

Chapter 18

Brazilian Portuguese null objects and Spanish differential object marking

Sonia Cyrino

University of Campinas

Animacy features have been known to trigger syntactic phenomena. In this paper, I focus on differential object marking (DOM), and the null object in Brazilian Portuguese, where such features are relevant. I assume that animacy corresponds to a specification of Person features, and lack of animacy implies that no Person features are encoded in a DP. Furthermore, I propose that animacy is encoded in a dedicated functional head. Animate DPs (i.e. DOM in Spanish and animate objects in BP) move to Spec, FP_{animacy}, a projection above V, below *v*, to check a person feature. Crucially, inanimate DPs stay in situ. They are not DOM marked in Spanish and, by virtue of being low, they can be licensed as DP ellipsis in BP. This analysis may contribute to work seeking to grasp the role of referential hierarchies in syntax.

1 Introduction

The relevance of certain “semantic/relational/accessibility hierarchies” to explain a number of syntactic phenomena in several languages has been frequently noticed in the literature (Silverstein 1976; Aissen 2003, among others). In this view, nominal phrases should be ordered in accordance with “referential/accessibility” hierarchies (cf. Aissen 2003).

In this paper, following ideas in Carnie (2005) and Merchant (2006), I propose a syntactic approach to account for the role of animacy features. Under my account, animacy features trigger movement of the animate object to a position outside VP.



The paper is organized as follows: in §2, I present the syntactic phenomena under scrutiny, that is, null objects in Brazilian Portuguese and differential object marking in Spanish. In §3, I present my proposal, and in §4, I review proposals in the literature and discuss how referential hierarchies can be thought of in syntax. The conclusion is that this analysis may contribute to work seeking to grasp the role of animacy features in syntax.

2 Animacy and syntactic phenomena

There are several different syntactic phenomena where the animacy of the nominal expressions seems to be crucially relevant. In this section, I focus on null objects in Brazilian Portuguese and on differential object marking in Spanish. These are two phenomena that have been shown to be sensitive to animacy features of the object DP in these languages.

2.1 Null objects in Brazilian Portuguese

Brazilian Portuguese (hereafter, BP) allows null objects with specific properties that differentiate them from the various types of null objects allowed in other languages (Cyrino & Lopes 2016). It has long been noted (Omena 1978; Pereira 1981; Duarte 1986, among others) that the antecedent of the null object is [–animate], as in (1a) vs. (1b). However, a full pronoun is usually needed when the antecedent is an inanimate DP with a specific reading (2a), or when it is animate (2b):

(1) Brazilian Portuguese

- a. A estudante levou o livro para a biblioteca depois que ela
the student took the book to the library after that she
leu \emptyset .
read
'The student took the book to the library after she read (it).'
- b. *A estudante levou o menino para o cinema depois que ela
the student took the boy to the cinema after that she
beijou \emptyset .
kissed

(2) Brazilian Portuguese

- a. A estudante levou um livro para a biblioteca depois que ela leu
 the student took a book to the library after that she read
 (ele)

it

‘The student took a (specific) book to the library after she read (it).’

- b. A estudante levou um menino para o cinema depois que ela
 the student took a boy to the cinema after that she
 beijou ele.

kissed him

‘The student took a (specific) boy to the cinema after she kissed him.’

Besides this sensitivity to animacy,¹ anaphoric null objects in BP, such as (1a) have a cluster of properties that set them apart from the null objects of other languages (see Cyrino & Lopes 2016). First, they may occur in islands for movement, unlike in European Portuguese (Raposo 1986) or Chinese (Huang 1984). Additionally, they do not allow their antecedents to be the subject of the matrix sentence, unlike in Japanese (Ohara 2007). Finally, they allow strict and sloppy readings, a property related to the possibility of ellipsis (Fiengo & May 1984, among others): sentence (3) is ambiguous: in the strict reading Pedro’s friend left Pedro’s car in the street; in the sloppy reading, however, Pedro’s friend left his (own) car in the street.²

(3) Brazilian Portuguese

Pedro guardou um carro na garagem, mas seu amigo deixou \emptyset na
 Pedro put a car in.the garage but his friend left in.the
 rua.

street

‘Pedro put a car in the garage, but his friend left (it) in the street.’

¹There is sensitivity to specificity as well, as seen in examples (1–2). I will come back to this issue in §3.

²BP is a language that allows vP (V-stranding) ellipsis, in which case the verb is the same in both clauses (i) (see Cyrino & Matos 2005 for a distinction between vP ellipsis and null objects in Portuguese):

- (i) Pedro escondeu seu dinheiro no armário, e sua mãe também escondeu ____.

Pedro hid his money in.the closet and his mother too hid

‘Pedro hid his money in the closet and his mother did too.’

In order to exclude the possibility for a vP ellipsis analysis of this sentence, a different verb (*guardou* ‘put/kept’, *deixou* ‘left’) is used in each clause in (3), and a PP is present to show that only the object, and not the whole vP, is elided.

Because of these properties, null objects have been analyzed as DP ellipsis by Cyrino (1994; 1997), that is, as inaudible DPs that have identical antecedents. This analysis is based on the fact that Brazilian Portuguese (BP) lost third person clitics; in other words, these anaphoric elements were replaced by ellipsis due to a diachronic process relating the increase of certain kinds of ellipsis (see below) to the loss of third person (inanimate) clitics.

European Portuguese, a language to which BP is diachronically related, has always allowed the construction seen in (4), which was dubbed as “propositional ellipsis” by Cyrino (1994; 1997). In this construction, the elided sequence may be replaced by a neuter clitic *o* ‘it’, as in (5). Interestingly (4), as opposed to (5), is grammatical in contemporary BP:

- (4) ✓ European Portuguese, ✓ Brazilian Portuguese
Pedro vai casar amanhã mas Maria não sabe \emptyset .
Pedro go marry tomorrow but Maria not know
‘Pedro is going to get married tomorrow but Mary doesn’t know (that Pedro is going to marry tomorrow / it).’
- (5) ✓ European Portuguese, ✗ Brazilian Portuguese
Pedro vai casar amanhã mas Maria não o sabe.
Pedro go marry tomorrow but Maria not it know
‘Pedro is going to get married tomorrow but Mary doesn’t know it.’

Given these facts, Cyrino (1994; 1997) argues that in European Portuguese there has always been a free choice between the use of propositional ellipsis or the neuter clitic *o* in its place. The author shows that, indeed, there are no changes through time in these constructions in the European Portuguese diachronic data she investigated.

In contrast to European Portuguese, however, the BP diachronic data investigated by Cyrino show an important change in the occurrence of these constructions. She found there is an increase for the ellipsis option, and a decrease in the use of the neuter clitic, as seen in Figure 18.1.

Cyrino (1994; 1997) proposes that there was an extension of the ellipsis construction to other inanimate objects; therefore, the null object in BP has appeared with a property that is characteristic of ellipsis, namely, the strict/sloppy ambiguity seen above.

With respect to ellipsis, it has been argued in the literature it must be licensed by a functional head (Lobeck 1995; Kester 1996). In English, for example, *vP* ellipsis is licensed by *T*, which has to be filled either with certain auxiliaries or lexical *be/have* (Lobeck 1995). This allows an elided *vP* sequence to be possible.

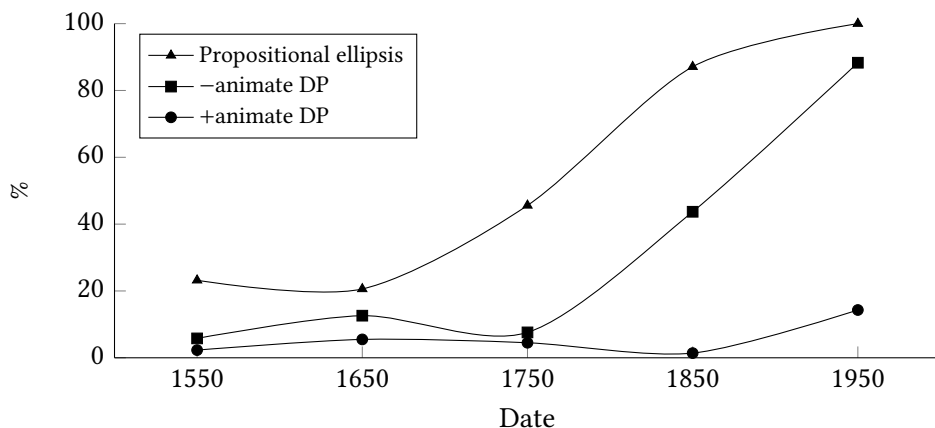


Figure 18.1: Diachronic change for DP ellipsis (null objects) and propositional ellipsis (adapted from Cyrino 1994; 1997)

Portuguese has V-raising, therefore, not only auxiliaries, but also lexical verbs license ν P ellipsis, since they move up to T (Matos 1992; Cyrino & Matos 2002). This kind of ν P ellipsis has been called V-stranding ellipsis (Santos 2009, Goldberg 2005) since the (auxiliary, lexical) V is stranded in T and the remaining ν P is elided.

BP, however, has lost verb movement to a high functional projection (T) (Galves 2001), and ν P ellipsis is licensed by V in an Aspectual head (Cyrino & Matos 2002; 2005; Cyrino 2010; 2013), that I assume in this paper is AspectOuter (MacDonald 2008).

As a consequence, both ν P ellipsis and DP ellipsis (null objects) can be licensed, since they are c-commanded by V in a functional projection (lower than T), contrary to what happens in European Portuguese (see Cyrino & Matos 2016):

(6) Brazilian Portuguese ν P ellipsis

- a. Ela tem lido o livro para as crianças e ele tem também lido \emptyset .
She has read the book to the children and he has too read
'She has read the book to the children and he has too.'
- b. [... o livro para as crianças ...] ... ele [_T tem] [_{VP}AUX (tem)] [_{AdvP} [Adv também] [_{Asp} PerfP lido [_{VP} \emptyset -livro para as crianças]]]

Cyrino (2016), based on Cyrino & Matos (2005), proposes that the same licensing mechanism is available for the null object in BP. The difference with ν P ellipsis is that DP ellipsis of the object is licensed by the V in a lower aspectual head

located between *vP* and *VP*, *AspectInner* (MacDonald 2008; but see Lopes 2014; 2015, for a more recent proposal on “low ellipses” for the null object in BP):

(7) Brazilian Portuguese null object

- a. Ela tem lido o livro para as crianças e ele tem também lido
 She has read the book to the children and he has too read
 para as mães.
 to the mothers
 ‘She has read the book to the children and he has also read it to the mothers.’
- b. [[... o livro para as crianças ...] ... ele [_T tem] [_{VP}AUX <tem>] [_{AdvP} [_{Adv} também] [_{Asp} PerfP lido [_{vP} [_{AspInn} [_{AspInn+V} <lido>] [_{vP} <V>] [_{DP} o livro] para as mães]]]]

However, as shown by Cyrino (1994; 1997), BP animate null objects are possible in certain contexts:

(a) a *vP* ellipsis (V-stranding ellipsis) structure, where the whole *vP* is elided:

(8) Brazilian Portuguese

Lina disse que a Maria beijou o Pedro_i na festa, e o
 Lina said that the Maria kissed the Pedro at-the party and the
 Paulo também disse que ela beijou ∅.
 Paulo too said that she kissed
 ‘Lina said that Maria kissed Pedro at the party, and Paulo said that she also did it.’

(b) The antecedent is a bare plural or a non-specific indefinite:

(9) Brazilian Portuguese

Os tiras insultavam [presos / uns presos]_i e depois
 the cops insulted prisoners some prisoners and afterwards
 prendiam ____i / *eles_i
 locked up them
 ‘The cops insulted prisoners/some prisoners and afterwards locked (them) up.’

These animate null objects only occur in these specific structures, whereas the inanimate null object has no such restrictions.

Assuming that inanimate null objects in BP are ellipsis, however, cannot be the full story since we have to explain why their antecedents are [–animate], as seen in (1) and (2). I come back to this issue in §3.

2.2 Differential object marking

Certain accusative objects are marked (either morphologically or by a preposition) in some languages when the object is [+animate] (and/or specific in some cases, see below). This phenomenon has been called differential object marking (hereafter, DOM).

Spanish is such a language: DOM is manifested in the use of the preposition *a* ‘to’ (which also marks datives) before animate objects:

(10) Spanish

- | | |
|------------------------------------|------------------------------------|
| a. He visto *(a) tu padre . | b. He visto *(a) tu coche . |
| have seen to your father | have seen to your car |
| ‘I saw your father.’ | ‘I saw your car.’ |

Although specificity/definiteness (Leonetti 2004; López 2012, among others) has been said to be involved in DOM, animacy is still the most relevant feature for this phenomenon since, as pointed out by Rodríguez-Mondoñedo (2007), all animate indefinites (along with personal pronouns and proper names) require DOM, (11) and (12) (see Rodríguez-Mondoñedo 2007):

(11) Spanish

- | |
|--|
| a. Vi *(a) alguien en el parque. |
| saw to somebody in the park. |
| ‘I saw somebody in the park.’ |
| b. No vi *(a) nadie en el parque. |
| No saw to nobody in the park |
| ‘I saw nobody in the park.’ |

(12) Spanish

- | |
|--|
| a. Vi *(a) algo en el parque. |
| saw to something in the park |
| ‘I saw something in the park.’ |
| b. No vi *(a) nada en el parque |
| No saw to nothing in the park |
| ‘I saw nothing in the park.’ |

Several recent studies have proposed that DOM is the result of DP movement to a position outside vP driven by Case requirements (Torrego 1998; Rodríguez-Mondoñedo 2007; López 2012; Ormazabal & Romero 2013; Zdrojewski 2013; Ordóñez & Roca 2019). The first three analyses have in common the fact that they associate DOM to a special configuration. However, each one presents a different proposal for that configuration, as seen below:

- (13) Torrego (1998)
 $[_{vP} \text{DOM} [_v \text{external argument (EA)} [_v v [_{VP} V \text{DOM}]]]]$
- (14) Rodríguez-Mondoñedo (2007)
 $[_{\text{DatP}} a\text{-DO} [_{\text{Dat}} \text{DAT} [_{vP} \text{DOM} [_v v [_{VP} V \text{DOM}]]]]]]$
- (15) López (2012)
 $[_{vP} \text{EA} [_v v [_{\alpha P} (a)\text{-DO} [_{\alpha} \text{IO} [_{\alpha} \alpha [_{VP} V \text{DOM}]]]]]]]]$

The structures in (4–6) show some differences: (i) in the projection to which the marked direct object moves, and (ii) on the nature of that projection.³ For Torrego (1998), the DOM object sits in the second specifier of a vP projection that introduces the EA. Rodríguez-Mondoñedo (2007) does not refer explicitly to specific position for the external argument, but López (2012) argues that DOM objects are lower than external arguments, and they move to a dedicated head between vP and VP . This, according to him, explains the contrast one finds in (16), where the DOM object does not c-command the external argument.

- (16) Spanish
- a. *Ayer no atacó su_i propio padre a ningún_i niño.
 yesterday not attacked his own father to no child
 intended: ‘Yesterday no father attacked his own child.’
- b. Ayer no atacó ningún_i padre a su_i propio niño.
 yesterday not attacked no father to his own child
 ‘Yesterday, no father attacked his own child.’

López assumes that postverbal subjects in Spanish stay *in situ*. In (16a), the possessive pronoun cannot have a bound reading, triggered by the negative DP inside

³As for the nature of the projection to which the DOM object moves to, the proposals also differ. For Torrego, *a* is itself a head that has nominal properties. Rodríguez-Mondoñedo claims *a* is not present in syntax and it simply reflects Case at a morphophonological level. López assumes that *a* is in a head *K* that selects for the direct object, and Spell Out rules will dictate whether the head is pronounced or not. In other words, for López *a* is one of the possible options for the pronunciation of the head *K* that dominates the DP.

the direct object. In (16b), the external argument c-commands the DOM object and, therefore, the bound reading is possible.

In what follows, I briefly review the proposals that make reference to the role of animacy and specificity.

Rodríguez-Mondoñedo (2007) assumes that *a* is the spell out of Dative Case and has Person features. Crucially, he assumes *v*P is the projection of a head that only has Number features and because of the lack of Person, it cannot check Case. Therefore, personal pronouns, definite and animate DPs and indefinite human DPs move to spec *v*P, but since they cannot check Case because *v* lacks [Person] features, they have to move up to the specifier of DativeP, where Case can be checked because of the presence of relevant Number and Person features – that is where they get the mark *a*. Non-DOM objects (non-specific inanimate DPs) get Accusative Case in the specifier of *v*P because they crucially only have Number features and do not have Person features. Their (Number) features can be checked in Spec*v*P.

López (2012), however, proposes an α P projection that seems to integrate Rodríguez-Mondoñedo's DatP and the aspectual head proposed by Torrego (1998). He suggests that this projection is used to define the aspectual structure of the verb. Besides that, he proposes that direct objects come in two classes: simple DPs and complex DPs. The latter are selected by a head K: they will be a KP structure and will be marked by *a*: [_{KP} *a* [_{DP}]]. These two classes of objects have different semantic interpretations. Unmarked objects are predicates, $\langle e, t \rangle$ type, and undergo incorporation with the verb. The effect is a restriction of the verbal predicate followed by *existential closure*:

(17) [_{VP} [_v comer] [_{D/N/NumP} patatas]]

However, the head K is a semantic function that takes an object of the type $\langle e, t \rangle$ and produces $\langle e \rangle$, an individual. Therefore, KP, which is not $\langle e, t \rangle$, cannot occur as the complement of a verb. The unmarked object $\langle e, t \rangle$ can incorporate to satisfy its Case, whereas KP, in order to get Case, is merged with Spec α P, a position which is selected by *v*P:

(18) [_{vP} *v* [_{α P} KP [_{α} α VP]]]

It is interesting to notice that, in López's proposal, both animate and inanimate objects could be in Spec α P, but not all of them would be *a*-marked. In his proposal the position is not responsible for the *a*-marking. For López, *a*-marking occurs as a consequence of Spell Out rules that make reference to the KP context (properties of the DP, the NP, and the thematic and aspectual properties of the

verb). He proposes that there is no direct mapping between syntax and semantics, but a pairing between syntactic positions and different modes of semantics composition. Specificity effects are the by-product of both the scrambling of the direct object to a position above its base position and the semantic operation of *choice function*. For López αP is, thus, a projection identified with a cluster of aspectual and applicative properties and it will be the correct context for K (in KP) to be realized as *a* provided that other conditions including animacy are also satisfied.

Ormazabal & Romero (2013) investigate DOM and its relation with object clitics in some varieties of Spanish. They assume that object agreement and Case assignment are linked and that there is only one position available for their morphological expression. They propose a structure as (19):


(19) $[_{vP} [_{DP} a \text{ los niños}] [_v EA [_v v [_{VP} V [_{DP} \text{ los niños}]]]]]]$

A [+animate] DP must be licensed by agreement. Therefore, it must move to Spec, vP . *A*-marking is the result of this checking relation. Indefinite and [-animate] DPs are not *a*-marked because they incorporate. Crucially, the authors assume that the dative clitic *le* is object agreement marking in *v*. Therefore, when there is an *a*-marked object (*a* is an agreement marking), the DOM object competes with the dative clitic for the same position. This explains the contrast in (20):

(20) Spanish

- a. *Le enviaron a todos los heridos a la doctora.
 CL sent.PL to all.PL the.PL wounded.PL to the doctor
- b. Le enviaron todos los heridos a la doctora.
 CL sent.PL all.PL the.PL wounded.PL to the doctor
 ‘They sent all the wounded to the doctor.’

Ordóñez & Roca (2019) also assume DOM involves an extra functional projection that is responsible for a checking relation necessary for certain objects. They assume Kayne’s (2005) proposal of prepositions as probes, and they consider *a* is a preposition that is inserted in the derivation:

(21) $[_{vP} [_{v'} [v [\text{accusative}]] [_{\alpha P} KP [\text{uCase}]] [_{\alpha'} \alpha [_{VP} V KP]]]]]]$


The crucial assumption for Ordóñez & Roca is that, contrary to English, Spanish *v* does not license [+animate, +specific] DPs; consequently DOM objects cannot

stay in situ: Spanish has an extra mechanism for object licensing: the preposition *a* is crucially present in the numeration. Additionally, the derivation has the same steps as causatives in French; in other words, all transitive constructions in Spanish bearing an animate or specific object such as (22) will have the operations in (23):

(22) *Vimos a María*

(23) a. ... [_{VP} *v* [_{VP} *vimos* [_{DP} *María*]]] DP [+anim, +spec]

b. Merge of *a*

... *a* [_{VP} *v* [_{VP} *vimos* [_{DP} *María*]]]

c. Movement to Spec

... [_{aP} [*María*]_i *a* [_{VP} *v* [_{VP} *vimos* [_t]_i]]]

d. Merge of *W*

... *W* [_{aP} [*María*]_i α [_{VP} *v* [_{VP} *vimos* [_t]_i]]]

e. Head raising

... [_{a_j+W}] [_{aP} [*María*]_i *t_j* [_{VP} *v* [_{VP} *vimos* [_t]_i]]]

f. Remnant movement

... [_{WP} [_{VP} *v* [_{VP} *vimos* [_t]_i]]]_k [_{a_j+W}] [_{aP} [*María*]_i *t_j* *t_k*]

In sum, different authors assume different positions with respect to the specific Case *a* is encoding, Dative or Accusative. All of them, however, assume that the DOM object is in a higher position than the unmarked object. In other words, it seems that there is a consensus in that inanimate DPs remain in situ.

2.3 Are null objects in BP instances of DOM?

Interestingly, as seen above, sensitivity to animacy (and specificity) is a well-known characteristic of DOM. A natural question is then: can overt vs. null objects in BP be an effect of differentially marking the object in the language? Indeed, there have been previous accounts relating BP to Spanish DOM.

Within a functionalist framework, Schwenter & Silva (2002) and Schwenter (2006) have claimed that the null object/full pronoun pattern found in BP is reminiscent of DOM in Spanish. They notice that full pronouns in BP might be comparable to DOM objects in Spanish since both are likely to be [+animate, +specific] while also receiving morphological marking (*a* in Spanish, full pronoun in BP). On the other hand, as seen above, anaphoric null objects in BP are likely to be [−animate, −specific], just like the bare objects (i.e. those without *a*) in Spanish.

Yet, there might appear to be a problem with this understanding of DOM and BP overt vs. null objects. If the latter correspond to the unmarked form, it is

unclear why they may have the “Spanish DOM requirement” of being *specific*⁴ (even in the absence of animacy).⁵

This observation however does not invalidate the connection with DOM. It rather shows that, within Romance, BP is more similar to languages like Romanian than Spanish in that, descriptively, two conditions must be simultaneously met for differential marking: [+animate] and [+specific] (Farkas 1985; Dobrovie-Sorin 1994; Irimia & Cyrino 2015, among others). The presence of only one of these “features” is not normally enough to trigger DOM in Romanian, while it might do so in Spanish more frequently. For example, as shown by Irimia & Cyrino (2015; in preparation), in Romanian animates do not obligatorily have differential marking; animates can be used without DOM, if interpreted non-specific, as shown in (24a), just like null objects in BP. In Spanish animates, as seen above, require DOM in non-intensional contexts, regardless of specificity (see also López 2012; Leonetti 2008, among others), as can be seen in (25):⁶

(24) Romanian

- a. Ion a văzut un om.
 John AUX.3SG.PRS.INDIC seen a.M.SG man
 ‘John saw a man.’
- b. Ion l-a văzut pe un om.
 John CL.3SG.M-AUX.3SG.PRS.INDIC seen DOM a.M.SG man
 ‘John saw a specific man.’

⁴This does not automatically imply that DOM objects in Spanish must always be [+specific]. The problem seems to arise from the tendency (in many descriptive, and also more formal accounts) to obligatorily connect DOM with “specificity”. However, as discussed in the more recent literature, there are certain syntactic contexts where objects which cannot be understood in terms of specificity are nevertheless DOM marked (e.g., negative quantifiers, clause union configurations, etc.). What seems to unite DOM is rather a *syntactic configuration* (López 2012), and not necessarily descriptions in terms of “specificity”.

⁵But recall, from (9), that non-specific animate null objects are possible in BP, and as also shown by Cyrino (1994; 1997). I will come back to these cases in §3.

⁶Also, inanimates do not easily accept differential marking in Romanian, even if interpreted specifically, demonstrating that specificity is not what triggers DOM. Clause-union contexts of the type in (i) generally require DOM in Spanish (see López 2012, among others):

- (i) Romanian
 Au văzut (*pe) niște avioane căzând.
 AUX.3PL.PRS.INDIC seen DOM some planes fall.GER
 ‘They saw planes falling from the sky.’

- (25) Spanish
 Juan vió *(a) un hombre.
 John see.PST.3SG DOM a.M.SG man
 ‘John saw a man.’

If null objects in BP are DP ellipsis licensed by the lexical V in AspInn, and unrestricted null objects are only possible when the antecedent is [–animate], the impossibility of restricted null objects has to be linked to the fact that DP ellipsis is not licensed. The question is thus: why are animate objects not licensed under ellipsis? The answer must reside in the syntactic composition strategies available for categories like “animacy”. In other words, if animate objects move to a higher position (as in DOM) they cannot be elided since they will not be licensed by V in AspInn.

3 Animacy in syntax

The discussion above shows that animacy is relevant for syntactic phenomena in BP and Spanish. In this section, I advance a proposal to account for null objects in BP and its relation to DOM.

In a nutshell, I propose, following Richards (2008), that [±Person] features are inherent to different nominals. Animacy in syntax can be implemented as the result of the movement of a [+Person] or [–Person] DP to the specifier of functional category (call it $F_{[Person]}$) that has an uninterpretable ($[uPerson]$), probably to value Case (see also Ordóñez & Roca 2019). DPs that are [–animate] (i.e. those that are Person-less) and non-specific do not move out of vP , since they are φ -incomplete, and they value Case in-situ (by the φ -incomplete probe v , as in Rodríguez-Mondoñedo 2007).

Richards (2008: 140) proposes that Person is an exclusive (syntactic) property of animate (and definite) nominals: a person specification on indefinites and inanimates is redundant, since these DPs will always be third person, and thus would plausibly be left unspecified, as seen in Table 18.1.

According to Richards, indefinites and inanimates will bear only number (and gender) features D; they are thus “defective” in the agreement system (in the sense of Chomsky 2001). Given that Bare Nouns are always inherently third-person, Richards assumes that Person is a property of the category D, not N. Bare plurals lack D, so they are “Person-less”. First and second person pronouns will always be DPs, whereas third person nominals may be either DPs or NPs, depending on whether their Person feature is syntactically specified or not (e.g.

Table 18.1: Reverberations of the “Person” feature in syntax (adapted from Richards 2008)

	Person–animacy		Person–definiteness	
	Animate	Inanimate	Definite	Indefinite
1	✓	✗	✓	✗
2	✓	✗	✓	✗
3	✓	✓	✓	✓

bare plurals are NPs in his proposal). He assumes that “if indefinites and inanimates lack Person (as claimed above), then this equates syntactically to their lacking a DP structure – that is, they are bare NPs” (Richards 2008: 140).

Therefore, animacy in syntax is the result of [\pm Person] feature checking.⁷ Richards examines “prominence scales” proposed in the functionalist literature and translates their effects into feature checking. In his account, the presence or absence of features as Person provide a syntactic basis for various phenomena: (i) a Person specification implies an animate interpretation at the interface; for example, agreement restrictions in the person case constraint phenomenon; (ii) a Person-less probe may assign (value) a different Case from its nondefective [$+$ Person] counterpart in the Probe–Goal–Agree system of Chomsky 2001 (this would be the case of DOM); (iii) the extended projection principle (EPP)-feature of a probe may be associated with the entire probe (i.e. Person + Number) or else with just the Person feature of the probe, yielding differential argument movements (object shift would be a case in point). The author assumed that, besides unvalued features, there is an EPP feature on the probe. This is to justify that *v* only probes for Person.

I concentrate on the fact that [Person] is a relevant feature for animacy (and leave definiteness and specificity for now, but see Irimia & Cyrino 2015, in progress, and below). Thus, I assume animacy as related to the need of checking [\pm Person] in syntax. Differently from Richards, I assume that Bare Plurals are defective and lack person in D, and inanimate DPs have a “Person-less” D. In other words, [\pm Person] is encoded in D, but lack of Person features does not entail lack of D, since D will still have other features as Number, Gender.⁸

⁷In Richard’s system, as can be seen in Table 18.1, definites also have a Person feature. Although definiteness/specificity has been related to null objects in BP and DOM in Spanish, the role of Person in the construction of definiteness will not be examined in detail in this paper. See below the discussion on this issue.

⁸Number is actually encoded in D in BP, even in a null D, see Cyrino & Espinal (2015).

Table 18.2 summarizes my proposal.⁹

Table 18.2: Animacy and Person features (Cyrino 2016)

First/Second person	[+Person]
Third person animate	[−Person]
Third person inanimate/bare plurals	“Person-less”

Transitive *vs* in BP, as in Spanish (Rodríguez-Mondoñedo 2007; Ordóñez & Roca 2019), do not have [Person] features, and they are φ -incomplete. Case is only valued for matching DPs, *vs* are not able to value Case in animate DPs, because the latter are φ -complete. Therefore, they have to move to value Case.

A functional head (call it $F_{[Person]}$) located below νP and above $AspInn$ is able to value Case to those DPs that match that feature. Therefore, the effects of animacy in syntax comes from the movement of a [+Person] or a [−Person] DP to the specifier of a functional category that has [Person].

In sum, [−animate] (i.e. Person-less) DPs do not move out of νP , they are φ -incomplete, and have Case valued by the φ -incomplete probe ν (as in Rodríguez-Mondoñedo 2007). On the other hand, [+animate] (i.e. [+Person] or [−Person]) DPs are φ -complete, so they move to the specifier of $F_{[Person]}$ to value Case.

The behavior of BP null *vs*. overt objects seen in (26) can be understood as the possibility for $AspInn$ to license ellipsis, something only possible for inanimate objects since they stay in situ, as seen in the structure in (27):

(26) Brazilian Portuguese

- a. O estudante levou o livro para a biblioteca depois que leu \emptyset .
The student took the book to the library after that read
'Pedro took the book to the library after he read (it).'
- b. *O estudante levou o menino para casa depois que o
the student took the boy to house after that the
professor expulsou \emptyset .
teacher expelled

⁹A reviewer asks why third person animates are treated as [−Person], since it would be equally feasible to have first/second person as [+participant, +person], and animate third person as [+person]. I think the problem with that is that there would be a redundancy for first and second person, since participants are necessarily [+person]. In my system it is clearer that the third person is the “non-person”, as has been suggested in the linguistic literature many times.

- (27) v [_{AspInnP} [_{V+Asp} leu [_{VP} ⟨V⟩ \emptyset -livro]]]
└──────────────────┘↑
ellipsis licensing

In Spanish, these DPs are not DOM-marked, as shown by Rodríguez-Mondoñedo (2007).

Animate DPs, with some exceptions, cannot be null; the object has to be spelled out as a full pronoun, exemplified by *ele* in (28). Animate DPs are [−Person]; therefore, they move out of *vP* to Spec, F_[Person] (= DOM movement) and value Case.

- (28) Brazilian Portuguese

O estudante levou o menino para casa depois que o professor
 the student took the boy to house after that the teacher
 expulsou **ele**.
 expelled him

‘The student took the boy home after the teacher expelled him.’

- (29) [v [_{F[Person]P} **ele**_[−Person] F_[Person] [_{AspInnP} [_{V+AspInn} expulsou [V
 ⟨**ele**_[−Person]⟩]]]]]]

Notice that a full pronoun, such as *ele* in (16a) above and *ela* in (30) below, can also refer to a [−animate] antecedent; this indicates there is a Person-less pronoun in BP (like *it* in English):

- (30) Brazilian Portuguese

O tira puxou [a arma]_i e depois escondeu ____i ela_i
 the cop drew the gun and afterwards hid it
 it

‘The cop draw the gun and afterwards hid it.’

Interestingly, the inanimate full pronoun has a distinct distribution from its animate counterpart, as shown by Galves (2001):

- (a) Inanimate full pronouns (31a) cannot occur in a short answer as opposed to the animate ones (31b):

- (31) Brazilian Portuguese

- a. Q: O que você deixou em casa? A: *Ele.
 The what you left at home It
 ‘What did you leave at home?’

- b. Q: Quem você deixou em casa? A: Ele.
 Who you left at home him
 ‘Who did you leave at home?’ – ‘Him.’

(b) Inanimate full pronouns (32a) cannot occur in contrastive focus, as opposed to the animate pronouns (32b):

(32) Brazilian Portuguese

- a. *Eu vi ele (e não ela) (o livro e não a revista).
 I saw it-M and not it-F the book and not the magazine
- b. Eu vi ele (e não ela) (o João e não a Maria).
 I saw him and not her the João and not the Maria
 ‘I saw him (and not her) (João and not Maria).’

Irimia & Cyrino (2015; in preparation) show that there is a crucial difference between overt pronouns in BP in terms of their specificity features. Comparing the overt pronouns in BP, which are the correspondent of DOM-marked objects in Romanian, the authors show that, although López (2012), as seen above, proposes DOM objects are outside νP but below ν , there must be other positions for DOM. Specific DOM-objects in BP (i.e. the animate/inanimate overt pronouns) and in Romanian (*pe*-marked DPs) must be interpreted above νP .

(33) ... DO.DOM [νP EA [$_{\alpha\text{P}}$ ~~DO.DOM~~ α [ν V $\langle\text{DO}\rangle$]]]

Irimia & Cyrino base their observation on wide/narrow scope interpretation of indefinite objects in the scope of modal adjectives. Romanian (34) and BP (35) are alike in that “DOM-marked” objects (i.e. *pe*-marked DPs in Romanian and overt animate/inanimate pronouns in BP) are interpreted as being outside the quantificational domain of modal adjectives (i.e. outside νP), and thus they do not allow narrow scope:¹⁰

¹⁰Inanimate null objects in BP, however, allow both wide and narrow scope (ia), since they are inside νP ; animate null objects are possible only if non-specific, as shown by the impossibility of wide scope (ib), which shows they do not move:

- (i) a. Pedro considera um livro necessário (para o projeto) e vai comprar \emptyset .
 Pedro considers a book necessary for the project and go buy
 a book » necessary; necessary » a book
- b. Pedro considera um estudante necessário (para o projeto) e vai contratar \emptyset .
 Pedro considers a student necessary for the project and go hire
 *a student » necessary; necessary » a student

This shows, as expected, that in order for the null object to be licensed (as DP ellipsis, with

(34) Romanian

- a. Consideră **o studentă** necesară (pentru un proiect).
consider a student.F.SG necessary.F.SG for a project)
a student > consider; consider > a student
- b. (O) consideră **pe o studentă** necesară.
CL.3SG.F.ACC considers DOM a student.F.SG necessary.F.SG
a student > consider; *consider > a student

(35) Brazilian Portuguese

- a. Pedro considera um estudante necessário (para o projeto) e vai
Pedro considers a student necessary for the project and go
contratar **ele**.
hire him
a student > necessary; *necessary > a student
- b. Pedro considera um livro necessário (para o projeto) e vai
Pedro considers a book necessary for the project and go
comprar **ele**.
buy it
a book > necessary; *necessary > a book

These facts show that, since specific indefinites with overt pronouns as well as animates in BP do not allow a narrow scope reading, they must be outside *vP*. Thus BP is similar to Romanian, but different from Spanish with respect to how specificity interacts with animacy for DOM.

A final question I have to answer in this section is: what about bare plural antecedents for null objects in BP? As seen above, animate and inanimate null objects are possible in BP if the antecedent is a bare plural (36–37) and not when it is a full DP (36b):

V raising to AspInn), it must be inside VP, and null objects allow wide scope for inanimate antecedents only. This scenario is expected as BP (inanimate) indefinites appear to be quantificational like the Romanian ones, and thus can get a specific interpretation in a quantificational position above VP but below *vP* as argued by Irimia & Cyrino (2015; in preparation). Crucially, the nature and positions of “specificity” readings with quantificational indefinites are different than those of “specificity” with DOM (see also López 2012 for conclusions in the same direction). Thus, it appears that there are at least two “specificity” positions in Romanian and BP – one inside *vP* (but above VP), which is quantificational and allows reconstruction in Diesing’s (1992) and May’s (1985) terms, and another one, outside *vP* (which is argumental, can host differential marking, and does not allow reconstruction) (see Irimia & Cyrino 2015; in preparation).

(36) *Brazilian Portuguese*

- a. Os tiras insultavam [presos]_i e depois prendiam _____i /
 the cops insulted prisoners and afterwards locked up
 *eles_i
 them
 ‘The cops insulted prisoners and afterwards locked (them) up.’
- b. Os tiras insultavam [os presos]_i e depois prendiam * _____i
 the cops insulted the prisoners and afterwards locked up
 / eles_i
 them
 ‘The cops insulted the prisoners and afterwards locked them up.’

(37) *Brazilian Portuguese*

- Os tiras puxavam [armas]_i e depois escondiam _____i / *elas_i
 the cops drew guns and afterwards hid them
 ‘The cops drew guns and afterwards hid (them).’

Interestingly, notice that bare plurals are non-specific and, as seen in Table 18.2, they are Personless. Therefore, they always stay in situ, and null objects are always allowed for those antecedents, as seen in the structures in (38):

- (38) a. v [_{AspInnP} [_{V+Asp} insultavam [_{VP} ⟨V⟩ presos]]]
 \uparrow
 ellipsis licensing
- b. v [_{AspInnP} [_{V+Asp} puxavam [_{VP} ⟨V⟩ armas]]]
 \uparrow
 ellipsis licensing

Other possible animate null objects, seen above in (22), repeated here as (39a), are not really DP ellipsis, since they occur as the result of verbal (“V-stranding”) ellipsis. In those cases, the V in AspOuter licenses vP ellipsis in BP. See the simplified structure in (39b) (see also Cyrino 2013; Reintges & Cyrino 2016):

(39) *Brazilian Portuguese*

- a. Lina disse que a Maria beijou o Pedro_i na festa, e o Paulo
 Lina said that the Maria kissed the Pedro at-the party and the Paulo
 também disse que ela beijou \emptyset .
 too said that she kissed
 ‘Lina said that Maria kissed Pedro at the party, and Paulo said that she also did it.’

- b. [... beijou o Pedro na festa ...] ... ela [AdvP [Adv também] [AspOuter
beijou [_{vP} \ominus Pedro na festa]]]

In sum, I have shown in this section that *animacy*, considered as Person features encoded in a functional projection and triggering movement, is the key factor to explain null objects in BP and DOM in Spanish.

4 On referential hierarchies and syntax

Several linguistic phenomena have been related to hierarchies of grammatical categories, specially in typological and functionalist studies (for example, Silverstein 1976, among others). These hierarchies make reference to the referentiality of nominal expressions and to the likelihood of their appearing with certain grammatical functions or having certain markings. As such the following is a common proposed hierarchy:

- (40) pronouns 1/2 > pronouns 3 > humans > animates > inanimates
(Silverstein 1976)

This hierarchy is based on data from languages that have a split in their case alignment system according to different nominal expressions. Thus, first and second person pronouns appear higher in the hierarchy (being more to the left), than third person pronouns. This corresponds to different case marking: subjects that are higher receive nominative whereas lower subjects receive ergative case.

Aissen (1999; 2003) proposes that such hierarchies can be treated in the optimality theory framework (OT), placing the well-known generalizations in grammatical theory. Her hierarchy (41) aims to explain DOM. If a direct object that corresponds to any nominal expression in the hierarchy can be DOM-marked in a language, then the objects that are higher in the hierarchy can be so marked.

- (41) Animacy and definiteness hierarchies (Aissen 2003)
- a. Animacy hierarchy
Human > Animate > Inanimate
 - b. Definiteness hierarchy
personal pronoun > proper name > definite NP > specific indefinite
NP > non-specific NP

Cyrino et al. (2000), analysing null subjects and null objects in BP, proposed a hierarchy that would be relevant for language acquisition. Thus, for a language

that has the internal option of null categories, one of the factors that may influence this choice is the animacy status of the antecedent. If a language has an empty category for a certain element, it will also have empty categories for other elements that are lower in a “referential hierarchy”:

- (42) Referential Hierarchy (Cyrino et al. 2000)
 non-argument > proposition > [−human] > [+human]
 third person > second person > first person
 [−specific] > [+specific]
 [−referential] ←————→ [+referential]

For example, for the null object in BP, if the input presents a pronoun or clitic in a lower position in the hierarchy, the child, in the process of language acquisition, will consider it a weak pronoun that occurs in a head or argument position. All the higher positions will be lexical pronouns. If the input has a null object for a referential antecedent, the child will assume that all the lower positions in the hierarchy can be null.

However, hierarchies are not explanations – they reveal effects that should be better explained in a theory of grammar (see Carnie 2005; Merchant 2006; Brown et al. 2004). In this line, the relevant features could be seen as effects of the position of nominal expressions in the structure as a consequence of either the mapping between syntactic structure and argument structure/semantics (Diesing 1992; Jelinek 1993; Meinunger 2000; Jelinek & Carnie 2003; Carnie 2005; Merchant 2006; Platzack 2008) or certain syntactic operations (Richards 2008; Bárány 2015; Cyrino 2016). In this paper, I focused on the latter possibility.

In fact, as seen in this paper, inanimate objects have a different behavior with respect to animate objects in several languages; the generalization appears to be that they stay in situ. This suggests that we may consider the referential hierarchies described above as the by-product of syntactic structure.

Many instances of such generalization are present in the literature. There are languages as Blackfoot (spoken in Alberta province in Canada) in which transitivity and animacy are marked on the verb by means of certain suffixes, the *verb class finals*. Bliss (2010: 66), following Ritter & Rosen (2008), Brittain (2003), Hirose (2001) and Mathieu (2006), proposes that these suffixes are manifestations of *v*. Transitive animate suffixes introduce arguments in a higher position than transitive inanimate ones, as seen in the structure in (43):

- (43) [_{vP2} ANIM [_{v'} TA [_{vP1} ANIM [_{v'} TI [_{VP} [_V root] INAN]]]]]]

In a sentence as (44), the verbal root *a'píhk* shows up with the intransitive inanimate suffix *ahto* followed by the benefactive transitive animate suffix *-omo*.

(44) Blackfoot (Bliss 2010: 67)

An-wa Rosie nit-a'pihk-ahto-omo-ok-wa ot-inaka'simik.
 DEM-PROX Rosie 1-sell-TI-BEN-INV-PROX 3-car
 'Rosie sold me her car.'

This is predicted if the underlying order is as in (43). After V movement, the resulting surface order will be V-TI-TA-(BEN), as seen in (44).

Moreover, in Sesotho, as shown by Demuth et al. (2005), there is a specific order for the occurrence of two internal arguments. If the animacy feature of the two internal arguments (objects) are the same, any one can appear immediately adjacent to the verb. However, if one is [+animate], then it must immediately follow the verb, no matter its θ -role.

Object agreement is also related to animacy in certain languages. In KiRimi (Hualde 1989; Woolford 2000), dative constructions show Dative Alternation. In the oblique option (the PP Dative), the animate direct object agrees with the verb. However, in the double object construction, agreement is blocked when the direct object is also animate, since the verb agrees with the animate indirect object.

Likewise in Mohawk (Baker 1996), animate objects need to be licensed either by incorporation to the verb or by agreement with the auxiliary verb. Since incorporation with animates is very restricted, the preferred option is agreement with animate objects. Inanimate objects, however, never trigger agreement with the verb. In applicative constructions in this language, the benefactive/goal argument must be licensed via agreement with the verb (it never incorporates); the theme, if animate, loses its ability to agree with the verb, since in this language only one of the objects shows agreement. When the direct object is animate, then, the only possible agreement is with the benefactive argument, that then incorporates even if it is animate.

Another instance of the relevance of animacy features in syntax is the case of *leísmo* and the person case constraint (PCC). The former refers to an extension of the third person dative clitic *le* to contexts where one would expect the accusative *lo* (masculine form) or *la* (feminine form). Ormazabal & Romero (2013: 319–320) point out that in *leísta* dialects of Spanish, clitics are not marked for Case, but for animacy. Thus the third person direct object distinguishes animacy: when it is [–animate], these dialects use *lo/la* (45); when it is animate, they use *le*, the same form of the dative (46).

(45) *Leísta* Spanish

Lo vi.
 3SG.DO vi
 'I saw it (the book).'

(46) *Leísta* Spanish

Le vi.

3SG.DO vi

‘I saw him/her (the boy/the girl).’

Finally, the person case constraint is also subject to animacy requirements, as shown by Ormazabal & Romero (2007; 2013). The authors propose that animacy has an important role: the clitic *le* is, as seen above in *leísta* dialects, the mark for a [+animate] nominal. The PCC only occurs when *le* is occurring:

(47) Spanish

a. *Te lo di.

(*te* = second person dative; *lo* = third person accusative [–animate])

b. *Te le di.

(*te* = second person dative; *le* = third person accusative [+animate])

This section shows that there are many other phenomena that are sensitive to animacy features. This suggests they may be considered under the proposal advanced in this paper, namely, that there is a functional projection (furnished with Person features) which is responsible for checking and triggering movement of animate objects, thus resulting in their different behavior with respect to inanimate ones. The further exploration of these phenomena, however, lies outside the scope of this paper but is undergoing current investigation.

5 Conclusion

With the proposal advanced in this paper, we may explain why the occurrence of null objects in BP is restricted to inanimate DPs. In the same way, differential object marking in Spanish finds a suitable analysis. As for the phenomena described in §4, a more detailed analysis under this proposal is being conducted (Cyrino in preparation), since in all of them the idea that animacy triggers movement may provide a proper explanation for the difference in syntactic effects. My proposal predicts, with some caveats, that if two internal arguments occur, where one is animate and the other is inanimate, the former will move out of its base position to a position higher than the latter.

Besides these results, we may also conclude that referential hierarchies described in the functional literature can be mapped from syntactic structure. Besides animacy, specificity seems to also be at play in the phenomena investigated in this paper. In Romance it seems specificity is occupying a higher projection

(i.e. above F_{person}) triggering movement (see Irimia & Cyrino 2015) for interpretation purposes (see López 2012), leading us to conjecture a syntactic hierarchy as:

$$\begin{array}{lcl} \alpha P & > & F_{\text{person}} \\ \text{Specificity} & > & \text{Animacy} \end{array}$$

Although more detailed exploration is necessary with respect to other features, I see this contribution as a promising line of research.

Abbreviations

3	third person	INDIC	indicative
ACC	accusative	INV	inverse
AUX	auxiliary	IO	indirect object
BEN	benefactive	M	masculine
BP	Brazilian Portuguese	OT	Optimality Theory
CL	clitic	PCC	person case constraint
DAT	dative	PL	plural
DEM	demonstrative	PROX	proximal, proximate
DO	direct object	PRS	present
DOM	differential object marking	PST	past
EA	external argument	SG	singular
EPP	extended projection principle	TA	transitive animate
F	feminine	TI	transitive inanimate
GER	gerund		

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