Inherent case as a licensing condition for A-movement: The case of hyper-raising constructions in Brazilian Portuguese

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Abstract

Assuming with Ferreira (2000, 2004, forthcoming) and Rodrigues (2002, 2004) that referential null subjects in (Colloquial) Brazilian Portuguese (BP) are traces of A-movement, this paper specifically focuses on hyper-raising constructions in BP. I argue that in impersonal constructions the embedded CP and the embedded subject (or an embedded topic) may compete for purposes of agreement with the matrix T. The embedded CP is generally the winner as it is more local. However, if it is assigned inherent Case by the matrix predicate, it becomes inactive and no longer competes with an embedded DP. In these circumstances, an embedded subject or topic can then move to the matrix [Spec,TP], yielding subject or topic hyper-raising constructions, respectively.

1. Introduction

A common view among scholars working on (Colloquial) Brazilian Portuguese (henceforth BP) is that BP should not be analyzed as a typical pro-drop language, as its null subjects are severely restricted in distribution and interpretation. Interestingly, these restrictions seem to correlate with a

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more permissive property of BP, namely, the fact that it allows constructions involving hyper-raising (in the sense of Ura (1994)), as illustrated in (1b) (see Ferreira 2000, 2004, forthcoming; Duarte 2003, 2004; Martins and Nunes 2005, forthcoming; Nunes 2007).

(1) a. Parece que o João comprou um carro.
   seems that the João bought a car
b. O João parece que comprou um carro.
   the João seems that bought a car
   ‘It seems that João bought a car.’

However, there are restrictions in this domain, as well. It is simply not the case that any impersonal construction in BP can license hyper-raising, as shown in (2b).

(2) a. Foi dito que o João comprou um carro.
   was said that the João bought a car
b. *O João foi dito que comprou um carro.
   the João was said that bought a car
   ‘It was said that João bought a car.’

In this paper I investigate the relevant property that allows hyper-raising in constructions such as (1b), but not in (2b). I will argue that inherent Case assignment to the embedded clause is what is at stake. More specifically, I propose that if the embedded clause receives inherent Case, it becomes immobile for purposes of A-movement, thereby freeing A-movement from within it.

The paper is organized as follows. In section 2, I review the empirical arguments that support the view that null subjects in BP should be analyzed as A-traces (see Ferreira 2000, 2004, forthcoming, and Rodrigues 2002, 2004) and make a specific proposal on how to interpret Ferreira’s (2000, 2004, forthcoming) claim that finite Ts in BP may be $\Phi$-complete or $\Phi$-incomplete. In section 3, I focus the discussion on hyper-raising constructions. After discussing the empirical evidence for an analysis of (1b) in BP in terms of hyper-raising, I examine three proposals on how this approach can be made compatible with phase-based computations and show that neither of them is able to rule out sentences such as (2b). In section 4, I present my proposal that inherent Case assignment is a necessary ingredient in the licensing of hyper-raising constructions. Section 5 then presents independent evidence for this proposal, based on hyper-raising out of infinitival clauses in BP. Finally, section 6 concludes the paper.

Inherrent case as a licensing condition for A-movement

2. Null Subjects and $\varphi$-(in)completeness in Brazilian Portuguese


(3) a. *Comprou um carro novo.
   ‘She/he bought a new car.’

b. [[o João] disse que [o pai d[o Pedro]] acha que
   the João said that the father of-the P. thinks that
   vai ser promovido]
   goes be promoted
   ‘João, said that [Pedro’s father]$_k$ thinks that he$_{2, r_{ij}^{ir_j}}$ is going to
   be promoted.’

c. Só o João acha que vai ganhar a corrida.
   only the João thinks that goes win the race
   ‘Only João is an x such that x thinks that x will win the race.’
   NOT: ‘Only João is an x such that x thinks that he, João, will win
   the race.’

d. O João tá achando que vai ganhar a corrida e
   the João is thinking that goes win the race and
   o Pedro també’m ‘tá.
   the Pedro too is
   ‘João thinks that that he’s going to win the race and Pedro does,
   too (think that he, Pedro, is going to win the race).’

e. O infeliz acha que devia receber uma medalha.
   the unfortunate thinks that should receive a medal
   ‘The unfortunate thinks the he should receive a medal.’

2 The qualification is meant to exclude null expletives, as well as null “arbitrary” third person subjects – both plural and singular (see e.g. Galves 1987, Nunes 1990, and Rodrigues 2004) –, which are still available in BP, as respectively illustrated in (i) and (ii).

(i) 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.’

(ii) a. Telefonaram para você.
   called-3PL to you
   ‘Someone called you.’

b. No Brasil não usa mais saia.
   in-the Brazil not use3SG more skirt
   ‘In Brazil people don’t use skirts anymore.’
(3a) shows that null subjects in BP require an antecedent and the antecedent must be the closest c-commanding DP. As for interpretation matters, a null subject in BP is interpreted as a bound variable when its antecedent is an only-DP (cf. (3c)); it obligatorily triggers sloppy reading under ellipsis (cf. (3d)); and it only admits a de se reading in sentences such as (3e). Importantly, in all the sentences of (3a)-(3e), the null subject displays the diagnostics of obligatory control despite the fact that it is within a standard indicative clause.

Exploring Hornstein’s (2001) movement analysis of obligatory control, Ferreira (2000, 2004, forthcoming) and Rodrigues (2002, 2004) have convincingly argued that with the weakening of the verbal agreement paradigm in BP (see e.g. Duarte 1995), its finite Ts ceased to license referential pro (see fn. 2) and referential null subjects came to be analyzed as traces of A-movement (see also Martins & Nunes (forthcoming) for relevant discussion). In this paper I will assume the gist of Ferreira’s and Rodrigues’s proposal, relying on the specific technical implementation advanced by Ferreira. Assuming Chomsky’s (2000, 2001) Agree-based framework, Ferreira (2000, 2004, forthcoming) proposes that finite Ts in BP are ambiguous in being associated with either a complete or an incomplete set of \( \phi \)-features. If the \( \phi \)-complete version of T is selected, it assigns nominative to the subject, freezing it for purposes of A-movement. If the \( \phi \)-incomplete version is selected instead, the subject of its clause remains Caseless and can undergo further A-movement. From this perspective, a sentence such as (4a) is to be derived along the lines of (4b), where the embedded T is \( \phi \)-incomplete and the matrix T is \( \phi \)-complete.

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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 3SG of this time
   ‘What did he do this time?’

4 The existence of finite control into indicative complements in BP presents serious problems for the “calculus of control” proposed by Landau (2004). According to him, “the only generalization in this domain that appears to be universal is the incompatibility of indicative clauses with OC [obligatory control; JN]. Anything else is possible, under certain circumstances” (p. 849-850). For relevant discussion, see Rodrigues (2004) and Boeckx, Hornstein & Nunes (forthcoming).
(4) a. O João disse que comprou um carro.
    ‘João said that he bought a car.’

    b. \[
        \begin{array}{c|c|c}
            & \text{TP} & \text{\Phi-complete} \\
            \hline
            d & [o \ \text{João}] \ \text{\Phi-complete} & [d \ \text{disse}] \ \text{\Phi-incomplete} \\
        \end{array}
    \]

A problem that Ferreira’s proposal faces is that it is not clear why exactly
finite Ts may be specified as \(\Phi\)-complete or \(\Phi\)-incomplete, given that the
verbal agreement morphology associated with each specification is the same.
Developing a suggestion made in Nunes (2007), I would like to propose that
the ambiguity proposed by Ferreira should be interpreted in terms of the
derivational timing at which person and number features are combined:
whether in the numeration or in the morphological component. Take the
paradigm of verbal agreement morphology in BP given in (5), for instance.

(5)

<table>
<thead>
<tr>
<th>Verbal agreement paradigm in (Colloquial) Brazilian Portuguese</th>
</tr>
</thead>
<tbody>
<tr>
<td>cantar ‘to sing’: indicative present</td>
</tr>
</tbody>
</table>
| \begin{tabular}{ll}
| eu (I) & canta \ P:1.N:SG \\
| você (you.SG) & cant \ P:default; N:default \\
| ele (he) & canta \ (= 3SG) \\
| ela (she) & canta \ P:default; N:default \\
| a gente (we) & canta \ (= 3PL) \\
| vocês (you.PL) & cantam \ P:default; N:PL \\
| eles (they.MASC) & cantam \ P:default; N:PL \\
| elas (they.FEM) & cantam \ P:default; N:PL |
| \end{tabular} |

The only form that distinctively encodes person and number in (5) is the
syncretic inflection for first person singular; the other two inflections involve
a default value (third) for the person feature. That being so, the three different
forms of the verb in (5) can be obtained if T enters the numeration with both
number and person, as illustrated in (6), or if T enters the numeration only
within number, and the person feature is added in the morphological component
in accordance with the redundancy rule in (7), as shown in (8).

(6)

<table>
<thead>
<tr>
<th>Valuation of T in the syntactic component</th>
<th>Surface form of the verb</th>
</tr>
</thead>
<tbody>
<tr>
<td>P:1.N:SG</td>
<td>cantar</td>
</tr>
<tr>
<td>P:default; N:default</td>
<td>cantar</td>
</tr>
<tr>
<td>P:default; N:PL</td>
<td>cantam</td>
</tr>
</tbody>
</table>
(7) When T is only specified for number (N):
(i) Add [P:1], if N is valued as SG;
(ii) otherwise, add [P:default].

(8) 

<table>
<thead>
<tr>
<th>Valuation of T in the syntactic component</th>
<th>Addition of [person] in the morphological component</th>
<th>Surface form of the verb</th>
</tr>
</thead>
<tbody>
<tr>
<td>N:SG</td>
<td>P:1; N:SG</td>
<td>canto</td>
</tr>
<tr>
<td>N:default</td>
<td>P:default; N:default</td>
<td>canta</td>
</tr>
<tr>
<td>N:PL</td>
<td>P:default; N:PL</td>
<td>cantam</td>
</tr>
</tbody>
</table>

If person in BP may indeed be a dissociated feature (in the sense of Embick 1997), a finite T is expected to behave differently, depending on its feature specification as it enters the syntactic computation. If it is associated with both person and number in the numeration, it will function as a Case-assigning element; by contrast, if it enters the derivation with just a number feature, it will behave as a defective head throughout the syntactic computation proper and will be unable to value the Case feature of a DP it agrees with. Under this view, the derivation of (4a), repeated here in (9), proceeds along the lines of (10) (with English words for convenience).

(9) O João disse que comprou um carro.  
the João said that bought a car  
‘João said that he bought a car.’

(10) a. [TP \( T_{PAST}|N:u\)/EPP [vP João [Case:u] buy- a car]]

b. [TP \( T_{PAST}|N:default\)/EPP [vP t buy- a car]]

c. [vP João [Case:u] say- [CP that [TP t \( T_{PAST}|N:default\)/EPP [vP t buy- a car]]]]

d. [TP \( T_{PAST}|P:u; N:u\)/EPP [vP João [Case:u] say [CP that [TP t \( T_{PAST}|N:default\)/EPP [vP t buy- a car]]]]]

e. [TP João [Case:nom] \( T_{PAST}|P:default; N:default\)/EPP say [CP that [TP t \( T_{PAST}|N:default\)/EPP [vP t buy- a car]]]]

The past indicative T in (10a) comes from the numeration with just a number feature, which gets valued (as default) after agreeing with João, as shown in (10b). In the morphological component, a default person feature is added to T in compliance with (7ii) and the embedded verb surfaces with the “third person singular” form comprou (cf. (9)). Given that only a \( \phi \)-complete T is able to check/value the Case feature on a DP (Chomsky 2000, 2001),

\[5\] Recall from (5) that only the first person singular pronoun triggers a singular specification on a finite T; all the other “singular” DPs trigger default number (and person) agreement.
João remains active after agreeing with the Φ-incomplete T in (10b). It may then raise to the matrix [Spec,vP], where it receives an additional θ-role, yielding (10c). The next finite T to enter the derivation comes from the numeration with a complete Φ-set (person and number), as shown in (10d). It then agrees with João, valuing its Case-feature and having its own features valued, as illustrated in (10e). In other words, the subject is assigned (nominative) Case by the matrix T rather than the embedded T. Common in both representations in (4b) and (10) is the movement of the embedded subject to the matrix [Spec, vP] before reaching the matrix [Spec, TP], which accounts for the fact that o João in (9) is interpreted as associated with the external θ-roles of both the matrix and the embedded verb (see Hornstein 2001).

An advantage of this approach is that it leaves room for the micro-variation attested in BP and illustrated in (11).

(11)a. Eu falei que (eu) comi o bolo.
   I spoke.1SG that I ate.1SG the cake
   ‘I said that I ate the cake.’

b. Você/ele/a gente falou que (você/ele/a gente) comeu
   you.SG/he/we spoke.3SG that you.SG/he/we ate.3SG
   the cake
   ‘You(SG)/he/we said that you(SG)/he/we ate the cake.’

c. Vocês/elas falaram que (vocês/elas) comeram o bolo.
   you.PL/they spoke.3PL that you.PL/they ate.3PL
   the cake
   ‘You(PL)/they said that you(PL)/they ate the cake.’

In (11a-c), the embedded and the matrix subjects are coreferential. For all speakers of BP, the realization of the embedded subjects in (11b) and (11c), which trigger default (third) person agreement, is truly optional. By contrast, a good number of speakers prefer an overt pronoun when the embedded subject triggers first person agreement (cf. (11a)).6 This idiolectal variation can receive a natural account if the specification of the redundancy rule in (7) is not uniform across speakers. For speakers who do not have (7i) in their grammars, finite control into indicatives is like what we find in Hebrew subjunctives (see Landau 2004): it is only possible with subjects that trigger third person agreement (see Boeckx, Hornstein & Nunes (forthcoming) for relevant discussion).

Another advantage of the analysis of finite control into indicatives in BP in terms of Φ-incompleteness is that it makes it possible to understand why this subtype of obligatory control is rare from a crosslinguistic point of view.

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6 Duarte (1995, 2000) shows that the percentage of null subjects with third person is significantly much higher than first person in both spoken and written corpora of Brazilian Portuguese.
Since the incorporation of the Case Theory into GB, it has been standardly assumed that there is a strong correlation between finiteness and the presence of a full $\phi$-set. The unmarked situation is for finite Ts to be $\phi$-complete ($[T^+, \phi^+]$) and for nonfinite Ts to be $\phi$-incomplete ($[T^-, \phi^-]$). However, the correlation, albeit strong, is not absolute. Although patterns with opposite values for T and $\phi$ are not garden-variety species across languages, they do exist. Witness, for instance, inflected infinitivals such as (12) below in Portuguese, where the subject is licensed with nominative Case within the infinitival, and “porous” subjunctives such as (13) in Romanian, where the embedded subject can leave the subjunctive clause and undergo A-movement to the matrix subject position. Thus, the fact that obligatory control into indicative clauses is rather uncommon is related to the marked character of mismatches between T and $\phi$ with respect to full specification ($[T^+, \phi^-]$ in the case under discussion).

(12) Eles ganharem o jogo foi realmente uma surpresa.

‘Their winning the game was a real surprise.’

(13) Romanian (Dobrovie-Sorin 1994):

Copiii tăi par să fie foarte obosiți.

‘Your children seem to be very tired.’

A learnability question that arises in this approach regards the appropriate trigger that led indicative Ts in BP to be analyzed by children as ambiguous between $\phi$-complete and $\phi$-incomplete. After all, the ambiguous morphological paradigm cannot be the whole story, for in English, for instance, verbal morphology is considerably weak, but hyper-raising is not allowed. Furthermore, whatever the relevant property turns out to be, it should arguably be a marked property; otherwise, hyper-raising should be a very common phenomenon.

I would like to suggest that the relevant trigger for this reanalysis in BP is the existence of inflected infinitives in the language. While finite verbal morphology started getting weakened, BP learners still had to acquire a marked property of Portuguese, namely, the existence of inflected infinitives. Interestingly, for all Portuguese verbs, the inflected realization of some forms is the same as the uninflected form. Take the verb cantar ‘to sing’, for example, and compare its uninflected form (cantar) with the paradigm of inflected forms in (14) below. Although the paradigm is considerably meager in BP, both dialects have a considerable number of verbal forms that are ambiguous between being inflected or uninflected. Thus, successful acquisition of infinitives in both dialects requires that learners postulate that (certain) infinitival forms are ambiguous between being $\phi$-complete (the
inflected ones) and $\phi$-incomplete (the uninflected ones). That being the case, I suggest that the specific weakening of finite verbal morphology seen in (5) led BP learners to generalize the pattern in (14) and uniformize the whole paradigm, taking both infinitival and indicative Ts to be systematically ambiguous.

(14) Inflected infinitives in
European Portuguese: cantar 'to sing'

<table>
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<tr>
<th></th>
<th>Inflected infinitives in (Colloquial) Brazilian Portuguese: cantar ‘to sing’</th>
</tr>
</thead>
<tbody>
<tr>
<td>1SG (eu)</td>
<td>cantar</td>
</tr>
<tr>
<td>2SG (tu)</td>
<td>cantaes</td>
</tr>
<tr>
<td>2SG (você)</td>
<td>cantar</td>
</tr>
<tr>
<td>3SG (ele)</td>
<td>cantar</td>
</tr>
<tr>
<td>1PL (nós)</td>
<td>cantarmos</td>
</tr>
<tr>
<td>1PL (a gente)</td>
<td>cantar</td>
</tr>
<tr>
<td>2PL (vós)</td>
<td>cantardes</td>
</tr>
<tr>
<td>2PL (vocês)</td>
<td>cantarem</td>
</tr>
<tr>
<td>3PL (eles)</td>
<td>cantarem</td>
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</table>

To sum up, BP exercises an option that is generally restricted to non-finite clauses in other languages, namely, it allows raising out of a finite embedded clause when its T is not a Case assigner (i.e. when it only has a number feature as it enters the numeration). In the sections that follow, all sentences with referential null subjects will be examined under the derivation in which the T head of the clause containing the null subject is only specified for number in the syntactic component.

3. Hyper-raising in BP and Phase-Based Computations

If A-movement out of a finite embedded clause is allowed in BP, there is no reason for the landing site of such movement to be necessarily a thematic position. That is, in addition to finite control constructions discussed in section 2, BP should also allow hyper-raising constructions (in the sense of Ura 1994), where the landing site of the moved subject is the matrix [Spec,TP]. Ferreira (2000, 2004, forthcoming) argues that this prediction is indeed fulfilled, as illustrated in (15b), whose derivation under the interpretation of $\phi$-(in)completeness proposed here should proceed along the lines of (16).

(15) a. Parece que o João comprou um carro.
    seems that the João bought a car

b. O João parece que comprou um carro.
    the João seems that bought a car

    ‘It seems that João bought a car.’
If the embedded T in (16a) were fully specified with respect to $\phi$-features, the subject would have been Case licensed in the embedded clause, yielding an impersonal construction, as seen in (15a). However, this is not what happens in (16a). T is associated only with number and the subject does not have its Case valued after agreeing with T, as shown in (16b) (cf. fn. 5). After further computations, a fully inflected T is selected, as shown in (16c), and enters into an agreement relation with the embedded subject, allowing all unvalued features to be valued. Notice that although both the matrix and the embedded verb surface in the “third person singular” form (cf. (15b)), they differ with respect to how this specification is carried out. The matrix T verb enters the numeration with both person and number features, which then get trivially valued in the syntactic component through Agree. The embedded T, on the other hand, only has a number feature as it enters in the derivation; after being valued in the syntactic component, the number feature is then combined with a default person specification in the morphological component in compliance with (7ii).

Ferreira (2000) presents three arguments supporting his proposal that the position occupied by the matrix DP of constructions such as (15b) is [Spec,TP], rather than some higher topic position in the left periphery. First, the matrix DP of these constructions behaves like a regular subject in standard raising constructions, for instance.

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$^7$ It is worth pointing out that although finite control and hyper-raising constructions necessarily involve a $\phi$-incomplete T in the embedded clause and $\phi$-complete T in the matrix clause, nothing need be stipulated to ensure this result (see Ferreira 2000, 2004, forthcoming for discussion). Although both $\phi$-complete and $\phi$-incomplete finite Ts are legitimate options for any given numeration, UG principles determine whether or not the choice and the structural locus of a $\phi$-incomplete finite T give rise to a convergent derivation. If the matrix clause is associated with a $\phi$-incomplete finite T, there is no source of Case assignment for the matrix subject and the derivation simply crashes. In other words, a $\phi$-incomplete finite T will only yield a convergent derivation if it sits within an embedded clause, being no different from other types of $\phi$-incomplete Ts, such as the infinitival T head of standard raising constructions, for instance.
triggering agreement with the matrix verb, as seen in (17) below.\(^8\) Second, the preverbal position in the matrix clause can host weak pronouns, which cannot be topicalized, as shown in (18). Finally, this position can also host negative quantifiers in out-of-the-blue contexts, as shown in (19), again showing the matrix DP is not a topic of sorts. An additional argument to this effect is presented by Martins & Nunes (2005, forthcoming\(a,b\)), who show that idiom chunks, which are generally resistant to A’-movement, can also appear in hyper-raising constructions, as illustrated in (20).

(17) Os meninos parecem que fizeram a tarefa.
the boys seem that did the homework
‘The boys seem to have done their homework.’

(18) a. *Cê, o João me disse que está doente.
you weak the João me said that is sick
‘João told me that you are sick.’
b. Cê parece que está doente.
you weak seems that is sick
‘You seem to be sick.’

(19)a. *Ninguém, o João disse que entendeu o problema.
nobody the João said that understood the problem
‘João said that nobody understood the problem.’
b. Ninguém parece que entendeu o problema.
nobody seems that understood the problem
‘Nobody seems to have understood the problem.’

(20) a. [a vaca] acabou que t, foi pro brejo.
the cow finished that went to the swamp
‘It turned out that things went bad.’
b. [o pau] parece que t, comeu feio.
the stick seems that ate ugly
‘It seems that there was a big discussion/fight.’

\(^8\) Agreement with the matrix verb sets hyper-raising constructions from what Fernández-Salgueiro (2005) has called further-raising constructions, as illustrated in (i), where the matrix DP also shows diagnostics of having undergone movement despite not triggering agreement. Here I will have nothing to say on further-raising constructions (see Fernández-Salgueiro 2005 for a proposal and relevant discussion).

(i) Spanish (Fernández-Salgueiro 2005):
Juan y Pedro parece que son
John and Peter seems that are
muy listos.
very smart
‘John and Peter seem to be very smart.’
Corroborating evidence that the matrix subject in (15b) reaches this position via movement (cf. (16)) is provided by island and intervention effects, as respectively illustrated by the unacceptability of (21b), where the matrix DP has moved out of a relative clause, and the unacceptability of (22b), where the matrix DP has crossed a left dislocated object in the embedded clause.  

(21) a. [Parece [que o bolo [que o João comeu]] não estava bom]]
seems that the cake that the João ate not was good
b. *[o João], parece [que o bolo [que t/ comeu]] não estava
the João seems that the cake that ate not was
good
'It seems that the cake that João ate was not good.'

9 As we should expect, finite control sentences analogous to (21b) and (22b) in BP also display island and minimality effects, as illustrated in (i), for they are derived via A-movement (see section 2).

(i) a. *[a Maria], disse que [o bolo [que t/ comeu]] não estava bom]
the Maria said that the cake that ate not was good
'Maria said that the cake that she ate was not good.'

b. *[o João], disse que o bolo, t/ comeu]
the João said that the cake ate
'João said that he ate the cake.'

Furthermore, if finite control and hyper-raising involving subjunctives, as illustrated in (ii) with Romanian, also involve A-movement (see Dobrovie-Sorin 1994, Alboiu 2007, and Boeckx, Hornstein & Nunes forthcoming for relevant discussion), the prediction is that a left dislocated element should block the putative A-movement out of the embedded subjunctive clause. The contrast between (ii) and (iii) indicates that this prediction is correct.

(ii) a. Romanian (Dobrovie-Sorin 1994):

Ion vrea să plece devreme miine.
'Ion wants to leave early tomorrow.'

b. Copiii tâi par să fie foarte obosiţi.
'Your children seem to be very tired.'

(iii) Romanian:

a. *Ion începe ca pe Maria s-o ajute.
'Ion is beginning to help Maria.'

(Dobrovie-Sorin 1994)

b. *Bombele pot ca în orice moment să explodeze.
'The bombs can go off any minute.'

(Grosu and Horvath 1987)
(22) a. Parece que o bolo, o João comeu.
    seems that the cake the João ate
    ‘It seems that João ate the cake.’

b. *[[o João], parece que o bolo, ti, comeu]
    the João seems that the cake ate
    ‘João seems to have eaten the cake.’

Finally, reconstruction effects also provide independent support for the proposal that the matrix and the embedded subject positions of constructions such as (15b) are related by movement. Take the paradigm in (23), for instance.

(23) a. [Ninguém mexeu um dedo para me ajudar]
    nobody moved a finger to me help
    ‘Nobody lifted a finger to help me.’

b. *[Ninguém disse [que a Maria mexeu um dedo para me ajudar]]
    help
    ‘Nobody said that Maria didn’t lift a finger to help me.’

c. [Ninguém disse [que ia mexer um dedo para me ajudar]]
    nobody said that he wasn’t going to lift a finger to help me.’

d. [Ninguém parecia [que ia mexer um dedo para me ajudar]]
    nobody seemed that he wasn’t going to lift a finger to help me.’

The contrast between (23a) and (23b) illustrates the well known fact that a negative polarity item such as the minimizer um dedo ‘a finger’ and its licenser (in this case, ninguém ‘nobody’) must be in the same clause. Interestingly, if we have a null rather than an overt embedded subject in sentences analogous to (23b) in BP, the minimizer can now be licensed by the matrix subject, as shown with the finite control construction in (23c) and the hyper-raising construction in (23d). Even more interesting is the fact that it is not the case that any type of null subject will do. Although contrasts such as the one between (23a) and (23b) also hold in European Portuguese, sentences analogous to (23c) and (23d) are unacceptable in this dialect.

Given that Brazilian Portuguese allows finite control into indicative clauses, the contrast between the two dialects with respect to (23c,d) receives a straightforward account from the movement approach defended in section 2. The embedded null subject in sentences such as (23c,d) in European Portuguese, which is a prototypical pro-drop language, is pro. Hence, (23c) and (23d) are ruled out in European Portuguese because the minimizer and its licenser are not in the same clause (in addition, (23d) violates the 0-Criterion,
as there is no θ-role available for the matrix subject). By contrast, in BP the embedded null subject of (23c,d) is a trace of the matrix subject, as illustrated in (24) below (with English words). Thus, the minimizer can be licensed by the clause-mate trace of the negative quantifier (or it can be licensed before the quantifier leaves the embedded clause). Again, we see that once the embedded clause is porous due to the availability of an indicative T head specified as Φ-incomplete, the derivation will yield a control (cf. (23c)) or a hyper-raising construction (cf. (23d)) depending on whether or not the moving subject is assigned an additional θ-role on its way to the matrix [Spec,TP] (cf. (24)).

(24) a. [TP nobody, [vP t_i said [CP that [TP t_i would [vP t_i lift a finger to help me]]]]
   b. [TP nobody, [vP seemed [CP that [TP t_i would [vP t_i lift a finger to help me]]]]

That being so, technical questions arise regarding phase-based computations in the derivation of hyper-raising constructions. Let us reconsider the derivation of (15b) repeated here in (25) (again with English words for convenience).

(25) a. O João parece que comprou um carro.
   the João seems that bought a car
   ‘It seems that João bought a car.’
   b. [TP João][Case:NOM][T[P:default; N:default]/EPP][vP seems [CP that [TP t_i T[N:default]/EPP [vP t_i bought a car]]]]

The matrix vP in (25b) does not count as a (“strong”) phase as its head is not a “transitive” light verb (see Chomsky 2000, 2001). But what about the embedded CP? Isn’t it a phase and, accordingly, shouldn’t the movement of the embedded subject be prevented?

Three different answers have been offered to address this issue. Ferreira (2000) suggests that a C head that selects for a Φ-incomplete TP does not count as a strong phase head. According to this suggestion, the embedded CP in (25b) is not a strong phase (the head of its complement only bears a number feature) and the embedded subject should therefore be free to undergo A-movement. However, Martins & Nunes (forthcoming) point out that this suggestion incorrectly rules out “topic hyper-raising” constructions in BP such as (26a) (see Duarte 2003, 2004 and Martins & Nunes 2005, forthcoming), which they argue involve movement of an embedded topic to the matrix subject position, as sketched in (26b).  

10 See Martins & Nunes (forthcoming) for arguments for the structure in (26b) and relevant discussion.
(26) a. Os meninos parecem que eles viajaram ontem.  
   ‘The boys seem to have traveled yesterday.’

b. \[TP[os meninos], T[TP] parecem [CP que [TopP t, [TP eles viajaram ontem]]]]
   ‘The boys seem-3PL that they traveled-3PL yesterday.’

In (26a), the embedded T must be $\emptyset$-complete, as the embedded subject needs to be Case-licensed. Thus, the embedded CP should count as a strong phase according to Ferreira’s suggestion and topic hyper-raising in BP should be ruled out, contrary to fact.

Another suggestion to handle the cyclicity issue is presented by Rodrigues (2004). She assumes that BP has an additional functional projection (FP) above TP and adopts a particular view on phase computations, according to which (i) TPs are strong phases; and (ii) inside the domain of a strong phase head HP, only sub-domains that are themselves phases are not accessible to operations outside HP. From this perspective, the derivation of (25a) should involve an extra step, with João moving first to [Spec,FP] before moving to the matrix clause, as sketched in (27) below. Crucially, when the embedded CP is built, Spell-Out applies to the embedded TP, but not to FP, allowing the embedded subject to undergo further A-movement.

(27) \[TP João][Case:NOM] T[TP, N:default] vP \[seems \[CP that [vP t F [TP t bought a car]]]]

Rodrigues’s suggestion seems to face problems with quirky Case constructions where T agrees with a nominative object across a quirky subject in [Spec,vP]. If TP and vP are both phases, as she assumes, T should not be able to have access to the probe domain of the lower phase head (v). This was in fact one of the considerations that led Chomsky (2001) to redefine the Phase Impenetrability Condition as in (28) below. If T is not a strong phase head, Spell-Out need not apply to the complement of the light verb when T is merged and agreement between T and the object is in principle allowed.

(28) The domain of H [the head of the strong phase HP; JN] is not accessible at ZP [the smallest strong phase dominating HP; JN]; only H and its edge are accessible to such operations.

Martins & Nunes (forthcomingb) actually propose that Chomsky’s (2001) version of Phase Impenetrability Condition in (28) is able to account for both subject and topic hyper-raising in BP. According to (28), Spell-Out is required
to apply to the complement of the head of the CP phase only when the next strong phase head is introduced in the derivation. Given that neither TP nor the VP/vP associated with raising verbs qualify as strong phases, Spell-Out need not apply to the embedded TP in (25b) or TopP in (26b) before the matrix C (the next strong phase head) is added to the derivation. Hence, the matrix T can establish a probe-goal relationship with the embedded subject in (25b) or the embedded topic in (26b) before merger of the matrix C.

Despite their different degrees of conceptual naturalness and empirical success, neither of the proposals reviewed above is able to rule out ungrammatical hyper-raising sentences such as (29b).

(29) a. Foi dito/mencionado que os meninos fizeram a tarefa
   was said/mentioned that the boys did the homework
b. *Os meninos foram ditos/mencionados que fizeram a tarefa
   the boys were said/mentioned that did the homework
   ‘It was said/mentioned that the boys did their homework’

Under Ferreira’s (2000) proposal, (29b) is admitted given that the embedded T may be $\emptyset$-incomplete, in which case the embedded CP does not count as a strong phase. Under Rodrigues’s proposal, the embedded CP is a strong phase, but the subject can use [Spec,FP] in the embedded clause as an escape hatch to reach the matrix [Spec,TP]. Finally, under Martins & Nunes’s proposal, the embedded subject should be able to move to the matrix [Spec,TP] without any problems: given that passive participles are not assumed to be strong phases, the domain of the embedded C will only be spelled when the matrix C enters the derivation.

It is also worth noticing that the restriction seen in (29) also affects topic hyper-raising in BP, as illustrated in (30).

(30) a. Foi dito/mencionado que os meninos, eles fizeram a tarefa
   was said/mentioned that the boys they did the homework
b. *[[os meninos], foram ditos/mencionados [CP que [TopP I, eles
   the boys were said/mentioned that they did the homework
   fizeram a tarefa]]]
   ‘It was said/mentioned that the boys did their homework.’

Assuming with Martins and Nunes (forthcomingb) that subject and topic hyper-raising should be accounted for in terms of (28), in the next section I investigate what blocks the probe-goal relation between the matrix T and the embedded subject in (29b) or the embedded topic in (30b).
4. Inherent Case and the A-over-A Condition

There is an interesting correlation in BP between hyper-raising and movement of the embedded clause. As shown in (31)-(34), hyper-raising is possible just in case the relevant embedded CP is immobile:

(31) a. Parece [que os meninos fizeram a tarefa] 
seems that the boys did the homework 
‘It seems that the boys did their homework.’
b. *[[que os meninos fizeram a tarefa], parece t_i] 
that the boys did the homework seems 
‘It seems that the boys did the homework.’
c. [[os meninos], parecem que t_i fizeram a tarefa] 
the boys seem that did the homework 
‘The boys seem to have done their homework.’

(32) a. Acabou [que os estudantes viajaram mais cedo] 
finished that the students traveled more early 
‘It turned out that the students traveled earlier.’
b. *[[que os estudantes viajaram mais cedo], acabou t_i] 
that the students traveled more early finished 
‘It turned out that the students traveled earlier.’
c. [[os estudantes], acabaram que t_i viajaram mais cedo] 
the students finished that traveled more early 
‘The students ended up traveling earlier.’

(33) a. Periga [que aqueles funcionários vão ser demitidos] 
is-in-danger that those employees go be fired 
‘Those employees are in danger of being fired.’
b. *[[que aqueles funcionários vão ser demitidos], periga t_i] 
that those employees go be fired is-in-danger 
‘Those employees are in danger of being fired.’
c. [[aqueles funcionários], perigam que t_i vão ser demitidos] 
those employees are-in-danger that go be fired 
‘Those employees are in danger of being fired.’

(34) a. Não foi dito/mencionado [que os meninos fizeram a tarefa] 
not was said/mentioned that the boys did the homework 
‘It was not said/mentioned that the boys did their homework’
b. [[que os meninos fizeram a tarefa], não foi 
that the boys did the homework not was 
dito/mencionado t_i] 
said/mentioned 
‘That the boys did their homework was not said/mentioned.’
c. *[os meninos], foram ditos/mencionados que ti, fizeram a
tarefa
to the boys were said/mentioned that did the
homework
‘It was not said/mentioned that the boys did their homework.’

This set of facts raises two major questions within Chomsky’s (2001, 2004, 2005) Agree-based model. First, why does potential movement of CP block movement of the embedded subject (cf. (34))? Second, what freezes movement of CP (cf. (31b)/(32b)/(33b)), thereby freeing movement of the embedded subject (cf. (31c)/(32c)/(33c))?

I propose that the answer to the first question is to be found in the placement of \( \phi \)-features within CP phases. Assuming Chomsky’s (2005) proposal that \( \phi \)-features are held by the C head (they are associated with T only by inheritance) and Hornstein’s (forthcoming) reinterpretation of Chomsky’s (1964) A-over-A Condition in terms of paths, A-movement of the embedded subject for purposes of \( \phi \)-agreement violates minimality. That is, when the matrix probe inspects its domain for purposes of \( \phi \)-agreement, CP is the closest projection containing a \( \phi \)-set, as it defines the shortest path to the matrix probe, as sketched in (35). Thus, movement of the embedded subject in (34c) for purposes of \( \phi \)-agreement is correctly blocked due to a minimality violation.\(^{11}\)

(35) a. \[XP \text{ Probe } [YP \ldots [ZP \ldots [CP \ldots [TP \text{ DP } \ldots ]]]]]\]  
b. movement of CP to [Spec, XP] crosses ZP and YP  
c. movement of DP to [Spec, XP] crosses TP, CP, ZP, and YP

The answer to the first question given above makes the ungrammaticality of (34c) the unmarked case (see fn. 11). This being so, we now have to explain the exceptional pattern in (31b)/(32b)/(33b). I suggest that this issue is related to the well-known fact that English experiencers in raising constructions do not block movement (cf. (36a)), despite the fact that they arguably c-command into the embedded clause, inducing Principle C effects (cf. (36b)).

(36) a. [Johni seems to him [ ti, to be nice ]].  
b. *It seems to him, that Johni is nice.

A standard assumption within the Agree-based model is that what renders an element active for purposes of A-movement is its unchecked structural Case (Lasnik 1995, Chomsky 2000). In particular, inherently Case-marked

\(^{11}\) If movement of the embedded subject is for \( \theta \)-purposes, as in the case of (finite) control (cf. (10b-c), for instance), the \( \phi \)-features of C do not count as appropriate interveners. See Nunes (2007) for discussion.
elements are inert for purposes of A-movement (Hornstein and Nunes 2002) and therefore should not induce intervention effects for A-relations. Thus, assuming that the experiencer in (36) is assigned inherent Case by the raising verb, it becomes immobile for A-purposes and does not count as a proper intervener for the movement of John in (36a). Returning to (31b)/(32b)/(33b), I propose that verbs like parecer ‘seem’, acabar ‘turn out’, and perigar ‘be on the verge of’ assign inherent Case to their CP complements, rendering them immobile and, as a by-product, allowing for hyper-raising, as sketched in (37).

(37) a. [DP, parece/acabou/periga [CP que [TP t, … ]]] [inherent Case]: OK
b. [DP, foi dito/mencionado [CP que [TP t, … ]]]: *

Evidence for this analysis is provided by the contrast between (31) and (38) below, where parecer takes a small clause as its complement. Given that there is no ECM analog for assignment of inherent Case (see Chomsky 1986 and Belletti 1988), parecer in (38a) cannot assign inherent Case to CP in the configuration in (39), for CP is not its complement. Thus, CP is indeed mobile in this circumstance (cf. (30b)) and movement of the embedded subject is ruled out by minimality (cf. (38c)), as predicted.

(38) a. Parece óbvio que eles viajaram.
  seems obvious that they traveled
  ‘It seems obvious that they traveled.’
b. Que eles viajaram parece óbvio.
  ‘That they traveled seems obvious.’
c. *Eles parecem óbvios que viajaram.
  they seem obvious that traveled
  ‘It seems obvious that they traveled.’

(39) *[DP, parece [SC [CP que [TP t, … ]]] óbvio].

The analysis proposed above is also able to accommodate some micro-variation among speakers. First, it is not the case that all speakers allow hyper-raising with the same set of predicates. For instance, (33c) is not as acceptable as (33a) for some speakers. In addition, some speakers judge topic hyper-raising to be more acceptable than subject hyper-raising when first person singular is involved, as illustrated in (40).

(40) a. % Eu pareço que ‘tou enganado.
  I seem.1SG that am mistaken
b. Eu pareço que eu ‘tou enganado.
  I seem.1SG that I am mistaken
  ‘I seem to be mistaken.’
The fact that speakers’ judgments about hyper-raising constructions may vary depending on the specific impersonal predicates employed receives a natural account under the standard assumption that inherent Case is a lexical property that is to some extent idiosyncratic. Variation across speakers with respect to such lexical idiosyncrasies is thus unsurprising.

As for the preference for topic hyper-raising over subject hyper-raising for some speakers, this has to do with the morphological redundancy rule that assigns a person feature to a T specified with just number, as seen in (7) and repeated here in (41).

(41) When T is only specified for number (N):
   (i) Add [P:1], if N is valued as SG;
   (ii) otherwise, add [P:default].

As mentioned in section 2, speakers who do not allow finite control with first person singular null subjects (cf. (11a)) arguably do not have the specification in (41i) in their grammars. For these speakers, a derivation involving a first person singular subject pronoun can only converge if the clause-mate T is fully specified for person and number, which rules out both finite control (cf. (11a)) and subject hyper-raising (cf. (40a)) with first person singular. Topic hyper-raising, on the other hand, is compatible with both the matrix and the embedded T being -complete, provided that the relevant impersonal predicate assigns inherent Case to its CP complement, as sketched in (42).

(42) \[TP\_eu\_T\_N,\_P\] \[pareço\_\_CP\] \[que\_\_CP\_\_TP\_eu\_T\_N,\_P\] \[‘tou\_\_enganado\] \[inherent\_Case\] inherent Case

Let us now examine some morphological reflexes of the assignment of inherent Case to CP proposed here.

5. Independent Evidence: Hyper-raising out of inflected infinitivals

Additional evidence for the proposal outlined in section 4 is found in infinitival constructions in BP. As originally noted by Galves (1987), sentences such as (43) in BP are ambiguous in that the DP that appears in the matrix clause may be interpreted as the external or the internal argument of the embedded verb:

(43) O João é difícil de elogiar.
    the João is difficult of praise-INF
   Tough-interpretation: ‘It is hard to praise João.’
   Raising interpretation: ‘João rarely praises someone.’
Here I will focus on the raising interpretation. That the matrix DP in (43) is a subject is shown by the fact that it triggers verbal agreement, as shown in (44) below. Moreover, the fact that these constructions may involve idiom chunks, as illustrated in (45) and (46), indicate that the matrix DPs have raised out of the embedded clause. Finally, (47) shows that raising is possible even if the embedded clause has an inflected infinitival. Actually, that raising out of inflected infinitivals is allowed in BP should be no surprise by now, given that raising out of finite clauses is also possible, as seen in the previous sections. In other words, my proposal that finite Ts in BP may bear only a number feature in the syntactic component in BP (see section 2) can also be extended to the T head of its inflected infinitivals.

(44) a. Eu sou fácil de elogiar alguém.
I am easy of praise someone
‘I easily praise people.’

b. Esses professores são difíceis de elogiar os alunos.
these teachers are difficult of praise the students
‘These teachers rarely praise the students.’

(45) a. Tá fácil do caldo entornar.
 is easy of the broth boil-over
b. O caldo tá fácil de entornar.
the broth is easy of boil-over
‘It’s likely that things will go wrong.’

(46) a. Tá bem fácil da vaca ir pro brejo.
 is very easy of the cow go to the swamp
b. A vaca tá bem fácil de ir pro brejo.
the cow is very easy of go to the swamp
‘It’s very likely that things will go wrong.’

Relevant for our current discussion are the correlations involving the dummy preposition de and the availability of these raising constructions. First, this type of raising is only allowed with predicates that permit the dummy preposition de.12 As shown in (48) and (49) below, for instance, predicates

12 However, the correlation just goes one way, for there are cases where de is licensed, but raising is blocked, as illustrated in (i).

(i) a. Aconteceu/ocorreu de os meninos viajarem mais cedo.
happened/occurred of the boys travel.3PL more early
b. *[os meninos], aconteceram/ocorreram de t ons de viajarem mais cedo]
the boys happened/occurred of travel.3PL more early
‘It happened that the boys travelled earlier.’
such as fácil ‘easy’ and difícil ‘difficult’, which optionally require de, allow raising of the embedded subject; by contrast, predicates such as provável ‘probable’ and lamentável ‘regrettable’, which do not license de, do not allow raising either.

(48) a. É fácil/difícil (d)esses professores elogiarem os alunos.
    It’s easy/hard for these teachers to praise the students.
    ‘It’s easy/hard for these teachers to praise the students.’
b. Esses professores são fáceis/difíceis de elogiarem os alunos.
    These teachers are easy/difficult of praise the students.
    ‘These teachers often/rarely praise the students.’

(49) a. É bem provável/lamentável (*d)os professores terem elogiado o diretor.
    It is very likely/regrettable that the teachers praised the director.
    ‘It is very likely/regrettable that the teachers praised the director.’
b. *Os professores são bem prováveis/lamentáveis de terem elogiado o diretor.
    ‘These teachers rarely praise someone.’

Second, raising can take place only if the preposition is present, as shown in (50).

(50) a. É difícil (d)esses professores elogiarem alguém.
    ‘These teachers rarely praise someone.’
    ‘These teachers rarely praise someone.’
b. Esses professores são difíceis *(de) elogiarem alguém.
    ‘These teachers are difficult of praise someone.
    ‘These teachers are difficult of praise someone.

Finally, although the infinitival clause can move to the subject position or stay in situ, as shown in (51), once it is preceded by de it can no longer move, as shown in (52).

(51) a. É difícil (d)esses professores elogiarem alguém.
    ‘These teachers rarely praise someone.’
    ‘These teachers rarely praise someone.’
b. Esses professores elogiarem alguém é difícil.
    ‘These teachers praise someone is difficult
    ‘These teachers praise someone is difficult


(52) a. É difícil desses professores elogiarem alguém.
    is difficult of-these teachers praise.3PL someone

b. *Desses professores elogiarem alguém é difícil.
    of-these teachers praise.3PL someone is difficult

‘These teachers rarely praise someone.’

The paradigm in (48)-(52) can be accounted for if de is a morphological realization of inherent Case assignment. Under this view, the fact that only some predicates are able to take a de-infinitival (cf. (48a) vs. (49a)) reduces to lexical idiosyncrasies generally involved in inherent Case assignment (see section 4). In turn, if the infinitival receives inherent Case, it should become inactive for purposes of A-movement; hence, a de-infinitival cannot move to the matrix subject position (cf. (52a) vs. (52b)). Finally, given that both the infinitival clause and the embedded subject can potentially raise to the matrix subject position (cf. (51b) and (50b)), potential movement of the infinitival clause should always block movement of the embedded subject, as they instantiate an A-over-A configuration. In order for the subject to be allowed to move without violating Chomsky’s (1964) A-over-A Condition, the infinitival must be discarded from the competition. This happens when the infinitival receives inherent Case (cf. (52)).

We now have an explanation for why movement of the embedded subject requires the presence of de (cf. (50b)): by rendering the infinitival clause immobile, de ends up freeing the embedded subject. Actual subject movement will then depend on whether the infinitival T head bears only number or number and person features.

6. Concluding Remarks

Within the movement theory of control proposed by Hornstein (2001), control is just a case of A-movement and thus displays properties common to standard raising. BP provides an interesting test ground for the movement theory of control as it has a rare instantiation of control, namely, finite control into indicatives (see Ferreira 2000, 2004, forthcoming and Rodrigues 2002, 2004). Adapting a proposal by Ferreira (2000), I have argued in this paper that finite control in BP arises in virtue of finite Ts in BP having the option of being specified just for number. The existence of finite control in BP in turn leads to the prediction that hyper-raising should also be allowed, given that they are just instances of A-movement. Here I have provided additional arguments for Ferreira’s (2000) claim that BP does indeed allow hyper-raising, as expected, but I have also shown that it is not the case that any impersonal predicate in BP can have a hyper-raising counterpart. Even if an embedded T is only specified for number, a successful instance of hyper-raising is contingent on whether the embedded CP can move to the matrix [Spec,TP].
I have proposed that an embedded CP and an embedded subject or an embedded topic stand in an A-over-A relation, which gives priority to movement of the CP unless CP is independently rendered inactive for purposes of A-movement. This happens when CP is assigned inherent Case and becomes immobile, which then frees movement of an embedded subject or topic, yielding convergent instances of hyper-raising. To the extent that this proposal is on the right track, it provides a new type of argument for the analysis of null subjects in BP as resulting from A-movement in that it shows that the putative movement competes with another movement with respect to path length.

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