Lacerda, Renato. 2023. Ruling out VSO and VOS constructions in Brazilian Portuguese.
To appear in *Caderno de Squibs*.

Ruling out VSO and VOS constructions in Brazilian Portuguese

Renato Lacerda[*]

Abstract: Brazilian Portuguese does not allow verb-subject-object and verb-object-subject constructions; while postverbal transitive subjects are ruled out, postverbal subjects are only productive with unaccusative verbs. This paper tackles the issue of postverbal subjects and proposes a formal account of the absence of VSO and VOS constructions in Brazilian Portuguese, which is derived from the combination of two independently-motivated properties of the language: (i) the verbal domain is minimally expanded to include an object shift position at the edge of vP and (ii) the lexical verb moves to a low position in the tense-aspect domain. It is argued that the combination of these two properties of Brazilian Portuguese gives us the result that the postverbal area of the language area is "too small" to simultaneously host both a subject and an object.
Key words: word order, postverbal subjects, object shift, verb movement

Resumo: O português brasileiro não admite construções nas ordens verbo-sujeito-objeto e verbo-objeto-sujeito; enquanto sujeitos transitivos pós-verbais são excluídos, sujeitos pós-verbais apenas são produtivos com verbos inacusativos. Este artigo aborda a questão dos sujeitos pós-verbais e propõe uma análise formal da ausência de construções VSO e VOS em português brasileiro, que é derivada da combinação de duas propriedades da língua independentemente motivadas: (i) o domínio verbal é minimamente expandido para incluir uma posição de deslocamento de objeto na borda do vP e (ii) o verbo lexical se move para uma posição baixa no domínio de tempo e aspecto. Argumenta-se que a combinação destas duas propriedades do português brasileiro nos dá o resultado de que a área pós-verbal da língua é "pequena demais" para abrigar simultaneamente um sujeito e um objeto.
Palavras-chave: ordem de palavras, sujeitos pós-verbais, deslocamento de objeto, movimento de verbo

1. Introduction

As is well-known, transitive subjects are ruled out in (sentence-internal) postverbal positions in Brazilian Portuguese (BP), a language which (unlike other Romance languages such as European Portuguese, Spanish, and Italian) does not allow verb-subject-object (VSO) and verb-object-subject (VOS) constructions. In fact, postverbal subjects are only really productive in BP with unaccusative verbs, an observation dubbed *restrição de monoargumentalidade* ('single-argument constraint') by Kato & Tarallo (1988) and Kato (2000), as illustrated in (1).

(1) a. Chegou o trem. *VS*
arrived the train
'The train arrived.'

b. *Assinou o João uma carta. *VSO*
signed the John a letter
'John signed a letter.'

c. *Assinou uma carta o chefe do departamento. *VOS*
signed a letter the head of-the department
'The head of the department signed a letter.' (KATO, 2000, pp. 97, 101)

[*] Universidade de São Paulo, USP. *E-mail*: renato.lacerda@uconn.edu. I thank Jairo Nunes, the members of the research group *Minimalismo e a Teoria da Gramática*, and the audience at the *IV Encontro de Gramática Gerativa* (March 2023) for their contributions. This research is funded by FAPESP (grant #2020/15877-9).

In this paper, I will propose a formal account of the single-argument constraint in BP which derives it from the combination of two independently-motivated properties: (i) the verbal domain (vP) is minimally expanded to include an *object shift* position and (ii) the lexical verb moves to a low position in the tense-aspect domain (IP). As a consequence of the combination of those two properties, the postverbal area of BP ends up being "too small" to simultaneously host both a transitive subject and an object, thus ruling out VSO and VOS constructions in the language. The paper is organized as follows. In Section 2, I present arguments to motivate properties (i) and (ii) above. In Section 3, I argue that postverbal subjects in unaccusative constructions in BP have the same distribution as direct objects in the vP domain and are thus syntactically objects. In Section 4, I propose a way to rule out postverbal external arguments in BP under the assumption of (i) and (ii). In Section 5, I conclude the paper by discussing the consequences of the present proposal for the analysis of the periphery of vP in BP.

2. The postverbal area of Brazilian Portuguese

In this section, I will motivate the two properties that I argue derive the absence of VSO and VOS constructions in BP. First, I will argue that objects in BP can occupy an A-position at the edge of vP, revealing the existence of an additional argument-licensing head in the verbal domain. Then, I will show that the lexical verb in BP moves to a low position in the tense-aspect domain, right outside the verbal domain.

2.1. Object shift

I will now briefly present Lacerda's (2020, 2021) analysis of *object shift* in BP, an operation that attracts the single highest internal argument of the verb (e.g., the direct object in transitive sentences) to a position at the edge of vP, minimally expanding the structure of the verbal domain. Observe in (2) that a direct object may either precede or follow a manner adverb in a broad-focus sentence (i.e., in a neutral context). Assuming that manner adverbs are at the edge of vP, we can conclude that the object shift position is external to vP.

(2) A: O que aconteceu?
'What happened?'

B: O João não explicou {uma história} direito {uma história} pra Maria.
the John not explained {a story} right {a story} to-the Mary
'John didn't explain a story to Mary properly.' (LACERDA, 2021, p. 287)

Additional evidence for the above claim comes from quantifier float constructions. Assuming with Lacerda (2012, 2016) that the (subject-related) floating quantifier *cada um* ('each one') can be realized as low as Spec,vP (i.e., the base-generation position of the external argument), we see in (3) that the direct object may either precede or follow the floating quantifier (in a neutral context), providing further evidence for a structure along the lines of (4) for (3a), where XP represents the projection hosting shifted objects (I remain agnostic about the precise label of XP, but see remarks below).

(3) a. Os professores deram dois livros cada um pros alunos.
the teachers gave two books each one to-the students
b. Os professores deram cada um dois livros pros alunos.
the teachers gave each one two books to-the students
'The teachers gave the students two books each.' (LACERDA, 2021, p. 286)

(4) *subject*$_i$ *verb* [$_{XP}$ *object*$_k$ [$_{vP}$ t_i [$_{VP}$ t_k]]]

Lacerda (2020, 2021) justifies the adoption of a separate projection (i.e., XP) for object shift based on the following observations. First, object shift in BP is a "selective" operation, in the sense that it displays a superiority effect (it can only target the highest internal argument of the verb), which in turn indicates that a probing operation (by the head X^0) takes place; as we see in (5B), an indirect object cannot cross a direct object into the object shift position (cf. (2B)). Second, the object shift position is unique, as the operation can only target a single argument of the verb, which in its turn satisfies the necessities of the probe X^0; as we see in (6a), movement of the direct object past the floating quantifier is acceptable, but movement of both the direct object and the indirect object in (6b) renders the sentence ungrammatical.[1]

(5) A: O que aconteceu?
'What happened?'
B: #O João não explicou pra Maria direito uma história.
the John not explained to-the Mary right a story
'John didn't explain a story to Mary properly.' (LACERDA, 2021, p. 287)

[1] For an extensive discussion of ditransitive constructions in BP regarding object shift and information structure, see Lacerda (2020, 2021, 2023).

(6) a. Os alunos deram dois livros cada um pro professor.
the students gave two books each one to-the professor
b. *Os alunos deram dois livros pro professor cada um.
the students gave two books to-the professor each one
'The students gave two books each to the professor.' (LACERDA, 2012, p. 63)

As is traditionally assumed with respect to the movement of (preverbal) subjects to Spec,TP in BP, the movement of direct objects to Spec,XP is not motivated by interpretive reasons; in other words, the operation is immaterial to the semantic/informational status of the shifted object. In addition to neutral interpretation (cf. (2)-(3)), observe that in either position the direct object can be discourse-given information (and function as a *topic*) in (7), prominent new information (and function as a *focus*) in (8), or non-prominent new information (and function as *completive information*) in (9) (examples are adapted from LACERDA, 2020, 2021).

(7) A: Pra quem o João não explicou o Barriers direito?
'Who didn't John properly explain Barriers to?'
B: O João não explicou {o Barriers} direito {o Barriers} pra Maria.
the John not explained {the Barriers} right {the Barriers} to-the Mary
'John didn't properly explain Barriers to Mary.'

(8) A: Que livro o João não explicou direito pra Maria?
'Which book didn't John properly explain to Mary?'
B: O João não explicou {o Barriers} direito {o Barriers} pra Maria.
the John not explained {the Barriers} right {the Barriers} to-the Mary
'John didn't properly explain Barriers to Mary.'

(9) A: Que horas os meninos almoçaram?
'What time did the boys have lunch?'
B: Eles comeram {uma empada} cada um {uma empada} às duas horas.
they ate {an empanada} each one {an empanada} at two hours
'They ate an empanada each at two o'clock.'

Lacerda (2020, 2021) takes the observation that object shift is not motivated by interpretation in BP to indicate that the operation is best analyzed as a instance of A-movement, akin to subject movement to Spec,TP (which also involves a unique position and displays a superiority effect). Corroborating this claim is the observation that subject movement and object

shift pattern alike, in opposition to A'-movement, with respect to the possibility of reconstruction in two tests: variable binding and quantifier scope. For reasons of space, I will only present the variable binding data here and refer the reader to the works cited for additional evidence related to scope. Observe in (10) that a distributive quantifier in subject position can bind (and distribute over) a possessive pronoun in object position, whereas a distributive quantifier in object position cannot bind a pronoun in subject position. This contrast indicates that movement to subject position does not reconstruct for the purposes of variable binding, as in (11) (with the object in Spec,XP, the relevant binding relation should be possible if the subject could reconstruct to Spec,vP).

(10) a. Cada autor_i publicou seu_i melhor livro.
each author published his best book
'Each author_i published their_i best book.'

b. *[Seu_i pior livro]$_k$ envergonhou cada_i autor t_k.
his worst book shamed each author
'Their_i worst book shamed each author_i.' (LACERDA, 2021, p. 289)

(11) [$_{TP}$ *seu pior livro* envergonhou [$_{XP}$ *cada autor* [$_{vP}$ ~~*seu pior livro*~~ [$_{VP}$]]]]

Object shift behaves in the same manner in not allowing reconstruction for the purposes of variable binding. As the contrast in (12) shows, a possessive pronoun in the adjunct PP can be bound by a quantifier in the direct object (in Spec,XP), but a pronoun in the direct object cannot be bound by a quantifier in the adjunct PP. If the direct object (moved by object shift) in (12b) could reconstruct for the purposes of variable binding, (12b) would contrary to fact have the same status as (13), where the adjunct overtly c-commands the (VP-internal) direct object and binding of the possessive pronoun by the quantifier is indeed possible.

(12) a. Eu comprei cada livro_i no seu_i lançamento.
I bought each book on-the its launch
'I bought each book_i on its_i launch.'

b. *Eu encontrei [seu_i índice]$_k$ em cada livro_i t_k.
I found its index in each book
'I found its_i index in each book_i.' (LACERDA, 2021, p. 289)

(13) Eu identifiquei em cada artigo$_i$ seu$_i$ melhor argumento.
I identified in each article its best argument
'I identified in each article$_i$ its$_i$ best argument.' (LACERDA, 2021, p. 289)

The unavailability of reconstruction for the purposes of variable binding in object shift makes the prediction that a floating quantifier in Spec,vP should be able to bind into a VP-internal direct object, but not into a direct object in the object shift position. This prediction is confirmed, as the contrast in (14) shows.

(14) a. Os autores publicaram cada um$_i$ seu$_i$ melhor livro.
the authors published each one his best book
b. *Os autores publicaram [seu$_i$ melhor livro]$_k$ cada um$_i$ t$_k$.
the authors published his best book each one
'The authors each$_i$ published their$_i$ best book.' (LACERDA, 2021, p. 290)

Unlike subject movement and object shift in BP, which Lacerda (2020, 2021) analyzes as A-movement, A'-movement (as seen in topicalization, for example) does allow reconstruction for variable binding. As is seen in (15), the quantifier in subject position can indeed bind the pronoun in the dislocated topic. Crucially, note that, even though the quantifier can bind into the topic, it cannot distribute over it, thus requiring the obligatory presence of another expression over which it can distribute; this shows that binding is not achieved through raising of the quantifier, but indeed by reconstruction of the topic (for variable binding but not for scope purposes; see LACERDA, 2020, 2021).

(15) [Seu$_i$ pior livro]$_k$, cada autor$_i$ publicou t$_k$ *(num ano diferente).
his worst book each autor published *(in-a year different)
'Their$_i$ worst book, each author$_i$ published in a different year.'
(LACERDA, 2021, p. 290)

In conclusion, the operation described here as object shift can be taken as evidence for a minimal expansion of the verbal domain in BP, which must then include a projection (XP) immediately above the projection hosting the external argument (vP), as in (16). Movement of the object to Spec,XP, albeit optional, can be seen as a counterpart of movement of the subject to Spec,TP in the language, in that it is an instance of A-movement, not driven by

interpretation.[2]

(16) *subject*$_i$ *verb* [$_{XP}$ *object*$_k$ [$_{vP}$ t$_i$ [$_{VP}$ t$_k$]]]

Although the precise category of XP is immaterial to the claims made in this paper, we can conjecture that X^0 is involved in the licensing of the internal argument of the verb (combined with an optional EPP feature), similarly to the projection in the IP domain that licenses the preverbal subject. In a split system, the relevant projections could be akin to AgroP and AgrsP, respectively. Interestingly, Nunes (2015, 2019) argues that third-person accusative clitics in BP behave as object agreement markers, which indicates that some projection of the likes of AgroP is indeed present in the language. Be it as it may, what is relevant here is that the projection (XP) that hosts shifted objects in BP may also host postverbal subjects in unaccusative constructions, as we will see in Section 3, which indicates that X^0 is an argumental licensor (arguably, an abstract Case assigner, though the details are not crucial here). But before we get to that, we will now see the second ingredient of our analysis.

2.2. Low movement of the lexical verb

It is usually assumed in the literature that the lexical verb in BP is located lower than in other Romance languages such as European Portuguese, Spanish, and Italian; see e.g. Cyrino (2013) and Tescari Neto (2013) for discussion. While the lexical verb reaches higher positions in the IP domain in those languages, it remains at a low position in the IP domain in BP, right outside the verbal domain. As I will argue later on, this distinction will be crucial to account for the fact that postverbal transitive subjects are possible in those languages but not in BP.

Assuming a split-IP system with a tense projection at the top and an aspect projection at the bottom, Cyrino (2013) argues that the synthetic forms of lexical verbs in BP do not convey tense meanings, but are only specified for aspectual meanings, and for that reason only move as high as the aspect head ($T2^0$), as represented in (17). For the author, the loss of verb movement to higher (tense-related) portions of the IP domain is thus related to the process of

[2] As a reviewer correctly points out, unlike object shift, which is optional, subject movement to Spec,TP in the SVO order in BP is usually obligatory, which can be tied to the need to satisfy the EPP, as is widely assumed. An alternative view held in this paper is that the movement of (transitive and unergative) subjects to a preverbal position is usually obligatory in BP as a byproduct of the impossibility of their licensing in a postverbal position. It is important to bear in mind that obligatory movement to Spec,TP is usually restricted to transitive and unergative subjects in BP; that is, unaccusative subjects can easily be licensed in postverbal positions, crucially without being ruled out as an EPP violation. In other words, subject movement to Spec,TP, much like object movement to Spec,XP, can also be considered to be optional *in principle* — it just happens that movement to Spec,TP usually becomes the only option for transitive and unergative subjects due to independent reasons, as will be discussed.

analyticization of verb tenses taking place in the language.

(17) $[_{TP1(tense)}\ T1^0\ [_{TP2(aspect)}\ \textit{verb}+T2^0\ [_{vP}\ t_v\ [_{VP}\ t_v\ ]\ ]\ ]\ ]$

In order to see that lexical verbs in BP do not semantically convey tense, but only aspect, let us look at forms with past morphology, as an example, which Cyrino (2013) shows is not exclusive of past meaning. First, note that what is morphologically described as the simple past form can be used to indicate absolute anterior tense, as in (18a), but also relative anterior tense, as in (18b), indicating that simple past forms do not exclusively convey simple past meaning.

(18) a. Eu morei em Paris no passado.
I live.past-1s in Paris in-the past
'I have lived in Paris in the past.'

b. Eu morei em Paris antes de morar aqui.
I live.past-1s in Paris before of live here
'I had lived in Paris before living here.' (CYRINO, 2013, pp. 300, 301)

Moreover, simple past forms in BP can also be used in contexts that do not convey past tense meaning, as in (19). Sentence (19a) conveys the meaning of the periphrastic present perfect, while (19b) conveys present meaning (as is evidenced by the English translations).

(19) a. Eu estou feliz, porque eu vivi muito bem todos estes anos.
I am happy because I live.past very well all these years
'I am happy because I have lived very well all these years.'

b. Eu adorei sua blusa!
I love.past your blouse
'I love your blouse!' (CYRINO, 2013, pp. 312)

One of Cyrino's (2013) arguments to show that the lexical verb in BP only reaches the aspect head ($T2^0$) in (17) above comes from the comparison between BP and European Portuguese (EP) with respect to the position of the verb relative to the adverb *sempre* ('always'). As was shown by a number of authors (see references in CYRINO, 2013), *sempre* in EP has either a temporal reading or a confirmative reading, depending on whether it follows or

precedes the verb, respectively, as is shown in (20).

(20) a. O João estava sempre em casa. *temporal reading* (EP)
the João be.imperf always at home
'João was always at home.'

b. O João sempre estava em casa. *confirmative reading* (EP)
the João always be.imperf at home
'João was at home, after all/indeed.' (CYRINO, 2013, p. 306)

Following Brito (2001), Cyrino (2013) argues that in EP the temporal reading of *sempre* is obtained when *sempre* is adjoined to TP2, thus following the verb, while the confirmative reading is obtained when *sempre* is adjoined to TP1, thus preceding the verb, which in most tenses moves to $T1^0$ in EP (see CYRINO, 2013, for details and relevant tense distinctions), as in (21a) and (21b), respectively. In BP, on the other hand, only a temporal reading of *sempre* is available, which leads the author to conclude that *sempre* is always adjoined to TP2, thus preceding the verb, which only moves as high as $T2^0$, as in (21c).[3]

(21) a. $[_{TP1}$ *verb* $[_{TP2}$ *sempre* $[_{TP2}\ ]\ ]\ ]$ *temporal reading* (EP)

b. $[_{TP1}$ *sempre* $[_{TP1}$ *verb* $[_{TP2}\ ]\ ]\ ]$ *confirmative reading* (EP)

c. $[_{TP1}\ [_{TP2}$ *sempre* $[_{TP2}$ *verb* $]\ ]\ ]$ *temporal reading* (BP)

Taking the lexical verb in BP to be in a low position in the IP domain, we can see that the object shift position discussed in the previous section is necessarily lower than the lexical verb, which indicates that shifted objects are located in the (extended) verbal domain. In (22), we see that even though a direct object can precede a manner adverb (adjoined to vP) in (22a), it cannot precede the lexical verb in (22b).

[3] I agree that the order *sempre*-verb is the unmarked/preferred option in BP, though Cyrino (2013) does not explicitly say how the (marked) order verb-*sempre* is obtained in BP. Without appealing to optional movement of the verb to $T1^0$, it is possible that the order verb-*sempre* actually involves a lower attachment point of *sempre*, which should in principle be a possibility, given examples like (i) below. For relevant discussion of *sempre* under cartographic assumptions, see Tescari Neto (2013), who also advocates for a low placement of the verb in BP.

(i) Eu comia sempre salada. Sempre salada (era o que) eu comia.
I ate always salad always salad (was what) I ate
'I always ate salad. Always salad (was what) I ate.'

(22) a. O João vai ter lido {dois livros} completamente {dois livros}.
the John will have read {two books} completely {two books}
b. O João vai {*dois livros} ter {*dois livros} lido completamente.
the John will {*two books} have {*two books} read completely
'John will have completely read two books.'

Corroborating the hypothesis that the verbal domain (vP) and the tense-aspect domain (IP) are separated by the position of the lexical verb and the object shift position is the observation that middle-field topics can appear precisely in-between those two elements. As is shown in (23), the displaced topic *do Chomsky* ('by Chomsky') must follow the lexical verb and cannot invade the IP domain. Under the assumption that middle-field topics (as A'-elements) close off the extended verbal domain in BP (see LACERDA, 2020, 2021, for phase-based evidence in BP; see also BELLETTI, 2004, for related issues), we can conclude that elements that appear to the right of the lexical verb are part of the extended verbal domain in BP, as represented in (24).

(23) A: Quantos livros do Chomsky o João vai ter lido (até dezembro)?
'How many books by Chomsky will John have read (by December)?'
B1: O João vai ter lido, *do Chomsky*$_{TOP}$, só dois livros.
the John will have read of-the Chomsky only two books
B2: *O João vai ter, *do Chomsky*$_{TOP}$, lido só dois livros.
the John will have of-the Chomsky read only two books
B3: *O João vai, *do Chomsky*$_{TOP}$, ter lido só dois livros.
the John will of-the Chomsky have read only two books
'John will have read only two books by Chomsky.'

(24) [*subject* (*auxiliaries*) *verb* [(*topic*) [$_{XP}$ *object* [$_{vP}$ [$_{VP}$]]]]]
tense-aspect domain | *extended verbal domain*

Having shown the low movement of the lexical verb in BP and its connection to object shift, we can now probe into the issue of postverbal subjects in the language.

3. Postverbal unaccusative subjects

As is well-known, postverbal subjects in BP are only really productive with unaccusative verbs, including passive constructions, that is, when the subjects are internal arguments of the verb,

as in (25). In this section, I will show that postverbal unaccusative subjects in BP behave just like transitive objects with respect to object shift, which allows us to conclude that the functional head X^0 is also involved in the licensing of postverbal unaccusative subjects.

(25) a. Chegou uma carta hoje.
arrived a letter today
'A letter arrived today.'
b. Foi entregue um livro pro João.
was delivered a book to John
'A book was delivered to John.'

Combining the two properties of BP motivated in Section 2, we arrive at the result that both in VSO and VOS constructions, subject and object would be in the same lexical domain (i.e., the verbal domain), where crucially there is only one argument-licensing head (i.e., X^0). In other words, due to the low movement of the lexical verb and the minimal expansion of vP in BP, the postverbal area is simply "too small" to host both a transitive subject and an object; postverbal subjects are usually only allowed when they are, in fact, objects. Recall from Section 2.1 that object shift in BP was described as targeting the highest internal argument of the verb. Then, if postverbal unaccusative subjects are also licensed by X^0, by hypothesis, they should, just like transitive objects, (i) be able to occupy a vP-external position and (ii) be subject to a superiority effect. Both of these predictions are in fact confirmed. We can see in (26) that the postverbal subject *o livro* ('the book') may either follow (vP-internally) or precede (vP-externally) the manner adverbial *de forma errada* ('in a wrong way'), which is assumed to mark the edge of vP, as represented in (27) (assuming a neutral, broad-focus context).

(26) a. Foi explicado de forma errada o livro pros alunos.
was explained of form wrong the book to-the students
b. Foi explicado o livro de forma errada pros alunos.
was explained the book of form wrong to-the students
'The book was explained to the students in a wrong way.'

(27) [$_{TP}$ Foi explicado [$_{XP}$ {o livro} [$_{vP}$ de forma errada [$_{vP}$ [$_{VP}$ {o livro} pros alunos]]]]]

In (28), we see that movement of an internal argument of the verb to a postverbal, vP-

external position is also subject to superiority.[4] In a passive ditransitive construction, for example, both internal arguments are allowed to remain within vP, as in (28a), as well as the theme argument is allowed to move to a postverbal vP-external position, as in (28b); movement of the goal argument past the theme argument, on the other hand, is not allowed, as in (28c).

(28) a. Não foi explicado de forma errada nenhum livro pra nenhum aluno.
not was explained of form wrong no book to no student
b. Não foi explicado nenhum livro de forma errada pra nenhum aluno.
not was explained no book of form wrong to no student
c. *Não foi explicado pra nenhum aluno de forma errada nenhum livro.
not was explained to no student of form wrong no book
'No book was explained to any student in a wrong way.'

Confirming that postverbal unaccusative subjects in BP are in the (extended) verbal domain, and not in the TP domain, is the fact that unaccusative subjects, like direct objects in transitive constructions, can also be preceded by a middle-field topic, which we saw in Section 2.2 above cannot appear in the TP domain (as it must necessarily follow the lexical verb), as in (29B).

(29) A: Quantos livros do Chomsky foram explicados pros alunos?
'How many books by Chomsky were explained to the students?'
B: Não foi explicado, *do Chomsky*$_{TOP}$, nenhum livro pros alunos.
not was explained of-the Chomsky no book to-the students
'No book by Chomsky was explained to the students.'

The data above show that postverbal unaccusative subjects in BP have the same distribution as direct objects in transitive constructions, being subject to the same constraints in object shift. Therefore, if postverbal unaccusative subjects are syntactically objects and there is only one argument-licensing head (i.e., X^0) in the verbal domain in BP, the absence of VSO and VOS orders is expected.[5] Independent evidence for this claim comes from locative inversion

[4] I use negative expressions here to rule out the possibility of topic movement of the relevant elements; see Lacerda (2020, 2021) for discussion of postverbal topicalization in BP.

[5] The idea that postverbal unaccusative subjects are actually licensed in the verbal domain rather than in the TP may also explain why postverbal unaccusative subjects preferably do not trigger verbal agreement in spoken BP, as in (i). I leave the implementation of agreement in the VS order open for the time being.

(i) Chegou/chegaram algumas cartas hoje.
arrived.3SG/arrived.3PL some letters today

constructions. In locative inversion, VS order is exceptionally allowed in BP with unergative subjects, as in (30), but crucially postverbal transitive subjects are still not allowed, as in (31).[6]

(30) Naquela fábrica trabalha muitos amigos meus.
in-that factory works many friends my
'Many friends of mine work in that factory.' (AVELAR; CYRINO, 2008, p. 61)

(31) *Naquela fábrica compra muita gente produtos baratos.
in-that factory buys much people products cheap
'A lot of people buy cheap products in that factory.'

Confirming that the absence of VSO and VOS orders in BP is due to a problem in argumental licensing is the observation that locative inversion exceptionally becomes acceptable with a transitive verb if the subject is an element that does not require licensing by an argument-licensing head. Incidentally, it was argued by Sportiche (1988) that floating quantifiers are such elements, which Lacerda (2016) argues is also the case in BP. Lacerda (2016) then goes on to show that floating quantifiers can indeed be postverbal transitive subjects in locative inversion constructions, as in (32). Assuming that the locative PP occupies Spec,TP (following AVELAR & CYRINO, 2008) and that the object is licensed by v^0 (or X^0 under our current assumptions), the author claims that no external head is necessary to license the floating quantifier, thus exceptionally allowing VSO order.[7]

(32) a. Aqui compra cada um a sua comida.
here buys each one the his food
'Each one buys their (own) food here.'

b. Nessa escola usa todos a mesma roupa.
in-this school wears all the same outfit
'Everybody wears the same outfit in this school.' (LACERDA, 2016, p. 95)

'Some letters arrived today.'

[6] Avelar (2009) suggests that postverbal unergative subjects in locative inversion in BP are exceptionally licensed with (inherent) partitive Case. Lacerda (2016) then conjectures that if partitive is assigned to the external argument by v^0, accusative is necessarily excluded for the internal argument, ruling out transitive constructions.

[7] VOS order is independently ruled out with *todos* (which cannot float in too low a position; see LACERDA, 2016), but is indeed allowed with *cada um*, as in (i).

(i) Nessa casa só toma um sorvete cada um (por dia).
in-this house only takes one ice-cream each one (per day)
'Each one only has one ice-cream (a day) in this house.'

In a nutshell, Kato & Tarallo (1988) and Kato's (2000) single-argument constraint observed in BP is derived under the present proposal by a simple "lack of space" for two argumental DPs in the postverbal area, where only one of subject or object can be licensed at a given time.

4. Postverbal external arguments

I argued in the previous section that, due to the low position of the lexical verb in BP, the postverbal area is "too small" and only includes the verbal domain, which can only license one argumental DP at a time. That leaves us with the question of how to prevent external arguments from being postverbal subjects with verbs that take a PP as complement, which does not itself need licensing by an external head, as in (33). In this case, one could argue that the external argument should in principle be able to be licensed by X^0 at the edge of vP, given that X^0 is not involved in the licensing of the object (since the DP receives Case by the preposition).

(33) a. O João confia na Maria.
the John trusts in-the Mary
b. *Confia o João na Maria.
trusts the John in-the Mary
'John trusts in Mary.'

I would like to make the case that, in the structure of the periphery of vP in BP defended in this paper (see also LACERDA 2020, 2021, 2023), as in (34), a relation between X^0 and the external argument should expectedly be prohibited by *antilocality*. As many authors have argued based on a number of different phenomena (see e.g. GROHMANN, 2003; ABELS, 2003; BOŠKOVIĆ, 2016), the grammar bans relations between elements that are too local to each other; in particular, there is a ban on movement operations that are too short. In the structure in (34), movement from Spec,vP to Spec,XP can be considered to be too short and thus be ruled out.

(34) [$_{TP2}$ *verb* [$_{XP}$ *object shift* [$_{X'}$ X^0 [$_{vP}$ *external argument* [$_{v'}$ v^0 [$_{VP}$ *internal argument*]]]]]]

Let us take Bošković's (2016) definition of antilocality, for example, to illustrate how object shift of the external argument should be banned. For Bošković (2016), a movement operation should cross at least one maximal projection, with unlabeled projections not counting as maximal projections. Within the system of Chomsky's (2013) labeling algorithm, by the point

X^0 enters the structure in (35a), the syntactic object created by the merger of the external argument and the vP (traditionally, v') is not yet labeled, which is indicated by the question mark (?). Thus, movement of the external argument to Spec,XP (i.e., movement of the external argument to merge with XP and reprojection of XP), as represented in (35b), does not cross any maximal projections (the movement only crosses an unlabeled projection and a segment/intermediate projection of XP) and for that reason violates antilocality.[8]

(35) a. X^0 [$_?$ EA [$_{vP}$ v^0 [$_{VP}$]]]

b. [$_{XP}$ __ [$_{XP}$ X^0 [$_?$ EA [$_{vP}$ v^0 [$_{VP}$]]]]]

|_____| ✖

Assuming that the probing operation that triggers movement in object shift is (like the movement itself, as the other side of the same coin) also subject to antilocality, X^0 can only find its goal across a maximal projection, as in (36). As the external argument is not visible as a potential goal, X^0 can attract the internal argument across the external argument (recall that the external argument is not a candidate for movement here and does not count as an intervener).[9]

(36) X^0 [$_?$ EA [$_{vP}$ v^0 [$_{VP}$ IA]]]

|_____| ✓

Whatever the precise implementation of antilocality, an antilocality-based analysis gives us the necessary ingredients to account for the observation that object shift targets an internal argument of the verb while the external argument is opaque to the operation, under the minimal assumption that the object shift position is located immediately above the external argument position, as advocated here for BP. If the above proposal is on the right track, external arguments can then be generally ruled out as postverbal subjects in BP.

5. Final remarks

In this paper, I argued that Kato & Tarallo (1988) and Kato's (2000) single-argument constraint, which rules out VSO and VOS constructions in BP, can be derived from a combination of two independently-motivated properties of the language, namely a minimal expansion of the verbal

[8] External arguments would only be allowed in a postverbal position in BP in locative inversion constructions (cf. (30)), where they are arguably able to remain in Spec,vP (see footnote 6 and references there for discussion).

[9] I should point out that the issue of an internal argument crossing an external argument is not exclusive of the present analysis, but rather a long-standing question; see e.g. Chomsky (1993) for discussion.

domain and the low movement of the lexical verb to a position right outside the verbal domain. Those two properties, when combined, give us the result that the postverbal area of BP is just "too small", as it only includes the verbal domain, which can only license one argumental DP at a time. The minimally-expanded structure of the periphery of vP in BP defended here (see also LACERDA 2020, 2021, 2023) also provides us with a way to prevent external arguments from undergoing object shift (more precisely, from being licensed by X^0), due to antilocality, which rules out postverbal transitive subjects in the language.

Unlike the present work, a number of authors (see e.g. MIOTO, 2003; QUAREZEMIN, 2009; ARMELIN, 2011; KATO, 2013; LACERDA, 2012, 2016; CÉPEDA & CYRINO, 2020) have argued that the verbal domain in BP should be expanded to include a so-called "low left periphery", that is, topic and focus projections at the edge of vP in the postverbal area, as was proposed by Belletti (2004) for Italian. It is not obvious, however, how one can exclude VSO and VOS orders in BP if we assume Belletti's low left periphery, given that all attested combinations of postverbal arguments (regardless of their informational roles) are in principle derivable, as in (37).

(37) a. [$_{CP}$ [$_{TP}$ *verb* [$_{TopP}$ *subject* [$_{FocP}$ *object* [$_{vP}$ [$_{VP}$]]]]]] *V S_{TOP} O_{FOC}*

b. [$_{CP}$ [$_{TP}$ *verb* [$_{TopP}$ *object* [$_{FocP}$ *subject* [$_{vP}$ [$_{VP}$]]]]]] *V O_{TOP} S_{FOC}*

c. [$_{CP}$ [$_{TP}$ *verb* [$_{FocP}$ *subject* [$_{TopP}$ *object* [$_{vP}$ [$_{VP}$]]]]]] *V S_{FOC} O_{TOP}*

d. [$_{CP}$ [$_{TP}$ *verb* [$_{FocP}$ *object* [$_{TopP}$ *subject* [$_{vP}$ [$_{VP}$]]]]]] *V O_{FOC} S_{TOP}*

If one is to assume the structures in (37) in BP, one could perhaps argue that they are ungrammatical due to the preverbal subject position being empty. That cannot be the explanation, though, since it is the very problem that we need to account for; that is, why must transitive subjects be preverbal in BP? With that in mind, note the ungrammaticality of sentence (38a). Assuming that nominative Case is "assigned" by T^0 in a top-down fashion in an Agree system (e.g., CHOMSKY, 2000) and is dissociated from the EPP, and assuming that locative PPs can satisfy the EPP in BP (as seen in locative inversion), a structure such as (38b) (cf. (37a)) should be grammatical, contrary to fact, given that both the EPP and Case are taken care of.

(38) a. *Aqui assinou o João uma carta.
here signed the John a letter
'John signed a letter here.'

b. [$_{TP}$ aqui T^0+assinou [$_{TopP}$ o João [$_{FocP}$ uma carta [$_{vP}$ [$_{VP}$]]]]]

As we see, the adoption of the structures in (37) may incorrectly place BP at the same level as European Portuguese, Italian and Spanish with respect to postverbal subjects, requiring independent explanations for the absence of VSO and VOS constructions only in BP. In that respect, it is very important to bear in mind that Belletti's (2004) low left periphery was proposed precisely to account for postverbal subjects in Italian, a language that is way more permissive than BP in that regard. All in all, the categorical absence of VSO and VOS in BP may in fact be taken as an indication that a low left periphery of the sort seen in (37) may not be present in this language; I have independently argued for that in Lacerda (2020, 2021, 2023).

With the adoption of a minimally-expanded vP combined with the low movement of the lexical verb, we can in a natural manner rule out VSO and VOS constructions in BP while still allowing VS constructions with unaccusative verbs, thus correctly setting this language apart from other Romance languages in the issue of postverbal subjects.

6. References

ABELS, K.. *Successive cyclicity, antilocality, and adposition stranding*. Doctoral thesis – University of Connecticut, 2003.

ARMELIN, P. *Sentenças bitransitivas do português do Brasil revisitas à luz da teoria de núcleos funcionais aplicativos*. Master's thesis – Universidade de São Paulo, 2011.

AVELAR, J. O. de. Inversão locativa e sintaxe de concordância no português brasileiro. *Matraga*, v. 16, n. 24, p. 232-252, 2009.

AVELAR, J. O. de; CYRINO, S. Locativos preposicionados em posição de sujeito: Uma possível contribuição das línguas Bantu à sintaxe do português brasileiro. *Revista de Estudos Linguísticos da Universidade do Porto*, v. 3, p. 55-75, 2008.

BELLETTI, A. Aspects of the low IP area. *In*: RIZZI, L. (ed.). *The structure of CP and IP*: The cartography of syntactic structures, Volume 2. New York: Oxford University Press 2004. p. 16-51.

BOŠKOVIĆ, Ž. On the timing of labeling: Deducing Comp-trace effects, the subject condition, the adjunct condition, and tucking in from labeling. *The Linguistic Review*, v. 33, p. 17-66, 2016.

BRITO, A. M. Clause structure, subject positions and verb movement: About the position of sempre in European Portuguese and Brazilian Portuguese. *In*: D'HULST Y.; ROORYCK, J.; Schroten, J. (ed.). *Romance Languages and Linguistic Theory 1999*. Amsterdam: John Benjamins, 2001. p. 63-85.

CÉPEDA, P; CYRINO, S.. Putting objects in order: Asymmetrical relations in Spanish and Portuguese ditransitives. *In*: PINEDA, A.; MATEU, J. (ed.). *Dative constructions in Romance and beyond*. Berlin: Language Science Press, 2020. p. 97-116.

CHOMSKY, N. A minimalist program for linguistic theory. *In*: HALE, K.; KEYSER, S. J. (ed.). *The View from Building 20*: Essays in Linguistics in Honor of Sylvain Bromberger. Cambridge, MA: MIT Press, 1993. p. 1-52.

CHOMSKY, N. Minimalist inquiries: The framework. *In*: MARTIN, R.; MICHAELS, D.; URIAGEREKA, J. (ed.). *Step by Step*: Essays on Minimalist Syntax in Honor of Howard Lasnik. Cambridge, MA: MIT Press, 2000. p. 89-155.

CHOMSKY, N. Problems of projection. *Lingua*, v. 130, p. 33-49, 2013.

CYRINO, S. On richness of tense and verb movement in Brazilian Portuguese. *In*: CAMACHO-TABOADA, V.; JIMÉNEZ-FERNÁNDEZ, Á. L.; MARTÍN-GONZÁLEZ, J.; REYES-TEJEDOR, M. (ed.). *Information Structure and Agreement*. Amsterdam: John Benjamins, 2013. p. 297-317.

GROHMANN, K. *Prolific domains*: On the antilocality of movement dependencies. Amsterdam: John Benjamins, 2003.

KATO, M. A. A restrição de mono-argumentalidade da ordem VS no português do Brasil. *Fórum Linguístico*, v. 2, p. 97-127, 2000.

KATO, M. A. Deriving *wh*- in-situ through movement in Brazilian Portuguese. *In*: CAMACHO-TABOADA, V.; JIMÉNEZ-FERNÁNDEZ, Á. L.; MARTÍN-GONZÁLEZ, J.; REYES-TEJEDOR, M. (ed.). *Information Structure and Agreement*. Amsterdam: John Benjamins, 2013. p. 175-192.

KATO, M. A.; TARALLO, F. Restrictive VS syntax in Brazilian Portuguese: Its correlation with invisible clitics and visible subjects. Paper presented at Georgetown Round Table in Languages and Linguistics, 1988.

LACERDA, R. *Quantificadores flutuantes no português brasileiro*. Master's thesis – Universidade de São Paulo, 2012.

LACERDA, R. Rebel without a Case: Quantifier floating in Brazilian Portuguese and Spanish. *In*: KATO, M. A.; ORDÓÑEZ, F. (ed.). *Morphosyntax of Portuguese and Spanish in Latin America*. New York: Oxford University Press, 2016. p. 78-106.

LACERDA, R. *Middle-field Syntax and Information Structure in Brazilian Portuguese*. Doctoral dissertation – University of Connecticut, 2020.

LACERDA, R. The middle field of Brazilian Portuguese and the size of the verbal domain. *In*: LASZAKOVITS, S.; SHEN, Z. (ed.). *The Size of Things I:* Structure Building. Berlin:

Language Science Press, 2021. p. 285-304.

LACERDA, R. On the absence of low focus movement in Brazilian Portuguese. *Natural Language & Linguistic Theory*, 2023. Online-first publication.

MIOTO, C. Focalização e quantificação. *Revista Letras*, v. 61, p. 169-189, 2003.

NUNES, J. De clítico a concordância: O caso dos acusativos de terceira pessoa em português brasileiro. *Cadernos de Estudos Linguísticos*, v. 57, p. 61-84, 2015.

NUNES, J. Clíticos acusativos de terceira pessoa em PB como concordância de objeto. *In*: GALVES, C.; KATO, M. A.; ROBERTS, I. (ed.). *Português brasileiro:* Uma segunda viagem diacrônica. Campinas: Editora da UNICAMP, 2019. p. 151-172.

QUAREZEMIN, S. *Estratégias de focalização no português brasileiro*: Uma abordagem cartográfica. Doctoral thesis – Universidade Federal de Santa Catarina, 2009.

SPORTICHE, D. A theory of floating quantifiers and its corollaries for constituent structure. *Linguistic Inquiry*, v. 19, n. 2, p. 425-451, 1988.

TESCARI NETO, A. 2013. *On verb movement in Brazilian Portuguese*: A cartographic study. Doctoral thesis – Università Ca' Foscari di Venezia, 2013.