly, the null subject parameter distinguishes languages which possess a pronominal Agr(eement) (these being the canonic NSL, in which personal pronouns are grammaticalized as verbal inflection) and languages which possess weak pronouns and subject clitics (these being non-null subject languages). The relevant feature of BP is that third person subjects can be realized either as a pronominal Agr or as a weak pronoun, generic reference being obtained only through the use of pronominal Agr. In turn SubjP is projected for strong pronouns and locative subjects (cf. (17a)), but it is not projected for weak pronouns (as in ‘cê in (17b)), which occurs in SpecTP:

(17) a. Londres tem prédios lindos./London has beautiful buildings.
    b. ‘Cê tem prédios lindos em Londres./You have beautiful buildings in London.

In Holmberg’s (2010) study, which develops his previous analyses on PNSL, further assuming BP alignment with Finnish, the properties of PNSL are directly related to the fact that null subjects in these languages are permitted with first and second person subjects, whether singular or plural, while third person null subjects are permitted only in embedded clauses. The relevant contexts involving null subjects are the following, with examples from BP: (i) the subject is non-thematic (cf. (18)); (ii) the subject is a generic pronoun corresponding to English one (cf. (19)); (iii) the subject is controlled by an argument in the clause that immediately dominates the one containing the (null) subject (cf. (20)):

(18) Está chovendo/ (It) is raining
(19) É assim que faz o doce/ (It) is this way that (you) make the dessert

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9 We are grateful to an anonymous reviewer for requiring a clarification with respect to the distinct concepts of Partial Null Subject Languages, which proves to be crucial for the present discussion.
In Holmberg’s (2010) proposal, the difference between full null-subject languages (NSL) and partial null-subject languages (PNSL) is determined in the properties of T: in NSL, T bears an uninterpretable D(efinite)-feature; in PNSL, it lacks an uninterpretable D-feature. Thus, T is defective in PNSL. According to the author, definite null subjects in PNSL are in SpecTP and check the EPP feature, while generic null subjects are incorporated into T and do not check the EPP feature. As such, for a sentence such as (21a) below, a definite reading will arise provided that the embedded null subject is licensed by the DP in the matrix subject position – the null subject, being realized in SpecTP, where it checks the EPP. For a sentence such as (21b), however, in which the null subject is assigned a generic interpretation, it is assumed that the null subject (pro) incorporates into T, the EPP being checked by the PP, \textit{na praia} ‘in the beach’:

(21) a. João me contou que \textit{pro} vende cachorro quente na praia./ \textit{John told me that pro sells hot-dogs in the beach.}

b. João me contou que na praia vende cachorro quente./ \textit{John told me that in the beach \textit{one} sells hot-dogs.}

The analysis proposed by Duarte and Kato (2008a, 2008b) is challenged by Costa (2010). Comparing BP and EP, Costa argues that many of the constructions that are quoted as characterizing the syntax of subjects in BP are also found in EP, except for the ones with a left-dislocated subject doubled by an overt pronoun, and the ones bearing plural agreement on the verb with locative/genitive DPs in preverbal position.

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\(^{10}\)An analysis distinguishing definite and generic null subjects in BP based on feature defectivity is found in Galves (2001), who proposes that the Agr features in BP have become impoverished with respect to the category Person: “At least in the 3rd person singular, Agr seems to be too referentially impoverished to identify a null subject as a null, specific pronoun” [“Pelo menos na 3ª pessoa do singular, Agr, parece ser referencialmente pobre demais para identificar um sujeito nulo como um pronome nulo específico”] (our translation of GALVES, 2001, p. 110). However, the claim that clauses containing null subjects receive an indefinite interpretation does not suffice to explain the ungrammaticality of clauses in which the null subject is interpreted as generic in ‘out of the blue’ contexts (as in *\textit{Conserta sapatos} ‘They generic repair shoes’, in contrast with \textit{Aqui conserta sapato} ‘Here, they\textsubscript{generic} repair shoes’). We will return to these constrastive facts.
The author concludes that BP has undergone a microparametric change with respect to the licensing of null subjects, and not a parametric change in the more general sense, given that the contrast between the two varieties is crucially restricted to verbal agreement in a limited number of contexts.

Kato and Duarte (2014, 2017) acknowledge Costa’s (2010) observations regarding the constructions shared by BP and EP. However, they provide empirical arguments in support of their productivity in BP, as opposed to EP, not only for their wide spread among speakers, but also for their expressive manifestation with a wide amount of lexical items in each verb class, which seems not to be the case in EP. Accordingly, they suggest that the clausal structure in BP is essentially ‘personal’, in the sense of requiring an EPP licensing through verb-subject agreement, with SpecTP being filled either via (hyper)raising or via insertion of a full phrase or a weak pronoun. Kato and Duarte (2017) also reject the analysis that identifies BP and Finnish as PNSL, taking into consideration crosslinguistic data concerning the availability of subject raising and the presence/absence of lexical expletives.

Considering the results in Duarte and Kato (2008a, 2008b), Costa (2010), and Kato and Duarte (2014, 2017), our conclusion is that the set of data that we presently take into consideration display peculiar properties with respect to the pronominal/inflectional system in BP, pointing to the relevance of agreement with the subject, further corroborating the hypothesis that it is SpecTP that is at stake. In other words, not only the increasing tendency for subject filling with overt referential elements, but also the rise of (spatial/temporal) locative phrases in subject position, as a strategy of subject filling, triggering third person agreement on the verb, are the evidence that the pronominal/inflectional system of BP deals with the features of the third person in a different way, as opposed to first and second person.

1.5. Partial Summary

The studies discussed in the previous sections characterize null subject languages in terms of the properties of the functional head licensing the subject, or the status of the null category (whether a variable of not), thus affecting the manifestation of subjects in all persons. Such a characterization is unable to explain the fact that in BP first and second person null subjects behave differently from third person null subjects.
Before continuing, a summary of the properties discussed thus far is in order:

a) there is a tendency in BP to use overt subjects, rather than null subjects, which suggests that a syntactic change has taken place, which may be explained in terms of a parametric change or in terms of a reorganization of sentence structure (where the language is now topic-prominent and no longer subject-prominent);

b) the system of verbal inflection has undergone an impoverishment;

c) there has been a specialization in the syntax of null subjects in BP;

d) the occurrence of overt non-argumental phrases in subject position (in topic-subject clauses; in meteorological predicates) consistently trigger third person agreement on the verb.

We are aware that other analyses have been put forward considering particularly the data with locative and a generic reading on the subject. In Galves’ (2001) analysis the third person morpheme in BP is unable of assigning reference to a null subject. Consequently, a generic/ indefinite interpretation arises if the subject is null (differently from EP, in which the SE morpheme is obligatory). Avelar and Cyrino (2008) look at the data involving a prepositional locative in preverbal position, positing that they are the counterpart of Bantu language’s locative inversion constructions. We shall not go into the details of this and other analyses because they take each type of construction separately. Accordingly, what we tried to point out with the present discussion is that (most of) the previous analyses about the syntax of subjects in BP look at different sides of the pronominal system and make different predictions. In our point of view they are partially correct and we will explain why, further showing that these analyses can be unified.

A. The parametric change hypothesis

According to the parametric change hypothesis BP is changing from a pro-drop language to a non pro-drop language.
However, no explanation is provided for why certain embedded contexts permit only null subjects, as in embedded complement clause within a wh-question and a relative clause, as illustrated in (22) and (23), respectively:\footnote{Original examples from Costa and Pratas (2013), corresponding to those in (22):}

\begin{enumerate}
\item \begin{enumerate}
\item Quem$\_{i/j}$ acha que corre rápid$$o$$ e$\_i/j$ levanta a mão. \emph{Whoever thinks that (he) ran fast he$\_{i/j}$ raise (their) hand.}
\item *Quem$\_{i/j}$ acha que corre rápido ele$\_{i/j}$ levanta a mão. \emph{Whoever thinks (he) ran fast he$\_{i/j}$ raise (their) hand.}
\end{enumerate}
\end{enumerate}

\begin{enumerate}
\item Ninguém$\_{i}$ achou o livro que e$\_{i/j}$ perdeu. \emph{No one has found the book that e$\_{i/j}$ lost.}
\end{enumerate}

\textit{B. BP as a topic-prominent/discourse-oriented language hypothesis}

The analysis arguing that BP is a discourse-oriented language does not explain why locative adverbs/pronouns are intervening elements for control of the null embedded subject by the matrix subject (24a) – in the absence of the locative adverb/pronoun the possibility of embedded subject control by the matrix subject holds (24b).

\begin{enumerate}
\item \begin{enumerate}
\item O João$\_{i}$ disse que aqui vende$\_{arb*\_i/j}$ fruta. \emph{The John said$\_{3SG}$ that here sell$\_{3SG}$ fruits.}
\item O João$\_{i}$ disse que vende$\_{3SG}$ fruta. \emph{The John said$\_{3SG}$ that sell$\_{3SG}$ fruits}
\end{enumerate}
\end{enumerate}
C. BP as a partial null-subject language

Our criticism to the hypothesis that BP is a Partial Null Subject Language (PNSL), in spite of agreeing with the description that it brings, is that it does not consider the importance/obligatoriness of locatives in the licensing of these sentences. This analysis has nothing to say about the role of locatives or expletives in the syntax of generic or indefinite sentences in this type of languages.

In order to show an analysis where these problems are accounted for we will argue that BP is a language with a split pronominal system, the role of locatives being explicitly connected to the properties of third person, as opposed to first and second person inflection.

2. BP as a language with a split pronominal system

Firstly it is important to notice that Pilati and Naves’ (2013) analyses originally claimed that a uniform analysis should be provided for five phenomena related to the licensing of null subjects in BP, developing Rabelo’s (2010) original proposal that there is a split in the inflectional system of BP with respect to the ability to assign reference to a subject. These constructions, which are similar to one another in that they predominantly occur with verbs in the third person, lead the authors to the following descriptive generalizations: (i) in BP, matrix null subjects receive a deictic interpretation, predominantly locative; such sentences are not licensed when the deixis is not rendered possible (a licensing requirement which can be modeled in syntactic or extra-syntactic terms); (ii) deictic expressions occupy the subject position, even when such expressions are not arguments of the predicate.

Specifically, the five relevant phenomena are: (i) clauses containing Verb-Subject order, which are analyzed as having a deictic reading or a reading implying simultaneity with the time of speech (cf. (25a), in contrast to (25b)) and as allowing a deictic, preverbal element to control the embedded null subject (cf. (26c), in contrast to (26a-b)); (ii) topic-subject constructions, in which non-canonical elements (possessives, locatives, and benefactives) occupy the pre-verbal position triggering agreement on the verb (cf. (27)); (iii) clauses containing a null subject with arbitrary reference, which is licensed by either a (null) pronoun or an adverb in preverbal position (cf. (28a)) or in a discursive context in which the null subject's reference can be determined through...
deixis (as in (28b), for example, this sentence being found on a sign in a marketplace); (iv) clauses with quasi-arguments, in which locative phrases occur in subject position (as in (29)).

(25)  a.  Entrou Dante.  [Dante has just entered here, in this place]
    b.  Dante entrou.  [Dante entered in some place at some time]

(26)  a.  As crianças dormem ali porque ei querem./ The children sleep there because ei want.
    b.  *Ali dormem as crianças porque ei querem./ There sleep the children because ei want.
    c.  Alii dormem as crianças porque ei é mais quente./ There sleep the children because ei is warmer.

(27)  a.  O carro furou o pneu. / Os carros furaram o pneu./ The car puncted the tire/ The cars pierced the tire
    b.  Essa mala cabe muita roupa. / Essas malas cabem muita roupa./ This suitcase fits lots of closes/ These suitcases fit lots of closes

(28)  a.  Vende frutas./ [Here] sells fruits.
    b.  Aqui faz conserto de roupas./ Here [one] fixes clothes.

(29)  a.  Brasília não chove há mais de 90 dias./ Brasília does not rain for 90 days.
    b.  Londres tem prédios lindos./ London has beautiful edifications.

The authors, thus, base their analysis on the typological classification found in Bhat (2004), under which the class of pronouns is not uniform but heterogeneous: on the one hand, there are pronouns which refer to the participants in the speech act; on the other hand, there are pronouns which do not refer to speech act participants. Using Bhat's classification as the basis of their analysis, the authors propose that BP treats the first and second persons as personal pronouns stricto sensu while treating the third person as having distinct properties, which are, by hypothesis, similar to those of other pronominal forms – indefinites and demonstratives, for example.
This analysis thus emphasizes the hypothesis that there is a split in BP’s pronominal system. Although previous studies have singled out the third person in BP as having special properties (as we have shown in section 1), in their respective analyses of how this language’s pronominal system works, they have nonetheless treated the system as uniform. As already mentioned, the hypothesis that BP exhibits a split pronominal system was originally investigated in Rabelo (2010), who argues, within Manzini and Savoia’s (2005) approach to subject licensing, that BP’s third person morphology lacks the denotational property necessary for identifying null subjects.

Pilati and Naves (2013), and Pilati, Naves and Salles (2015, 2017a/b) defend two hypotheses concerning the syntax of BP. The first hypothesis is that there is a split in the pronominal system whereby the first and second persons exhibit different syntactic and semantic properties as compared to those exhibited by the third person. The second one is that BP licenses locative elements in subject position.

The authors analyze the data in (30) in the following terms: with regard to the third person in BP, the authors contend that (i) it is underspecified for the relevant feature, receiving a referential interpretation when the relevant expression is either a full DP or an overt pronoun (cf. (30a-b) versus (30c)); (ii) it receives a generic/ indefinite reading when the expression is a null pronoun or a (null or overt) (spatial/ temporal) locative phrase in pre-verbal position (cf. (30d-f)).

(30) a. Maria conserta roupas./ *Maria fixes clothes* [lexical DP (third person)]
    b. Ela conserta roupas./ *She fixes clothes* [overt third person pronoun]
    c. *Conserta roupas./ *Fixes clothes* [referential null third person pronoun – out of the blue]
    d. Conserta roupas./ *Fixes clothes* [non-referential null third person pronoun – a sign hanging in a store]
    e. Aqui conserta roupas./ *Here fixes clothes* [locative pronoun/adverb – generic subject]
    f. Antigamente consertava sapato, hoje joga fora e compra outro./ *In the past [one] used to fix shoes, nowadays [one] throws it away and buys another one* [temporal, preverbal pronoun/adverb – generic subject]
The authors thus argue that (i) null third person subjects in matrix clauses cannot be construed as definite; they are construed as generic or arbitrary when uttered in discourse anchored contexts and not in ‘out of the blue’ contexts (cf. (30c) versus (30d)); (ii) BP has developed (third person) null generic subjects without the ‘se’ pronoun (cf. (30e-f)); (iii) locative DPs may occupy the subject position under specific structural conditions (specifically, when the predicate is unnaccusative – whether monoargumental (cf. (27) and (29)) or biargumental (cf. (27b)) – and when the predicate is transitive, with the external argument interpreted as generic (cf. (30e)).

This analysis receives support from Finnish data, which, as was mentioned above, has been described as a partial null subject language. As Holmberg (2010) demonstrates, in null subject sentences containing a preverbal adverb, the sentence receives a generic/arbitrary reading (cf. (31a)). Moreover, these adverbs are in complementary distribution with expletives (cf. (31b)):

(31) a. Tässä istuu mukavasti./ Here sits comfortably ‘One can sit comfortably here.’

b. Sitää istuu mukavasti tässä./ EXP sits comfortably here ‘One can sit comfortably here.’

Considering the analysis presented thus far, we may add two syntactic and semantic characteristics of null and overt subjects in BP to those listed in (a) through (d) in section 1.4:

e) there is a split in BP’s pronominal/inflectional system whereby the first and the second person behave differently from the third person singular;
f) both BP and Finnish allow locatives to occupy the subject position when the external argument receives an indefinite interpretation; according to Pilati, Naves and Salles (2015, 2017a/b), locative subjects tend to be grammaticalized as an expletive; in BP the locative can be null (an overt expletive being unavailable).12

12 For other analyses which suggest that locative pronouns/adverbs in BP behave similarly to expletives, see Buthers (2009) and Pereira (2011). Differently from these analyses, the locative pronoun/adverbs in
3. Towards an analysis for BP and Finnish data

In Holmberg’s (2005) analysis, it is argued that there is a D(efiniteness)-feature on the head of the inflectional domain (T) and that this feature is relevant for characterizing a language as a full Null Subject Language (NSL). In non-null subject languages, the D-feature is absent while in full NSL, T bears a D-feature, which is licensed under agreement with the referential subject or under incorporation of a related pronominal category. In Partial Null Subject Languages (PNSL), in turn, T is not specified for the D-feature and, consequently, null subjects are restricted to indefinite environments. Since pro does not bear a D-feature, it may have a c-commanding antecedent. In sum, the main difference between Null Subject Languages, Partial Null Subject Languages and Non-Null Subject Languages is whether T bears a D feature or not.

In explaining why PNSL subjects are restricted to indefinite environments, Holmberg (2010) observes that Finnish does not have an overt Generic pronoun (G-pronoun) corresponding to English one, French on, German man or Italian si. In Finnish a generic pronominal subject does not have an overt expression in subject position. Thus according to Holmberg (2010), a possible analysis of (32a-c) is that they have a null generic pronoun subject. However, the fact that the adverbial phrase in pre-verbal position is obligatory is not taken into consideration.

(32) a. Tässä istuu mukavasti./ *Here sits comfortably* ‘One can sit comfortably here.’

b. Kesällä herä ä aikaisin./ *summer-ADE wakes up early* ‘You wake up early in the summer.’

c. Sitä ei kannat ain valittaa/ *EXP not should always complain* ‘It’s no use always complaining.’

Holmberg (2010) further assumes that the interpretation of pro is determined by its internal structure, which is illustrated in (33a), as opposed to (33b), which corresponds to lexical pronouns:

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our analysis is taken to behave as quasi-argument expletives in predicates describing natural phenomena (cf. Rizzi, 1982), due to their distribution involving the existential status of the predicate.

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(33) a.  \([\varphi P \varphi]\)
b.  \([DP D [\varphi P \varphi [NP N]]]\)

While a D-feature (associated with the D-level in the pronominal structure) renders a lexical pronoun definite, a null pronoun, being deprived of the D-feature, needs to acquire definiteness through other means. Full and Partial Null Subject Languages (NSL/ PNSL) differ as to whether T displays a D-feature in its make-up: in full NSL (such as Italian and European Portuguese), T is assigned a (uninterpretable) D-feature (which is bound by an (Aboutness-shift) topic in the CP articulated domain), thus licensing \(\varphi P\); in PNSL (such as BP and Finnish) in turn T does not have a D-feature, hence the null pronoun is not assigned a definite interpretation. As Holmberg (2010, p. 95) says: “When T probes a \(\varphi P\) subject, and has its unvalued \(\varphi\)-features valued by the subject, the resulting union of the \(\varphi\)-features of T and the subject yields a definite pronoun.”

Given these assumptions, in constructions such as (32), a G-pronoun is merged like a regular pronoun in \(vP\) in a transitive sentence, in VP in unaccusative sentences, receiving the (subject) phi/theta-role exactly like other pronouns or referential expressions. It consists of nominal features, meaning that it has number (singular), (third) person and an unvalued Case-feature (the value of which needs to be assigned). It is, however, deficient in that it lacks a D-feature (a property it shares with overt generic pronouns such as English \(one\), German generic \(man\) etc.). As a pronoun, it also lacks a root: it is a bare phi-feature complex. This means that when T probes this pronoun, and has its f-features valued by it, while at the same time valuing the Case feature of the pronoun, T and the pronoun end up having the same feature values. Following Roberts (2010), it is further assumed that the grammar takes them to be copies, forming an argument chain, effectively as if the subject pronoun had moved by head-movement to T, except that there has only been Agree (mutual feature valuing), with no movement. The lower copy must be deleted according to standard rules of chain reduction.

The G-pronoun is a copy of T, and it thus forms a chain, in fact, an argumental chain (A-chain). Consequently, T is spelled out as an affix on the finite verb or auxiliary, while its copy, the subject G-pronoun in Spec \(vP\), is not spelled out (or is
spelled out as a null subject). According to the author, this means that the reason why the G-pronoun is null in Finnish is because it is a D-less pronoun probed by finite T, the only interpretation available to a pronoun being an arbitrary or a generic one.

As argued in Holmberg (2010), the locative pronoun/adverb and the expletive occupy the same subject position, checking the EPP feature. Accordingly, null subjects are not found in these sentences, because Finnish has overt expletives. Thus, for Holmberg, when there is a null pronoun in subject position it is possible to have locative or expletives in the subject position, checking the EPP feature.

A problem of Holmberg’s (2010) analysis is that null subjects are not always (null) indefinites in PNSL. This is illustrated in (34), below, as opposed to (32a-c).

(34)  
\[ Veljeni_2 vaimo]_1 oli niin iloinen, ettei e_{1,2,3} voinut nukkua. \]  
brother-gen wife was so happy that.not could sleep/ ‘My brother’s wife was so happy that she could not sleep.’  
(MODESTO, 2007, ex. 2, p. 02)

Holmberg (2010) further argues that the above-mentioned properties of Finnish are shared by BP (as well as by Marathi and Assamese, from the Indo-Aryan stock). Taking into consideration the data from BP we will argue that the properties of PNSL are not encoded in terms of the defective make-up of T features, as it does not capture the empirical facts of BP regarding the pronominal reanalysis and its implications to the agreement system.

The Proposal – Part I: There is a split in the BP inflectional system

Looking at the same descriptive properties, Pilati and Naves (2013) and Pilati, Naves and Salles (2015, 2017a/b) assume, (partially) following Bhat (2004) and Rabelo (2010), that there is a split in the BP inflectional system which renders the third person inflection unable to license referential/definite null subjects, as opposed to first and second person. They argue that the emergence of this innovative property is directly related to the fact that the third person inflection is unable to license the EPP, which further relates to the loss of indefinite SE. The EPP requirement is then satisfied under insertion of a locative subject, which is realized either by a locative DP or by a (null) locative adverb/pronoun – the null variant being recovered in the discourse.
The third person inflection on the verb is valued as referential by either a full DP (35a) or an overt pronoun in subject position (35b); in the absence of a full referential DP/pronoun, the third person inflection is valued by an overt/null locative pronoun and the (third person) external argument is interpreted as generic/arbitrary (35d) – which is further determined by the absence of the indefinite pronoun ‘se’ in the pronominal system:

(35)  a. Maria conserta roupas. [DP + third person = referential meaning]  
Mary repairs clothes  
b. Ela conserta roupas. [Pronoun + third person = referential meaning]  
She repairs clothes  
c. Aqui conserta roupas. [Locative or expletive pronoun = arbitrary reading]  
here repairs clothes

A piece of evidence that the locative is in subject position is that it can control a null pronoun in embedded clauses, exactly as a lexical DP can in subject position (as originally observed in Pilati’s (2006) analysis of VS in BP as an instance of locative inversion) – cf. (26), repeated below as (36):

(36)  a. As crianças dormem ali porque ei querem./ The children sleep there because ei want3SG.  
b. *Ali dormem as crianças, porque ei querem./ There sleep the children  
because ei want3SG  
c. Alii dormem as crianças porque ei é mais quente./ Therei sleep the children because ei is warmer.

Accordingly in PNSL indefinite subjects are third person null pronouns (possibly a ϕP category, as described in Holmberg (2010)), while the EPP can be licensed by either a DP or a locative (null or overt) pronoun/adverb in SpecTP (or an expletive, as in Finnish).
Assuming the split in the pronominal/inflectional system, first and second person may be found as null subjects in NSL, being always referential, despite the fact that BP shows more overt subjects. In turn, as already mentioned, third person subjects do not behave as null subjects in PNSL, the null form never being referential in main clauses. It should be noticed that in Holmberg’s (2010) terms, the referential properties of third person (null) subjects are provided by the D-feature on T to the subject. Accordingly, the latter property is parameterized (an idea that we shall not pursue, as our claim is that parametric variation is a property of the inflectional/agreement system, in accordance with the pronominal system).

A fact that should be pointed out is that both BP and Finnish show some kind of loss in the verbal agreement system. As showed in the first section, BP lost the richness of its verbal agreement morphology under pronominal reanalysis (cf. Duarte, 1995), and Finnish has only one morpheme corresponding to third person plural or singular (cf. Holmberg and Nikkane, 2002).

These changes and the behavior of third person lead us to think that, regarding this person, the inflectional/agreement system of BP and Finnish may be compared to that of Chinese. Chinese is well-known for its lack of verbal agreement while still allowing empty subjects for all persons. Huang (1984) proposes that null subjects in Chinese can refer either to the matrix subject or to a salient discourse topic. So they can be sometimes pro, sometimes a variable. According to Huang (1984), the null subject in (37a) can refer to either the matrix subject (behaving as a pro) or to a salient discourse topic (behaving as a variable), while the null object in (37b) can only refer to a discourse topic.

(37) a.  Zhangsan, shuo [ e_j bu renshi Lisi ]./ Zhangsan say not know Lisi

‘Zhangsan said he didn’t know Lisi.’

b.  Zhangsan, shuo [ Lisi bu renshi e_j ]./ Zhangsan say Lisi not know

‘Zhangsan said Lisi didn’t know him.’

Huang (1984) argues that the empty subject in (37a) is a pro, if the nominal phrase Zhangsan is its antecedent. In addition, nothing prevents this null subject to be analysed as a variable, if it refers to someone else whose reference is identifiable in the
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discourse. As for the null subject in (37a), it is a variable, as it has its reference identified in the discourse, by a topic, which is an A'-position.

So in (37a) the subject can be either viewed as pro, since it not only is free in its binding domain, but can also be co-indexed with the closest nominal phrase, which is the matrix subject; or interpreted as a variable, since it can be bound by some salient topic generated in the discourse. But when it is uttered in out of the blue contexts, the null subject has to refer to the matrix subject. Huang further claims that it is not straightforward to find a context in which the null subject refers to a ‘salient discourse topic’: in this case, a person who is relevant in the conversational context, but who is not mentioned as the missing argument. Therefore, the null subject in Chinese has a dual status. When A’-bound, it is a variable; when A-bound, it is a pro.13

Following Chomsky (1982), who argues that the identity of an empty category can in general be predicted on the basis of its position of occurrence or that of its antecedent, Huang (1989) observes that it is plausible to assume that the different empty categories are in fact ‘allocategories’ of a single empty category (analogous to the allomorphs of a single morpheme), whose identity can be determined locally, on the basis of the following ‘functional definition’:14

a) An [NP e] is pronominal (=PRO or pro) if, and only if, it is free or locally 0-bound (i.e., bound by an element with an independent thematic role), and non-pronominal (=trace) if, and only if, it is locally non-0-bound.

b) A pronominal EC is PRO if, and only if, it is ungoverned, and pro only if it is governed.

13 Huang (1989) claims that “what we have is a general condition of identification or recoverability which requires an empty pronominal (PRO or pro) to be identified under appropriate circumstances, where identification can take different forms – if not by agreement then by an antecedent”. In a clause with agreement markings, the agreement element (Agr) is the closest potential ‘controller’ (an Agr essentially amounts to an overt pronoun, with its markings for person, gender and number), so it must be the controller of its subject pro. A subject pro is licensed if the Agr is rich enough to be its ‘controller’, as in Italian-type languages. In a language like English, the mere appearance of Agr makes it the obligatory controller of its subject pro, but its degenerate nature makes it incapable of carrying out the task of control. Hence a pro is excluded in English. On the other hand, a pro in Chinese, does not have Agr occurring as its minimal potential ‘controller’, so it can look outside the clause for its controller, and we have cases of control in the standard sense.

14 We are aware that in minimalism terms the theoretical notion of government does not hold, crucially affecting the theoretical distinction between pro and PRO (cf. CHOMSKY, 1995). We shall not go into the details of the debate regarding the status of PRO. We will thus provisionally refer to both categories as pro, distinguishing them with respect to their syntax in each case.
c) A non-pronominal EC is an anaphor (NP-trace) if, and only if, it is locally A-bound, and a variable (wh-trace) if, and only if, it is locally A’-bound.

Going back to the present analysis, it is important to observe that our claim is that there are two kinds of null pronouns or two different agreement systems. In languages with rich agreement systems the null pro or the verbal agreement morphemes will behave like overt personal pronouns, they can have independent reference even if they are null. However, in languages without an overt agreement system, as Chinese, or in PNSL, as BP, the third person agreement inflectional morpheme will have special properties, because they do not have an independent reference, as argued by Huang (1989) for Chinese.15

As shown by previous works (RODRIGUES, 2004; MODESTO, 2000, 2004, 2008; PILATI, NAVES and SALLES 2015, 2017a/b; among others), in PNSL the null subject obtains its reference when coindexed with the matrix subject (it can be analyzed as an A-bound pro):

(38) João disse [CP que [TP e/*j virá]. ‘John said [he/*j] will come.’

Considering this, we can argue that in PNSL the third person agreement morphology behaves partially as the Chinese agreement system. Accordingly, these empty categories can behave in two different ways. This is stated in Part II of our proposal.

15 Since the Government and Binding (GB) theory, the notion of the Extended Projection Principle (EPP, Chomsky 1981, 1982) requires that every sentence should have a subject. Empty subjects are generally referred to as null pronominals, or pro, which take Case, theta roles, phi-features (person, gender, and number) just as regular pronouns do. The interpretation of pro is derived by certain principles of identification if the rest of the sentences can provide enough information to recover the content of the missing subjects. In agreement languages such as Italian and Greek, the empty subjects are identified via rich morphological marking on the verbal agreement system. In “agreementless” languages like Chinese, for all persons, or in PNSL as Brazilian Portuguese and Finnish, for third person, such a mechanism cannot apply. Due to the lack of agreement, these null subjects have to resort to the salient antecedents in the discourse and are regulated by either a certain pronominal binding interpretation or the operator-variable schema (cf. Huang 1984, 1989).
The Proposal – Part II: The third person null subject in BP is analyzed:

a) as a null pro in out of the blue contexts, when the null morpheme seeks its reference in a c-commanding position locally θ-bound (i.e., bound by an element with an independent thematic role):

(39)  a. O Joãoi disse que vem para a festa./ Johni told that [he], will come to the party

b. O Joãoi disse [CP que [TP pro[ϕP]i [T’ vem[ϕP]i [vP pro[ϕP]i [v’ vem [VP vem]]]]] [para a festa]]]

b) as a variable in contexts in which it is locally A’-bound, as in question-answer sentences or in sentences with topics:

(40)  a. A Mariai, o Joãoj disse que vem para a festa./ Maryi, Johnj told that [she], will come to the party

b. [CP A Mariai [TP O Joãoj disse [CP que [TP vem [vP pro[ϕP]i [v’ vem [VP vem]]]]] [para a festa]]]

Contexts in which null subjects show an arbitrary reading, as in (41) below, can also be explained in the lines of (39a) – (as a null pro in out of the blue context, when the null morpheme will seek its reference in a c-commanding position locally θ-bound). We assume that the arbitrary reading will arise because in these contexts the (interpretable) person feature of the locative DP/pronoun/adverb in subject position enters an agreement relation with the (uninterpretable) (third) person feature on T (provided by the agreement system), which incorporates the phi-features of pro (which is realized as a ϕP category in the specifier of vP, in Holmberg’ (2010) terms).

16 It is worth observing that our proposal seems to have some counterexamples in the case of constructions with dicendi verbs with a deontic meaning (mandar ‘to order’, pedir ‘to ask’ and dizer ‘to say’), such as in: O guarda mandou e*i,j sair./ O guarda disse para e*i,j sair. ‘The policeman ordered e*i,j to leave.’ Indeed, in these constructions, the null subject of the infinitive embedded clause is not controlled by the subject in the matrix SpecTP (the policeman); on the contrary, it receives an arbitrary/generic reading. We consider these facts to be related to the lexical properties of dicendi verbs, the (null/ implicit) internal argument of these verbs being the appropriate antecedent for the null embedded subject (The policeman ordered e[i,j] to leave!). The evidence for this analysis is that control of the embedded subject by the subject in the matrix clause is expected if the verb of the matrix clause is changed, as in: O ladrão quis e*i,j sair. ‘The thief wanted e*i,j to leave’.

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(41)  a.  Aqui senta confortavelmente./ Here sits comfortably
    b.  [\(\text{CP} \ [\text{TP} \ Aqui] [\text{\(\Gamma\)} \ senta \ [\text{CP} \ \text{pro} \ [\text{\(\varphi\)} \ \text{vP} \ senta \ [\text{\(\varphi\)} \ \text{VP} \ senta] \ [\text{confortavelmente}]]]]\]

The rise of this operation is determined by the following conditions: (i) the loss of the indefinite pronoun ‘se’ (which is in complementary distribution with the locative pronoun/adverb in SpecTP); (ii) the formal identification of the external argument with a (spatial/ temporal) locative which is either an argument of the predicate (as in (41a), and an internal argument, as in topic-subject constructions (Essa casas bate sol/ This house hits the sun [=The sun hits the house]), or the (spatial/temporal) locative, which encompasses the (external) argument that is selected by the predicate (as in Antigamente usava bengala/ In the old time used a stick), giving rise, in some cases, to a sort of metonymic reading (as in Essa loja/Aqui vende fruta; This shop/Here sell fruits). This analysis is supported by the fact that in the presence of the number feature, agreement arises, as illustrated in (42):

(42)  a.  Essas lojas venderam muitos CDs./ These stores have sold many CDs
    b.  Essas cidades chovem muito./ These cities rains a lot.

This analysis further accounts for the contrastive facts in (43a) and (43b), in which the null subject is a pro licensed under the agree relation above described with the locative pronoun/adverb in the subject position and under binding by the local c-commanding antecedent, respectively.

(43)  a.  O João, disse que aqui \(e^*_j\) vende fruta.  John said that one sells fruits here.
    b.  O João, disse que \(e_i\) vende fruta.  John said that he sells fruits.

4.  Final considerations

In this article, we have provided a review of well-known studies of the syntax of BP subjects, in which a tendency to displaying overt subjects is found in contexts in which the subject is consistently null in EP – as a result of the reanalysis of subject pronouns, which, in turn, gave rise to a drastic reduction in the language’s verbal inflectional paradigm.
Taking into consideration the changes which have taken place in the pronominal system, as well as in the inflectional system of BP, and assuming that BP exhibits (some) properties of Discourse-Oriented Languages, as stated in previous studies (see section 1), we proposed that the pattern concerning the distribution of definite and generic/arbitrary null subjects crucially affects third person pronouns – in terms of the hypothesis that BP is a language with a split pronominal system. This proposal enables us to explain the conditions that determine the distribution and interpretation of the null subject in this language, and its relation to the occurrence of (spatial/ temporal) locatives in subject position. Accordingly, it allows us to build up a unified analysis of a variety of phenomena consistently found in BP, such as: the obligatory presence of a locative/ temporal adverb (whether overt or null) in sentences with VS word order; the fact that the subject position is obligatorily filled by (pronominal/lexical) locatives DP in the topic-subject construction and in sentences containing a quasi-argument; and the properties of the subjects in constructions in which the agent receives a generic/arbitrary interpretation.

In sum, we have argued that null subjects in PNSL have two different behaviors: while first and second person verbal morphology can be analyzed as the verbal morphology in NSL, the third person verbal morphology (singular in BP and singular and plural in Finnish) displays the same properties as the verbal morphology of Chinese (a language without overt agreement). This null third person morpheme occurs: a) as a Chinese pro in main clauses, being grammatical if it can seek its reference through a DP in the subject position of a matrix sentence, further establishing a formal identification with a locative DP/adverb/pronoun (whether lexical or null) under merger; b) if CP is filled by either a WH word, a DP in topic position, or a quantifier.

References


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