## RESEARCH PAPER

# Remarks on Finite Control and Hyper-Raising in Brazilian Portuguese 

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#### Abstract

In this reply I examine Modesto's (2011) claim that null subjects in Brazilian Portuguese (BP) are not controlled and are not derived by movement. I show that the critique has a considerable number of misconceptions, misunderstandings, and misrepresentations that prevent a proper evaluation of movement approaches to null subjects in BP. When the relevant points are rectified, we see that the technical problems raised are nonexistent and the empirical coverage of the movement approach is even more comprehensive than initially thought.


Keywords: Movement Theory of Control (MTC); finite control; hyper-raising; null subjects; Brazilian Portuguese

## 1. Introduction

Reviewing the work by Ferreira (2000, 2009), Rodrigues (2004), and Nunes (2008, 2009), Modesto (2011) claims that "finite null subjects in BP are not controlled and are not derived by movement" (Modesto 2011: 3) and that "movement analyses have to make ad hoc assumptions" (Modesto 2011: 3) and "are empirically flawed and technically problematic" (Modesto 2011: 26).
In this reply, I show that Modesto's discussion of the works mentioned contains a series of misconceptions, misunderstandings, and misrepresentations that compromise a proper evaluation of the movement analysis of null subjects in BP. We will see that when the distortions are rectified, the putative technical problems that Modesto points out are for the most part nonexistent and the empirical issues do not present challenges to the movement analysis, but support it in nontrivial ways. ${ }^{1}$
The paper is organized as follows. I first address the specific empirical issues raised by Modesto, discussing some undisputed data on null subjects in BP that he cites (section 2), null subjects in finite clauses associated with verbs like convencer 'convince' (section 3), and hyper-raising constructions (section 4). In section 5 I then discuss the alleged technical problems raised by Modesto: phase-based computations (section 5.1), details of the morphological specifications proposed in Nunes 2008 (section 5.2), and issues related to syntactic change and language acquisition (section 5.3). Finally, section 6 presents some concluding remarks.

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## 2. Some core data

Modesto (2011: 3) sets himself "to deconstruct a specific line of argumentation used by Boeckx, Hornstein \& Nunes (2010) to support what is usually called the movement theory of control (MTC)", namely, "the assumption that finite null subjects in Brazilian Portuguese (BP) are 'controlled' in the sense that they are derived by A-movement out of finite clauses".
Let me start with a clarification. It is not the case that Boeckx, Hornstein \& Nunes (2010) have assumed that finite null subjects in BP "are 'controlled' in the sense that they are derived by A-movement out of finite clauses", as Modesto states. Obligatory control identifies a relation between two DPs that is subject to several distributional and interpretive properties. These properties are accordingly used as diagnostics to determine whether or not any two DPs stand in a control relation. Another issue is how such relation is to be grammatically encoded. So, it is a perfectly coherent position to assume that finite null subjects in BP are controlled, that is, that they exhibit the diagnostics of control, but not adopt a movement analysis. Kato (1999), for instance, develops a very insightful control analysis of null subjects in BP, but frames it in terms of PRO. What Boeckx, Hornstein \& Nunes (2010) actually did was, first, to report data from the literature that show that BP null subjects display obligatory control diagnostics; and second, given that they argue that obligatory control is to be captured under A-movement, they assume, following Rodrigues (2000, 2002, 2004), Ferreira (2000, 2009), and Nunes (2008, 2009, 2010a, b), that null subjects in BP should accordingly be derived by A-movement.
It is important to stress that this is not just some minor quibble regarding the way Modesto worded his goals. Rather, it sets out the two scenarios under which Modesto's criticism should be evaluated. To show that finite null subjects in BP are not controlled, Modesto should present empirical evidence that these subjects do not display control diagnostics. In turn, to show that these subjects cannot be derived by movement, he should demonstrate that theory internal reasons block an A-movement analysis of the relevant data or that the movement analysis undergenerates or overgenerates if applied to null-subjects in BP.
That said, let us examine the core set of data in (1) (from Nunes 2008, cited in Modesto 2011), which summarizes some of the major observations made in the literature regarding null subjects of finite clauses in BP that are not expletive, indefinite, or the result of topicdrop (henceforth, just null subjects). ${ }^{2}$

[^1](i) A: - E João?
and the João
'What about João?'
B: $-\varnothing$ acabou de sair. finished.3sG of leave 'He has just left.'
a. $*[\varnothing$ comprou um carro novo $]$ bought a car new
'She/he bought a new car.'
b. [[o João] disse que [o pai d[o Pedro]] acha [que $\varnothing$ vai ser the João said that the father of-the P. thinks that goes be promovido]]
promoted
'João ${ }_{\mathrm{i}}$ said that $\left[\right.$ Pedro $_{\mathrm{j}}$ 's father] ${ }_{\mathrm{k}}$ thinks that he $\mathrm{e}_{\mathrm{k} / * \mathrm{i}_{\mathrm{i}} / \mathrm{N}_{\mathrm{j}} / * 1}$ is going to be promoted.'
c. O João 'tá achando [que $\varnothing$ vai ganhar a corrida] e o Pedro the João is thinking that goes win the race and the Pedro também 'tá. too is 'João thinks that he's going to win the race and Pedro does, too (think that he, Pedro, is going to win the race).'
d. Só o João acha [que $\varnothing$ 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.'
e. O infeliz acha [que $\varnothing$ devia receber uma medalha] the unfortunate thinks that should receive a medal 'The unfortunate thinks that he should receive a medal.'
(1a) shows that null subjects in BP require an antecedent in their sentence and (1b), that the antecedent must be the closest c-commanding DP. As for interpretation matters, a null subject in BP obligatorily triggers sloppy readings under ellipsis (cf. (1c)), is interpreted as a bound variable when its antecedent is an only-DP (cf. (1d)), and only admits a de se reading in sentences such as (1e). Notice that these are standard diagnostics of obligatory control (OC), as illustrated in (2). ${ }^{3}$

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    B': - Eu acho que \emptyset saiu.
    I think that left.3SG
    'I think he left.'
(ii) A: - E o João?
    and the João
    'What about João?'
B: - *O que fez desta vez?
        what did.3sG of-this time
    "What did he do this time?'
B': - *Eu não gostei do relatório que Ø apresentou.
    I not liked of-the report that presented.3SG
    'I didn't like the report that he presented.'
(iii) a. ??O que \(\varnothing\) fiz de errado?
what did.3sg of wrong
'What did I do wrong?'
b. ??O João gostou do relatório que \(\varnothing\) escrevi.
the João liked of-the report that wrote.1sG
'João liked the report that I wrote.'
\({ }^{3}\) See e.g. Boeckx, Hornstein \& Nunes (2010); Hornstein (1999, 2001); and Hornstein \& Nunes (2014) for detailed discussion.
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(2) a. OC PRO requires an antecedent in its sentence:
*[ $\mathrm{It}_{\mathrm{i}}$ was hoped $\left[\mathrm{PRO}_{\mathrm{k}}\right.$ to shave himself $\left.\left.\mathrm{k}_{\mathrm{k}}\right]\right]$
b. OC PRO must be c-commanded by its antecedent:
*[John ${ }_{1}$ 's campaign hopes $\left[\mathrm{PRO}_{1}\right.$ to shave himselff]
c. The antecedent of OC PRO must be local:
[John ${ }_{\mathrm{k}}$ convinced Mary ${ }_{\mathrm{i}}\left[\mathrm{PRO}_{\mathrm{i} / * \mathrm{k}}\right.$ to leave]]
d. OC PRO only licenses sloppy readings under ellipsis:
[John ${ }_{1}$ wants $\left[\mathrm{PRO}_{1}\right.$ to win]] and [Bill does too]
('... and Bill wants himself to win.'/NOT: '... and Bill wants John to win.')
e. OC PRO behaves as bound variables when anteceded by an only-DP:
[[Only John] $]_{1}$ expects [ $\mathrm{PRO}_{1}$ to win the competition]]
'John is the only person who believes in his own victory.'
NOT: 'No person other than $\mathrm{John}_{\mathrm{i}}$ believes that he ${ }_{\mathrm{i}}$ will win the competition.'
f. OC PRO only licenses de se readings:
[[The unfortunate] ${ }_{1}$ expects [ $\mathrm{PRO}_{1}$ to win a medal]] (\#although he doesn't expect himself to win a medal)

Given the exact parallel between (1) and (2), it is fair to conclude that null subjects in BP are licensed via control, as argued by Kato (1999). Now the question is how this control relation can be accounted for (within minimalism). Assuming Hornstein (1999, 2001), the answer provided by Rodrigues (2000, 2002, 2004) and Ferreira (2000, 2009) is straightforward: it should be subsumed under A-movement. After all, the diagnostics in (2) also characterize A-movement, as shown in (3) (see footnote 3).
(3) a. A-traces require an antecedent in their sentence: *[It $\mathrm{t}_{\mathrm{i}}$ was expected $\left[\mathrm{t}_{\mathrm{k}}\right.$ to shave himself $\left.\left.{ }_{\mathrm{k}}\right]\right]$
b. A-traces must be c-commanded by their antecedents: *[[John ${ }_{1}$ 's sister] was hired $t_{1}$ ]
c. The antecedent of an A-trace must be local: *[John ${ }_{1}$ seems [that it was likely [ $t_{1}$ to shave himself]]]
d. A-traces only license sloppy readings under ellipsis:

John seems to be cooperative and Bill does, too.
e. A-traces behave as bound variables when anteceded by an only-DP:
[[Only John] ${ }_{1}$ seems to himself [ $t_{1}$ to be handsome]]
'John is the only person who thinks of himself as handsome.'
NOT: 'John $n_{\mathrm{i}}$ is the only person who thinks of $\mathrm{him}_{\mathrm{i}}$ as handsome.'
f. A-traces only license de se readings:
[[The unfortunate] ${ }_{1}$ seemed to himself [ $t_{1}$ to be a true hero]]
'The unfortunate saw himself as a hero.'
NOT: '[The unfortunate $]_{\mathrm{i}}$ thought that someone that happened to be him $\mathrm{i}_{\mathrm{i}}$ was a hero'

Thus, a sentence such as (4) below, for instance, is associated with the simplified representation in (5) under the movement approach. The matrix subject is generated in the embedded clause and moves to the matrix subject position, leaving a trace (a deleted copy) behind.
(4) $\quad \mathrm{O}$ Pedro disse [que $\emptyset$ comprou um carro novo] the Pedro said that bought a car new 'Pedro ${ }_{i}$ said that he ${ }_{i}$ bought a new car.'

Movement approach:
[ [O Pedro $]_{i}$ disse que [ $t_{\mathrm{i}}$ comprou um carro novo]]
Modesto (2011) does not dispute the characterization of the data in (1) and claims that movement approaches and his topic-deletion approach can equally handle them: "Since the result of both analyses is a chain between the two subjects (a movement chain in the former case and a topic-chain in the latter), they account for the data in (1) in the same manner that Hornstein (1999) accounted for similar data in nonfinite structures" (Hornstein 1999: 9). As movement approaches to null subjects in BP extend Hornstein's (1999) Movement Theory of Control to finite domains in BP (when the relevant conditions are met), they are indeed transparently parallel to Hornstein's analysis of control in nonfinite domains. The issue is whether the same can be said of Modesto's topic deletion approach. Let us then consider his derivation of (4).
Based on his previous work (see Modesto 2000, 2008), Modesto (2011) takes BP to be a topic-prominent language and assumes "a projection FP between TP and CP which, in topic-prominent languages, would be assigned an EPP feature. (...) The constituent occupying Spec FP position would be interpreted as a kind of grammatical topic, [footnote omitted; JN] standing in an aboutness relation with the rest of the sentence" (Modesto 2011: 17-18). Under this view, the sentence in (4) is actually derived from (6) below along the following lines. First, "both matrix and embedded subjects are moved to Spec FP, each in its own clause" (Modesto 2011: 18), as shown in (7a) (Modesto's (19b)). "Since both subjects occupy a topic-like position, the lower subject can be deleted by the same discourse mechanism that creates matrix null subjects in BP, producing the sentence $[(4)] .(\ldots)[S]$ ince the lower subject has the same features of the matrix subject (in fact, a subset of the matrix subject features once phonological features are discarded), they are indistinguishable from each other (like copies) so the operation Form Chain may apply between them" (Modesto 2011: 18-19).
(6) O Pedro disse [que ele comprou um carro novo]]
the Pedro said that he bought a car new
'Pedro said that he bought a new car.'

## Topic-deletion approach:

a. $\left[_{\mathrm{FP}} \text { [o Pedro }\right]_{1}\left[_{\mathrm{TP}} t_{1}\right.$ disse $\left[{ }_{\mathrm{CP}}\right.$ que $\left[_{\mathrm{FP}}\right.$ ele ${ }_{1}\left[_{\mathrm{TP}} t_{1}\right.$ comprou um carro novo $\left.\left.\left.\left.]\right]\right]\right]\right]$
b. $\left[_{\mathrm{FP}}[\text { o Pedro }]_{1}\left[_{\mathrm{TP}} t_{1}\right.\right.$ disse $\left[\mathrm{CP}\right.$ que $\left.\left.\left[_{\mathrm{FP}} \text { ele }_{\mathrm{f}}\left[\mathrm{TP}_{\mathrm{TP}} t_{1} \text { comprou um carro novo }\right]\right]_{]}\right]\right]$

The derivation of (4) along the lines of (6)-(7) faces several conceptual and empirical problems. Take Modesto's statement that the antecedent and the pronoun in (7) are "like copies", for example. One question that arises in any version of the copy theory of movement is how the computational system distinguishes copies from elements that happen to have the same set of features. The derivation of (8) below, for example, should converge if it starts with a numeration with one instance of John (which then gets copied), but not with a numeration with two instances (each plugged in the position where it appears). To address this problem, Chomsky (1995: 227), for instance, suggests that two lexical items $l$ and $l$ ' should be marked as distinct if they enter the derivation via
different applications of Select. In the case of (6), it is clear that the two subjects involve different selections of the numeration. Of course, one could say that movement chains are constrained by numeration-based nondistinctivess, for instance, and Modesto's topic chains are just constrained by a subset relation between the antecedent and the pronoun. But this would amount to introducing a new mechanism in the grammar, requiring independent justification. Note that the point here is not to contend that Chomsky's numeration-based nondistinctiveness is the best way to characterize copies. Rather, the point is to show that a mere casual remark that the pronoun and the antecedent in (7) are like copies is not enough; one needs an explicit demonstration that this is indeed the case, perhaps even changing the characterization of standard copies.

## (8) [John [was [arrested John]]]

Notice also that chain formation in the case of putative topic-chains is optional, as the embedded clause may involve a null subject as in (4) (signaling "topic chain" formation under this perspective) or an overt pronoun as in (6) (signaling lack of "topic chain" formation). So, one wonders how "topic-chain" formation satisfies Last Resort if it is not required.
More importantly, the assumption that the null subject of (4) has a pronominal basis (it is the by-product of deleting the pronoun of (7) under "topic chain" formation) leads to overgeneration. Take the BP sentences in (9), for instance, which minimally differ from (1c-e) in that the embedded subject position is occupied by an overt pronoun.
a. O João 'tá achando que ele vai ganhar a corrida e o Pedro the João is thinking that he goes win the race and the Pedro também 'tá.
too is
'João ${ }_{i}$ thinks that he $e_{i}$ is going to win the race and $\operatorname{Pedro}_{\mathrm{k}}$ thinks that $\mathrm{he}_{\mathrm{k}}$ is going to win the race.'
OR 'João ${ }_{i}$ thinks that he ${ }_{i}$ is going to win the race and Pedro $_{k}$ thinks that $\mathbf{h e}_{\mathrm{i}}$ is going to win the race.'
b. Só o João acha que ele vai ganhar a corrida. onl the João thinks that he goes win the race. 'Only João is an x such that x thinks that x will win the race.'
OR 'Only João is an $x$ such that $x$ thinks that he, João, will win the race.'
c. O infeliz acha que ele devia receber uma medalha. the unfortunate thinks that he should receive a medal 'The unfortunate thought of himself as deserving a medal.' OR '[The unfortunate $]_{i}$ thinks that someone who happens to be him ${ }_{i}$ deserves a medal.'

As opposed to the sentences with null subjects in (1c-e), the sentences in (9) are all ambiguous. Interestingly, the ambiguity does not depend on the phonetic realization of the embedded subject. In European Portuguese ( $E P$ ), a prototypical pro-drop language, the sentences in (1c-e) are ambiguous in the same way as the sentences in (9) in BP are. This receives a natural explanation if ( $1 \mathrm{c}-\mathrm{e}$ ) involve pro in EP, as standardly assumed. Thus, if the sentences in (1c-e) in BP were to be derived from analogous sentences with pronouns, as postulated by the topic-chain approach, they should be ambiguous like the sentences in (9), contrary to fact.

One could think that the putative A'-movement of the matrix subject in BP should induce a variable interpretation for the embedded pronoun and this should preclude ambiguity in ( $1 \mathrm{c}-\mathrm{e}$ ) in BP. Although this possibility could be explored to handle the variable behavior of the null subject in (1c) and (1d), it still cannot account for the unavailability of the non-de se reading in (1e). In sentences such as (10a) below, for instance, the null subject is interpreted in BP as a variable bound by the quantified expression in the matrix clause. Crucially, (10a) only admits a de se interpretation, contrasting with (10b), whose pronoun can be interpreted as a bound variable ambiguous between a de se and a non-de se reading.
a. Todo soldado com amnésia achava [que $\emptyset$ devia ganhar uma every soldier with amnesia thought that should win a medalha]
medal
'[Every amnesiac $]_{i}$ soldier thought of himself ${ }_{\mathrm{i}}$ as deserving a medal.'
NOT '[Every amnesiac] ${ }_{i}$ soldier thought that someone that happened to be him $_{\mathrm{i}}$ deserved a medal.'
b. Todo soldado com amnésia achava que ele devia ganhar uma every soldier with amnesia thought that he should win a medalha.
medal
'Every amnesiac soldier thought of himself as deserving a medal.'
OR '[Every amnesiac $]_{i}$ soldier thought that someone that happened to be him $_{\mathrm{i}}$ deserved a medal'.'

Alternatively, one could say that "topic chain" formation deletes not only the phonological features of the embedded subject pronoun, but also the features that underlie the additional readings in (9) and (10b). However, besides calling for independent justification, this would just stress the point that the relation between the antecedent and the pronoun in putative topic-chains is not the same as the relation between copies in a movement chain. ${ }^{4}$
In summary, the judgments reported in (1) are undisputed and display standard control and A-movement diagnostics (see (2) and (3)). As opposed to what Modesto claims, it is not the case that the machinery required to account for the core set of data in (1) is comparable in movement approaches and the topic deletion approach. Under movement approaches, all that has been resorted to is movement. By contrast, under the topic deletion approach a series of additional and unmotivated provisos are needed just to get the proposal off the ground and replicate the results of the movement analysis. I trust that this brief discussion suffices to show that as far as the core, undisputed data regarding null subjects in BP are concerned, we do not have any compelling reason for giving up a movement analysis in favor of a topic deletion approach. Let us then consider what Modesto takes to be a lethal empirical problem for movement analyses of null subjects in BP.

## 3. The case of embedded null subjects under the verb convencer

The crucial evidence that Modesto (2011) takes to show that null subjects in BP are not controlled and cannot be derived in terms of movement involves constructions with verbs of the class of convencer 'convince', discussed in Modesto (2000). Convencer behaves as a standard object control verb when associated with an embedded infinitival clause,

[^2]as illustrated in (11a), but not with an embedded finite clause, as shown in (11b) (see Modesto 2000: 20). In particular, the embedded null subject in (11b) must be interpreted as the matrix subject.
(11) a. [O Paulo $]_{1}$ convenceu [a Maria $]_{2}$ a $\quad\left[\mathrm{PRO}_{2 / * 1}\right.$ sair] the Paulo convinced the Maria to leave 'Paulo convinced Maria to leave.'
b. [O Paulo] ${ }_{1}$ convenceu [a Maria] ${ }_{2}$ [que $\emptyset_{1 / * 2}$ tinha que ir embora] the Paulo convinced the Maria that had that go away 'Paulo convinced Maria that he had to go away.'

Modesto's reasoning goes like this. Under a Larsonian approach to ditransitive verbs, the matrix direct object should c-command the embedded clause in both (11a) and (11b). If null subjects in BP are controlled and derived by movement, the embedded subjects of (11a) and (11b) should then find their antecedents in the most local position, namely, the matrix object position. This is the case in (11a), but not (11b). So, Modesto concludes, null subjects in finite clauses in BP are not controlled and cannot be derived by movement.
Modesto further adds that the interpretive contrast between the embedded subject of (11b) and the one in (12) below (from Modesto 2000: 85) provides evidence for his topicchain approach: in (11b) the matrix subject is taken to undergo movement to [Spec, FP], from where it can form a "topic chain" with the embedded subject (see (7)), whereas in (12) it is the matrix object that allegedly moves to [Spec, FP]. Thus, according to Modesto, in (12) the embedded subject must be interpreted as the matrix object.
(12) Modesto (2000: 85)

Quem ${ }_{1}$ que [o Pedro] ${ }_{2}$ convenceu $t_{1}$ [que $\emptyset_{1 /{ }^{*}{ }^{2} 2}$ tinha que ir embora]? who that the Pedro convinced that had that go away 'Who did Pedro convince that he had to go away?'

Although the contrasts between (11a) and (11b), on the one hand, and between (11b) and (12), on the other, are extremely interesting, they do not in fact invalidate the movement analysis or support the topic-chain approach. The first thing to point out is that I have kept Modesto's (2000) original judgment for (12) for purposes of presentation, but the empirical description of sentences like (12) is inaccurate. Although some speakers may have a preference for the matrix object reading in (12), the sentence is actually ambiguous between the matrix subject and the matrix object reading. Rodrigues (2004: 217) notes that the sentence in (13) below, for instance, clearly shows that the subject reading is generally available. Crucially, one cannot simply attribute the subject reading in (13) to the pragmatic bias induced by the predicate grávida 'pregnant'; otherwise, the embedded subject of the sentence in (14) should also be interpreted as the matrix subject, contrary to fact (see Coelho, Nunes \& Santos 2018).
(13) Quem $_{\mathrm{i}}$ [a Maria] ${ }_{\mathrm{k}}$ convenceu $t_{\mathrm{i}}$ [que $\emptyset_{\mathrm{k}}$ estava grávida]? who the Maria convinced that was pregnant 'Who did Maria convince that she was pregnant?'
*[A Maria] ${ }_{\mathrm{k}}$ disse que o médico acha [que $\emptyset_{\mathrm{k}}$ está grávida] the Maria said that the doctor.mASC thinks that is pregnant 'Maria said that the doctor thinks that she is pregnant.'

Notice that the subject reading of (12), clearly seen in (13), cannot be accounted for by Modesto's topic chain approach, for the moved wh-object should prevent movement of the subject to [Spec,FP] (see Rodrigues 2004 for further discussion). I should also mention that for

Modesto (2000, 2011), the picture is actually considerably more complex, for some cases are taken to be ambiguous, as shown in (15) ( = Modesto 2011: (21b-e)), with his judgements.
(15) a. Quem 2 que o $\mathrm{Feco}_{1}$ convenceu $t_{2}$ que $e_{*_{1 / 2}}$ ganhou na loteria? who that the Feco convinced that won in.the lottery 'Who did Feco convince that s/he won the lottery?'
b. O cara $_{2}$ que o $\mathrm{Feco}_{1}$ convenceu $t_{2}$ que $e_{*_{1 / 2}}$ ganhou na loteria the guy that the Feco convinced that won in.the lottery já chegou.
already arrived
'The guy who Feco convinced that he won the lottery already arrived.'
c. Foi a Dani $_{2}$ que o $\quad \mathrm{Feco}_{1}$ convenceu $t_{2}$ que $e_{*_{1 / 2}}$ ganhou na was the Dani that the Feco convinced that won in.the loteria.
lottery
'It was Dani that Feco convinced that she won the lottery.'
d. A Dani 2 , o $\mathrm{Feco}_{1}$ convenceu $t_{2}$ [que $e_{1 / 2}$ ganhou na loteria] (sic) the Dani the Feco convinced that won in.the lottery '(Speaking of) Dani, Feco convinced her that s/he won the lottery.'

My own judgment is that there is no significant difference between (15a-c), on the one hand, and (15d), on the other; all of them are potentially ambiguous. But let us put this aside for a moment and examine what was supposed to derive the alleged fine-grained contrast in (15), if it were accurate. According to Modesto (2011: footnote 19), the subject reading in (15d) "is derived by base generation of the object in a higher topic position and consequent movement of the subject to Spec FP. Base generation is not an option for wh-phrases, relative operators and cleft phrases. ${ }^{" 5}$ Although clefting does indeed require movement, wh-phrases and relative operators can be base-generated in BP, as illustrated by the lack of island effects in (16) below (see e.g. Galves 1984; Farrell 1990; Kato 1993; Cyrino 1997; Ferreira 2000; and Kato \& Nunes 2009 for relevant discussion). So, even by Modesto's own account, the independent availability of base-generation of wh-phrases and relative operators in BP should make room for the ambiguity we do indeed find in sentences such as (12) and (15a-b). Finally, as opposed to what Modesto claims, if the matrix object undergoes clefting, as in (15c), the matrix subject reading is still available for the null subject, as clearly illustrated in (17) (cf. (14)).
a. Quem ${ }_{\mathrm{i}}$ a Maria disse que, toda vez [que ela encontra $\emptyset_{\mathrm{i}}$ ], ela who the Maria said that every time that she meets she fica deprimida?
stays depressed
'Who is the person such that Maria said that every time she meets him/her, she gets depressed.'
b. Este é um daqueles autores que todo mundo [que lê ø] acaba this is one of-those authors that every world that reads finishes mudando de vida.
changing of life
'This is one of those authors that everybody who reads him ends changing his life.'

[^3]Foi o João que a Maria convenceu que estava grávida. was the João that the Maria convinced that was pregnant 'It was João that Mary convinced that she was pregnant.'

Thus, after the ambiguity of (12) (and the sentences in (15a-c)) is taken into account, Modesto's point regarding the contrast between (11b) and (12) should then be rephrased as follows: why do unambiguous sentences such as (11b) or (18a) below, for instance, become ambiguous if the object undergoes A'-movement, as in (12) or (18b)?
a. [O João $]_{i}$ convenceu quem ${ }_{k}$ que $\emptyset_{i / * k}$ precisava falar com o chefe? the João convinced who that needed talk with the boss 'Who did João ${ }_{i}$ convince that he ${ }_{i}$ needed to talk to the boss?'
b. Quem ${ }_{\mathrm{k}}$ [o João $]_{\mathrm{i}}$ convenceu $t_{\mathrm{k}}$ que $\emptyset_{\mathrm{i} / \mathrm{k}}$ precisava falar com o chefe? who the João convinced that needed talk with the boss ' $\mathrm{Who}_{\mathrm{k}}$ did João $_{\mathrm{i}}$ convince that he ${ }_{\mathrm{i} / \mathrm{k}}$ needed to talk to the boss?'

Rodrigues $(2000,2004)$ makes the important observation that the additional object reading available in sentences like (18b), where the object undergoes A'-movement, is also observed in BP with respect to adjunct finite clauses. In (19) below (from Rodrigues 2004: 228), for instance, the null subject of the adjunct clause obligatorily takes the matrix subject as its antecedent if the matrix object remains in situ (see (19a)), but may be interpreted as either the matrix subject or the matrix object if the latter undergoes A'-movement (see (19b)). ${ }^{6}$
a. [A Maria] $]_{i}$ visitou quem $_{\mathrm{k}}$ [quando $\emptyset_{\mathrm{i} / * \mathrm{k}}$ foi para Brasília] the Maria visited who when went to Brasília 'Who did Maria visit when she went to Brasília?'
b. Quem $_{\mathrm{k}}$ [a Maria] ${ }_{\mathrm{i}}$ visitou $t_{\mathrm{k}}$ [quando $\boldsymbol{e} \boldsymbol{c}_{\mathbf{i} / \mathrm{k}}$ foi para Brasília] who the Maria visited when went to Brasilia 'Which person did Maria visit when she/that person went to Brasília?'

Following a suggestion by Norbert Hornstein (p.c.), Rodrigues (2004: 222) proposes that under the matrix object reading, the embedded null subjects in (19) are actually parasitic gaps, which must therefore be licensed by a c-commanding element in an A'-position; hence, the contrast between (19a) and (19b). ${ }^{7}$ As for the matrix subject reading for the embedded null subjects, Rodrigues shows that it is not surprising at all if one assumes the

[^4]Movement Theory of Control. Hornstein $(1999,2001)$ has argued that adjunct control involves sideward movement (in the sense of Nunes 2001, 2004) from the subject position of the embedded clause to the subordinating clause before the embedded clause becomes an adjunct. Extending this analysis to (19a), for instance, the derivation should proceed along the (simplified) lines of (20), where $a$ Maria undergoes sideward movement from K to L (see (20a-b)), yielding the subject control reading after the final structure in (20c) is assembled.

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a. \(\quad \mathrm{L}=\) [visitou quem]
\(\mathrm{K}=\) [ [a Maria] foi para Brasília]
b. \(\quad L^{\prime}=\) [ \([\) a Maria] visitou quem]
\(\mathrm{K}=\) [ \(t\) foi para Brasília]
c. \(\left[_{\mathrm{TP}}\right.\) [a Maria] \({ }_{\nu \mathrm{vP}}\left[_{\nu \mathrm{P}} \boldsymbol{t}\right.\) visitou quem]] [quando \(\boldsymbol{t}\) foi para Brasília]]]
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Given that finite embedded clauses associated with convencer display the same pattern as finite adjunct clauses in BP, as seen in (18) and (19), Rodrigues (2000, 2004) observes that a unified account for the data could be provided if the finite embedded clause associated with convencer were an adjunct of sorts. The sentence in (18a), for instance, could be derived in a completely parallel way to (20), as shown in (21), where the matrix object does not c-command into the embedded clause. ${ }^{8}$
a. $\quad \mathrm{L}=$ [convenceu quem]
$\mathrm{K}=$ [ [o João] precisava falar
com o chefe]
b. L' $=$ [ [o João] convenceu quem] $\mathrm{K}=[t$ precisava falar com o chefe $]$
c. $\quad\left[_{T P}\right.$ [o João] $\left[_{\nu P}{ }_{\nu \mathrm{vP}} \boldsymbol{t}\right.$ convenceu quem]] [que $\boldsymbol{t}$ precisava falar com o chefe]]]

Notice that the subject reading of the null subject of sentences like (18a) is the only argument underlying Modesto's claim that null subjects in BP are not controlled and cannot be derived by movement. However, if Rodrigues is correct in that such sentences are to be derived along the lines of (21), they also involve control - more specifically, adjunct control - and can be derived via (sideward) movement. Importantly, there is indeed converging evidence pointing towards the conclusion that the embedded clauses of (18) behave like adjuncts rather than complements. Rodrigues (2000, 2004) shows that the embedded clauses of the sentences in (22) below behave as islands in that they do not allow wh-extraction of the embedded subject in (22a) or the embedded adjunct in (22b). ${ }^{9}$ Further evidence that the matrix object does not c-command into the embedded finite clause is provided by Ferreira (2000), who shows that the matrix object does not induce a Principle C effect with respect to the epithet in sentences such as (23). Finally, Nunes (2013) shows that for each of the cases in (22) and (23), there is a sharp contrast with analogous sentences involving a nonfinite embedded clause, as illustrated in (24).
(adapted from Rodrigues 2004: 219)
a. ??Quem ${ }_{1}$ o João convenceu a Maria [que $t_{1}$ vem amanhã]? who the João convinced the Maria that comes tomorrow 'Who is $x$ such that that João convinced Maria that $x$ will come tomorrow?'

[^5]b. *Como ${ }_{1}$ [o João] ${ }_{2}$ convenceu a Maria [que $t_{2}$ tinha consertado o how the João convinced the Maria that had fixed the carro $t_{1}$ ]?
car
'How did João convince Maria that he had fixed the car?'
(23) (adapted from Ferreira 2000: 39)

O João convenceu [a Maria $_{\mathrm{i}}$ [que [a idiota] ${ }_{\mathrm{i}}$ deveria assaltar um the João convinced the Maria that the idiot should rob a banco]
bank
'João convinced Maria that the idiot should rob a bank.'
a. Quem $\mathrm{i}_{\mathrm{i}}$ o João convenceu a Maria [a dizer [que $\boldsymbol{t}_{\mathrm{i}}$ era o who the João convinced the Maria to say that was the melhor candidato]]?
best candidate
'Who did João convince Maria to say was the best candidate?'
b. Como $_{1}$ o João convenceu a Maria [a se vestir $\boldsymbol{t}_{1}$ ]? how the João convinced the Maria to REFL dress 'How did João convince Maria to dress herself?'
c. *O João convenceu [a Maria] ${ }_{k}$ [a espalhar [que [a idiota] ${ }_{k}$ the João convinced the Maria to spread that the idiot ia renunciar]]
went resign
'João convinced Maria to spread the news that the idiot was going to resign.'
That being so, four conclusions follow: (i) Modesto's original interpretive contrast between (11a) and (11b), repeated here in (25) below, is a by-product of their structural differences: the embedded clause is a complement in (25a), but an adjunct of sorts in (25b); (ii) the availability of the subject reading in (25b) does not invalidate the generalization that null subjects in BP are controlled, for (25b) involves adjunct control; (iii) the subject reading of (25b) does not provide evidence against movement approaches to null subjects in BP, for it is obtained via sideward movement; and (iv) Modesto's topic-deletion approach cannot account for the complete set of data involving convencer due to theory-internal reasons (the claim that wh-phrases and relative operators cannot be base-generated in BP, for instance) and the incorrect empirical assumption that sentences such as (12) are not ambiguous.
a. [O Paulo $]_{1}$ convenceu [a Maria $]_{2}$ a $\left[\mathrm{PRO}_{2 /{ }^{*} 1}\right.$ sair] the Paulo convinced the Maria to leave 'Paulo convinced Maria to leave.'
b. [O Paulo $]_{1}$ convenceu [a Maria] ${ }_{2}$ [que $\emptyset_{1 / * 2}$ tinha que ir embora] the Paulo convinced the Maria that had that go away 'Paulo convinced Maria that he had to go away.'

Modesto (2011) questions the judgments assigned to the data in (22) and (23). Let us then consider each of his objections. With respect to subject extraction, Modesto states that sentences like (22a) "are perfectly grammatical, especially when compared to the grossly ungrammatical [(26)]" (p. 16).
( $=$ Modesto 2011: (15))
*Quem ${ }_{\mathrm{i}}$ o Pedro viu a Cilene enquanto $t_{\mathrm{i}}$ fazia compras? who the Pedro saw the Cilene while did shopping '*Who did Pedro see Cilene while was shopping?'

In the face of this dispute about the judgments regarding sentences such as (22a), Coelho, Nunes \& Santos (2018) designed an acceptability judgment experiment comparing extraction of subjects out of finite complement clauses, finite adjunct clauses, and finite clauses associated with convencer. The participants were told that the investigators were evaluating the performance of a computer software designed to formulate complex questions in Portuguese and they needed Portuguese speakers to say which questions built up by the software were well formed and which ones were not. The participants listened to audio recorded sentences read by a BP speaker and pressed YES or NO in the computer to indicate if the sentence listened to was well formed or not. The participants could also press REPETE in case they wanted to listen to the sentence once again before pressing YES or NO. There was a total of 817 answers given by 19 participants, all native BP speakers between 20 and 30 years of age that were born and raised in the state of São Paulo.
At first sight, it did not seem possible to determine whether finite clauses associated with convencer behave as complements or adjuncts. As shown in Figure 1 below, the proportion of YES and NO answers for subject extraction out of sentences with convencer was situated somewhere in between the proportion for subject extraction out of complements and the proportion for subject extraction out of adjuncts and there was no statistically significant difference between answers for convencer-sentences and complement sentences ( $p$-value for YES-answers $=0.39723 ; p$-value for NO-answers $=0.311338$ ) or between convencersentences and adjunct sentences ( $p$-value for YES-answers $=0.401755$; $p$-value for NO-answers $=0.421641$ ). Individual behavior was not very helpful either: out of the 19 participants, 10 answered YES with respect to convencer-sentences most of the times and 9 answered NO.


Figure 1: Proportion between YES and NO answers (from Coelho, Nunes \& Santos 2018).

However, when extraction was computed in tandem with factors that influenced the responses, a quite different picture emerged (see Coelho, Nunes \& Santos 2018 for details and relevant discussion). Figure 2 below shows that sentences with convencer display a behavior much closer to adjunct clauses in that the complexity of the extracted wh-phrase favors extraction (YES answers). The complexity of the $w h$-phrase was statistically significant in the case of adjunct clauses ( $p=0.01801$ ) and convencer-sentences ( $p=6.801 \mathrm{e}-5$ ), but not in the case of complement sentences ( $p=0.5706$ ).
Figure 3 below also shows that the proportion of repetition for convencer-sentences is much more similar to the proportion for adjunct sentences ( $p=0.726557$ ) than the proportion for complement sentences ( $p=0.119698$ ), indicating that adjunct- and convencer-sentences have a similar parsing cost. In fact, the proportion of repetition for complement sentences is much closer to the proportion for distractors ( $p=0.418481$ ).
Finally, the only statistically significant correlation found among specific answers with respect to different sentence types involved answers for adjunct sentences and answers for convencer-sentences. As Figure 4 shows, the larger the number of YES answers a given participant offers to adjunct sentences, the larger the number of YES answers (s)he provides to convencer-sentences (Pearson's $r=0.48 ; p=0.03619$ ).
The experimental results depicted in Figures 2, 3 and 4 show that the same factors that may lead speakers to allow unexpected extractions out of adjunct clauses are also operative in the case of convencer-sentences, but not in the case of complement clauses. Thus, these results corroborate Rodrigues's (2004) judgments, according to which extraction of subjects out of finite clauses associated with convencer is degraded and close to extraction out of adjunct clauses, and go against Modesto's (2011) claim that such extraction is "perfectly grammatical".
Let us now consider adjunct extraction out of embedded finite clauses associated with convencer. As we saw in (22b), Rodrigues judged the result of such extraction as *, which is consistent with her proposal that these embedded clauses are adjunct-like. Given that Modesto takes these embedded clauses to be regular complements, the prediction is that adjunct extraction out of these domains should be allowed. Discussing this specific point


Figure 2: Effect of the syntactic complexity of the wh-phrases on NO answers (from Coelho, Nunes \& Santos 2018).


Figure 3: Proportion of repetition for complement, adjunct and convencer-sentences (from Coelho, Nunes \& Santos 2018).


Figure 4: Correlation between YES answers for adjunct and convencer-sentences (from Coelho, Nunes \& Santos 2018).
with respect to the sentence (27) below from Nunes 2009, Modesto (2011: 16) mentions that he has changed Nunes's original judgement from * to ?? to reflect his own judgment and states that (27) "is in fact difficult to be processed, but that is due to a processing constraint" (p. 16).
(27) * $\mathrm{Como}_{\mathrm{i}}$ o João convenceu a Maria [que o Pedro tinha que se how the João convinced the Maria that the Pedro had that Refl vestir para a festa $\mathrm{t}_{\mathrm{i}}$ ?
dress for the party
'How ${ }_{\mathrm{i}}$ did João convince Mary [that Pedro had to dress for the party $\mathrm{t}_{\mathrm{i}}$ ]?'

Without an explicit explanation for why the unacceptability of (27) is due to processing, there is not much one can do with this claim. However, the data in (28) show that it is very unlikely that processing is what underlies the unacceptability of (27).
a. Como $_{1}$ o João convenceu a Maria [a se vestir $\boldsymbol{t}_{1}$ ]? ( $=(24 \mathrm{~b})$ ) how the João convinced the Maria to Refl dress 'How ${ }_{\mathrm{i}}$ did João convince Maria [to dress herself $t_{\mathrm{i}}$ ]?'
b. Como $_{1}$ o João disse pra Maria [que ele ia se vestir $t_{1}$ ]? how the João said to-the Maria that he went Refl dress 'How ${ }_{\mathrm{i}}$ did João say to Maria that he was going to [dress $t_{\mathrm{i}}$ ]?'
c. Como $_{1}$ o João convenceu a Maria a dizer pra polícia [que how the João convinced the Maria to say to.the police that ela estava dirigindo $\boldsymbol{t}_{1}$ ? she was driving 'How ${ }_{\mathrm{i}}$ did João convince Maria to say to the police that she was [driving $t_{\mathrm{i}}$ ]?'
(28a) shows that the adverb como 'how' can cross convencer when the embedded clause associated with it is nonfinite. In turn, (28b) shows that a finite complement does not block movement of an embedded adjunct. In other words, the contrast between (27), on the one hand, and (28a) and (28b), on the other, indicates that an island effect only shows up when the embedded clause associated with convencer is finite, which is in consonance with Rodrigues's proposal that the embedded clause in such cases is an adjunct of sorts. The acceptability of (28c) presents further support in favor of Rodrigues's account. (28c) involves convencer and a finite embedded clause that is not directly associated with convencer but is rather the complement of the infinitival verb. As predicted by Rodrigues's proposal, there no island effect in (28c). Notice that the well-formedness of the long distance adjunct extraction in (28c) also poses a very tough challenge to a processing approach to the unacceptability of (27). (28c) is longer than (27) and involves an additional level of embedding; all things being equal, we should then expect (28c) to be less acceptable than (27). The fact that we get exactly the opposite result shows that things are not really equal: there is an adjunct island violation in (27), as proposed by Rodrigues, but not in (28c).
Let us finally examine Modesto's (2011) reaction regarding (23), repeated below in (29). Recall that Ferreira (2000) argued that the lack of a Principle C effect in (29) indicates that the matrix object does not c-command into the finite embedded clause, which in turn corroborates Rodrigues's proposal that this clause is not a complement.
(adapted from Ferreira 2000: 39)
O João convenceu [a Maria] ${ }_{i}$ [que [a idiota] ${ }_{i}$ deveria assaltar um the João convinced the Maria that the idiot should rob a banco]
bank
'João convinced Maria that the idiot should rob a bank'
According to Modesto (Modesto 2011: 17), "[b]inding of epithets is a very weak argument, since the matrix subject can also bind epithets in the complement clause, as seen in [(30)], without inducing a Principle C violation".

Modesto (2011: (18))
O Maluf $_{1}$ convenceu o $\operatorname{Diogo}_{2}$ que o desgraçado ${ }_{1 / \text { ??2/3 }}$ era o melhor the Maluf convinced the Diogo that the bastard was the best candidato.
candidate
'Maluf convinced Diogo that the bastard was the best candidate.'

Modesto's skepticism is not without reason. As stated by Patel-Grosz (2012: 19) in her in-depth crosslinguistic study of epithets, "[e]pithets are an interface issue; they concern syntax, but also have a strong semantics and pragmatics component, due to the evaluative property they possess; and it is this evaluativity component that contributed to fine grained judgments. (...) there is considerable variation among speakers as to whether they accept certain statements with epithets or not." Interestingly, Patel-Grosz shows that in many languages (e.g. English, Croatian, Hindi, Russian, and Slovenian) there is a clear contrast between verbs like think and convince with respect to the licensing of an embedded epithet in the subject position bound by the subject of these verbs. (31) below illustrates this contrast in English.

Patel-Grosz (2012: 81)
a. * John ${ }_{\mathrm{i}}$ thinks that the idiot ${ }_{\mathrm{i}}$ is smart.
b. ${ }^{?}{ }^{\circ} \mathrm{John}_{\mathrm{i}}$ convinced Peter that the idiot $\mathrm{t}_{\mathrm{i}}$ is smart.

Patel-Grosz argues that the contrast in (31) in English and other languages is accounted for by her Anti-Judge Constraint in (32) below in tandem with Stephenson's (2007) proposal that in the case of think, the individual associated with the judge corresponds to the matrix subject, whereas in the case of convince, it corresponds to the matrix object. Given (32i), the epithet in (31) can be bound by the subject of convince (which is not the judge for the epithet), but not the subject of think (which is the judge for the epithet).

## The Anti-Judge Constraint (Patel-Grosz 2012: 109)

An epithet cannot occur in a sentence $s$ if (i) the sentence is interpreted with respect to a judge $j$ that is identical to the epithet's antecedent, and (ii) the antecedent c-commands the epithet.

Of direct relevance to our current discussion is the full acceptability of (33) below. According to Patel-Grosz, this is so because although the matrix object is the judge for the epithet, the object does not c-command the epithet (see (32ii)). In other words, we are back to Ferreira's (2000) point that in analogous sentences in BP such as (29), the matrix object does not c-command into the finite clause associated with convencer.

Patel-Grosz (2012: 110)
${ }^{\text {OK }}$ Peter convinced John ${ }_{\mathrm{i}}$ that the idiot ${ }_{\mathrm{i}}$ is smart.
Given this general picture (see Patel-Grosz for further discussion), Modesto's example in (30) may be taken to show that BP sides with English, Croatian, Hindi, Russian, and Slovenian, for an analogous sentence with the verb achar 'think' is completely out in BP, as illustrated in (34) below.
*[O João $]_{i}$ acha que [o idiota] é o melhor candidato. the João thinks that the idiot is the best candidate 'João thinks that the idiot is the best candidate.'

Also compatible with Patel-Grosz's description is the variation in judgements across speakers with respect to the subject reading in (30). In my own judgement, for example, co-reference between o Diogo and o desgraçado 'the damned one' in (30) is perfectly fine, but I have a much harder time in allowing co-reference between o Maluf and o desgraçado. Putting aside the expected variation across speakers with respect to the subject reading, one wonders why the judgment reported by Modesto only marginally admits coreference between the epithet and the matrix object. My guess is that this is due to (30) being pragmatically biased
towards the subject reading. As Maluf is a Brazilian politician that has a very bad reputation, the matrix subject is pragmatically more salient for it to be described as o desgraçado in an out-of-the-blue context. So, it is not unlikely that the judgment presented by Modesto was just a reflex of the preference induced by pragmatic salience. Be that as it may, coreference between the epithet and the matrix object in (29) and (30) sharply contrasts with cases where the clause associated with convencer is a bona fide infinitival complement, as seen in (24c), repeated in (35) for convenience (see Nunes 2013). ${ }^{10}$
(35) *O João convenceu [a Maria] ${ }_{i}$ [a espalhar [que [a idiota] ${ }_{i}$ ia the João convinced the Maria to spread that the idiot went renunciar]]
resign
'João convinced Maria to spread the news that the idiot was going to resign.'
Modesto's (2011: 15) additional objection to Ferreira's argument that the matrix object does not c-command into the embedded clause in a sentence such as (29) involves sentences like (36) (Modesto's (13)). In (36), the pronoun in the matrix object position and the embedded subject cannot be co-referential, which Modesto interprets as showing that the matrix object c-commands into the embedded clause, inducing a Principle C effect.
*O $\mathrm{Pedro}_{1}$ convenceu ela ${ }_{2}$ que a $\mathrm{Maria}_{2}$ é bonita. the Pedro convinced her that the Maria is beautiful 'Pedro convinced her that Maria is beautiful.'

The lack of co-reference in (36) is arguably not due to Principle C, though. Pronouns in BP generally resist taking an antecedent to their right even when they do not c-command it, as shown in (37) below (see also Rodrigues 2004: 218-219).
a. *O pai dela ${ }_{i}$ ama [a Maria] ${ }_{i}$ the father of-her loves the Maria 'Her ${ }_{\mathrm{i}}$ father loves Maria ${ }_{\mathrm{i}}$ '
b. *O professor que ela ${ }_{i}$ gosta disse que $\left[\begin{array}{ll}\text { a Maria] }\end{array}{ }_{i}\right.$ é uma aluna the teacher that she likes said that the Maria is a student muito promissora.
very promising
'The teacher that she ${ }_{i}$ likes said that Maria ${ }_{\mathrm{i}}$ is a very promising student.'
Thus, a sentence such as (38B) below, for instance, tends to be judged as unacceptable under the intended reading in an out-of-the-blue context. However, it becomes perfectly acceptable in a pragmatic salient context such as a response to the question in (38A). Crucially, a canonical infinitival object control structure such as (39B) is uniformly judged as unacceptable even when the relevant reading is primed with this question (see Nunes 2014). This indicates that once interfering factors are controlled for, Ferreira's (2000) proposal that a matrix object does not c-command into an embedded finite clause associated with convencer can indeed be maintained.

$$
\begin{align*}
& \text { A: -E a Maria? }  \tag{38}\\
& \text { and the Maria } \\
& \text { 'What about Maria?' }
\end{align*}
$$

[^6]B: -O João convenceu ela ${ }_{i}$ [que [a idiota] ${ }_{i}$ deveria assaltar um banco] the João convinced her that the idiot should rob a bank 'João convinced her ${ }_{i}$ that [the idiot] ${ }_{i}$ should rob a bank'

A: -E a Maria?
and the Maria
'What about Maria?'
B: -*O João convenceu ela ${ }_{\mathrm{i}}$ a dizer [que [a idiota] $]_{\mathrm{i}}$ deveria assaltar the João convinced her to say that the idiot should rob um banco]
a bank
*'João convinced her ${ }_{\mathrm{i}}$ to say that [the idiot] ${ }_{\mathrm{i}}$ should rob a bank'
Let me add a final piece of evidence that corroborates Ferreira's proposal. Take the contrast between (40a) and (40b), for instance (see Nunes 2014).
a. *Foi [esse aluno] ${ }_{i}$ que a Maria convenceu $t_{i}$ a dizer que $o$ was this student that the Maria convinced to say that the professor ia reprovar $\emptyset_{i}$
teacher went fail
'It was [this student] $]_{\mathrm{i}}$ that Maria convinced $t_{\mathrm{i}}$ that the teacher was going to fail him ${ }_{i}{ }^{\prime}$
b. Foi [esse aluno] ${ }_{i}$ que a Maria convenceu $t_{i}$ que o professor was this student that the Maria convinced that the teacher ia reprovar $\emptyset_{\mathrm{i}}$
went fail
'It was [this student] $]_{\mathrm{i}}$ that Maria convinced $t_{\mathrm{i}}$ that the teacher was going to fail him ${ }_{i}{ }^{\prime}$

There are two possible analyses for the most embedded finite clauses of (40): they either contain a parasitic gap or a null object. Suppose it is a parasitic gap. Given that (40a) involves a standard object control configuration, the trace of esse aluno 'this student' in the matrix object position c-commands the parasitic gap within the embedded clause. Since a parasitic gap cannot be licensed by an element in an A-position (see Chomsky 1986, for instance), the structure is ungrammatical. Interestingly, the superficially similar sentence in (40b), where the finite embedded clause is associated with convencer, is well formed. This surprising asymmetry receives a straightforward account if the trace of esse aluno in (40b) does not c-command into the embedded clause, as argued by Rodrigues (2000, 2004) and Ferreira (2000).
Suppose that (40) involves a null object, instead. Although the use of null objects is quite productive in BP, they are more restricted when they are [ + hum] (see e.g. Cyrino 1997). In particular, Ferreira (2000) has shown that a [+hum] null object cannot be A-bound (see also Bianchi \& Figueiredo Silva 1994), as illustrated by the contrast between a [-hum] and [+hum] null object in (41) below (for relevant discussion and examples, see Ferreira 2000: sections 3.3 and 3.11.2). That being so, if the embedded clauses of (40) involve a null object, it should not be A-bound, for it is [+hum]. Thus, (40a) is predicted to be ungrammatical and (40b) grammatical, provided that the matrix object does not c-command into the embedded finite clause, as proposed by Rodrigues $(2000,2004)$ and Ferreira (2000). In other words, if the matrix object does not c-command into embedded finite clauses associated with convencer, the contrast in (40) can be explained, regardless of whether the embedded finite clauses contain a parasitic gap or a null object.
(adapted from Ferreira 2000: 63)
a. [Esse livro] ${ }_{i}$ decepcionou as pessoas que tentaram ler $\boldsymbol{\emptyset}_{\mathrm{i}}$ this book disappointed the people that tried read 'This book disappointed the people who tried to read it.'
b. *[Esse artista] $]_{i}$ decepcionou as pessoas que tentaram this artist disappointed the people that tried cumprimentar $\boldsymbol{\emptyset}_{\text {i }}$ greet
'This artist disappointed the people who tried to greet him.'
To summarize. Modesto (2000) has made two very important empirical observations regarding null subjects in BP: (i) the null subject of an embedded clause associated with convencer receives a different interpretation depending on whether or not the embedded clause is finite (see (25)); and (ii) the position of the matrix object (whether it is in situ or has undergone A'-movement) matters for the interpretation of a null subject within a finite embedded clause associated with convencer (see (18)). This peculiar pattern should be taken into consideration in any analysis of null subjects in BP. As we saw above, Modesto's (2000, 2011) own account of these observations is based on inaccurate descriptions of the data, which could not be explained under his assumptions even if they were correct. Movement approaches, on the other hand, find themselves in a much more comfortable position. It accounts for the properties in (i) and (ii) based on the different structural configurations involving nonfinite and finite embedded clauses associated with verbs like convencer (a complement relation in the former and an adjunct relation in the latter). Moreover, it receives independent support from related empirical domains and experimental results. The overall conclusion regarding the data involving finite clauses associated with convencer is that contrary to Modesto's claim, they also involve control (adjunct control) and can be accounted for in terms of (sideward) movement, as argued by Rodrigues (2000, 2004). Given that the behavior of null subjects of finite clauses associated with convencer is the only empirical point presented by Modesto that could pose a challenge to movement analyses, it is only fair to conclude that the evidence related to convencer in fact ends up empirically supporting the movement approach in unsuspected ways.

## 4. On hyper-raising constructions

Thus far, we have focused our attention to cases where the embedded subject of a finite clause in BP is controlled by an antecedent in a thematic position (cases of finite control). If control is to be subsumed under A-movement, as defended by the Movement Theory of Control, this entails that a given subject may undergo A-movement from a finite domain in BP. This being so, the embedded subject of a finite clause in BP should in principle be able to target a nonthematic position, as well. Ferreira (2000, 2009), Martins \& Nunes (2005, 2010), and Nunes (2008, 2010a, b) argue that this prediction is indeed borne out, as illustrated by the "hyper-raising" construction in (42), lending further support to the movement approach to null subjects in BP.
[Os meninos] ${ }_{i}$ parecem que $t_{\mathrm{i}}$ estão gostando bastante da nova escola. the boys seem-PL that are liking a.lot of-the new school 'The boys seem to be enjoying their new school.'

For Modesto (2011: 24), hyper-raising constructions constitute " $[\mathrm{t}] \mathrm{o}$ date, the strongest argument in favor of movement analyses of null subjects in BP". Given this assessment of his, one would accordingly expect a proper discussion of the relevant data of the works he cites and a demonstration of how the topic-deletion approach accounts for them.

Unfortunately, this is not what happens. Modesto's exposition glosses over crucial pieces of data and misrepresents the analysis proposed by Ferreira (2000) and Nunes (2008). Let us then consider some of these inadequacies, starting with the relation between finite control and hyper-raising.
According to Modesto,

> "the construction in question is quite marginal for many Brazilian speakers. This is surprising, considering that constructions with null subjects are not marginal at all for any speaker. If defective finite T is responsible for creating both null finite subjects and hyper-raising, the two should be exactly parallel and speakers who do not accept hyper-raising should not accept null subjects." (Modesto 2011: 24)

The title of Nunes 2008 ("Inherent Case as a licensing condition for A-movement: The case of hyper-raising constructions in Brazilian Portuguese") by itself reveals the problem in the citation above. The whole purpose of Nunes 2008 was exactly to argue that A-movement out of CPs targeting nonthematic positions, although possible in principle in BP, should be generally excluded by minimality considerations, unless inherent Case renders the relevant intervener inert for purposes of minimality. In a nutshell, the idea goes as follows. The derivation of a (finite) control sentence such as (43a) below, for instance, involves the step shown in (43b), where subject DP, which is $\phi$-feature bearer, crosses C, which according to Chomsky (2008), is the element that lexically hosts clausal $\phi$-features. However, this movement does not induce a minimality violation, because it is driven by $\theta$-reasons, namely, the assignment of the external $\theta$-role by the matrix $v$. On the other hand, the sentence is (44a) is ruled out, because the movement depicted in (44b) targets a $\phi$-related position, crossing an intervening $\phi$-bearing element, namely, C (see Nunes 2008, 2010b for extensive discussion).
a. [[Os meninos] $]_{\mathrm{i}}\left[t_{\mathrm{i}} v\right.$ disseram [que $t_{\mathrm{i}}$ fizeram a tarefa]]] the boys said that did the homework 'The boys said that they did their homework.'

a. *[[Os meninos] ${ }_{\mathrm{i}}$ foram ditos [que $t_{\mathrm{i}}$ fizeram a tarefa]] the boys were said that did the homework 'It was said/mentioned that the boys did their homework'
b. [ $\underbrace{\text { foram ditos }\left[q u e{ }_{\phi}[\text { [os meninos }]_{\phi} \text { fizeram a tarefa]]] }\right] ~}$

The question is why the movement in the hyper-raising constructions in (42), for example, does not induce a minimality violation. Nunes (2008) proposes that the lack of a minimality effect in (42) should be subsumed under the explanation for the lack of a minimality violation in (45) below, where the embedded subject crosses the experiencer. According to Chomsky (1995), the experiencer in sentences like (45) is assigned inherent Case (realized by the preposition to), which renders it inert for purposes of A-minimality computations. Concretely, Nunes (2008) argues that verbs like parecer 'seem' assign inherent Case to its CP complement and this makes C in (42) unable to block the movement of the embedded subject.

Here I will not go into the evidence that Nunes (2008) presents for postulating inherent Case assignment in hyper-raising constructions (not discussed by Modesto). For our current discussion, suffice it to reexamine the two parts of Modesto's citation above in the face of this quick summary of Nunes's (2008) proposal. The first part ("the construction in question is quite marginal for many Brazilian speakers. This is surprising") has simply ignored the discussion of this issue in Nunes (2008). As the following excerpt explicitly states, variation among speakers was indeed an expected prediction of Nunes's proposal, for individual speakers may not necessarily converge on which impersonal predicates are inherent Case assigners and which ones are not. Nunes (2008: 101) in fact discusses one example of this scenario, noting that for some speakers, hyper-raising with perigar 'be on the verge of' is not as acceptable as hyper-raising with parecer 'seem':
"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. ... The fact that speakers' judgments about hyperraising 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." (Nunes 2008: 101-102; emphasis added).

The second part of Modesto's citation above ("If defective finite T is responsible for creating both null finite subjects and hyper-raising, the two should be exactly parallel and speakers who do not accept hyper-raising should not accept null subjects") is equally misleading. The whole point of Nunes (2008) was to show that the presence of a defective T in the embedded clause is a necessary condition for subject hyper-raising in BP to take place, but not a sufficient one. Thus, the prediction that emerges from the proposal is not that speakers who do not allow hyper-raising in BP should not allow finite control, as stated by Modesto; rather, the proposal predicts that when hyper-raising is possible, it should be parallel to finite control. This is in fact what we find. Nunes (2008) discusses the paradigm in (46) below, which shows that there is variation among speakers regarding the availability of finite control with the first person singular pronoun (see section 5.2.1 below for relevant discussion). Interestingly, if the tense of the embedded clause does not have a specific agreement morpheme for (traditional) first person singular, no such variation is found, as shown in (47). Importantly, the same pattern is found with hyperraising constructions, as illustrated in (48) and (49) (see Nunes 2015). Thus, as opposed to what Modesto claims, the conclusion we draw from this discussion is that Nunes's (2008) original approach correctly predicts that once the independent properties of finite control and hyper-raising are controlled for, they do pattern alike.
(46) (adapted from Nunes 2008: 89)
a. $\% E u_{i}$ falei que $\emptyset_{\mathrm{i}}$ comi o bolo. I spoke.1sG that ate.1sG the cake 'I said that I ate the cake.'
b. \{Você/a gente/ele $\}_{i}$ falou que $\boldsymbol{\emptyset}_{\mathrm{i}}$ comeu o bolo. you.SG/we/he spoke.3sG that ate the cake ' $\{Y$ You(SG)/we/he\} said that $\{y o u(S G) /$ he/we $\}$ ate the cake'
c. \{Vocês/eles $\}_{i}$ falaram que $\emptyset_{\mathrm{i}}$ comeram o bolo. you-PL/they spoke.3pl that ate-3pl the cake 'You(PL)/they said that you(PL)/they ate the cake'
a. $\{\mathrm{Eu} / \text { você/a gente/ele }\}_{i}$ parecia que $\emptyset_{\mathrm{i}}$ I/you.SG/we/he seem-INDIC.IMPERF.3sG that nadava bem. swim-INDIC.IMPERF well '\{I/you(SG)/we/he\} thought that $\{\mathrm{I} / \mathrm{you}(\mathrm{SG}) / \mathrm{he} / \mathrm{we}\}$ swam well.'
b. \{Vocês/eles $\}_{i}$ achavam you-PL/they think-INDIC.IMPERF.3SG that swim-INDIC.IMPERF-3PL bem.
well
' $\{\mathrm{You}(\mathrm{PL}) /$ they $\}$ thought that $\{y o u(\mathrm{PL}) /$ they $\}$ swam well.'
Let us now consider the second criticism raised by Modesto:
"if finite T in BP is always possibly defective, one would expect to find hyper-raising with all sorts of raising verbs, but the construction seems to be restricted to the verb parecer 'to seem'. Duarte \& Henriques 2005 investigated raising verbs in both oral speech and written corpora. They did find many hyperraising structures with parecer but none with any other raising verbs. ... If Duarte \& Henriques 2005 are correct that 'hyperraising' occurs only with the verb parecer, it is a peripheral structure, a lexical quirk, and does not tells anything about the BP system." (Modesto 2011: 24-26)

The first problem in this citation was already noted. To repeat, the proposal in Nunes (2008) does not predict that T's defectivity entails that any kind of impersonal predicate in BP should allow hyper-raising, for a defective T is a necessary but not sufficient requirement for hyper-raising to take place. Thus, it seems that the issue here is just how large the class of hyper-raising predicates in BP is. However, it is not clear that the cardinality of
such a set is of any significance to the present discussion. Whatever the answer, the hyperraising constructions involving the members of this set have a series of configurational properties (documented in Ferreira 2000, 2009; Martins \& Nunes 2005, 2009, 2010a, b; Nunes 2008; but ignored in Modesto 2011) that cannot be encoded as a "lexical quirk", thus requiring a proper grammatical analysis. For the sake of the argument, notice that the number of raising predicates in English, for instance, is very small, but no one is pressed to dismiss their properties because of the size of this class. From a Chomskyan perspective, the intricate characteristics of a rare linguistic phenomenon may actually be very illuminating as they may highlight properties of grammar that cannot be determined by frequency alone.
This leads me to the second problem of the citation above. The fact that only parecer appeared in the corpus examined by Duarte \& Henriques (2005) may simply be a distributional accident or indicate that parecer is the most common member of its class. To make the same point in a different manner, suppose that after examining Duarte and Henriques's corpus, we do not find sentences like the ones in (50) below with the indicated readings. This does not entail that we should dismiss the important empirical observations by Modesto regarding these constructions. Constructions involving interactions of complex properties such as the ones illustrated in (50) are not gardenvariety phenomena and their absence in a given corpus may be just an accidental gap. Similarly, suppose that we do find constructions such as the ones in (50) in Duarte and Henriques's corpus, but only with the verb convencer. This does not entail that the properties illustrated should be regarded as a lexical quirk of convencer. Rather, it may simply be the case that convencer is the prototypical or the most frequent member of its class. After all, with the exception of his footnote 11 (p. 14), where Modesto (2011) mentions that " $[\mathrm{t}]$ his class of convencer includes avisar 'to warn', informar 'to inform', alertar 'to alert', prevenir 'to forewarn', dizer 'to say', falar 'to say', contar 'to tell', among others", his entire discussion is based on convencer. ${ }^{11}$
a. [O Paulo] ${ }_{1}$ convenceu a Maria [que $\emptyset_{1}$ tinha que ir embora] the Paulo convinced the Maria that had that go away (see (11b))
'Paulo convinced Maria that he had to go away.'
b. Quem ${ }_{1}$ que o Pedro convenceu $t_{1}$ [que $\emptyset_{1}$ tinha que ir embora]? who that the Pedro convinced that had that go away (see (12))
'Who ${ }_{i}$ did Pedro convince that he ${ }_{i}$ had to go away?'
For what it's worth, let me make two additional comments in this regard. In his footnote 21, Modesto (2011) writes: "Nunes (2008) gives examples of hyperraising with two other verbs besides parecer: acabar 'turn out', and perigar 'be on the verge of'. (All his examples are ungrammatical to me and many other speakers, though)". It is interesting to observe that although these verbs did not show up in Duarte \& Henriques's (2005) corpus, as highlighted above by Modesto, acabar was found in other corpora independently studied by each of these authors, as shown in (51a) (from Duarte 2007) and (51bc) (from Henriques 2013). This further suggests that the gap in Duarte \& Henriques's

[^7](2005) corpus may be just a statistical accident. As a matter of fact, in a cursory Google search I have found examples such as (52) with acabar and (53) with perigar (glosses and translations added).
(51) a. (PEUL - 1980; from Duarte 2007: 42; glosses and translation added) ..."vote nesse, vote nesse, vote nesse". $\mathrm{E} \quad \mathrm{eu}_{\mathrm{i}}$ acabo que não $\emptyset_{\mathrm{i}}$ vote in-this vote in-this vote in-this and I finish-1sG that not sei. know.1sG
'..."vote for this one, vote for this one, vote for this one". And I end up not knowing.'
b. (soap opera Insensato Coração, 09/08/2011; from Henriques 2013: 14;
glosses and translation added)
Pois é, eu ${ }_{i}$ acabei que $\emptyset_{i}$ não te contei.
INTER J I finished-1sG that not you.SG told-1sG
'That's right! I ended up not telling you.'
c. (essay by a high school student, 2012; from Henriques 2013: 15, glosses and translation added)
[Livros didáticos, palavras necessárias e o conhecimento histórico books didactic words necessary and the knowledge historical de nossa língua] ${ }_{i}$ acabam que $\emptyset_{i}$ sofrem nas mãos dos of our language finish-3pl that suffer-3PL in-the hands of-the-PL que se julgam corretos.
that REFL judge correct
'Texbooks, necessary words, and the knowledge of our language end up suffering in the hands of those who consider themselves correct."
a. (http://www.neumanns.com.br/portfolio/casamento/171049-neumanns-foto-documental-casamento-buzios-espelho-das-aguas-destination-wedding-brazil-camila-ederson)
E em uma saída com a galera, [eles ${ }_{i}$ ] acabaram que $\emptyset_{i}$ and in a departure with the gang they finished-3PL that tomaram todas
had-3pl all
'And in a getting-out with the gang, they ended up drinking a lot.'
b. (http://ego.globo.com/famosos/noticia/2016/02/thalita-lippi-faz-sucesso-preparando-marmitas-e-doces-fitness.html)
[Meus pais] ${ }_{i}$ seguiam uma dieta da nutricionista mas $\emptyset_{i}$ my parents followed a diet of-the dietician but
acabavam que $\emptyset_{i}$ não faziam igual finished-3pl that not made-3pl equal 'My parents followed the dietician's diet, but ended up not doing it by the rule.'
c. (https://www.vakinha.com.br/vaquinha/ajude-a-imprimir-os-cartazes-do-busao-feliz)
[Os estudantes, trabalhadores e usuários $]_{\mathrm{i}}$, se vêem presos à uma the students workers and users REFL see bound to a rotina exaustiva e $\emptyset_{\mathrm{i}}$ acabam que $\emptyset_{\mathrm{i}}$ se fecham ao mundo routine exhausting and finish-3pl that refl close-3pl to-the world 'The students, workers, and users find themselves bound to an exhausting routine and end up shutting themselves from the world.'
a. (http://novoespacomaria.blogspot.com.br/2016/06/?m = 0)

Temos então que repensar [esses novos sonhos] ${ }_{i}$, pois $\emptyset_{i}$
have-1pl then that rethink these new dreams, for
perigam que $\emptyset_{i}$ se realizem.
be.in.danger-3pl that REFL become.real-3pl
'We then have to rethink these new dreams, for they may become true.'
b. (https://jornalggn.com.br/noticia/em-mensagem-zago-explica-aos-universi-tarios-a-crise-da-usp)
A carta parece ser direcionada para [os estudantes classe média] ${ }_{i}$ the letter seems be directed to the students class middle $q^{\text {que }}$ "perigam" de $\emptyset_{\mathrm{i}}$ se juntarem com as outras that be.in.danger-3PL of REFL gather-INF-3PL with the other categorias para reivindicar mudanças profundas na estrutura categories to demand changes deep in-the structure política da universidade.
political of-the university
'The letter seems to have been addressed to middle class students that are on the verge of joining the other categories to demand deep changes in the political structure of the university.'
c. (http://mauhortam.sites.uol.com.br/blog_frame.htm)

Que não se comessem [as outras galinhas $]_{\mathrm{i}}$, que $\emptyset_{\mathrm{i}}$ perigavam that not SE ate the other chickens that were.in.danger-3pl de $\emptyset_{i}$ também terem contraído a doença. of also have-INF-3pl contracted the disease 'that nobody should eat the other chickens, for they might have also contracted the disease.'

Although the goal of Nunes (2008) was not to compile a list of impersonal predicates that allow hyper-raising, a whole section was devoted to discussing impersonal predicates that select for inflected infinitivals and allow hyper-raising (again, not discussed by Modesto 2011) and two other predicates were mentioned: fácil 'easy' and difícil 'hard' (see Galves 1987 for relevant discussion), as illustrated in (54) below. This type of hyper-raising construction is particularly revealing, Nunes (2008) argues, for the proposed inherent Case gets morphologically realized as a preposition, similarly to what we have seen in (45) in English. Thus, the preposition is optional in (54a), where the subject remains in the embedded clause, but obligatory in (54b), where hyper-raising takes place. Moreover, speakers who do not allow hyper-raising of the first person singular pronoun eu 'I' out of finite clauses with first person singular morphology (see (48a)) allow it plainly in hyper-raising construction such as (55), for there is no specific verbal agreement morphology for first person singular in inflected infinitivals. This again shows that hyper-raising is sensitive to whether or not the embedded verbal agreement morphology is mapped onto a distinctive morpheme.
a. É fácil/difícil (d)esses professores elogiarem os alunos. is easy/difficult of-these teachers praise-INF-3PL the students 'It's easy/hard for these teachers to praise the students.'
b. [Esses professores] $]_{i}$ são fáceis/difíceis *(de) $\emptyset_{i}$ elogiarem os these teachers are easy/difficult of praise-INF-3PL the alunos. students 'These teachers often/rarely praise the students.'
$E u_{i}$ sou díficil de $\emptyset_{i}$ contar piada.
I am difficult of tell-INF joke
'I rarely tell jokes.
Ever since Galves's (1987) original discussion of constructions like (54b) and (55) in BP, they have been seen as one of the entrenched properties of BP grammar, as they illustrate the tendency for an expletive position to be filled by movement in BP. It is therefore quite disconcerting to read that "it does not seem extremely important to decide what derives 'hyper-raising' in BP" (Modesto 2011: 26). That aside, let us examine the three alternative analyses sketched by Modesto:
"It could be argued that the BP construction is like the one in EP, which involves strong binding and not movement, as argued by Rooryck \& Costa 2000. Or, it could be argued that the matrix subject in 'hyperraising' structures actually occupies a topiclike position: the position of grammatical topics argued to exist by the topic-chain analysis, which can in fact host weak pronouns and negative quantifiers. Finally, it could be argued that what has been called 'hyperraising' is just another use of the thematic parecer, which can be translated in English as 'to look like'." (Modesto 2011: 25)

None of these three alternatives is able to account for the data, though. As Rooryck \& Costa (2000) explicitly discuss, the type of construction they examine in EP displays definiteness effects and allows any pronominal subject, as illustrated in (56) below. Hyper-raising constructions in BP, by contrast, allow indefinite subjects and not every pronominal subjects is permitted, as shown in (57). ${ }^{12}$

EP (Rooryck \& Costa 2000: 56-58; translations added):
a. *[Umas meninas $]_{i}$ parecem que $\emptyset_{i}$ estão doentes. a.few girls seem-3pl that are sick 'A few girls seem to be sick.'
b. $E u_{i}$ pareço que $\emptyset_{\mathrm{i}}$ estou feliz. I seem-1sG that am happy 'I seem to be happy.'
c. Nós ${ }_{i}$ parecemos que $\emptyset_{i}$ estamos felizes. we seem-IPL that are-IPL happy 'We seem to be happy.'

BP:
a. [Umas meninas] $]_{i}$ parecem que $\emptyset_{i}$ foram reprovadas. some girls seem-3pl that were-3pl failed 'Some girls seem to have been failed.'
b. $\% \mathrm{Eu}_{\mathrm{i}}$ pareço que $\emptyset_{\mathrm{i}}$ fiz uma besteira. I seem-1sG that made-1sG a nonsense 'I seem to have made something stupid.'
c. *Nós ${ }_{i}$ parecemos que $\emptyset_{i}$ tomamos a decisão certa. we seem-1Pl that had-1PL the decision right 'We seem to have made the right decision.'

[^8]Moreover, Martins \& Nunes (2005, 2009, 2010) and Nunes (2008, 2016) also show that hyper-raising constructions in BP allow idiom chunks, but seemingly analogous constructions in EP do not, as shown in (58) and (59). ${ }^{13}$


#### Abstract

${ }^{13}$ A reviewer claims that "examples [(58)] and [(59)] are not strictly speaking idiom chunks, given that the idiom is the whole sentence, not a part of the sentence". This is not correct, though. The fact that (58a) and (58b) are both well formed under an idiomatic reading by itself shows that we are not dealing with a sentential idiom. Further confirmation is provided by (i) below, which shows that the tense inside the idiom is not frozen and may modified by an adverb. As for (59), the variations in (ii), with a different adverb and different tenses, also show that (59a) does not involve a sentential idiom.


(i) ... mas a vaca já tinha ido pro brejo. but the cow already had gone to-the swamp Idiomatic reading: 'but things had already gone bad.'
(ii)
a. Até a formiga tem catarro!
even the ant has phlegm
b. Já a formiga \{tinha/quer ter\} catarro!
already the ant had/wants have.INF phlegm
Idiomatic reading: 'The child is/was thinking he/she is/was already an adult!'
The reviewer also questions the validity of the claim that EP does not allow constructions with a hyper-raised idiom chunk analogous to (58b), by citing several instances of the sentence in (iii) found in a Google search.
(iii) A montanha parece que pariu um rato. the mountain seems that gave.birth.to a mouse 'It seems that it was all an anti-climax.'

The reviewer's point is well taken. However, it seems more related to the proper analysis of the expression A montanha pariu um rato ('it was all an anti-climax', lit. the mountain gave birth to a mouse) in EP than to the movement approach to null subjects under discussion. As a native speaker of BP, I have to say that I had no idea of what (59a) was supposed to mean, but I had no problem in understanding the expression A montanha pariu um rato. This by itself suggests that the latter may not necessarily constitute an idiomatic expression in the relevant sense. So, the question is whether EP speakers analyze it as a truly idiomatic (noncompositional) expression or a metaphoric expression whose meaning is compositionally computed in terms of the metaphoric interpretation assigned to its constituents. Notice that there is no reason for all speakers to converge in one of these analyses; therefore, this is a place where idiolectal differences are not surprising. Martins \& Nunes (2009: 150), for instance, report that the sentence in (iii) is unacceptable, which would correspond to the judgments in grammars where the expression is analyzed as an idiom. In turn, grammars that allow (iii), as documented by the reviewer, should reflect a compositional metaphoric analysis. Independent evidence that such compositional analysis is available is provided by the fact that we find near literal translations of this expression in other languages (e.g. Italian, Spanish, and German). In fact, the EP version seems to be the translation of Latin. According to Lacerda, Lacerda \& Abreu (2004: 319-320), the saying is of Greek origin and appears in Horatio's Ars Poetica (parturient montes, nascetur ridiculus mus). That being so, the acceptability of (iii) for some speakers does not entail that we have movement of an idiom chunk, as suggested by the reviewer, for in these grammars the saying arguably has not been encoded as an idiom. This possibility is further corroborated by data such as (iv) (glossed and translations added), where part of the expression has been replaced (see (iva-d)), the constituents were swapped (see (ive)), or the object has been dropped (see (ivf)).
(iv) a. (Ferreira Gular, Folha de São Paulo E8, 8/1/12)

A utopia pariu um rato.
the utopia gave.birth.to a mouse
'Utopia did not deliver what was expected.'
b. (https://blogaridades.blogs.sapo.pt/que-trumpa-de-contas-41095)

A Mãe de Todas as Bombas parece que pariu... um rato.
the mother of all the bombs seems that gave.birth.to a mouse
'It seems that The Mother of All Bombs did not yield the expected result.'
c. (https://altamiroborges.blogspot.com/2015/03/lista-do-janot-montanha-pariu-um-golpe.html)

Montanha pariu um golpe?
mountain gave.birth.to a coup
'Did all end up resulting in a coup?'
$B P$ :
a. A vaca foi pro brejo. the cow went to-the swamp Idiomatic reading: 'Things went bad.'
b. $\quad\left[\begin{array}{ll}\mathrm{A} & \text { vaca }]_{i}\end{array}\right.$ parece que $\emptyset_{\mathrm{i}}$ foi pro brejo. the cow seems that went to-the swamp Idiomatic reading: 'It seems that things went bad.'

EP:
a. A formiga já tem catarro. the ant already has phlegm Idiomatic reading: 'The child thinks he/she is already an adult.'
b. *[A formiga $]_{i}$ parece que $\emptyset_{i}$ já tem catarro. the ant seems that already has phlegm Idiomatic reading: 'It seems that the child thinks he/she is already an adult.'

As for the topic-deletion alternative, it has to explain how idiom chunks like the one in (58b) can be adequately interpreted in the matrix [Spec FP], given that Modesto assumes (Modesto 2011: 17-18) that " $[t]$ he constituent occupying Spec FP position would be interpreted as a kind of grammatical topic [footnote omitted; JN] standing in an aboutness relation with the rest of the sentence". Clearly, under the relevant idiomatic reading, a vaca 'the cow' in (58b) is not interpreted as some entity about which it is said that it seems to have gone to the swamp. It is also worth observing that movement of idiom chunks is a canonical diagnostic for A-movement (see Martins \& Nunes 2005, 2009, 2010; Nunes 2008, 2016 for further discussion). Hence, it is not at all clear how the putative A'-movement of the subject in Modesto's topic-deletion approach can be remedied to account for data such as (58b).
Additional reconstruction effects (again noted in Nunes 2008, but not discussed by Modesto) provide independent support for the proposal that the matrix and the embedded subject positions of hyper-raising constructions are related by movement. Take the paradigm in (60), for instance.

[^9](60) Nunes (2008: 95, (22)):
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]] nobody said that the Maria moved a finger to me help Nobody said that Maria didn't lift a finger to help me.'
c. [Ninguém ${ }_{\mathrm{i}}$ disse [que $\emptyset_{\mathrm{i}}$ ia mexer um dedo para me ajudar]] nobody said that went move a finger to me help 'Nobody said that he wasn't going to lift a finger to help me.'
d. [Ninguém $\mathrm{m}_{\mathrm{i}}$ parecia [que $\emptyset_{\mathrm{i}}$ ia mexer um dedo para me ajudar]] nobody seemed that went move a finger to me help 'It seemed that nobody was going to lift a finger to help me.'

The contrast between (60a) and (60b) illustrates the well known fact that a negative polarity phrase such as the minimizer um dedo 'a finger' and its licenser (in this case, ninguém 'nobody') must be clause mates. Interestingly, if we have a null rather than an overt embedded subject in sentences analogous to ( 60 b ) in BP, the minimizer can now be licensed by the matrix subject, as shown with the finite control construction in (60c) and the hyper-raising construction in (60d). This paradigm receives a straightforward account under the movement analysis. If the negative quantifier in (60c) and (60d) is generated in the embedded clause before moving to the matrix subject position, it can license the negative polarity phrase. Moreover, it is not the case that any type of null subject will be able to license the minimizer in (60c) and (60d). Although contrasts such as the one between (60a) and (60b) also hold in EP, sentences analogous to (60c) and (60d) are unacceptable in this dialect. Again, I fail to see how the topic-deletion approach can account for these facts.
As for the third alternative analysis Modesto sketches (a thematic use of the verb parecer), even a cursory glance at the data shows that it is a nonstarter. Take the idiomatic reading of the sentence in (58b), for instance. Clearly, the sentence is not talking about how the cow looks. Note that these remarks are not meant to deny that some raising predicates may be ambiguous between a raising and a control structure. What I am saying is that when this is adequately controlled for, like the use of an idiom chunk in (58b), the (hyper-)raising possibility can be properly isolated. Similar considerations of course apply to hyper-raising out of inflected infinitivals. Take the adjectival predicate fácil 'easy', for instance. (61a) below shows that it may assign a $\theta$-role to the subject of its clause. Interestingly, the continuation of (61a) given in (61b) is not contradictory, which shows that fácil in (61b) does not assign a $\theta$-role to the matrix subject. In other words, (61b) clearly instantiates a case of hyper-raising.
a. As provas dos dois últimos anos foram bem fáceis, mas a the exams of-the two last years were very easy, but the comissão avaliadora estava estudando algumas mudanças. committed evaluative was studying some changes 'The exams of the past two years have been very easy, but the evaluation committee was studying some changes.'
b. Portanto, [as provas deste ano $]_{i}$ são bem fáceis de $\emptyset_{i}$ estarem therefore the exams of-this year are very easy of be-INF-3PL difíceis. difficult 'Therefore, this year's exams are likely to be difficult.'

To summarize. The alleged problems involving hyper-raising constructions pointed out by Modesto (2011) are actually nonexistent, resulting from a mischaracterization of Nunes's (2008) analysis. Furthermore, neither of the accounts sketched by Modesto (including his own topic deletion account) can handle the relevant data. Recall that Modesto takes hyperraising to be "the strongest argument in favor of movement analyses of null subjects in BP" (Modesto 2011: 24). That being so, it is only fair to conclude that Modesto has failed in his goal "to deconstruct a specific line of argumentation used by Boeckx, Hornstein \& Nunes (2010) to support what is usually called the movement theory of control" (Boeckx, Hornstein \& Nunes 2010: 3), for the argument that he takes to be the strongest one in favor of the movement approach to BP null subjects has remained unscratched by his objections.

## 5. On alleged technical problems

In the previous sections we have seen that as opposed to what Modesto (2011) claims, the movement approach to null subjects in BP can properly account for the core data regarding null subjects (see section 2), as well as the data involving verbs like convencer (see section 3) and the data involving hyper-raising (see section 4). Furthermore, we have also seen that Modesto's (2011) topic deletion approach faces severe problems in each of these empirical landscapes. I will now shift gears and discuss Modesto's (2011) criticism of the specific technical implementation of the movement approach pursued in Nunes (2008). Before we examine the criticism proper, it is worth noting that this is the weakest part of Modesto's line of argumentation, as it focuses on a specific technical implementation of the syntax-morphology mapping, as far as verbal agreement in BP is concerned. Thus, even if the criticism turned out to be valid, it should only affect the proposed mapping, not the general movement approach to null subjects in BP. That said, we will see that even under this narrow focus, the criticism fails to single out any substantial problem.

### 5.1. Finite control and phase-based computations

The starting point of Nunes 2008 is the movement analysis of null subjects proposed by Ferreira (2000, 2009), according to which finite Ts in BP are ambiguous in that they may be specified for a complete or an incomplete set of $\phi$-features. If associated with a complete $\phi$-set, T values the Case feature of its subject, freezing it for purposes of A-movement; if associated with an incomplete $\phi$-set, T does not value the Case of its subject, which is then free to undergo A-movement to have its Case feature licensed. From this perspective, the embedded clauses of the sentences represented in (62) (irrelevant details omitted) respectively illustrate these two possibilities.
a. [[O João $]_{\mathrm{i}} \mathrm{T}_{\phi \text {-complete }}\left[t_{\mathrm{i}} v\right.$ disse [que ele $\mathrm{T}_{\phi \text {-complete }}$ comprou um carro] $]$ ] the João said that he bought a car 'João said that he bought a car.'
 'João ${ }_{i}$ said that he ${ }_{i}$ bought a car.'

Ferreira (2000: 55, footnote 38) notes that A-movement out of CP, as depicted in (62b), for instance, is not allowed in Chomsky's (2000) original phase-based model. According to Chomsky (2000), CPs are phases and the Phase Impenetrability Condition, as defined in (63), triggers Spell-Out of TP after the CP phase is completed.
(63) Phase Impenetrability Condition (Chomsky 2000: 108)

In a phase $\alpha$ with head $H$, the domain of $H$ is not accessible to operations outside $\alpha$, only H and its edge are accessible to such operations.

Ferreira suggests that a possible solution to this problem is to assume that a C head that selects for a $\phi$-incomplete T does not define a phase or a strong phase in the sense of Chomsky (2001). Under this view, movement of the subject in (62b) complies with Chomsky's (2000) Phase Impenetrability Condition, for the embedded CP does not count as a phase.
Within the phase-based model, this is a conceptually sound suggestion for three reasons. First, as pointed out by Ferreira, if standard control infinitivals involve A-movement, as argued by Hornstein (1999), such an assumption is independently required. Second, if $\phi$-features are actually lexically hosted by C, as argued by Chomsky (2008), mere inspection of the $\phi$-set of C suffices to determine whether or not it constitutes a strong phase head. Finally, if C can potentially be associated with a complete or an incomplete $\phi$-set, it becomes parallel to the other canonical phase head, $v$, which is taken to involve a complete $\phi$-set in transitive constructions, but an incomplete one in passive and unaccusative constructions.
That said, Nunes (2008) reports that Martins \& Nunes (2010) show that Ferreira's suggestion cannot be extended to topic raising constructions such as (64a) below, which they argue involves raising of an embedded topic, as illustrated in (64b). Crucially, the embedded pronoun in (64a) has its Case licensed, which indicates that the embedded T is associated with a complete $\phi$-set; the embedded CP should then count as a phase and Spell-Out of the embedded TopP in consonance with (63) should prevent movement of the DP in its Spec.
a. Os meninos parecem que eles viajaram ontem. the boys seem-3pl that they traveled-3pl yesterday 'The boys seem to have traveled yesterday.'
b. $\quad\left[_{T P}[\text { os meninos }]_{i} T_{[N ; P]}\right.$ parecem $\left[{ }_{\mathrm{CP}}\right.$ que $\left[{ }_{\text {Topp }} t_{\mathrm{i}}\left[{ }_{\mathrm{TP}}\right.\right.$ eles viajaram ontem $\left.\left.]\right]\right]$ ]

However, Martins \& Nunes demonstrates that this problem dissolves if we instead assume Chomsky's (2001) version of the Phase Impenetrability Condition given in (65) below. According to this definition, 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 the matrix T nor the matrix light verb associated with the raising verb in (64b) qualify as strong phase heads, Spell-Out need not apply to the embedded TopP before the matrix C (the next strong phase head) is added to the derivation; hence, the embedded topic in (64b) can move to the matrix [Spec, TP] without violating the Phase Impenetrability Condition in (65).

Phase Impenetrability Condition (Chomsky 2001: 14):
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.

Discussing the reasoning summarized above, Modesto asserts the following:
"Nunes 2008 fails to state that it [= Chomsky's (2001) version of the PIC; JN] is not able to account for the finite control derivations he had just discussed. ... When the 'transitive' light verb is added to the derivation, being a (strong) phase, it should trigger Spell-Out of the complement of the C head and the embedded subject should be unavailable to be copied and re-merged to the matrix light verb. It is then impossible to derive finite control structures with the version of the PIC used by Nunes (2008).

I confess I see no way out of this conundrum. If Chomsky's (2001) theory of phases is assumed, there is no way to derive finite control .... If Ferreira's version of the phase theory is assumed, then topic hyper-raising is unaccounted for. ... My point is to show that movement accounts are also problematic within the framework they sprang from." (Modesto 2011: 23-24)

This passage reveals a serious misunderstanding of the relevant discussion. There is no opposition between "Chomsky's (2001) theory of phases" and "Ferreira's version of the phase theory". The issue actually involves two related but independent points: (i) what constitutes a (strong) phase and (ii) if and how agreement/movement can proceed across (strong) phases. With respect to (i), Ferreira restricts the characterization of CP as a (strong) phase only to cases where it is associated with $\phi$-complete set; with respect to (ii), Ferreira framed the discussion assuming Chomsky's (2000) version of the PIC in (63). What Martins \& Nunes (2010) did was first to present a problem to Ferreira's proposal regarding (ii), namely, topic hyper-raising constructions such as (64), if (63) were assumed; they then show that the problem disappears once the definition of the PIC in (65) is assumed, instead. In other words, Martins \& Nunes were focusing in the issue (ii) above, keeping Ferreira's proposal regarding (i) constant.

In sum, Modesto's (2011: 23) claim that finite control cannot be accounted for under Chomsky's (2001) version of the PIC is simply incorrect and the alleged problem, nonexistent. In (62b), for instance, CP is not a strong phase, as its clausal $\phi$-set is incomplete; thus, the embedded TP is not forced to undergo Spell-Out when the matrix $v$ enters the derivation. In fact, Spell-Out must apply (to the complement of the matrix $v$ ) only when the matrix C is added to the derivation. Thus, as opposed to what Modesto states, the embedded subject of sentences such as (62b) can perfectly well move to the matrix [Spec, $v \mathrm{P}$ ], in full compliance with the PIC in (65).

### 5.2. Morphological specifications

### 5.2.1. Nunes's (2008) proposal and further refinements

One question that arises in Ferreira's $(2000,2009)$ proposal reviewed in section 5.1 is how exactly a given finite verbal form is associated with the same phonetic exponent regardless of whether the $\phi$-set of T is complete or incomplete. Notice that in (62), for instance, the same verbal form (comprou) can be associated with a complete (see (62a)) or incomplete $\phi$-set (see (62b)). Nunes's (2008) answer to this question capitalizes on apparent mismatches between the morphological specifications of verbal agreement inflection and the morphological specifications of the corresponding subject pronouns. Consider the paradigm in (66) below, for instance.

Nunes (2008: 87, (5))

| Verbal agreement paradigm in (Colloquial) Brazilian Portuguese |  |  |
| :--- | :--- | :--- |
| cantar 'to sing': indicative present |  |  |
| $e u$ (I) | canto | P:1.N:SG |
| você (you.SG) <br> ele (he) <br> ela (she) <br> a gente (we) | canta | P:default; N:default ( = 3sG) |
| vocês (you.PL) <br> eles (they.MASC) <br> elas (they.FEM) | cantam | P:default; N:PL ( = 3PL) |

The form canto in (66) may be taken to unambiguously encode values for both person and number (1.sG). By contrast, the forms canta and cantam, which have been traditionally analyzed as encoding third person singular and third person plural, are not morphologically transparent. In particular, there is no overt morpheme that unambiguously shows that canta is specified for third person singular, for cant- is the root and -a is a thematic vowel indicating that the verb belongs to the first conjugation. As for cantam, it is not inconceivable that $-m$ is just a plural marker, for its presence is conditioned by the plural morpheme $-s$ of the pronouns eles/elas and vocês. Moreover, notice that the form canta is compatible with pronouns that from a semantic point of view have different values for person: 1 in the case of a gente, 2 in the case of você, and 3 in the case of ele and ela. Similar considerations apply to cantam, which is compatible with pronouns that from a semantic point of view have person features with the values 2 (vocês) or 3 (eles and elas). Finally, notice that canta is compatible with pronouns that are semantically singular (você, ele, ela) or semantically plural (a gente). Nunes's (2008) proposal is that such undesirable mismatches may not be real if the form canta actually has a default specification for person and number and cantam, a default specification for person (see the third column of (66)). This in turn paves the way for an account of the ambiguity between $\phi$-complete and $\phi$-incomplete verbal forms in BP argued for by Ferreira (2000, 2009). Nunes (2008) proposes that in BP, T may enter the derivation specified for both person and number (a complete $\phi$-set, as in (66)) or just number (an incomplete $\phi$-set); if T enters the derivation specified for number only, it may be assigned a person feature in the morphological component by a lexical redundancy rule along the lines of (67) below, as illustrated in (68). Notice that regardless of whether T is $\phi$-complete or $\phi$-incomplete, at the end of the day we have the same surface form for the verb (see comprou in (62), for instance).
(67) Nunes (2008: 88, (7))

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

Nunes (2008: 88, (8))

| cantar 'to sing': indicative present |  |  |
| :--- | :--- | :--- |
| Valuation of T in the <br> syntactic component | Addition of [person] <br> in the morphological <br> component | Surface form of <br> the verb |
| $\mathrm{N}: \mathrm{SG}$ | $\mathrm{P}: 1 . \mathrm{N}: \mathrm{SG}$ | canto |
| $\mathrm{N}:$ default | P:default; N:default | canta |
| $\mathrm{N}: \mathrm{PL}$ | P:default; N:PL | cantam |

To recap. Null subjects in BP exhibit properties of traces of A-movement (cf. (1) and (3)). Within Chomsky's (2001) Agree-based system, the Activation Condition prevents A-movement from a Case-marked position and Case is a reflex of agreement with a $\phi$-complete probe (i.e. a probe with a person feature). Therefore, the position occupied by null subjects in BP cannot be Case-marked if they are A-traces. From this conclusion, it follows that the T head that agrees with a null subject in BP cannot be $\phi$-complete (see Ferreira 2000, 2009), that is, it cannot have a person feature. Interestingly, Nunes (2008) shows that the verbal agreement system of BP need not resort to the feature person. In other words, Nunes (2008) formally captures the widely shared intuition that the weakening of verbal agreement inflection in BP is somehow associated with the restricted distribution and interpretation of its null subjects.

It should be emphasized that Nunes (2008) only focused on the ambiguity in the feature specification of T proposed by Ferreira (2000, 2009). However, we can push this general approach even further. Under Chomsky's (2001) assumption that the subject values the $\phi$-features of T , one can reasonably ask what the feature composition of nominative pronouns in BP is that yields the underspecification of T as depicted in first column of (68). Two well known properties of BP are relevant in this regard: (i) the pronoun voc $\hat{e}$ 'you.SG' came to replace tu 'you.SG' in the majority of dialects and even in the dialects where $t u$ has been kept, the corresponding 2. SG agreement morphology has been lost; ${ }^{14}$ and (ii) number agreement has become substantially weakened. ${ }^{15}$
Let us examine the impact of (i) in BP by first considering the nominative pronouns eu 'I', tu 'you.SG', and nós 'we' in EP. Each of these pronouns in EP has fused person and number features and may be associated with a distinctive agreement morpheme; in the indicative present tense, for instance, these morphemes are -o (e.g. canto 'I sing'), $-s$ (e.g. cantas 'you.SG sing') and -mos (e.g. cantamos 'we sing'), respectively. Thus, the values for person and number in EP are both necessary to properly identify the agreement morphology associated with each of these pronouns: the person value distinguishes eu ([P.N:1.SG]) from tu ([P.N:2.SG]) and the number value distinguishes eu ([P.N:1.SG]) from nós ([P.N:1.PL]). These pronouns can also be morphologically distinguished from a gente, whose fused person and number features are arguably unvalued ([P.N]; see Kato, Martins \& Nunes forthcoming) and accordingly, are not associated with any distinctive agreement morpheme. As for BP, the loss of $t u$ and its corresponding verbal agreement inflection has rendered the person value for $e u$ morphologically redundant, for the specification SG only appears fused with 1 . Suppose that what has been perceived in the literature as a weak system of verbal agreement in BP is actually the reflex of underspecification in its pronominal system. More concretely, let us assume that the pronominal system in BP resorts to the minimal number of morphological specifications necessary to yield the attested verbal inflections. This being so, eu should then be morphologically specified simply as [P.N:SG]. In turn, if eu in BP is so specified, nós need not be doubly specified either, for there is no other pronoun with fused person and number features that has the values 1 or PL (Recall that the fused person and number features of $a$ gente are arguably unvalued). The question is whether nós should be specified as [P.N:1] or [P.N:PL]. A possible answer is suggested by the dialectal variation involving the patterns of agreement associated with nós in BP. In addition to the standard pattern with the morpheme -mos in (69a), we may also find the nonstandard forms in (69b), with the reduced morpheme -mo, and (69c), with no overt agreement morpheme:
(69) a. Nós sempre chegamos na hora. we always arrive-mos in-the hour
b. \%Nós sempre chegamo na hora. we always arrive-mo in-the hour
c. \%Nós sempre chega na hora. we always arrive in-the hour 'We always arrive on time.'

Clearly, the form chega in (69c) is not overtly marked for plural; besides, the dropping of -s in (69b) suggests that for some dialects, -mos has been reanalyzed as being bimorphemic, with -mo encoding first person and $-s$, plural (see Nunes 2015). Thus, a uniform analysis

[^10]for ( $69 \mathrm{a}-\mathrm{c}$ ) is within reach if nós is specified as [P.N:1] across BP dialects. In other words, in all BP dialects a given verbal inflection is specified as [P.N:1] after having agreed with nós; the dialects then differ with respect to the phonetic exponent assigned to this specification (-mos, -mo, or Ø).
If in BP $e u$ is morphologically specified as [P.N:SG] and nós as [P.N:1], there is no need to postulate morphological person values for the other pronouns of BP, for these values are not associated with an overt morpheme. Put differently, if we were to assign the morphological specification [ $\mathrm{P}: 1]$ to a gente, [ $\mathrm{P}: 2$ ] to $v o c \hat{e}$, and $[\mathrm{P}: 3]$ to ele in (66), for instance, at the end of the day these specifications should be somehow obliterated as they are all associated with the same verbal form (see canta in (66)), with no overt specification for person. If BP maximizes morphological underspecification whenever possible, as has been explored here, these pronouns should therefore be devoid of a value for their morphological person specification.
What about the morphological number specification of pronouns other than eu and nós in BP? Clearly, vocês, eles, and elas must have their number feature valued as PL, thanks to their independent morpheme -s, which encodes plurality. So, the question to be answered really concerns the pronouns a gente, você, ele, and ela. As mentioned earlier, there are two logical possibilities to entertain: their number feature can be valued as SG or not valued at all; in either case, the number specification of a verbal form agreeing with these pronouns should be assigned no phonetic content at the end of the day. Consider a gente, first. It is clearly plural from a semantic point of view; hence, if it were morphologically specified as singular, we would have an undesirable clash between its semantic and morphological specifications. On the other hand, if its number feature is not valued, not only do we prevent a feature clash, but also pave the way to account for the nonstandard pattern in (70), where the verb arguably agrees with the semantic features of $a$ gente.

> \%A gente sempre chegamos na hora. we always arrive-mos $\begin{aligned} & \text { in-the hour } \\ & \text { 'We always arrive on time.' }\end{aligned}$

Returning to the pronouns você, ele, and ela, if BP only resorts to morphological specification when necessary, they should also be morphologically underspecified for number. Interestingly, two facts about BP support such a view. The first one is that BP allows plural to be encoded on the determiner only, as illustrated in (71) below. Crucially, the lack of the plural morpheme -s on carro and vermelho in (71) should not be understood as indicating that these elements are specified as SG, for this would create a conflict with the transparent specification for plural on the demonstrative. So, the more plausible approach is to assume that in BP, nouns and nominal modifiers may have a value for number only when they overtly encode plural specification. Extending this conclusion to pronouns, você, ele, and ela in BP should be analyzed as having an unvalued number feature for purposes of morphological computations. The second fact supporting the underspecification of these pronouns in BP is that some dialects allow a bare agreement form even when the subject overtly encodes plurality, as illustrated in (72). This clearly indicates that the lack of a phonetic exponent for number specification in BP should not be equated with being specified as SG.
\%aqueles carro vermelho
that-PL car, red
'those red cars'
\%Eles sempre chega na hora. they.mASc always arrive in-the hour ‘They always arrive on time.'

This discussion is summarized in (73), in association with the correspondence rules for morphological realization (see e.g. Halle \& Marantz 1993) given in (74). ${ }^{16}$
(73) Morphological specifications for person and number and verbal agreement in BP

| Personal pronouns |  | Verbal inflection |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| nominative form | morphological specification | indicative present | indicative perfective past | indicative imperfective | inflected infinitival |
| eu' ' ${ }^{\text {' }}$ | [P.N:SG] | -o | -i |  |  |
| você <br> 'you(sG)' | [P; N] |  |  |  |  |
| ele/ela 'he/she' |  |  |  |  |  |
| a gente 'we' | [P.N] |  |  |  |  |
| nós 'we' | [P.N:1] | -mo(s) |  |  |  |
| vocês you(PL)' | [P; N:PL] | -m |  |  |  |
| eles/elas 'they' |  |  |  |  |  |

(74) Morphological realization of verbal agreement inflection in BP:
a. $\quad[\mathrm{N}: \mathrm{PL}] \leftrightarrow \quad\{-\mathrm{m}\}$
b. [P.N:1] $\leftrightarrow ~\{-\mathrm{mo}(\mathrm{s})\}$;
c. [P.N:SG] $\rightarrow\{-\mathrm{O}\} /$ INDIC.PRES $\qquad$ $\rightarrow\{-\mathrm{i}\} /$ INDIC.PERF.PAST $\qquad$
d. $\varnothing$ elsewhere.

Notice that with the exception of the specification [P.N:1], the feature person in (73) is devoid of any morphological significance, as it is assigned no overt exponent, in consonance with the elsewhere condition in (74d). The general pattern in (73) thus allows us to capture the ambiguity proposed by Ferreira in a transparent way, as shown in (75). ${ }^{17}$

[^11]
## Ambiguity of finite T in BP

| Nominative Pronouns | Morphological specification for person and number | $\begin{aligned} & \phi \text {-complete } \\ & \mathrm{T}: \\ & {[\mathrm{P}: \mathbf{u}, \mathrm{N}: \mathrm{u}]} \end{aligned}$ | $\begin{gathered} \phi \text {-incomplete } \\ \mathrm{T}: \\ {[\mathrm{N}: \mathrm{u}]} \end{gathered}$ | Output: dançar 'dance' indicative present |
| :---: | :---: | :---: | :---: | :---: |
| eu | [P.N:SG] | [P.N:SG] | \%[N:SG] | danço |
|  |  |  | \%* |  |
| você | [P; N] | [P:u; N:u] | [N:u] | dança |
| ele/ela |  |  |  |  |
| a gente | [P.N] |  |  |  |
| nós | [P.N:1] | [P.N:1] | * | dançamo(s) |
| vocês | [P; N:PL] | [P:u; N:PL] | [ $\mathrm{N}: \mathrm{PL}$ ] | dançam |
| eles/elas |  |  |  |  |

Bearing the picture in (75) in mind, let us consider the paradigm illustrated in (76) (see (48) and (57b-c)).
a. $\% E u_{i}$ pareço que $\emptyset_{i}$ danço bem. I seem $_{[P . N: S G]}$ that dance $_{\text {[N:SG] }}$ well 'I seem to dance well.'
b. \{Você/ele/ela/a gente $\}_{i}$ parece que $\emptyset_{i}$ dança bem. you.SG/he/she/we $\operatorname{seem}_{[P: u ; ~ N: u]}$ that dance ${ }_{[N: u]}$ well '\{You.sG/he/she/we\} \{seem/seems\} to dance well.'
c. ${ }^{\text {Nós }}{ }_{i}$ parecemos que $\emptyset_{i}$ dançamos bem. we $\operatorname{seem}_{[p . \mathrm{N}: 1]}$ that dance $_{\text {[P.N:1] }}$ well 'We seem to dance well.'
d. \{Vocês/eles/elas $\}_{i}$ parecem que $\emptyset_{i}$ dançam bem. you.PL/they.MASC/FEM $\operatorname{seem}_{[P: u ; ~}{ }_{\text {N:PL] }}$ that dance $_{[\mathrm{N}: \mathrm{PL}]}$ well '\{You.PL/they.MASC/FEM\} seem to dance well.'

According to (75), a finite T in BP may be associated with person and number or just number. If associated with person and number, T will have its features matched and valued as shown in the third column of (75) and the corresponding pronominal subject will have its Case valued as nominative; the correspondence rules in (74) then yield the superficial verbal forms in the last column. If T is associated with just number instead, it cannot Case-mark its subject, which is then free to undergo additional A-movement. However, agreement does not apply uniformly in this situation. If the subject is the pronoun vocês or eles/elas, the number feature of T is valued as plural and the embedded verb surfaces as dançam (see (76d)), in accordance with the correspondence rule in (74a). If the subject is either of the pronouns você, ele/ela, and a gente, the number feature of T matches their number feature, but no valuation takes place, for these pronouns do have their number feature valued. No phonetic exponent is assigned to [ $\mathrm{N}: \mathrm{u}$ ] in consonance with the elsewhere condition in (74d) and the verb dançar 'dance' surfaces in its bare form dança (see (76b)). A completely different picture emerges if a derivation involves a $\phi$-incomplete T associated with nós as its subject, for there is no matching between the number feature of T and the feature matrix of nós: not only are the features number and person of nós fused, but resulting value of the conglomerate is a person value (1) rather than a number value. Such feature mismatch arguably causes the derivation to crash, explaining the
ungrammaticality of (76c). To put things in a different manner, the morpheme -mos in the embedded clause of (76c) cannot be assigned to a T specified for number only (see (74b)). Finally, speakers split with respect to the situation in which a $\phi$-incomplete T enters into an Agree relation with the pronoun $e u$. Given that $e u$ have its person and number fused, some speakers treat it like nós; in other words, no matching between the number feature of T and the fused number feature of $e u$ takes place and the derivation crashes. Other speakers are more tolerant and allow such matching, for the value of eu's person-number amalgam is a number value (SG). Thus, we find speakers who allow hyper-raising with eu in (76a) and speakers who don't.

### 5.2.2. Modesto's (2011) criticism

Modesto (2001) presents two objections to the general approach sketched in Nunes (2008). The first one has to do with default agreement morphology and the proper encoding of singular:
> "it is unclear how Nunes' proposal solves the problem faced by Ferreira's analysis. Clearly, the DP that agrees with T (either when the DP is pronominal or not) has no "default" feature. So, if the agreeing DP is the pronoun ele 'he', the number feature of T should be valued as 'sg', not as 'default'. T should then receive the feature [person] in the morphological component valued as [ $\mathrm{P}: 1]$ and the surface form of third person singular verbs should be identical to the first person singular forms. Putting the problem another way, there is no "default" feature. What is "default" is the value given to a certain feature (number or person), not the feature itself; therefore, "default" cannot be manipulated by syntax (since it is not a feature). For Nunes proposal to fly, it would have to be assumed that DPs are not specified for [number] in BP. However, DPs are clearly specified for singular or plural (in BP) and should value the number feature of T accordingly." (Modesto 2011: 12)

The first point to note is that it is not the case that Nunes (2008) was assuming default features, as can be clearly seen in (66)-(68). The term default was used in a standard way, as a shorthand for a value linked to the phonetic realization that is found in the largest number of relevant contexts. In the case under discussion, the elsewhere condition in (74d) states that any feature matrix other than the ones specified in (74a-c) will not receive a phonetic exponent. Thus, what was described as a default value for a given feature complex in (66)-(68) corresponds to unvalued features (see (75)) that are not assigned a phonetic exponent, in consonance with the elsewhere condition in (74d).
Secondly, Modesto is erroneously lumping together semantic and morphological specifications. There is no problem in the logic of agreement if the morphological specifications of a given inflection mismatch the semantic specifications of the corresponding subject if the latter is morphologically underspecified for the relevant features. Any account of agreement in BP (and EP) has to explain why the form canta in (66), for instance, is compatible with pronouns with very different semantic specifications. So, Modesto's claim that DPs are clearly specified for singular or plural in BP must be substantiated. It is clear that semantically plural DPs in BP may exhibit overt morphology (the morpheme -s) and trigger overt plural agreement (see the morpheme -m in (66)). By contrast, semantically singular DPs are not associated with an overt singular morpheme and with the exception of the first person singular pronoun eu, they do not trigger the realization of overt singular agreement morphology. So, the issue is really whether in BP semantically singular pronouns or DPs in general are morphologically specified as singular and associated with a null singular morpheme or whether they are morphologically underspecified with respect to number.

What I have shown in section 5.2 .1 is that lack of an overt exponent for number inflection cannot be equated with SG specification in BP; otherwise, one would have undesirable clashes in number agreement between a gente and canta in (66), between aqueles and carro in (71), or between eles and chega in (72), for instance. A uniform and simpler account of the BP data discussed above can however been reached without postulating suspicious agreement clashes if the number feature of DPs in BP carries a morphological value only if it is associated with an independent morpheme; if not, the number inflectional agreement associated with such DPs will remain unvalued and will be assigned no phonetic exponent, in consonance with (74d). From this perspective, the specific cases Modesto raises (the pronoun ele and any semantically singular DP) are not morphologically specified as singular and therefore, they do not incorrectly activate the redundancy rule in (67i). However, suppose for the sake of the argument that this approach is incorrect and that semantically singular pronouns and DPs in general are specified as SG, as claimed by Modesto. This by itself does not entail that the agreement inflection triggered by them would compete with the agreement inflection triggered by eu ([P.N:SG]). Number is an autonomous morpheme in the former, but a fused feature in the latter; hence, it could perfectly well be the case that the morphological component assigns the exponent oo to a verbal form in the indicative present specified as [P.N:SG] and no phonetic exponent to a comparable form specified as [ $\mathrm{N}: \mathrm{SG}$ ] (in consonance with the elsewhere condition in (74d)). In other words, regardless of whether or not semantically singular subjects are morphologically valued as SG in BP, the competition problem pointed out by Modesto does not arise.
Let us now examine the second objection Modesto raises with respect to the lexical redundancy rule in (67):
"There is another problem with rule [(67)]. It does not take into consideration the first person plural pronoun nós 'we' (which is in free variation with the treatment form a gente 'lit. the people' in all regions of Brazil) and the corresponding first person plural inflection morpheme -mos. It is possible that first person plural morphemes have disappeared from non-standard BP (we don't really know), but it is certainly still used in (colloquial) standard BP. The dialect under investigation here is the standard one, the one in which null subjects are found. It makes little sense, then, to exclude the first person plural morpheme from the verbal paradigm. Therefore, the paradigm in [(66)] should contain another form cantamos 'sing.1pl', which is marked for $[\mathrm{P}: 1]$ and $[\mathrm{N}: \mathrm{pl}]$, that cannot be derived by the rule [(67)] above. The conclusion is that the system designed by Nunes cannot explain how or why finite T would be taken to be ambiguous between having a complete or an incomplete set of $\phi$-features." (Modesto 2011: 12)

The reason for why nós was not included in (66) was methodological in nature. As opposed to what Modesto states, the literature is unanimous in not taking nós and a gente to be in free variation, be it in BP or EP. ${ }^{18}$ In the case of BP, in particular, a gente is the unmarked pronoun to encode semantic first person plural: its forms are the most frequently used and uniformly cover all case positions. By contrast, nós enjoys a much more unstable status in BP: its members have been consistently replaced by members of the a gente-series; one finds considerable variation across speakers' judgments for individual case forms and the verbal agreement associated with it (see (69)); and it is generally associated with formal style, written language, and schooling. Given that nós does not have the same status as the other pronouns in BP, it was left out in (66). However, the most important point is that nothing

[^12]changes in Nunes's (2008) proposal if nós is included in the picture, as we saw in (73). In fact, the morphological specification of nós as [P.N:1] explains why hyper-raising with nós is excluded (see (76c)) and provides a rationale for why nós is an odd ball in the system: according to (73), it is the only pronoun in BP that is morphologically specified for person.
As mentioned earlier, if the problems raised by Modesto were real, they would challenge the specific interpretation of morphological ambiguity proposed in Nunes (2008), but not necessarily the movement approach to null subjects in BP. The discussion above shows the alleged problems are in fact nonexistent, apparently arising from a misreading of the proposal reviewed. Nunes's (2008) proposal does not assume default features or incorrectly assign singular verbal agreement morphemes to semantically singular DPs other than the pronoun $e u$, and the incorporation of the pronoun nós into the picture is not problematic for it behaves as expected. It is thus fair to conclude that Modesto's criticism has presented no issue of substance that could invalidate the specific syntax-morphological mapping proposed in Nunes 2008 or the movement approach in general.

### 5.3. Issues related to language acquisition and language change

If the movement analysis based on $\phi$-ambiguity advocated by Ferreira $(2000,2009)$ and Nunes (2008: 90) is on the right track, it entails that at some point in the history of BP , children came to analyze finite Ts as being potentially ambiguous as $\phi$-complete or $\phi$-incomplete, giving rise to language change. An interesting question is what the trigger for such a reanalysis could be.
Nunes (2008) briefly discusses this issue, observing that "whatever the relevant property turns out to be, it should arguably be a marked property; otherwise, hyper-raising should be a very common phenomenon" (Nunes (2008: 90). Concretely, he suggests that the relevant trigger could be the existence of inflected infinitives in Portuguese, based on two reasons. First, inflected infinitives are typologically marked and second, the inflected form that is associated with the large number of pronouns in Portuguese is identical to the uninflected form, as illustrated in (77) below. This shows that a child learning Portuguese must independently postulate that some infinitival forms are ambiguous in that they may be $\phi$-complete (the inflected ones) or $\phi$-incomplete (the uninflected ones). ${ }^{19}$ Nunes suggests that in the face of the potential ambiguity in the finite domain in BP, as seen in (75), children acquiring BP extended their conclusion regarding infinitivals, uniformizing the whole paradigm and allowing a finite or infinitival T to enter the derivation with a complete or an incomplete $\phi$-set.
(77) Infinitival forms for the verb dançar 'dance' in BP

|  | Infinitival form |
| :--- | :---: |
| uninflected | dançar |
| inflected |  |
| eu 'I' | dançar |
| você 'you.SG' |  |
| ele/ela 'he/she' |  |
| a gente 'we' |  |
| nós 'we' | dançarmos |
| vocês 'you.PL' | dançarem |
| eles/elas 'they.MASC/FEM' |  |

[^13]Modesto's objection to this suggestion is as follows.
"This argumentation is, to a certain extent, inconsistent in that the ambiguity arises for the nonfinite forms inflected by a zero morpheme (the singular forms in BP). All nonfinite forms that are inflected by an overt morpheme (the plural forms) are unambiguously $\phi$-complete; why then would the finite forms, most of which are inflected by overt morphemes, be taken to be ambiguous?" (Modesto 2011: 13)

To the extent that I can make sense of these remarks, they seem to be based on erroneous assumptions. The morpheme - $m$ of plural finite forms such as dançam and plural infinitival forms such as dançarem is potentially ambiguous in encoding both person and number or just number. As seen in section 4.2, the latter possibility even receives support from the fact that the presence of $-m$ is triggered by the presence of the plural morpheme $-s$ on the pronouns vocês and eles/elas. ${ }^{20}$ So, the only verbal forms that are unambiguously $\phi$-complete in the sense of carrying a person feature are the ones involving the morpheme -mos (see section 5.2.2). It is thus no accident these are the forms that uniformly block hyper-raising (see (57c) and ( 76 c )). It is also no accident that the corresponding pronoun nós is giving terrain to $a$ gente as it is exceptional within the BP system of pronouns in encoding a valued person feature. I honestly fail to see the inconsistency mentioned by Modesto.
I also confess that I could not figure out what exactly would have changed in the grammar of BP and what trigger would have led children to reanalyze its null subjects if the topic deletion approach were correct. The last concluding remarks of Modesto 2011 transcribed below touch on this issue but are too vague to allow a proper assessment:

I am personally more inclined to believe, as argued by Negrão \& Viotti (2000), that the changes in BP are not a product of weakening of inflection, that the distinction between subject-prominent and topic-prominent languages (Li \& Thompson 1976) is real, and that it was the change from subject-prominent to topic-prominent that contributed to the erosion of the verbal paradigm in BP. Viewing BP as a topic-prominent language opens up the possibility of explaining far more than just null subjects (although there was no space in here to discuss those other facts). (Modesto 2011: 26)

Let me stress once again that the trigger for the language change that has affected BP is a related, but independent question from the issue of how to analyze null subjects in BP. Thus, Nunes's (2008) suggestion that there was a uniformization of the paradigm of $\phi$-ambiguity based on the ambiguity of infinitivals could be wrong, while the description of $\phi$-ambiguity in terms of (75) could be correct. Remarkably, there is suggestive evidence involving gerunds that supports the conclusion that BP indeed underwent a wholesale reanalysis along the lines suggested above.
The first piece of evidence involves the alternation between raising and impersonal constructions involving gerunds in BP with the verb acabar 'turn out', pointed out to me by Carol Petersen (p. c.). In a standard raising construction such as (78a) below, for instance, T is analyzed as not involving a complete $\phi$-set, which triggers the movement of the embedded subject to the matrix clause. Interestingly, BP also allows the embedded subject of the gerund to be licensed within the embedded clause, as shown in (78b), entailing that the gerund T in (78b) is $\phi$-complete, thus being able to value the Case of its subject. This in turn indicates that gerunds may also be ambiguous in BP in carrying a $\phi$-complete or a $\phi$-incomplete T.

[^14]a. [[Os alunos $]_{i}$ acabaram [ $t_{\mathrm{i}}$ perdendo o ônibus]] the students finished-pl losing the bus 'The students ended up missing the bus.'
b. Acabou [[os alunos] perdendo o ônibus] finished the students losing the bus 'It turned out that the students missed the bus.'

A more general reflex of this $\phi$-ambiguity within gerunds can be seen with respect to subject-verb inversion. Before we examine BP data, let us first consider EP dialects that have inflected gerunds, as illustrated in (79), in addition to uninflected gerunds. ${ }^{21}$

Dialectal EP:
a. (CORDIAL-SIN, Cabeço de Vide)

Em tu querendos!
in you.2.SG want-GER-2.SG
'Whenever you want it!'
b. Em eles chegandem, vamos jantar.
in they arrive-GER-3.PL go-1.PL dine
'As soon as they arrive, we will have dinner.'
What is relevant to our discussion is that subject-verb inversion is optional with inflected gerunds, as shown in (80), but obligatory with uninflected ones, as shown in (81) (see Lobo 2003 for discussion). Descriptively speaking, an inflected gerund in dialectal EP is $\phi$-complete and need not resort to subject-verb inversion in order to Case license its subject (see (80)). By contrast, an uninflected gerund in EP is $\phi$-incomplete and must resort to subject-verb inversion (see (81)).

Dialectal $E P$ :
a. (CORDIAL-SIN, AAL)

Eles tendem as coisas em casa, fazem a toda a hora. they having-GER-3.PL the things at home do-3.PL at every the hour 'When they have everything they need at home, they can do it anytime they want.'
b. Tendem eles as coisas em casa, fazem a toda a hora. having-GER-3.PL they the things at home do-3.PL at every the hour

EP:
a. *Eles tendo as coisas em casa, fazem a qualquer hora. they having-GER the things at home do-3.PL at every hour 'When they have everything they need at home, they can do it anytime they want.'
b. Tendo eles as coisas em casa, fazem a qualquer hora. having-GER they the things at home do-3.PL at every hour

BP does not have overtly inflected gerunds in any of its dialects. Interestingly, though, gerunds in BP are able to license their subjects without the help of subject-inversion, as illustrated in (82) below (see Britto 1994 for discussion). In other words, uninflected gerunds in BP may behave like the inflected gerunds of dialectal EP, which indicates that overtly uninflected gerunds in BP may also be associated with a $\phi$-complete T. In more

[^15]general terms, like infinitivals and finite clauses in BP, gerunds in BP are also potentially ambiguous in being $\phi$-complete or $\phi$-incomplete.
$B P$ :
a. Eles chegando, nós vamos começar a reunião. they arrive-GER we go start the meeting 'When they arrive, we're going to start the meeting.'
b. [As propostas] sendo votadas, os problemas vão desaparecer. the proposals be-GER voted the problems go disappear 'After the proposals are voted, the problems are going to disappear.'

In sum, if BP learners have generalized the $\phi$-ambiguity that had to be independently postulated in the domain of infinitivals, as suggested by Nunes (2008), we not only account for the existence of finite control and hyper-raising out of finite clauses and inflected infinitivals in BP, as discussed in section 4, but also for the fact that gerunds in BP license overt preverbal subjects even though they do not display overt agreement.

## 6. Conclusion

In this reply I have discussed the empirical and technical problems raised by Modesto (2011) to the movement approach to null subjects in BP, in general, and the technical implementation in Nunes (2008), in particular. We have seen that when properly inspected, the alleged problems are simply nonexistent. Moreover, in each of the domains discussed the empirical coverage of the movement approach turned out to extend much beyond the restricted set of data brought up by Modesto. I have also shown the Modesto's (2011) topic deletion approach is based on inaccurate empirical descriptions and unmotivated provisos that fail to account for the data. The overall conclusion is that Modesto did not succeed in his goal "to deconstruct a specific line of argumentation used by Boeckx, Hornstein \& Nunes (2010) to support what is usually called the movement theory of control (MTC)" (Boeckx, Hornstein \& Nunes 2010: 3), let alone provide a viable alternative.
This being so, I am in complete agreement with the following words by Modesto:
"I can see the appeal of movement analyses. They explain all the peculiar characteristics of null subjects seen in (01) in a very simple way: null subjects are not referentially free in BP because the T with which they appear is defective." (Modesto 2011: 13)

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## Competing Interests

The author has no competing interests to declare.

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[^0]:    ${ }^{1}$ Part of the discussion to be conducted below may also present challenges to the influential alternative analysis of BP as a partial null subject language in the sense of Holmberg (2005) (see e.g. Holmberg, Nayadu \& Sheehan 2009; Barbosa to appear). Space considerations prevent me from exploring them here, though. For potential problems and a comparison with the movement approach, see Martins and Nunes (2018).

[^1]:    ${ }^{2}$ For relevant discussion, see e.g. Barbosa, Duarte \& Kato (2001, 2005); Chao (1983); Duarte (1993, 1995, 2000); Ferreira (2000, 2009); Figueiredo Silva (1996); Galves (1987, 1993, 1997, 1998, 2001); Modesto (2000); Moreira da Silva (1983); Kato (1999, 2000, 2002); Kato \& Negrão (2000); Negrão (1986); Petersen (2011); Rodrigues (2002, 2004). It is worth noting that in BP an empty category in the subject position of a finite clause may be licensed by a salient antecedent in the discourse, as illustrated in (i) below. However, these are typically transparent domains (see Ferreira 2000 and Nunes 2010a for discussion of (apparent) exceptions); in particular, there is no A'-intervener between the empty subject position and the clause initial position. Sentences like (iiB) and (iiB'), for instance, with a wh-element c-commanding the empty subject, are ruled out even as response to (iiA). The same restriction is also found in analogous sentences with first person singular agreement morphology, which unambiguously identifies the subject, as illustrated in (iii). Crucially, the sentences in (iiB), (iiB'), and (iii) are all acceptable in European Portuguese. This indicates that sentences such as (iB) and (iB') in BP actually involve movement of a null topic/operator from the empty subject position to the clause initial position (see Ferreira 2000; Nunes 2008, 2010a; and Martins \& Nunes 2018; Modesto 2000, 2011; Rodrigues 2004 for relevant discussion).

[^2]:    ${ }^{4}$ See Rodrigues (2004: section 3.5.2.2) for additional problems for Modesto's (2000) approach, which also apply to Modesto (2011).

[^3]:    ${ }^{5}$ There seems to be a typo in (15d) ( $=$ Modesto 2011: (21e)). Despite the fact that Modesto (2011: footnote 19) describes (15d) in terms of base-generation, the representation he assigns to (15d) involves movement of the matrix object.

[^4]:    $\overline{{ }^{6} \text { Interestingly, the pattern noted by Rodrigues (2004) may also be observed with adjunct uninflected }}$ infinitivals in both BP and EP (see Nunes 2014), as illustrated in (i) below. The parallel behavior of BP and EP in (i) may be related to the availability of in situ wh-phrases in both languages (see Nunes 2014, 2016 for specific proposals). Relevant to our discussion is the fact that the pattern found by Rodrigues regarding finite adjuncts in BP can be replicated in standard adjunct control configurations in EP. This indicates that the subject reading of the sentences in (19) involves control and more generally, that finite clauses in BP may involve control regardless of whether they are complements or adjuncts.
    (i) $B P / E P$ :
    a. [Os alunos] $]_{i}$ entrevistaram [que professores] $]_{k}$ antes de $\mathrm{PRO}_{\mathrm{i} / * \mathrm{k}}$ sair de férias? the students interviewed which professors before of leave of vacation Which teachers did the students interview before leaving on vacation?'
    b. [Que professores] $]_{k}$ é que [os alunos] $]_{i}$ entrevistaram $t_{k}$ antes de $\mathrm{PRO}_{\mathrm{i} / \mathrm{k}}$ sair de férias? which professors is that the students interviewed before of leave of vacation '[Which teachers $]_{k}$ did [the students] $]_{\mathrm{i}}$ interview before the $\mathrm{y}_{\mathrm{i} / \mathrm{k}}$ left on vacation?'
    ${ }^{7}$ For relevant discussion and an alternative analysis of the object reading in sentences like (19), see Nunes (2013, 2014, 2016).

[^5]:    ${ }^{8}$ That certain apparent clausal complements may behave like clausal adjuncts is not unheard of. CPs associated with factive and manner-of-speaking verbs are familiar examples. Specifically relevant to the convencerconstructions examined in this section is Larson's (1988: 352) proposal that in double object constructions, the theme is realized as a V' adjunct. Interestingly, the clausal constituent associated with convencer is preceded by the preposition a 'to' if it is infinitival and optionally preceded by the preposition de 'of ' if it is finite. Given Larson's approach to dative alternations, it is tempting to analyze these $a$-infinitivals in a way parallel to the dative PP of standard ditransitive constructions and (de)-CPs in tandem with the theme of double object constructions. For relevant discussion and a specific proposal along these lines, see Coelho (2018).
    ${ }^{9}$ For additional data and relevant discussion, see Nunes (2009).

[^6]:    ${ }^{10}$ I would like to thank both reviewers of $J P L$ for comments and suggestions that helped me improve the argument regarding (30).

[^7]:    ${ }^{11}$ The same applies to Modesto (2000). Incidentally, it is not clear that the verbs dizer 'say', falar 'speak', and contar 'tell' are members of the class of convencer, for they select a PP for their goal argument. Thus, movement of an embedded subject across the goal should incur in no minimality violation. Alternatively, the goal is a DP and the apparent preposition is the realization of inherent Case, along the lines of what we have seen for the preposition to with the experiencer in (45).

[^8]:    $\overline{{ }^{12}}$ According to a reviewer, the EP example in (56a) is fine: "it all depends on whether the indefinite is interpreted as a specific indefinite". The point remains the same, though. In BP, the analogous sentences in (57a) is well formed regardless of whether the indefinite is interpreted as specific or nonspecific. In other words, the hyper-raising cases in BP are different from the cases discussed by Rooryck \& Costa (2000).

[^9]:    d. (http://www.ralisonline.net/pt/index.php?option = com_content\&view = article\&id=612:a-mon-tanha-pariu-um-regulamento\&catid $=74$ :madeira\&Itemid $=133$ )
    A Montanha pariu um... regulamento.
    the mountain gave.birth.to a ruling
    'All resulted in a ruling.'
    e. (https://extra.globo.com/noticias/brasil/contra-a-corrente/o-rato-pariu-montanha-21374318. html)
    Ao ouvir a gravação, Temer minimiza seu conteúdo e diz que a montanha to-the hear the recording Temer minimizes its content and says that the mountain pariu um rato. Mas parece o contrário. $\mathbf{O}$ rato pariu a montanha. gave.birth.to a mouse but seems the contrary the mouse gave.birth.to the mountain E é uma imensa montanha de crimes.
    and is an immense mountain of crimes
    'Upon listening to the recordings, Temer dismisses its content and says that all came out to very little.
    But it seems that the opposite is true. A small thing came to reveal a lot - a lot of crimes.'
    f. (http://www.stf.jus.br/arquivo/biblioteca/PastasMinistros/MauricioCorrea/ArtigosJornais/878262. pdf)
    A montanha pariu.
    the mountain gave.birth
    'Finally, a result came out.'

[^10]:    ${ }^{14}$ For relevant discussion, see e.g. Duarte (1993, 1995, 2000); Galves (1993); Menon \& Lorengian-Penkal (2002); Paredes Silva (1998).
    ${ }^{15}$ For relevant discussion, see e.g. Scherre $(1988,1994)$ and Scherre \& Naro (1998).

[^11]:    ${ }^{16}$ For further consequences of the morphological specifications in (73) for null subject licensing in BP, see Martins \& Nunes (2018) and Kato, Martins \& Nunes (forthcoming).
    ${ }^{17}$ I have only presented morphological specifications for person and number in (75), for these are the ones that are relevant to our discussion. These specifications combined with morphological specifications for gender in the case of ele(s) and ela(s) and semantic features more generally ensure that we have a distinct feature bundle for each of the pronouns in (75). For relevant discussion, see Martins \& Nunes (2018) and Kato, Martins, and Nunes (forthcoming).

[^12]:     Braga (1996); Pereira (2003); Sória (2013); Taylor (2009); Vianna (2006); Zilles (2005).

[^13]:    ${ }^{19}$ For relevant discussion on the acquisition of inflected infinitives in BP and EP, see e.g. Rothman et al. (2013) and references therein.

[^14]:    ${ }^{20}$ For additional evidence, see Hornstein, Martins \& Nunes (2008).

[^15]:    ${ }^{21}$ See Lobo (2001, 2003) and Ribeiro (2002) for relevant discussion.

