

A note on *Wh*-islands and Finite Control in Brazilian Portuguese¹

Algumas observações sobre
Ilhas-*qu* e Controle Finito em Português Brasileiro

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ABSTRACT

This paper discusses Ferreira's (2000, 2004, 2009) claim that selective intervention effects in *wh*-island constructions in Brazilian Portuguese provide evidence for analyzing its referential null subjects as traces of A-movement. Based on the fact that intervening traces of *wh*-phrases in [Spec,CP] never prevent A-movement of an embedded subject out of an embedded declarative clause, I argue that a filled [Spec,CP] does not block A-movement either. Reinterpreting Ferreira's data, I propose instead that A-movement is blocked if there is an intervening [Spec,TopP].

KEYWORDS: finite control, hyper-raising, *wh*-islands, movement theory of control, Brazilian Portuguese.

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*Sobre o autor ver página 103.

RESUMO

Este trabalho discute a proposta de Ferreira (2000, 2004, 2009) de que efeitos de intervenção em construções envolvendo ilhas interrogativas em português brasileiro fornecem evidência para analisar seus sujeitos nulos referenciais como vestígios de movimento-*A*. Baseado no fato de que vestígios de sintagmas-qu em [Spec,CP] nunca impedem movimento-*A* do sujeito encaixado de uma oração declarativa, eu argumento que [Spec,CP] também não bloqueia movimento-*A*. Reanalizando os dados de Ferreira, eu proponho que movimento-*A* é na verdade bloqueado se houver um [Spec,TopP] intervindo.

PALAVRAS-CHAVE: controle finito, hiperalcamento, ilha-qu, teoria de controle por movimento, português brasileiro.

1 Introduction

A very influential proposal regarding “referential” null subjects in Brazilian Portuguese (henceforth *BP*) is that they are traces of *A-movement* (see FERREIRA, 2000, 2004, 2009 and RODRIGUES, 2002, 2004). Assuming that this proposal is on the right track, this paper examines whether *wh*-island effects can indeed provide evidence for the movement analysis of null subjects in *BP*, as proposed by Ferreira (2000, 2004, 2009).

I will argue that when *wh*-movement in infinitival control, finite control, and hyper-raising constructions in *BP* is considered in detail, we must conclude that [Spec,CP] does not block *A-movement* across it. This in turn raises the question of whether the unacceptable cases of null subjects within *wh*-islands documented by Ferreira (2000, 2004, 2009) are true cases of minimality violations triggered by a filled [Spec,CP]. I propose instead that these cases actually involve a minimality effect triggered by the trace of the *wh*-element left in a lower [Spec,TopP].

The paper is organized as follows. I first review the data that have been taken to support the movement approach to referential null subjects in *BP* and present the specific technical implementation I will be assuming throughout the paper. I then present Ferreira’s (2000, 2004, 2009) analysis of null subjects within *wh*-islands and the problems it

faces when other instances of control and hyper-raising are taken into account. Finally, I offer an alternative to the paradigm documented by Ferreira in terms of minimality effects triggered by a filled [Spec,TopP] and provide independent crosslinguistic evidence for the role of TopP in blocking A-movement out of an embedded clause.

2 Null subjects in BP as A-traces

It has been standardly assumed within generative studies that despite allowing for some null subjects, BP does not fit the description of a prototypical *pro*-drop language such as Italian, Spanish, or European Portuguese. On the one hand, BP behaves like a *pro*-drop language in allowing null expletives, as well as null “arbitrary” third person subjects – both plural and singular (see e.g. GALVES, 1987; NUNES, 1990; and RODRIGUES, 2004), as respectively illustrated in (1) and (2) below. On the other hand, its “referential” null subjects are severely restricted, as shown in (3).²

- (1) a. Tinha vários livros na mesa.
had several books on-the table
‘There were several books on the table.’
- b. Choveu ontem.
 rained yesterday
 ‘It rained yesterday.’
- (2) a. Telefonaram para você.
 called-3PL to you
 ‘Someone called you.’
- b. No Brasil não usa mais saia.
 in-the Brazil not wear.3SG more skirt
 ‘In Brazil people don’t wear skirts anymore.’
- (3) a. *Comprou um carro novo.
 bought.3SG a car new
 ‘She/he bought a new car.’
- b. *Parece que comprou um carro novo.
 seems that bought.3SG a car new
 ‘It seems that she/he bought a new car.’

²For relevant discussion, see e.g. DUARTE, 1995; FIGUEIREDO SILVA, 1996; KATO, 1999; FERREIRA, 2000, 2004, 2009; MODESTO, 2000; GALVES, 2001; RODRIGUES, 2002, 2004; MARTINS; NUNES, 2005, 2009; NUNES, 2008, forthcoming; and the collection of papers in KATO; NEGRÃO, 2000.

- c. [O João]_i disse [que *eu_{i/*j}* comprou um carro novo].
 the João_i said that bought.3SG a car new
 'João_i said that he_{i/*j} bought a new car.'
- d. *O pai da Maria acha [que está grávida].
 the father of-the Maria thinks that is pregnant-FEM
 'Maria's father thinks she is pregnant.'
- e. *A Maria disse [que o médico acha [que está grávida]].
 the Maria said that the doctor-MASC thinks that is pregnant-FEM
 'Maria_i said that the doctor thinks she_i is pregnant.'
- f.*O João encontrou o livro que perdeu.
 the João found the book that lost
 'João found the book that he had lost.'

(3a)-(3c) show that a referential null subject in BP requires an appropriate antecedent in the sentence;³ (3d), that the antecedent must be in a c-commanding position; (3e), that the antecedent must be local; and (3f), that the antecedent cannot be outside a strong island.⁴

Exploring Hornstein's (2001) movement analysis of obligatory control, Ferreira (2000, 2004, 2009) and Rodrigues (2002, 2004) interpret data such as (3) as showing that the null subject of these

³ Referential null subjects in matrix clauses are only allowed in BP as instances of topic-deletion in the sense of Ross (1982) (see MODESTO, 2000; FERREIRA, 2000; and RODRIGUES, 2004). Thus, the null subject in (iB) below is to be analyzed as a variable bound by a null topic and the presence of a *wh*-element in (iB') yields a minimality violation.

- (i) A: Cadê o João?
where the João
 'Where's João?'
- B: Acabou de sair.
finished.3SG of leave
 'He's just left.'
- B': *O que fez dessa vez?
what did.3SG of-this time
 'What did he do this time?'

⁴ A referential null subject inside an adjunct island as in (i) below can in fact be controlled by the matrix subject, for the embedded subject can undergo sideward movement (in the sense of NUNES, 2001, 2004) from K to L in (ii) before K becomes an adjunct island. For relevant discussion, see FERREIRA, 2000, 2004, 2009; NUNES; URIAGEREKA, 2000; HORNSTEIN, 2001; RODRIGUES, 2004; and BOECKX; HORNSTEIN; NUNES, forthcoming.

- (i) O João saiu depois que almoçou.
the João left after that had-lunch
 João left after he had lunch.
- (ii) K = [depois que [o João] almoçou]
 L = saiu

sentences is a trace of A-movement, which explains why it requires a local c-commanding antecedent. In this paper I will assume the gist of the movement approach proposed by Ferreira and Rodrigues, with the technical implementation suggested in Nunes (2008). The starting point of Nunes (2008) is Ferreira's proposal that finite Ts in BP are ambiguous in being associated with a complete or an incomplete set of ϕ -features. Under Chomsky's (2000) Agree-based system, when T is ϕ -complete, it values the Case of its subject, rendering it inert for purposes of A-movement. By contrast, when T is ϕ -incomplete, it is unable to Case-mark its subject, which is then free to undergo further A-movement to a higher clause and eventually have its Case-feature valued. According to Ferreira's proposal, the sentence in (4a), for instance, is derived along the lines of (4b), where the embedded T is associated with an incomplete ϕ -set and the matrix T, with a complete ϕ -set.

- (4) a. Ele disse que comprou um carro.

he said that bought a car
'He_i said that he_i bought a car.'

b. [_{TP} ele_i [_T_{φ-complete} [_{VP} t_i [_{VP} disse [_{CP} que [_{TP} t_i [_T_{φ-incomplete} [_{VP} t_i [_{VP} comprou um carro]]]]]]]]]]]

A potential problem for Ferreira's proposal is that the same agreement morphemes are consistently ambiguous between a complete and an incomplete ϕ -set. For example, the verbal form *disse* 'said.3SG' is to be associated with a complete ϕ -set in (4a), but with an incomplete ϕ -set in (5a), as shown in (5b).

- (5) a. Ele acha que disse que comprou um carro.

he thinks that said that bought a car
'He_i thinks that he_i said that he_i bought a car.'

b. [_{TP} ele_i [_T_{φ-complete} [_{VP} t_i [_{VP} acha [_{CP} que [_{TP} t_i [_T_{φ-incomplete} [_{VP} t_i [_{VP} disse [_{CP} que [_{TP} t_i [_T_{φ-incomplete} [_{VP} t_i [_{VP} comprou um carro]]]]]]]]]]]]]]]]]

Nunes (2008) argues that this apparent problem can be solved if we consider how the features person and number get associated in BP. As Table 1 below shows, the paradigm of verbal agreement

morphology in (colloquial) BP only distinctively encodes person and number in the inflection for first person singular. Based on this fact, Nunes (2008) proposes that finite Ts in BP may enter the numeration specified for number and person or for number only. When T is only specified for number, well-formedness conditions in the morphological component trigger the addition of the feature person in accordance to the redundancy rule sketched in (6).

Table 1: Verbal agreement paradigm in (colloquial) Brazilian Portuguese

<i>cantar</i> ‘to sing’: indicative present		
<i>eu</i> (I)	<i>canto</i>	P:1; N:SG
<i>você</i> (you.SG)		
<i>ele</i> (he)		
<i>ela</i> (she)	<i>canta</i>	P:default; N:default (= 3SG)
<i>a gente</i> (we)		
<i>vocês</i> (you.PL)		
<i>eles</i> (they.MASC)	<i>cantam</i>	P:default; N:PL (= 3PL)
<i>elas</i> (they.FEM)		

(6) When T is only specified for number (N):

- (i) Add [P:1], if N is valued as SG;
- (ii) otherwise, add [P:default].

According to this approach, the ambiguity of the T head associated with *disse* in (4b) and (5b) reflects the two possibilities for a person feature to be associated with a number feature in BP finite clauses. In (4b), these features come associated from the numeration, which makes T a Case-assigner. By contrast, in (5b) the corresponding T comes from the numeration specified with just a number feature. In the syntactic component, it behaves like the defective T of raising infinitivals, for instance, allowing its subject to undergo A-movement to the embedding clause. In the morphological component, a default person feature is then added to the number feature of T in accordance with (6ii) and the verb surfaces in the third person singular form *disse*.⁵

⁵ Just for the sake of completeness, it is worth observing that an unwanted derivation with a matrix T with just a number feature in the syntactic component will crash for familiar reasons: its subject will not have its Case-feature valued (see FERREIRA, 2000, 2004, 2009).

As argued by Ferreira (2000, 2004, 2009), once its finite Ts came to be specified as optionally complete, BP came to license not only finite control, as illustrated in (3)-(5), but also hyper-raising constructions (in the sense of URA, 1994) such as (7) and (8) below (see MARTINS; NUNES, 2005, 2009, forthcoming and NUNES, 2008 for relevant discussion). In other words, whether or not the verb that selects a CP with a ϕ -incomplete T may have a θ -role to assign is accidental. What matters is that the embedded subject of a ϕ -incomplete T is active to the computational system and can undergo A-movement. If it lands in a θ -position, we have finite control (cf. (4b) and (5b)); on the other hand, if it lands in a Case position, we have a hyper-raising construction (cf. (7b) and (8b)).

- (7) a. Eles_i parecem que t_i compraram um carro novo.
they seem-3PL that bought-3PL a car new
 ‘They seem to have bought a new car.’
- b. [_{TP} eles_i [_{T_φ-complete} [_{VP} parecem [_{CP} que [_{TP} t_i [_{T_φ-incomplete} [_{VP} compraram um carro novo]]]]]]]]]
- (8) a. Eles_i acabaram que t_i perderam o ônibus.
 they finished-3PL that missed-3PL the bus
 ‘It turned out that they missed the bus.’
- b. [_{TP} eles_i [_{T_φ-complete} [_{VP} acabaram [_{CP} que [_{TP} t_i [_{T_φ-incomplete} [_{VP} perderam o ônibus]]]]]]]]]

Independent evidence that constructions such as (7a) and (8a) should be analyzed as sketched in (7b) and (8b) is provided by the sentences in (9) below. (9a) shows that the matrix and the embedded subject cannot be separated by an island (see NUNES, 2008), indicating that we have an instance of movement. In turn, (9b) involves movement of an idiom chunk, showing that we are dealing with A- and not A'-movement (see MARTINS; NUNES, 2005).⁶ Thus, sentences such as (7a) and (8a) indeed involve A-movement of the embedded subject, which is only possible if the embedded T is ϕ -incomplete.

⁶See FERREIRA, 2000, 2004, 2009; MARTINS; NUNES, 2005, 2009, forthcoming; and NUNES, 2008 for further evidence and relevant discussion.

- (9) a. *Alguém_i parece que o livro [que t_i leu não era bom]
 someone seems that the book that read not was good
 'It seems that the book that someone read was not good.'
 b. [A vaca]_i parece que t_i foi pro brejo.
 the cow seems that went to-the swamp
 Idiomatic reading: 'It seems that things went bad.'

With this general picture in mind, let us examine what *wh*-islands can tell us about the nature of referential null subjects in BP.

Null subjects inside wh-islands in BP: The puzzle

Based on the interesting contrast in (10) below, Ferreira (2000, 2004, 2009) proposes that [Spec,CP] may count as a proper intervener for the embedded subject, depending on the nature of its occupant. The idea is that once the embedded subjects of (10) are moving to receive the matrix external θ-role, minimality considerations should prevent them from crossing elements that are potential θ-role bearers; hence the argumental DP *que livro* 'which book' in (10a) counts as an intervener for the embedded subject, but not the adverbial elements *quando* 'when' or *por que* 'why' in (10b), which are not potential θ-role bearers.

- (10) a. ??O João não sabe que livro leu na semana passada.
 the João not knows which book read in-the week past
 'João doesn't know which book he read last week.'
 b. O João não sabe quando/por que leu esse livro.
 the João not knows when/why read this book
 'João doesn't know when/why he read this book'

Although able to correctly distinguish the acceptability pattern of (10a) from that of (10b), Ferreira's proposal incorrectly predicts that obligatory control sentences such as (11a) and (12a) below, whose simplified structures are given in (11b) and (12b), should also be unacceptable, for the DP in the embedded [Spec,CP] is a potential θ-role

bearer.⁷ What is relevant for our discussion is that the derivations of these sentences involve a step where the embedded subject moves to the matrix [Spec,vP], crossing a filled [Spec,CP], as illustrated in (13).

- (11) a. What did John try to do?
 b. [CP what_i did [TP John_k [vP t_k try [CP t_i C [TP t_k to do t_i]]]]]

- (12) a. John wondered what to do.
 b. [TP John_k [vP t_k wondered [CP what_i [TP t_k to do t_i]]]]]

- (13) a. [vP John_k try [CP what_i C [TP t_k to do t_i]]]

 b. [vP John_k wondered [CP what_i C [TP t_k to do t_i]]]


The acceptability of the sentences in (11a) and (12a) indicates that we must assume some version of Rizzi's (1990) Relativized Minimality under which an element in [Spec,CP] does not count as a proper intervener for A-movement of the embedded subject. Leaving aside matters of technical implementation, this observation predicts that if A-movement of an embedded subject across a filled [Spec,CP] is a licit operation in the case of standard nonfinite control, as seen in (11) and (12), it should also be legitimate in cases of finite control into indicatives and hyper-raising, for these different constructions all involve the same derivational device: A-movement. The BP data in (14a) and (15a), whose simplified derivations are provided in (14b) and (15b), show that this prediction is indeed fulfilled.

⁷ That constructions such as (12a) are indeed cases of obligatory control is shown by the fact that the embedded subject: a) cannot have an arbitrary interpretation (cf. (ia)); b) must be interpreted as the most local c-commanding DP (cf. (ib)); c) can only have a bound interpretation when controlled by *only*-DPs (cf. (ic)); d) only license sloppy reading under ellipsis (cf. (id)); and e) require *de se* readings in the appropriate contexts (cf. (ie)). See LANDAU, 2003 and BARRIE, 2007 for relevant discussion.

- (i) a. *John doesn't know what PRO_{arb} to eat
- b. Peter_i said that [John_k's mother]_w doesn't know what PRO_{w/s_i/s_k} to read
- c. A: – Only John wondered what to do.
 B: – No! I also wondered what I/#he should do
- d. John doesn't know what to eat, and Mary doesn't either.
 (... and Mary also doesn't know what she/*he should eat.)
- e. The unfortunate wondered how to get along with people after the war.
 ([The unfortunate]_i wondered how [he himself]_i was going to get along with people after the War?)

- (14) a. O que o João disse que comeu?
 what the João said that ate
 ‘What did João say that he ate?’
- b. [CP [o que]_i [TP [o João]_k [VP t_k] disse [CP t_i que [TP t_k comeu t_j]]]]]
- 
- (15) a. O que o João parece que comeu?
 what the João seems that ate
 ‘What does João seem to have eaten?’
- b. [CP [o que]_i [TP [o João]_k [VP parece [CP t_i que [TP t_k comeu t_j]]]]]
- 

The question now is how to reconcile the acceptability of the sentences in (11)-(15), with the contrasts documented by Ferreira in embedded interrogatives when the element in [Spec,CP] is a potential θ-role bearer (cf. (10)). This is the topic of the next section.

4 Apparent Wh-island violations as masked topic intervention effects

I would like to suggest that the key to the puzzle presented in the previous section is to be found in another contrast noted by Ferreira (2000, 2004, 2009), namely, the contrast between a filled [Spec,CP], as in (10a), repeated here in (16), and an analogous topicalized structure, as in (17), where the minimality effect is much more salient.

- (16) ??O João não sabe que livro leu na semana passada.
 the João not knows which book read in-the week past
 ‘João doesn’t know which book he read last week.’

- (17) *O João disse que esses livros, leu na semana passada.
 the João said that these books read in-the week past
 ‘João said that he read these books last week.’

The whole set data in (10)-(17) can be explained if we make three assumptions. First, assume that [Spec,CP] does not induce minimality violations for A-movement of a lower subject. This assumption is empirically supported by the sentences in (10b) and (11)-(15). Second, suppose that – for some reason (see below for a specific suggestion)

- topicalized elements contrast with elements in [Spec,CP] in inducing a minimality violation for A-movement. That would account for the unacceptability of (17). Finally, suppose that an interrogative complementizer obligatorily selects for a TopP projection, whereas declarative complementizers only optionally select for a TopP.

If this picture is on the right track, the apparent *wh*-island effect in (10a)/(16) is in fact the odd ball in need of an explanation, and not the canonical case, as assumed by Ferreira (2000, 2004, 2009). (10a)/(16) should actually be subsumed under the same restriction that rules out (17). That is, the marginality of (16) is not due to the *wh*-phrase in [Spec,CP], but to its trace left in a lower [Spec,TopP] position between [Spec,CP] and [Spec,TP], analogous to the position occupied by *esses livros* ‘these books’ in (17), as sketched in (18) below. Under this view, the contrast between (16) and the unambiguous topicalized structure in (17) could be accounted for if the *wh*-phrase of (16) is marginally allowed to skip the intervening Spec position and move directly to [Spec,CP] (which according to our first assumption does not block A-movement of an embedded subject).

- (18) $[_{\text{TP}}[o \text{ João}]_i \text{não} [_{\text{wp}} t_i \text{sabe} [_{\text{CP}} [\text{que} \text{ livro}]_k [_{\text{TopP}} t_k [_{\text{TP}} t_i \text{leu } t_k \dots]]]]]$
-

Incidentally, notice that if a filled [Spec,CP] does not block A-movement out of an embedded clause but a lower topic does, we predict that finite control and hyper-raising should be affected in the same way. In other words, an embedded topic should block finite control and hyper-raising. As shown in (19b), this prediction is borne out: a hyper-raised subject cannot cross an embedded topic.

- (19) a. *[o João]_i disse que o bolo, _i comeu.
the João said that the cake ate
João said that he ate the cake.'
- b. *[o João]_i parece que o bolo, _i comeu.
the João seems that the cake ate
João seems to have eaten the cake.'

The obvious question is whether the three assumptions made above can be independently motivated. Below I provide independent evidence for the assumption that topicalized elements block A-movement and for the assumption that individual complementizers may have different selectional requirements along the lines suggested above. Finally I raise a conjecture for why [Spec,CP] contrasts with other lower A'-Specs.

5 Intervention effects for movement of VP-internal subjects

If topicalization prevents movement from an embedded subject out of its clause, as assumed above, we should also expect it to block regular movement of the subject from its VP-internal position to [Spec,TP]. That this is correct is shown by the contrast in (20) (see EDMONDS, 1976), which shows that a direct object cannot move to a post-auxiliary position in English, but an indirect object can.

- (20) a. *They had, all the diplomats, put in the other room.
 b. They had, in the other room, put all the diplomats.

The contrast in (20) can be accounted for if the preposed material occupies a topic position in the left periphery of vP (see BELLETTI, 2004 for relevant discussion), as sketched in (21) below. Under the standard assumption that T enters into an ϕ -agreement relation with the subject, the ϕ -features of the DP in [Spec,TopP] in (21a) should block this agreement operation and block movement of the subject from [Spec,vP] to [Spec,TP]. On the other hand, the relevant DP in (21b) is buried within a PP structure and therefore does not c-command the subject, allowing it to move to [Spec,TP].

- (21) a. [_{TP} T [_{TopP} **DP_i** [_{Top}, Top [_{vP} DP V+v *t_i*]]]]]

↑
*

b. [_{TP} T [_{TopP} [**P DP_i**] [_{Top}, Top [_{vP} DP V+v *t_i*]]]]]

↑
OK

The contrast in (20) in fact mimics the contrast in (22) below, which was also pointed out by Ferreira (2000, 2004, 2009). According to the author, once the *wh*-phrase is within a PP in (22b), it does not c-command the embedded subject, which can then move to the matrix clause. We can keep the essence of Ferreira's suggestion, reinterpreting the minimality effect in (22a) in terms of the trace of the *wh*-phrase, left in a [Spec,TopP] located between the embedded [Spec,CP] and the embedded [Spec,TP] (cf. (18)).

- (22) a. ??[O João]_i não sabe [que livro [e_i] leu na semana passada]
the João not knows which bookread in-the week past
 'João doesn't know which book he read last week.'
 b. ?[O João]_i não sabe [pra quem e_i] emprestou o livro]
the João not knows to whom lent the book
 'João doesn't know to whom he lent the book'.

6 “Double subjects” in BP, topic hyper-raising, and minimality effects

Since the seminal work by Pontes (1987), it has been generally assumed that BP allows an additional subject/topic position above the usual subject position, say, [Spec,TP] (see e.g. KATO, 1989; BRITTO, 1997; NEGRÃO, 1999; and GALVES, 2001 for relevant discussion), as illustrated in (23) and (24).

- (23) a. Essa bolsa, as coisas somem aqui dentro. (Pontes 1987)
this purse the things disappear here inside
 'Things disappear inside this purse.'
 b. O carro, o pneu furou.
the car the tire got-flat
 'The car has a flat tire.'
- (24) a. Esse problema, ele é muito difícil.
this problem it is very hard
 'This problem is very hard.'
 b. Esse professor, eu vi ele no cinema ontem.
this teacher I saw him at-the cinema yesterday
 'I saw this teacher at the movie theater yesterday.'

- c. Esse professor, eu gosto muito dele.
this teacher I like much of-him
 ‘I like this teacher very much.’

The outer “subject” of BP double subject construction induces minimality effects for A'-movement, as shown in (25). Interestingly, Martins and Nunes (forthcoming) argue that it can also undergo hyper-raising. According to them, an acceptable sentence such as (26b) in BP is derived by moving the embedded topic of the sentence in (26a) to the matrix [Spec,TP].

- (25) *Pra onde os professores, eles vão viajar?
to where the teachers they go travel
 ‘Where are the teachers going to travel?’

- (26) a. Parece que os meus pais, eles vão viajar amanhã.
seems that the my parents they go travel tomorrow
 ‘It seems that my parents are going to travel tomorrow.’
 b. Os meus pais parecem que eles vão viajar amanhã.
the my parents seem that they go travel tomorrow
 ‘It seems that my parents are going to travel tomorrow.’

One of the arguments offered by Martins and Nunes for an analysis of (26b) in terms of topic hyper-raising involves contrasts such as the one between (27a) and (28a) below. If structures like (26b) involve topic hyper-raising, movement of the PP in (28b) should pattern with the ungrammatical sentence in (25) for the trace of the hyper-raised topic should induce a minimality effect, as sketched in (28b). In (27a), on the other hand, we have a regular instance of subject hyper-raising, as illustrated in (27b), and neither (the trace of) the embedded subject blocks movement of the *wb*-phrase, nor (the trace of) the *wb*-phrase in the embedded [Spec,CP] blocks movement of the embedded subject (cf. (15b))

- (27) a. Pra onde os professores pareciam que iam viajar?
to where the teachers seemed that went travel
 ‘Where did it seem that the teachers were going to travel?’

- b. [CP C [TP [os professores] iam viajar [pra onde]]]


- (28) a. *Pra onde os professores pareciam que eles iam viajar?
to where the teachers seemed there they went travel
 'Where did it seem that the teachers were going to travel?'
 b. [CP C [TopP [os professores] [TP eles iam viajar [pra onde]]]]


These data now provide us with an account for Ferreira's (2000, 2004, 2009) observation that embedded topics block subject hyper-raising. Once an embedded topic can itself undergo hyper-raising and trigger agreement with the matrix predicate, hyper-raising of a subject across it should be naturally analyzed as a minimality violation. In addition, the contrast between subject hyper-raising in (27) and topic hyper-raising in (28) provides independent support for my suggestion that a trace in a Spec between [Spec,CP] and [Spec,TP] can block A-movement of an embedded subject (cf. (18)).

7 Crosslinguistic evidence: Topic intervention effects in Romanian

Independent crosslinguistic evidence for the blocking effect induced by topics is provided by Romanian. As is well known, Romanian allows finite control into subjunctive clauses, as illustrated in (29) (see e.g. DOBROVIE-SORIN, 1994). Interestingly, Romanian also allow hyper-raising out of subjunctives, as illustrated in (30) (see e.g. GROSU; HORVATH, 1984 and DOBROVIE-SORIN, 1994).

- (29) Romanian (adapted from DOBROVIE-SORIN, 1994):

Ion începe s-o ajute pe Maria.
Ion starts SUBJ-her help PE Maria
 'Ion is starting to help Maria.'

- (30) Romanian (adapted from DOBROVIE-SORIN, 1994):

Copiii tăi par să fie foarte obosiți.
children your seem.3PL SUBJ be.3PL very tired
 'Your children seem to be very tired.'

What is relevant for our current discussion is that Romanian has a special complementizer, *ca*, whose subjunctive complement must be introduced by a topicalized element, as illustrated in (31).

(31) *Romanian*

- a. Ion vrea ca pe Maria s-o ajute numai Petre.
Ion wants that PE Maria SUBJ-her help only Petre
 ‘Ion wants only Petre to help Maria’
 (adapted from DOBROVIE-SORIN, 1994)
- b. Se poate ca bombele să explodeze în orice moment.
REFam.PRES.3SG that the-bombs SUBJ explode in any moment
 ‘It is possible that the bombs will go off any minute.’
 (adapted from GROSU; HORVATH, 1984)

The fact that the complementizer *ca* obligatorily selects for a TopP in Romanian provides independent support for my claim that the same holds of interrogative complementizers in BP (but see footnote 8). Now comes the punch line. If the embedded null subjects of Romanian constructions such (29) and (30) are to be analyzed as A-traces, as assumed here (see ALBOIU, 2007 and BOECKX; HORNSTEIN, NUNES, forthcoming for relevant discussion), they should be incompatible with the subjunctive complementizer *ca*, given that it introduces topics in the embedded clause. That this prediction is fulfilled is shown by the data in (32) below.

(32) *Romanian:*

- a. *Ion încep ca pe Maria s-o ajute.
Ion starts that PE Maria SUBJ-her help
 ‘Ion is beginning to help Maria’
 (adapted from DOBROVIE-SORIN, 1994)
- b. *[Copiii tăi] par ca pe profesor să fie supărăți.
children your seem.3PL that PE teacher SUBJ be.3PL angry.with
 ‘Your children seem to be angry with the teacher’
 (adapted from GROSU; HORVATH, 1984)

Movement of the embedded subject of the finite control construction in (32a) and in the hyper-raising construction in (32b) is blocked by the intervening embedded topic. This indicates that the intervention

for A-movement induced by topics is ensured regardless of whether the embedded clauses are indicative, as in BP, or subjunctive, as in Romanian⁸.

8 [Spec,CP] vs. [Spec,TopP]

The analysis outlined above raises the independent question of why elements in [Spec,CP] and [Spec,TopP] contrast with respect to establishing a barrier for A-movement⁹. Although at the moment I

⁸ As expected, Romanian also patterns like BP in permitting finite control across a filled [Spec,CP], as illustrated in (i) below (Thanks to Carol Petersen for calling my attention to this fact). Notice that since Romanian allows multiple *wh*-fronting, (ia) does not induce a weak island effect because the embedded *wh*-object can move to the embedded [Spec,CP] on its way to the matrix [Spec,CP].

- (i) Romanian (adapted from DOBROVIE-SORIN, 1994):
 - a. Ce te întrebî dacă trebuie să cumperi?
 what you ask whether must SUBJ. buy?
 ‘What do you wonder whether to buy?’
 - b. Am cu cine să plec.
 have.1SG with who SUBJ. leave
 ‘I have with whom to leave.’

There is a residual difference between BP and Romanian, though. As illustrated in (iia) below, a preposed adjunct does not block A-movement of the embedded subject in BP, which is what we would expect. In Romanian, on the other hand, a subject cannot cross a preposed adjunct triggered by the complementizer *ca*. I leave this difference pending further investigation.

- (ii)
 - a. Alguém parece que a qualquer momento vai explodir de raiva.
 someone seems that at any moment goes explode of anger
 ‘It seems that someone will explode in rage at any moment.’
 - b. *Bombele pot ca în orice moment să explodeze
 the-bombs can.PRES.3PL that in any moment SUBJ explode
 ‘The bombs can go off any minute.’

(adapted from GROSU; HORVATH, 1987)

⁹ It is worth pointing out that a non-D-linked *wh*-phrase such as *que diabo* ‘what the hell’ in (i) below also induce minimality effects, although it should not be able to land in [Spec,TopP] on its way to the embedded [Spec,CP]. Interestingly, focalized elements also block A-movement of an embedded subject in BP, as illustrated in (ii). This raises the possibility that the non-D-linked *wh*-phrase in (i) may pass through a position analogous to the position occupied by *só esse livro* ‘only this book’ in (ii) before it reaches the embedded [Spec,CP]. And again, declarative complementizers must be distinguished from interrogative complementizers, in selecting such a focus position only optionally. This explains why finite control in declaratives and hyper-raising is not blocked by the trace of a non-D-linked *wh*-phrase in the embedded [Spec,CP], as shown in (iii) (cf. (14b) and (15b)).

- (i) *O João não sabe que diabo comprou.
 the João not knows what devil bought
 ‘João doesn’t know what the hell he bought.’
- (ii)
 - a. *O João disse que só esse livro comprou
 the João said that only this book bought
 ‘João said that bought only this book.’
 - b. *O João parece que só esse livro comprou
 the João seems that only this book bought
 ‘João seems to have bought only this book.’

do not have anything conclusive to say on this issue, I speculate that the relevant distinction is that C is a phase head and as such, it may be assigned an “edge” feature in the course of the computation in order to allow successive cyclic movement (see CHOMSKY, 2001). Hence, a moved subject can in principle land in the intervening [Spec,CP], thereby voiding the potential intervention by the *wh*-element in the other [Spec,CP] (the two Specs are equidistant in the sense of CHOMSKY, 1995). Once the embedded subject is in the edge of the CP phase, it is accessible to probing by elements in the embedding clause.¹⁰ In particular, it can move to a θ-position, yielding a control construction, or to [Spec, TP], yielding a hyper-raising construction.

Under this view, the derivations of (11a), (12a), (14a), and (15a) should actually involve an extra step, with the embedded subject first moving to the outer [Spec,CP] before moving to the matrix clause, as sketched in (33)-(36).

- (33) a. What did John try to do?

b. $[_{vp} \text{John}_k \text{ try } [_{CP} t_k [_C \text{ what}_i [_C \text{ C } [_TP t_k \text{ to do } t_i]]]]]$

- (34) a. John wondered what to do.

b. $[_{vp} \text{John}_k \text{ wondered } [_{CP} t_k [_C \text{ what}_i [_C \text{ C } [_TP t_k \text{ to do } t_i]]]]]$

- (35) a. O que o João disse que comeu?

what the João said that ate

‘What did João say that he ate?’

- (iii) a. Que diabo o João disse que comprou?

what devil the João said that bought

‘What the hell did João say that he bought?’

- b. Que diabo o João parece que comprou?

what devil the João seems that bought

‘What the hell does João seem to have bought?’

The data in (i)-(iii) suggest that the “outer” subject position in BP is compatible with both topic and focus interpretations. However, due to space limitations, I will leave a detailed investigation of the blocking effect induced by focalized elements in finite control and hyper-raising constructions for another occasion.

¹⁰ For other possibilities compatible with Chomsky’s (2001) Phase Impenetrability Condition, see FERREIRA, 2000; NUNES, 2008; and MARTINS; NUNES, forthcoming.



- (36) a. O que o João parece que comeu?
what the João seems that ate
 'What does João seem to have eaten?'



Notice that hyper-raising is still ruled out in English. In a construction such as (37) below, for instance, the embedded T is ϕ -complete – as is always the case with finite Ts in English – and values the Case-feature of *John*. Once *John* has its Case valued, it becomes inert for purposes of A-movement even if [Spec,CP] is a possible intermediate landing site. A-movement of the subject of an embedded CP will take place in English only when the embedded T is not ϕ -complete, as is the case of the infinitivals in (33a) and (34a) (see HORNSTEIN, 2001).

- (37) *[John_i seems [CP t_i that [TP t_i left]]]

Returning to the contrast between [Spec,CP] and [Spec,TopP], if TopP is not a phase, it does not qualify as a recipient of an edge feature in the course of the computation. Once the Top head does not license extra specifiers due to edge features, its Spec then blocks movement of an embedded subject to the embedded [Spec,CP], as illustrated in (38).¹¹

- (38) a. *O João disse que esses livros, leu na semana passada.
the João said that these books read in-the week past
 'João said that he read these books last week.'



¹¹ If this conjecture is on the right track, multiple topic constructions must involve multiple base-generation or Topic projections within the DP that occupies the sentential topic position (see BASTOS, 2008 for relevant discussion). As for languages that allow movement of multiple foci, the relevant feature that triggers movement should be hosted by the focused expression and not by the focus head (see BOSKOVIC, 2007 for relevant discussion).

Finally, if the Top head is somehow involved in checking ϕ -features, true adjuncts should not land in [Spec,TopP]. This would capture Ferreira's (2000, 2004, 2009) observation that an intervening temporal adjunct, for instance, does not block movement of the embedded subject:

- (39) a. João_i não sabe [quando *ei*_i leu esse livro]
 João not knows when read this book
 'João_i doesn't know when he_i read this book'.
 b. João_i disse [que amanhã *ei*_i vai viajar pra Europa]
 João said that tomorrow go travel to Europe
 'João said that tomorrow he_i will travel to Europe.'

And as we should expect, true adverbs do not block hyper-raising either, as shown in (40).

- (40) [[os meninos], parecem [_C*t*_i [_C que [_C amanhã *t*_i vão viajar]]]]
 the boys seem that tomorrow go travel
 'The boys seem to be going on a trip tomorrow.'

Whether the distinction between [Spec,CP] and [Spec,TopP] proposed above is on the right track requires further investigation. That said, it is worth pointing out that whatever the relevant minimality notion is that makes the correct distinctions, it must group finite control and hyper-raising as a natural class and this is exactly what the movement theory of control adopted here leads us to expect.

9 Concluding remarks

In this paper I discussed Ferreira's (2000, 2004, 2009) claim that selective intervention effects in *wh*-island constructions in BP provides evidence for analyzing referential null subjects in BP as traces of A-movement. Upon closer inspection, we reached the conclusion that it could not be the case that a filled [Spec,CP] was playing a role in blocking movement of embedded subjects, for a similar configuration

also arises in instances of finite control with declaratives and in hyper-raising constructions. I offered an alternative account which singled out [Spec,TopP] (*modulo* the considerations in footnote 8) as the relevant intervener that prevents A-movement of embedded subjects. However, the alternative does not undermine the gist of Ferreira's proposal. By providing a uniform account of hyper-raising and finite control constructions, the analysis advanced here ends up providing support for the proposal that both types of constructions are derived through A-movement.

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