



THE ADEQUACY OF THE ANIMACY SCALE TO DESCRIBE DIFFERENTIAL OBJECT MARKING IN PORTUGUESE

A ADEQUAÇÃO DA ESCALA DA ANIMACIDADE PARA
DESCREVER A MARCAÇÃO DIFERENCIAL DE OBJETO
DO PORTUGUÊS

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Abstract: The animacy scale has been used to describe the development of Differential Object Marking (DOM). However, empirical evidence from Romance languages shows that this scale cannot describe some characteristics of DOM, such as the tendency of lack with first- and second-person pronouns (VON HEUSINGER; GÁSPÁR, 2008; IRIMIA; PINEDA, 2019). This paper investigates the adequacy of the animacy scale to describe the DOM cases in the history of Portuguese. I analyzed texts written by Portuguese authors from the 16th to the 19th century. The preliminary results indicate that taking animacy as a binary property allows us to make predictions about the occurrences and the types of marked objects. Also, it can explain the unexpected cases of DOM.

Keywords: DOM; Animacy Scale; Preposition A.

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Resumo: *A escala da animacidade tem sido usada para descrever o desenvolvimento da Marcação Diferencial de Objeto (MDO). Entretanto, evidências empíricas das línguas românicas mostram que essa escala não descreve algumas características da MDO, como a tendência da falta de marcação com pronomes de primeira e de segunda pessoas (VON HEUSINGER; GÁSPÁR, 2008; IRIMIA; PINEDA, 2019). Esse trabalho investiga a adequação da escala para descrever os casos de MDO na história do português. Foram analisados textos escritos por autores portugueses dos séculos XVI ao XIX. Os resultados ainda preliminares indicam que tomar a animacidade como uma propriedade binária permite previsões sobre as ocorrências de objetos marcados, assim como pode explicar os casos inesperados de MDO.*

Palavras-Chave: MDO; Escala da Animacidade; Preposição A.

INTRODUCTION

In Portuguese, the direct object is not morphologically marked². However, there are occurrences in which it is marked by the dative preposition *a*³ (CYRINO, 2017; PIRES, 2017) (1-2). This phenomenon is classified as Differential Object Marking (henceforth, DOM), and is found in some Romance languages, like Spanish, Romanian, and Catalan.

- (1) A novela comoveu **(a)os** **espectadores**.
the soap_opera touched (DOM)_the viewers
'The soap opera touched the viewers'.
- (2) A Maria ama **a Deus** e **(a)o Pedro** com a mesma
the Maria loves DOM God and (DOM)_the Peter with the same
intensidade.
intensity
'Mary loves God and Peter with the same intensity'.

Studies identified an increase in DOM occurrences in the 17th century and after the 18th century the phenomenon decreased in Portuguese (RAMOS, 1992; GIBRAIL, 2003; DÖHLA, 2014; PIRES, 2017, 2020a). In Modern Portuguese, DOM is found in few contexts, such as coordination and reciprocal sentences with animate direct objects (CYRINO, 2017).

² Except for the accusative clitic, which is morphologically case marked.

³ In DOM literature it is discussed whether *a* is a preposition or another kind of marking. For lack of space, I do not address this question in this paper.

The increase of DOM in the 17th century has been explained by the establishment of the Iberian Union (1580-1640), in which Portugal and Spain formed a single kingdom. Because of this, Portuguese was in contact with Spanish, a language in which animate direct objects tend to be *a*-marked.

Generativists approaches have been analyzing DOM as an additional licensing operation that affects direct objects that cannot undergo incorporation. This operation is related to the presence of the feature [+Person] (IRIMIA; PINEDA, 2019).

Furthermore, DOM is commonly analyzed in terms of hierarchical scales, especially the animacy and the definiteness scales (3-4). According to such scales, the higher objects (i.e., the objects on the left) can be marked and the objects in the lower positions (i.e., the objects on the right) can either be optionally marked or not receive any marking. The scales predict that it is not possible for an object of a middle position to be marked when the higher objects are not marked. According to Aissen (2003, p. 438), the scales also predict that the higher objects would be marked more frequently.

(3) Animacy scale: human > animate > inanimate.

(4) Definiteness scale: personal pronoun > proper name > definite NP > indefinite specific NP > non-specific NP.

The animacy scale is an important generalization used in the description and explanation of case marking and agreement. Moreover, it is mainly used in the Linguistic Typology (HELMBRECHT et al, 2018). The studies have adopted the scale formulated by Silverstein (1976), which has been perceived as a universal (FILIMONOVA, 2005). However, studies have revealed problems with this generalization, like the lack of empirical evidence for the scale and the types of objects that are *hierarchical offenders* (FILIMONOVA, 2005; HELMBRECHT et al, 2018).

DOM studies have been analyzing the position of proper names and pronouns in the animacy scales. Evidence from Old Romanian and Old Catalan has shown that the third-person pronoun is *a hierarchical offender* (VON HEUSINGER; GÁSPÁR, 2008; IRIMIA; PINEDA, 2019). In the same vein, Caro Reina (2020) has observed that the proper names are not a homogeneous group and proposed a new version of the extended animacy scale.

(5) **Extended animacy hierarchy:** first/second-person pronoun > third-person pronoun > deity name > personal/kinship name > animal name > place name > human common noun > non-human animate common noun > inanimate common noun.

Considering the above, this paper aims to investigate the adequacy of the animacy scale to describe the DOM occurrences in the history of Portuguese. The animacy scale that I will use in the investigation (6) is a simpler version of the extended animacy scale presented in (5)⁴.

(6) First-person pronoun > /second-person pronoun > third-person pronoun > reflexive pronoun > deity name > title of nobility > animate proper name > inanimate proper name > animate DP > inanimate DP.

The next section presents more information about DOM and the animacy scale. In section 2 the methodology used in this study is described and, the data is presented and discussed.

1 DOM AND THE ANIMACY SCALE

The hierarchical scale as Silverstein (1976) proposed has been used to describe different phenomena besides DOM. Cross-linguistic and diachronic evidence has supported this hierarchical generalization (AISSEN, 2003; VON HEUSINGER; KAISER, 2005). However, DOM can vary across languages, and

⁴ The changes in the extended animacy scale are explained in section 2.

the phenomenon can change during its diachronic development in particular languages.

It is possible to find languages, as Spanish, in which all the animate specific objects are marked; languages, like Catalan, in which only personal pronouns can be *a*-marked; languages in which only definite objects are marked, like Hebrew; and languages in which the specific objects are marked, like Turkish (AISSEN, 2003, p. 437).

Aissen (2003, p. 438) states that objects of “higher prominence will be marked more often than those of lower prominence”. Besides, the frequency of the marked categories can be used to test the descriptive adequacy of the scales. If all cases of one category are marked, then all higher categories are expected to be marked. This is why Old Romanian and Old Catalan cases are considered as violations of the hierarchies: while first- and second-person are optionally marked, third-person tends to be marked in almost all cases.

1.1 Critics to the animacy scale

Filimonova (2005) reviews some problems and counterevidence to the animacy scale. According to the author, the personal pronouns can be “identified as the most notorious hierarchy offenders” (p. 109). Besides, there seems to be no reason to postulate that first- and second-person pronouns are more animate than proper names or animate DPs.

However, diachronic evidence shows that the development of DOM in Spanish can be described by the animacy scale: personal pronouns and animate proper names have been marked since the earlier stages of the language (LACA, 2006); in Modern Spanish, animate specific direct objects are marked, while non-specific human direct objects and inanimate proper nouns are optionally marked (VON HEUSINGER; KAISER, 2005).

Nevertheless, evidence from Old Catalan and Old Romanian show the third-person pronoun as a hierarchy offender (VON HEUSINGER; GÁSPÁR, 2008; IRIMIA; PINEDA, 2019).

In Modern Catalan, personal pronouns are instances of DOM. On the other hand, according to Irimia and Pineda (2019), in Old Catalan (11th-16th c.), the third-person pronoun was marked more frequently than first- and second-person pronouns. Interestingly, the authors analyzed texts in which first- and second-person pronouns were not marked and texts in which DOM was in variation.

In Modern Romanian, human proper names and animate personal pronouns are *a*-marked; other [\pm animate] pronouns are mandatory marked and specific human DPs are optionally marked⁵. In Old Romanian, DOM was triggered by animacy, and personal pronouns have been marked since the 17th century. Curiously in 16th century data, von Heusinger and Gáspár (2008) have found DOM in 97% (33/34) of the occurrences of third-person pronoun, while DOM was optional in the occurrences of first- and second-person pronouns: 50% of the occurrences were marked (5/10).

Irimia and Pineda (2019) proposed that the violation of the third-person pronoun found in Old Romanian and Old Catalan is explained by the feature composition of the personal pronouns. Alternatively, von Heusinger and Gáspár (2008) propose that the violation is a result of the NOM-ACC syncretism⁶.

According to Irimia and Pineda (2019, p. 11-12), in earlier stages, DOM was a marker of animacy. Moreover, the first- and second-person pronouns were not associated with [Speaker] and [Hearer], features that were not related to animacy. On the other hand, the third-person pronoun was associated with animacy. A pragmatic constraint in Romance languages motivated a shift:

⁵ See von Heusinger and Gáspár (2008) for a detailed description of the contexts of DOM in Romanian.

⁶ See Irimia and Pineda (2019, p. 6-8) for counterevidence to the approach of von Heusinger and Gáspár (2008).

[Speaker] and [Hearer] have become added to structures that contained animacy. It seems to explain the higher frequency of *a*-marked third-person pronouns in Old Catalan and Old Romanian.

Based on Portuguese data from the 16th to the 19th century, Pires (2020b) claims that it is necessary to establish the distinction between the occurrences of DOM and clitic doubling⁷ (7). This distinction does not seem to be relevant for other Romance languages.

(7) as riquezas **vos** enganaram **a** **vós**
the wealth CL.2PL.ACC deceived.PL DOM you.ACC
'The wealth deceived you'. (B_003,163.2296, 16th c.)

Similarly to Old Romanian and Old Catalan, the third-person pronoun was more frequent in Portuguese, while the first- and second-person pronouns were more frequent with clitic doubling. Pires (2020b) proposes that it would be redundant to mark pronouns that were clearly animate (i.e., first/second-person pronoun) and claims that the third-person pronoun was [-Person]. Also, in this approach clitic doubling is associated with a specificity effect⁸. In a nutshell, the higher frequency of DOM with third-person pronoun can be explained as a way to make a [-Person] pronoun animate, while first/second-person pronoun occurred with clitic doubling as a result of the specificity effect.

Helmbrecht et al (2018) point out that there is a lack of empirical evidence to demonstrate that proper names are placed between personal pronouns and common nouns. The authors analyzed more than 30 languages and concluded that the animacy scale can no longer be used to describe proper names.

According to Caro Reina (2020), proper names can be divided into other types. His classification is based on the animacy, agentivity and identifiability of

⁷ Clitic doubling is a phenomenon in which a clitic occurs with a complement, and both have the same syntactic function.

⁸ See Leonetti (2007) for a detailed explanation of the specificity effect of clitic doubling.

the object, and is supported by synchronic and diachronic evidence of DOM in Romance languages. Caro Reina (2020) proposes his version of the extended animacy hierarchy, that was presented in (5) and repeated here:

(8) **Extended animacy hierarchy:** first/second-person pronoun > third-person pronoun > deity name > personal/kinship name > animal name > place name > human common noun > non-human animate common noun > inanimate common noun.

1.2 An alternative to the animacy scale

De Swart and de Hoop (2018) explain that animacy is an ontological category, which permits the classification of the noun phrases as human, animate or inanimate entities. Moreover, animacy can trigger morphosyntactic marking, such as DOM, or it can distinguish prominence, which is represented by the animacy hierarchical scale. Animacy is often taken as an inherent characteristic. However, it can change due to the discourse (e.g., fairy-tale context) or the linguistic context (e.g., case-marking). The authors point out that there are two types of animacy: the conceptual, which is gradient, and the grammatical, which has a binary value.

According to de Swart and de Hoop (2018) the animacy scale is a reflection of the conceptual prominence. It has been used to explain implications related to some phenomena, such as DOM: if DOM applies to a certain point of the scale, the positions above should also be instances of DOM.

As the authors highlight, the hierarchical scale is not the only way to describe animacy in the languages in which it plays a role. Some phenomena can be explained by the binary value of animacy.

Moreover, the animacy scale distinguishes three entities: human, animate entities, and inanimate entities. That is, it is a tripartite system; however, binary systems are usually used to describe and explain the languages.

DOM in Peninsular Spanish can be explained by the binary opposition [\pm animate]. In some specific contexts it is possible to find occurrences of *a*-marked inanimate objects, which are associated with a personified reading.

- (9) Llamó a la muerte.
 called_out.2SG DOM the Death
 ‘S/he called out to Death.’ (WILTSCHKO; RITTER, 2015 apud DE SWART; DE HOOP, 2018)

Animacy has been described as an inherent property, but changes are possible. They are explained by de Swart and de Hoop (2018) with the concept of *type shifting operations*.

Type shift refers to a *shift* from one type to another. The shifting operations can also occur in the type of *e*, which can be divided in subtypes. In de Swart and de Hoop’s approach, animacy can refer to three different subtypes: e_{human} (i.e., human beings), e_{animate} (i.e., animate entities), and $e_{\text{inanimate}}$ (i.e., inanimate entities). The shifting operation can shift an animacy subtype to another one.

In semantics, *e* indicates “entity” and *t* “truth value”. Besides, the noun phrase can be interpreted in three different ways: *e* (i.e., the referential type), $\langle e, t \rangle$ (i.e., the predicative type), and $\langle \langle e, t \rangle, t \rangle$ (i.e., the generalized quantifier type).

The type shifting operations can be overt or covert. Overt shifts are “linguistics solutions to type mismatches in the grammar” (DE SWART; DE HOOP, 2018, p. 1). According to the authors, this shift does not affect the conceptual animacy. In contrast, covert animacy shifts are related to selectional restrictions or the linguistic context. This shift is the one that can change the conceptual animacy. In a nutshell, covert animacy shift can turn an inanimate DP into an animate DP. The overt animacy shift changes the selectional properties of the predicates, so a verb that usually selects a certain type of DP, can select a different type.

De Swart and de Hoop (2018) cite the case of Dutch, in which, the verbs *hit*, *bite* and *kick* can mark a preposition with inanimate object, while the animate objects are not marked (DE SWART, 2014 apud DE SWART; DE HOOP, 2018, p. 2) (see 10).

- (10) a. De hond beet de man.
the dog bit.3SG the man
'The dog bit the man.'
b. De hond beet in het brood.
the dog bit.3SG in the bread
'The dog bit the bread.'

De Swart (2014 apud DE SWART; DE HOOP, 2018) claims that the preposition in (10b) is a signal of an overt shift. The verbs *hit*, *bite* and *kick* select animate objects, so it is necessary a shift in the selectional restrictions of the verbs to make grammatical an inanimate object in this structure.

Assuming the idea that marking animacy is redundant (MALCHUKOV, 2008), de Swart and de Hoop claim that the conceptual animacy (i.e., the scalar animacy) can be changed only by the covert type shifting, while the overt type only applies to the grammatical animacy.

The authors argue that the conceptual animacy manifests itself in the grammar as a binary property, given that the phenomena triggered by animacy are also binary. For example, DOM can be marked or not due to the animacy, hence there is not a *half* marking.

This idea can explain the occurrences found in Spanish with inanimate objects. In other words, the animacy of the object *per se* cannot change (i.e., the conceptual), however it is possible to change the way the grammar takes the animacy feature in the object. If DOM was as an effect of conceptual animacy, the occurrences with inanimate objects would not be possible.

The authors state that the selectional restrictions of the verb are the cause of the shifts. The shifting operation is a tool to preserve the grammaticality of the sentence when the object does not fill the selectional restrictions of the verb⁹.

De Swart and de Hoop's (2018) approach is tempting, however, it has certain limitations and problems. A positive aspect of this approach, according to López (2018, p. 41), is that it is a new approach to the grammatical treatment of animacy. Besides, this approach can even be seen as a kick-start to a general account of features that are usually conceived as hierarchies. One of the approach's problems is evident when López (2018) tries to analyze DOM in Spanish. According to him, DOM is a complex phenomenon and cannot be captured by the idea of binary feature and animacy shift.

López points out that, in languages similar to Spanish, DOM is triggered by other factors besides animacy, as specificity and topicality. Moreover, López considers that the de Swart and de Hoop's approach cannot explain the cases of optionality of DOM in Spanish. DOM is optional with [+animate, -specific] objects and, on the other hand DOM is mandatory with [+animate, +specific] objects. It seems that the animacy feature is not the only DOM trigger in Spanish, other factors are involved. Therefore, these cases cannot be explained by animacy shifting operations.

López raises an important observation. Nonetheless, de Swart and de Hoop's approach captures a meaningful characteristic of DOM: it is a binary phenomenon. The object is marked or not marked, there is not a third option. It is necessary an approach that includes animacy and the other factors that trigger

⁹ One of the reviewers asked if there is a class of verbs that does not occur with DOM. It is a really interesting question to which I do not have an answer at the moment, it demands future research and a deeper analysis of the cases of direct objects in Portuguese. The studies about DOM in Portuguese have focused on the characteristics of the objects and, as a consequence, the questions about the verbs that select DOM are still unanswered.

DOM, as specificity, and, at same time explains, what defines the mandatory and the optional contexts to DOM.

2 DOM IN THE PORTUGUESE FROM THE 16TH TO 19TH CENTURIES

2.1 Study design

The analyzed data was from European Portuguese from the 16th to the 19th centuries. Two corpora were selected to gather the data: The Tycho Brahe Parsed Corpus of Historical Portuguese (GALVES; ANDRADE; FARIA, 2017) and the P.S. (Post Scriptum) Project (CLUL, 2014). The first corpus is composed by texts from different genres, such as letters and news, and the last is composed only by letters. Altogether, I analyzed 26 texts from the Tycho Brahe Parsed Corpus and 354 letters from the P.S. Project. The advantage of both corpora is that they are syntactically annotated (i.e., parsed).

To explore the data, I used the CorpusSearch 2 (RANDALL; TAYLOR; KROCH, 2009), a program for carrying out searches in parsed corpora. I selected the occurrences tagged by PP-ACC, which is the tag used on the instances of prepositional accusative phrases.

Afterwards, the animacy and the category of the *a*-marked objects were also analyzed. The categories considered were based on the extended animacy scale (11), and they are the following: first-, second-, and third-person pronouns (12-14), reflexive pronoun (15), deity name (16), title of nobility (17), [\pm animate] proper name (18-19), and [\pm animate] DP (20-21).

- (11) **Adopted scale:** first/second-person pronoun > third-person pronoun > reflexive pronoun > deity name > title of nobility > animate proper name > inanimate proper name > animate DP > inanimate DP

I added the reflexive pronoun category because we can find a considerable number of this type in the data, and the verb morphology with this kind of pronoun is the same of the third-person pronoun. I also added the title of nobility category because this is a productive type in our data.

- (12) se a **mim**, que sou mulher, não sabes libertar.
 if DOM me who am woman not know.2SG free.INF
 'If to me, who am a woman, you do not know how to free'. (S_004,82.1205, 18th c.)
- (13) era eu capaz de mandar enforcar a **vós** meirinho.
 was I able of have.INF hang.INF DOM you bailiff
 'I would hang you, bailiff'. (S_004,93.1401, 18th c.)
- (14) caiu uma parede [...] e só a **ele** matou (ele=um homem 'a man')
 fell.3SG a wall and only DOM he killed.3SG
 'A wall fell, and he was the only one killed'. (G_001_PSD,02.10, 16th c.)
- (15) [O Arcebispo aconselhava que os prelados] curassem primeiro
 the archbishop advised that the bishops healed.SBJV first
a si mesmos.
 DOM themselves
 'The archbishop advised the bishops heal themselves first'.
 (S_001_PSD,181.2150, 16th c.)
- (16) Ora viva só quem cuida em amar a **Deus.**
 well live.IMP only who takes_care in love.INF DOM God
 'Well live only those who takes care to love God'. (PSCR2502, 18th c.)
- (17) aprestados cinquenta galeões para socorrer a **El-rei de Inglaterra.**
 ready.PTCP.M.PL fifty galleons to help.INF DOM King of
 England
 'Fifty galleons ready to help the King of England'. (G_001_PSD, 83.1235, 17th c.)
- (18) No dia seis para sete do corrente, fiz prender a **Frei Miguel.**
 on_the day six to seven of_the current made.1SG arrest.INF DOM
 Friar Miguel.
 'On the sixth to seventh of this month, I had Friar Miguel arrested'.
 (CARDS0142,.1, 19th c.)
- (19) E nós, que vemos a **Portugal** por fora, ainda conhecemos
 and we who see.1PL DOM Portugal from outside yet aware.1PL
 mais as consequências desta falta.
 more the consequences of_this lack
 'And we, who see Portugal from the outside, are even more aware of the
 consequences of this lack'. (B_008, 141.1309, 17th c.)

- (20) Não há finalmente arte liberal, nem mecânica, de que [o not there_is finally art liberal neither mechanical of that the alcoviteiro] se não valha e em que não vença a seus pimp REFL not use.SBJV and in that not beat.SBJV DOM his **professores**.
teachers
'Finally, there is no liberal or mechanical art that the pimp does not use and in which he does not beat its teachers'. (L_001,0.912, 17th c.)
- (21) e vendo a contenda socorreram aos **barcos portugueses** and seeing the dispute helped.3PL DOM_the boats Portuguese
'And seeing the dispute, they helped the Portuguese boats'.
(G_001,81.1214 17th c.)

In this paper, the occurrences of clitic doubling were not analyzed. Clitic doubling is a phenomenon in which a clitic occurs with an argument, and both have the same function. According to Leonetti (2008), clitic doubling can be considered a subgroup of DOM, as the clitic occurs with an object preceded by a preposition.

In a previous study (PIRES, 2020b), the split between DOM occurrences and clitic doubling showed that the latter phenomenon is related to the presence of the feature [+specific], which is not a requirement to DOM.

After the analysis of cases of DOM, I selected the two verbs that occurred more frequently in the data (i.e., *amar* 'to love' and *servir* 'to serve') and searched the occurrences of direct object with the types of marked objects classified in this paper (i.e., deity name, title of nobility, proper name, and DP) (see 22-25). I did not search for full pronouns, because, in the Portuguese of the 16th to the 19th centuries, they occurred only as DOM cases. In Brazilian Portuguese, the full pronoun can occur as direct object without a preposition, but there are no similar occurrences in the data analyzed in the present study.

- (22) *Amar* 'to love' + direct object
Quem ama **Beltrão** ama o seu cão.
whoever loves Beltrão loves the his dog
'Whoever loves Beltrão loves his dog.' (C_001_PSD,130.1812, 18th c.)

- (23) *Amar* 'to love' + *a*-marked direct object
 a. [Filena] sempre amou a **Periandro**.
 Filena always loved DOM Periandro
 'Filena has always loved Periandro'. (S_004,242.4127, 18th c.)
 b. Aquele deveras ama a **seu amigo** que ama a **Deus**
 that_one indeed loves DOM his friend who loves DOM God
 nesse amigo.
 in_that friend
 'That one indeed loves his friend who loves God in that friend'.
 (B_003,135.1862, 17th c.)
- (24) *Servir* 'to serve' + direct object
 mas servi **uma destas mulheres infelizes**, que necessitou dos
 but served.1SG one of_these women unhappy who needed of_the
 meus serviços.
 my services
 'But I served one of these unhappy women who needed my services.'
 (A_004_PART_PSD,10.99, 18th c.)
- (25) *Servir* 'to serve' + *a*-marked direct object
 Deus lhe dê muita vida com saúde para servir a
 God CL.3SG.DAT give.IMP much life with health to serve.INF DOM
Deus e a Nossa Senhora, e a todas as senhoras, e
 God and the Saint Mary and DOM all the ladies and
 filhos, e netos.
 children and grandchildren
 'God give you a lot of healthy life to serve God and Saint Mary, and all
 the ladies, and children, and grandchildren.' (PSCR0049,.57, 16th c.)

2.2 Results and discussion

A total of 731 DOM occurrences were analyzed. As table 1 shows¹⁰, the most frequently *a*-marked categories are animate DP, animate proper name and deity name. Put differently, the animate objects are the most frequent in our data.

¹⁰ Abbreviations used in Tables 1-3: 1p: first-person pronoun; 2p: second-person pronoun; 3p: third-person pronoun; Refl.: reflexive pronoun; [+a] PN: animate proper name; [-a] PN: inanimate proper name; DO: direct object; a-DO: a-marked direct object.

Table 1: Occurrences of DOM in the Portuguese of the 16th-19th centuries

	1p	2p	3p	Refl.	Deity	Title	[+a] PN	[-a] PN	[+a] DP	[-a] DP	Total
16 th	-	1 (1%)	5 (3%)	2 (1%)	18 (12%)	7 (5%)	21 (14%)	1 (1%)	63 (43%)	30 (20%)	148 (100%)
17 th	3 (1%)	2 (0,5%)	7 (2%)	2 (0,5%)	100 (23%)	26 (6%)	81 (19%)	26 (6%)	133 (31%)	49 (11%)	429 (100%)
18 th	1 (1%)	2 (1%)	4 (3%)	2 (1%)	20 (14%)	2 (1%)	50 (35%)	1 (1%)	44 (31%)	16 (11%)	142 (100%)
19 th	1 (8%)	-	1 (8%)	-	1 (8%)	1 (8%)	2 (17%)	-	2 (17%)	4 (33%)	12 (100%)
Total	5 (1%)	5 (1%)	17 (2%)	6 (1%)	139 (19%)	36 (5%)	154 (21%)	28 (4%)	242 (33%)	99 (14%)	731 (100%)

Table 1 also shows that the third-person pronoun is the most frequently marked among the pronouns. This result can be compared to the violation of the hierarchical scales found in Old Catalan (IRIMIA; PINEDA, 2019) and in the 16th century Old Romanian (VON HEUSINGER; GÁSPÁR, 2008).

In the Portuguese data that represents the 16th century, I did not find any occurrence of the first-person pronoun. However, it would be inaccurate to conclude that first-person pronouns were not marked in that period. It can be a random result influenced by other reasons, such as the genre of the analyzed

texts. Also, in the same data, I found 9 occurrences of clitic doubling with first-person pronouns¹¹.

In the 16th and 19th centuries, the inanimate DP has an interesting frequency, 20% and 33% respectively. However, in the 17th and 18th and in the sum of all the occurrences, the animate types (i.e., deity names, animate proper names and animate DPs) are the most frequently *a*-marked.

After the general analysis of all the occurrences of DOM, I selected the two verbs that most occurred in the data: *amar* 'to love' (36 occurrences) and *servir* 'to serve' (47 occurrences). To attest more precisely the adequacy of the animacy hierarchical scale, I analyzed the occurrences of variation, that is, considering the same contexts (i.e., sentences with *amar* and *servir*), I verified the choice between non-marked direct objects and *a*-marked direct objects.

Tables 2 and 3 show how the categories of the animacy scale occurred, whether they were *a*-marked or unmarked.

¹¹ In a previous paper, I compared the occurrences of clitic doubling and DOM in the same corpus (see PIRES, 2020b).

Table 2: Occurrences of variation with the verb *amar* 'to love'

		Deity	Title	PN [+a]	PN [-a]	DP [+a]	DP [-a]
16 th	<i>a</i> -DO	1 (100%)	-	-	-	-	-
	DO	-	-	-	-	5 (100%)	9 (100%)
17 th	<i>a</i> -DO	22 (100%)	-	1 (100%)	-	4 (67%)	1 (8%)
	DO	-	-	-	-	2 (33%)	11 (92%)
18 th	<i>a</i> -DO	3 (100%)	-	1 (25%)	-	1 (10%)	2 (12%)
	DO	-	-	3 (75%)	-	9 (90%)	15 (88%)
19 th	<i>a</i> -DO	-	-	-	-	-	-
	DO	-	-	-	1 (100%)	-	-

All the occurrences of deity names with the verb *amar* 'to love' are *a*-marked (Table 2). Unfortunately, I found few occurrences of proper names. The only occurrence of animate proper name of the 17th century is marked; in the 18th century there are 4 occurrences of animate proper names, and only one is an occurrence of DOM. And there is also only one occurrence of inanimate proper name, and, as expected, it is not marked.

Regarding the DPs, it is interesting to highlight the results of animate DPs of the 18th century, in which, we can observe that the marked form is more frequent than the non-marked. This result resembles the hypothesis of the Spanish influence on Portuguese DOM. According to it, the frequency of DOM occurrences increased in the 16th and 17th centuries due to the contact with Spanish during the existence of the Iberian Union (1580-1640), in which Portugal and Spain were united in the same kingdom (RAMOS, 1992; DÖHLA, 2014; PIRES, 2017, 2020a).

Table 3: Occurrences of variation with the verb *servir* 'to serve'

		Deity	Title	PN [+a]	PN [-a]	DP [+a]	DP [-a]
16 th	<i>a</i> -DO	6 (100%)	1 (100%)	-	-	2 (50%)	1 (50%)
	OD	-	-	-	-	2 (50%)	1 (50%)
17 th	<i>a</i> -DO	19 (100%)	4 (100%)	1 (50%)	-	5 (83%)	3 (50%)
	OD	-	-	1 (50%)	-	1 (17%)	3 (50%)
18 th	<i>a</i> -DO	2 (100%)	-	1 (100%)	-	-	1 (50%)
	OD	-	-	-	-	1 (100%)	1 (50%)
19 th	<i>a</i> -DO	-	-	-	-	1 (100%)	-
	OD	-	-	-	-	-	4 (100%)

In Table 3, we can observe that all the occurrences of deity names and titles of nobility are *a*-marked. In the 17th century data, there are 2 occurrences of animate proper names, and one is *a*-marked and the other is non-marked. And the only occurrence of animate proper name of the 18th century is marked.

The animate DPs are half marked and half non-marked in the 16th century, and interestingly in the next century the occurrences of DOM outnumber the occurrences of non-marked DO, a result similar to the verb *amar* 'to love' (see Table 2). I found only one occurrence of animate DP in the 18th and 19th centuries, so it would be imprecise to draw conclusions about the behavior of the occurrences of animate DPs with the verb *servir* 'to serve'.

The occurrences of inanimate DPs are half marked and half non-marked in the 16th to 18th century, and in the 19th century all the occurrences of this type are, as expected, non-marked.

Considering the generativist approach that claims that DOM is the result of a licensing operation related to the feature [+Person], the occurrences of *a*-marked inanimate objects showed in the previous tables were not expected. However, there is an explanation. As pointed out in section 1.2, the similar occurrences found in Spanish are explained by a shifting operation that turns the [-animate] feature in [+animate]. We can consider this as evidence that the DOM in Portuguese is better described by grammatical animacy, that is, by a binary property.

Even though Tables 2 and 3 show data of only two verbs, it is possible to identify some patterns. Deity names and titles of nobility seem to be instances of DOM, and there is an interesting preference for the marked form in the occurrences of animate DPs in the 17th century.

2.3 The unexpected cases of DOM

As shown in Tables 2 and 3, there are cases of *a*-marked inanimates.

- (26) Xerxes ocupou se em enriquecer de jóias, respeitando como
Xerxes occupied REFL in enriching of jewels respecting as
sua rainha e servindo como sua senhora, **a uma árvore**.
his queen and serving as his wife DOM a tree
'Xerxes occupied himself with enriching himself with jewels,
respecting a tree as his queen and serving it as his wife'.
(C_001_PSD,62.929, 18th c.)

The example (26) has two possible explanations: (i) a personified reading, in which tree is comparable with queen, or (ii) tree has a specific reading, in which the speaker is referring to a certain tree. Specificity is pointed out as one possible DOM trigger, however, the studies about DOM in Portuguese have not yet determined the influence of this factor on the phenomenon in the language, and, more important, how specificity is related to animacy, which is considered the trigger to DOM in Portuguese. Pires (2017) analyzed animacy, definiteness

and specificity in diachronic data of Portuguese, the results seem to indicate that animacy is the main factor to trigger DOM, and definiteness and specificity has a secondary role; however, this study did not explain how the three features lead to DOM.

- (27) Se Vossa Mercê quer luz, aflija-se, ame a seu
 If Your Grace wants light agonize.IMP-REFL love.IMP DOM your
desprêzo.
 disdain
 ‘If Your Grace wants light, grieve, love your disdain’.
 (C_003,0.2033, 17th c.)
- (28) tudo o que era fruto do arcebispado havia de ser
 everything the that was fruit of_the archbishopric had of be
 (como era razão) pera galardão dos que bem servissem
 as was reason for reward of_the who well served
ao mesmo arcebispado.
 DOM_the same archbishopric
 ‘everything that was the result of the archbishopric had to be (as
 was the reason) for the reward of those who served the same
 archbishopric well’. (S_001_PSD,65.727, 16th c.)
- (29) e contudo ainda os portugueses se queixam, como se
 and however still the Portuguese REFL complain as if
 puderam os índios no mesmo tempo servir aos
 could.3PL the Indians in_the same time serve.INF DOM_the
[interesses] particulares e mais ao [interesse] comum.
 interests private and more DOM_the interest common
 ‘and yet the Portuguese still complain, how the Indians could at
 the same time serve private interests and the common interest’.
 (V_002,0.1675, 17th c.)

The presence of specificity is the possible explanation for (27-29). In (28) it is a certain *desprezo* ‘disdain’, the one that is possessed by the addressee; in (29) the object is a specific a place; finally, in (29), the objects refer to certain interests in a set of interests: the private and the common.

In these examples, (26) is the only one that seems to permit a personified reading. Considering the approach of de Swart and de Hoop (2018), we can say that it is a case of covert shift, because the conceptual animacy of the object was changed. On the other hand, if we want to keep an analysis in which DOM in

Portuguese is triggered by animacy, we can understand the other examples as instances of overt shift. Unfortunately, I still do not have an adequate answer for the specific reading in the cases of DOM with inanimates. One possible explanation to the (27-29) examples is that the specific reading is the result of overt shift in the grammatical animacy. The conceptual animacy has not changed, but the grammatical one has; thus, the object was *a*-marked and the specific reading was a result of this shift. This seems to be an attractive explanation, but the analysis of more cases of inanimates is necessary to investigate this hypothesis.

FINAL REMARKS

Grammatical animacy is not an ontological property, it is a feature present in the arguments that can shift its value in certain contexts. Adopting animacy as a binary value can allow us to predict the types of objects that would be marked more frequently, that is, the animate ones. And it can explain the occurrences with inanimate DPs and the prominence of inanimate proper names showed in the extended animacy scale.

The analysis of the cases of DOM with inanimates seems to lead us to an approach that combines animacy and specificity as the triggers to DOM in Portuguese. It seems to be an interesting explanation that needs to be investigated in future research, especially in terms of de Swart and de Hoop's model. However, in a previous study about DOM in the Portuguese of the 16th to 19th centuries, I described the presence of animacy, definiteness, and specificity in DOM cases and the results showed that animacy was the main factor that triggers DOM (PIRES, 2017).

In sum, the data seems to support the idea that the animacy scale is not the best option to describe the DOM occurrences in the Portuguese of the 16th to the 19th centuries. However, the analysis of more verbs than *amar* 'to love' and *servir*

'to serve' is necessary to confirm my claims. As pointed out in 1.2, de Swart and de Hoop's model has problems, however it is still an alternative to the hierarchical scales and future research is necessary to improve this approach.

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