

# What Brazilian Portuguese Says about Control: Remarks on Boeckx & Hornstein

*Marcello Modesto*

*Abstract.* In an article in this journal, Boeckx & Hornstein (2006a) present data from Brazilian Portuguese (BP) as an argument in favor of the Movement Theory of Control (MTC). In this reply, I show that the data presented by those authors do not necessarily argue for a movement analysis of BP finite subjects nor of nonfinite control. I also show that BP provides arguments against the MTC when inflected infinitives are considered. Inflected infinitives may be used in BP in partial control structures, which makes it explicit that a singular matrix argument may control a syntactically plural null subject and shows that these two positions cannot be related by movement. Additionally, I show that the MTC makes the wrong predictions when a language with inflected infinitives is considered.

## 1. Introduction

Boeckx & Hornstein (2006a), in this journal, present data (mainly) from Brazilian Portuguese (BP) as an argument supporting their view that control structures are derived by movement of the controlled subject to the controller position. My objective in this reply to that article is to show that those data do not necessarily constitute evidence in favor of a movement analysis of control (nor of a movement analysis of BP null finite subjects). In fact, BP data, especially those pertaining to inflected infinitives, seem to argue in the opposite direction.

After reviewing very briefly, in section 2, the dispute that surrounds the movement analysis of control, I show in section 3 that the data presented by Boeckx & Hornstein do not provide a very strong argument for a movement analysis. Section 4 then discusses two potential problems for the movement analysis: one related to partial control structures in BP, and the other related to the contexts of occurrence of inflected infinitives. The last section offers a conclusion.

## 2. Preliminary Remarks

Hornstein (1998, 1999, 2001) proposes that control should be viewed as a movement operation, essentially similar to raising, starting from a Caseless position and targeting a Case-marked position. The two constructions (control vs. raising) would differ in that the chain created by the former operation would involve two  $\theta$ -positions. This proposal is usually referred to as the Movement Theory of Control (MTC). Hornstein's MTC<sup>1</sup> has provoked a heated debate that goes on to this day. Its

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<sup>1</sup> O'Neil (1995) also proposes a movement account of control. In the approach of Manzini & Roussou (2000), control is achieved by (covert) feature movement.

advocates say the MTC is very simple, uncomplicated. It makes use of grammatical operations already known to be available and other operations not so generally assumed, but in principle quite believable in a minimalist environment (such as movement into  $\theta$ -positions). It gets rid of an entire module held to exist in government-and-binding theory (the control module) and an entire class of rules (dubbed “construal rules” in Hornstein 2001), together with PRO, characterized by Boeckx & Hornstein (2006a:120) as an “odd-looking element.” The MTC, they claim, also takes a very minimalist view of grammar: it assumes that the language faculty is optimally designed, and so it enjoys “a certain kind of epistemological privilege over other types of systems” (p. 130).

MTC critics, on the other hand, contend that the technical elegance of the MTC is not sufficient to make it a viable theoretical choice because it leaves much empirical data unexplained. To explain all the data, they say, the MTC would have to become as complicated as its predecessors. Argumentation of that kind can be found in, among others, Brody 1999; Culicover & Jackendoff 2001, 2006; Landau 2003, 2004, 2006, 2007, 2008; San Martin 2004; Modesto 2007a; Sigurðsson 2008, and Bobaljik & Landau 2009.<sup>2</sup>

Argumentation in the other direction—that is, presentation of empirical data specifically supporting the MTC—is not as abundant but can also be found: the phenomenon of backward control (Polinsky & Potsdam 2002) and agreement patterns in Latin (Cecchetto & Oniga 2004) have been analyzed as possibly being produced by movement of the controller from the controlled position.

In an attempt to boost the empirical appeal of the MTC, Boeckx & Hornstein (2006a; henceforth B&H), use data from (Brazilian) Portuguese to argue that controlled subjects are derived by movement. This reply is intended to show that no data presented by B&H argue unequivocally in favor of a movement analysis and that, in fact, BP data argue *against* the MTC.

B&H’s argument is not simple. The first part of the argument relies on the fact that agreement between a past participle and (the antecedent of) its argument in BP (and Romance languages in general) behaves the same way in both raising structures and *nonfinite* control structures. The second part of the argument relies on the assumption that null subjects of embedded *finite* clauses in BP are “controlled” and, therefore (in their view), derived by movement, as in the analysis of Rodrigues (2004).<sup>3</sup> B&H claim that agreement behaves differently in finite clauses with null subjects in BP than in other Romance languages such as Italian (in which, by hypothesis, null finite subjects are not derived by movement). The differing behavior of agreement in BP

<sup>2</sup> Part of the criticism presented in some of those works was refuted in Hornstein 2000, 2003 and Boeckx & Hornstein 2003, 2004, 2006b.

<sup>3</sup> The kind of finite embedded null subject discussed by Rodrigues (2004) and Modesto (2000a) was, to my knowledge, first discussed by Figueiredo Silva (1994). It presents many peculiar characteristics, such as necessarily having an antecedent in the matrix clause, and it may appear in any complement clause in the indicative mood. Therefore, any predicate that takes a finite clausal (indicative) complement in BP could, in principle, allow a null (bound) subject. The predicates that meet this criterion are prototypically verbs of saying and thinking but also ditransitive verbs like *convencer* ‘to convince’, *avisar* ‘to warn’, *garantir* ‘to guarantee’, *informar* ‘to inform’, *alertar* ‘to alert’, *prevenir* ‘to forewarn’, and *instruir* ‘to instruct’, among others.

and Italian would then support the claim that BP null *finite* subjects are derived by movement and, assuming those null subjects to be controlled, that fact indirectly would be an argument in favor of the movement analysis of *nonfinite* control. In other words, they use the assumption that null finite subjects in BP are derived by movement to argue for movement in nonfinite control structures. The second part of their argument, therefore, depends on the validity of Rodrigues's analysis, in which embedded clauses in BP may be defective and movement, essentially as in an MTC control-structure derivation, derives null finite subjects in BP.

B&H label the BP phenomenon they discuss "finite control,"<sup>4</sup> probably in reference to the data discussed by Landau (2004), which was used as an argument against the MTC. Citing Boeckx (2003), B&H say "the MTC *explains* why 'PRO' occurs in 'porous' (i.e., nonfinite, tense- or  $\phi$ -defective) contexts: these are contexts that facilitate extraction" (their emphasis, p. 122), and so they take the fact that the MTC "explains finite control" to be a virtue of the MTC. However, the MTC does not explain the finite-control data discussed by Landau (2004). As Landau shows, the controlled subject of finite clauses (i.e., PRO) receives structural Case and that Case may be different from the controller's Case, which indicates the presence of two separate chains. Even considering only BP data, it is not at all clear if embedded (indicative) clauses in BP are in any way defective or if the phenomenon seen in BP can be compared to finite control of the kind discussed by Landau. In fact, it is debatable if null finite subjects in BP, although not referential, are in any way "controlled." The data given by Modesto (2000a,b, 2008) seem to argue against that conclusion. Additionally, Modesto (2007b) argues extensively that a movement analysis of null finite subjects in BP cannot account for all the data discussed in Modesto 2000a.

Nevertheless, it is not my goal here to provide, or argue for, any account of null finite subjects in BP (especially since I have done so elsewhere: in Modesto 2000a, 2008). My goal here is just to prove that the BP data used by B&H do not constitute a strong empirical argument in favor of the MTC, in either nonfinite or finite clauses. The agreement facts B&H discuss *can* be explained by a movement analysis. That is not the issue. The issue is whether such data provide strong empirical support for the MTC. The facts, however, can be explained in a number of different ways, so they do not constitute a decisive argument for the MTC. Additionally, in section 4, I discuss some BP data that clearly argue *against* the MTC, but such data are not related to null subjects.

### 3. Agreement Facts in Boeckx & Hornstein 2006a

B&H start their discussion by noting that, in BP and Romance languages in general, certain feminine nouns can refer to either masculine or feminine entities. In passives, the past participle agrees in gender with the surface subject regardless of the actual gender of its real-world referent, as seen in (1) (B&H's (19)).<sup>5</sup>

<sup>4</sup> On finite control, see especially Terzi 1992.

<sup>5</sup> In all of the following BP examples where B&H have two question marks, I, as a native speaker of BP, would have a star. I will reproduce grammaticality judgments exactly as given by B&H, though.

- (1) a. La vittima fu aggredita/\*aggredito dai fascisti. Italian  
 the victim-FEM was-3SG attacked-FEM/MASC by fascists  
 ‘The victim was attacked by (the) fascists.’  
 b. A vítima foi atacada/??atacado na rua. BP  
 the victim-FEM was-3SG attacked-FEM/MASC in.the street  
 ‘The victim was attacked on the street.’

Then, they note that in obligatory-control (OC) and raising configurations, the past participle within the embedded clause also agrees in gender with the antecedent of the embedded null subject, and they give the paradigm in (2) and (3) (B&H’s (23) and (24)).

- (2) a. La vittima<sub>1</sub> ha cercato di essere Italian  
 the victim-FEM had-3SG tried of be-INF  
 trasferita<sub>1</sub>/??trasferito<sub>1</sub> alla stazione di polizia di College Park.  
 transferred-FEM/MASC to.the station of police of College Park  
 ‘The victim tried to be transferred to the police station at College Park.’  
 b. A vítima<sub>1</sub> tentou ser transferida<sub>1</sub>/??transferido<sub>1</sub> para BP  
 the victim-FEM tried be-INF transferred-FEM/MASC to  
 a delegacia de policia de Colleague Park.  
 the station of police of Colleague Park  
 ‘The victim tried to be transferred to the police station at Colleague Park.’
- (3) a. La vittima sembra essere ferita/\*ferito. Italian  
 the victim seems-3SG be-INF injured-FEM/MASC  
 ‘The victim seems to be injured.’  
 b. A vítima pareceu estar ferida/\*?ferido. BP  
 the victim seemed-3SG be-INF injured-FEM/MASC  
 ‘The victim seemed to be injured.’

The facts above are pervasive in Romance: past participles agree in gender with the subject in passives and with the antecedent of the embedded subject in control and raising structures. The encouraging thing for B&H here is that agreement in control structures looks the same as in raising structures and passives, which involve movement. Taking agreement to be established locally, B&H note (p. 127) that “if the embedded null subject is a trace of its antecedent, nothing is left to be explained” about (2). Their argumentation is obviously correct in that a movement analysis would explain why the past participle is necessarily marked as feminine in (2).

The question, however, is whether such data argue unequivocally for a movement analysis of control. Probably not. Agreement of the kind seen in (2) is also seen in sentences such as (4) (from Sigurðsson 2008), which are usually used to argue against the MTC.

- (4) Ólaf                      langar ekki til [að PRO vera ríkur].  
 Ólaf.ACC.MASC.SG longs not for to            be rich.NOM.MASC.SG  
 ‘Olaf doesn’t want to be rich.’

Data such as (4) have been discussed by Landau (2004) and Sigurðsson (2008), among others. These authors understand that there is agreement in the embedded clause between PRO and the second predicate *ríkur*; then PRO gets controlled by the matrix subject. Because the second predicate surfaces marked for nominative Case, it is argued that PRO must carry the same structural Case, which would indicate that PRO and the controller (which is marked accusative) are not part of the same (movement) chain.<sup>6</sup> What about the other  $\phi$ -features of the second predicate? By the time PRO and the second predicate enter into an Agree relation, PRO still has no valued feature to transfer to the predicate. It seems, then, that one has to assume, as Landau (apparently) and Sigurðsson (explicitly) do, that such agreement is a postsyntactic, morphology-related process. Sigurðsson (2008:405) claims that PRO “is arguably assigned both case and  $\phi$ -feature values by processes that apply in morphology and *not* in syntax” in examples like (4). I conclude from his discussion that the second predicate is also assigned the same  $\phi$ -features in virtue of agreeing with PRO (because Agree has applied between them). Whatever the particular implementation is, the predicate inherits masculine and singular from the controller indirectly through PRO. The same could be argued to take place in (2) above. The past participle agrees with PRO, which is then controlled by the matrix subject, and that is translated as  $\phi$ -feature inheritance in the morphology component.

Another way to interpret the facts in (2)–(4) is to assume that the  $\phi$ -features of the second predicate in Icelandic and the past participle in Romance are not uninterpretable (maybe due to their nominal character) and may be taken from the lexicon with values. Features would have to be taken from the lexicon with the right values; otherwise, the derivation would not converge. Gender marking in the past participle, then, would be used to clarify anaphoric relations in a way that is common in natural languages for non-movement-derived relations. This can be seen in (5), adapted from an example given by Sigurðsson (2008).

- (5) a. O carro            bateu na            moto,                      então ela            amassou.  
 the car-MASC hit    in.the motorcycle-FEM so    it-FEM bent  
 ‘The car hit the motorcycle, so it (i.e., the motorcycle) got damaged.’  
 b. O carro            bateu na            moto,                      então ele            amassou.  
 the car-MASC hit    in.the motorcycle-FEM so    it-MASC bent  
 ‘The car hit the motorcycle, so it (i.e., the car) got damaged.’

The data discussed here seem to indicate, albeit circumstantially, that the agreement facts in (2) and (3) are at most a very weak argument in favor of the MTC.

The next step in B&H’s argumentation is to assume Rodrigues’s (2004) movement analysis of null finite subjects in BP. They say that “Rodrigues’s analysis correctly

<sup>6</sup> Sigurðsson (2008) gives ample evidence that the nominative Case in (4) and similar examples is not a “default” nominative, as Boeckx & Hornstein (2006b) argue.

predicts that gender agreement would fail if movement did not take place, as in nonobligatory control [NOC] configurations, or in Romance languages that are not partial *pro*-drop (i.e., for those languages where *pro* is a distinct element, not the residue of movement)” (p. 127). They then compare (6) (B&H’s (26)) with (2) and (3) above; and (7a) with (7b) (B&H’s (25) and (27), respectively):

- (6) a. La vittima<sub>1</sub> ha detto che essere \*portata<sub>1</sub>/portato Italian  
 the victim-FEM has-3SG said that be-INF brought-FEM/MASC  
 alla stazione di polizia non e una buona idea.  
 to.the station of police not is-3SG a good idea  
 ‘The victim said that being transferred to the police station is not a good idea.’
- b. A vítima<sub>1</sub> disse que ser ??levada<sub>1</sub>/levado<sub>1</sub> para a BP  
 the victim-FEM said-3SG that be-INF taken-FEM/MASC to the  
 delegacia de polícia não é uma boa idéia.  
 station of police not is-3SG a good idea  
 ‘The victim said that being transferred to the police station is not a good idea.’
- (7) a. A vítima<sub>1</sub> disse que e<sub>1</sub> foi atacada<sub>1</sub>/??atacado<sub>1</sub> BP  
 the victim-FEM said-3SG that was-3SG attacked-FEM/MASC  
 na rua.  
 in.the street  
 ‘The victim said that he was attacked on the street.’
- b. La vittima<sub>1</sub> ha detto che *pro*<sub>1</sub> era \*stata Italian  
 the victim-FEM has-3SG said that was-3SG been-FEM  
 aggredita<sub>1</sub>/ stato aggredito<sub>1</sub> in strata.  
 attacked-FEM been-MASC attacked-MASC in street  
 ‘The victim said that he was attacked on the street.’

The grammaticality judgments and indexes in the sentences above are exactly as given by B&H (p. 127). The indexing in (6), however, is misleading; and that in (7) could not be verified with Italian speakers.

The sentences in (6) are ambiguous between an arbitrary reading and a long-distance-control reading of NOC PRO. In both BP and Italian, in the former reading, the participle assumes default masculine; and in the latter, it appears in the feminine, as in the perfectly grammatical sentence in (8). In fact, given that the past tense in the embedded clause makes the arbitrary reading of PRO pragmatically odd, masculine marking in the past participle in (8) is also odd.

- (8) A vítima<sub>1</sub> disse que ser levada<sub>1</sub>/??levado<sub>1</sub> para a BP  
 the victim-FEM said-3SG that be-INF taken-FEM/MASC to the  
 delegacia de polícia não foi nada agradável.  
 station of police not was nothing pleasant  
 ‘The victim said that to be taken to the police station was not pleasant at all.’

B&H give a star (in Italian) and two question marks (in BP) for the sentences in (6) that have the verbal participle in the feminine, so I conclude that they are talking about the arbitrary reading only. Nevertheless, the fact that feminine marking is indeed possible in (6b) makes B&H's argument about (2) and (3) weaker, unless, of course, long-distance control is also derived by movement. Given that Hornstein (1999, 2001) takes NOC PRO not to be derived by movement, feminine marking in (6b) and (8) shows that local agreement with the controller is not the only way for the past participle to inherit  $\phi$ -features.

B&H claim that the agreement contrast between NOC and OC—that is, between (2) and (6)—is “puzzling” if PRO is assumed to be the subject of the relevant clause in both cases. However, in the reading where NOC PRO refers to *a vittima* ‘the victim’, there is no such contrast. If they are comparing (2) with the arbitrary reading of (6), then it is B&H's conclusion that is puzzling. Arbitrary PRO and PRO in OC should *not* produce similar agreement patterns. The former has no antecedent from which it could inherit  $\phi$ -features. The latter *does* have an antecedent from which it inherits feature values. There is no reason, therefore, to expect that OC PRO and arbitrary NOC PRO should not contrast. The contrast disappears when NOC PRO has an antecedent, as expected.

As for (7b), I could not verify the grammaticality judgments given by B&H. All Italian speakers I have consulted in fact preferred feminine gender marking on the embedded verb and participle, even if *pro* referred to a male entity, which indicates that *pro* preferably (at least) assumes  $\phi$ -feature values that agree with its linguistic antecedent, regardless of its real-world referent. Therefore, there is no contrast between BP and Italian to be explained. That feminine marking is indeed possible in (7b) weakens B&H's argument about (2) and (3) even more. Maybe an argument could be made based on the obligatoriness of feminine marking in BP and its optionality in Italian in the sentences in (7), but that would be a very weak argument. In fact, it is not even clear that feminine marking is obligatory in BP; Rodrigues gives two question marks for the masculine form, not a star, and I agree that masculine could be just less common but possible.

The agreement facts used by Rodrigues (2004) and repeated by B&H are not fascinating. They just show a common pattern that is pervasive in Romance: if an element (a pronoun, an anaphor, nonarbitrary PRO, an epithet, etc.) has an antecedent, it should have concordant features; if an element does not have an antecedent (arbitrary PRO, arbitrary *pro*, etc.), it usually has default agreement values.

To conclude, as far as I can see, the data discussed by B&H do not decisively argue in favor of the MTC. There is agreement in passives, raising structures, and control structures, which are all claimed to involve movement; but there is also agreement in NOC structures and structures where the agreeing argument is referential *pro*, and such structures are claimed by B&H themselves *not* to involve movement. Agreement in control structures, therefore, cannot be used as an argument for the MTC.

#### 4. Inflected Infinitives in BP

In the preceding section, it was shown that the agreement facts presented by B&H do not necessarily support a movement analysis of control. In this section, I show that, in fact, BP provides an argument against the MTC when inflected infinitives are considered.

##### 4.1 Partial Control in BP

In BP, the existence of partial control (PC) structures, described by Landau (2000, 2004), is made very clear by the use of a plural infinitive form in the embedded clause.<sup>7</sup> The contrast between PC and EC (exhaustive control) verbs described by Landau exists in BP as well. As in English, implicative, aspectual, and modal verbs select EC complements; desiderative, factive, and propositional verbs select PC complements.

- (9) a. \*O presidente<sub>1</sub> conseguiu PRO<sub>1+</sub> se reunirem às 6.  
the chair managed SELF meet-INF-3PL at.the 6<sup>8</sup>  
‘\*The chair managed to gather at 6:00.’
- b. \*O presidente<sub>1</sub> começou a PRO<sub>1+</sub> se reunirem às 6.  
the chair started PREP SELF meet-INF-3PL at.the 6  
‘\*The chair started to gather at 6:00.’
- c. \*O presidente<sub>1</sub> precisa PRO<sub>1+</sub> se reunirem às 6.  
the chair need SELF meet-INF-3PL at.the 6  
‘\*The chair needs to gather at 6:00.’
- (10) a. O presidente<sub>1</sub> preferiu PRO<sub>1+</sub> se reunirem às 6.  
the chair preferred SELF meet-INF-3PL at.the 6  
‘The chair preferred to gather at 6:00.’
- b. O presidente<sub>1</sub> odiou PRO<sub>1+</sub> se reunirem às 6.  
the chair hated SELF meet-INF-3PL at.the 6  
‘The chair hated to gather at 6:00.’
- c. O presidente<sub>1</sub> afirmou PRO<sub>1+</sub> se reunirem (sempre) às 6.  
the chair affirmed SELF meet-INF-3PL (always) at.the 6  
‘The chair agreed to (always) gather at 6:00.’

The use of an inflected infinitive and the corresponding PC readings are also natural to obtain in object-control structures, which were not discussed by Landau. The possible readings of sentence (11) indicate that we have an obligatory-object-control configuration with PC readings.

<sup>7</sup> Plural inflection on the nonfinite verb is required to give rise to a PC reading, except when a collective verb such as the equivalent of ‘gather’ is used. In that case, inflection on the verb is optional.

<sup>8</sup> In the glosses: INF = infinitive, SUBJ = subjunctive, PREP = preposition, SELF = reflexive.

- (11) O Pedro<sub>1</sub> convenceu/instruiu/instigou/induziu a Dani<sub>2</sub> a  
 the Pedro convinced/instructed/enticed/induced the Dani PREP  
 PRO<sub>1+2/2+\*/1+/\*3</sub> viajarẽ amanhã.  
 travel-INF-3PL tomorrow  
 ‘Pedro convinced/instructed/enticed/induced Dani that they should travel  
 tomorrow.’

The difference between PC in BP and the phenomenon described by Landau is that in BP, the plurality of PRO is not only semantic but is also expressed syntactically. That creates an even bigger problem for the MTC. How would a syntactically singular element (e.g., *o presidente* ‘the chair’) trigger plural agreement on the embedded verb and then trigger singular agreement on the matrix verb? The idea of having a single movement chain seems hopeless here. Note that BP shows that PC cannot be considered a “special lexical property of *meet* and a handful of other verbs that allows them to give rise to a partial control reading” (Boeckx & Hornstein 2004:449). In fact, any verb may show PC readings, as shown in (12), given the right context.<sup>9</sup> It would also be hard to accommodate PC using a “meaning postulate,” as in Hornstein 2003, since PC in BP is not an inference but a syntactic fact.

- (12) a. A Dani<sub>1</sub> decidiu PRO<sub>1+</sub> viajarẽ todos juntos.  
 the Dani decided travel-INF-3PL all together-PL  
 ‘Dani decided that all of them would travel together.’  
 b. A Dani<sub>1</sub> preferiu PRO<sub>1+</sub> declararẽ o IR como casal.  
 the Dani preferred declare-INF-3PL the IRS as couple  
 ‘Dani preferred (for them) to file the tax return report as a couple.’  
 c. A Dani<sub>1</sub> não quis PRO<sub>1+</sub> dormirem um em cima do outro.  
 the Dani not wanted sleep-INF-3PL one in top of.the other  
 ‘Dani didn’t want (for them) to sleep on top of each other.’

The syntactic plurality of PC structures in BP seems to pose a real problem for the MTC. A way out of the problem would be to argue that, in fact, we do not have OC in (9)–(12) but NOC. Given that NOC PRO actually involves *pro*, according to the MTC, it would be possible for it to be marked for plural. There are several criteria to distinguish OC from NOC, which are examined below. These criteria indicate that sentences (9)–(12) indeed involve OC.

#### 4.1.1 *Alternation with a lexical subject*

Williams (1980) considers the possibility of having a lexical phrase in the subject position of the infinitive to be an excellent criterion for distinguishing

<sup>9</sup> As observed by Landau (2000:27) for English, sentences like the ones in (12) “require some contextual setting. They presuppose that the hearer can fill in the extra participants in the reference of PRO, other than the controller itself.” Although I do not provide the contexts in which the examples in this section should be interpreted, it should be clear that they could be easily constructed.

OC from NOC.<sup>10</sup> Similarly, in her study of complementation in BP, Negrão (1986) uses that test to define what she calls free and control domains. For her, complement clauses in the indicative headed by the complementizer *que* in BP are always free (i.e., not controlled) domains, whereas inflected infinitive complements are free domains only when they accept a lexical subject. Following these authors, the sentences in (10) and (12) would have to involve OC, given that a lexical subject (not anaphorically dependent on the controller) is impossible in the subject position of the infinitive (when the matrix verb is desiderative or propositional):

- (13) a. \*O presidente decidiu/preferiu/quis os membros se  
the chair decided/preferred/wanted the members SELF  
reunirem.  
meet-INF-3PL  
‘The chair decided/preferred/wanted for the members to meet.’  
b. \*O presidente afirmou/declarou os membros se reunirem  
the chair affirmed/declared the members SELF meet-INF-3PL  
sempre.  
always  
‘The chair affirmed/declared that the members should always meet.’

Lexical subjects are also excluded in object-control structures:

- (14) \*O Pedro<sub>1</sub> convenceu a Dani<sub>2</sub> a os meninos viajarem de carro.  
the Pedro convinced the Dani PREP the boys travel-INF-3PL by car  
‘Pedro convinced Dani that the boys should travel by car.’

With factive verbs, however, a lexical subject seems more acceptable:<sup>11</sup>

- (15) O presidente ??aceitou/?detestou/lamentou os membros se  
the president accepted/detested/regretted the members SELF  
reunirem cedo.  
meet-INF-3PL early  
‘The president accepted/detested/regretted that the members met so soon.’

<sup>10</sup> In fact, what distinguishes NOC is to have a lexical subject in the infinitive clause that is not controlled by a matrix argument, as noted by Negrão (1986). Overt pronouns may occur in control domains in BP, but their reference is not free: they must refer to the controller, as shown in (i). The availability of such overt pronouns in control contexts was also noted by Burzio (1986) and discussed by Borer (1989).

(i) Os meninos<sub>1</sub> querem eles<sub>1/\*2</sub> embrulharem os presentes.  
the boys want they wrap-INF-3PL the gifts  
‘The boys want to wrap the gifts themselves.’

<sup>11</sup> Factives are different in many ways, as the following discussion will reveal. For an account of why factives allow lexical subjects in their complement clauses, see Raposo 1987, although Raposo’s proposal does not immediately translate into BP. See also the discussion in Figueiredo Silva 1994.

Landau (2000:32–33) argues against taking the potential licensing of a lexical subject in the infinitive clause as a criterion for NOC. To cite just one of his arguments, Landau notes that “control under verbs which can take *for*-complements seems to be sensitive to the semantics of the matrix verb no less than control under verbs which cannot take *for*-complements.” He then shows, based on Manzini (1983), that a NOC analysis of *signal*, based on (16a), would fail to rule out (16b), given that controller choice is free in NOC.

- (16) a. John signaled to Mary for Bill to shave himself.  
 b. \*John signaled to Mary to shave himself.

If Landau is correct, then other criteria to distinguish NOC from OC must be considered.

#### 4.1.2 *Arbitrary readings*

It is widely assumed that arbitrary control is impossible in OC and possible in NOC. The sentences in (17) all have (ignoring PRO<sub>arb</sub>) a grammatical PC reading—that is, a reading where PRO includes the controller plus a contextually defined group of people. These sentences do not have an arbitrary reading; they are ungrammatical with PRO<sub>arb</sub>.

- (17) a. \*A Dani decidiu PRO<sub>arb</sub> sumirem dali.  
 the Dani decided disappear-INF-3PL from.there  
 ‘Dani decided that people should get away from there.’  
 b. \*O João preferia PRO<sub>arb</sub> construir a ponte em outro local.  
 the João preferred build-INF-3PL the bridge in other place  
 ‘João preferred for the bridge to be built in another place.’  
 c. \*O presidente disse PRO<sub>arb</sub> votarem mal no Brasil.  
 the president said vote-INF-3PL badly in.the Brazil  
 ‘The president said that people vote unwisely in Brazil.’  
 d. \*O presidente convenceu o ministro a PRO<sub>arb</sub> fechar os cassinos.  
 the president convinced the minister PREP close-INF-3PL  
 the casinos  
 ‘The president convinced the minister that the casinos should be closed.’

Again, factive verbs seem to form a different pattern, in that they usually allow for an arbitrary reading:

- (18) O presidente<sub>1</sub> detestou/aceitou/lamentou PRO<sub>arb</sub> fumarem perto  
 the chair hated/accepted/regretted smoke-INF-3PL close  
 dele<sub>1</sub>.  
 of.him  
 ‘The chair hated/accepted/regretted that people smoked around him.’

In (18), the subject of the infinitive is interpreted arbitrarily. Control by the matrix subject is impossible in (18) because that would create a condition B violation. Nevertheless, it is not clear that what we have in (18) is arbitrary control.

Jaeggli (1986) defines two kinds of arbitrary constructions in Spanish:<sup>12</sup> the *arbitrary-PRO construction*, exemplified in (19a), and the *arbitrary-plural construction*, exemplified in (19b) (examples from Jaeggli 1986:44–45).

- (19) a. Es difícil [PRO solucionar este problema].  
           is difficult           to-solve   this problem  
           ‘It is difficult to solve this problem.’  
       b. *pro* llaman        a la puerta.  
           are-calling at the door  
           ‘People are knocking at the door.’

Portuguese has exactly the same constructions:

- (20) a. É difícil [PRO solucionar este problema].  
           is difficult           to-solve   this problem  
           ‘It is difficult to solve this problem.’  
       b. *pro* dirigem    muito mal em São Paulo.  
           drive-3PL very   badly in São Paulo  
           ‘People drive very badly in São Paulo.’

The second construction involves an arbitrary *pro*. When an inflected infinitive is used in an arbitrary construction, in BP, the arbitrary-PRO construction and the arbitrary-plural construction seem to blend with each other and it is difficult to tease them apart:

- (21) Fumarem    perto da    gente    é muito ruim.  
           smoke-INF near of.the people is very bad  
           ‘To have people smoking around us is very bad.’

It may be possible, then, that the sentence in (18) involves an arbitrary *pro* instead of an arbitrary PRO.

Examining the characteristics of each construction, Jaeggli found that arbitrary *pro* cannot be a derived subject, so the arbitrary reading is absent in sentences like (22a,b) in Spanish and Portuguese. Spanish versions of these Portuguese sentences would be grammatical, but only if *pro* took a referential interpretation. In BP, as referential *pro* is not allowed in subject position anymore, the two sentences are ungrammatical.

<sup>12</sup> He actually defines three arbitrary constructions in Spanish, counting the impersonal-SE construction. I will be dealing only with the two mentioned in the text.

- (22) a. \**pro* foram assassinados por criminosos.  
           were-3PL murdered by criminals  
           ‘They were murdered by criminals.’  
 b. \**pro* chegam cansados depois de uma viagem tão longa.  
           arrive-3PL tired after of a trip so long  
           ‘They arrive tired after such a long trip.’

No such restrictions are seen with the arbitrary-PRO construction. The two sentences in (23) below are interpreted with an arbitrary reading.

- (23) a. PRO<sub>arb</sub> ser assassinado por criminosos é um horror!  
           be-INF murdered by criminals is a horror  
           ‘To be murdered by criminals is a horror!’  
 b. PRO<sub>arb</sub> chegar cansado de uma viagem tão longa é normal.  
           arrive-INF tired of a trip so long is normal  
           ‘To arrive tired after such a long trip is normal.’

Using the tests Jaeggli provided, we may try to tease the two constructions apart when an inflected infinitive is used. The sentences in (24), with an inflected infinitive, do not have an arbitrary reading. The subject can only be interpreted referentially; therefore, the sentences are ungrammatical in BP. That seems to indicate that, in (21) above, we are dealing with an arbitrary-plural construction and not an arbitrary-PRO construction.

- (24) a. \**pro* serem assassinados por criminosos é um horror!  
           be-INF-3PL murdered by criminals is a horror  
           ‘For people to be murdered by criminals is a horror!’  
 b. \**pro* chegarem cansados de uma viagem tão longa é normal.  
           arrive-INF-3PL tired of a trip so long is normal  
           ‘For people to arrive tired after such a long trip is normal.’

Going back to sentence (18), repeated here as (25), it seems fair to conclude that the sentence allows an arbitrary reading because it is an arbitrary-plural construction and not because it is an instance of NOC.

- (25) O presidente<sub>1</sub> detestou/aceitou/lamentou *pro*<sub>arb</sub> fumarem perto  
       the chair hated/accepted/regretted smoke-INF-3PL close  
       dele<sub>1</sub>.  
       of.him  
       ‘The chair hated/accepted/regretted that people smoked around him.’

In fact, as (26) shows, the construction in (25) shows all the restrictions an arbitrary-plural construction has:

- (26) a. \*O presidente detestou *pro*<sub>arb</sub> serem assaltados por criminosos.  
 the chair hated be-INF-3PL mugged by criminals  
 ‘The chair hated that they were mugged by criminals.’  
 b. \*O presidente detestou *pro*<sub>arb</sub> chegarem cansados de uma viagem.  
 the chair hated arrive-INF-3PL tired of a trip  
 ‘The chair hated that they arrived tired after a trip.’

The sentences in (26) are ungrammatical with an arbitrary reading, but they do have (ignoring *pro*<sub>arb</sub>) a grammatical PC reading. In other words, (26a) can only be interpreted as saying that the president hated that he and his family or his group (made salient by the discourse) were mugged by criminals. Likewise, sentence (26b) can only be interpreted as saying that the president hated that he and his family or his group arrived tired after a trip. The conclusion, then, is that the arbitrary reading in sentence (25) and similar examples is possible due to the possibility of having an arbitrary *pro* in the subject position of the nonfinite complement of factive verbs. Once again, I will remain neutral as to what causes factives to behave differently, taking the analysis of Raposo (1987) as a possible solution.

In sum, PC structures with desiderative and propositional verbs show OC characteristics: in particular, they do not allow arbitrary readings. For factive verbs, the answer is not as straightforward. Arbitrary readings are possible, but they can be explained by the possibility of having an arbitrary-plural construction (with *pro*<sub>arb</sub>) under those verbs. If that is the case, then PC structures with factive verbs can also be considered an instance of OC.

#### 4.1.3 Controller choice

Another way to distinguish OC from NOC is to look at the interpretation of the controlled subject. In OC, controller choice is not free. The sentences in (10), repeated here as (27), do not allow a reading where the controller is not included in the interpretation of PRO, which indicates that we have OC.

- (27) a. O presidente<sub>1</sub> preferiu PRO<sub>1+</sub> se reunirem às 6.  
 the chair preferred SELF meet-INF-3PL at.the 6  
 b. O presidente<sub>1</sub> odiou PRO<sub>1+</sub> se reunirem às 6.  
 the chair hated SELF meet-INF-3PL at.the 6  
 c. O presidente<sub>1</sub> afirmou PRO<sub>1+</sub> se reunirem (sempre) às 6.  
 the chair affirmed SELF meet-INF-3PL (always) at.the 6  
 ‘The chair preferred/hated/agreed to gather at 6:00.’

The necessary inclusion of the matrix subject in the interpretation of PRO seems clear for desiderative (27a) and propositional (27c) verbs. With factive verbs, however, the fact that the matrix argument must be included in the group designated by PRO can be obfuscated by the possible arbitrary reading of those

constructions. Once we factor out the arbitrary readings, we see that controller choice is not free:

- (28) a. \*O presidente<sub>1</sub> detestou PRO serem entrevistados sem ele<sub>1</sub>.  
 the chair hated be-INF-3PL interviewed without him  
 ‘The chair hated that they were interviewed without him.’
- b. \*O presidente<sub>1</sub> detestou PRO chegarem de uma viagem sem ele<sub>1</sub>.  
 the chair hated arrive-INF-3PL of a trip without him  
 him  
 ‘The chair hated that they arrived from a trip without him.’

In (28), the passive and the unaccusative exclude the possibility of an arbitrary *pro* in the infinitive; the necessary inclusion of the matrix subject as the controller of PRO causes a condition B violation. This line of argumentation also serves to rule out the possibility of having a “residual noncontrolled referential” *pro* in the subject position in those constructions, as suggested by an anonymous reviewer. The reviewer used sentence (29) to argue that Brazilian dialects that still accept inflected infinitives have a residual referential *pro*, so reference of the nonfinite subject is actually free, contrary to what I have been arguing here.

- (29) O Paulo detestou nomearmos o Lula para o prêmio Nobel.  
 the Paulo hated nominate-INF-1PL the Lula for the prize Nobel  
 ‘Paulo hated that we nominated Lula for the Nobel Prize.’

Certainly, there is a more conservative dialect in Brazil that still accepts (29) as saying that Paulo is not included in the group that nominated Lula. My own intuitions are not very clear here. However, the reviewer used a factive verb. When we change it to a desiderative verb, judgments are clearer: there is control, even when the infinitive is marked by first person. In (30a), for example, the null subject is preferably interpreted as the president + the speaker only, but possibly the president and a bigger group that necessarily includes the speaker. The reading I do not get for (30a) is that the president preferred for a group in which he is not included to gather on Tuesday. The same is true for (30b). So, there must be at least a group of BP speakers who accept inflected infinitives without having residual referential *pros*.

- (30) a. O presidente preferiu nos reunirmos na terça.  
 the president preferred SELF meet-INF-3PL on.the Tuesday  
 ‘The president preferred for us to meet on Tuesday.’
- b. O presidente declarou lutarmos pela paz mundial.  
 the president declared fight-INF-3PL for.the peace world  
 ‘The president declared that we fight for world peace.’

Controller choice is also not free in object-control structures. Sentence (11), repeated here as (31), cannot be interpreted as saying that Pedro convinced Dani that some

unspecified group of people should travel by car. The controller, Dani, is necessarily included in the group of travelers:

- (31) O Pedro<sub>1</sub> convenceu a Dani<sub>2</sub> a PRO<sub>1+2/2+/\*1+</sub> viajarem  
the Pedro convinced the Dani PREP travel-INF-3PL  
amanhã.  
tomorrow  
'Pedro convinced Dani that they should travel tomorrow.'

#### 4.1.4 *Summing up*

Subjects of inflected infinitives under desiderative and propositional verbs do not alternate with lexical subjects, they do not allow arbitrary readings, and they must include the controller in their reference. Therefore, in that configuration, we have OC. The sentences in (10a)/(27a) and (10c)/(27c), then, represent what Landau (2000, 2004) called PC. For complements under factive verbs, the conclusion is not as straightforward. Those subjects alternate with lexical subjects, but that may not be a good test to identify NOC. Arbitrary readings are allowed in those configurations, but that may be due to a different construction involving an arbitrary *pro*. The interpretation of those subjects is also debatable. The controller is possibly not included in the reference of the infinitive subject, at least in some dialects. The argument for PC in those structures, then, is not as strong as with desiderative and propositional verbs.

Complements of factive verbs may behave differently because they instantiate a different structure. They might have a DP layer over them (cf. Raposo 1987). However, this discussion would take us too far from our main point.

Object-control PC structures also show OC characteristics: PRO does not alternate with lexical subjects, arbitrary readings are not allowed, and the controller must be included in the reference of the inflected infinitive subject.

The discussion so far seems to show that BP in fact can have PC configurations using inflected infinitives. The existence of that kind of structure is problematic for the MTC but possibly also for the control theory of Landau (2000, 2004). I do not have an alternative to propose at this point.

#### 4.2 *Predictions of the MTC Regarding Inflected Infinitives*

Before leaving the subject of inflected infinitives, there is one more argument that can be made against the MTC, which is independent of the existence of PC structures in BP. In fact, the argument is very simple. In a language with inflected infinitives, the prediction of the MTC is that whenever the controller is plural, the infinitive should also be marked for plural, given that they locally Agree in the embedded clause. That, however, never happens in EC structures. Marking the infinitive for plural leads to strong ungrammaticality:

- (32) Os meninos conseguiram vender(\*em) a casa.  
 the boys manage-INF-3PL sell-INF(\*-3PL) the house  
 'The boys managed to sell the house.'

The explanation I once got for this fact was that defectiveness of the embedded T was the necessary condition for movement of the embedded subject in the MTC. In other words, continued my interlocutor, if the embedded T shows agreement, it is not defective, hence movement does not apply. This is why (32) is ungrammatical with an inflected infinitive and grammatical with the uninflected (impersonal) infinitive. This is the expected result according to the MTC, the person concluded. My displeasure with that explanation came from the fact that it cannot be correct. As we have just seen, subjects of inflected infinitives *can* be controlled. This is particularly clear in object-control cases:

- (33) A Maria convenceu os meninos a dormir(em).  
 the Maria convinced the boys PREP sleep-INF(-3PL)  
 'Maria convinced the boys to sleep.'

Sentence (33) is an object-control structure. Moreover, it is an obligatory-control structure. Lexical subjects are impossible, arbitrary readings do not obtain, and controller choice is not free. Inflection on the infinitive, however, is optional. Because infinitival T may have  $\phi$ -features, according to the MTC, nonfinite T should Agree with the controller (*os meninos* 'the boys') in the nonfinite clause, possibly causing it to move to T's specifier position before moving into the matrix clause. Such agreement would value T's  $\phi$ -features, and the verb should be pronounced inflected. *This* is the expected result according to the MTC. It is, in fact, hard to imagine an MTC derivation of (32) and (33) that would lack inflection on the infinitive. If defective T has  $\phi$ -features to value, as (33) seems to show, Agree should apply obligatorily between it and the controller. However, (local) agreement between T and the controller is barred from happening in (32) and is optional in (33). The optionality of inflection in (33) is problematic for the MTC especially in view of B&H's argumentation about the agreement cases discussed in section 3. There, the obligatoriness of agreement was explained by having the antecedent locally Agreeing with the participle before moving to its final position. Here, the same kind of argumentation should apply. Local Agree should produce  $\phi$ -feature agreement between nonfinite T and the controller. This prediction of the MTC, however, is not borne out.

## 5. Conclusion

I have argued that the data used by B&H do not constitute a very strong argument in favor of the MTC. Gender inflection in BP may take place when there is no local agreement with the ultimate antecedent (as in the NOC cases), so the fact that past participles agree in gender with the controller of the infinitival subject or the ultimate

antecedent of a null finite subject does not imply that those subjects were derived by movement.

I have shown that PC readings in BP are (usually) obtained by marking the infinitive as plural, given that Portuguese has the option of inflecting its infinitives. I have argued that such structures really involve OC, at least with some classes of verbs. PC structures constitute a problem for the MTC (and maybe for other theories of control). If PC is syntactically marked in BP, it cannot be derived by a meaning postulate or achieved by an Agree relation between PRO and a matrix predicate mediated by C<sup>0</sup>. I have proposed no solution, either, and that will have to wait until another opportunity.

I also have shown that the MTC makes the wrong predictions for a language with inflected infinitives. Lack of inflection in EC, and its optionality in object-control cases, are not expected if the MTC is correct.

## References

- Bobaljik, J. D. & I. Landau. 2009. Icelandic control is not A-movement: The case from case. *Linguistic Inquiry* 40:113–132.
- Boeckx, C. 2003. *Islands and chains: Resumption as stranding*. Amsterdam: John Benjamins.
- Boeckx, C. & N. Hornstein. 2003. Reply to “Control is not movement.” *Linguistic Inquiry* 34:269–280.
- Boeckx, C. & N. Hornstein. 2004. Movement under control. *Linguistic Inquiry* 35:431–452.
- Boeckx, C. & N. Hornstein. 2006a. The virtues of control as movement. *Syntax* 9:118–130.
- Boeckx, C. & N. Hornstein. 2006b. Control in Icelandic and theories of control. *Linguistic Inquiry* 37:591–606.
- Borer, H. 1989. Anaphoric AGR. In *The null subject parameter*, ed. O. Jaeggli & K. Safir, 69–109. Dordrecht: Kluwer.
- Brody, M. 1999. Relating syntactic elements. Remarks on Norbert Hornstein’s “Movement and chains.” *Syntax* 2:210–226.
- Burzio, L. 1986. *Italian syntax*. Dordrecht: Reidel.
- Cecchetto, C. & R. Oniga. 2004. A challenge to null case theory. *Linguistic Inquiry* 35:141–149.
- Culicover, P. W. & R. Jackendoff. 2001. Control is not movement. *Linguistic Inquiry* 32:493–511.
- Culicover, P. W. & R. Jackendoff. 2006. Turn over control to the semantics. *Syntax* 9:131–152.
- Figueiredo Silva, M. C. 1994. La position sujet en Portugais Brésilien [The subject position in Brazilian Portuguese]. Doctoral dissertation, Université de Genève.
- Hornstein, N. 1998. Movement and chains. *Syntax* 1:99–127.
- Hornstein, N. 1999. Movement and control. *Linguistic Inquiry* 30:69–96.
- Hornstein, N. 2000. On A-chains: A reply to Brody. *Syntax* 3:129–143.
- Hornstein, N. 2001. *Move! A minimalist theory of construal*. Oxford: Blackwell.
- Hornstein, N. 2003. On control. In *Minimalist syntax*, ed. R. Hendrick, 6–81. Oxford: Blackwell.
- Jaeggli, O. 1986. Arbitrary plural pronominals. *Natural Language & Linguistic Theory* 4:43–76.
- Landau, I. 2000. *Elements of control: Structure and meaning in infinitival constructions*. Dordrecht: Kluwer.
- Landau, I. 2003. Movement out of control. *Linguistic Inquiry* 34:471–498.
- Landau, I. 2004. The scale of finiteness and the calculus of control. *Natural Language & Linguistic Theory* 22:811–877.

- Landau, I. 2006. Severing the distribution of PRO from Case. *Syntax* 9:153–170.
- Landau, I. 2007. Movement-resistant aspects of control. In *New horizons in the analysis of control and raising*, ed. S. Dubinsky & W. Davies, 293–325. Dordrecht: Springer.
- Landau, I. 2008. Two routes of control: Evidence from case transmission in Russian. *Natural Language & Linguistic Theory* 26:877–924.
- Manzini, M. R. 1983. On control and control theory. *Linguistic Inquiry* 14:421–446.
- Manzini, M. R. & A. Roussou 2000. A minimalist theory of A-movement and control. *Lingua* 110:409–447.
- Modesto, M. 2000a. On the identification of null arguments. Ph.D. dissertation, University of Southern California.
- Modesto, M. 2000b. Null subjects without “rich” agreement. In *Brazilian Portuguese and the null subject parameter*, ed. M. Kato & E. V. Negrão, 147–174. Frankfurt: Vervuert-Iberoamericana.
- Modesto, M. 2007a. Inflected infinitives in Brazilian Portuguese: What do they say about the movement analysis of control? Paper presented at the 37th Linguistic Symposium on Romance Languages (LSRL 37), Pittsburgh, March 15.
- Modesto, M. 2007b. Null subjects in Brazilian Portuguese and Finnish: They are not derived by movement. In *New horizons in the analysis of control and raising*, ed. S. Dubinsky & W. Davies, 231–248. Dordrecht: Springer.
- Modesto, M. 2008. Topic prominence and null subjects. In *The limits of syntactic variation*, ed. T. Biberauer, 375–409. Amsterdam: John Benjamins.
- Negrão, E. 1986. Anaphora in Brazilian Portuguese complement structures. Ph.D. dissertation, University of Wisconsin, Madison.
- O’Neil, J. 1995. Out of control. In *Proceedings of the North East Linguistic Society* 25, ed. J. Beckman, 361–371. Amherst, MA: GLSA Publications.
- Polinsky, M. & E. Potsdam. 2002. Backward control. *Linguistic Inquiry* 33:245–282.
- Raposo, E. 1987. Case theory and Infl-to-Comp: The inflected infinitive in European Portuguese. *Linguistic Inquiry* 18:85–109.
- Rodrigues, C. A. N. 2004. Impoverished morphology and A-movement out of Case domains. Ph.D. dissertation, University of Maryland, College Park.
- San Martin, I. 2004. On subordination and the distribution of PRO. Ph.D. dissertation, University of Maryland, College Park.
- Sigurðsson, H. A. 2008. The case of PRO. *Natural Language & Linguistic Theory* 26:403–450.
- Terzi, A. 1992. PRO in finite clauses: A study of inflectional heads of the Balkan languages. Ph.D. dissertation, CUNY.
- Williams, E. 1980. Predication. *Linguistic Inquiry* 11:203–238.

*Marcello Modesto*  
*Universidade de São Paulo*  
*Departamento de Linguística*  
*Av. Prof. Luciano Gualberto*  
*403, São Paulo*  
*SP 05508-900*  
*Brazil*

*modesto@usp.br*