Abstract

In this paper we discuss the phenomenon of subject topics, consisting of the movement of either a genitive or a locative constituent into subject position in Brazilian Portuguese. This construction occurs with different verb classes, shows subject-verb agreement and precludes a resumptive pronoun. The goal of the present text is to account for its distribution. To do so, we argue that the two subclasses of unaccusative verbs found with genitive and locative topics instantiate some sort of secondary predication, and that only specific configurations allow for the movement of a constituent out of the argument structure domain. Finally, we address the comparative issue involved in explaining why the derivation of such a construction is not possible in European Portuguese.

0. Introduction

The subject topic construction in Brazilian Portuguese (BP) has been analysed as the output of raising of a genitive or locative constituent from the complement position of an unaccusative verb, as can be observed from the comparison between (1a-b) and their counterparts without movement in (1a’-b’) (examples from Galves, 1998: 23):
(1) a. *A mesa quebrou o pé.*
   the table break.PAST.3SG the leg
   a’. *Quebrou o pé da mesa.*
   break.PAST.3SG the leg of.the table
   ‘The table leg broke.’

   b. *Essa casa bate muito sol.*
   this house get.3SG much sun
   b’. *Bate muito sol nessa casa.*
   get.3SG much sun on.this house
   ‘Many sun [rays] blaze on this house.’

   The construction can be seen as a subtype of topicalisation (or thematisation). It is dubbed ‘subject topic’ due to the occurrence of agreement between topic and verb, a fact that suggests that the topic is also the logical subject of the predication. Its counterpart with a resumptive pronoun in the position where the topical constituent should be interpreted is a type of Left Dislocation (without verbal agreement with the topic), as the counterparts to (1) below illustrate (examples from Galves, 1998: 23):

- **(2) a.** *A mesa, quebrou o pé dela.*
  the table, break.PAST.3SG the leg of.it
  ‘(As for) the table, its leg broke.’

- **(2) b.** *Essa casa, bate muito sol nela.*
  this house, get.3SG much sun on.it
  ‘(As for) this house, many sun [rays] blaze on it.’

   These constructions were first evoked in Pontes’s (1987) seminal work on topics in BP, where different examples of oral speech with marked topic structures are presented. Since then, many debates regarding the nature of the grammatical distinction between BP and European Portuguese (EP) were discussed, especially in the Generative Grammar community. To a great extent, these debates are still unresolved. In particular, some authors disagree with respect to whether the distinction has to do with properties of the CP domain, or with properties of the IP domain (for a summary, cf. Costa, 2010).

   The occurrence of subject topics and their non-agreeing counterparts presents at least two aspects that should be explained:

   (i) the distribution problem (observed in (1a’/b’), i.e. why genitive and locative topics do not occur with the same set of verbs);

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1 In the sense used in Aissen (1999), where *logical subject* designates what is being discussed, whereas *grammatical subject* indicates the grammatically most prominent element. Logical subjects are found in Kuroda’s (1992) ‘categorical judgment’ structures.
(ii) the agreement problem (observed in (1a-b) vs. (2a-b), i.e. why agreement is possible, and only in the sentences without resumption).

We identify a gap in the literature, in that the latter problem has been addressed in various papers (Galves, 1998; Negrão & Viotti, 2008; Avelar & Galves, 2011a; Munhoz & Naves, 2012, Pilati & Naves, 2012, a.o.), whereas the former has been mostly neglected. For this reason we focus on this issue, thus exploring a unified analysis of the argument structures out of which subject topics are derived. Although our goal does not include a review of the existent accounts for the agreement problem, it is inescapable to refer to the final position of subject topics. In all respects, we consider this position to be Spec,TP (cf. Avelar & Galves, 2011a for an account in this line). This entails that subject topics should be seen as non-thematic subjects, instead of special types of marked topic constituents, in the sense that they do not occupy a position in the CP domain.

The paper is organised as follows. In section 1 we present the explanatory problem that comes out from previous descriptive work on the distribution of subject topics. In section 2 we argue that an account based on secondary predicates is descriptively adequate for both genitive and locative topics. In section 3 the unified account for their distribution is proposed along the lines of Den Dikken’s (2006) theory of predication. Section 4 addresses some implications of the proposal, including the counterparts of secondary predicates in EP. Finally, we present the paper conclusions.

1. The explanatory problem on the distribution of subject topics

The distribution of genitive and locative subjects has been described in Munhoz (2011) and Munhoz & Naves (2012), on the basis of an argument-structural account. They argue that the promotion of genitive arguments to the topic position occurs with monoargumental unaccusative verbs, whereas the promotion of locative arguments is found with biargumental unaccusative verbs (with two internal arguments), as shown in (3)-(4) below:

(3) Configuration for genitive topics
   a. Furou [o pneu d[o carro]GENITIVE ]THEME
      puncture.PAST.3SG the tyre of .the car
      ‘The car tyre punctured.’
   b. Rasgou [a ponta d[a saia]GENITIVE ]THEME
      tear.PAST.3SG the edge of .the skirt
      ‘The skirt edge teared.’
Configuration for locative topics

a. \textit{Cabe} [muita gente]\textit{[nesses carros]}LOCATIVE
  \begin{itemize}
  \item fit.3SG many people in.these cars
  \end{itemize}
  ‘Many people fit in these cars.’

b. \textit{Bate} [muito sol]\textit{[nessa casa]}LOCATIVE
  \begin{itemize}
  \item blaze.3SG much sun on.this house
  \end{itemize}
  ‘Many sun rays) blaze on this house.’

The parenthetical structures provided above show the authors’ analysis, according to which the genitive is part of the theme, whereas the locative is an autonomous argument with respect to the theme. The authors put forward two main types of evidence in support of their proposal, based on constituent deletion and on movement restrictions.

(i) \textbf{Constituent deletion.} One of the classical arguments for argumenthood is the impossibility of constituent deletion. The authors interpret the fact that the locative in (5b) cannot be deleted as evidence for considering it as a verbal argument, unlike the genitive in (5a) (examples from Munhoz & Naves 2012: 252):

\begin{itemize}
\item a. \textit{Furou} o pneu \textit{(do carro)}.
  puncture.PAST.3SG the tyre (of.the car)
  ‘The (car) tyre punctured.’
\item b. \textit{Bate} bastante sol *(nessa casa).
  blaze much sun *(in.this house)
  ‘Many sun (rays) blaze *(in this house).’
\end{itemize}

(ii) \textbf{Movement restrictions.} The authors explore different movement patterns in the following constructions: Hanging Topic Left Dislocation, Clefting, and Thematisation—i.e. movement to canonical subject position in Spec,TP—in order to unveil the constituency patterns with genitive and locative arguments, as in (6)-(8) (examples from Munhoz & Naves 2012: 252-3):

\begin{itemize}
\item a. \textit{Essa casa} bate bastante sol.
  this house blaze.3SG much sun
  ‘This house gets much sun(rays).’
\item b. * \textit{Bastante sol} é batido por \textit{essa casa}.
  much sun is blazed by this house
  ‘Many sun(rays) blaze on this house.’
\end{itemize}

\footnote{Besides those, specific tests are offered to show that the locative constituent is not an external argument, as its preverbal position in (i) would suggest, such as passivisation—cf. (ii):

\begin{itemize}
\item (i) \textit{Essa casa} bate bastante sol.
  this house blaze.3SG much sun
  ‘This house gets much sun(rays).’
\item (ii) * \textit{Bastante sol} é batido por \textit{essa casa}.
  much sun is blazed by this house
  ‘Many sun(rays) blaze on this house.’}
(6) Hanging Topic Left Dislocation
a. * [O pneu, ele fuou [do meu carro].
the tyre, it punctured of.the my car
‘(As for) the tyre of my car, it was punctured.’
b. [O sol, ele bate [nessa casa].
The sun, it blaze.3SG in.this house
‘The sun (rays), they blaze on this house.’

(7) Clefting
a. * Foi [o pneu que fuou [do meu carro].
b.3SG the tyre that punctured of.the my car
‘It was my car tyre that was punctured.’
a’. Foi [o pneu do meu carro] que fuou.
b.3SG the tyre of.the my car that punctured
‘It was my car tyre that was punctured.’
b. É [sol que bate [nessa casa].
be.3SG sun that blaze.3SG in.this house
‘It is sun(rays) that blaze on this house.’
b’. * É [sol nessa casa que bate.
be.3SG sun in.this house that blaze.3SG
‘It is sun(rays) that blaze on this house.’

(8) Thematisation
a. [O pneu do meu carro fuou.
The tyre of.the my car punctured
‘My car tyre punctured.’
b. *Bastante sol nessa casa bate.
much sun in.this house blaze.3SG
‘Many sun(rays) blaze in this house.’

The tests above show either that movement of the theme argument alone
is disallowed with genitive constituents–cf. (6a) and (7a)–or that movement
of the locative and theme arguments together is disallowed–cf. (7b’) and
(8b). The authors thus interpret that the genitive constituent is not a verbal
argument, whereas the locative constituent indeed is. From this, they
conclude that locative and theme supposedly do not form a single constituent
since otherwise they would be able to move together in any of the examples
provided.

Notwithstanding the presented tests, we believe that at least two facts
militate against such a rendering of the linguistic data:

(i) it does not account for the fact that both configurations allow the
movement of some constituent to become the logical subject of the
predication in BP;
(ii) it renders the correlation between the subject topic construction and the argument structure of the verbs involved completely opaque.

In other words, if we assume this analysis we miss the relationship between genitive and locative topics. Our goal in this paper is to therefore propose a unified account for the topic subject construction, despite the superficial differences between the two kinds of topics. In order to achieve this goal, we propose an explanation for the differences on argument structures in section 2, and we account for the movement restrictions in section 3. In each of these sections, we argue that postulating a secondary predicate structure allows us to explain the similar behaviour of genitive and locative topics, in minimalist terms (cf. Chomsky, 2001, 2004, 2008, a.o.).

2. Secondary predicates and argument structures at the base of subject topics

In the following subsections we develop some observations related to the distribution of the two subtypes of subject topics. Both locative and genitive subject topics are typically found with unaccusative verbs because they more generally allow for derived subjects, i.e. subjects interpreted in an internal position to the VP and thus not externally merged into Spec,vP.

2.1. Genitive topics and argument structure

As already mentioned, a first restriction on genitive topics is their co-occurrence with monoargumental unaccusative verbs (Munhoz, 2011). To be more precise, we observe that it is not possible to move the genitive argument from the thematic subject position (signalled with $\theta_{ext}$) of an unergative verb, as in (9a).\(^3\) Besides, it is not possible to move from the thematic object

\(^3\) One of the anonymous reviewers asks what prevents the sentence in (i) from taking place in BP. In connexion with that, s/he also questions why would (ii) be possible in non-standard varieties of BP:

(i) $\textbf{A Maria nadou o filho.}$
the Maria swim.PAST.3SG the son

‘Maria made her son swim.’

(ii) $\textbf{A Maria estudou os filhos.}$
the Maria study.PAST.3SG the sons

‘Maria made her sons become educated.’

We consider that the problem with (i) is lack of Case-licensing of the preverbal DP a Maria. On the other hand, the availability of (ii) would be connected to an argument-structural process, viz. the inclusion of a CAUSE projection that would license the supplementary argument a Maria. Although this discussion would
position (signalled with $\theta_{int}$) of a transitive verb, if the moved constituent is different from the thematic subject, as in (9b):\(^4\)

(9) a.* [Essa escola]i trabalha [o funcionário ec i] $\theta_{ext}$ [todos os dias].
   this school work.3SG the employee all the days
   ‘This school employee works everyday.’

   b.* [Esse rapaz]i encontrou [a menina] $\theta_{ext}$ [o carro ec i] $\theta_{int}$.
   this boy find.PAST.3SG the girl the car
   ‘The girl found this boy’s car.’

We consider that the reason for these results is that no Case is assigned to the moved genitive constituents: in (9a) only nominative Case is available, and (9b) both nominative and accusative Case have already been valued (respectively to a menina and o carro).\(^5\)

However, it should be emphasised that among monoargumental unaccusatives, an even more restricted class of verbs co-occurs with genitive topics, and this distribution has been approached in two different ways. According to Munhoz (2011) and Munhoz & Naves (2012), the crucial feature is participation in the causative alternation, a property of unaccusative verbs encoding change of state (cf. Levin & Rappaport-Hovav, 1995). The following example is from Munhoz (2011: 68):

require a whole separate research, we observe that the inclusion of a causer argument is lexically restricted to events that involve a culmination, in that (ii) can only be interpreted in the sense that Maria has succeeded in making her sons complete their studies, viz., they have got a degree.

\(^4\) In the version of phase theory proposed in Chomsky (2004, et seq.), all types of vP constitute phases. Therefore, Spec,vP must be filled either by external or by internal merge before the DP at the phase edge moves into Spec,TP, due to the Phase Impenetrability Condition. Therefore, the genitive argument can move from the thematic object of a transitive verb provided that the moved constituent itself receives the external argument theta-role in Spec, vP. This is possible again with inalienable possession, such as with the relational noun irmã (‘sister’):

(i) A Mariai gosta [da irmã ec i.]
   the Maria likes of the sister
   ‘Maria likes her sister.’

\(^5\) Considering the centrality that Case-licensing has in the present analysis of subject topics, we consider as a necessary improvement to previous approaches that some special licensing mechanism for the postverbal constituent is adopted. In fact, both Avelar & Galves (2011a) and Munhoz & Naves (2012) leave (explicitly or implicitly) its valuation for the morphological component. We suggest that V/Root values this element with inherent Case, much in the spirit of Belletti (1988). See also Cortés (1997) for a review of this problem.
(10) a. [O João] furou [o pneu do carro].
   the J. punctured the tyre of. the car
   ‘João punctured the car tyre.’
   b. [O pneu do carro] furou.
   the tyre of. the car punctured
   ‘The car tyre punctured.’

An alternative descriptive approach puts the burden of the explanation on a ‘part-whole relation’ established between the subject topic and the theme constituent left in postverbal position (Galves, 1998). Therefore, a relation expressing either modification (locative adjacency) (11a) or alienable possession (11b) is insufficient to express the expected relation between constituents:

(11) a.* Essa mesa quebrou o pote.
    this table broke the pot
    ‘This table pot broke.’
   b.* O João pifou o carro.
    the J. broke the car
    ‘João’s car broke.’

We believe the second alternative provides a grounded explanation for the occurrence of genitive topics for two reasons. First, although the generalization regarding the availability of the causative alternation may be correct for most verbs, there is at least one (very common) counterexample with the verb cair (‘to fall’, used in the sense of ‘to loose’), which allows a genitive subject topic – cf. (12) – but does not participate in the causative alternation – cf. (13):

(12) A internet caiu a conexão.
    the internet fall.PAST.3SG the connexion
    ‘The internet connexion was lost.’

(13) a.* [O João] caiu [a conexão da internet].
    the J. fall.PAST.3SG the connexion of. the internet
    ‘João interrupted the internet connexion.’
    the connexion of. the internet fall.PAST.3SG
    ‘The internet connexion was lost.’

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6 The sentence in (11b) can become grammatical if João is interpreted as the external argument. This is possible because pifar (‘to break’) is an alternating unaccusative verb; under this interpretation, the translation of (11b) would be ‘João broke (his) car’.
Second, the authors do not further explore the fact that an external theta role would be potentially available, viz., by saying that it is cancelled in the syntax. In fact, they do not postulate that an external argument is projected in the syntax of genitive subject topic constructions.

Here, we explore the part-whole restriction to analyse the reasons for the restrictions in (11). Out of them we infer that the only relation giving a grammatical result for genitive topics codes inalienable possession, so that apparent counterexamples do not interfere with our analysis. The typological literature presents inalienability as a variable phenomenon across the world’s languages, with the most universal instances consisting of body parts. Other ‘central kinds’ of inalienables are linked to kinship, part-whole and spatial relations, and ‘peripheral kinds’ refer to clothes, other objects used by humans, and human activities (Chappell & McGregor, 1996: 8-9). In fact, some examples of genitive subject topics represent some of the ‘central kinds’ in the mentioned hierarchy (from Pontes, 1987: 34, 81):

(14) a. A Belina deita o banco, sabe?
   the Belina recline the seat, know.2SG?
   ‘Belina seats (can) recline, do you know?’

b. Você tem uma caneta azul prático emprestar?
   you have.2SG a pen blue for 1SG.DAT lend.INF?
   A minha acabou a tinta.
   the mine finish.PAST.3SG the ink
   ‘Can you lend me a blue pen? – Mine is out of ink.’

The connexion between the genitive and theme constituents in (14) denotes part-whole relations, thus inalienable possession. In a word, and using an explanation referred to in Chappel & McGregor (1996: 11), inalienable terms “imply the existence of some other entity, the whole to which they belong, or with which they are associated”.7

This much said, it is necessary to explore the structural distinction between inalienable possession and the other structures found in (11), with modification and alienable possession. We argue that inalienable possession must be coded as a secondary predicate (structurally a small clause, abbreviated as ‘SC’) formed by possessor and possessum elements as its constituents, whereas with alienable possession and with modification, the

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7 We thank one of the anonymous reviewers for having made us clarify this important point. In the examples in (14), although ‘ink’ and ‘seats’ are found in a variety of types and contexts, the association between genitive and theme is clear: ink is associated to the proper functioning of a pen, as much as seats are necessary components of a car (in a prototypical sense). The same applies to (12), in that connexion between computers is implied as a feature of a computer network (although it may be interrupted sometimes).
first noun is not in a predication relation with respect to the second noun in the NP, once the former occupies a PossP, and the latter sits in a PP, adjunct to the NP:

\[(15) \quad \begin{align*}
    \text{a. } & \ o \ \text{pé da mesa} & \text{b. } & \ o \ \text{carro do João} & \text{c. } & \ o \ \text{pote da mesa} \\
    \text{‘the table leg’} & \text{‘John’s car’} & \text{‘the table pot’}
\end{align*}\]

\[\text{DP} \quad \begin{array}{c}
    \text{XP} = \text{SC} \\
    \text{DP} \quad \text{NP} \\
    \text{a mesa} \quad \text{N} \\
    \text{pé} \\
\end{array} \quad \begin{array}{c}
    \text{PossP} \\
    \text{DP} \quad \text{NP} \\
    \text{o João} \quad \text{N} \\
    \text{carro} \\
\end{array} \quad \begin{array}{c}
    \text{PP} \quad \text{NP} \\
    \text{da mesa} \quad \text{N} \\
    \text{pote} \\
\end{array}\]

For the moment, we observe that the structure in (15a) allows the possessor not to be marked inside the nominal domain, unlike the boldfaced possessors in (15b-c), where genitive Case would be valued against Poss and P, respectively. A piece of evidence for this distinction can be found in Case-marking inside Greek nominals, where only inalienable possessives may have both elements being marked with accusative Case–cf. (16a)–instead of the default rule, whereby the possessor must be marked with genitive–cf. (16b)–(examples from Alexiadou, 2003: 174; Marinis, 2002: 57):

\[(16) \quad \begin{align*}
    \text{a. } & \ piga \quad s-tin \quad akri \quad to \quad potami \\
    \text{went.1SG} & \text{to-the} \quad \text{edge.ACC} \quad \text{the.ACC} \quad \text{river.ACC} \\
    \text{‘I went to the edge of the river.’} \\
    \text{b. } & \ pira \quad to \quad vivlio \quad tu \quad Niku \\
    \text{took.1SG} & \text{the.ACC} \quad \text{book.ACC} \quad \text{the.GEN} \quad \text{Niko.GEN} \\
    \text{‘I took Niko’s book.’}
\end{align*}\]

In Modern Greek, where Case is marked both on the article and on the noun, the possessor tu Niku in (16b) cannot be expressed with its accusative counterpart, to Niko. This makes sense if the genitive in an alienable possession relation correlates with a higher functional projection in the DP, similar to an external argument at the clausal level (Giorgi & Longobardi, 1991, a.o.).

In the following we further explore the relevance of secondary predicates, already pointed out in (15a) for the derivation of genitive subject topics.
2.2. Locative topics and argument structure

According to Munhoz (2011) and Munhoz & Naves (2012), in complete opposition to genitive topics, locative topics only occur with non-alternating unaccusative verbs, which do not encode change of state. Instead, the relevant verbs express the relation between a theme and a location, such as: *aparecer*, *caber*, *chegar*, *constar*, *entrar*, *faltar*, *sair* and *vir* (*appear*, ‘fit’, ‘arrive’, ‘consist’, ‘enter’, ‘lack’, ‘leave’ and ‘come’). Following Levin & Rappaport-Hovav (1995), Munhoz (2011: 104) correlates the selection of two internal arguments with the impossibility of causative alternation.

Developing the argument presented in the previous section, an alternative account would explain the distribution of locative subject topics not in terms of a unique lexical-semantic property – biargumental unaccusativity, with a theme and a location argument – but by correlating them with the same structural pattern found with genitive topics, i.e. the existence of a secondary predicate. Crucially, this argument entails that the locative constituent is not properly an argument of a verb, but of a secondary predicate, which encodes a similar relation to a part-whole one, found with genitives: a content-container relation. In other words, what is at stake is not the argumental character of locatives, but where they attach in the clausal structure.

Let us consider the simpler hypothesis that, apart from unaccusative verbs selecting a secondary predicate (with a locative relation), all the other verbs selecting a locative would attach it at VP/RootP level – as it seems indeed to be the case, once the locative in the latter case indicates the start point or endpoint of a movement expressed by the verb. If this is true, unergative and transitive verbs are uninformative regarding the distinction between attachment sites of locatives, locative subject topics with them being either pre-empted by the unavailability of nominative Case for the locative argument or by the impossibility of “P-erasure” whenever the PP is not inside a small clause, as it will be made clear further below. The relevant structures are shown in (17):

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8 We consider, following many texts developed since Bresnan (1994), that locatives are arguments. Whenever they are referred to as ‘modifiers’, this indicates their attachment point and does not entail an adjunct configuration in the clause.
(17) Attachment sites of locative arguments

a. In a small clause
   *caber muita gente no carro*  
   ‘to fit many people in the car’

b. In a VP/RootP
   *colocar muita gente no carro*  
   ‘to put many people in the car’

The distinction between attachment sites of locatives finds crosslinguistic support in word order in German: external modifiers may appear either before or after the direct object, whereas internal modifiers can only appear in final position (examples from Maienborn, 2001: 201-2):

(18) a. *Paul hat {[PP vor *dem Capitol]} [DP die Marseillaise]*  
   P. has {in front of the Capitol} the Marseillaise  
   {[PP vor *dem Capitol]} gesungen  
   {in front of the Capitol} sung.  
   ‘Paul sung the Marseillaise in front of the Capitol.’

b. *Die Spieler haben {?[PP auf *den Schultern]} [DP den Torschützen]*  
   the players have {?on the shoulders} the scorer  
   {[PP auf *den Schultern]} getragen  
   {on the shoulders} carried  
   ‘The players have carried the scorer on their shoulders.’

Notice that the locative in (18b) indicates the location of the scorer, not of the carrying event (which is probably some stadium).

A further piece of evidence that can be applied for BP relates to aspectual distinctions. In (17a) the locative, being an internal modifier, does not grant internal dynamism to the event, which is therefore imperfective. On the other hand, the locative in (17b) as an external modifier bestows internal dynamism to the event, in that the locative is interpreted as the endpoint of a dynamic event, resulting in a perfective reading. This correlation makes an interesting prediction: that the subject topic construction is preferred whenever the sentence encodes imperfective aspect; this is indeed obtained with different subclasses of unaccusative verbs:
(19) *Inherently directed motion verb*
   a. *Aquele consultório chegou um paciente.*
      that office arrive.past.3sg a patient
      ‘A patient arrived in that consultation room.’
   b. *Aquele consultório chega paciente todos os dias.*
      that office arrive.3sg patient everyday
      ‘Patients arrive in that consultation room everyday.’

(20) *Change-of-existence verb*
   a. *Esse restaurante apareceu uma abelha.*
      this restaurant appear.past.3sg a bee
      ‘A bee appeared in this restaurant.’
   b. *Esse restaurante está aparecendo abelha.*
      this restaurant be.3sg appearing bee
      ‘Bees appear in this restaurant.’

(21) *Existential locative verb*9
   a. *Esse carro coube muita gente.*
      this car fit.past.3sg many people
      ‘This car fitted many people.’
   b. *Esse carro cabe muita gente.*
      this car fit.3sg many people
      ‘This car fits many people.’

The eventualities in (19b) and (20b) are iterative, which is signalled either by the use of an adverbial or of a gerundive form. On the other hand, in (21b) the present tense encodes an atemporal truth, a reading favoured by existential locative verbs, which are inherently imperfective. Using the verb inflected in a perfective past form in (19a), (20a) and (21a) clearly degrades

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9 The example (21a) becomes acceptable with the inclusion of an operator such as ‘already’, with a past perfect reading, i.e., in which the Event Time precedes the Reference Time:

   (i) *Esse carro já coube muita gente.*
      this car already fit.past.3sg many people
      ‘This car has fitted many people.’

We interpret the acceptability of (i) as a consequence of the imperfective reading during the interval. According to one of the anonymous reviewers, an alternative (and much broader analysis) could involve the postulation of the licensing of locative subject topics by a covert operator quantifying over temporal intervals. However, postulating this element would make us loose sight of the impact for aspect of attaching the locative inside a secondary predicate; besides, this would be an ad-hoc solution to the problem.
the acceptability of these examples because it precludes the interpretation of the locative as an internal modifier to the event, which is conflicting with the structure required for the derivation of locative subject topics. (The distinction between these verb classes carry over to whether there is a similar restriction on perfective eventualities in the parallel sentences to (19a) and (20a) with a PP locative – either postverbal or preverbal – because the locative constituents can be ambiguous between external and internal modifiers only with these verb classes.)

Coming back to the general proposal for the distribution of locative subject topics summarised in (17), notice also that Maienborn (2001) proposes a third function of locatives, viz. frame-setting modifiers, which delimit the predicate reference. In the derivational account taken up in this work, frame-setting modifiers represent a supplemental function carried out either by external or internal locative modifiers.

Notice that, once the aspectual restriction derives from the endpoint provided by the locative, it does not extend to genitive topics, which can be found with perfective and imperfective uses, as the examples in (14a–b) show.

If the reasoning presented so far is correct, the term ‘biargumental unaccusatives’ is not accurate, once the verb selects one argument, a small clause, inside of which a predication relation holds, triggered by the locative constituent.

2.3. Two types of secondary predicates

The account arising so far is that argument structure is relevant to account for the distribution of subject topics in two respects:

(i) the verb must be unaccusative, so as to allow nominative Case valuation to the genitive or locative argument;

(ii) the verb must select a secondary predicate in its thematic object position.

Some speakers accept telic sentences such as those in (19a) and (20a), if examples such as (i) (from Munhoz 2011: 94) are taken into account. We suggest that in these cases the locative occurs as a Hanging Topic. We return to this issue in section 4.1.

(i) **O Japão quase aconteceu um desastre nuclear um dia desses.**
    the Japan almost happened a disaster nuclear a day of these
    ‘A nuclear disaster almost happened in Japan one of these days.’

Cf. Hoekstra & Mulder (1990) for a proposal where this type of analysis is applied to locative constituents with unergative verbs. Although it is tempting to generalise this account following their proposal, we would miss the semantic distinction made above between internal and external locative modifiers.
We adduce two pieces of evidence for the claim that a secondary predication is available in both mentioned configurations. The first one shows that two types of small clause have been identified crosslinguistically, where genitive topics and locative topics correspond to two relation types that can be coded in existential predicates: an ‘integral’ relation (= part-whole) and a ‘spatial’ relation (= content-container). When the two verb arguments stay in their base-generated positions – cf. (22) – they come to be ambiguous between these two readings, identified in (22’) (Hornstein, Rosen & Uriagereka, 2002: 179):

(22) There is a Ford T engine in my Saab.

(22’) a. My Saab has a Ford T engine.
   b. (Located) in my Saab is a Ford T engine.

For Muromatsu (1997), the double reading of (22) indicates that different predication structures are available: a small clause with an inalienable predicate underlies ‘integrals’ as in (23a), and a small clause with a PP predicate underlies ‘spatials’ as in (23b) (example from Muromatsu, 1997: 252):

(23) a. [SC the car [ an engine ]]  The car has an engine.  [Integral]
   b. [SC an engine [ in the car ]]  In the car there is an engine.  [Spatial]

Interestingly, ambiguity disappears in Japanese not because of a different verb selection (have or be), but in terms of Case marking (with topic or nominative values). Crucially, the element in highest position must be the small clause ‘subject’ in the structures presented in (24) (Japanese examples from Muromatsu, 1997: 246):

(24) a. kuruma wa enzin ga aru.
   car TOP engine NOM be
   ‘The car has an engine.’
   b. enzin ga kuruma ni aru.
   engine NOM car in be
   ‘An engine is in the car.’

The second argument is empirical, and explores a test valid for any small clause: quantifier raising, which is blocked in this context, according to Hornstein (1995). For instance, every cannot have wide scope over one in a sentence such as At least one person considers [SC every senator smart]. Therefore, one expects that only one reading should arise in the contexts that we propose to correspond to secondary predicates (instantiating a part-whole relation or a content-container relation). In the other contexts, two readings
should be possible, including the one with quantifier raising. This is exactly the result we get when we compare the contexts for genitive (25b) and locative (26b) subject topics with other structurally distinct examples:

(25) **Alienable vs. inalienable possession**

a. *Todos os alunos quebraram duas garrafas.* $\forall > 2; 2 > \forall$
   all the students break. PAST.3PL 2 bottles
   ‘All the students broke two bottles.’

b. *Todos os carros quebraram duas lanternas.* $\forall > 2; *2 > \forall$
   all the cars break. PAST.3PL 2 lanterns
   ‘All the cars broke two lanterns.’

(26) **External vs. internal locatives**

a. *Por todas as vans passaram seis alunos.* $\forall > 6; 6 > \forall$
   by all the vans pass. PAST.3PL 6 students
   ‘Six students passed by all the vans.’

b. *Todas as vans cabem seis alunos.* $\forall > 6; *6 > \forall$
   all the vans fit.3PL 6 students
   ‘All the vans fit six students.’

The examples in (25b) and (26b) show only a distributive reading, due to the high scope of the quantifier *todos/todas* (‘all’) with respect to the numeral.12

After having presented this unified approach, we can review one of the tests pointed out in Munhoz & Naves (2012), viz. constituent deletion, shown in (5) above. We consider this test as misleading, because genitive deletion in (5a) is only acceptable when its reference can be retrieved from the context, or from the reference of the inalienable theme constituent. On the other hand, unacceptability of locative deletion in (5b) is expected, not only due to its argument status, but because the locative itself is the predicate of the small clause. In the following we explore that the semantic distinction between ‘integrals’ and ‘spatials’ has important structural correlates that are able to explain movement restrictions that in the surface seem to tease apart the two types of subject topics.

12 The sentence in (26a) has a formal tone due to locative inversion, and would be used e.g. in a fair organised in a school yard, where van trucks are used to display objects.
3. Secondary predicates and movement restrictions to subject topic

Having presented some evidence that the base position of subject topics is a position inside a small clause, we consider how it is possible to derivationally implement the relation between the two syntactic positions.

Our goal in this section is to demonstrate that the movement restriction tests shown in (6)-(8) above and further systematised in (27b-c) and (28b-c) are only apparent counterexamples that do not hamper the proposal of a unified analysis of subject topics:

(27) a. Quebrou [uma lanterna d[o carro]].
    break.PAST.3SG a lantern of.the car
b. [O carro], quebrou [uma lanterna ec].
    the car break.PAST.3SG a lantern
c. *[Uma lanterna] quebrou [eci o carro].
    a lantern break.PAST.3SG the car

‘A car lantern broke.’

(28) a. Cabe [muita gente] [nesses carro].
    fit.3SG many people in.this car
b. [(N)esse carro] cabe [muita gente].
    (in).this car fit.3SG many people
c. [Muita gente] cabe [nesses carro].
    many people fit.3SG in.this car

‘Many people fit in this car.’

The examples above show that genitive and locative topics differ in that the small clause subject moves in the former, whereas the small clause predicate moves in the latter. However, the accompanying nominal constituent cannot move to subject position, as shown in (27c), whereas it can do so in (28c). In the following we claim that this difference follows from independent assumptions related to the internal structure of small clauses.

The literature on secondary predicates presents two contending analyses for small clauses, which have been respectively dubbed the specifier hypothesis and the predication hypothesis. The basic difference between them resides on the postulation of a functional projection that intermediates the relation between the elements forming the secondary predication, according to the predication hypothesis. We adopt this proposal, following its specific rendering in Den Dikken (2006), where the small clause corresponds to a Relator Phrase (RP), the RELATOR standing for a functional projection. The basic representations are given below:
Den Dikken’s approach also considers that no intrinsic ordering between the NP predicate and its argument (the small clause subject) should be postulated beforehand, as shown in (29b)—though the default option consists in placing the subject in the specifier position, as the specifier hypothesis holds.

Den Dikken argues that positioning the small clause predicate in the specifier of R instead of in the complement of R has semantic and syntactic consequences, which can serve as diagnostics for the BP secondary predicates we analyse. Namely, adjectival, nominal and prepositional predicates receive an attributive interpretation, and the RELATOR (R) head is lexicalised in the form of a preposition (for, as) (examples from Den Dikken 2006: 36-37):

(30)  a. This butterfly is [RP [AP big] for [DP a butterfly]].

b. He is [RP [DP a madman] as [DP a driver]].

The small clauses in (30) are representative of predicate-specifier configurations, which contrast to the default predicate-complement configurations. Once we observe that the secondary predications at the base of genitive and locative topics do not exhibit an attributive value, we can safely conclude that their base position belongs to a predicate-complement configuration. Therefore, the small clauses expressing part-whole and content-container relations would be represented as in (31a-b), for the predicates shown in (1a-b), respectively.
The RELATOR head is lexicalised only when there is a licensing relation involved. Therefore, the RELATOR is not realised in (31a) because there is a bare NP in its complement; neither does it occur in (31b), because there is already a (locative) preposition in its complement. The same complementarity between constituent licensing and realisation of functional projections is also observed for the higher functional projection, found in some derivations, the LINKER (cf. Den Dikken, 2006: 34).

In the following we describe the subsequent derivations from (31a) and (31b).

Regarding the possessive small clause shown in (31a), two derivations must be taken into account. We consider first of all the derivation for the sentence (quebrou) o pé da mesa, where there is a predicate-specifier configuration (the predicate pé precedes the small clause subject). Following Den Dikken, this derivation would involve predicate inversion, obtained by the merging of a LINKER (L) followed by R-to-L movement. This head movement creates an extended phrase that finally allows movement of the secondary predicate into Spec, LP. The reason for these movement operations to take place is basically the licensing of the subject of the secondary predicate a mesa by the LINKER. This licensing is expressed by genitive Case.
However, a second derivation is available for genitive topics, starting out from the *predicate-complement configuration*. Once predicate inversion does not take place, the LINKER is not projected, and a DP is projected on top of the RP. In this case, only the highest DP can move, due to locality restrictions implied by the minimalist model of phases (Chomsky, 2001; 2004; 2008, a.o.). This restriction alone is able to explain the fact that only the subject of

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13 This D head is semantically expletive, which follows from the type interpretation of the possessor in inalienable possession relations. A usual diagnostic of this interpretation is the use of morphologically singular, but semantically plural, articles (cf. Vergnaud & Zubizarreta, 1992). These are usually found with inalienable nouns in subject position – cf. (i), used in the context of computer games – although a similar structure is uncommon with alienable nouns – cf. (ii), judged by five consultants (notice that the DPS marked below are not generic noun phrases):

(i) *Esse jogo é tão genérico que até* [o pneu dos carros] *são carecas.*

‘This game is so generic that even (its) car tyres are smooth.’

the possessive small clause is able to become a subject topic, but not its predicate, as shown in (27b-c) above, because only the element at the edge of the DP is available for further movement, according to usual assumptions in phase theory.

(33) Part/whole relation in the predicate-complement configuration

Now consider the subsequent derivation from (31b), involving a locative small clause. In this case the predicate is not an NP, but a PP. Once the head of the predicate is already licensed, predicate inversion is not necessary, and no DP will be projected on top of the secondary predication. Once the RP does not consist of a phase, either the DP in Spec,RP (muita gente) or its complement (nesse carro) are eligible to move to subject topic position. A third possibility involves movement of the locative DP only, due to P-incorporation into R, freeing the complement DP to move. The small clauses with and without P-incorporation are shown in (34a-b) below.

(ii) ? [O pote das mesas do salão de festas]  
the pot of.the tables of.the room of parties
são de um designer italiano.  
are of a designer italian

‘The pots on the tables in the party room are by an italian designer.’
Here we suppose, similarly to Den Dikken, that the availability of a null P in the lexicon is required for P-incorporation. The configuration in (34a) explains the sentences in (28b-c) with PP locatives, whereas (34b) explains the variant of (28b) where the locative is expressed as a DP, viz. without a preposition.

4. Implications of the proposal

In the following subsections we explore two types of implications of the present analysis on the distribution of subject topics in BP: some related to previous analyses, and other ones related to diachronic and comparative issues.

4.1. Implications for previous analyses on subject topics

At least two implications arise from the proposal presented in the previous sections, that distinguish it from previous accounts: the first one relates to the semantic relation between subject topics and the postverbal constituent, and the second one explores the phenomenon of P-incorporation with locative subject topics.

The first implication arises from the generalisation put forth in section 2: if a secondary predication with either a part-whole or a content-container relation must exist for a subject topic to be derived, genitive topics encoding mere modification semantics should be banned from this construction. Some works have criticised the part-whole relation originally proposed in Galves 1998, considering it too strong. Two relevant examples are shown below (from Munhoz, 2011: 63, quoting an unpublished paper by M. Lunguinho):
(35) a. *Eu gostaria de saber se essa viagem ainda é possível alterar a data.*

‘I would like to know whether, (regarding) this trip, it is still possible to change (its) date.’

b. *O apartamento do filho acaba quando a reforma?*

‘(As for) (her) son’s apartment, when does (its) renovation finish?’

We contend that examples such as these do not include subject topics, but hanging topics. In fact, two pieces of evidence support this conclusion, based on verb transitivity and agreement.¹⁴

First, possessive DPs similar to those found in (35) can be found in sentences such as (36) with transitive verbs, which usually disallow subject topics:

(36) a. *Essa viagem, a Maria não sabe o objetivo (dela).*

‘(As for) this travel, Maria does not know (its) aim.’

b. *O apartamento do filho, a Maria não gosta do tamanho (dele).*

‘(As for) (her) son’s apartment, Maria does not like (its) size.’

Second, the preposed DPs in (37) cannot agree with the verb, which is a characteristic of subject topics:

¹⁴ A third possible test involves indefiniteness, which is not usually possible with hanging topics, but is indeed possible with subject topics:

(i) a. *Eu gostaria de saber se uma viagem ainda é possível alterar a data.*

‘I would like to know whether it is still possible to change the date of a trip.’

b. *Normalmente um apartamento acaba quando a reforma?*

‘When does usually an apartment renovation finish?’
By comparing (36) with (37), it is clear that agreement and pronominal resumption are in complementary distribution, as pointed out in Galves (1998); thus the discussed examples express ‘non-subject topics’. In other words, the examples in (35) have hanging topics in a dislocated position, which we will assume to be Spec, CP, for the sake of simplicity. These ones contrast with subject topics, which are (internally) merged in Spec,IP:

(38) a. [CP [Possessor], [TP ... [VP ... eci]]] [Hanging Topic]
   b. [CP [TP [Possessor]], ... [VP ... [SC eci]]] [Subject Topic]

Crucially, once the configuration in (38a) involves a dislocated topic, it allows for a broader type of relations between topic and the common ground (in which the referent of the postverbal constituent is probably included): part-whole, entity-attribute, type-subtype, set-subset, and equality. This connexion has been referred to in the pragmatic literature as Partially-Ordered Set (POSET) relations (cf. Ward & Birner, 2001). Furthermore, we notice that ambiguity between (38a) and (38b) is very common in BP data, as first observed in Callou, Moraes & Leite (1993), where prosodic evidence is also taken into account.

The second implication relates to the distribution of DP locatives, and is directly related to the analysis of P-incorporation shown in the derivation (34b). This analysis automatically predicts that, if the locative functions as an external modifier–thus outside a small clause/RP–there is no RELATOR head available to allow for P-incorporation. This is indeed obtained, as the examples with dislocated topics in (39) show:

(39) a. *(D)essa casa eu não saio.
   (of)this house I NEG leave.1SG
   ‘I do not leave from this house.’
   b. *(N)essa sopa eu coloquei sal demais.
   (in)this soup I put.PAST.1SG salt too.much
   ‘I have put too much salt in this soup.’
The ungrammaticality of these examples applies to the subject topic reading, the hanging topic reading requiring a pause between the marked topic and the comment. The uneasiness of these sentences derives from their sharing of a similar structure to (17b), viz. where an external locative modifier is inserted to the VP, in a sentence with either an unergative or a transitive verb.15

4.2. Implications for comparative and diachronic syntax

A natural expectation from the structural analysis presented is that both BP and EP would have the relevant verbs projecting the same argument structure. This implication, combined with the fact that EP is devoid of subject topics (cf. Costa, 2010, a.o.), presents two immediate corollaries for EP:

(i) Genitive constituents should be licensed in a different construction;
(ii) Locative constituents cannot occur as DPs.

In this subsection we analyse these corollaries and their implication for the diachronic change from Classical Portuguese (which was not significantly distinct from EP in this regard) to BP, and for the ensuing typological profiling of BP.

Let us first of all consider the licensing of genitive constituents, focusing on the derivation in (33). In EP, external possessors are valued with dative Case, similarly to what is found in other Romance languages, viz. French (Vergnaud & Zubizarreta, 1992; Miguel, 1996, a.o.). The fact that valuation of dative Case occurs in a dedicated position in clause structure suggests that dative possessor clitics and a-marked genitives should have a much more widespread distribution in EP than BP subject topics, which receive nominative Case; nevertheless, both constructions do have some contexts in common. An illustrative example is shown in (40a), which forms a minimal pair with the BP example with a subject topic in (40b) (originally presented in Negrão & Viotti, 2008):

(40) a. Apodreceu a raiz [às árvores]. [EP]
    rot.PAST.3SG the root [to.the trees]

    b. [As árvores] apodreceram a raiz. [BP]
    the trees rot.PAST.3PL the root
    ‘The trees’ roots have rotten.’

15 An alternative analysis for the occurrence of DP locatives would be the postulation of P-drop after movement to topic position (cf. Shi, 2000, for an analysis about Chinese data). However, this would predict that any PP topic could be found without its preposition, which does not seem to be true. See also section 4.2.
Taking into account the proposal for datives in EP developed in Miguel (1996) and in Miguel, Gonçalves & Duarte (2011), combined with the proposal put forth here, (40a) would be derived by movement of the DP at the border of an inalienable possessive small clause into the specifier of a higher small clause inside a Case projection (KP), the movement of a raiz (‘the root’) past the dative genitive being required for independent reasons, probably related to valuation of accusative Case. On the other hand, (40b) would be derived by movement of the DP into Spec, TP. This pair shows that EP and BP express different strategies for the coding of external possessors, viz., respectively as promoted objects and as logical subjects (cf. Payne & Barshi, 1999, for a summary of strategies in a functional-typological view).

Diachronically, the evolution found in BP is the consequence of the loss of dative Case valuation (loss of a KP, according to Miguel, 1996), both by means of a-marked genitives and of dative clitics (cf. a comparative analysis indirect object marking in Torres Morais & Salles, 2010). In other words, a sort of grammaticalisation has taken place (in the sense of upward reanalysis, cf. Roberts & Roussou, 2003). As regards the other types of datives in EP in a configuration that cannot be licensed with nominative Case, BP has developed the para-marking strategy, i.e. using a lexical preposition (examples shown in Torres Morais & Salles, 2010: 182):

(41) a. O João deu o livro à Maria.  [EP]
   the João give.PAST.3SG the book to.the Maria
   ‘John gave the book to Mary.’

Now consider the case of locative subject topics, taking the structures in (34) as a departure point. Once dative Case may only erratically be used with locative elements (cf. Baker, 1988), a separate explanation for this type of subject topics is required. The most immediate solution for this problem involves the postulation of the inexistence of null Ps in EP; hence P-incorporation cannot take place. In EP, “P-erasure” is found with some temporal adjuncts with an idiosyncratic flavour, e.g. esta semana (‘this


17 An inverse connexion between locative and dative is observed e.g. in substandard French, where the dative clitic lui can be replaced by the locative clitic y:

(i) J’y ai donné un livre.
   I-LOC.CL have.1SG give.PTCP a book
   ‘I have given a book to him.’
week’), \textit{quinta-feira} (‘Thursday’), etc., and with some types of PP topicalisation dubbed \textit{topicalização selvagem} in Brito, Duarte & Matos (2003: 501ff). According to these authors, this phenomenon is quite restricted in EP, in that it must: involve referential and thematic connectivity between the topic and its base position; occur in root contexts; involve a P devoid of semantic content. The authors also observe that this construction is found in other contexts in BP, including lexical prepositions (example from Kato, 1993: 230; EP judgment by Brito, Duarte & Matos, 2003: 502):

\begin{equation}
(42) \text{O seu regime, entra muito laticínio etc.} \quad \text{[EP: *] [BP: OK]}
\end{equation}

\begin{quote}
the his diet enters much dairy
\end{quote}

‘Much dairy enters in his diet.’

This example is also foreseen by our analysis for locative subject topics with unaccusative verbs proposed in (34b) above; therefore, it also involves a small clause. In the case of EP, a structure such as (34b) would not involve be available, whereas in BP there would be a lexical optionality between the choice of either (34a) and (34b), viz. differing only regarding the availability of a null (locative) P (affixal in character) that is able to incorporate into a RELATOR. In this sense, the development of these elements is also an innovation of BP. Notice that postulating two lexical entries for some prepositions is not an ad-hoc solution considering that, in languages where incorporation is visible, full Ps and incorporated Ps are usually morphologically unrelated, as Baker (1988) has observed.

The diachrony of this development is somewhat less perceptible, having to do with phonological reduction (and ultimately deletion), which is also typical of grammaticalisation. A deeper investigation into this topic would require much more work, which we leave for a future step of the research.

All in all, this proposal is compatible with many of previous typological analyses for subject topics in BP, but it presents new insights. It is compatible with the view that subject topics have an impact on the topic prominence parameter (cf. Huang, 1984) and on an agreement parameter (cf. Baker, 2008), which are separate but somewhat interrelated, in terms of parameter networks (cf. Avelar & Galves, 2011b). On the other hand, the proposal follows from more basic properties of functional items.

Although presenting a unified analysis for subject topics, it does not seem to be the case that one single diachronic evolution fostered the emergence of the two types of subject topics in BP. To do so, we have considered that these grammars are not different regarding their argument structure configurations, which is a plausible assumption. Because of that, our proposal avoids positing an unmotivated parametric distinction according to which EP and BP differ regarding the availability of subextraction from DPs in the latter, but not in the former (cf. Lunguinho, 2006; Lobato, 2006, a.o.).
5. Conclusion

In this text we have revisited subject topics in BP, by offering a unified account for the extraction of both genitive and locative elements from a secondary predication. We have shown some pieces of evidence for postulating a secondary predication, thus confirming the part-whole relation put forward in Galves (1998) for genitive topics, as well as proposing a content-container relation for locative topics. By assuming a specific rendering of the predication hypothesis for secondary predications (Den Dikken, 2006) we have accounted for different movement restrictions holding in genitive and in locative topics.

In the proposal’s implications we have discussed both differences in face of both previous accounts and of comparative and diachronic data. First, we have seen that subject topics can be easily confounded with hanging topics, but only in BP can the former type come about, with a specific semantic relation imposed by the secondary predicate; besides, that the P-incorporation analysis can explain the distribution of DP locatives. Second, the grammars of BP and of EP are not different regarding the availability of secondary predications, but regarding different ways to license elements generated inside the small clauses: as subject topics in BP, and either as promoted objects or as lexically-marked objects in EP (respectively, with a- and para-marking of DPs).

If the ideas entertained in this paper prove to be correct, we hope to have contributed for a better understanding of external possession/location relations crosslinguistically and of the parameter setting choices made in BP grammar, thus showing that BP and EP are not necessarily opposite, nor equal: as any grammars evolving from a common origin, they have developed/maintained typological strategies to cope with their different morphosyntactic profiles.

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