

An argument from Brazilian Portuguese for a syntactically projected implicit argument

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1. Introduction

The empirical focus of this paper is on the Brazilian Portuguese (BP) passive *se* (Pass_{se}) and impersonal *se* (Imp_{se}) constructions in (1a) and (1b), respectively, constructions that are disappearing from the language.

- (1) a. Comeram-se os bolos. b. Aqui se fala de si.
eat-Pass_{se} the cakes Here Imp_{se} speaks of self
“The cakes were eaten.” “Here one speaks about oneself.”

By applying diagnostics for the *projection* of an implicit argument from MacDonald (to appear) to these constructions in BP and contrasting their properties with those of the periphrastic passive, we argue that Voice in Pass_{se} and Imp_{se} projects a non-referential implicit external argument *pro*, while it does not in the periphrastic passive, as in (2).

- (2) a. Pass_{se} and Imp_{se} [VoiceP *pro* Voice_{se} [VP V DP]]
b. Periphrastic Passive [VoiceP Voice [VP V DP]]

The main source of evidence for this contrast comes from an inalienable possession interpretation of a body part available in the Pass_{se} and Imp_{se} constructions, but not in the periphrastic passive. Based on the conclusion that there is a projected implicit argument in Spec, Voice in Pass_{se} and Imp_{se} constructions, we explore consequences for other parts of BP grammar. We also briefly touch upon BP's status as a partial null subject language in contrast to Spanish, a consistent null subject language which also has these *se* constructions. These *se* constructions in BP, we suggest, are a residue of an early BP grammar when it still was a consistent null subject language.

This paper is structured as follows: in section 2, we review diagnostics from the literature for implicit agentive arguments. We will see that Pass_{se}, Imp_{se}, and the

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periphrastic passive constructions all pattern the same. They differ, however, in the availability of interpreting body parts as inalienably possessed. In section 3, we discuss how body parts interpreted as inalienably possessed serve as a diagnostic for the *projection* of an implicit argument. In section 4, we discuss two consequences of the presence of *pro* in these *se* constructions: the licensing of reflexives and *by*-phrases. In section 5, we discuss how null subjects in BP, because it is a partial null subject language, are licensed under conditions distinct from null subjects in consistent null subject languages. Moreover, as we show, *pro* in these *se* constructions is not subject to these distinct licensing conditions. Section 6 discusses a word order restriction found in these BP *se* constructions that is not found in the *se* constructions in consistent null subject languages. We suggest that this is a result of differences in the properties in T in partial vs. consistent null subject languages. In section 7, we briefly recap the paper.

2. Syntactically active implicit arguments vs. syntactically projected arguments

Control into rationale phrases and the licensing of agent-oriented adverbs have been taken as diagnostics for the presence of an implicit agent. The periphrastic passive, Pass_{se} and Imp_{se} constructions license these phrases, as in (3a), (3b) and (3c) respectively.

- (3) a. A porta foi aberta para arejar o cômodo/
the door was opened to air.out the room/
intencionalmente
intentionally.
“The door was opened to air out the room/intentionally.”
- b. Leem-se os livros para aprender/voluntariamente.
read-Pass_{se} the books to learn/voluntarily.
“The books were read to learn/voluntarily.”
- c. Chamou-se os bombeiros para apagar o
called-Imp_{se} the firemen to put.away the
incêndio/ deliberadamente
fire/deliberately.
“The they called the firemen to put out the fire/deliberately.”

Bhatt & Pancheva (2006) note that while these tests point to a syntactically *active* agent, they do not entail that said agent is syntactically *projected*. Consequently, there is evidence for an implicit agent in each of these constructions, although it is not clear whether or not it is projected.

The periphrastic passive, however, behaves differently from both the Pass_{se} and Imp_{se} constructions when it comes to body parts. As observed for Spanish (MacDonald to appear), in BP, an inalienable possession interpretation of the sole overt DP is available in the Pass_{se} and Imp_{se} constructions, while it is not in the periphrastic passive, as in (4a),(4b) and (4c) respectively.

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- (4) a. Das almofadas levantaram-se umas cabeças
 From.the pillows lifted-Pass_{se} some heads
 despenteadas.
 disheveled.
 “Some disheveled heads lifted from their pillows.”
- b. Se levanta a mão para fazer uma pergunta
 Imp_{se} raises the hand to make a question
 in.the classroom.
 na sala.
 “Normally, one raises one’s hand to ask a question in class.”
- c. *A cabeça_i foi levantada (por João_i).
 the head_i was lifted (by John_i).
 “The head_i was lifted (by John_i).”

This contrast is significant for the underlying syntax of these constructions, since, as we will see in the next section, for a body part to be interpreted as inalienably possessed, there must be a syntactically present possessor that c-commands it.

3. A diagnostic for a *projected implicit argument*: body parts

Like all Romance languages, BP has constructions in which a body part direct object is interpreted as inalienably possessed by the subject. (see Guéron 2006 a.o.). In (5a) and (5b), the DPs *a mão* “the hand” and *as pernas longas* “long legs” are interpreted as the student’s and Sofia’s inalienable possessed body parts, respectively.

- (5) a. O estudante levantou a mão.
 The student raised the hand
 “The student raised his/her hand.”
- b. Sofia tem as pernas longas.
 Sofia has the legs long.
 “Sofia has long legs.”

Only a c-commanding DP is interpreted as an inalienable possessor of a body part, as illustrated in (6). Only *o irmão* is interpreted as the inalienable possessor of *os olhos*, not *João*, since only *o irmão* c-commands *os olhos*.

- (6) O irmão_i de João_j fechou os olhos_{i/*j}.
 the brother of João closed the eyes.
 “João’s brother closes his eyes.”

Crucially, as Guéron (2006) observed for French, in BP, pragmatics is not enough to license an inalienable possession interpretation of a body part. Consider a context for (7),

where a daughter asks her father why she can run so fast. Taking his daughter as interlocutor, (7a) is felicitous in this context; (7b) is not.¹

- (7) a. Você tem as pernas longas.
 you have the legs long.
 “You have long legs.”
- b. As pernas são longas
 the leg are long
 “The legs are long.”

Moreover, observe that with a certain class of verbs, an example of which is in (5a), the body part is interpreted as set in motion via normal internal biological mechanisms as a result of an internal impulse from the possessor, but only when the possessor DP and the body part DP are co-arguments (Authier 1992). In contrast, when they are not co-arguments, as in (8) below, or when they are co-arguments of a verb like *ter* “have,” as in (5b), no such motion interpretation is available.

- (8) Me levantou a mão.
 me raised the hand.
 “S/he raised my hand.”

The data from (5) to (8) make clear that a body part can receive an inalienable possession interpretation only when c-commanded by a syntactically present possessor. Also, recall from the previous section that, while Pass_{se} , Imp_{se} and the periphrastic passive all pass diagnostics for an implicit agent, a body part receives an inalienable possession interpretation in Pass_{se} and Imp_{se} constructions, but not in the periphrastic passive. Given that an inalienable possession interpretation of a body part is licensed only when it has a syntactically present possessor, we conclude that in both the Pass_{se} and Imp_{se} constructions, there is a syntactically present implicit argument that serves as the possessor, while this is not the case in the periphrastic passive. Moreover, note that in (4a) and (4b), there is an interpretation of the body part set in motion as a result of normal internal biological mechanisms, suggesting that the implicit projected argument and the body part are co-arguments in (4). We claim that there is a non-referential *pro* in Spec, Voice in the Pass_{se} and Imp_{se} constructions that serves as the possessor, as in (9a), but not in Spec, Voice in the periphrastic passive, as in (9b).

- (9) a. $\text{Pass}_{\text{se}}/\text{Imp}_{\text{se}}$ b. Periphrastic Passive
 [$\text{VoiceP } pro \text{ Voice}_{\text{se}}$ [VP V DP]] [$\text{VoiceP } \text{Voice}$ [VP V DP]]

4. Two consequences: reflexives and *by*-phrases

¹ If (7b) is stated to someone in reference to the legs of a table, indicating non-human/inanimate possession, it is perfectly grammatical.

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In this section, we discuss two consequences of the proposal that there is an implicit projected *pro* in the BP Pass_{se} and Imp_{se} constructions. Concretely, following Landau (2010), who distinguishes strong implicit arguments from weak implicit arguments, *pro* in these constructions patterns with strong implicit arguments. This conclusion also allows us to explain the ungrammaticality of *by*-phrases in these *se* constructions, following the analysis of implicit arguments from Legate (2014).

According to Landau (2010), one way in which strong implicit arguments differ from weak implicit arguments relates to the presence vs. absence of a D feature: *strong* implicit arguments have a D feature, weak implicit arguments do not. Based on Reuland (2011), one diagnostic for a D feature, he claims, is the ability to bind anaphora. Observe in (10a) that a reflexive can be bound in Imp_{se} constructions, suggesting that implicit *pro* has a D feature. As expected, since there is no projected implicit argument in the periphrastic passive, a reflexive cannot be bound, as in (10b).

- (10) a. Aqui se fala de si (mesmo).
Here Imp_{se} speaks of self (same)
“Here one speaks about oneself.”
- b. *O presente foi comprado de si.
The gift was bought of self.
Intended: “The gift was bought from himself.”

If we assume that *pro* in these *se* constructions has a D feature, then we are able to explain another contrast between the Pass_{se} and Imp_{se} constructions and periphrastic passives with respect to the licensing of a *by*-phrase. No *by*-phrase is allowed in the BP *se* constructions, illustrated by Pass_{se} in (11a), in contrast to the periphrastic passive, which allows *by*-phrases, illustrated in (11b).

- (11) a. Se escreveu esta obra *por um autor desconhecido
Se wrote this book *by an author unknown.
“This book was written by a completely unknown author.”
- b. Esta obra foi escrita por um autor desconhecido
This book was written by an author unknown.
“This book was written by a completely unknown author.”

Legate (2014), who discusses implicit external arguments in a variety of languages, argues that the presence of a D feature on a pronominal in Spec,Voice allows it to saturate the external argument slot, which in turn, she argues, precludes the saturation of that argument slot by a *by*-phrase, on Bruening’s (2013) account of *by*-phrases. If *pro* in Spec,Voice in these *se* constructions has a D feature, then it can saturate the external argument slot, which would preclude the ability of a *by*-phrase to do so. In contrast, there is no *projected* implicit argument in Spec,Voice in the periphrastic passive to saturate the external argument slot, leaving the *by*-phrase free to do so.

5. The licensing of *pro* - a grammatical residue

It has been observed that BP is a partial null-subject language (pNSL) (Duarte 1995, Kato 1999, Rodrigues 2004, Holmberg 2005, 2010, Nunes 2008, Holmberg et al 2009, among others). Moreover, the null subjects that are found in the language are both more restricted in their distribution than in a consistent null subject language (cNSL) and licensed under distinct conditions (Holmberg et al 2009, Rodrigues 2004 etc.). In this section, we show that the non-referential implicit external argument *pro* in these BP *se* constructions is not licensed in the same way as other null subjects in the language. We take this to mean that *pro* in these constructions is not subject to the same pNSL licensing conditions. This fact raises a question about why the null *pro* in *se* constructions is licensed differently than other null subjects. If we take seriously Holmberg's (2005, 2010) approach to partial vs. consistent null subject languages, we suggest, it is possible to treat these BP *se* constructions as a residue of an earlier grammar of BP when it was a cNSL.

There are two contexts in which a referential null subject is licensed in BP. The first is a matrix clause first person subject, as illustrated in (12).

- (12) *pro* falei com o João ontem à noite.²
 I spoke with the John yesterday at night
 "I spoke with John yesterday night."

As has been observed by Rodrigues (2004), matrix first person null referential subjects are not licensed in the presence of *wh*-movement, as illustrated in (13a) from Rodrigues (2004:83), which is not the case for in *Imp_{se}* in (13b), nor in cNSLs.

- (13) a. O que *?(eu) fiz?
 The what I did?
 "What have I done?"
 b. Que se faz nessa situação?
 What *Imp_{se}* does in.this situation?
 "What is done in this situation?"

Second, a third person null subject can be licensed in an embedded clause. When the matrix subject is referential, as in (14a), the third person embedded null subject is necessarily interpreted co-referentially with the matrix subject. In contrast, with an expletive matrix subject, as in (14b), the third-person null subject of the embedded clause cannot receive a referential interpretation, only a non-referential interpretation. This, of course, is not the case in cNSLs.

- (14) a. OPedro disse que *pro*_{i/*k} conserta sapato.
 The Pedro says that *pro* repairs shoe.
 "Pedro_i says that he_{i/*k} repairs shoes."
 b. É assim que conserta sapato.

² Adapted from Rodrigues (2004:81)

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Is like.this that fixes shoe.
"This is the way that shoes are repaired."

Observe that *pro* in these *se* constructions is unaffected by the presence of a referential matrix subject, as in (15a), or an expletive subject, as in (15b).

- (15) a. O Pedro disse que se conserta sapato aqui.
The Pedro says that Imp_{se} repairs shoe here.
"Pedro says that shoes are repaired here."
- b. É assim que se conserta sapato.
Is like.this that Imp_{se} repairs shoe.
"This is the way that shoes are repaired."

These data show that the *pro* that occurs in BP *se* constructions is licensed under conditions distinct from those of matrix first person and embedded third person null subjects - whatever the property of pNSLs that gives rise to the special licensing conditions on null subjects, *pro* is not subject to them. In this respect, *pro* in these constructions patterns with null subjects in cNSLs, which also do not show these pNSL restrictions. We suggest here, in fact, that these *se* constructions, and more concretely, *pro* in Spec,Voice headed by *se*, is a residue of an earlier BP grammar when it was a cNSL. Consider why to entertain this possibility.

Holmberg (2005) observes a salient difference between a pNSL like BP and a cNSL like Spanish regarding the availability of a generic interpretation of a third person null subject. A third person null subject is interpreted generically in BP, as in (16a), but not in Spanish, as in (16b).

- (16) a. Neste restaurante come bem.
in.this restaurant eats well
"In this restaurant one eats well."
- b. En este restaurante come bien.
In this restaurant eats well.
"S/he eats well in this restaurant."

Holmberg (2005) notes that cNSLs allow a generic interpretation of third person subjects in the presence of special morphology, like *se*, as in (17).

- (17) Se come bien in este restaurante.
Imp_{se} eats well in this restaurant.
"One eats well in this restaurant."

Holmberg (2005, 2010) assumes that the principal syntactic difference between cNSLs and pNSLs is the presence vs. absence of a D feature in T (reflecting the traditional idea that somehow Infl is pronominal in null subject languages). Since there is a D in T in cNSLs, the null subject is interpreted as referential. In contrast, in pNSLs,

there is no D feature in T, thus, a non-referential interpretation of a null subject results. The intuition behind the role of *se* is that it somehow neutralizes the effects of the presence of D in T. If we take Holmberg's (2005, 2010) intuition together with the proposal that in these *se* constructions, *se* heads Voice and that there is a null implicit *pro*, then the syntactic situation we arrive at looks like (18).

(18) [TP T_D [VoiceP *pro* Voice_{se} [VP V]]]

What this entails is that for neutralization to take place *se*, or *pro*, has to establish some relation with T. We suggest that it is *pro* that must establish the relevant relation with T, to neutralize the D feature. If this is the correct approach, this would entail that on a generic interpretation of a third person subject in BP, like that in (16a), there would be no need for *pro*, since there would be no D feature present that would require neutralization. This appears to be the case, in as much as a body part cannot be interpreted as inalienably possessed in sentences without *se* where there is a third person generic interpretation, as illustrated in (19).

(19) *Na escola levanta a mão sempre que 'tá
 At school raise the hand always that is
 com dúvida.
 with doubt.
 'One raises one's hand at school whenever s/he has a doubt.

So, if it is the case that the *se* in these constructions introduces a null *pro* in order to neutralize the effects of D in T, then, it appears that these *se* constructions reflect an earlier grammar when BP was a cNSL, in as much as *pro* is licensed in Spec,Voice by *se*, under conditions that do not directly relate to BP being a pNSL. A related, yet, independent question arises, moreover. In these *se* constructions in BP, does T bear a D feature as well? If it did, we would expect these constructions to pattern wholly with cNSLs. If not, these *se* constructions should still show patterns of pNSLs. In the next section, we claim that T in these constructions is the T of a partial null subject language, based on certain word order restrictions in the BP Pass_{se} construction.

6. A word order restriction

MacDonald (to appear) argues that in Spanish Pass_{se} and Imp_{se} constructions, there is an implicit projected argument, based on the inalienable possession diagnostic. In this respect, Spanish Pass_{se} and Imp_{se} constructions and BP Pass_{se} and Imp_{se} constructions are the same. There is one salient difference, however, between Spanish Pass_{se} and BP Pass_{se} with respect to word order. While in Spanish, the sole overt DP in Pass_{se} may be post or preverbal, as in (20), in BP, the sole overt DP can only be postverbal, as in (21).

(20) a. Las manzanas se comieron.
 The apples Pass_{se} ate
 b. Se comieron las manzanas.
 Pass_{se} ate the apples

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- (21) a. *As maçãs comeram-se. b. Comeram-se as maçãs.
the apples ate-Pass_{se} ate-Pass_{se} the apples
“The apples were eaten.”

We would like to suggest that this contrast relates to Spanish being a cNSL and BP being a pNSL. Holmberg (2005,2010) has a concrete proposal regarding how cNSLs and pNSLs differ, as discussed above. Nevertheless, it is not clear how the presence vs. absence of a D feature in T can account directly for word order differences. Nevertheless, an account of the different word orders does seem to bear on the properties of T, specifically regarding the EPP. Concretely, we suggest that in BP *pro* must move to Spec,T to satisfy the EPP. In contrast, in Spanish, *pro* need not move to Spec,T to satisfy the EPP. This would follow from an account of cNSLs in which V to T movement can satisfy the EPP in T (Alexiadou & Anagnostopoulou 1998). If this is on track, we can explain another contrast between Pass_{se} and the periphrastic passive in regards to word order. In the periphrastic passive, the sole overt DP must be fronted, as in (22), while in the Pass_{se} the sole overt DP must be post-verbal, as in (21).³

- (22) a. A porta foi aberta b. ??Foi aberta aporta.
the door was opened. Was opened the door
“The door was opened.” “The door was opened.”

We suggest that the word order facts relate to the presence vs. absence of *pro* in Spec,Voice in Pass_{se} and its absence in the periphrastic passive. Specifically, *pro* moves to Spec,T to satisfy the EPP. Thus, the sole overt DP in Pass_{se} has no motivation to move to Spec,T. In contrast, since there is no other DP that can satisfy the EPP in T in the periphrastic passive, the sole overt DP must do so by moving to Spec,T. This illustrates the interaction between a residue of an earlier BP grammar, namely *pro* in Spec,Voice licensed by *se*, and the current BP grammar, namely the T of a pNSL.

7. Brief recap

We have argued for the presence of a *projected* implicit external argument in Spec,Voice in both BP Pass_{se} and Imp_{se} constructions, but not in Spec,Voice of BP periphrastic passive, which explains at least two other differences between these *se* constructions and the periphrastic passive: the licensing of reflexives and *by*-phrase. Finally, we suggested that these *se* constructions are a residue of an earlier BP grammar when it was a cNSL, which led us to explain word order restrictions in Pass_{se} constructions that do not hold in the periphrastic passive.

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³ (22b) is possible in a formal or written register. Note that a more productive strategy for a VS passive equivalent to (22b) is: Foi aberto a porta, in which the participle does not agree with the postverbal DP.

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