

Brazilian Portuguese argument ellipsis: A hidden case of clitic doubling

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Abstract

The present study puts forward a novel analysis of argument ellipsis (AE) in Brazilian Portuguese (BP), according to which AE in BP takes place in a clitic doubling configuration, where the clitic is a phonologically null clitic and AE targets the clitic doubled DP. The clitic doubling analysis accounts for a number of the properties of AE in BP. Specifically, it accounts for the ability of AE to target object DPs; for the inability of AE to target subject DPs, including not only subjects of finite clauses but also subjects of small clauses and infinitival clauses; and for the inability of AE to target non-specific indefinite DPs and idiomatically construed DPs. The present study also reviews the influential anti-agreement theory of AE and argues that it does not offer a viable account of AE in BP, as it both undergenerates and overgenerates AE in BP.

Keywords: argument ellipsis, null objects, clitic doubling, anti-agreement theory of argument ellipsis, Brazilian Portuguese.

1. Introduction

A number of languages have argument ellipsis (AE), an ellipsis operation that specifically targets syntactic arguments. Brazilian Portuguese (BP) is one such language (Cyrino 1997, Cyrino & Lopes 2016). The following examples serve as an initial illustration.

- (1) Brazilian Portuguese
 O Pedro_i mostrou a tese dele_i pro Chomsky.
 the Pedro showed the thesis of.him to.the Chomsky
 Já o João mostrou __pro Lasnik.
 but the João showed __to.the Lasnik
 ‘Pedro_i showed his_i thesis to Chomsky. But João showed his thesis to Lasnik.’
 ✓ ‘João showed João’s thesis to Lasnik.’ (sloppy reading)
 ✓ ‘João showed Pedro’s thesis to Lasnik.’ (strict reading)
- (2) Brazilian Portuguese
 O Pedro_i mostrou a tese dele_i pro Chomsky.
 the Pedro showed the thesis of.him to.the Chomsky
 Já o João mostrou ela pro Lasnik.
 but the João showed it to.the Lasnik
 ‘Pedro_i showed his_i thesis to Chomsky. But João showed it to Lasnik.’
 * ‘João showed João’s thesis to Lasnik.’ (sloppy reading)
 ✓ ‘João showed Pedro’s thesis to Lasnik.’ (strict reading)

Null objects in BP give rise to sloppy readings and to strict readings (Cyrino 1997, Cyrino & Lopes 2016). Since overt pronouns in minimally paired sentences do not support sloppy readings, it is plausible to assume that the sloppy reading is not due to *pro*. AE, by contrast, successfully accounts for the ability of null objects to produce sloppy readings, as (3) demonstrates.

- (3) Já o João_j mostrou ~~[DP a tese dele_j]~~ pro Lasnik.

The present article examines two prominent theories of AE through the lens of BP: the anti-agreement theory of AE (Saito 2007, Şener & Takahashi 2010, Takahashi 2014, Sato & Karimi 2016) and Bošković’s (2018) clitic doubling analysis of AE. I argue that the anti-agreement theory does not offer a viable account of AE in BP, as it both undegenerates and overgenerates AE in BP. I then consider Bošković’s clitic doubling analysis and argue that it does offer a viable account of BP AE, provided it is coupled with Kato’s (1993) proposal that BP has phonologically null 3rd person accusative clitics. According to the analysis proposed in the present article, AE in BP involves a clitic doubling structure, with ellipsis targeting the doubled DP. According to this analysis, AE in BP is generated as depicted in (4). The null clitic and the doubled DP are initially merged together in a “big DP” (Uriagereka 1995, Belletti 1999, 2005, Papangeli 2000, Cardinaletti 2019). The clitic then cliticizes onto the verb, and the associate DP subsequently elides at PF.

- (4) a. Já o João_j mostrou [DP CL [DP a tese dele_j]] pro Lasnik
 b. Já o João_j CL+mostrou [DP t_{CL} [DP a tese dele_j]] pro Lasnik
 c. Já o João_j CL+mostrou [DP t_{CL} [~~DP a tese dele_j~~]] pro Lasnik

The article is structured as follows. As a preliminary to the examination of AE in BP, it is necessary to first establish which null arguments are generated under AE and which are not. Section 2 attends to this matter. With this in place, Section 3 presents and critiques the anti-agreement theory of AE, arguing that it does not adequately account for the properties of AE in BP. In Section 4, I turn to Bošković's clitic doubling analysis of AE, explaining how it can be extended to BP. In Section 5, I apply the clitic doubling analysis to BP and advance a series of arguments in support of this analysis. In Section 6, I demonstrate how the present analysis accounts for the fact that null objects in BP are only selectively able to take [+human] antecedents. Section 7 concludes.

2. Two classes of null objects in Brazilian Portuguese

The claim that a particular type of null argument is generated under AE can be broken down into two smaller claims: (i) the null argument is generated under ellipsis; (ii) the ellipsis operation is AE, and not some other type of ellipsis. In this section, I examine two types of null arguments which have been argued to be generated under AE in BP: (i) sloppily construed null arguments (see (5)) (Cyrino 1997, Cyrino & Lopes 2016), and (ii) null indefinite arguments (see (6)) (Panitz 2018).

- (5) Brazilian Portuguese
 O Pedro_i mostrou a tese dele_i pro Chomsky.
 the Pedro showed the thesis of.him to.the Chomsky
 Já o João_j mostrou ___ pro Lasnik.
 but the João showed ___ to.the Lasnik
 'Pedro_i showed his_i thesis to Chomsky. But João_j showed his_{j/i} thesis to Lasnik.'
- (6) Brazilian Portuguese
 A Maria compôs duas sonatas em seis dias.
 the Maria composed two sonatas in six days
 Já a Clara compôs ___ em oito dias.
 but the Clara composed ___ in eight days
 'Maria composed two sonatas in six days. But Clara composed two sonatas in eight days.'

I argue that although both of these types of null arguments are generated under ellipsis, only the first type (sloppily construed null arguments) is specifically generated under AE.

Consider, first, sloppily construed null arguments. As noted at the paper's outset, null objects in BP produce sloppy readings, whereas overt pronouns in analogous sentences do not.

- (7) Brazilian Portuguese
 O Pedro_i mostrou a tese dele_i pro Chomsky.
 the Pedro showed the thesis of.him to.the Chomsky
 ‘Pedro_i showed his_i thesis to Chomsky.’
 a. Já o João_j mostrou ___ pro Lasnik.
 but the João showed ___ to.the Lasnik
 ‘But João_j showed his_{j/i} thesis to Lasnik.’
 b. Já o João_j mostrou ela pro Lasnik.
 but the João showed it to.the Lasnik
 ‘But João_j showed it (*João’s/✓Pedro’s) thesis to Lasnik.’

- (8) Brazilian Portuguese
 A Ana_i pôs os óculos dela_i na mesa.
 the Ana put the glasses of.her on.the table
 ‘Ana_i put her_i glasses on the table.’
 a. Já a Maria_j pôs ___ na estante.
 but the Maria put ___ on.the shelf
 ‘But Maria_j put her_{j/i} glasses on the shelf.’
 b. Já a Maria_j pôs eles na estante.
 but the Maria put them on.the shelf
 ‘But Maria_j put them (*Maria’s glasses/✓Ana’s glasses) on the table.’

Under the sloppy reading, an analysis of the null objects in terms of *pro* would be difficult to sustain, given that overt pronouns in minimally paired sentences do not support the sloppy reading. Ellipsis, by contrast, straightforwardly accounts for the availability of sloppy readings, as (9) demonstrates.

- (9) a. Já o João_j mostrou [_{DP} a tese dele_j] pro Lasnik
 b. Já a Maria_j pôs [_{DP} os óculos dela_j] na estante

Consider, now, null indefinite objects.

- (10) Brazilian Portuguese
 a. A Maria compôs duas sonatas em seis dias.
 the Maria composed two sonatas in six days
 Já a Clara compôs ___ em oito dias.
 but the Clara composed ___ in eight days
 ‘Maria composed two sonatas in six days. But Clara composed two sonatas in eight days.’
 b. O Tiago construiu duas casas em dois meses.
 the Tiago built two houses in two months
 Já o Pedro construiu ___ em três meses.
 but the Pedro built ___ in three months
 ‘Tiago built two houses in two months. But Pedro built two houses in three months.’

Null indefinite objects cannot be analyzed as *pro*, as *pro* is a definite pronoun (Rizzi 1982). Ellipsis, on the other hand, straightforwardly accounts for the null object's interpretation without difficulty:

- (11) a. A Maria compôs duas sonatas em seis dias. Já a Clara compôs $\left[_{DP} \text{duas sonatas}\right]$ em oito dias.
 b. O Tiago construiu duas casas em dois meses. Já o Pedro construiu $\left[_{DP} \text{duas casas}\right]$ em três meses.

If the two types of null objects under consideration are indeed generated by the same ellipsis operation, it is expected that they should exhibit the same distribution. This expectation is not borne out, though. The set of contexts in which indefinites can elide is narrower than the set of contexts in which sloppily construed arguments can elide.¹

Consider the following examples, in which the null object is internal to a pseudocleft. The null objects in (12a) and (12b) permit the sloppy reading, which indicates that sloppily construed arguments can elide internal to pseudoclefts. By comparison, the null objects in (13a) and (13b) cannot be interpreted as *duas sonatas* 'two sonatas' and *duas casas* 'two houses', respectively, which demonstrates that indefinites cannot elide internal to pseudoclefts. Indeed, the null objects in (13a) and (13b) lack any interpretation altogether, which causes the elliptical sentences in (13a) and (13b) to be unacceptable, given that the verbs *compor* 'to compose' and *construir* 'to build' obligatorily select for an object.²

¹ There is quite a bit of inter-speaker variation with regard to ellipsis of indefinites. One group of speakers rejects ellipsis of indefinites in the two contexts enumerated in the body of the text: i.e., (i) when the indefinite is within a pseudocleft, and (ii) when the indefinite is island-internal. The second group of speakers accepts ellipsis of indefinites in one or both of these contexts, with variation internal to this group concerning how consistently these speakers accept ellipsis of indefinites in these two contexts. For this second group of speakers, the empirical picture is still quite unclear; I therefore set aside the second group in this paper.

² As expected, (13a) and (13b) become acceptable if the null object is replaced with an overt object:

- (i) Brazilian Portuguese
 a. O que a Maria fez foi compor duas sonatas em seis dias.
 the what the Maria did was compose two sonatas in six days
 O que a Clara fez foi compor duas sonatas em oito dias.
 the what the Clara did was compose two sonatas in eight days
 'What Maria did was compose two sonatas in six days. What Clara did was compose two sonatas in eight days.'
 b. O que o Tiago fez foi construir duas casas em dois meses.
 the what the Tiago did was build two houses in two months
 O que o Pedro fez foi construir duas casas em três meses.
 the what the Pedro did was build two houses in three months
 'What Tiago did was build two houses in two months. What Pedro did was build two houses in three months.'

- (12) Brazilian Portuguese
- a. O que o Pedro_i fez foi mostrar a tese dele_i pro Chomsky.
 the what the Pedro did was show the thesis of.him to.the Chomsky
 O que o João_j fez foi mostrar __ pro Lasnik.
 the what the João did was show __ to.the Lasnik
 ‘What Pedro_i did was show his_i thesis to Chomsky. What João_j did was show his_{j/i} thesis to Lasnik.’
- b. O que a Clara_i fez foi pôr os óculos dela_i na mesa.
 the what the Clara did was put the glasses of.her on.the table
 O que a Maria_j fez foi pôr __ na estante.
 the what the Maria did was put __ on.the shelf
 ‘What Clara_i did was put her_i glasses on the table. What Maria_j did was put her_{j/i} glasses on the shelf.’
- (13) Brazilian Portuguese
- a. O que a Maria fez foi compor duas sonatas em seis dias.
 the what the Maria did was compose two sonatas in six days
 *O que a Clara fez foi compor __ em oito dias.
 the what the Clara did was compose __ in eight days
 ‘What Maria did was compose two sonatas in six days. (lit.) What Clara did was compose in eight days.’
- b. O que o Tiago fez foi construir duas casas em dois meses.
 the what the Tiago did was build two houses in two months
 *O que o Pedro fez foi construir __ em três meses.
 the what the Pedro did was build __ in three months
 ‘What Tiago did was build two houses in two months. (lit.) What Pedro did was build in three months.’

Consider, also, the following examples, in which the null object is internal to an island. Island-internally, sloppily construed objects can elide, whereas indefinites cannot. Compare (14) and (15) with (16) and (17). The null objects in (14) and (15) permit the sloppy reading. In (16) and (17), by contrast, the null objects cannot be interpreted as *duas sonatas* ‘two sonatas’ or *duas casas* ‘two houses’, which shows that indefinites cannot elide island-internally. The sentences in (16) and (17) are in fact simply unacceptable, as the null objects fail to receive any interpretation.³

- (14) Brazilian Portuguese
- a. Me diga em que sala o Pedro_i mostrou a tese dele_i pro Chomsky e [island em que sala o João_j mostrou __ pro Lasnik].
 Me tell in what room the Pedro showed the thesis of.him to.the Chomsky and in what room the João showed __ to.the Lasnik
 ‘Tell me in which room Pedro_i showed his_i thesis to Chomsky and in which room João_j showed his_{j/i} thesis to Lasnik.’
- b. Me diga por que a Ana_i pôs os óculos dela_i na mesa

³ Again, the examples become fully acceptable if the null objects are replaced by an overt object.

me tell for what the Ana put the glasses of.her on.the table
 e [island por que a Maria_j pôs __ na estante].
 and for what the Maria put __ on.the shelf
 ‘Tell me why Ana_i put her glasses_i on the table and why Maria_j put her_{j/i}
 glasses on the shelf.’

(15) Brazilian Portuguese

- a. Esse é o aluno_i que mostrou a tese dele_i pro Chomsky
 this is the student that showed the thesis of.him to.the Chomsky
 e aquele é [island o aluno_j que mostrou __ pro Lasnik].
 and that is the student that showed __ to.the Lasnik
 ‘This is the student_i who showed his_i thesis to Chomsky, and that is the
 student_j who showed his_{j/i} thesis to Lasnik.’
- b. Esse é o aluno_i que pôs os óculos dele_i na mesa
 this is the student that put the glasses of.him on.the table
 e aquele é [island o aluno_j que pôs __ na estante].
 and that is the student that put __ on.the shelf
 ‘This is the student_i who put his_i glasses on the table, and that is the
 student_j who put his_{j/i} glasses on the shelf.’

(16) Brazilian Portuguese

- a.*Me diga em qual desses pianos a Maria compôs duas sonatas em
 me tell in which of.these pianos the Maria composed two sonatas in
 seis dias e [island em qual deles a Clara compôs __ em oito dias].
 six days and in which of.them the Clara composed __ in eight days
 (lit.) ‘Tell me on which of these pianos Maria composed two sonatas in six
 days and on which of them Clara composed in eight days.’
- b.*Me diga em qual cidade o Tiago construiu duas casas em dois
 me tell in which city the Tiago built two houses in two
 meses e [island em qual cidade o Pedro construiu __ em três
 months and in which city the Pedro built __ in three
 meses].
 months
 (lit.) ‘Tell me in which city Tiago built two houses in two months and in
 which city Pedro built in three months.’

(17) Brazilian Portuguese

- a.*Essa é a pessoa que compôs duas sonatas em seis dias
 this is the person that composed two sonatas in six days
 e aquela é [island a pessoa que compôs __ em oito dias].
 and that is the person that composed __ in eight days
 (lit.) ‘This is the person who composed two sonatas in six days, and that is
 the person who composed in eight days.’
- b.*Essa é a pessoa que construiu duas casas em dois meses
 this is the person that built two houses in two months
 e aquela é [island a pessoa que construiu __ em três meses].
 and that is the person that built __ in three months

(lit.) ‘This is the person who built two houses in two months, and that is the person who built in three months.’

The preceding examples have shown that ellipsis of sloppily construed objects and ellipsis of indefinite objects exhibit distinct distributions: the former, but not the latter, may apply internal to pseudoclefts and islands. This suggests that we are dealing with two distinct ellipsis operations, one of which is responsible for eliding sloppily construed objects and the other, for eliding indefinite objects. As to which of these two ellipsis operations is AE, there are two reasons to conclude that it is the ellipsis operation underlying sloppy readings, and not the ellipsis operation underlying null indefinites, that is AE. First, in other languages with AE, AE can target arguments that are island-internal.

- (18) Hebrew (Landau 2018:4; Landau p.c.)
- a. Gil_i nika et ha-šulxan šelo_i [_{island} axarey še-Yosij nika ___].
 Gil cleaned ACC the-table his after that-Yosi cleaned ___
 ‘Gil_i cleaned his_i table after Yosi_j cleaned his_{i/j} table.’
- b. A: ani makir mišehu še-kana šlosha batim ba-šxuna
 I know someone that-bought three houses in.the-neighborhood
 ha-zot
 the-this
 ‘I know someone who bought three houses in this neighborhood.’
- B: ve-ani makir [_{island} mišehu še-maxar ___].
 and-I know someone that-sold ___
 ‘And I know someone who sold three houses (in this neighborhood).’

The second reason for concluding that AE is not the ellipsis operation underlying the elision of null indefinites stems from the following observation: ellipsis of indefinites shares the same distribution as ellipsis of secondary predicates and adverbs. Consider (19)–(22).

- (19) Brazilian Portuguese
 O Antônio não morreu surdo, mas o Joaquim morreu.
 the Antonio NEG died deaf but the Joaquim died
 ‘Antonio didn’t die deaf, but Joaquim died deaf.’
- (20) Brazilian Portuguese
 A Clara não nada bem, mas a Maria nada.
 the Clara NEG swims well but the Maria swims
 ‘Clara doesn’t swim well, but Maria swims well.’
- (21) Brazilian Portuguese
 a. O fato que o Antônio não morreu surdo me surpreende.
 the fact that the Antonio NEG died deaf me surprises
 Já [_{island} O fato que o Joaquim morreu] me entristece].
 but the fact that the Joaquim died me saddens
 ‘The fact that Antonio didn’t die deaf surprises me. But the fact that Joaquim {*died deaf/✓died} saddens me.’

- b. Esse é o aluno que disse que o Antônio morreu surdo
 this is the student that said that the Antonio died deaf
 e aquele é [_{island} o aluno que disse que o Joaquim morreu].
 and that is the student that said that the Joaquim died
 ‘This is the student who said that Antonio died deaf, and that is the
 student who said that Joaquim { *died deaf/✓died}.’

(22) Brazilian Portuguese

- a. O fato que a Clara não nada bem me surpreende.
 the fact that the Clara NEG swims well me surprises
 Já [[_{island} o fato que a Maria nada] me alegra].
 but the fact that the Maria swims me gladdens
 ‘The fact that Clara doesn’t swim well surprises me. But the fact that
 Maria { *swims well/✓swims } gladdens me.’
- b. Esse é o cara que disse que a Clara nada bem
 this is the guy that said that the Clara swims well
 e aquele é [_{island} o cara que disse que a Maria nada].
 and that is the guy that said that the Maria swims
 ‘This is the guy who said that Clara swims well, and that is the guy who
 said that Maria { *swims well/✓swims}.’

The secondary predicate is recovered in the right-hand conjunct in (19), and the adverb is recovered in the right-hand conjunct in (20). In (21) and (22), by contrast, the secondary predicates and the adverbs are not recovered in the right-hand sentences. For instance, the right-hand sentence in (21a) simply means ‘the fact that Joaquim died saddens me’, and not ‘the fact that Joaquim died deaf saddens me’.

The contrast between (19)–(20) and (21)–(22) vis-à-vis the recoverability of secondary predicates and adverbs demonstrates that (i) BP has an ellipsis operation which can target secondary predicates and adverbs and that (ii) this ellipsis operation cannot apply island-internally. Notably, the ellipsis operation underlying the elision of indefinites exhibits the same distribution as the ellipsis operation underlying the elision of secondary predicates and adverbs (i.e., possible outside of islands; impossible internal to islands), which strongly suggests that we are dealing with a single ellipsis operation here, responsible for the elision of indefinites, secondary predicates, and adverbs, alike. Crucially, this ellipsis operation is not limited to targeting arguments: in addition to targeting indefinites, it targets secondary predicates and adverbs, neither of which are arguments. Thus, the ellipsis operation responsible for eliding indefinites is not *argument* ellipsis, but rather a distinct ellipsis operation with distinct properties from argument ellipsis: distinct with respect to the range of expressions it targets, and distinct with respect to its inability to apply island-internally.⁴

To summarize, the present section has argued that sloppily construed null arguments are generated under AE, whereas null indefinites are not. Going forward, I will use sloppy readings as a diagnostic for AE and disregard null indefinites.

⁴ I leave for future work additional examination of the ellipsis operation underlying the elision of indefinites, secondary predicates, and adverbs. For present purposes, it suffices to have rendered plausible the conclusion that the operation responsible for eliding indefinites is not AE but rather some distinct ellipsis operation.

3. The anti-agreement theory of argument ellipsis

The anti-agreement theory (AAT) of AE was initially proposed by Saito (2007) as an account of why some languages allow AE and others do not. Saito proposes that the (un)availability of AE in a given language is determined by the presence of ϕ -features on T and v in that language. Specifically, languages in which T and v bear ϕ -features do not allow AE, whereas languages in which T and v lack ϕ -features permit AE.

Saito discusses two languages: English (a language without AE) and Japanese (a language with AE). Consider English.

(23) Jim likes his boss. *Frank dislikes ___.

The derivation of the elliptical sentence begins by copying the DP *his boss* from the LF-representation of the antecedent sentence and merging it with *dislikes*. The DP lacks phonological features (i.e., it is phonologically null), as it is copied from an LF-representation. In the representations here and below, phonological nullness is represented by means of light gray font.

(24) [_{VP} dislikes [*his boss*]_{ ϕ }]

Importantly, the copied DP does not bear a Case feature, as this feature was previously valued and deleted during the derivation of the antecedent sentence. The DP is therefore unable to participate in further ϕ -feature probe-goal dependencies. Note that this follows from the Activity Condition (Chomsky 2001), according to which DPs are able to function as goals for ϕ -feature agreement only if they bear a Case feature; once their Case feature has been valued and deleted, the DP becomes unable to participate in subsequent ϕ -feature probe-goal dependencies. Given that the DP in (25) no longer bears a Case feature, it is unable to agree with v , whose ϕ -features thus remain unvalued, ultimately causing the derivation to crash.

(25) [_{VP} v _{ ϕ } [_{VP} dislikes [*his boss*]_{ ϕ }]]

The impossibility of eliding subjects is accounted for in the same fashion.

(26) Susan said her sister wrote a book. *Jill said [___ wrote a song].

The DP *her sister* is copied from the LF of the antecedent sentence and merged with v' . T then enters the derivation and probes for matching ϕ -features. The DP is unable to function as a goal as it is no longer active, its Case feature having been valued and deleted during the derivation of the antecedent sentence. T's ϕ -features remain unvalued, and the derivation crashes.

(27) a. [_{VP} [*her sister*]_{ ϕ } [v' v [_{VP} wrote a song]]]
b. [_{TP} T_{u ϕ } [_{VP} [*her sister*]_{ ϕ } [v' v [_{VP} wrote a song]]]]

Turning to Japanese, Saito proposes that T and v in Japanese do not carry ϕ -features. If so, the question arises as to how nominal arguments have their Case feature valued and deleted in Japanese. Saito suggests that Case-feature valuation in Japanese

does not depend upon ϕ -feature agreement. Rather, nominative and genitive are structural cases, valued by merger of the nominal argument in [Spec,TP] and [Spec,DP], respectively, and accusative and dative are inherent cases, valued by merger with V.

With this much in place, consider (28), an example of object-AE.

- (28) Japanese (Takahashi 2014:89)
- a. Taroo_i-wa zibun_i-no hahaoya-o sonkeisiteiru.
 Taroo-TOP self-GEN mother-ACC respect
 ‘Taroo_i respects his_i mother.’
- b. Ken_j-mo ___ sonkeisiteiru.
 Ken-also ___ respect
 ‘Ken_j also respects his_{j/i} mother.’

The derivation of the elliptical sentence begins by copying *zibun-no hahaoya-o* ‘his mother’ from the LF-representation of the antecedent sentence and merging it with the verb. The object lacks a Case feature, as this feature was already valued and deleted during the derivation of the antecedent sentence. v then merges with VP. Given that the DP lacks a Case feature, the DP is inactive for ϕ -feature agreement. However, v in Japanese lacks ϕ -features, which means that the DP’s inactive status is irrelevant. The derivation thus converges, as desired.

- (29) a. [_{VP} [zibun-no hahaoya-o]_{ ϕ } sonkeisiteiru]
 b. [_{VP} [_{VP} [zibun-no hahaoya-o]_{ ϕ } sonkeisiteiru] v]

AE of subjects is accounted for in an analogous fashion.

- (30) Japanese (Saito 2007:203)
- a. Hanako_i-wa zibun_i-no teian-ga saiyoosareru to omotteiru.
 Hanako-TOP self-GEN proposal-NOM accepted.be that think
 ‘Hanako_i thinks that her_i proposal will be accepted.’
- b. Taroo_j-mo [___ saiyoosareru to] omotteiru.
 Taroo-also ___ accepted.be that think
 ‘Taroo_j also thinks that his_j/her_i proposal will be accepted.’

The antecedent is copied from the LF of the antecedent sentence into the elliptical sentence. Given that T lacks ϕ -features, the DP’s inactive status is again irrelevant, thus enabling AE to successfully converge.

There are a number of languages in which AE is subject to a subject-object asymmetry.⁵ In such languages, AE can target objects, but not subjects. Given that BP is an example of such a language (see below), I present the AAT’s account of the subject-object asymmetry. For illustrative purposes, I present Şener & Takahashi’s (2010) AAT-account of the subject-object asymmetry in Turkish.

Turkish has overt subject-verb ϕ -agreement.

⁵ Languages in which AE is subject to a subject-object asymmetry are: Chinese (Cheng 2013), Colloquial Singapore English (Sato 2014, 2016), Egyptian Arabic (Soltan 2020), Hindi (Simpson et al. 2013), Malayalam (Simpson et al. 2013), Persian (Sato & Karimi 2016), Serbo-Croatian (Bošković 2018), and Turkish (Şener & Takahashi 2010).

- (31) Turkish (Şener and Takahashi 2010:86)
- a. (Ben) bu makale-yi yavaşyavaş oku-yacağ-ım.
 (I) this article-ACC slowly read-FUT-1SG
 ‘I will read this article slowly.’
- b. (Biz) her hafta sinema-ya gid-er-iz.
 (we) every week movie-DAT go-AOR-1PL
 ‘We go to the movies every week.’

The existence of overt subject-verb agreement signifies that T in Turkish bears ϕ -features, which probe and agree with the subject. This being the case, the AAT predicts that Turkish does not permit AE of subjects. This prediction is correct, as (32) demonstrates. Note that the null subject in (32b) does not allow a sloppy reading, which confirms that the null subject is not capable of being generated by AE.

- (32) Turkish (Şener & Takahashi 2010:91)
- a. Can_i [[*pro*_i oğl-u] İngilizce öğren-iyor diye] bil-iyor.
 John his son-3SG English learn-PRES COMP know-PRES
 ‘John_i knows that his_i son learns English.’
- b. Filiz_j-se [__ Fransızca öğren-iyor diye] bil-iyor.
 Phylis-however __ French learn-PRES COMP know-PRES
 ‘Phylis_j, however, knows that *her_j/✓his_i son learns French.’

As for objects, Şener and Takahashi assume that v lacks ϕ -features in Turkish.⁶ It is thus expected that Turkish should allow AE of objects, which is indeed the case, as is confirmed by the null object’s ability to produce sloppy readings.

- (33) Turkish (Şener & Takahashi 2010:87)
- a. Can_i [*pro*_i anne-si]-ni eleştir-di.
 John his mother-3SG-ACC criticize-PAST
 ‘John_i criticized his_i mother.’
- b. Mete_j-yse __ öv-dü.
 Mete-however __ praise-PAST
 ‘Mete_j, however, praised his_{j/i} mother.’

As an additional piece of evidence for the AAT, Şener and Takahashi consider subjects of ECM clauses. Whereas subjects of finite clauses enter into subject-verb agreement, subjects of ECM clauses do not.

- (34) Turkish (Şener & Takahashi 2010:96)
- Pelin [ben-i/sen-i/on-u lise-ye başla-yacak] san-ıyor.
 Pelin I-ACC/you-ACC/(s)he-ACC high.school-DAT start-FUT think-PRES
 ‘Pelin thinks I/you/he/she will start high school.’

⁶ Şener & Takahashi (2010) do not address the question of how the Case feature on object DPs is valued in the absence of ϕ -features on v .

Şener and Takahashi take the absence of subject-verb agreement to indicate that subjects of ECM clauses do not ϕ -agree with the T heading the ECM clause. Nor do subjects of ECM clauses agree with the upstairs ν , given Şener and Takahashi's assumption that Turkish ν lacks ϕ -features. The AAT thus predicts that Turkish should allow AE of ECM subjects. This prediction is borne out.

(35) Turkish (Şener & Takahashi 2010:96)

- a. Pelin_i [[*pro*_i yeğen-i]-ni lise-ye başla-yacak] san-ıyor.
 Pelin her niece-3SG-ACC high.school-DAT start-FUT think-PRES
 'Pelin_i thinks her_i niece will start high school.'
- b. Suzan_j-se [__ ilkokul-a başla-yacak] san-ıyor.
 Susan-however __ grade.school-DAT start-FUT think-PRES
 'Susan_j, however, thinks that her_{j/i} niece will start grade school.'

Having reviewed the AAT, let us consider whether the AAT successfully accounts for AE in BP. BP has AE of objects, but not AE of subjects. The evidence in support of this conclusion comes from the distribution of sloppy readings: null objects admit sloppy readings; null subjects do not.

(36) Brazilian Portuguese

Sloppy Reading = ✓

- a. A Clara_i mostrou/mandou/apresentou a tese dela_i pro Chomsky.
 the Clara showed/sent/presented the thesis of.her to.the Chomsky
 Já a Ana_j mostrou/mandou/apresentou __ pro Lasnik.
 but the Ana showed/sent/presented __ to.the Lasnik
 'Clara_i showed/sent/presented her_i thesis to Chomsky. But Ana_j
 showed/sent/presented her_{j/i} thesis to Lasnik.'
- b. O Pedro_i pôs o notebook dele_i no sofá.
 the Pedro put the laptop of.him on.the sofa
 Já o João_j pôs __ na cama.
 but the João put __ on.the bed
 'Pedro_i put his_i laptop on the sofa. But João_j put his_{j/i} laptop on the bed.'

(37) Brazilian Portuguese

Sloppy Reading = *

- a. O João_i disse que a mãe dele_i era médica.
 the João said that the mother of.him was doctor
 Já o Pedro_j disse que __ era advogada.
 but the Pedro said that __ was lawyer
 'João_i said that his_i mother was a doctor. But Pedro_j said that his_{*j/i}
 mother was a lawyer.'
- b. O Tiago_i disse que a mãe dele_i canta.
 the Tiago said that the mother of.him sings
 Já o Paulo_j disse que __ dança.
 but the Paulo said that __ dances
 'Tiago_i said that his_i mother sings. But Paulo_j said that his_{*j/i} mother
 dances.'

- c. [A Maria e a Júlia]_i acreditam que a mãe delas_i comprou
[the Maria and the Julia] believe that the mother of.them bought
uma televisão. Já [a Clara e a Ana]_j acreditam que ___
a television but [the Clara and the Ana] believe that ___
comprou um rádio.
bought a radio
'Maria and Julia believe that their mother bought a television. But Clara
and Ana believe that *Clara and Ana's mother/✓Maria and Julia's mother
bought a radio.'

Observe that BP has subject-verb agreement in finite clauses.

- (38) Brazilian Portuguese
- a. Eu canto.
I sing.1SG
'I sing.'
- b. Ele canta.
he sing.3SG
'He sings.'
- c. Eles cantam.
they sing.3PL
'They sing.'

Finite T thus bears ϕ -features, which probe and agree with the subject. The AAT thus correctly predicts that subjects of finite clauses cannot undergo AE.

To illustrate, consider the derivation of (37c), depicted in (39). The DP *a mãe delas* 'their mother' is copied from the LF of the antecedent sentence and merged with v' . T then merges with the v P and probes for a goal with ϕ -features. The DP *a mãe delas* 'their mother' is inactive, as its Case feature was valued and deleted during the derivation of the antecedent sentence. T's ϕ -feature therefore remain unvalued, and the derivation crashes.

- (39) a. [v P [a mãe delas]_{ ϕ } [v' [v P comprou um rádio]]]
b. [TP T_{u ϕ } [v P [a mãe delas]_{ ϕ } [v' [v P comprou um rádio]]]]

Turning to AE of objects, given the logic of the AAT, it must be assumed that v lacks ϕ -features in BP. This, in turn, requires that we assume that the Case feature on object DPs is valued and deleted not through ϕ -agreement with v , but in some distinct fashion.⁷ In what follows, I argue that with respect to the distribution of AE in BP, (i) the AAT is too permissive in some cases (overgeneration), and (ii) too restrictive in others (undergeneration).

⁷ Regarding the twin assumptions that v in BP lacks ϕ -features and that the Case feature on object DPs must therefore be valued and deleted in some distinct fashion, I am adopting these assumptions only temporarily, so as to give the AAT a fighting chance. Following the discussion of the AAT, I return to the standard assumption that v in BP bears ϕ -features, and that object DPs enter into ϕ -feature agreement with v , valuing v 's ϕ -features and the object's Case feature.

Consider (40a-b), which involves a small clause headed by a PP predicate. As can be observed, AE of the small clause's subject is not possible.

(40) Brazilian Portuguese

Sloppy reading = *

- a. A Ana_i considerou a proposta dela_i de bom tom.
 the Ana considered the proposal of.her of good tone
 Já a Clara_j considerou [SC __ [PP de mau gosto]].
 but the Clara considered __ of bad taste
 'Ana_i considered her_i proposal to have a good tone. But Clara_j considered her_{*j/√i} proposal to be in bad taste.'
- b. A Maria_i considera o patrão dela_i de grande delicadeza.
 the Maria considers the boss of.her of big tenderness
 Já a Ana_j considera [SC __ [PP de bom coração]].
 but the Ana considers __ of good heart
 'Maria_i considers her_i boss very gentle. But Clara_j considers her_{*j/√i} boss good-hearted.'

Consider (40a). (Similar comments apply to (40b), *mutatis mutandis*.) Given that the antecedent sentence is acceptable, it can be concluded that the Case feature of *a proposta dela* 'her proposal' is (somehow) successfully deleted during the derivation of the antecedent sentence. After all, if the DP's case were not deleted, the derivation of the antecedent sentence would not have converged.

Under the AAT, the derivation of the elliptical sentence in (40a) proceeds as follows. The DP *a proposta dela* 'her proposal' is copied from the LF of the antecedent sentence. Given that the DP's Case feature was deleted during the derivation of the antecedent sentence, the DP is inactive for ϕ -feature agreement within the elliptical sentence. Crucially, however, the DP will not be required to enter into any ϕ -feature agreement dependencies. It clearly does not agree with the PP-predicate; nor does it agree with *v*, given the assumption that *v* lacks ϕ -features. The AAT thus predicts the derivation to converge, overgenerating AE.

The preceding pair of examples instantiates a case in which AE is impossible, despite the absence of agreement. The following pair of examples instantiates the opposite: a case in which AE is possible, despite the *presence* of agreement. The AAT incorrectly rules out AE here.

(41) Brazilian Portuguese

Sloppy Reading = ✓

- a. O João_i submeteu [a tese dele_i] rasgada.
 the João submitted [the thesis of.him].F.SG torn.F.SG
 Já o Pedro_j submeteu __ amarrotada.
 but the Pedro submitted __ creased.F.SG
 'João_i submitted his_i thesis torn. But Pedro_j submitted his_j thesis creased.'
- b. A Maria_i vendeu [o carro dela_i] lavado e
 the Maria sold [the car of.her].M.SG washed.M.SG and
 polido. Já a Carla_j vendeu __ imundo.
 polished.M.SG but the Carla sold __ filthy.M.SG
 'Maria_i sold her_i car washed and polished. But Carla_j sold her_j car filthy.'

The examples in (41) involve secondary predicates which agree (in number and gender) with the DP it is predicated of. Under the AAT, the agreement should block AE. Consider why. The antecedent DP is copied into the elliptical sentence from the LF of the antecedent sentence. At this point, the DP necessarily lacks a Case feature, as its Case feature was valued and deleted during the derivation of the antecedent sentence.⁸ The copied DP is therefore unable to agree with the secondary predicate (alternatively, with whatever functional head underlies agreement between secondary predicates and the DPs they are predicated of). The derivation of the elliptical sentence thus crashes, contrary to what is required, as the ϕ -features on the (functional head associated with the) secondary predicate remain unvalued.⁹

Summarizing, the AAT does not offer a viable account of AE in BP. First, there are instances in which a DP cannot undergo AE, even though it does not enter into ϕ -agreement with any element in the elliptical sentence (see (40)). The AAT fails to rule out AE in such cases. Second, there are instances in which a DP can undergo AE, even though it enters into ϕ -agreement within the elliptical sentence (see (41)). The AAT incorrectly rules out AE in such cases (but see fn. 9 for qualifying remarks). The AAT is therefore both too weak and too strong as an account of AE in BP.

4. Clitic doubling and argument ellipsis

In a series of papers, Bošković (2005, 2008, 2009, 2012) argues that the structure of argumental nominal phrases is subject to cross-linguistic variation: in some languages (“DP-languages”), argumental nominal phrases project all the way up to DP; in other languages (“NP-languages”), argumental nominal phrases project only to NP. Various

⁸ If the Case feature on the copied DP had not been deleted, the derivation of the antecedent sentence would have crashed. Given that the antecedent sentences are acceptable, it can therefore be concluded that the Case feature on the copied DPs was indeed deleted during the derivation of the antecedent sentences.

⁹ In the discussion surrounding the examples in (41), I assumed without discussion that the secondary predicates are predicated directly of the direct objects. An alternative possibility, raised by an anonymous reviewer, is that these examples involve an adjunct small clause, as in (i), for instance.

- (i) O João_i submeteu a tese dele_i [sc PRO rasgada]
 the João submitted the thesis of.him torn
 ‘João_i submitted his_i thesis torn.’

Under this parse, the adjectival predicate does not agree with the direct object, but rather with PRO. As such, if the examples in (41) can be generated with an adjunct small clause, LF-copying of the direct object into the elliptical clauses will produce a convergent result, given that the direct object will not have to agree with the adjectival predicate post-copying. Under this parse, the AAT therefore succeeds in generating AE in (41).

Ultimately, the question of whether the AAT fails to generate AE in examples like (41) therefore depends upon the much broader question of how sentences with object-oriented secondary predicates are generated (in BP). If the small clause analysis of such sentences is correct, the AAT succeeds in generating AE in such sentences. If the small clause analysis is not correct and the secondary predicate is predicted directly of the object, the AAT fails to generate AE in such sentences (i.e., the AAT undergenerates).

properties have been argued to follow from a language's status as a DP- vs. NP-language (see Bošković 2012). Relevant here is the following claim, due to Runić (2014).

(42) Clitics give rise to sloppy readings only in NP-languages.

The following examples serve as an illustration. In Serbo-Croatian and Slovenian, which are both NP-languages, clitics allow sloppy readings. In Macedonian and French, both DP-languages, clitics allow only strict readings.

(43) Context: Nikola and Danilo are brothers and their family celebrates St. Nicholas. It is a common practice to invite a boyfriend/girlfriend to the celebration (slava). Both Nikola and Danilo have a girlfriend (thus, in this context, there are two girlfriends) and they invited their girlfriends to the celebration.

a. Serbo-Croatian (Bošković 2018:6)

Nikola_i je pozvao (svoju_i) djevojku na slavu, a pozvao
Nikola is invited (his) girlfriend on slava and invited
ju je i Danilo_j.

her.CL.ACC is too Danilo

'Nikola_i invited his_i girlfriend to the slava, and Danilo_j invited his_{j/i} girlfriend too.'

b. Slovenian (Bošković 2018:6)

Marko_i je povabil (svojo_i) punco na zabavo, in povabil
Marko is invited (his) girlfriend on party and invited
jo je tudi Peter_j.

her.CL.ACC is also Peter

'Marko_i invited his_i girlfriend to the party, and Peter_j also invited his_{j/i} girlfriend.'

c. Macedonian (Bošković 2018:6)

Nikola_i ja povika devojka si na slava,
Nikola her.CL.ACC invited girl him.CL.DAT.REFL at slava
a Daniel_j ja povika isto.

and Daniel her.CL.ACC invited too

'Nikola_i invited his_i girlfriend to the slava and Daniel_j invited his_{*j/i} girlfriend too.'

d. French (Bošković 2018:6)

Nicolas_i a invité sa_i petite à la fête et Danilo_j
Nicola has invited his girlfriend to the party and Danilo
l-a invité aussi.

her.CL.ACC-has invited too.

'Nicola_i invited his_i girlfriend to the party, and Danilo_j invited his_{*j/i} girlfriend too.'

Bošković (2018) proposes that examples such as (43a) and (43b) involve clitic doubling, with AE of the associate.

- (44) a. Serbo-Croatian
ju ... [t_{ju} [(svoju) djevojku]]
b. Slovenian
jo ... [t_{jo} [(svoje) punco]]

According to this proposal, the source of the sloppy reading is the doubled argument, not the clitic.

Bošković's proposal correctly predicts that non-clitic pronouns in NP-languages do not permit sloppy readings. Since non-clitic pronouns do not permit doubling, the source of the sloppy readings is absent; hence, the impossibility of sloppy readings.

- (45) Serbo-Croatian (Bošković 2018:3)
Nikola_i je pozvao (svoju_i) djevojku na slavu, a pozvao je nju
Nikola is invited (his) girlfriend on slava and invited is her.ACC
i Danilo_j.
too Danilo
'Nikola_i invited his_i girlfriend to the slava, and Danilo_j invited his_{*j/✓i}
girlfriend too.'

As to why clitics in DP-languages do not allow sloppy readings, Bošković follows Cheng (2013) in claiming that AE is possible only in NP-languages. The inability of clitics to produce sloppy readings in DP-languages thus follows from the following two points: (i) the source of the sloppy reading is not the clitic but rather the doubled argument, which undergoes AE; (ii) DP-languages do not allow AE, hence do not allow sloppy readings.

Upon initial consideration, it would appear that Bošković's analysis of AE does not extend to BP. First, BP is a DP-language, as is confirmed by the existence of definite articles in BP.¹⁰

- (46) Brazilian Portuguese
o livro
the book
'the book'

Second, AE in BP, unlike AE in Serbo-Croatian and Slovenian, does not appear to involve a clitic. Compare AE in Serbo-Croatian and Slovenian (see (43a-b)), where a clitic is clearly present, with AE in BP, which does not contain a clitic.

¹⁰ Bošković (2008: fn. 3, 2009) assumes that whereas definite articles are D's, and hence indicate a language's status as a DP-language, indefinite articles may be merged lower than DP, and thus do not indicate a language's status as a DP-language. I thus utilize the presence of definite articles as the litmus test for a language's status as a DP-language.

- (47) Brazilian Portuguese
 O Paulo_i mostrou a tese dele_i pra Bresnan.
 the Paulo showed the thesis of.him to.the Bresnan
 Já o Júlio_j mostrou __ pra Kratzer.
 but the Julio showed __ to.the Kratzer
 ‘Paulo_i showed his_i thesis to Bresnan. But Julio_j showed his_{j/i} thesis to Kratzer.’

If AE in BP does not involve a clitic, the clitic doubling analysis would appear to be a nonstarter for BP.

In what follows, I argue that the clitic doubling analysis *can* apply to BP, despite initial appearances to the contrary. Specifically, (i) AE can indeed apply in DP-languages, contrary to what Cheng (2013) and Bošković (2018) claim, and (ii) BP has a phonologically null 3rd person accusative clitic (Kato 1993), which opens the door for extending the clitic doubling analysis to BP.

Concerning the claim that AE is possible only in NP-languages, this claim is factually incorrect. AE is possible in Basque (Duguine 2013), BP (Cyrino & Lopes 2016), Hebrew (Landau 2018), and Persian (Sato & Karimi 2016), each of which has definite articles and therefore qualifies as a DP-language.¹¹ Note that the null arguments in (48)–(50) admit a sloppy reading (in addition to a strict reading), thus confirming that the null arguments are generated under AE (see the cited authors for additional arguments that these languages permit AE).

- (48) Basque (Duguine 2013:106)
 Jon_i bere_i txakurra parkera eramán ohi du, baina
 Jon POSS dog park.to take HABIT AUX but
 Mirenek __ mandira eramaten du gehienetan.
 Miren __ mountain.to takes AUX mostly
 ‘Jon_i habitually takes out his_i dog to the park, but generally Miren takes out Miren’s/Jon’s dog to the mountain.’

¹¹ Egyptian Arabic is a further example of a DP-language with AE (Soltan 2020). However, Egyptian Arabic does not allow AE of definite DPs, as Soltan (2020) observes. Examples analogous to (48)–(50), which involve AE of a sloppily construed definite argument, are therefore independently ruled out. In lieu of such an example, I present an example which contains a sloppily construed null PP argument.

- (i) Egyptian Arabic (Soltan 2020:210)
 Eman_i baʕat-it filūs li-ʔahla-hā_i wi Huda baʕat-it hadāyā __.
 Eman sent-3F.SG money to-family-her and Huda sent-3F.SG gifts __
 ‘Eman_i sent money to her_i family and Huda sent gifts to Huda’s/Eman’s family.’

See Soltan (2020) for additional evidence that Egyptian Arabic has AE.

- (49) Persian (Sato & Karimi 2016:4)
 Kimea_i moalem-esh_i-ro dust dâre. Parviz ham __ dust dare.
 Kimea teacher-her-RÂ friend have. Parviz also __ friend have.
 ‘Kimea_i loves her_i teacher. Parviz also loves Parviz’s/Kimea’s teacher.’
- (50) Hebrew (Landau 2018:1)
 Gil_i hizmin et axot-o_i. Yosi gam hizmin __.
 Gil invited ACC sister-his. Yosi also invited __
 ‘Gil_i invited his_i sister. Yosi also invited Yosi’s/Gil’s sister.’

Turning to Kato’s (1993) proposal that BP has null 3rd person accusative clitics, I present the evidence supporting Kato’s proposal in two steps. I begin by arguing, following Farrell (1990), Ferreira (2000), Grolla (2005), and Kato et al. (2023), that BP has object *pro*. I then argue that the null pronoun is specifically a null *clitic* pronoun.

One argument for the existence of object *pro* comes from the following observation: null objects in BP give rise to interpretations which, on the one hand, cannot be accounted for by AE but which, on the other hand, can indeed be accounted for by *pro*. Specifically, null objects, like overt pronouns, can be construed as a bound variable and give rise to E-type readings (Ferreira 2000).

- (51) Brazilian Portuguese (Ferreira 2000:105)
 Nenhum filme_i decepcionou as pessoas que foram assistir ___i/ele_i;
 no film deceived the people that went watch __/it
 ‘No film, *x*, deceived the people who went to watch *x*.’
- (52) Brazilian Portuguese (Ferreira 2000:82)
 Nenhuma criança que ganhar [um brinquedo novo]_i vai querer emprestar
 no child that wins a toy new will want lend
 ___i/ele_i pros irmãos.
 __/it to.the siblings
 ‘No child who gets a new toy will want to lend it (i.e., the new toy s/he gets) to his/her siblings.’

AE is not capable of generating the null objects’ interpretations. For (51), AE would produce (53), which lacks the bound variable reading. For (52), it would produce (54), which lacks the E-type reading.

- (53) Nenhum filme decepcionou as pessoas que foram assistir ~~{nenhum filme}~~.
 no film deceived the people that went watch no film
 ‘No film deceived the people who went to see no film.’
- (54) Nenhuma criança que ganhar um brinquedo novo vai querer emprestar
 no child that wins a toy new will want lend
~~{um brinquedo novo}~~ pros irmãos.
 a toy new to.the siblings
 ‘No child who gets a new toy will want to lend a new toy to his/her siblings.’

By contrast, *pro* clearly succeeds in generating the null object's interpretations, given that overt pronouns similarly support such a reading.

The following paradigm further demonstrates that BP has object *pro*.¹²

(55) Brazilian Portuguese

- a. Esse livro_i, eu conheço [uma menina que já leu ele_i dez vezes].
this book, I know a girl that already read it ten times
'This book, I know a girl who already read it ten times.'
- b. Que livro_i que você conhece [a menina que já leu ele_i dez vezes]?
what book that you know the girl that already read it ten times
'Which book do you know the girl who already read it ten times?'
- c. Esse é o livro_i que o João conhece [a autora que escreveu ele_i].
this is the book that the João knows the author that wrote it
'This is the book that João knows the author who wrote it.'
- d.*Só esse livro_i, a Maria conhece [uma pessoa que leu ele_i].
only this book, the Maria knows a person that read it
'Only this book, Maria knows a person who read it.'

(56) Brazilian Portuguese

- a. Esse livro_i, eu conheço [uma menina que já leu ____i dez vezes]
this book, I know a girl that already read ___ ten times
'This book, I know a girl who already read (it) ten times.'
- b. Que livro_i que você conhece [a menina que já leu ____i dez vezes]?
what book that you know the girl that already read ___ ten times
'Which book do you know the girl who already read (it) ten times?'
- c. Esse é o livro_i que o João conhece [a autora que escreveu ____i].
this is the book that the João knows the author that wrote ___
'This is the book that João knows the author who wrote (it).'
- d.*Só esse livro_i, a Maria conhece [uma pessoa que leu ____i].
only this book, the Maria knows a person that read ___
'Only this book, Maria knows a person who read (it).'

The examples in (55) involve a resumptive pronoun, separated from its binder by an island. As the examples demonstrate, the resumptive pronoun can be bound by a topic, a *wh*-phrase, or a relativized DP, but not by a focused DP. As to (56), the distribution of judgements is precisely what is expected if BP has object *pro*. (56d) is ungrammatical, given that neither resumption nor movement is possible: resumption is not possible, since resumption is not allowed when the binder is a focused DP, as demonstrated by (55b), above; and movement is not possible, since movement incurs an island violation.

- (57) a. *Só esse livro_i, a Maria conhece [uma pessoa que leu *pro*_i]
- b. *Só esse livro_i, a Maria conhece [uma pessoa que leu *t*_i]

¹² (55a-c) and (56a-c) are from Grolla (2005), (55d) is due to Marcelo Ferreira (p.c.) and Jairo Nunes (p.c.), and (56d) is from Ferreira (2000).

By contrast, (56a–c) are grammatical, since resumption is allowed with topics, wh-phrases, and relativized DPs.

- (58) a. Esse livro_i, eu conheço [uma menina que já leu *pro*_i dez vezes].
 b. Que livro_i que você conhece [a menina que já leu *pro*_i dez vezes]?
 c. Esse é o livro_i que o João conhece [a autora que escreveu *pro*_i].

The preceding examples have shown that BP has object *pro*. Kato (1993) proposes that the null pronoun is a null clitic pronoun. BP has 1st and 2nd person accusative clitics. However, the 3rd person accusative clitics were lost in the late 18th century/early 19th century (Nunes 1993, Cyrino 1997). Thus, (59b) is ungrammatical in modern colloquial BP.

- (59) Brazilian Portuguese
 a. A Maria não me/te+viu.
 the Maria NEG me.ACC/you.ACC+saw
 ‘Maria didn’t see me/you.’
 b *A Maria não o/a+viu.
 the Maria NEG him.ACC/her.ACC+saw
 ‘Maria didn’t see him/her.’

Kato makes the following point: if *pro* in BP is a null 3rd person accusative clitic, rather than a weak pronoun, it becomes possible to maintain that BP has a uniform clitic system, with each cell in the paradigm filled.

- (60) 1st person: me
 2nd person: te
 3rd person: 0

In what follows, I present an additional piece of evidence in support of Kato’s proposal.

Recall that weak pronouns in BP can be used resumptively (see (55a-c), above). Notably, weak pronouns cannot be used resumptively when the binder is a predicative expression. For instance, the weak pronoun *ele* ‘it’ cannot be used resumptively in (61), where the binder is a predicative adjective.

- (61) Brazilian Portuguese
 *Inteligente_i, eu não conheço [_{island} ninguém que é ele_i].
 Intelligent I NEG know nobody that is it
 (lit.) ‘Intelligent, I don’t know anybody who is it.’

With this much in place, consider (62).

- (62) Brazilian Portuguese
 Inteligente_i, eu não conheço [_{island} ninguém que é ____i].
 Intelligent I NEG know nobody that is ___
 (lit.) ‘Intelligent, I don’t know anybody who is.’

(62) is identical to (61), except that the the weak pronoun has been replaced by a gap. Moreover, (62) is grammatical, unlike (61). Crucially, the A'-chain in (62) is not generated via movement, as such movement would incur an island violation.

(63) *Inteligente_i, eu não conheço [_{island} ninguém que é _{t_i}].

Rather, the predicative adjective is base-generated in its surface position, from where it binds a null resumptive pronoun. Now, if null pronouns in BP were null weak pronouns, we would incorrectly predict examples such as (62) to be ungrammatical, given that weak pronouns in BP cannot resume predicative adjectives. On the other hand, if null pronouns in BP are null clitic pronouns, we correctly predict that such examples are grammatical, under the additional assumption that clitic pronouns can resume predicative adjectives in BP. Indirect evidence in support of this additional assumption comes from European Portuguese. Clitic pronouns in European Portuguese can resume predicative adjectives (and, indeed, predicate expressions, more generally).

(64) European Portuguese (p.c. Ana Maria Martins)
Inteligente_i, eu não conheço [_{island} ninguém que o_i é].
Intelligent I NEG know nobody that it is
(lit.) 'Intelligent, I don't know anybody who is it.'

What European Portuguese shows us is that clitic pronouns can, in principle, resume predicate adjectives. It is thus not implausible to assume that clitic pronouns in BP can do so, as well.

In short, if *pro* in BP is a weak pronoun, we are left without an account for the grammaticality of (62). If, however, *pro* in BP is a null clitic pronoun, as proposed here, the grammaticality of (62) is accounted for, provided we make the additional, plausible assumption that the null clitic can resume predicative adjectives.

Summarizing, I have argued that the null object pronoun in BP is a null clitic pronoun, as originally proposed by Kato (1993). In evaluating the strength of this proposal it is important to bear in mind that the evidence in the literature for the existence of *pro* in BP (i.e., bound variable anaphora, E-type readings, resumption) is neutral with respect to *pro*'s status as weak vs. clitic. Thus, although the evidence I have presented in support of *pro*'s status as a clitic is perhaps more suggestive than definitive, this evidence is sufficient to tip the scales in favor of the clitic analysis, as there is no competing evidence that would motivate assuming that the null pronoun is a weak pronoun. I therefore assume that BP *pro* is a null clitic pronoun, following Kato (1993). As will be argued below, this assumption helps to explain a number of the properties of AE in BP, thus providing an additional, compelling reason for assuming that *pro* in BP is indeed a clitic.

5. Clitic doubling and argument ellipsis in Brazilian Portuguese

In this section, I extend Bošković's (2018) clitic doubling analysis of AE to BP. I begin by presenting the details of the analysis. I then present a series of arguments in support of it.

5.1. The distribution of argument ellipsis in Brazilian Portuguese

Consider, first, an example in which AE targets an object DP.

- (65) Brazilian Portuguese
 O Paulo_i mostrou a tese dele_i pra Bresnan.
 the Paulo showed the thesis of.him to.the Bresnan
 Já o Júlio_j mostrou __ pra Kratzer.
 but the Julio showed __ to.the Kratzer
 ‘Paulo_i showed his_i thesis to Bresnan. But Julio_j showed his_{j/i} thesis to Kratzer.’

According to the present proposal, AE in BP involves clitic doubling, where the clitic is phonologically null and AE targets the clitic’s associate DP. Specifically, the clitic and its associate are initially merged in a big DP. Clitics in BP necessarily procliticize to the verb that “governs” them. As such, the clitic must cliticize to *mostrou* ‘showed’. Finally, the associate elides at PF (see Section 5.3 for evidence that AE in BP involves PF-deletion, not LF-copying). Following standard practice, I assume that PF-deletion is licensed by an E-feature (Merchant 2001). Accordingly, I posit an E-feature on the clitic, which licenses the elision of its associate. The derivation of (65) thus runs as follows.^{13,14}

¹³ There is a fair amount of variation within the literature vis-à-vis the precise structure of big DPs. One point of variation concerns the position of the associate DP: Uriagereka (1995) proposes that the associate DP is the clitic’s specifier (see (i)), whereas Belletti (1999, 2005), Papangeli (2000), and Cardinaletti (2019) propose that the associate DP is the clitic’s complement. (Note that Uriagereka (1995) also assumes that the clitic takes a *pro*-NP complement.)

(i) [DP [DP associate] [D⁰ (= clitic) [NP *pro*]]]

(ii) [DP D⁰ (= clitic) [DP associate]]

Within the ellipsis literature, heads endowed with an E-feature license ellipsis of their complement, not their specifier. I therefore adopt the structure in (ii), according to which the associate is the clitic’s complement.

¹⁴ An anonymous reviewer asks whether the null clitic always bears an [E]-feature. In the ellipsis literature, the [E]-feature is generally thought to be an optional feature. I therefore assume (but see below), that the [E]-feature on the clitic is optional. When the clitic bears an E-feature, its associate is elided. When the clitic does not bear an E-feature, its associate is not elided.

A consequence of this assumption is that many sentences involving direct objects will be structurally ambiguous: in such sentences, the direct object can be generated either with or without an accompanying clitic, where the clitic does not bear an [E]-feature and, therefore, does not trigger ellipsis of the direct object. So far as I can see, this aspect of the present analysis is unproblematic.

It is possible, however, that the insertion of the null clitic is subject to economy considerations, and that these considerations conspire to ensure that the clitic is inserted only if it bears an E-feature. For instance, suppose that economy requires that an element be present in the derivation only if it has an effect on LF or PF (or both) (cf. Chomsky 2001). If the null clitic does not have any effect on the LF interpretation of the sentences into which it is inserted

- (66) a. Já o Júlio_j mostrou [DP CL_[E] [DP a tese dele_j]] pra Kratzer →
 b. Já o Júlio_j CL_[E]+mostrou [DP t_{CL} [DP a tese dele_j]] pra Kratzer →
 c. Já o Júlio_j CL_[E]+mostrou [DP t_{CL} [~~DP a tese dele_j~~]] pra Kratzer

Since AE in BP is licensed by the clitic (specifically, its E-feature), the present analysis predicts that AE is excluded whenever the clitic is itself excluded. In this connection, recall that the clitic is an accusative clitic. The present analysis thus predicts, correctly, that subjects of finite clauses do not permit AE. As discussed above, null subjects of finite clauses do not permit sloppy readings, thus demonstrating that null subjects of finite clauses cannot be generated under AE.

- (67) Brazilian Portuguese
- a. O João_i disse que a mãe dele_i era médica.
 the João said that the mother of.him was doctor
 Já o Pedro_j disse que __ era advogada.
 but the Pedro said that __ was lawyer
 ‘João_i said that his_i mother was a doctor. But Pedro_j said that his_{*j/✓i} mother was a lawyer.’
- b. O Tiago_i disse que a mãe dele_i canta.
 the Tiago said that the mother of.him sings
 Já o Paulo_j disse que __ dança.
 but the Paulo said that __ dances
 ‘Tiago_i said that his_i mother sings. But Paulo_j said that his_{*j/✓i} mother dances.’
- c. [A Maria e a Júlia]_i acreditam que a mãe delas_i comprou
 the Maria and the Julia believe that the mother of.them bought
 uma televisão. Já [a Clara e a Ana]_j acreditam que __ comprou
 a television but the Clara and the Ana believe that __ bought
 um rádio.
 a radio
 ‘Maria and Julia believe that their mother bought a television. But Clara and Ana believe that *Clara and Ana’s mother/✓Maria and Julia’s mother bought a radio.’

For case-theoretic reasons, the clitic cannot occur as the subject of a finite clause, as subjects of finite clauses bear nominative case. Since the clitic is excluded, AE is not licensed, hence excluded.¹⁵

(i.e., if sentences with the clitic are synonymous with the analogous sentences lacking the clitic), then the clitic will be inserted only if it has an effect on the PF representation. Since the clitic is phonologically null, the only way it can have an effect on the PF representation is by inducing ellipsis of its associate. Hence, economy will require that the clitic obligatorily bear an E-feature (at least in those sentences in which the clitic has no effect on LF).

¹⁵ An anonymous reviewer suggests an alternative explanation for why null subjects in BP do not permit sloppy readings. The reviewer’s explanation runs as follows. If the embedded subjects of the antecedent sentences in (67) are necessarily interpreted as discourse topics, the null subject, according to the reviewer, will necessarily refer back to the discourse topic, resulting in the strict reading.

In addition to being unable to target subjects of finite clauses, AE in BP cannot target subjects of small clauses or subjects of infinitival clauses. This conclusion is illustrated by the following sentences, which show that null subjects of small/infinitival clauses do not permit sloppy readings.¹⁶

(68) Brazilian Portuguese

- a. A Júlia_i achou a apresentação dela_i um desastre.
 the Julia found the presentation of.her a disaster
 Já a Ana_j achou [_{SC} ___ um grande sucesso].
 but the Ana found ___ a great success
 ‘Julia_i considered her_i presentation a disaster. But Ana_j considered her_{*j/✓i} presentation a great success.’

This account is insufficiently general. In (81) and (82), below, the null objects’ antecedents are non-specific indefinites, which clearly do not establish a discourse topic. The reviewer’s account does not explain why AE cannot apply here. The clitic doubling account does (see Section 5.2).

More generally, it is dubious that discourse topichood underlies the distribution of AE in BP. Compare (ia-b) with (68) and (69).

(i) Brazilian Portuguese

- a. O Paulo_i mostrou a tese dele_i pra Bresnan.
 the Paulo showed the thesis of.him to.the Bresnan
 Já o Júlio_k mostrou ___ pra Kratzer.
 but the Julio showed ___ to.the Kratzer
 ‘Paulo_i showed his_i thesis to Bresnan. But Julio_j showed his_{k/i} thesis to Kratzer.’
- b. O João_i submeteu [a tese dele_i] rasgada.
 the João submitted [the thesis of.him].F.SG torn.F.SG
 Já o Pedro_k submeteu ___ amarrotada.
 but the Pedro submitted ___ creased.F.SG
 ‘João_i submitted his_i thesis torn. But Pedro_k submitted his_k thesis creased.’

The null arguments in (ia-b) permit a sloppy reading; whereas the null arguments in (68) and (69) do not. For the reviewer’s explanation to account for the distinction between (i) and (68)/(69), it must be the case that the null arguments’ antecedents in (68)/(69) are interpreted as discourse topics, and that the antecedents in (i) are not. However, the antecedents in (i) do not seem to differ from the antecedents in (68)/69) with regard to their interpretation vis-à-vis discourse topichood; either all of these antecedents are discourse topics, or none of them are. Evidently, if the reviewer’s explanation is to account for the distribution of sloppy readings in BP, there must be a method for establishing for a given antecedent whether it is a discourse topic or not. With this in place, it must be shown that the distribution of sloppy readings goes hand-in-hand with whether the antecedent is, or is not, a discourse topic. For instance, it must be shown that the antecedents in (67), (68) and (69) are indeed interpreted as discourse topics, and that the antecedents in (i) are not. Without such a method in hand, the reviewer’s explanation does not offer a viable alternative to the clitic doubling analysis proposed here.

¹⁶ For some speakers, the null subjects in (69b-c) do not permit the strict reading, either. See n. 18 for further discussion.

- b. A Ana_i considerou a proposta dela_i de bom tom.
 the Ana considered the proposal of.her of good tone
 Já a Clara_j considerou [_{SC} ___ de mau gosto].
 but the Clara considered ___ of bad taste
 ‘Ana_i considered her_i proposal to have a good tone. But Clara_j considered her_{*j/√i} proposal to be in bad taste.’
- c. O João_i achou a tese dele_i ruim.
 the João considered the thesis of.him bad
 Já o Pedro_j achou [_{SC} ___ boa].
 but the Pedro considered ___ good
 ‘João_i considered his_i thesis bad. But Pedro_j considered his_{*j/i} thesis good.’

(69) Brazilian Portuguese

- a. A Maria_i viu o carro do amigo dela_i atropelar um turista.
 the Maria saw the car of.the friend of.her run.over a tourist
 Já a Clara_j viu [_{TP} ___ atropelar um ciclista]
 but the Clara saw ___ run.over a cyclist
 ‘Maria_i saw her_i friend’s car run over a tourist. But Clara_j saw her_{*j/√i} friend’s car run over a cyclist.’
- b. A Maria_i viu o carro dela_i ser pichado.
 the Maria saw the car of.her be spray.painted
 Já a Clara_j viu [_{TP} ___ ser roubado]
 but the Clara saw ___ be stolen
 ‘Maria_i saw her_i car be spray painted. But Clara_j saw her_{*j/%i} car be stolen.’
- c. A Maria_i viu o carro dela_i ser pichado duas vezes.
 the Maria saw the car of.her be spray.painted two times
 Já a Clara_j viu [_{TP} ___ ser pichado três vezes]
 but the Clara saw ___ be spray.painted three times
 ‘Maria_i saw her_i car be spray painted two times. But Clara_j saw her_{*j/%i} car be spray painted three times.’

The clitic doubling analysis of AE accounts for the inability of AE to target subjects of small/infinitival clauses. For illustrative purposes, consider how the derivations of (68a), (69a), and (69b) proceed according to the current analysis. The clitic and its associate are merged together in a big DP. The clitic then cliticizes onto the verb, and the associate DP elides at PF.

- (70) a. Já a Ana_j achou [_{SC} [_{DP} CL_[E] [_{DP} a apresentação dela_j]] um grande sucesso] →
 b. Já a Ana_j CL_[E]+achou [_{SC} [_{DP} t_{CL} [_{DP} a apresentação dela_j]] um grande sucesso] →
 c. Já a Ana_j CL_[E]+achou [_{SC} [_{DP} t_{CL} [_{DP} a apresentação dela_j]] um grande sucesso]
- (71) a. Já a Clara_j viu [_{TP} [_{DP} CL_[E] [_{DP} o carro do amigo dela_j]] atropelar um ciclista] →
 b. Já a Clara_j CL_[E]+viu [_{TP} [_{DP} t_{CL} [_{DP} o carro do amigo dela_j]] atropelar um ciclista] →

- c. Já a Clara_j CL_{[E]+viu} [TP [DP t_{CL} [~~DP o carro do amigo dela_j]]] atropelar um ciclista]~~
- (72) a. Já a Clara_j viu [TP [DP CL_[E] [DP o carro dela_j]] ser roubado] →
 b. Já a Clara_j CL_{[E]+viu} [TP [DP t_{CL} [DP o carro dela_j]] ser roubado] →
 c. Já a Clara_j CL_{[E]+viu} [TP [DP t_{CL} [~~DP o carro dela_j]]] ser roubado]~~

Notice that the derivations in (70)–(72) involve sub-extraction (of the clitic) from a larger DP. Similarly, the derivation in (66), repeated here as (73), involves sub-extraction (of the clitic) from a larger DP.

- (73) a. Já o Júlio_j mostrou [DP CL_[E] [DP a tese dele_j]] pra Kratzer →
 b. Já o Júlio_j CL_{[E]+mostrou} [DP t_{CL} [DP a tese dele_j]] pra Kratzer →
 c. Já o Júlio_j CL_{[E]+mostrou} [DP t_{CL} [~~DP a tese dele_j]]] pra Kratzer~~

In (73), sub-extraction is from an object. In (70)–(72), sub-extraction is from the subject of a small/infinitival clauses. Crucially, sub-extraction from subjects of small clauses and from subjects of infinitival clauses is independently excluded.

- (74) Brazilian Portuguese
 a.*Só desse aluno_i o professor acha [SC [o pai t_i] simpático]
 only of.this student the teacher finds the father friendly
 ‘Only of this student, x , does the teacher consider the father of x friendly.’
 b.*De quem_i a Maria acha [SC [o pai t_i] simpático]?
 of whom the Maria finds the father friendly
 ‘Of which person, x , does Maria consider the father of x friendly?’
- (75) Brazilian Portuguese
 a.*Só desse aluno_i a Clara viu [TP [o pai t_i] falar com a diretora]
 only of.this student the Clara saw the father speak with the principle
 ‘Only of this student, x , did Clara see the father of x speak with the principle.’
 b.*De quem_i a Clara viu [TP [o pai t_i] falar com a diretora]?
 of whom the Clara saw the father speak with the principle
 ‘Of which person, x , did Clara see the father of x speak with the principle?’
- (76) Brazilian Portuguese
 a.*Só dessa criança_i a Maria viu [TP [o pai t_i] ser demitido]
 only of.this child the Maria saw the father be fired
 ‘Only of this child, x , did Maria see the father of x be fired.’
 b.*De quem_i a Maria viu [TP [o pai t_i] ser demitido]?
 of whom the Maria saw the father be fired
 ‘Of which person, x , did Maria see the father of x be fired?’

By contrast, sub-extraction from objects is possible.

- (77) Brazilian Portuguese
- a. Só desse paciente_i o dentista obturou [o dente t_i]
 only of.this patient the dentist filled the tooth
 ‘Only of this patient, x , did the dentist fill the tooth of x .’
- b. De quem_i o dentista obturou [o dente t_i]?
 of whom the dentist filled the tooth
 ‘Of which person, x , did the dentist fill the tooth of x ?’

Under the clitic doubling analysis, the ban on eliding subjects of small clauses and subjects of infinitival clauses thus reduces to an independent ban on sub-extraction from subjects of small clauses and subjects of infinitival clauses.

Although the null subjects in (68)–(69) do not permit the sloppy reading, they do permit the strict reading (but see fn. 18 for qualifying remarks). This is expected, given that the strict reading can be generated without sub-extraction. The derivations run as follows, where the clitic is generated as the subject of the small/infinitival clause and subsequently cliticizes onto the verb.¹⁷ Note that cliticization to the verb does not involve sub-extraction. The availability of the strict reading is thus accounted for.¹⁸

¹⁷ BP allows clitics to be generated as the subject of small/infinitival clauses.

- (i) Brazilian Portuguese
- a. A Ana me_i/te_i+considera [SC t_i inteligente]
 the Ana me.ACC/you.ACC+considers intelligent
 ‘Ana considers me/you intelligent.’
- b. A Ana me_i/te_i+viu [TP t_i atropelar um ciclista]
 the Ana me.ACC/you.ACC+saw run.over a cyclist
 ‘Ana saw me/you run over a cyclist.’

¹⁸ With regard to the sentences in (69), all speakers agree that the null subjects do not permit the sloppy reading. When the infinitival clause is passive (i.e., (69b–c)), however, there is disagreement as to whether the strict reading is possible. For some speakers, the sentences are good under the strict reading. For other speakers, the sentences are simply out. In this connection, it is noteworthy that the speakers who reject the strict reading in (69b–c) also dislike analogous sentences involving a referential null subject. For example, the speakers who reject the strict reading in (69b–c) find (i) degraded, whereas the speakers who accept the strict reading in (69b–c) find (i) acceptable.

- (i) Brazilian Portuguese
- A Maria viu o meu carro ser pichado.
 the Maria saw the my car be spray.painted
 ✓/?? Já a Clara viu [TP __ ser roubado]
 but the Clara saw __ be stolen
 ‘Maria saw my car be spray painted. But Clara saw it be stolen.’

For some speakers, then, the null clitic can only marginally occur as the subject of passivized infinitival TPs. The marginality of the null clitic in this position comes as a surprise, given that overt clitics happily occur in this position.

- (ii) A Maria me_i/te_i+viu [TP t_i ser expulso]
 the Maria me.ACC/you.ACC+saw be expelled
 ‘Maria saw me/you be expelled.’

- (78) A Júlia_i achou [a apresentação dela_i]_k um desastre.
 a. Já a Ana achou [_{SC} CL_k um grande sucesso] →
 b. Já a Ana CL_k+achou [_{SC} t_{CL} um grande sucesso]
- (79) A Maria_i viu [o carro do amigo dela_i]_k atropelar um turista.
 a. Já a Clara viu [_{TP} CL_k atropelar um ciclista] →
 b. Já a Clara CL_k+viu [_{TP} t_{CL} atropelar um ciclista]
- (80) A Maria_i viu [o carro dela_i]_k ser pichado.
 a. Já a Clara viu [_{TP} CL_k ser roubado] →
 b. Já a Clara CL_k+viu [_{TP} t_{CL} ser roubado]

Summarizing, AE in BP may target objects, but not subjects: neither subjects of finite clauses, nor subjects of small/infinitival clauses. The distribution of AE in BP follows from the clitic doubling analysis. AE of subjects of finite clauses is excluded for case-theoretic reasons, and AE of subjects of small/infinitival clauses is excluded on account of an independent restriction on sub-extraction.

5.2. DPs that cannot be doubled

AE is licensed by the null clitic. This being so, the present analysis makes the following prediction: DPs that cannot be clitic doubled cannot undergo AE. This prediction is fulfilled.

Cross-linguistically, object clitics observe the following restriction: object clitics cannot be doubled by non-specific indefinite DPs (see Anagnostopoulou 2006 and sources therein). The present analysis thus predicts that non-specific indefinites cannot undergo AE in BP. As observed in Section 2, this prediction is correct. The null objects in (81a)/(82a) and in (81b)/(82b) cannot be construed as *duas sonatas* ‘two sonatas’ and *duas casas* ‘two houses’, respectively, as would be the case if non-specific indefinites could elide. Indeed, the null objects fail to receive any interpretation at all, which renders the sentences unacceptable, given that the verbs *compor* ‘to compose’ and *construir* ‘to build’ obligatorily select for an object.

- (81) Brazilian Portuguese
 a.*Me diga em qual desses pianos a Maria compôs duas sonatas em me tell in which of.these pianos the Maria composed two sonatas in seis dias e [_{island} em qual deles a Clara compôs __ em oito dias] six days and in which of.them the Clara composed __ in eight days (lit.) ‘Tell me on which of these pianos Maria composed two sonatas in six days and on which of them Clara composed in eight days.’

I do not, at present, have an account for why the null clitic is, for some speakers, unable to launch from the subject position of infinitival TPs headed by a passive verb. I hope to return to this issue in a future study.

- b.*Me diga em qual cidade o Tiago construiu duas casas em dois meses e [island em qual cidade o Pedro construiu ___ em três meses] in which city the Pedro built ___ in three months
 (lit.) ‘Tell me in which city Tiago built two houses in two months and in which city Pedro built in three months.’

(82) Brazilian Portuguese

- a.*Essa é a pessoa que compôs duas sonatas em seis dias e aquela é [island a pessoa que compôs ___ em oito dias] this is the person that composed two sonatas in six days and that is the person that composed ___ in eight days
 (lit.) ‘This is the person who composed two sonatas in six days, and that is the person who composed in eight days.’
- b.*Essa é a pessoa que construiu duas casas em dois meses e aquela é [island a pessoa que construiu ___ em três meses] this is the person that built two houses in two months and that is the person that built ___ in three months
 (lit.) ‘This is the person who built two houses in two months, and that is the person who built in three months.’

As an illustration, consider the following two possible derivations of (82a). The derivation in (83) contains a clitic, whereas the derivation in (84) does not. Both derivations are ruled out, as desired. (83) is ruled out, as it involves clitic doubling of a non-specific indefinite. (84) is ruled out, as AE is not licensed.

- (83) ... e aquela é a pessoa que CL_[E]+compôs [DP t_{CL} ~~DP duas sonatas~~] em oito dias
- (84) ... e aquela é a pessoa que compôs ~~DP duas sonatas~~ em oito dias

Idiomatic DPs cannot be clitic doubled, either (Anagnostopoulou 1994). (85a) and (85b), which are the baseline sentences, involve clitic doubling with a referential (i.e., non-idiomatic) DP.

(85) Greek (Anagnostopoulou 1994:31-32)

- a. Otan idha tin askisi tin thimithika tin lisi
 When saw-I the exercise it.CL remembered the solution
 ‘When I saw the exercise, I remembered the solution.’
- b. O Jannis tin akouse tin dialeksi ke efige
 the John it.CL listened.to the lecture and left-he
 ‘John listened to the lecture and left.’

(86a) and (86b) both contain an idiomatic expression: in (86a), *xano ta avga ke ta pasxalia* ‘lose control’ (lit. ‘lose the eggs and the eastern devices’); in (86b), *vrika/idha ta skura* ‘I was in difficulty’ (lit. ‘I found/saw the darks’). As (86a) and (86b)

demonstrate, clitics cannot double idiomatic expressions; neither example is good under the idiomatic construal.

- (86) Greek (Anagnostopoulou 1994:31-32)
- a.*Otan idha tin askisi ta exasa ta avga ke ta pasxalia
 when saw-I the exercise CL lost-I the eggs and the eastern
 (intended) ‘When I saw the exercise, I lost my control.’
- b.*O Janis ta idheta skoura ke efig
 the John CL saw-he the.darks and left-he
 (intended) ‘John was in difficulty and he left.’

Returning to BP, consider the following examples, which contain the idiomatic expression *abotoar o paletó* ‘to die’. (87) allows the idiomatic construal, as well as the literal construal. (88), by comparison, allows only the literal construal.

- (87) Brazilian Portuguese
- O João abotoou o paletó.
 the João buttoned the jacket
 ✓ ‘João died.’ (idiomatic construal)
 ✓ ‘João buttoned his jacket.’ (literal construal)
- (88) Brazilian Portuguese
- O João abotoou o paletó. O Pedro também abotoou.
 the João buttoned the jacket the Pedro also buttoned
 * ‘João died. Pedro also died.’ (idiomatic construal)
 ✓ ‘João buttoned his jacket. Pedro also buttoned his jacket.’ (literal construal)

The absence of the idiomatic reading in (88) indicates that AE in BP cannot target idiomatic DPs. Analyses of AE in BP must accordingly explain why AE cannot target idiomatic DPs in BP. The present analysis of AE offers such an explanation. Consider the following two possible derivations of (88).

- (89) O Pedro também abotoou [~~DP o paletó~~]
- (90) O Pedro também CL_[E]+abotoou [DP *t*_{CL} [~~DP o paletó~~]]

The derivation in (89) is impossible, as ellipsis is not licensed. The derivation in (90), by contrast, is indeed possible, but only if *o paletó* ‘the jacket’ is construed non-idiomatically. The derivation is out under the idiomatic construal, as such a derivation would involve clitic doubling of an idiomatic DP, which is not possible. By contrast, under the literal interpretation of the object DP, the derivation involves clitic doubling of a referential definite DP, which is of course possible. The present analysis of AE thus predicts, correctly, that AE in BP cannot target idiomatic DPs.¹⁹

¹⁹ Various authors have argued that BP has verb-stranding VP-ellipsis (VVPE) (Cyrino & Matos 2002, 2005, Tescari Neto 2012). As such, there is a further derivation of (88) to consider: namely, the one in which the idiomatic DP is elided via VVPE.

- (i) O João abotoou o paletó. O Pedro também abotoou+T [~~VP tv o paletó~~]

The following examples provide further evidence that AE cannot target idiomatic DPs in BP. (91) and (93) contain the idiomatic expression *picar a mula* ‘to leave quickly’. (92) and (94) contain the idiomatic expression *chutar o balde* ‘to give up a task in an untimely fashion’.

- (91) Brazilian Portuguese
 A Maria picou a mula
 the Maria pricked the mule
 ✓ ‘Maria left quickly.’ (idiomatic construal)
 ✓ ‘Maria pricked the mule.’ (literal construal)
- (92) Brazilian Portuguese
 O Tiago chutou o balde.
 the Tiago kicked the pail
 ✓ ‘Tiago gave up a task in an untimely fashion.’ (idiomatic construal)
 ✓ ‘Tiago kicked the pail.’ (literal construal)
- (93) Brazilian Portuguese
 A Maria picou a mula. A Carla também picou.
 the Maria pricked the mule the Carla also pricked
 * ‘Maria left quickly. Carla also left quickly.’ (idiomatic construal)
 ✓ ‘Maria pricked the mule. Carla also pricked the mule.’ (literal construal)
- (94) Brazilian Portuguese
 O Tiago chutou o balde. O Paulo também chutou.
 the Tiago kicked the pail. the Paulo also kicked
 * ‘Tiago gave up a task in an untimely fashion. Paulo also gave up a task in an untimely fashion.’ (idiomatic construal)
 ✓ ‘Tiago kicked the pail. Paulo also kicked the pail.’ (literal construal)

As can be observed, (92) and (94) do not allow the idiomatic reading, thus providing further confirmation that AE in BP cannot target idiomatic DPs. The explanation for why AE cannot target the idiomatic DP in (88), above, carries over to (92) and (94), *mutatis mutandis*.

The present section has considered two classes of expressions that cannot be clitic doubled: non-specific indefinites and idiomatic DPs. Neither class of expressions can undergo AE, as predicted by the present analysis of AE.

VVPE overgenerates the idiomatic reading. As such, a full account of why sentences such as (88) lack the idiomatic reading must account for two things: (i) it must account for why AE cannot target idiomatic DPs, and (ii) it must account for why VVPE is unable to generate the idiomatic reading.

The analysis of AE that I propose in this paper accounts for why AE cannot target idiomatic DPs. As to why VVPE is unable to generate the idiomatic reading, this is a question that evidently lies beyond the scope of the present paper, as this paper is concerned with AE, not VVPE. See, however, Panitz (2022), who proposes that BP does not, in fact, permit VVPE.

5.3. Argument ellipsis as PF-deletion

The current analysis of AE assumes that AE in BP involves PF-deletion, not LF-copying. To see why PF-deletion is assumed, consider the following two derivations of (95), one involving PF-deletion, and the other, LF-copying.

(95) Brazilian Portuguese

A Júlia_i achou a apresentação dela_i um desastre.

the Julia found the presentation of.her a disaster

Já a Ana_j achou [_{SC} __ um grande sucesso]

but the Ana found __ a great success

‘Julia_i considered her_i presentation a disaster. But Ana_j considered her_j/v_i presentation a great success.’

(96) PF-deletion derivation:

a. Já a Ana_j achou [_{SC} [_{DP} CL_[E] [_{DP} a apresentação dela_j]] um grande sucesso] →

b. Já a Ana_j CL_[E]+achou [_{SC} [_{DP} t_{CL} [_{DP} a apresentação dela_j]] um grande sucesso] →

c. Já a Ana_j CL+achou [_{SC} [_{DP} t_{CL} [_{DP} a apresentação dela_j]] um grande sucesso]

(97) LF-copying derivation:

Overt syntax

a. Já a Ana_j achou [_{SC} CL um grande sucesso] →

b. Já a Ana_j CL+achou [_{SC} t_{CL} um grande sucesso]

LF:

c. Já a Ana_j CL+achou [_{SC} [_{DP} t_{CL} [_{DP} a apresentação dela_j]] um grande sucesso]

The PF-deletion derivation involves an illicit instance of sub-extraction. As such, the impossibility of AE in (95) is accounted for if the clitic doubling analysis is implemented in terms of PF-deletion. In the LF-copying derivation, by contrast, the doubling structure is not created until LF, when the antecedent is LF-copied into the elliptical clause (see (97c)). At the point in the derivation in which the clitic cliticizes onto the verb, the clitic is not yet within a doubling structure. As such, cliticization does not involve sub-extraction. Cliticization is therefore licit, and the LF-copying derivation thus converges, overgenerating AE.

The present analysis therefore assumes that AE in BP involves PF-deletion. In what follows, I present a supporting piece evidence for this assumption. Specifically, I utilize what is arguably the strongest test for distinguishing PF-deletion from LF-copying: namely, overt extraction from the ellipsis site. In order to overtly extract from an ellipsis site, the ellipsis site must be present in the overt syntax, which distinguishes PF-deletion from LF-copying. The ability to overtly extract material from an ellipsis site thus provides evidence in support of a PF-deletion account of AE in BP and against an LF-copying account.

Possessive pronouns in BP come in two varieties: an overt variant and a null variant.

- (98) Brazilian Portuguese (Floripi & Nunes 2009:51-52)
- a. [O João]_i conversou com [o pai dele]_i
 the João conversed with the father of.him
 ‘João spoke with his father.’
- b. [O João]_i conversou com [o pai ec]_i
 the João conversed with the father
 ‘João spoke with his father.’

The null variant differs from its overt cousin in that the former requires a local, c-commanding antecedent, whereas the latter does not.

- (99) Brazilian Portuguese (Floripi & Nunes 2009:53)
 [A Marcela]_i disse que [o André]_j ligou para [o amigo ec*_{i/√j}]
 the Marcela said that the André called to the friend
 ‘Marcela_i said that André_j called *her_{i/√j} his_j friend.’
- (100) Brazilian Portuguese
 [O Marcelo]_i disse que [o André]_j ligou para [o amigo dele]_{i/j}
 the Marcelo said that the André called to the friend of.him
 ‘Marcelo_i said that André_j called his_{i/j} friend.’
- (101) Brazilian Portuguese (Floripi & Nunes 2009:53)
 [O amigo [do João]_i]] telefonou para [a mãe ec*_{i/√j}]
 the friend of.the João called to the mother
 ‘[João_i’s friend]_j called his*_{i/√j} mother.’
- (102) Brazilian Portuguese
 [O amigo [do João]_i]] telefonou para [a mãe dele]_{i/j}
 the friend of.the João called to the mother of.him
 ‘[João_i’s friend]_j called his_{i/j} mother.’

On the basis of this and additional evidence, Floripi & Nunes (2009) argue, following Hornstein (2007), that the null variant is not a pronoun, but rather the residue of A-movement.²⁰ Under their analysis, the possessor DP is initially merged with the noun, picking up the noun’s possessor θ -role, and is then A-moved to its surface position. For instance, in a sentence such as (98b), *o João* initially merges with *pai*, thereby receiving the noun’s possessor θ -role. Subsequently, the DP raises to [Spec, ν P], where it receives ν ’s θ -role. Finally, it raises to [Spec,TP], checking T’s EPP-feature and its own Case feature.

- (103) a. [pai [o João]]
 b. [ν P [o João]_i] [ν ν [ν P conversou com [o [pai t_i]]]]
 c. [TP [o João]_i] [T’ T [ν P t_i [ν ν [ν P conversou com [o [pai t_i]]]]]]

²⁰ See, also, Floripi (2003) and Rodrigues (2004), who likewise argue for an analysis in terms of A-movement.

Under Floripi & Nunes's (2009) account, the ban on non-local antecedents and non-commanding antecedents is accounted for by the mechanics of A-movement: A-movement cannot take place across a more local A-position; nor can it target a non-commanding position.

Assuming with Floripi & Nunes (2009) that the null possessor is the residue of A-movement, consider the following example, which involves object-AE.

(104) Brazilian Portuguese

A Maria_i mostrou [a tese t_i] pro Chomsky.
 the Maria showed the thesis to.the Chomsky
 Já a Ana_j mostrou __ pro Lasnik.
 but the Ana showed __ to.the Lasnik
 'Maria_i showed her_i thesis to Chomsky. But Ana_j showed her_j thesis to Lasnik.'

The antecedent DP contains an A-trace. Parallelism demands that the elliptical DP likewise contain an A-trace. Under the present analysis, the example above is thus generated as follows. The null clitic and its associate are initially merged in a big DP structure. The clitic then cliticizes to the verb. After additional structure building, *a Maria* raises to [Spec, vP] and then to [Spec, TP]. Finally, the clitic's associate deletes at PF.

- (105) a. mostrou [DP CL_[E] [DP a tese [DP a Ana]]] pro Lanik. →
 b. CL_[E]+mostrou [DP t_{CL} [DP a tese [DP a Ana]]] pro Lanik. →
 c. [_{VP} [DP a Ana]_j [_{v'} v [_{VP} CL_[E]+mostrou [DP t_{CL} [DP a tese t_j]]] pro Lanik]]] →
 d. [TP [DP a Ana]_j [T' T [_{VP} t_j [_{v'} v [_{VP} CL_[E]+mostrou [DP t_{CL} [DP a tese t_j]]] pro Lanik]]]]] →
 e. [TP [DP a Ana]_j [T' T [_{VP} t_j [_{v'} v [_{VP} CL_[E]+mostrou [DP t_{CL} [~~DP a tese t_j~~]]] pro Lanik]]]]]

The preceding example demonstrates that overt extraction can take place from the ellipsis site via A-movement. The following example provides additional evidence that overt extraction can take place from the ellipsis site. Here, the extraction is an instance of A'-movement.

(106) Brazilian Portuguese

A: Foi [do Pelé]_i que a Maria vendeu [a foto t_i] pra mim.
 was of.the Pelé that the Maria sold the picture to me
 'It was of Pelé that Maria sold the picture to me.'
 B: Não, foi do Kaká que ela vendeu __ pra você.
 no, was of.the Kaká that she sold __ to you
 'No, it was of Kaká that she sold the picture to you.'

According to the present analysis, (106B) is generated in a manner analogous to (104), except that extraction from the ellipsis site involves A'-movement, rather than A-movement. The derivation of (106B) thus proceeds as follows. First, the null clitic and its associate are merged in a big DP structure, with the clitic then cliticizing onto the verb. Following additional structure building, *do Kaká* raises to [Spec, CP], and the

clitic's associate subsequently deletes at PF. The derivation is schematized below, with irrelevant details suppressed.

- (107) a. vendeu [DP CL_[E] [DP a foto do Kaká]] pra você
 b. CL_[E]+vendeu [DP t_{CL} [DP a foto do Kaká]] pra você
 c. [CP [do Kaká]_i que ela CL_[E]+vendeu [DP t_{CL} [DP a foto t_i]] pra você
 d. [CP [do Kaká]_i que ela CL_[E]+vendeu [DP t_{CL} [~~DP a foto t_i~~]] pra você

To summarize, the analysis of AE put forward in the present paper implements AE in terms of PF-deletion, thus predicting that overt extraction from the ellipsis site is possible. This expectation is borne out.

6. Null objects and [+human] antecedents

Consider the following pair of examples. In (108a), the null object's antecedent refers to a human (that is, the antecedent is [+human]), whereas in (108b), the antecedent refers to a non-human (that is, the antecedent is [-human]). As can be observed, the null object is possible only when its antecedent is [-human].

- (108) Brazilian Portuguese (Kato et al. 2023:267-268)
 a.*Essa atriz_i desapontou as pessoas que cumprimentaram ____i
 this actress disappointed the people that greeted ___
 'This actress disappointed the people that greeted her.'
 b. Esse livro_i desapontou as pessoas que tentaram ler ____i
 this book disappointed the people that tried read ___
 'This book disappointed the people that tried to read it.'

On the basis of minimal pairs such as (108a-b), in which the grammaticality of the null object depends upon whether the null object's antecedent is [+human] or [-human], various authors have proposed that null objects in BP cannot take [+human] antecedents (Cyrino 1997, Kato et al. 2023, inter alia).

The question arises as to whether the analysis of AE proposed in this paper accounts for this property of BP null objects. In addressing this question, it is important to bear in mind that BP has two distinct strategies for generating null objects: AE and *pro*.²¹ As such, it is important to ascertain whether both of these strategies, or only one of them, is unable to take [+human] antecedents. I will argue that *pro* cannot take [+human] antecedents, whereas AE can. I will then incorporate this conclusion into the analysis of AE proposed in this paper.

Suppose, as is proposed here, that AE can take [+human] antecedents and that *pro* cannot. This proposal predicts that null arguments with [+human] antecedents will be possible whenever it is possible to generate the null argument via AE. When AE is not possible and the only option is *pro*, [+human] antecedents will not be possible.

As shown throughout this paper, AE can target direct objects when the elided direct object takes as its antecedent the direct object in a preceding sentence. This so,

²¹ Above, I argued that *pro* is a null clitic pronoun. For presentational reasons, I will temporarily set this conclusion aside and refer to the null clitic pronoun as *pro*.

the present proposal predicts that null objects in this configuration can take a [+human] antecedent. The following sentences show that this prediction is borne out.

(109) Brazilian Portuguese

- a. O Pedro pôs [o Joãozinho]_i no sofá.
 the Pedro put the Joãozinho on.the couch
 Logo depois a Maria (foi lá e) pôs ____i na cadeira.
 soon after the Maria (went there and) put ___ on.the chair
 ‘Pedro put Joãozinho on the couch. Soon afterwards, Maria (went there and) put him on the chair.’
- b. O Pedro pôs [o filho da Clara]_i no sofá.
 the Pedro put the son of.the Clara on.the couch
 Já a Maria pôs ____i na cadeira.
 but the Maria put ___ on.the chair
 ‘Pedro put Clara’s son on the couch. But Maria put him on the chair.’
- c. A Maria apresentou [o orientando da Júlia]_i pro Chomsky.
 the Maria introduced the supervisee of.the Julia to.the Chomsky
 Já a Clara apresentou ____i pro Lasnik.
 but the Clara introduced ___ to.the Lasnik
 ‘Maria introduced Julia’s supervisee to Chomsky. But Clara introduced him to Lasnik.’

If null objects with [+human] antecedents are generated under AE, as proposed here, then such null objects are expected to permit sloppy readings. This prediction is likewise borne out.

(110) Brazilian Portuguese

- a. O Paulo_i pôs o filho dele_i no sofá.
 the Paulo put the son of.him on.the couch
 Já o João_j pôs ___ na cama
 but the João put ___ on.the bed
 ‘Paulo_i put his_i son on the couch. But João_j put his_j son on the bed.’
- b. A Maria_i apresentou a filha dela_i pro Chomsky.
 the Maria introduced the daughter of.her to.the Chomsky
 Já a Clara_j apresentou ___ pro Lasnik.
 but the Clara introduced ___ to.the Lasnik
 ‘Maria_i introduced her_i daughter to Chomsky. But Clara_j introduced her_j daughter to Lasnik.’

The present proposal generates a further prediction. According to the present proposal, AE, but not *pro*, can take [+human] antecedents. As such, [+human] antecedents will be impossible in those contexts in which *pro*, but not AE, is possible. As demonstrated above, null subjects of small clauses and null subjects of infinitival clauses can only be generated via *pro*, not via AE. As such, null subjects of small/infinitival clauses should be unable to take an [+human] antecedent. The following examples illustrate that this prediction is fulfilled. As the contrast between

the (a)-examples and the (b)-examples demonstrates, null subjects of small/infinitival clauses can only take a [-human] antecedent.²²

(111) Brazilian Portuguese

- a. A Ana achou o filme legal.
 the Ana found the film cool.
 Já a Clara achou [sc __ chato]
 but the Clara found __ annoying
 ‘Ana considered the film cool. But Clara considered it annoying.’
- b. A Maria achou o João legal.
 the Maria found the João cool
 *Já a Clara achou [sc __ chato]
 but the Clara found __ annoying
 ‘Maria considered João cool. But Clara considered him annoying.’

(112) Brazilian Portuguese

- a. A Júlia viu/deixou o quarto da Maria arrumado.
 the Julia saw/left the room of.the Maria tidy
 Já a Clara viu/deixou [sc __ bagunçado]
 but the Clara saw/left __ messy
 ‘Julia saw/left Maria’s room tidy. But Clara saw/left it messy.’
- b. A Carla viu o filho da Maria bêbado.
 the Carla saw the son of.the Maria drunk
 *Já a Ana viu [sc __ sóbrio]
 but the Ana saw __ sober
 ‘Carla saw Maria’s son drunk. But Ana saw him sober.’

²² Note, however, that the null subject in (40b), repeated here, is able to take a [+human] antecedent.

(i) Brazilian Portuguese

- A Maria_i considera o patrão dela_i de grande delicadeza.
 the Maria considers the boss of.her of big tenderness
 Já a Ana_j considera [sc __ [pp de bom coração]].
 but the Ana considers __ of good heart
 ‘Maria_i considers her_i boss very gentle. But Clara_j considers her*_{j/v}_i boss good-hearted.’

In (ii), the null subject is once again unable to take a [+human] antecedent.

(ii) Brazilian Portuguese

- A Maria_i considera o chefe dela_i um gentleman
 the Maria considers the boss her a gentleman
 *Já a Ana considera [sc __ um idiota].
 but the Ana considers __ an idiot
 ‘Maria considers her boss a gentleman. But Ana considers him an idiot.’

At present, I do not have an explanation for why the null subject in (i) is capable of taking a [+human] antecedent.

- b'. A cerveja deixou o amigo da Maria bêbado.
 the beer left the friend of.the Maria drunk
 *Já a maconha deixou [_{SC} __ drogado].
 but the marijuana left __ drugged
 'The beer left Maria's friend drunk. But the marijuana left him drugged.'

(113) Brazilian Portuguese

- a. A Maria viu aquele carro atropelar um turista.
 the Maria saw that car run.over a tourist
 Já a Clara viu [_{TP}__ atropelar um ciclista]
 but the Clara saw __run.over a cyclist
 'Maria saw that car run over a tourist. But Clara saw it run over a cyclist.'
- b. A Maria viu aquele homem atropelar um turista.
 the Maria saw that man run.over a tourist
 *Já a Clara viu [_{TP}__ atropelar um ciclista]
 but the Clara saw __run.over a cyclist
 'Maria saw that man run over a tourist. But Clara saw him run over a cyclist.'

Having observed that null arguments that are generated via AE can take [+human] antecedents, consider the claim that null arguments generated via *pro* cannot take [+human] antecedents. The sentences in (111)–(113), above, have already provided initial evidence in support of this claim. In these sentences, the null arguments are necessarily *pro* (given that AE cannot target subjects of small/infinitival clauses) and the null arguments can only take [-human] antecedents.

As further evidence that *pro* cannot take [+human] antecedents, consider (114) and (115). The ungrammaticality of the (a)-sentences indicates that *pro* is not possible in the (a)-sentences. After all, if *pro* were possible in the (a)-sentences, these sentences would be grammatical.

(114) Brazilian Portuguese (Kato et al. 2023:267-268)

- a.*Esse juiz_i não gosta que os advogados contradigam ___i
 this judge NEG like that the lawyers contradict __
 'This judge doesn't like lawyers contradicting him.'
- b. Esse brinquedo_i permite que as crianças montem ___i sem ajuda
 this toy permits that the kids assemble __ without help
 'This toy allows children to assemble it without help.'

(115) Brazilian Portuguese (Kato et al. 2023:267-268)

- a.*Essa atriz_i desapontou as pessoas que cumprimentaram ___i
 this actress disappointed the people that greeted __
 'This actress disappointed the people that greeted her.'
- b. Esse livro_i desapontou as pessoas que tentaram ler ___i
 this book disappointed the people that tried read __
 'This book disappointed the people that tried to read it.'

With regard to why *pro* is unavailable in the (a)-sentences, there are two hypotheses to consider: (i) *pro* cannot take [+human] antecedents; (ii) *pro* can indeed take [+human] antecedents. The second hypothesis entails that *pro* is excluded in the (a)-sentences for some reason not having to do with the fact that *pro*'s antecedent is [+human].

The second hypothesis is not plausible. Observe that the null object in the examples above takes the matrix subject as its antecedent. Given that there is a clause boundary separating the antecedent and the null object, *pro* should be possible here, since Principle B is satisfied. Note, moreover, that examples such as (116), repeated from above, confirm that *pro* can take the matrix subject as its antecedent.

(116) Brazilian Portuguese (Ferreira 2000:105)

Nenhum filme_i decepcionou as pessoas que foram assistir ____i
 no film deceived the people that went watch ___
 'No film, *x*, deceived the people who went to watch *x*.'

The null object in (116) is interpreted as a bound variable. As discussed above (see Section 4), the null object's interpretation as a bound variable indicates that the null object is *pro*.²³

Given that *pro* can take matrix subjects as its antecedent (provided Principle B is satisfied), the only plausible explanation for why *pro* can occur in the (b)-sentences above, but not in the (a)-sentences, is that *pro* cannot take [+human] antecedents. As will be recalled, this is a conclusion for which there is independent evidence (see (111)–(113)). I therefore conclude that *pro* cannot take [+human] antecedents.

Although *pro* cannot generally take a [+human] antecedent, there is one context in which *pro* is in fact able to take a [+human] antecedent: namely, when *pro* is a resumptive pronoun (Ferreira 2000, Kato et al. 2023).

(117) Brazilian Portuguese (Kato et al. 2023:269)

a. Esse cantor_i, eu não conheço [_{island} uma única pessoa que tenha
 this singer I NEG know a single person that has
 elogiado *pro*_i]
 praised
 'This singer, I don't know a single person who has praised him.'

b. Esse ditador_i, [_{island} os jornalistas que criticaram *pro*_i] acabaram
 this dictator the journalists that criticized ended.up
 na prisão.
 in.the prison
 'This dictator, the journalists that criticized him ended up in prison.'

²³ As expected, examples analogous to (116) become ungrammatical when the antecedent is [+human].

(i) Brazilian Portuguese

*Nenhuma atriz_i desapontou as pessoas que tentaram cumprimentar ____i
 no actress disappointed the people that tried to.greet ___
 'No actress, *x*, disappointed the people that tried to greet *x*.'

Note that the null objects in (117) occur within an island. Hence, these sentences are not generated via movement of the topic from the complement position of *elogiado* ‘praised’ / *criticaram* ‘criticized’ to the matrix [Spec,CP]. Rather, the topic is generated in the matrix [Spec,CP], from where it binds a null resumptive pronoun. These sentences thus show that *pro* can take a [+human] antecedent when *pro* is functioning resumptively. This observation will play an important role in my account of why AE can take a [+human] antecedent. I therefore begin by presenting Kato et al.’s (2023) explanation for why *pro* can take a [+human] antecedent when *pro* is functioning resumptively. With this in place, I then present my account of why AE can take [+human] antecedents.

Kato et al. (2023) propose that *pro* in BP is underspecified in that it lacks a [human] feature. They propose, furthermore, that in the absence of a [human] feature, *pro* receives a [-human] interpretation as a default interpretation, thus accounting for the fact that *pro* is generally unable to take [+human] antecedents. The default [-human] interpretation can be overridden, however. Such is the case when *pro* is a resumptive pronoun.

To see why this is so, consider (118). In sentences involving a topic, the TP that is predicated of the topic must contain a pronoun (or epithet) that is bound by the topic. Thus, the pronoun in (118) must take the topic as its antecedent; the pronoun cannot refer to some individual outside of the sentence.

(118) Brazilian Portuguese

Esse ditador_i, [_{island} os jornalistas que criticaram ele_{i/*j}] acabaram na
 this dictator the journalists that criticized him ended up in the
 prisão.
 prison
 ‘This dictator_i, the journalists that criticized him_{i/*j} ended up in prison.’

In (117a–b), then, the requirement that the topic bind a TP-internal pronoun forces *pro* to take the [+human] topic as its antecedent, thus overriding *pro*’s default interpretation as [-human].

When *pro*’s antecedent is not in topic position, *pro* cannot take a [+human] antecedent. This indicates that the default interpretation of *pro* as [-human] cannot be overridden when *pro*’s antecedent is not in topic position. To appreciate why this is so, consider the following example. As can be observed, the pronoun can, but need not, take the matrix subject as its antecedent.

(119) Brazilian Portuguese

Essa atriz_i desapontou as pessoas que cumprimentaram ela_{i/j}
 this actress disappointed the people that greeted her
 ‘This actress_i disappointed the people that greeted her_{i/j}.’

As such, nothing forces *pro* in (114a) and (115a) to take the [+human] subject as its antecedent. Thus, *pro* must receive its default [-human] interpretation, hence its inability to take the [+human] antecedent as its antecedent.

Summarizing before continuing, I have argued that AE can take [+human] antecedents and that *pro* cannot, unless *pro* is functioning resumptively. Following Kato et al. (2023), *pro* lacks a [human] feature, which generally results in *pro* receiving a [-human] interpretation as a default interpretation. The default interpretation can be

overridden, however, when some other principle of grammar requires that *pro* be interpreted as [+human]. I now incorporate the above conclusions into the analysis of AE put forward in this paper.

According to this analysis, *pro* in BP is a null clitic pronoun. I propose, in line with Kato et al.'s (2023) analysis, that the null clitic pronoun lacks a [human] feature, which results in a [-human] interpretation as a default interpretation. The null clitic is therefore unable to take [+human] antecedents in sentences such as the following.

(120) Brazilian Portuguese

A Maria achou o João_i legal.
 the Maria found the João cool
 *Já a Clara CL_i+achou [SC t_{CL} chato]
 but the Clara found annoying
 'Maria found João cool. But Clara found him annoying.'

(121) Brazilian Portuguese

*Esse juiz_i não gosta que os advogados CL_i+contradigam t_{CL}
 this judge NEG like that the lawyers contradict
 'This judge doesn't like lawyers contradicting him.'

The null clitic default's interpretation as [-human] is overridden when some principle of grammar requires this. One such instance is when the clitic is functioning resumptively. Another instance in which the clitic's default interpretation is overridden is when the clitic is in a clitic doubling configuration with a [+human] DP. Such is the case in sentences involving AE of a [+human] DP.

(122) Brazilian Portuguese

O Paulo_i pôs o filho dele_i no sofá.
 the Paulo put the son of.him on.the couch
 Já o João_j pôs ___ na cama
 but the João put ___ on.the bed
 'Paulo_i put his_i son on the couch. But João_j put his_j son on the bed.'

(123) a. Já o João_i pôs [DP CL_[E] [DP o filho dele_i]] no sofá
 b. Já o João_i CL_[E]+pôs [DP t_{CL} [DP o filho dele_i]] no sofá
 c. Já o João_i CL_[E]+pôs [DP t_{CL} ~~[DP o filho dele_i]] no sofá~~

In sentences involving clitic doubling, the clitic and its associate share a single θ -role. This, in turn, entails that the clitic and its associate refer to the same individual. Hence, if the associate refers to a [+human] individual, so too must the clitic. The null clitic's default [-human] is therefore overridden.

7. Conclusions

The present article has proposed a novel analysis of AE in BP, which brings together two existing proposals: Kato's (1993) proposal that BP has phonologically null 3rd person accusative clitics, and Bošković's (2018) clitic doubling analysis of AE. According to the analysis advanced in this article, AE in BP takes place in a clitic

doubling configuration, where the clitic is a phonologically null 3rd person accusative clitic and AE targets the clitic doubled DP.

The clitic doubling analysis accounts for a number of the properties of AE in BP, such as the inability of AE to target subject DPs. Under the proposed analysis, AE is licensed by a phonologically null accusative clitic. For case-theoretic reasons, this clitic cannot occur as the subject of a finite clause. This means that AE of subjects of finite clauses fails to be licensed and is therefore excluded. As to the inability of AE to target subjects of small clauses and subjects of infinitival clauses, AE of such subjects requires sub-extraction of the clitic from the subject of a small/infinitival clause. Crucially, sub-extraction from the subject of a small/infinitival clause is independently excluded in BP. Hence, the inability of AE to target subjects of small/infinitival clauses reduces to an independent ban on sub-extraction from subjects of small/infinitival clauses. Furthermore, the inability of AE to target non-specific indefinite DPs and idiomatic DPs reduces to the fact that such DPs cannot be clitic doubled, hence cannot be licensed for AE. Finally, the ability of AE to override the null clitic's default [-human] interpretation stems from the fact that the clitic and its associate must share a single θ -role. This requirement overrides the null clitic's default [-human] interpretation whenever the associate is [+human].

Under the clitic doubling analysis, the properties of AE in BP follow from independent properties of Case theory, sub-extraction, and clitic doubling. As such, these properties of AE need not be stipulated, nor accounted for through the introduction of additional machinery—always a welcomed result.

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