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Differential Object Marking with AcI constructions and perception verbs in Spanish

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Abstract

This project investigates whether the agentivity of the direct object influences the occurrence of DOM in European Spanish. To this end, I focus on the visual and auditory perception modalities in both mono-predicative and AcI constructions, as exemplified in *María vio/oyó a la niña* 'María saw/heard the girl' and *María vio/oyó a la niña cantar* 'María saw/heard the girl sing', respectively. I explore this phenomenon from both diachronic and synchronic perspectives. Diachronically, I analyze the development of DOM with perception verbs focusing on human entities across the 14th, 16th, and 20th centuries, comparing the occurrence of DOM between perception modalities and construction types. Following Dowty's (1991) proto-roles approach, I hypothesize that direct objects high in proto-agent features are more likely to occur with DOM. Thus, DOM should be more common with auditory verbs than visual ones, as the auditory stimulus is richer in proto-agent features than the visual stimulus. Similarly, AcI constructions should favor DOM occurrence compared to mono-predicative constructions over time. Synchronically, I verify through two forced-choice experiments with native European Spanish speakers whether the saturation of DOM observed in AcI constructions with human entities in the 20th century has started to extend to inanimate dynamic entities, and I compare these results with those of mono-predicative constructions. The results demonstrate that agentivity indeed influences the occurrence of DOM, not only in present-day Spanish but also in the older varieties of the language. As for the corpus studies, the auditory stimulus registered a much higher rate of DOM cases over the centuries in both constructions than the visual stimulus. In the experiments, participants opted for DOM with inanimate dynamic NPs in AcI constructions in more than 50% of cases. However, no impact of the perception modality was observed. On the other hand, DOM with the auditory stimulus in mono-predicative constructions was chosen twice as often as with the visual stimulus. The comparison of DOM occurrences in both constructions shows that AcI constructions strikingly influence the occurrence of DOM with inanimate dynamic NPs. Based on these results, I argue that the agentivity of the direct object, which can be determined by the perception modality, the construction type, and the transitivity of the infinitive, is directly connected to the occurrence of DOM in Spanish. The more agentive a direct object (or an NP2) is, the more likely it is to occur with DOM.

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Abbreviations and spelling conventions

1	first-person
2	second-person
3	third-person
A	used as a replacement for the dative prepositional marker *a*
ACC	accusative
ACI	accusativus cum infinitivo
ASALE	Asociación de Academias de la Lengua Española
AUX	auxiliary
c.	century
CDH	Corpus del Diccionario histórico de la lengua española
CL	clitic
CORPES XXI	Corpus del Español del Siglo XXI
DAT	dative
DEF	definite
DOM	Differential Object Marking
F	feminine
FUT	future tense
GEN	genitive
INDEF	indefinite
INF	infinitive
M	masculine
NEG	negative particle
NOM	nominative
NP	noun phrase
PART	participle
PL	plural
PN	proper name
PP	prepositional phrase
PST	past tense
RAE	Real Academia Española
REF	reflexive
SG	singular
UH	Unaccusative Hypothesis
VP	verb phrase

1. Introduction

1.1. Overview

Few topics in Spanish have caused as much debate as Differential Object Marking (DOM), also known as *complemento directo preposicional* 'prepositional direct object' in Spanish grammar, among many other terms. Since the earliest grammars, this topic has been a matter of intense interest to grammarians and linguists (Nebrija 1492; Hanssen 1913; RAE 1917; Lenz 1925; Bello [1847] 1995; Menéndez Pidal 1969, among others). For many years, DOM was described taking into consideration only the properties of the direct object in isolation. However, in recent decades, scholars have broadened their focus to include other parameters that influence the occurrence of DOM, such as the properties of the predicate (Laca 1995, 2006; García García 2007, 2014, 2018; von Heusinger & Kaiser 2011; Romero Heredero 2022; among others). Before proceeding, a brief description of the phenomenon is necessary.

DOM is described as a split phenomenon in which only some direct objects are overtly case marked, depending on several factors. In Spanish, DOM is realized by the use of the accusative prepositional marker *a*, which is homonymous with the dative prepositional marker used with indirect objects. Notice, however, that DOM is not a special characteristic of Spanish but a widespread phenomenon occurring in languages around the world without necessarily being connected. To illustrate how DOM is used in present-day Spanish, let us consider the minimal pair provided in (1) and (2) below.

(1) *Pepe ve a la actriz / (a) la vaca / *a la película.*
Pepe see.3SG DOM the actress / (DOM) the cow / *DOM the movie
'Pepe sees the actress / the cow / the movie.' (García García 2018: 211)

(2) *Pepe ve (a) una actriz / (a) una vaca / *a una película.*
Pepe see.3SG DOM an actress / (DOM) a cow / *DOM a movie
'Pepe sees an actress / a cow / a movie.'

Despite the similarities, the requirement of DOM differs between the sentences and the direct objects. This contrast is mainly due to the *animacy* and *definiteness* features of the direct objects. As can be observed in (1), DOM is obligatory with *la actriz* 'the actress', which has the features [+HUMAN, +DEFINITE]; it is optional with *la vaca* 'the cow', with the features [-HUMAN, +ANIMATE]; and forbidden with *la película* 'the film', with the features [-ANIMATE]. In contrast, example (2) shows that DOM is optional with *una actriz* 'an actress', which has the features [+HUMAN, -DEFINITE].

In addition to nominal parameters like animacy and *referentiality* (cf. Laca 1995; Torrego 1999; von Heusinger & Kaiser 2005; García García 2014, among others), the literature indicates that verbal parameters such as *affectedness* (cf. von Heusinger & Kaiser 2011; Romero Heredero 2022; Romero Heredero & García García 2023), also play an important role in the occurrence of DOM in Spanish. Some authors further suggest that *agentivity* might also be a relevant factor in the phenomenon (Pensado 1995a; Torrego 1999; Laca 2006; García García 2007, 2014, 2018; García García et al. 2018; Mürmann 2023). However, despite these suggestions, the importance of agentivity for DOM has not yet been systematically investigated in this language (see García García 2014 for an exception).

Considering the examples (1) and (2) above, one might be inclined to argue that verbal parameters do not influence DOM, since no verbal parameter seems to be operative in these sentences, i.e., neither affectedness nor agentivity. The direct objects are neither affected by the action of being seen nor are they considered to have proto-agent entailments (cf. Dowty 1991: 572). Therefore, when considering only the verb *ver* 'to see', one would rather deny the influence of verbal parameters on DOM. Setting aside affectedness for discussion in Chapter 2, let us focus on agentivity and see how this feature can be related to DOM.

Von Heusinger & Kaiser (2011) observe that some direct objects have more prototypical subject properties than others. Their diachronic corpus study shows that the verb *temer* 'to fear' is more often preceded by DOM than other verbs. Similarly, García García (2014, 2018) notes that some inanimate direct objects that occur with reversible predicates, such as *seguir* 'to follow' and *preceder* 'to precede', very often occur with DOM. He attributes this high incidence of DOM with these inanimate objects (in this type of construction) to their proto-agent features. Since agentivity is typically associated with subjects rather than direct objects, it is difficult to identify verbs that provide their direct objects with proto-agent features. However, perception verbs are particularly useful in this regard, since different perception modalities are associated with different degrees of agentivity (Enghels 2013). Noteworthy is the contrast between the visual and auditory perception modalities.

These two types of modalities carry different presuppositions. With visual verbs, the direct object does not necessarily need to do anything to be seen. In contrast, the direct object of auditory verbs must typically perform an action to be heard, unless it is a sound (Enghels 2007b). In other words, when the auditory stimulus is not a sound, it involves an entity with proto-agent features. On the other hand, although the visual stimulus can have proto-agent features, it does not have to. This distinction seems to affect the requirement of DOM, at least with a human entity. In contrast to the human indefinite direct object of the

verb *ver* in example (2) above, DOM seems to be obligatory with auditory perception verbs, as illustrated in example (3) below. Furthermore, the auditory perception seems to influence the occurrence of DOM even in those cases where the direct object is a human bare NP, which normally does not accept DOM, as shown in (4).

(3) *Pero el gusto de oír* ***a un hombre*** *tan sabio vale por diez camas...*
'But the pleasure of listening to such a wise man is worth ten beds...' (CDH, Pérez Galdós 1909, *El caballero encantado*)

(4) *Oigo (a) hombres / veo (*a) hombres.*
hear.1SG (DOM) men / see.1SG (*DOM) men
'I hear men / I see men'

Another interesting property of perception verbs is that they can occur in a very particular construction, namely, *Accusativus cum Infinitivo* (AcI) (cf. di Tullio 1998; Hernanz 1999; Rodríguez Espiñeira 2000; Pons Rodríguez 2008; Labelle 2017, among others). This type of construction typically involves a perception main verb that, besides the subject of the main clause, selects an embedded infinitival clause with its own arguments. Interestingly, the logical subject of the infinitive (NP2) is assigned accusative case (instead of nominative). Consequently, DOM also applies to the NP2 in AcI constructions, as examples in (5) and (6) illustrate.

(5) *Oigo cantar a la / a una mujer.*
hear.1SG sing.INF DOM the.F / DOM a.F woman
'I hear the woman / a woman sing.'

(6) *Veo venir a la / a una mujer.*
see.1SG come.INF DOM the.F / DOM a.F woman
'I see the woman / a woman come.'

The main difference between sentences (5) and (6) is the type of perception verb employed. The former has an auditory perception verb, while the latter has a visual one. As for the NP2, it appears after the infinitive (although it may also appear before the infinitive). The construction is intriguing because the NP2, exemplified by *la/una mujer* 'the/a woman' in the examples above, serves as the subject of the embedded clause and the direct object of the main predicate, at least when the NP2 appears pre-infinitival. This implies that the NP2 entails both proto-agent and proto-patient features. Consequently, both sentences in (5) and (6) presuppose a high level of agentivity on the NP2, which affects the requirement of DOM. Moreover, the type of perception verb and the transitivity of the embedded verb also seem to affect the occurrence of DOM in such constructions.

Based on these aspects, the following section outlines and briefly discusses the research questions this investigation addresses.

1.2. Objectives and research questions

The objective of this work is to verify whether agentivity influences the occurrence of DOM in Spanish, specifically by examining whether the proto-agent features in both the direct object and the NP2 increase the incidence of DOM in European Spanish. In order to achieve this goal, the study raises five research questions that will be addressed throughout the investigation. The first research question, though somewhat obvious in light of the preceding discussion, is of utmost importance and is stated in (RQ1). If a positive answer is obtained, the next logical steps are to explore how agentivity affects DOM, which is stated in (RQ2), and to analyze its development over time, stated in (RQ3).

(RQ1) Does agentivity influence the occurrence of DOM in European Spanish?

(RQ2) How does the degree of agentivity impact DOM?

(RQ3) How was the development of DOM with perception verbs in mono-predicative constructions and in AcI constructions regarding human NPs?

The strategy for addressing these research questions is interconnected. The study compares the proportion of DOM in mono-predicative constructions versus AcI constructions. If agentivity is indeed a factor influencing the incidence of DOM, AcI constructions are expected to show a higher frequency of DOM, as the logical subject of the infinitive in AcI constructions is presumed to have more proto-agent features than the direct object in mono-predicative constructions.

Another aspect that can highlight the contrast in proto-agent features between the direct object and the NP2 involves the perception modality. Since the auditory modality presupposes a stimulus with proto-agent features, regardless of the construction type, it is expected that auditory verbs are more likely to occur with DOM than those of the visual perception modality (cf. Enghels 2007: 76).

To assess the agentivity of the NP2 in AcI constructions, one can also consider the transitivity of the infinitive predicate. DOM is expected to occur more frequently in constructions where the infinitive functions as either a transitive or unergative predicate, compared to unaccusative predicates. This is because the subjects of transitive and unergative predicates are typically associated with the proto-agent role, in contrast to unaccusative predicates, which are linked with the proto-patient role (cf. Dowty 1991), or described as having fewer proto-agent features (cf. Primus 2006).

From a diachronic perspective, it is expected to observe an earlier expansion and evolution of DOM exactly with those verbs and constructions that provide more proto-agent features to the direct object or the NP2. As a basis for measurement, the findings

should be compared with each other and also with other studies to assess how DOM with perception verbs behave in relation to other verbs.

Assuming that (RQ1) can be answered positively, i.e., demonstrating that agentivity does play a role in the occurrence of DOM in Spanish, and that the answers to (RQ2) and (RQ3) provide evidence of agentivity's influence on DOM, it becomes relevant to investigate whether this influence of agentivity extends beyond human entities to include other categories, specifically inanimate dynamic referents. However, recall from the previous section that, in general, DOM does not occur with inanimate entities under normal circumstances. Thus, if agentivity influences the occurrence of DOM, I predict that it should also be observable with these types of entities. Therefore, based on this line of reasoning, I present the next research question, stated in (RQ4).

(RQ4) Can the impact of agentivity also be observed with inanimate NPs?

Finally, supposing that all the other research questions can be answered, the last research question, presented in (RQ5), seeks an answer to why agentivity is a relevant factor for the occurrence of DOM in Spanish.

(RQ5) Why is agentivity relevant for the occurrence of DOM?

In short, the project analyzes DOM within the framework of Dowty's (1991) proto-roles approach and with some implementation of Primus (1999a, 2006). The goal is to provide a deeper understanding of DOM in Spanish, particularly in relation to the interaction between the nominal features (animacy and definiteness) and agentivity. For that, the investigation focuses on AcI constructions and mono-predicative constructions involving perception verbs. In what follows, I present the methodology employed to achieve this goal and to answer the research questions (RQ1)–(RQ5).

1.3. Methodology

The investigation employs two methodologies, namely, extensive corpus analyses and acceptability judgment tasks with native speakers. Additionally, the study adopts both a diachronic and a synchronic perspective. This strategy makes it possible to conduct an examination of the diachronic evolution of DOM and its expansion to other categories in present-day Spanish. Consequently, the methodology employed permits verifying the impact of agentivity on the development/evolution and expansion of DOM. It is also important to highlight that the variety chosen for being investigated is European Spanish. This decision is mainly due to the diachronic perspective adopted. However, since DOM

behaves differently in different Spanish varieties, it is fundamental not to combine data from different varieties (cf. Caro Reina et al. 2021).

The corpus analyses are based on the *Corpus del Diccionario Histórico de la lengua española* (CDH), a free corpus platform provided by the *Real Academia Española* (RAE), which is composed of more than 355 million tokens from texts of different genres. The corpus analyses focus on three historical varieties of European Spanish, namely Medieval, Classical, and Modern Spanish, more specifically, the 14th, 16th, and 20th centuries, and consider only human NPs. As for the constructions, both AcI and mono-predicative constructions are considered.

The synchronic approach explores the potential expansion of DOM to additional categories, specifically inanimate dynamic entities. The investigation is conducted through two forced-choice task experiments, which offer greater control over many variables that significantly influence the occurrence of DOM. The experiments control the animacy and definiteness, as nominal parameters, agentivity as a verbal parameter, and the type of construction (AcI constructions versus mono-predicative constructions) as a constructional parameter. The decision to conduct experiments is motivated by the fact that the construction under investigation is rarely found in corpora and due to the difficulties in controlling the variables that may affect the occurrence of the phenomenon.

1.4. Structure of the book

To address the research questions presented above, the study is organized into eight chapters, with each of them being designed to explore specific aspects of the investigation. Before empirically addressing the research questions, the subsequent three chapters provide the theoretical background. After that, two chapters present and discuss the empirical studies. Finally, the last two chapters provide an explanation for the findings and present the conclusions of the study, respectively. In the following paragraphs, each chapter is described individually in more detail.

Chapter 2 provides a literature review on DOM in Spanish. It pays special attention to the main parameters that are reported to influence the occurrence of the phenomenon. For that, it describes the importance of *animacy* and *referentiality*, nominal parameters that are central to the case-marking alternation in this language. The chapter also presents and explores the following verbal parameters: *affectedness, telicity*, and *agentivity*. As a last parameter, it briefly discusses *topicality.* Additionally, the chapter examines the diachronic development of DOM regarding animacy and definiteness, showing how its use has been expanding over time to include categories where DOM was not commonly found in older varieties of Spanish. Lastly, the chapter also explores some functional aspects of DOM.

Chapter 3 introduces the main characteristics of *perception verbs*. It focuses on the contrast between two specific modalities of perception: *auditory* and *visual perception*. The chapter discusses two specific constructions associated with perception verbs, namely mono-predicative constructions and AcI constructions, focusing on both their syntax and semantics. Furthermore, it also discusses one of the few papers addressing DOM in AcI constructions.

Chapter 4 is the last one related to the theoretical background. It introduces the framework followed in the investigation, i.e., Dowty's (1991) proto-roles approach, also including some adjustments from Primus (1999a, 2006). In addition, the chapter introduces traditional thematic role approaches and argues that they are insufficient to deal with some predicates that impose agentive entailments on their direct objects. As an alternative, it argues in favor of the proto-roles. Additionally, it also discusses some properties of intransitive predicates, recognizing the limitation Dowty's model has in dealing with this type of predicate. It argues that since the only argument of unaccusative predicates has more proto-patient features than proto-agent ones, this argument behaves similarly to the direct object of transitive predicates. Conversely, the only argument of *unergative* predicates behaves similarly to the subject of transitive predicates due to its proto-agent features. The chapter also explains how the proto-role approach can be implemented with perception verbs.

Chapter 5 introduces the first of the two chapters dedicated to the empirical aspect of the investigation. In order to address the first three research questions described above, the chapter provides two corpus studies. More specifically, it examines the diachronic evolution of DOM with human NPs in European Spanish. To achieve this, the chapter analyzes the constructions discussed in Chapter 3, i.e., mono-predicative and AcI constructions. The corpus studies provide empirical evidence that agentivity, indeed, affects the occurrence of DOM in Spanish. The studies reveal that DOM consistently occurs more often with the auditory perception than the visual perception across the centuries in both types of constructions. The studies also show that DOM, in general, occurs more often in AcI constructions than in mono-predicative constructions, except for the visual perception, in which DOM occurs slightly less often in the 14th and 16th centuries.

Chapter 6 continues to address the research questions discussed in the corpus studies but uses acceptability judgment tasks with native European Spanish speakers. Based on the results of the previous studies, the chapter verifies whether the high incidence of DOM with human NPs in perception verbs can also be observed with inanimate dynamic entities. For that, it presents and discusses two forced-choice task experiments using the same constructions as the corpus studies. The main difference is the animacy of direct

object/NP2. The results provide new findings, showing that, in fact, DOM is expanding to other categories, and agentivity is a facilitating factor for this expansion. DOM occurs more frequently with AcI constructions than with mono-predicative constructions. However, the perception modality only has an impact on DOM in mono-transitive constructions, where participants opted for DOM with *oír* 'to hear' much more often than *ver* 'to see'. In AcI constructions, despite the much higher occurrence of DOM, almost no difference was observed between the two perception modalities.

Chapter 7 reviews previous works providing support for the agentivity hypothesis; this demonstrates that the influence of agentivity on DOM is not restricted to perception verbs but can also be observed across different verb classes, such as verbs of sequencing, competition, attribution, and naming. Additionally, the chapter synthesizes the main findings of the corpus studies and the forced-choice experiments. Finally, it describes how prominence relates to DOM, arguing that an agentive direct object (or an NP2) is subject-like, a status that enhances its prominence and increases the frequency of DOM occurrence.

Chapter 8 offers conclusions to the investigation. For that, it summarizes each chapter, discusses the main findings, and provides answers to the research questions. Additionally, the chapter points out some open questions that could not be answered throughout the investigation and were left for future research.

2. Differential Object Marking in Spanish

The chapter provides an overview of the literature on DOM in Spanish, outlining the main parameters responsible for its occurrence. Additionally, it describes the diachronic development and expansion of DOM throughout the centuries and discusses two of the central functionalist approaches used to explain the phenomenon.

2.1. Introduction

Differential Object Marking is the term used to describe a split phenomenon that occurs in some languages regarding the case-marking alternation of the direct object. It involves the use of morphological markers for overtly case-marking some direct objects but not others (Laca 2002).[1] The occurrence of the phenomenon depends on the semantic and pragmatic features of the direct object (cf. Aissen 2003) and/or certain parameters of the predicate (cf. Torrego 1999). The term was coined by Bossong (1982, 1985, 1991), who observed that DOM is not language-specific but a widespread phenomenon across languages worldwide, attested in more than 300 languages[2] (Bossong 1985: VIII), including Spanish, Turkish, Hebrew, Hindi, Russian, Persian, to name but a few. While some languages primarily depend on a single parameter, known as one-dimensional DOM, others, like Spanish, primarily depend on two parameters, referred to as two-dimensional DOM (Aissen 2003).

DOM in Spanish is realized by means of the accusative prepositional marker *a*, which is homonymous with the dative prepositional marker used to mark indirect objects. As shown in (7) below, DOM may be obligatory, optional or forbidden under certain circumstances (subject to further analysis in the next sections).

(7) *Pepe ve a la actriz / (a) la vaca / *a la película.*
Pepe see.3SG DOM the actress / (DOM) the cow / *DOM the film
'Pepe sees the actress / the cow / the film.' (García García 2018: 211)

The phenomenon is not a new development in Spanish. In fact, DOM in this language has been attested since its earliest records and has been discussed by grammarians and linguists ever since (Menéndez Pidal 1969: 339). Over time, the phenomenon has been

[1] Notice that it is not always the case that DOM is restricted to overt case-marking versus zero marking. Some languages, e.g., Finnish, have two different case-marking strategies (Næss 2004), which is also considered DOM.

[2] After nearly 45 years since his original work, it is likely that more languages featuring DOM have been identified. To the best of my knowledge, no scholar has presented an updated account of DOM languages. Interested readers, however, are referred to Sinnemäki (2014) for a typological study on DOM.

referred to by different terms, such as *objeto directo preposicional* (García Martín 1992), *complemento directo preposicional* (Pensado 1995a), *objeto directo personal* (Melis 1995), *a personal* (García 1995), *acusativo preposicional* (Laca 1995), *marcación prepositiva* (Company Company 2002), *marcado diferencial de objecto (directo)* (Laca 2006), among others. Although DOM in Spanish has been consistently investigated, it is still challenging to affirm with precision the categories that always require or reject DOM, as the phenomenon is not fully grammaticalized. This becomes evident from the vast number of cases in which the occurrence or absence of DOM is explained as an exception or due to variation in its occurrence (Laca 1995: 64). Nonetheless, the nominal parameters have been well documented, providing a better picture of the phenomenon. On the other hand, there are still only a few studies that consider the verbal parameters (cf. García García 2007, 2014, 2018; von Heusinger & Kaiser 2011; Romero Heredero 2022; Romero Heredero & García García 2023, among others).

With this in mind, this chapter aims to offer a comprehensive overview of the literature on DOM in Spanish, focusing on the nominal and verbal parameters that contribute to this phenomenon. Additionally, it aims to illustrate the development of DOM in this language.

The chapter is organized as follows: Section 2.2 introduces the main parameters responsible for triggering DOM. To be more precise, Section 2.2.1 presents the nominal parameters, while Section 2.2.2 explores the verbal parameters, and Section 2.2.3 discusses topicality. Section 2.3 outlines the evolution of DOM in Spanish. Subsequently, Section 2.4 is dedicated to the main functions associated with DOM. Finally, Section 2.5 provides a concise summary of the chapter.

2.2. Parameters contributing to the occurrence of DOM

The occurrence of DOM in Spanish depends on a series of parameters. Some of them are related to the semantic features of the direct object, which can be *lexical* or *referential*, more specifically, *animacy* and *referentiality* (i.e., *definiteness* and *specificity*), respectively; other parameters are related to the predicate: *affectedness*, *telicity*, and *agentivity*. And still others are related to specific constructions. Laca (2002, 2006) calls this distinction *local factors* and *global factors*.[3] In order to avoid any misunderstanding, as other authors also use these terms, but in a different way (cf. Silverstein 1986: 178[4]), I

[3] Laca (2006) also considers constructional parameters, such as left dislocation and clitic doubling, as global factors.

[4] He uses the term *local* for referring to case-marking instances triggered by only one NP (either the agent or the patient) and the term *global* for the ones that are triggered by an interaction of two (or more) NPs.

use *nominal, verbal, and constructional parameters* following García García (2018). In the next sections, I present and discuss the nominal and verbal parameters, along with topicality.

2.2.1. Nominal parameters

One of the earliest attempts to describe DOM in Spanish is provided by Bello,[5] who states that "the preposition *a* often precedes the accusative when it is not formed by a complementary case,[6] and then it means personality and determination." (Bello [1847] 1995: 253, my translation and emphasis; cf. Hanssen 1913: §692; RAE 1917: §240–242; Lenz 1925: 52–53). Although Bello's description of the phenomenon is not wrong, it is incomplete, as DOM does not only depend on animacy and referentiality. Nonetheless, these notions are among the main parameters that have influenced DOM in Spanish since its origins (Melis 1995; von Heusinger & Kaiser 2005; Laca 2006). Therefore, let us analyze both concepts considering their importance in the incidence of DOM in Spanish. The next section addresses animacy, and Section 2.2.1.2 discusses referentiality.

2.2.1.1. Animacy

Animacy is a semantic notion that distinguishes humans from animals and those from inanimate entities. It is intended not only to differentiate what is alive from what is not, i.e., the features [±ANIMATE], but also to organize them in terms of a hierarchy (Yamamoto 1999), which is shown based on the hierarchical animacy scale in (8) below (cf. Silverstein 1986; Croft 1988; Comrie 1989; Aissen 2003; Dahl 2008, among others).

(8) Animacy Scale:
Human > Animate > Inanimate

According to (8), humans are ranked higher on the animacy scale than animate entities, which, in turn, are in a position higher than inanimate entities. The animacy scale is configured in an anthropocentric manner, placing humans at the top and living beings and non-living things below. However, this way of seeing the world is reflected in natural languages. For example, animacy is a significant parameter for triggering DOM in Indo-European languages (Comrie 1989: 186), including Spanish (Laca 1995; von Heusinger & Kaiser 2005).

[5] Notice, however, that already in the 15th century, Nebrija (1492: f.iiii.) had observed the occurrence of DOM with proper names and some definite NPs.
[6] Bello calls *caso complementario* what nowadays grammarians call *complemento de régimen*.

In this aspect, Haspelmath (2008: 13), following Bossong (1985), Comrie (1989), among others, affirms that "[t]he higher a (direct) object is on the animacy scale, the more likely it is to be overtly coded (i.e., accusative-marked)". While this assertion is accurate regarding Spanish, it is somewhat oversimplified. As subsequent sections will demonstrate, DOM in Spanish does not only depend on animacy, making it challenging to provide a full account of the phenomenon without considering other parameters and factors. Nonetheless, let us reconsider the minimal pairs presented in (7), repeated in (9) below for convenience, involving definite direct objects.

(9) a. *Pepe ve *ø/a la actriz.*
Pepe see.3SG ø/DOM the actress

b. *Pepe ve ø/a la vaca.*
Pepe see.3SG ø/DOM the cow

c. *Pepe ve ø/*a la película.*
Pepe see.3SG ø/DOM the film
'Pepe sees the actress / the cow / the film.' (García García 2018: 211)

As we can see in (9)a, human definite direct objects typically require DOM, while the marking is optional with animate definite ones, as illustrated in (9)b. In contrast, DOM is normally not allowed with inanimate definite direct objects, as in (9)c (cf. García García 2007). By analyzing the examples in (9) alongside the animacy scale in (8), it becomes evident that entities higher on the animacy scale are more likely to occur with DOM.

Even though the animacy scale models the distinctions regarding the kinds of entities in an elegant and succinct way, it is problematic, as animate beings do not seem to behave as a homogeneous category. With animates, there is much variation in relation to the occurrences of DOM (Fernández Ramirez 1964; Fish 1967; Laca 2006; García García 2018), as not all the animals are perceived or treated in the same way, for example, dogs and horses are considered more animate than insects and fish (Yamamoto 1999). Therefore, it seems that animate direct objects closer to humans (physically or emotionally) occur more frequently with DOM than other kinds of animals (however, there is no study dealing with this topic as far as I am aware). Another unclear point about the animacy scale is how to deal with the kingdom *Plantae*, i.e., plants in general. They do not seem to behave as animates in any way, even though they are, in the strict sense, living beings. What about institutions such as *university, company,* and *government*? They seem to align more closely with the category animate than inanimate entities. Yamamoto (1999: 18) considers them to be "borderline cases", as sentences such as *La universidad eligió (a) un nuevo rector* 'The university chose a new rector' demonstrate.

While coming up with a fine-grained scale for animacy exceeds the scope of this book (see Yamamoto 1999 for an overview), it is relevant to highlight that the relative

animacy between arguments is also said to have an impact on the occurrence of DOM in Spanish. This aspect is explored in Section 2.2.2.3 regarding DOM with inanimate entities (cf. García García 2007, 2014; Tippets 2011).

What is important to bear in mind about this subsection is that animacy is strictly connected with the occurrence of DOM in Spanish. However, it is not sufficient to properly describe the phenomenon (Pensado 1995a: 32). In what follows, I address the referential properties of the direct object, which are also very relevant to DOM in Spanish.

2.2.1.2. Referentiality

Referentiality is a complex semantic-pragmatic property of nouns and pronouns. The term is frequently defined as (but not restricted to) the concept of *identifiability, familiarity,* and *inclusiveness* of an entity. The referentiality assessment of a referent depends on the *definiteness* and *specificity* properties of nouns and pronouns, characterized by the features [±DEFINITE] and [±SPECIFIC] (cf. Lambrecht 1994; Lyons 1995; Lyons 1999; von Heusinger 2002, 2011).

When considering the definiteness of NPs, it can be assessed in several ways in natural languages. For example, proper names and pronouns, as well as determiners such as possessives, demonstratives, and definite articles, are categorized as definite expressions; that is, they have the feature [+DEFINITE]. Conversely, indefinite articles, cardinals and bare NPs are indefinite expressions with the feature [-DEFINITE]. Quantifiers present a more intricate scenario regarding definiteness. For example, Laca (2006: 438–439) assumes that universal quantifiers are definite expressions, while existential quantifiers are indefinite ones (cf. Lyons's (1999) work for an overview).

Similar to the animacy scale in (8) above, the literature also provides a definiteness scale that is once again organized hierarchically (cf. Aissen 2003).

(10) Definiteness Scale (without specificity):
Personal Pronoun > Proper Name > Definite NP > Indefinite NP

According to the definiteness scale in (10), personal (or strong) pronouns are at the top of the scale, and they are said to be higher in definiteness than proper names, which in turn are more definite than definite NPs and indefinite NPs, respectively. Importantly, the position where an NP is located on the scale is directly connected to the occurrence of DOM. In other words, the higher an NP is located on the scale, the higher its possibility of occurring with DOM. Considering the definiteness scale, let us examine the set of minimal pairs in (11) to analyze the behavior of DOM with indefinite direct objects in present-day Spanish.

(11) a. *Pepe ve ø/a una actriz.*
Pepe see.3SG ø/DOM an actress

b. *Pepe ve ø/a una vaca.*
Pepe see.3SG ø/DOM a cow

c. *Pepe ve ø/*a una película.*
Pepe see.3SG ø/*DOM a film
'Pepe sees an actress / a cow / a film.'

According to the grammaticality of the examples provided in (11) above, DOM is optional with human indefinite direct objects, as shown in (11)a. Although DOM is possible with animate indefinite direct objects, as in (11)b, there is much variation regarding the occurrences of DOM in this configuration. Referring to the previous subsection, the types of animals seem to play a role in the presence or absence of DOM with NPs having the features [-HUMAN, +ANIMATE]. However, DOM with animate indefinite direct objects seems even more restrictive than with definite ones (Fernández Ramírez [1951] 1986: 188). As for DOM with inanimate indefinite direct objects, as in (11)c, it is normally forbidden, triggering ungrammaticality. In order to explain the optionality of DOM in examples such as the one in (11)a, the literature has proposed that the obligatoriness or optionality of DOM is strictly connected to specificity (von Heusinger & Kaiser 2005; von Heusinger 2008). Hence, a definition of this term is necessary.

Specificity is defined as "a semantic-pragmatic notion that distinguishes between different uses of interpretations of indefinite noun phrases" (von Heusinger 2011: 1025). According to von Heusinger et al. (2024: 5), "[a] specific reading of an indefinite NP is pretheoretically characterized by the certainty of the speaker about the identity of the referent". Conversely, one may say that a non-specific reading of an indefinite NP is characterized by the uncertainty of the speaker about the identity of the referent. For example, if one utters *Vi (a) una mujer* 'I saw (DOM) a woman', it has two possible interpretations: (i) it might imply that the speaker saw a random person, only identifiable as a type (Croft 2003). Hence, the NP *una mujer* has the feature [-SPECIFIC]; or (ii) the speaker has a particular woman in his or her mind, which is unique, identifiable or familiar to himself or herself, but not to the hearer (von Heusinger 2002: 249). Hence, it has the feature [+SPECIFIC].[7] Importantly, in order to assess the specificity of a referent, a context is normally required (Leonetti 2004; Tippets 2011).

To illustrate, let us imagine a context where a customer visits a restaurant and enjoys his or her meal. However, upon receiving the bill, he or she realizes it is much more expensive than anticipated. Then, the customer tells the waiter that he or she wants to talk

[7] An extensive analysis of specificity is far beyond my objectives. Nevertheless, the reader is referred to von Heusinger (2001, 2002, 2011) for a detailed description of this notion.

to the manager. Let us further suppose that the waiter already knows the customer because he or she is a troublemaker. Suppose the waiter informs the manager of the customer's request by saying *Tienes que atender a un cierto cliente en la mesa 4* 'You have to deal with DOM a certain customer at table 4'. In that case, the NP has the feature [+SPECIFIC], which is marked by the use of the adjective *cierto* 'certain'[8] (cf. Aissen 2003: 444).

Putting the two concepts together, i.e., definiteness and specificity, von Heusinger (2008: 5 (3)) provides the referentiality scale shown in (12) below, which, in addition to the categories in (10), includes indefinite NPs with the features [±SPECIFIC], as well as the *non-argumental* category, i.e., bare NPs (cf. Aissen 2003). The referentiality scale works in the same way as (8) and (10), i.e., it is organized hierarchically.

(12) Referentiality Scale:
personal pronoun > proper name > definite NP > indefinite specific NP > indefinite non-specific NP > non-argumental

The referentiality scale can be used to better model the occurrence of DOM regarding the nominal parameters. For example, von Heusinger (2008) argues that the cut-off point for DOM with human direct objects in Modern Spanish is the *indefinite non-specific NP* category, which is optional, as demonstrated in (13)b below, while DOM is obligatory with the *indefinite specific NP* category, as shown in (13)a.[9] These examples are adapted from von Heusinger (2008: 6).

(13) a. [+HUMAN], [-DEFINITE] and [+SPECIFIC]:
Vi a una mujer.
saw.1SG DOM a woman
'I saw a (certain) woman.'

b. [+HUMAN], [-DEFINITE] and [-SPECIFIC]:
Vi (a) una mujer.
saw.1SG (DOM) a woman
'I saw some (or other) woman.'

Although the examples in (13) illustrate the contrast in specificity and its effect on DOM, they are based on introspection and do not provide a context. Nonetheless, the literature offers additional tools to assess the specificity of a direct object. One such tool is the mood of the embedded verb in a relative clause, which has also been suggested to be connected to the occurrence of DOM (cf. Kliffer 1995: 96; Brugè & Brugger 1996: 81; Leonetti

[8] von Heusinger (2011) considers the string of words *a certain* as a specificity marker.

[9] Some authors claim that the presence of DOM, in cases where it is optional, may change the verbal meaning. Fernández Ramírez ([1951] 1986: 173) exemplifies this aspect using the verbs *querer* and *distinguir*. *Querer un novio* translates to 'to wish for/to seek a boyfriend', while *querer a un novio* means 'to love a boyfriend'; *distinguir un hombre* means 'to perceive a man' while *distinguir a un hombre* means 'to hold a man in particular esteem' (cf. Torrego 1999: 1783).

2004: 80; von Heusinger & Kaiser 2005: 40). The indicative mood typically favors a specific interpretation of the direct object, while the subjunctive mood indicates a non-specific one (RAE & ASALE 2010: 482). This distinction is illustrated in the minimal pair in (14), where specificity is encoded through the mood of the embedded verb *pasar* 'to spend'. In (14)a, the indicative mood indicates that the speaker talks about a particular nurse, who he or she has in his or her mind (probably one from a set of nurses). In (14)b, the subjunctive mood suggests that the speaker talks about any nurse (able to spend the morning with her). The presence of DOM in (14)a reinforces the specific reading, while its absence in (14)b aligns with the non-specific reading.

(14) a. *Necesita a una enfermera que pasa la mañana con ella.*
he-need.3SG DOM a nurse who spends.IND the morning with her

b. *Necesita una enfermera que pase la mañana con ella.*
he-need.3SG ∅ a nurse who spends.SUBJ the morning with her
'He needs a nurse who spends the morning with her.' (Leonetti 2004: 80)

It is important to note, however, that DOM does not directly encode specificity in Spanish. Non-specific NPs can also appear with DOM, and in some cases, DOM may even be required. Rather, DOM licenses a specific reading (Leonetti 2004; López 2012; von Heusinger et al. 2025). For this reason, Leonetti (2004) argues that the connection between DOM and specificity may be an epiphenomenon of other factors such as topicality, information structure, and prominence.

Furthermore, in discussing cases where the occurrence of DOM alternates, such as *Busca (a) un médico* 'She/he is looking for a doctor', Leonetti proposes a link between this alternation and semantic incorporation, i.e., the direct object is incorporated into the verb forming a complex predicate. He suggests that DOM does not systematically block semantic incorporation and formulates the following generalization: "[t]he only safe generalization is that the absence of the preposition marks incorporation. In the central cases where *a* and Ø freely alternate, *a* represents a non-incorporated reading and Ø an incorporated one" (Leonetti 2004: 99).[10]

Now, shifting our focus to definite NPs, Laca (1995: 79) points out that referentiality is also important for DOM with this type of NP. It is well known that within the class of definite NPs, some refer to a generic interpretation, meaning that they do not refer to an individual but to a type (cf. RAE & ASALE 2010: 482). For example, *cine* 'cinema' in *Voy al cine* 'I go to the cinema', or *león* 'lion' in *Su animal favorito es el león* 'His favorite

[10] For an experimental investigation in Spanish testing Leonetti's (2004) generalization, see von Heusinger et al. (2024).

animal is the lion'. Consequently, they are not individuated in any form and are considered non-referential. In such cases, DOM is dispreferred, as illustrated in (15).

(15) *Los líricos no conocen el indio*.
'The lyricists do not know the Indian.' (Laca 1995: 79)

In this example, *el indio* 'the Indian' refers not to an individual but to the set composed of all Indians; hence, non-referential. The presence of DOM would imply an individuation of the referent (cf. Brùge & Brugger 1996). Importantly, the generic interpretation depends not only on nominal factors but also on verbal and pragmatic ones (RAE & ASALE 2009).

2.2.1.3. The interaction between animacy and referentiality

In the previous subsections, we have seen that the animacy status of the direct object and its referentiality are directly connected with the occurrence of DOM in Spanish. However, I have not dealt with both notions together so far, which is crucial for an analysis of DOM in Spanish. Therefore, this subsection brings these two notions together to provide a better overview of the use of DOM in present-day Spanish.

In this regard, building on von Heusinger & Kaiser's (2005) table of the occurrences of DOM in Modern Spanish, García García (2018: 8)[11] proposes the schema presented in Table 1 below. Notice that the non-argumental category is not provided in the schema, since DOM is normally forbidden with this category, independent of animacy.

Table 1: DOM in Modern Spanish according to the animacy and referentiality of the direct object. The label 'pers pron.' holds for personal pronouns; 'PN' for proper name; 'def. NP' for definite NP; '+ spec. NP' for indefinite specific NP; and '- spec. NP' for indefinite non-specific NP. The symbols '+', '±', '-', and 'Ø' mean that DOM is obligatory, optional, ungrammatical, or not possible, respectively.

animacy	pers pron.	PN	def. NP	+ spec. NP	- spec. NP
human	+	+	+	+	±
animate	+	+	±	±	-
inanimate	Ø	±	-	-	-

As demonstrated in Table 1, DOM is obligatory with human referents across all types of NPs, except for non-referential direct objects (which is not shown in the table). Conversely, animate referents exhibit more variability. They obligatorily receive DOM

[11] The difference between von Heusinger & Kaiser's (2005) schema and García García's (2018) one, is that von Heusinger & Kaiser consider DOM to be obligatory with both animate definite direct objects and also with animate specific ones. In my opinion, this is a too strong claim, as animate beings do not seem to behave the same, as already stated above in Subsection 2.2.1.1. Therefore, I follow García García (2018) instead (cf. Fernández Ramírez [1951] 1986).

with personal pronouns and proper names, while DOM is optional with definite NPs and indefinite specific NPs. Non-referential NPs do not normally accept DOM.

In the case of inanimate direct objects, DOM is generally ungrammatical, except with proper names, where DOM is optional. In Section 2.2.2.3, it is shown that in some environments, DOM is more or less obligatory with inanimate entities.

In line with the schema provided in Table 1, several authors (e.g., García 1995; Kliffer 1995; Laca 1995; Melis 1995; Torrego 1999, among others) have noted that when DOM precedes the direct object, it signals a high degree of individuation of the referent. Building on Timberlake (1977) and Hopper & Thompson (1980), Kliffer (1995: 96) provides a list of properties characterizing (non-)individuated nouns, as shown in (16).

(16) Binary individuated properties of nouns:

MORE INDIVIDUATED	LESS INDIVIDUATED
proper noun	common noun
human, animate	inanimate
definite	indefinite
referential	non-referential
singular	plural
countable	mass

According to Kliffer (1995), nominal referents possessing the properties listed in the left column are more individuated than those in the right column. Importantly, DOM tends to occur more frequently when the direct object exhibits one or more characteristics from the *individuated* column (cf. Fernández Ramírez [1951] 1986), which aligns with the schema provided in Table 1 (except for *singular/plural* and *countable/mass*, which the schema does not consider). In other words, individuated entities rank higher on prominent scales, such as the animacy scale in (8) and the referentiality scale in (12), than non-individuated ones. Thus, DOM signals that the direct object is a highly prominent referent (cf. Aissen 2003). Another way of seeing it is that DOM occurs exactly because the referent is highly prominent. This topic is further developed in Section 2.4.

It is crucial to reemphasize that DOM is not a grammaticalized phenomenon. Therefore, the schema outlined in Table 1 aims to illustrate the typical behavior of DOM regarding the interaction of the animacy and referentiality properties of direct objects. As stated by Bossong (1991: 152), DOM is a 'living category', allowing considerable variation. Speakers have a certain degree of freedom in deciding whether to use DOM or not in their utterances.

Summing up, the occurrence of DOM in Spanish can be described as follows: (i) cases where DOM is always obligatory, (ii) cases where DOM is optional, and (iii) cases where DOM normally does not occur (cf. Laca 1995: 65).

2.2.2. Verbal parameters

In the previous section, I have shown that DOM depends on both the animacy and the referentiality of the direct object. However, as noted by some scholars, DOM in Spanish also depends on the lexical properties of verbs. For example, Leonetti (2004: 84) asserts that some verbs obligatorily require DOM with animate direct objects, while others allow DOM to be absent (cf. Torrego 1999; García García 2014; von Heusinger & Kaiser 2011, among others). Moreover, some scholars argue that the presence or absence of DOM is associated with a change in meaning for some verbs (Bello [1847] 1995: 255; Fernández Ramírez [1951] 1986: 173; King 1984: 400; Torrego 1999: 1783, among others; see fn. 9). Despite these suggestions, there are very few studies that systematically analyze the relevance of the verbal parameters. Therefore, this section focuses on the verbal parameters that have been suggested or shown to be relevant to the occurrences of DOM in Spanish. I begin the section by discussing *affectedness.* Next, I introduce the concept of *telicity,* and finally, I address *agentivity*, which is the main factor of concern in this work.

2.2.2.1. Affectedness

As described by Beavers (2011: 335), affectedness refers to "a persistent change in or impingement of an event participant". This concept is widely employed to describe various phenomena, including argument realization, particularly in defining direct objecthood and transitive case frames (Fillmore 1968; Hopper & Thompson 1980; Tsunoda 1985; Dowty 1991; Næss 2004; von Heusinger 2008; von Heusinger & Kaiser 2011; Romero Heredero 2022; Romero Heredero & García García 2023, among others). Affectedness is measured through different forms, such as (i) a binary feature, i.e., [±AFFECTED], or (ii) a gradient scale.

Building on Fernández Ramírez's ([1951] 1986) observation regarding the influence of lexical properties of verbs on the occurrence of DOM, Torrego (1999) claims that the case-marking alternation in Spanish is also determined by whether the direct object is affected or not. This affectedness may be physical, psychological, or related to the location of the arguments.[12] According to Torrego (1999: 1791), DOM is obligatory with affected animate direct objects, including indefinite NPs such as *un extranjero* 'a foreigner' in (17). In relation to the verb *golpear* 'to beat', DOM is obligatory even with human bare NPs (García García 2018: 224).

[12] Torrego (1999: 1790-1791) mentions both arguments but does not provide reasons for why she considers the subject's location relevant to the phenomenon.

(17) *Golpe-aron* **(a)* *un extranjero*.
beat-3PL *(DOM) a foreigner
'They beat a foreigner.' (Torrego 1999: 1791)

Many authors have observed that some verbs occur more frequently with DOM than others. Very often, the explanation given is related to affectedness (cf. Melis 1995: 153, Kliffer 1995: 107). Despite the frequent suggestion that DOM is obligatory with affected direct objects, few works have attempted to empirically test this claim, one of which is conducted by von Heusinger & Kaiser (2011).

To investigate the influence of affectedness on the development of DOM in Spanish, von Heusinger & Kaiser (2011) carried out a diachronic corpus study focusing on both definite and indefinite human NPs. The study is based on two corpora, the *Corpus del Español* and the *Corpus diacrónico del Español* (CORDE), and it examines data from the 15th, 17th, and 19th centuries, comprising approximately 2,000 tokens. Building on Tsunoda's (1985) Scale of Affectedness,[13] shown in (18) below, they analyzed its first five verbal classes, covering a total of 14 verbs.

(18) Scale of Affectedness according to verbal classes (adapted from Tsunoda 1985):
effective actions[14] > perception > pursuit > knowledge > feeling > relationship > ability

According to Tsunoda (1985: 389), verbs located at the left end of the scale have a highly affected patient, whereas those towards the right end have a less affected patient. As a result, von Heusinger and Kaiser (2011) propose that direct objects ranked high in affectedness tend to receive DOM earlier and more frequently than those lower in affectedness.

While their results do not show a notable contrast in relation to definite NPs, as DOM occurs at a very high incidence with all the verbal classes since the 15th century, their findings regarding indefinite NPs suggest that Tsunoda's Scale does not model the effects of affectedness on DOM precisely, as shown in Table 2 below. First, the *perception* class exhibits a higher proportion of DOM cases than the *effective action* class (see Chapter 4), except for the 15th century, where there is basically no difference. Second, although there are no cases of DOM with the *feeling* class in the 15th century, the proportion of DOM in the 17th century is even higher than that of effective actions and similar to that of the 19th century. The other classes, namely *pursuit* and *knowledge*, occur with DOM less frequently than the other classes.

[13] The term is coined by von Heusinger & Kaiser (2011). Tsunoda (1985: 388) himself refers to the scale as *Case-marking of two-place predicates.*

[14] Following von Heusinger & Kaiser (2011), I use the term *effective action*. Tsunoda (1985) uses *direct effect on patient.*

Table 2: Proportion of DOM with human indefinite NPs depending on verbal classes throughout the 15th, 17th, and 20th centuries (adapted from von Heusinger and Kaiser 2011: 611 (Table 12)).

class (with respective verbs)[15]	15th century	17th century	19th century
EFFECTIVE ACTION: *matar, herir, golpear, tirar*	18% (9/51)	40% (21/53)	79% (46/58)
PERCEPTION: *oír, ver, escuchar, mirar*	17% (1/6)	71% (22/31)	93% (27/29)
PURSUIT: *buscar, esperar*	11% (1/9)	23% (8/35)	41% (17/41)
KNOWLEDGE: *conocer, entender*	– (0/0)	31% (5/16)	67% (14/21)
FEELING: *querer, temer*	– (0/0)	52% (11/21)	75% (15/20)

As the authors themselves acknowledge, other factors besides affectedness appear to influence the occurrence of DOM, given that the *perception* and *feeling* classes surpass the *effective action* class. According to them, this might be attributed to either the scale being 'too general or comprising too many verbs' (von Heusinger & Kaiser 2011: 612). These possible explanations seem plausible, as shown by the contrast between the development of DOM with the verbs *matar* 'to kill' and *tomar* 'to take' (Heusinger 2008: 608). DOM systematically occurs more often with both definite and indefinite human direct objects regarding the verb *matar* than *tomar* (Heusinger 2008). The former is considered to have a more affected patient than the latter (cf. Næss 2004: 1202). A similar argument can be used regarding the contrast between the verbs *querer* 'to want' and *temer* 'to fear' (von Heusinger & Kaiser 2011: 613). While DOM with *temer* reached a frequency of 100% by the 15th century with human indefinite NPs, *querer* exhibited a much lower incidence, accounting for only 23% (3/13) of cases in the 17th century and 64% (9/14) in the 19th century. However, as the authors point out, this difference does not seem to be due to affectedness but rather to the agentivity properties of the direct object (see Section 2.2.2.3).

Another study demonstrating the significant role of affectedness on DOM is provided by Romero Heredero (2022). He analyzes affectedness in relation to both (i) the development of DOM and (ii) its occurrence in present-day Spanish. In contrast to von Heusinger and Kaiser (2011), who use a gradient scale, Romero Heredero uses a binary feature. Consequently, to test whether an NP is affected or not, he employs Jackendoff's (1990: 125) Affectedness test, as provided in (19). Only affected NPs, i.e., patients, can appear in this frame. Hence, if the direct object is affected, the resulting sentences are semantically well-formed. On the other hand, if there is no affected direct object, the resulting sentences are semantically odd.

(19) Affectedness test:
{*What happened* / *What I did*} to NP was…

[15] The respective translations of the verbs are: (i) to kill, to wound, to hit, to throw; (ii) to hear, to see, to listen to, to look at; (iii) to search, to wait; (iv) to know, to understand; and (v) to want, to fear.

To assess the impact of affectedness on the evolution of the phenomenon, he conducted a diachronic corpus study focusing on European Spanish, spanning the 14th, 16th, and 20th centuries, considering NPs with the features [+HUMAN, ±DEFINITE, ±AFFECTED]. His study is based on the CDH and comprises 3,200 tokens.[16] He observed a clear effect of affectedness on the occurrence of DOM with indefinite human NPs for each century, as illustrated in Table 3 below. When human indefinite direct objects are affected, the NPs tend to occur much more often with DOM than when the direct object is a non-affected argument. Notice that DOM with human indefinite direct objects is optional if specificity is not considered, as shown in Section 2.2.1.2. Therefore, the very high incidence of DOM with this type of direct object shows an interaction between affectedness and definiteness (Romero Heredero 2022: 129).

Table 3: Frequency of DOM with indefinite NPs regarding the century and affectedness (adapted from Romero Heredero 2022: Table 5.6).

affectedness	14th century	16th century	20th century
+AFFECTED	39% (31/80)	45% (54/120)	84% (167/200)
-AFFECTED	16% (13/80)	26% (31/120)	56% (112/200)

To investigate the occurrence of DOM in present-day Spanish concerning affectedness, Romero Heredero (2022) conducted a forced-choice task experiment with native European Spanish speakers. The experiment focused on human indefinite NPs and considered [±AFFECTED] NPs. His results reaffirm that affectedness does indeed influence the occurrence of DOM. Non-affected NPs were preceded by DOM in 75% (3,925/5,216) of the cases, while affected NPs occurred with DOM in 88% (4,579/5,216) of the cases.

In conclusion, both von Heusinger & Kaiser (2011) and Romero Heredero (2022) provide empirical evidence that affectedness is an important verbal parameter influencing the occurrence of DOM in Spanish, both diachronically and synchronically. While von Heusinger & Kaiser (2011) show that different verbal classes behave differently in terms of affectedness, thus influencing the development of the phenomenon, Romero Heredero (2022) demonstrates that affectedness is particularly relevant in cases where DOM is optional in present-day Spanish, specifically with indefinite NPs.

2.2.2.2. Telicity

Telicity is another verbal parameter mentioned in the literature as a factor influencing the presence or absence of DOM in Spanish (cf. Torrego 1999: 1788–1790). This term refers

[16] The study encompasses 1,600 tokens considering affectedness, evenly balanced between the features [±DEFINITE, ±AFFECTED] and another 1,600 tokens considering the features [±DEFINITE, ±TELICITY].

to whether an event has an ending point. If it does, then the predicate is considered telic. On the other hand, if it lacks an endpoint, then it is an atelic predicate. According to Vendler's (1967) event classes, telic predicates are *accomplishment* and *achievement* verbs, like *draw a circle* or *find a coin,* respectively, while atelic predicates are *state* and *activity* verbs, like *know Spanish* or *drive a car,* respectively (cf. Garey 1957; Vendler 1957, 1967; Dowty 1979; Krifka 1989, among others).

Torrego (1999) suggests a connection between telicity and DOM in Spanish. Specifically, she claims that DOM is obligatory with telic predicates when referring to human direct objects, even with indefinite NPs, as illustrated in (20).

(20) *Marta insultó *(a) un compañero.*
Marta insult.PST *(DOM) a classmate
'Marta insulted a classmate.'(Torrego 1999: 1787, my translation)

Torrego's (1999) claim is criticized by García García (2018: 222–223), who argues that sentences such as the one provided in (20) contain not only a telic predicate but also an affected direct object, which, as demonstrated in the previous section, influences the occurrence of DOM. Additionally, García García affirms that verbs such as *insultar* 'to insult', *sobornar* 'to bribe', *curar* 'to treat', and *emborrachar* 'to make drunk' are biased toward a human direct object. Therefore, the obligatory use of DOM might not be only due to the predicate being telic but rather due to its affectedness and its tendency to select a human entity as a direct object.

To ascertain the validity of Torrego's claim, Romero Heredero (2022) systematically investigates the effect of telicity on the occurrence of DOM in Spanish. To achieve this goal, he provides both a forced-choice task experiment with native European Spanish speakers and a diachronic corpus analysis. As a diagnostic for distinguishing telic and atelic verbs, Romero Heredero utilizes Vendler's (1957: 145–146) telicity test. This test involves checking if a verb accepts the insertion of *durative adverbials,* such as *in one hour*, and *non-durative adverbials,* such as *for one hour.* Telic predicates accept only *durative adverbials,* while atelic predicates accept only *non-durative adverbials*. This contrast is illustrated in (21). Example (21)a, a telic predicate, rejects the non-durative adverbial, while the result is completely natural with the durative adverbial. However, the situation is reversed in (21)b.[17]

(21) Telicity test (adapted from Romero Heredero 2022: 116):
a. *María corre un kilómetro en cinco minutos / #por cinco minutos*.
'María runs one kilometer in five minutes / #for five minutes.'

[17] The examples show that the same verb can have either a telic or an atelic reading depending on whether it has an internal argument or on which type of internal argument it has (cf. Krifka 1989).

b. *María corre por el parque #en cinco minutos* / *por cinco minutos*.
'María runs through the park #in five minutes / for five minutes.'

In relation to Romero Heredero's (2022) experiment, it specifically focuses on human indefinite NPs, for which Torrego considers DOM to be obligatory with telic predicates. Using Vendler's test, the author selects 32 verbs evenly distributed between telic and atelic predicates. If telicity indeed plays a role, a noticeable impact on telic predicates compared to atelic ones should be possible to observe. However, contrary to Torrego's assertion, his results indicate that telicity does not play a significant role in the occurrence of DOM with human indefinite NPs in present-day Spanish, at least regarding European Spanish. DOM occurred with atelic predicates in 83% (4,324/5,216) of the cases, while it appeared with telic predicates in 80% (4,180/5,216), representing a mere 3% difference.

Regarding the corpus study, it focuses on human definite and indefinite NPs, covering the 14th, 16th, and 20th centuries. The key results are outlined in Table 4 below. The findings suggest that telicity does not significantly impact the occurrence of DOM in Spanish. Contrary to Torrego (1999), the data indicate that atelic predicates are more often preceded by DOM than telic predicates, except for indefinite NPs in the 20th century. In this case, telic predicates occur with DOM in 71% of the cases, while in 69% with atelic predicates. Interestingly, and in line with previous studies (cf. Barraza Carbajal 2008 for a study employing inanimate entities, which provides similar results), DOM occurs more frequently with atelic predicates in older varieties of the language, specifically in the 14th and the 16th centuries, with a more evident contrast with indefinite NPs. However, the difference is not statistically significant.

Table 4: Proportion of DOM in European Spanish regarding telicity, considering definiteness, throughout the 14th, 16th, and 20th centuries. Adapted from Romero Heredero (2022: 125 (Table 5.3) and 126 (Table 5.4)).

definiteness	telicity	14th century	16th century	20th century
DEFINITE	ATELIC	54% (129/240)	66% (237/360)	95% (568/600)
	TELIC	47% (113/240)	64% (231/360)	92% (552/600)
INDEFINITE	ATELIC	35% (28/80)	41% (49/120)	69% (137/200)
	TELIC	20% (16/80)	30% (36/120)	71% (142/200)

In conclusion, Romero Heredero (2022) offers empirical evidence from diachronic and synchronic perspectives, indicating that telicity is not a relevant verbal parameter affecting the occurrence of DOM in present-day Spanish, as well as in Medieval and Classical Spanish, at least with human NPs in European Spanish.

2.2.2.3. Agentivity

Agentivity represents the third verbal parameter under consideration. It denotes an action performed by an object using its own source of energy (Cruse: 1973: 21). This concept is sporadically referred to by the literature as being connected to the occurrence of DOM in Spanish (cf. Roegiest 1979; King 1984; Delbecque 1998, 2002; Torrego 1999; Laca 1995, 2006; Enghels 2007a, 2007b; García García 2007, 2014, 2018; von Heusinger & Kaiser 2011; García García et al. 2018; Mürmann 2023, among others). Similar to the situation with the other verbal parameters, there is a lack of empirical investigations testing this assumption.

I review some of these works in what follows, focusing on non-human animate and inanimate entities. The reason is that human direct objects are inherently seen as "potential agents" (Delbecque 1998: 398; Primus 2012: 78–79; García García 2018: 237). Therefore, let us set them aside for the moment and consider the impact of agentivity on DOM in relation to non-human animate and inanimate entities. However, it is essential to note that some inanimate entities can also be potential agents (García García et al. 2018).

Fernández Ramírez ([1951] 1986: 188–189) suggests that the absence of DOM with animals implies a passive status, making them comparable to things, i.e., objectification. On the other hand, the capability of the animal to act in response to stimuli plays an important role in the presence of DOM. Hence, the nature of the predicate influences how animals are perceived (Fernández Ramírez [1951] 1986). Verbs that do not elicit a response from the animal, such as *amarrar* 'to tie'*, cargar* 'to load'*, descargar* 'to unload'*, ensillar* 'to saddle'*, pesar* 'to weigh'*, sujetar* 'to hold'*, uncir* 'to yoke', are typically used without DOM, along with a *patient* direct object. Conversely, verbs that imply a response from the animal, like *animar* 'to animate'*, aquietar* 'to calm'*, incitar* 'to incite'*, llamar* 'to call'*, silbar* 'to whistle'*, sorprender* 'to surprise' tend to appear with DOM, along with a more agentive direct object.

In a similar vein, Fábregas (2013: 13) argues that in cases such as the one provided in (22), i.e., with an indefinite non-human animate entity, DOM "seems to be associated to contexts where the dog is the intended agent of some implicit event". Of course, this association, if indeed possible, depends heavily on specific contexts. In this example, the author suggests that the use of DOM indicates the speaker's intention to express that someone did something in the kitchen, and stating that he or she saw *a un perro* 'DOM a dog' there indicates that the dog is likely the doer of the implicit event. Notice, however, that according to Pensado (1995a: 11), the presence of DOM in such an example may

instead be associated with contexts in which the dog is seen as the protagonist (or center of attention) of the perceived event.[18]

(22) *Vi* *(a)* *un perro en la cocina.*
saw.PST.1SG (DOM) a dog in the kitchen
'I saw a dog in the kitchen.' (Fábregas 2013: 13)

Contrary to what this chapter has considered relevant for the occurrence of DOM in Spanish, King (1984: 388) presents an alternative perspective. He argues that the correct interpretation of the phenomenon is not based on features such as [±HUMAN, ±INDIVIDUATED] but rather on how speakers interpret the real world. King proposes that a single binary feature, [±EQUAL STATUS], suffices to explain the presence or absence of DOM. If the speaker considers the direct object to have an equal ranking as the subject, it entails [+EQUAL STATUS] and is preceded by DOM; if not, it entails [-EQUAL STATUS], and DOM is absent. However, what is pertinent to the discussion of this section is that he suggests that when DOM is used with inanimate entities, it signals that "the noun is 'elevated' to the role of a potential participant" (King 1984: 399). Crucially, this potential participant does not actively take part in an event or action overtly; rather, the speaker allows for its participation through inference. To illustrate his point, let us consider the examples in (23), taken from King (1984: 399).

(23) a. *Es un soldado que honra a su nación… (y su nación lo honra a él).*
'He is a soldier who honors his nations… (and his nation honors him).'

b. *Hay que resistir a la tentación… (porque la tentación no nos resiste a nosotros).*
'Temptation must be resisted… (because temptation does not resist us).'

The examples aim to demonstrate that both direct objects, *su nación* 'his nation' and *la tentación* 'the temptation', are considered by the speaker to have equal status to the subject. As such, they are preceded by DOM and elevated to the status of potential participants. Despite the originality of King's proposal, I believe that the occurrence of DOM in these examples is better explained not by the feature [+EQUAL STATUS], but rather by the fact that both direct objects qualify as potential proto-agents (see Role-dependent DOM in (27) below; cf. Dowty 1991). Informally, one could say that in (23)a, *the nation* must act in some way for *the soldier* to honor it; and in (23)b, for *the temptation* to be resisted, it must exert some force or influence on someone (see Chapter 4). In other words, they have proto-agent features, in line with Dowty's (1991) proto-role approach.

[18] Laca (1995: 82) suggests that the occurrence of DOM in this type of construction indicates a probable *discourse topic,* implying that further information about the referent preceded by DOM is likely to be provided.

Another noteworthy observation comes from Bello ([1847] 1995: 254), who notes that certain classes of verbs, specifically verbs of sequencing, may occur with DOM independently of the animacy of their arguments.[19] He provides the examples in (24) to illustrate this. Both arguments are inanimate entities in these examples, and interestingly, DOM is allowed to appear in both constructions. Notice, however, that the presence of DOM is not obligatory (García García 2007: 66).

(24) a. *La primavera precede al estío.*
the spring precedes DOM.the summer.
'Spring precedes summer.'

b. *El invierno sigue al otoño.*
the winter follows DOM.the autumn
Winter follows autumn.'

García García (2007, 2014, 2018) affirms that DOM with inanimate entities primarily occurs with a limited set of verbal classes. This set encompasses not only verbs of sequencing but also verbs of replacement, such as *sustituir* 'to substitute', *reemplazar* 'replace'; verbs of competitions, such as *vencer* 'to win', *derrotar* 'to defeat'; verbs of attribution, such as *caracterizar* 'to characterize', *definir* 'to define'; and verbs of naming, such as *considerar* 'to consider', *llamar* 'to call' (cf. Fish 1967; Roegiest 1979; Torrego 1999).

Building on the thematic proto-roles approach of Dowty (1991) and Primus (1999a), García García (2007: 71) explains the occurrence of DOM with these types of predicates by examining the semantic relation between both arguments (see Chapter 4), specifically focusing on the contrast between the agentivity features of the arguments. Essentially, DOM becomes necessary when the inanimate direct object equals or surpasses the number of agentivity features possessed by the inanimate subject. The author formally defines this connection as the *Thematic Distinctness* generalization, as outlined in (25) below.

(25) Thematic Distinctness (García 2007: 71, 2014: 145):
DOM with inanimate direct objects is correlated primarily with the thematic relation between subject and object. When the direct object is equally or more agentive than the subject, *a*-marking is required.

Analyzing the example in (26), which consists of a verb of replacement with two inanimate arguments, it becomes evident that neither argument has more agentive properties than the other. Therefore, in agreement with (25), DOM is required in such a

[19] However, the Venezuelan author considers the *a* as a dative marker rather than DOM. On the other hand, Roegiest (1979: 51) argues that the presence of DOM with these verbs is explained diachronically, as in Latin, the object of these verbs alternates between accusative and dative.

construction. In other words, the egg has the same conditions as the milk for being replaced.

(26) *En esta receta, la leche puede sustituir al huevo.*
in this recipe the milk can.3SG replace.INF DOM.the egg
'In this recipe, egg can be replaced by milk.' (García García 2007: 67)

The relevance of the Thematic Distinctness is diachronically tested by the author in a later work (García García 2018). He conducted a corpus study spanning from the 13th to the 20th centuries, analyzing the evolution of DOM with two verbs: *preceder* 'to precede' and *seguir* 'to follow', considering only inanimate direct objects. His results are provided in Table 5 below. As shown in the table, *preceder* exhibits a very high incidence of DOM since the 13th century, whereas *seguir* shows a very low occurrence of DOM throughout all the centuries. This contrast is due to the fact that *seguir* is a polyvalent verb, meaning both *x comes after y* and *x continues y*,[20] with the latter being much more common than the former (cf. Delbecque 1998: 404–405). Consequently, there is a difference in the agentivity features of both arguments, in consonance with (25).

Table 5: Proportion of DOM with inanimate direct objects in relation to preceder 'to precede' and seguir 'to follow', spanning from the 13th to the 20th centuries (from García García 2018: 233 (Table 9)).

	13th c.	**14th c.**	**15th c.**	**16th c.**	**17th c.**	**18th c.**	**19th c.**	**20th c.**
preceder	100% (1/1)	-	85% (11/13)	77% (20/26)	88% (7/8)	92% (22/24)	94% (29/31)	98% (39/40)
seguir	29% (6/21)	6% (1/17)	5% (1/22)	10% (3/30)	6% (2/34)	6% (2/32)	22% (4/18)	13% (3/23)

Another author mentioning the influence of agentivity on DOM is Company Company (1997, 2002). In her analysis of the diachronic development of DOM in Spanish, Company Company (1997: 61–63) argues that DOM initially impacted specifically those direct objects that were highly prominent, meaning that they were very individuated human entities. Crucially, these objects possessed agentive features, such as volition and a certain degree of activity. Moreover, the author (2002: 209–211) suggests that the expansion of DOM, which reaches inanimate entities in present-day Spanish (specifically in the Mexican variety), can also be attributed to agentivity, along with other factors like the aspectual class of the verb.

Discussing cases where DOM occurs exceptionally, Lenz (1925: 52) suggests that DOM is employed to maintain the clarity of the constructions. According to him, if it is logically possible to consider the direct object as the subject of the predicate,[21] DOM is

[20] The RAE (2026) provides several other definitions, including *to observe* and *to follow with the eyes.*

[21] It is important to emphasize that Lenz's proposal partially aligns with the Thematic Distinction illustrated in (25). However, his argument does not explicitly depend on agentivity but on animacy. If both arguments share the same status regarding animacy, DOM is available. Importantly, this disambiguating device,

used. Although he assumes that DOM functions as a disambiguating device, his statement aligns well with the idea that direct objects that are similar to subjects, i.e., having properties typically associated with subjects, may appear with DOM (cf. García García 2007, 2014, 2018; Kabatek 2016; García García et al. 2018).

García García et al. (2018), who discuss the role of animacy (shift) in grammar, provide an analysis of DOM in terms of semantic roles (cf. Chapter 4). Furthermore, their *Role-dependent DOM* is one of the best accounts for the occurrence of DOM in Spanish, as it applies to both the typical cases where DOM occurs and also the exceptional ones. Let us consider it in (27).

(27) Role-dependent DOM (García García et al. 2018: 27):
A differential object marker is licensed by an object qualifying as a minimal or potential proto-agent in a given event. The proto-agent properties may either be subcategorized by the verb or assigned according to intrinsic properties of the object referent.

Although the Role-dependent DOM concept is fairly straightforward, it is fundamental to keep in mind that the presence of agentivity features in a direct object (either inherent due to its own source of energy or entailed by the verb) does not automatically trigger DOM. Instead, it enables the direct object to potentially occur with DOM. Therefore, their argument is not that every entity with agentivity features must always appear with DOM. If that were the case, every human entity would require DOM, which contradicts the arguments presented earlier in this chapter (cf. Table 1). However, the example in (28) below helps us to understand their claim. Unlike examples (24) and (26), where both arguments are inanimate entities, in (28), the subject is a human entity while the direct object is inanimate and, crucially, preceded by DOM. Although the direct object is inanimate, it is a dynamic machine capable of movement and responsive to stimuli. More specifically, having both *movement* and *sentience* entailments as per Dowty's (1991) proto-agent role (discussed in Chapter 4), aligns with the Role-dependent DOM concept in (27) above.

(28) *¡Hans, puñeta, llama al ascensor!*
Hans, damn, call.3SG.IMP DOM.the elevator
'Hans, damn, call the elevator!' (García García 2014: 189)

The last point to be addressed is a construction that is at the core of this work, namely, AcI constructions (see Chapter 3). Discussing the role of verbal parameters in the occurrence of DOM, Torrego (1999: 1792) briefly comments on AcI constructions involving inanimate entities and provides the examples in (29) below, where DOM is optional.

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according to him, is more spread in colloquial variety

(29) a. *Veo* / *oigo* *el* *agua* *caer*.
see.1.SG / hear.1.SG the water fall.INF

b. *Veo* / *oigo* *al* *agua* *caer*.
see.1.SG / hear.1.SG DOM.the water fall.INF
'I see/hear water falling.'

According to Torrego (1999), the presence of DOM in (29)a creates a change in the meaning of the sentences, as DOM implies a certain degree of agentivity, which is absent in (29)b. She further argues that due to the agentivity properties associated with DOM, the insertion of the adverb *muy rápidamente* 'very fast' sounds better in the construction containing DOM, (29)a, as opposed to the one without DOM, (29)b. This also applies to the insertion of a locative, as seen in *Veo al agua llegar al estanque* 'I see the water arrive at the pond'. From my perspective, DOM occurs precisely because the NP *agua* (the logical subject of the infinitive) has agentivity features in line with the Role-dependent DOM concept, rather than the presence of DOM providing agentivity properties to the NP. Whether with DOM or without DOM, I assume that the NP *agua* retains its agentivity properties.[22]

The content presented in this subsection was intended to provide an overview of agentivity as it relates to DOM. A more comprehensive analysis of agentivity is given in Chapter 4. Nevertheless, let me summarize the key points discussed here: (i) several authors implicitly or explicitly link the occurrence of DOM with agentivity; (ii) verbs that imply a response from the direct object are said to occur more often with DOM than those that do not; (iii) the presence of DOM may imply the availability of a covert event, where the direct object is the agent of the event; (iv) DOM indicates that the direct object is a potential participant (understood as having agentivity features); (v) the agentivity properties of the arguments are relevant for the occurrence of DOM, with both the Thematic Distinctness generalization in (25) and the Role-dependent DOM concept in (27) accounting for many exceptional cases where DOM occurs; (vi) the agentivity provided to NPs by specific constructions, such as AcI constructions, is associated with the occurrence of DOM.

[22] Roegiest (1979: 49) talks about a potential activation of NPs. However, the author seems to contradict himself regarding the properties that trigger this potential activation. At times, he suggests that it is triggered by the nominal properties of the direct object, while other times, it is attributed to contextual elements, including DOM itself. Nevertheless, he asserts that the infinitive in AcI constructions activates the NP, thus contributing to the occurrence of DOM.

2.2.3. Topicality

In the previous subsections, it was extensively demonstrated that both nominal and verbal parameters are crucial for understanding the occurrence of DOM in Spanish. Nonetheless, another very important factor connected with the occurrence of the phenomenon is *topicality* (cf. Laca 1995; Melis 1995; Leonetti 2004, among many others).

Topicality has been widely investigated and is often associated with the concept of *topic* (cf. Reinhart 1981: 4; Givón 1983: 5; Lambrecht 1994: 117; Leonetti 2004: 105; Endriss 2009: 19, among others). Informally, it refers to what the sentence is about (aboutness) or to *familiarity* (a pre-established referent). In other words, the concept can be linked to two aspects: (i) sentence topic and (ii) discourse topic (Lambrecht 1994: 130, Melis 1995: 134). Here, I focus on the former (see von Heusinger et al. 2024 for a study on DOM and discourse prominence in Spanish).

Building on Hawkinson and Hyman (1974), Givón (2015) provides the *topic hierarchies* in (30) below, which illustrate the characteristics typically found in topic referents. Givón distinguishes between [±HUMAN], [±ANIMACY], [±DEFINITENESS], thematic roles, and grammatical functions. Referents with properties from the categories on the left side of each *topic hierarchy* are more likely to be topics.

(30) Topic hierarchies (Givón 2015: 185):
   a. human > non-human
   b. animate > inanimate
   c. definite > indefinite
   d. agent > dative/benefactive > patient
   e. subject > direct object > oblique

Notice that these categories are very similar to those relevant to DOM in Spanish. Hence, it is not surprising that these two phenomena are said to be connected. In fact, Leonetti argues that DOM functions as a *topic marker,* not in terms of old or given information, but as *aboutness*, meaning "an anchor for new assertions" (Leonetti 2004: 86). Although DOM in Spanish is associated with topicality, verifying it in a canonical word order construction is challenging, as very prominent direct objects (in terms of both the animacy and referentiality scales) obligatorily occur with DOM. However, the importance of topicality becomes apparent by employing certain syntactic mechanisms related to *information structure.* Two such syntactic mechanisms are dislocation and clitic doubling (cf. Suñer 1988; Pensado 1995b; Zagona 2001; Melis 2018, among others). For example, when a human indefinite direct object is dislocated, DOM becomes mandatory, regardless of the type of dislocation, i.e., whether clitic left-dislocation or clitic right-dislocation (Pensado

1995b: 197), contrasting with the canonical word order construction, in which DOM is optional in such configuration, as Leonetti's (2004: 86) examples in (31) below illustrate.

(31) a. *Ya conoc-ía (a) muchos estudiantes.*
already knew-1SG (DOM) many students
'I already knew many students.'

b. **(A) muchos estudiantes, ya los conoc-ía.*
*(DOM) many students, already CL.3PL.M knew-1SG
'Many students I already knew.'

As for clitic doubling, its occurrence is much more restricted. Nonetheless, DOM also becomes obligatory when the direct object is realized as a pronoun,[23] as shown in (32). Moreover, overt marking is obligatory in all varieties of Spanish when the direct object is a human entity and is realized as a pronoun. Speakers have two options: either DOM is used along with clitic doubling, or *a ella* must be dropped, as in *La llamaron* 'They called her'.

(32) **(La) llam-aron a ella.*
*(CL.3SG.F) called-3PL DOM her
'They called her.' (Suñer 1988: 394)

Both examples show that topicality is indeed relevant for the occurrence of DOM in Spanish. However, except for dislocated direct objects and clitic doubling constructions, topicality no longer plays a relevant role in the occurrence of DOM with human definite NPs in present-day Spanish (von Heusinger 2008: 13; Iemmolo 2010: 265). In contrast, the situation was different in Medieval Spanish (cf. Melis 1995). Pensado (1995b) claims that topicality is the origin of the phenomenon in Spanish (as well as in other Romance languages). Melis (1995), who analyzed *Cantar de Mio Cid*, demonstrates that topicalized human elements very often occurred with DOM (see sentence (40) in the next section for a relevant example). Her analysis shows that a referential pronoun (realized as clitic doubling or dislocation) increases the incidence of DOM. When the direct object is doubled, DOM occurs in 66% (38/58) of the cases, compared to 26% (30/129) when it is not. Additionally, it is worth mentioning that in 24 out of these 30 cases where the direct object was preceded by DOM, it appeared in an SVO word order. However, in more than half of these instances, the occurrence of DOM was facilitated by syntactic mechanisms, such as coordination with a proper name or constructions with infinitives, e.g., AcI constructions (Melis 1995: 145). This reinforces the importance of topicality in the early stages of the language.

[23] The analysis of both structures goes far beyond the goals of this investigation. For an extensive investigation of clitic doubling in Spanish, see Suñer (1988) and Leonetti (2008), among others. Nonetheless, it is important to highlight that some varieties of Spanish, including Peruvian and Porteño Spanish, are more permissive regarding the occurrence of clitic doubling.

In light of the discussion above on topicality influencing the emergence of DOM, an interesting question arises: Does topicality, particularly in relation to dislocated direct objects and clitic doubling, favor the occurrence of DOM with inanimate entities? Laca (1995: 84) presents examples suggesting a positive answer to this question, as illustrated in (33) and (34) below. The former example involves clitic left-dislocation, while the latter involves clitic doubling.

(33) *A la sacristía la traspasaba un buen sablazo de sol.*
DOM the sacristy CL.SG pierced.3SG a good slash of sunlight
'A good slash of sunlight pierced through the sacristy.' (Roegiest 1980: 146)

(34) *[...] –¡Te digo que hay que leerlo al libro!*
you.DAT say.1SG that there-is that read.INF.CL.3SG.M DOM.the book
'–I'm telling you, you have to read the book!' (adapted from Laca 1995: 84)

Nevertheless, contrary to Laca's (1995) suggestion, García García (2014) provides empirical evidence showing that topicality has only a minor impact on the occurrence of DOM with inanimate entities in Spanish. Through a corpus study based on ADESSE, the author investigates the proportion of DOM with regard to topicality. His analysis comprises a total of 1,146 tokens, with a balanced number of tokens with and without DOM. To identify topics, he searched for all cases in which the direct object appeared either in clitic left-dislocation, clitic doubling, or OVS-structures,[24] resulting in 49 tokens, i.e., 4% of the total.

These results show that the majority of inanimate direct objects (contained in this corpus) do not have a topical status. Nonetheless, he observes a slight difference in favor of DOM, specifically, 57% (28/49) of cases. Regarding the results of the three syntactic structures, García García reports that the majority of tokens involve clitic left-dislocation, where DOM occurs in 46% (18/39) of the cases, followed by OVS-structures with 100% (8/8), and clitic doubling with 100% (2/2). Several observations are needed here: first, clitic doubling is extremely rare, making it difficult to draw firm conclusions. Second, the relatively balanced occurrences of DOM in clitic left-dislocation structures demonstrate that this structure does not favor the presence of DOM, as it occurs similarly to non-topical inanimate direct objects. Third, the striking incidence of DOM in OVS-structures could suggest an impact of topicality on the phenomenon. However, all these cases occur in predicates where both arguments are inanimate, suggesting that DOM in such instances serves a disambiguating function (García García 2014: 91). Finally, in more than half of

[24] Importantly, OVS-structures such as *A la crítica moral sucedió la crítica histórica [...] y económica* '*DOM* Moral criticism was followed by historical [...] and economic criticism' are not cases of *Focus Fronting*, as in *EL JAMÓN se ha comido Pepe* 'THE HAM has been eaten by Pepe.'. Examples were extracted from (García García 2014: 88-89).

the cases where DOM occurs (18/28), the predicates are composed of sequencing and naming verbs, which contribute to the occurrence of DOM, as discussed in the previous subsection.

Recent research has expanded the idea that DOM is related to topicality to discourse prominence. Building on Leonetti (2004), who considers DOM as a topic marker, and Laca (1995), who suggests that when DOM occurs with a discourse topic referent, it indicates that more information about this referent is expected, von Heusinger et al. (2024) provide empirical evidence supporting Laca's observation. The authors show that, in cases where DOM is optional, specifically regarding human-indefinite direct objects, DOM increases the chances of the direct object being retaken in the subsequent discourse. Moreover, the authors demonstrate that when the direct object is preceded by DOM, it occurs more often as the topic of the subsequent discourse.

In short, topicality has played an important role in the emergence of DOM in Spanish, and it is generally assumed that DOM started with dislocated structures (Pensado 1995b). However, its significance has decreased in present-day Spanish due to the expansion of DOM from topic to non-topic direct objects. (cf. von Heusinger & Kaiser 2005; García García & Caro Reina, in print).

Before closing this section, it is important to comment on the relation between topicality and AcI constructions, since the NP2 shows typical topical properties. As will be discussed in detail in Chapter 3, AcI constructions generally involve both a main subject and the *logical subject of the infinitive* (except in the case of meteorological verbs), as illustrated in (35) and (36). In these examples, the main subject is the covert first person singular pronoun *yo* 'I', while the NP2 is *la mujer* 'the woman'.

(35) *Oigo a la mujer cantar.*
hear.1SG DOM the.F woman sing.INF
'I hear the woman sing.'

(36) *Veo a la mujer venir.*
see.1SG DOM the.F woman come.INF
'I see the woman come.'

In analyzing these constructions, it is useful to apply the concept of *primary topic* and *secondary topic* (Givón 2018: 124; Lambrecht 1994: 147; Dalrymple & Nikolaeva 2011: 53). This concept assumes that a sentence can have more than one topic. The primary topic is normally associated with the subject and expresses *aboutness*, whereas the secondary topic is usually associated with the direct object and is defined as "[a]n entity such that the utterance is construed to be ABOUT the relationship between it and the primary topic." (Nikolaeva 2001: 26). In other words, the secondary topic represents the relationship

between two prominent participants (Dalrymple & Nikolaeva 2011: 126). To illustrate, consider example (37), adapted from Lambrecht (1994: 148).

(37) a. *What ever became of John?*
b. *He married Rosa,*
c. *but he didn't really love her.*

Overall, the topic of the dialogue is *John.* However, the answer brings information not only about John but also about Rosa. In (37), the pronoun *he* (referring to John) functions as the topic, while Rosa is introduced as new information and is in *focus*. In (37), by contrast, *he* continues to function as the topic, more specifically, the primary topic, while the unaccentuated pronoun *her* (referring to Rosa) is no longer in focus. Instead, Rosa shifted into the discourse as a secondary topic, since the utterance is construed as being about the relation between John and Rosa.

Importantly, secondary topics have also been shown to play a role in DOM. Dalrymple & Nikolaeva (2011: 132-139) report that in certain languages, such as Tigre (Semitic) and Dolakha Newar (Tibeto-Burman), where DOM is sensitive to topicality (and to definiteness in the case of Tigre), direct objects that function as secondary topics occur with DOM.

Returning to AcI constructions, two distinct topics can be identified in (35) and (36): the main subject functions as the primary topic, while the NP2 serves as the secondary topic. However, differently than in a canonical transitive sentence, the secondary topic in AcI constructions is encoded simultaneously as the direct object of the perception verb and as the logical subject of the infinitive. Given that the NP2 functions as the logical subject of the infinitive, it has strong topical properties independently of the discourse (cf. (30) above). Notably, already in the 19th century, von der Gabelentz (1869: 378–384) used the term *psychological subject* to refer to topic elements.

In view of the topical properties of the NP2, it is natural to ask whether the high incidence of DOM in AcI constructions (see Chapters 3.3.4 and 5.4.2) might be explained by topicality rather than by agentivity. Although I argue that the main factor triggering DOM in AcI constructions is agentivity, it is plausible that topicality also contributes to its occurrence. However, if DOM were driven exclusively by topicality, this would not explain why, diachronically, DOM occurs much more frequently with the auditory perception modality than the visual one (see Chapter 5). Thus, while topicality seems to be relevant in these constructions, my data indicates that agentivity is a more important factor than topicality.

2.3. The diachronic expansion of DOM

Throughout this chapter, I have primarily focused on the main parameters contributing to the occurrence of DOM in present-day Spanish. However, as briefly mentioned in Section 2.2.1 and further developed in Section 2.2.2, DOM has been documented in this language since its origins. Moreover, the phenomenon has been consistently expanding since then (Laca 2006: 429). In this section, I present how the expansion of DOM in Spanish has unfolded.

In contrast to present-day Spanish, DOM was not as widespread in older varieties of the language. For instance, in *Cantar de Mio Cid*, which dates back to the 12th century, only a limited number of NPs were preceded by DOM (Lapesa 1964: 77–78). While DOM consistently occurred with personal pronouns and proper names referring to humans, there was a considerable variation regarding its use with definite NPs (Lapesa 1964: 80), with its incidence depending on several factors, for example, topicalization (cf. Melis 1995). Although the occurrence of the phenomenon increased over time, specifically in the 16th and the 17th centuries, Lapesa (1964: 77) claims that its absence is still frequent during this period. This contrast can be illustrated by the absence of DOM in the 13th-century version[25] of *Cantar de Mio Cid* and its presence in a modern adaptation of the same passage (v. 2551), as shown in (38) and (39), respectively.

(38) Old Spanish version:
Eſcarni-re-mos las fijas del Canpeador.
humiliate-FUT-1PL the daughters of.the Battler
'We shall humiliate the Battler's daughters.' (Menéndez Pidal [1961] 2002)

(39) Modern Spanish adaptation:
Escarnece-re-mos a las hijas del Campeador.
humiliate-FUT-1PL DOM the daughters of.the Battler
'We shall humiliate the Battler's daughters.' (Riaño Rodríguez & Gutiérrez Aja 2007)

Interestingly, DOM occurs four verses later (v. 2555) with the exact same NP, *las fijas del Campeador*, as shown in example (40). However, it is worth noting that there is a difference in the structure between the constructions in (38) and (40). The latter is a case of clitic doubling, a constructional parameter that is closely associated with DOM (as discussed in Section 2.2.3).[26]

[25] Regarding the date, I follow the modern consensus, which places the poem in the early 13th century, as opposed to Menéndez Pidal's traditional 12th century hypothesis (cf. among others, Smith 1986).
[26] This specific construction is not further explored in this work; interested readers are referred to Niculescu (1959) and Rohlfs (1971).

(40) Old Spanish version:

Aſſi las eſcarni-re-mos alas fijas del Campeador.
so CL.F.PL humiliate-FUT-1PL DOM.the daughters of.the Battler
'Thus we shall humiliate the Battler's daughters.' (Menéndez Pidal [1961] 2002)

To illustrate the expansion of DOM, I utilize Laca's (2006) diachronic corpus study, which is one of the most comprehensive investigations of the evolution of DOM in Spanish. Her analysis covers texts from the 12th to the 19th centuries, incorporating both animacy and referentiality scales. Table 6 below presents some key results regarding human NPs. Notice, however, that the table exclusively presents the data from European Spanish texts. For the 16th, 18th, and 19th centuries, Laca also analyzes three American Spanish works, which are not discussed here. Additionally, the author provides a detailed differentiation of several types of NPs, such as indefinite pronouns and NPs without a lexical head, which are not considered in the present analysis. The table presents only NPs with a lexical head.

Table 6: Proportion of DOM with human NPs based on definiteness and century. Each century is represented by one text from Spain. Adapted from Laca (2006: 442 (Table 2)). The label 'PN' denotes proper name, 'def.' for definite, and 'ind. for indefinite.

	12th c.	**14th c.**	**15th c.**	**16th c.**	**17th c.**	**18th c.**	**19th c.**
PN	96% (25/26)	100% (8/8)	100% (35/35)	95% (42/44)	100% (65/65)	79% (23/29)	89% (24/27)
def. NP	36% (13/36)	55% (36/66)	58% (38/65)	74% (26/35)	86% (117/136)	76% (22/29)	100% (28/28)
ind. NP	0% (0/6)	6% (2/31)	0% (0/11)	17% (1/6)	40% (21/53)	50% (8/16)	38% (3/8)
bare NP	0% (0/12)	0% (0/7)	17% (2/12)	0% (0/7)	3% (1/39)	0% (0/14)	20% (1/5)

According to her data, DOM with proper names was already obligatory with human entities as early as the 12th century, being consistently used throughout the centuries, except for the 18th century, when there was a slight decrease in its occurrence, followed by an increase in the subsequent century. On the other hand, DOM with definite NPs has gradually expanded from a relatively low frequency in the 12th century (specifically 36% of the cases[27]) to becoming obligatory in the 19th century. The situation differs in relation to indefinite NPs. There was almost no occurrence of DOM in this category until the 16th century, which was followed by a rapid increase in the subsequent centuries, reaching 40% of the cases in the 17th century and 50% in the 18th century. However, there is a decrease again in the 19th century, dropping to 38%. Regarding the occurrence of DOM with bare NPs, it is almost totally absent, with only a couple of occurrences throughout the centuries.

Although Laca's data is somewhat limited, representing only one author per century and composed of only a few tokens in some centuries, her work is inspiring and provides an initial foundation for exploring the evolution of the phenomenon. First of all, from her results, it becomes evident that there is a clear expansion path of DOM with definite NPs

[27] Notice that the majority of the cases with DOM are related to clitic doubling or preposed direct objects (Laca 2006: 455).

throughout the centuries, along with the emergence of DOM with a new category, namely, with indefinite NPs. Referring to this syntactic change, García & van Putte (1995: 119–120) affirm that the high frequency or saturation of a category precedes the extension to a second one, which initially was more resistant to the occurrence of the phenomenon. Subsequently, the high incidence of the phenomenon in this second category led to its extension to a third category that was less favorable to the phenomenon (García & van Putte 1995: 119–120).

García & van Putte's (1995) claim can also be observed in Romero Heredero's (2022) work. This author provides a study on the evolution of DOM in European Spanish. However, his analysis focuses on three centuries, specifically on the 14th, 16th, and 20th centuries, representing three periods of the language: Medieval Spanish, Classical Spanish, and Modern Spanish. Although covering fewer centuries than Laca (2006) and only dealing with human definite and indefinite NPs, Romero Heredero's corpus analysis is composed of many more tokens than Laca's study, specifically, 2,400 tokens for definite NPs and 800 for indefinite NPs. Furthermore, his study comprises multiple texts and exclusively considers the SVO word order, which enhances its reliability. The results are presented in Table 7 below.

Table 7: Proportion of DOM in European Spanish with human NPs regarding definiteness throughout the 14th, 16th, and 20th centuries. Adapted from Romero Heredero (2022: 123 (Table 5.2)).

definiteness	**14th century**	**16th century**	**20th century**
definite	50% (242/480)	65% (468/720)	93% (1,120/1,200)
indefinite	28% (44/160)	35% (85/240)	70% (279/400)

In relation to the 14th century, his study presents a similar proportion of DOM cases with definite NPs compared to Laca's study. He reports 50% of cases, while Laca, 55%. On the other hand, indefinite NPs occur with DOM in 28% of the cases, while in Laca's study, only 6%. This difference shows that DOM with indefinite NPs was more spread than previously reported. Moving on to the 16th century, as in Laca's analysis, he reports an increase in the incidence of the phenomenon both with definite and indefinite NPs. While definite NPs were preceded by DOM 65% of the time, indefinite NPs were 35%. In this century, his findings contrast with those presented by Laca. While both studies indicate an expansion in the phenomenon, Romero Heredero demonstrates a more conservative increase of DOM with definite NPs compared to Laca's data. Conversely, regarding indefinite NPs, the author reports a higher percentage than Laca. When it comes to the 20th century, a direct comparison with Laca's data is not possible since her study covers only up to the 19th century. However, her data regarding definite NPs contrasts with Romero Heredero's findings. While Laca's results suggest that DOM with these types of NPs had become categorical as early as the 19th century, reaching 100% of cases, Romero Heredero

reports a slightly lower frequency of 93% for the same types of NPs in the following century.

As demonstrated by both Laca (2006) and Romero Heredero (2022), the use of DOM in Spanish has been consistently expanding. In this regard, von Heusinger & Kaiser (2005) provide a comprehensive schema that contrasts the cases in which DOM was obligatory, optional, ungrammatical, or not applicable in Medieval Spanish with its application in present-day Spanish. This comparison is based on the animacy and referentiality scales, as illustrated in Table 8 below.

Table 8: DOM in Medieval Spanish (Med.) and Modern Spanish (Mod.) according to the animacy and referentiality properties of the direct object. The label 'pers pron.' holds for personal pronoun; 'PN' for proper name; 'def. NP' for definite NP; '+ spec. NP' for indefinite specific NP; and '- spec. NP' for indefinite non-specific NP. The symbols '+', '±', '-', and 'Ø' mean that DOM is obligatory, optional, ungrammatical, or not possible, respectively. The grayish cells represent the categories where there has been an expansion of DOM. Adapted from von Heusinger and Kaiser (2005: 42)

referentiality	**pers. pron.**		**PN**		**def. NP**		**+ spec.**		**- spec.**	
period	**Med.**	**Mod.**	**Med.**	**Mod.**	**Med.**	**Mod.**	**Med.**	**Mod.**	**Med.**	**Mod.**
human	+	+	+	+	±	+	-	+	-	±
animate[28]	+	+	+	+	±	±	-	±	-	-
inanimate	Ø	Ø	±	±	-	-	-	-	-	-

The table demonstrates that the expansion has primarily affected human entities. As stated by the authors, DOM expanded from being optional with definite NPs to becoming obligatory. Regarding indefinite NPs, DOM expanded from being ungrammatical to becoming mandatory with specific NPs and optional with non-specific NPs. Importantly, von Heusinger & Kaiser (2005) argue that some intermediate (transitional, in their words) categories within the referentiality scale facilitated the expansion of DOM in European Spanish. Specifically, they propose that topicality played a crucial role in its expansion with definite NPs. Human definite NPs with the feature [+TOP] received DOM obligatorily in Medieval Spanish, while DOM was optional with [-TOP] ones. Over time, DOM expanded to the [-TOP] category, thus ceasing to be a significant factor, as all definite NPs receive DOM obligatorily. A similar process is observed with human indefinite NPs, but in this case, it is driven by specificity. Hence, according to them, these transitional categories are only important for the categories in which DOM is expanding.

While this section has mainly focused on the evolution of DOM regarding the nominal parameters and topicality, it is fundamental to highlight the significant role that verbal parameters have played in this expansion of the phenomenon. This is evident from the contrast between affected and non-affected human NPs, as presented in Table 3.

[28] As stated in fn.11, I follow García García's (2018) schema for animate definite NPs regarding Modern Spanish.

Nonetheless, I show in Chapter 5 that agentivity was also a very relevant parameter for the evolution of DOM in Spanish.

2.4. Functional aspects of DOM

Throughout this chapter, I have explored the main parameters and factors contributing to the occurrence of DOM in Spanish. However, the functional aspects of DOM have not yet been addressed. Therefore, this section briefly addresses this topic before concluding the chapter.

Usually, the typological literature discusses two main (functional) explanatory approaches for DOM. One is the *distinguishing approach* and the other is the *indexing approach* (Song 2001: 156-167; Siewierska & Bakker 2009: 292-295). In what follows, each approach is shortly described.

2.4.1. Distinguishing (or discriminatory) function

The distinguishing approach assumes that DOM serves to clarify that the direct object is not the subject. This viewpoint was supported by Lenz for Spanish nearly a century ago, stating that "the direct object takes the preposition 'a' if it is logically possible to consider it as the subject of the sentence" (Lenz 1925: 52, my translation). Hence, according to Lenz, the presence of DOM acts as an ambiguity resolution device when both arguments are of the same type. More recently, Alarcos (1970, 1994) revived this argument, highlighting that when both arguments could act as the doer (*actor* in his terms) of the action, DOM indicates which of them is the direct object. Implicit in their arguments is the notion that DOM occurs because the direct object has properties resembling those of a subject. Similarly, from a typological perspective, Comrie (1979: 19) affirms that DOM is "particularly likely where there is a greater likelihood of confusion between subject and direct object". This functional account aligns with *markedness theory*, more specifically with *typological markedness*, which Croft (2003: 87) defines as "asymmetrical or unequal grammatical properties of otherwise equal linguistic elements".

According to Comrie (1989:127), subjects tend to be animate and definite, whereas direct objects tend to be inanimate and indefinite. Moreover, "any deviation from this pattern leads to a more marked construction" (Comrie 1989:128). In other words, as Aissen (2003: 438) puts it, what is marked for subjects is unmarked for objects, and what is unmarked for subjects is marked for objects, a concept known as *markedness reversal* (cf. Croft 2003). Building on this idea, Aissen (2003: 443) proposes a relationship between

animacy, grammatical function, and markedness, which is presented in (41) by the following hierarchies.

(41) a. Subject/Human ≻ Subject/Animate ≻ Subject/Inanimate
b. Object/Inanimate ≻ Object/Animate ≻ Object/Human

In these hierarchies, the categories to the right are more marked than those to the left. Therefore, human subjects are the least marked among subjects, while human objects are the most marked among objects. DOM usually occurs in atypical situations, precisely in those cases where objects exhibit properties that most closely resemble those of subjects, i.e., in situations where the direct object is high in markedness (cf. Aissen 2003; García García 2007; Melis 2021; Puentes et al. 2022, among others).

The most criticized aspect of the distinguishing approach, i.e., considering DOM as a device signaling *non-subject*, arises from the fact that DOM can occur in cases in which there is no need for disambiguation. For example, in Spanish since the first written records, DOM strikingly occurs with strong pronouns (Laca 1995, see Iemmolo 2010 for a similar claim for other Romance languages). Hence, one could argue that there is no reason for differentially marking an object that is already inherently marked. However, if one assumes that DOM originated from topicalizing structures with strong pronouns and gradually extended to other categories, as Melis (2021) convincingly argues, it is reasonable to think that once this first stage was reached, DOM acquired an additional function. Nonetheless, it is important to note that in present-day Spanish, unlike in Medieval Spanish, DOM occurs with strong pronouns only when they are doubled (i.e., clitic doubling) or in contrastive constructions such as *Te vi a ti, no a él* 'I saw you, not him'. Another possible explanation, as suggested by García García & Caro Reina (in print), is to consider the involvement of other prominent features, which normally differ in relation to the subject and the direct object, such as topicality and agentivity (cf. Aissen 2003; Iemmolo 2010; Mürmann 2023).

2.4.2. Indexing function

The indexing approach is similar to the distinguishing approach in that it also depends on pragmatic and semantic properties, as briefly mentioned in relation to the individuated properties of NPs in (16) above (Timberlake 1977; Kliffer 1995). However, differently than the distinguishing approach, which relies on the differences between the subject and the direct object, the indexing approach depends on certain properties "of the referents of arguments or of the clause itself" (Siewierska & Bakker 2009: 293).

Hopper & Thompson (1980), whose influential paper popularized the indexing approach as an alternative to the distinguishing one, associate DOM with characteristics of a typical direct object of a highly transitive event.[29] They identified ten parameters categorizing whether a given clause is more or less transitive, as shown in (42). If a given clause has more parameters from the *high* column, the clause will be characterized as more transitive; if it has more from the *low* column, it will be less transitive. Importantly, their Transitivity Hypothesis does not directly predict whether a given object will be overtly case marked in a certain language. Rather, it proposes that grammatical phenomena such as DOM tend to correlate with the overall transitivity of the clause. When an event ranks higher in transitivity, the object, if marked, is expected to reflect the properties associated with the *high* column (Hopper & Thompson 1980: 255).[30]

(42) Transitivity features (Hopper & Thompson 1980: 252):

	HIGH	LOW
Participants	2 or more participants, A and O	1 participant
Kinesis	action	non-action
Aspect	telic	atelic
Punctuality	punctual	non-punctual
Volitionality	volitional	non-volitional
Affirmation	affirmative	negative
Mode	realis	irrealis
Agency	A high in potency	A low in potency
Affectedness of O	O totally affected	O not affected
Individuation of O	O highly individuated	O non-individuated

Building on Hopper & Thompson (1980), Næss (2004: 1202) proposes a model that connects animacy and definiteness with affectedness. According to her, a direct object is overtly case marked in a DOM system not due to its individuation properties but rather because it is affected. Nonetheless, despite the importance of affectedness for DOM in Spanish, Næss' (2004) suggestion does not allow for an analysis of DOM that takes into account the agentive properties of the direct object, of which she herself seems to be aware[31] (cf. Azpiazu Torres 2009: 28).

In conclusion, while the distinguishing approach relies on the differences between both arguments, specifically in relation to animacy and definiteness, to point out which of the arguments is the direct object, the indexing relies on high transitivity features, including not only the individuation properties of the direct object but also verbal factors

[29] The authors define transitivity as "a global property of an entire clause, such that an activity is 'carried-over' or 'transferred' from an agent to a patient" (Hopper & Thompson 1980: 251).

[30] Notice that for Hopper & Thompson (1980: 291), a "normal" object is high in animacy and definiteness, while for Comrie (1979: 19), it is low, i.e., inanimate and indefinite.

[31] She states that in a "prototypical transitive clause, control and affectedness do not co-occur on the same argument". Moreover, these properties are opposite in transitive clauses (Næss 2004: 1206).

(cf. Siewierska & Bakker 2009: 293). Or as Malchukov (2008: 209) describes them, in the distinguishing approach, the "arguments (A[gent] and P[atient]) must be distinguishable", while in the indexing approach "semantic roles (A[gent] and P[atient])" are encoded.

2.5. Summary

The purpose of this chapter was to provide an overview of DOM in Spanish. To achieve this, I conducted a concise literature review to demonstrate the main parameters contributing to the case-marking alternation.

In the initial sections, I emphasized the importance of nominal parameters on the occurrence of DOM in Spanish, showing that both animacy and referentiality play crucial roles in the incidence of the phenomenon and that both semantic notions can be measured in terms of gradual scales. The categories at the higher end of both scales are more likely to be preceded by DOM than those lower on the scale. Importantly, although animacy is the main parameter triggering the phenomenon, the interaction between both animacy and referentiality is fundamental for a proper analysis of DOM in Spanish.

As a second step, I dedicated special attention to the verbal parameters suggested by the literature to influence the presence of DOM. First, I showed that affectedness is a very relevant factor for the phenomenon, both synchronically and diachronically. Direct objects that are affected tend to occur more frequently with DOM compared to those that are non-affected. Subsequently, I discussed telicity, demonstrating that it is not a significant factor for DOM. Contrary to the literature, a telic event does not favor the incidence of DOM. In fact, throughout the centuries, atelic events more frequently occur with DOM than telic events. This disparity becomes even more pronounced when considering indefinite NPs. I then listed several works that argue or suggest that agentivity is associated with DOM in Spanish, focusing mainly on cases involving non-human animate and inanimate entities. I repeatedly highlighted that the agentivity properties possessed by the direct object or provided by the predicate to the direct object seem crucial for the occurrence of DOM. For example, I showed that under certain configurations, DOM is required, regardless of animacy. Additionally, two important concepts were introduced, providing elegant descriptions regarding the use of DOM in relation to agentivity, namely Thematic Distinctness and Role-dependent DOM.

The last parameter I addressed was related to information structure, specifically topicality. To demonstrate its relevance to the incidence and evolution of DOM, I focused on dislocation and clitic doubling, showing that both syntactic mechanisms contributed significantly to the expansion of DOM in Spanish.

I showed that DOM in Spanish has been in constant expansion, which becomes more visible through the behavior of DOM within the category of human NPs. Initially optional in Medieval Spanish, it became obligatory with definite NPs. On the other hand, DOM, which rarely occurred with indefinite NPs until Classical Spanish, has become widespread and is now considered obligatory with specific NPs. Moreover, the literature suggests that the saturation of DOM with a certain category facilitates its expansion to other categories as well.

Finally, I discussed the two main typological function approaches attributed to DOM, i.e., distinguishing and indexing approaches, showing that while the former relies on DOM for pointing out which prominent argument is the direct object, the latter relies on high transitivity features.

As the attentive reader may have noticed, although I tried to address the most relevant information regarding DOM in Spanish, several points were not covered. This omission is inevitable, given the extensive volume of publications on the topic. Nonetheless, the information covered in the chapter demonstrates that DOM in Spanish depends on a series of factors. While some of them are very well investigated, there is a lack of empirical studies on others, particularly in relation to agentivity. This is exactly the aspect I will focus on in later chapters.

3. Perception verbs and AcI constructions

This chapter provides an overview of the literature on perception verbs. More specifically, it discusses two perception modalities: visual perception and auditory perception. Additionally, I analyze two specific constructions. The first are mono-predicative constructions, such as *María vio/oyó a la niña* 'María saw/heard the girl'. The second are AcI constructions, such as *María vio/oyó a la niña llorar* 'María saw/heard the girl cry'. Although I focus on Spanish, I also use other languages for explanatory and comparative purposes. The objective of the chapter is to present the constructions, comment on the difficulties their analyses present, and demonstrate that the two sensory modalities do not behave equally.

3.1. Introduction

Perception verbs are associated with the acknowledgment of sensations or stimuli by (typically) an animate entity using sensory organs, such as the eyes, ears, skin, and tongue, expressing direct (or physical) perception. Some can also express intellective (mental) perception (cf. Campos 1999). The core components of the field of perception include the five sensory modalities, namely, *sight*, *hearing*, *touch*, *taste*, and *smell* (Viberg 1983; Fernández Jaén 2006). Languages differ in how they express perception experiences. For instance, Avatime, a Ghanaian Kwa language, employs a binary system distinguishing only between what is seen and what is not, which has a verb for visual perception and another for non-visual perception (van Putten 2020). In contrast, Romance languages, including Spanish, possess an extensive inventory of verbs to express sensory perception.

The study of perception verbs constitutes a complex challenge because they can be expressed in different modalities of perception and used in many different configurations and intentions. For example, they can function as one-place,[32] two-place or even three-place predicates; they may be stative, dynamic or copulative predicates; they can convey metaphoric meanings; and even serve as discourse markers. Additionally, perception verbs can select a finite or a non-finite embedded clause, among other possibilities. In this chapter, I focus specifically on visual perception and auditory perception. More precisely, I examine four verbs, *ver* 'to see' and *mirar* 'to look', as well as *oír* 'to hear' and *escuchar*

[32] One-place predicates with perception verbs refer to *dynamic modality* (cf. Papafragou 1998), which denotes the ability to see (non-blind), hear (non-deaf), and so on. In these instances, the perception verb selects only its subject argument.

'to listen', which are considered the most prototypical verbs of each modality in Spanish (cf. Fernández Jaén 2006).

These verbs generally select two arguments: (i) a subject, which typically must be an entity with the feature [+ANIMATE][33], and (ii) a direct object, which is what is perceived. In other words, they select both a *perceiver*[34] and a *stimulus*, respectively. The complement of both visual and auditory perception verbs can be expressed using various syntactic configurations. The Spanish examples provided in (43)a–c illustrate the most relevant configurations for this work (for other constructions, see Fernández Jaén 2012: 312).

(43) a. *He oído/visto a un niño.*
'I have heard/seen a boy.'

b. *He oído/visto llorar a un niño.*
'I have heard/seen a boy cry.'

c. *He oído/visto a un niño llorar.*
'I have heard/seen a boy cry.'

In example (43)a, the perception verb occurs in a canonical transitive predicate, meaning the verb selects an NP as its internal argument. In (43)b–c, the complement is a non-finite argument representing an event (see Section 3.3.1). My focus is on the contrast between the mono-predicative constructions like (43)a and the cases where the complement is expressed with an infinitive, as in (43)b–c, particularly concerning the occurrences of DOM based on the perception modality.

By exploring the existing literature on perception verbs, this chapter aims to provide a comprehensive insight into auditory and visual perception modalities, highlighting their inherent distinctions. Furthermore, I argue against the claim that the logical subject of the infinitive is assigned dative case by default in AcI constructions with a transitive infinitive.

The chapter is organized as follows. In Section 3.2, I present constructions where the perception verb selects an NP as its complement. This section inspects the semantic restrictions for the selection of the direct object and explores the contrast between volitional and non-volitional predicates. Moving on to Section 3.3, I introduce and discuss the AcI constructions. In this section, I present the main syntactic analyses this construction has received, along with its semantics. Finally, I conclude with a summary of the chapter in Section 3.4.

[33] Some machines with sensors, such as cameras and microphones, can also be the subject of perception verbs.

[34] The use of the thematic role perceiver is meant to remain neutral regarding the agentivity of the argument. Notice, however, that for van Valin & LaPolla (1997), perceiver and experiencer are on the same scale of their thematic-relations continuum.

3.2. Mono-predicative construction

Perception verbs in a mono-predicative construction normally select two nominal arguments. The subject is its external argument, and the direct object is its internal one. The subject is involved in the event expressed by the perception verb, i.e., in the perceiving event, in contrast to the stimulus, which is not (cf. van Voorst 1988: 122). Sentences in (44) illustrate the construction and verbs this section deals with.

(44) a. *La profesora vio/miró a una niña en el aula.*
'The teacher saw/looked at a girl in the classroom.'

b. *La profesora vio/miró una pintada en la pared.*
'The teacher saw/looked at a graffiti on the wall.'

c. *La profesora oyó/escuchó a una persona en su sala.*
'The teacher heard/listened to a person in her room.'

d. *La profesora oyó/escuchó un ruido en el sótano.*
Literal: 'The teacher heard/listened to a noise in the basement.'

3.2.1. Constraints on the direct object (or the stimulus)

As the examples provided in (44) from the previous section show, the animacy of the direct object is irrelevant, as perception verbs might select entities with either the feature [±ANIMATE]; however, there are semantic constraints regarding the type of direct object each perception modality can select (i.e., argument selection).

The direct object must align with the perception modality. Specifically, objects of *seeing-type* verbs must be visible, and those related to *hearing* ones must be audible in the direct perception (see Section 3.3.2.1). Consequently, invisible entities cannot typically be the direct object of the verb *ver*/*mirar* 'to see/to look', and inaudible entities cannot be the direct object of *oír/escuchar* 'to hear/to listen'.[35] Although this observation may seem trivial, it holds interesting implications for the semantics of each perception modality.

Auditory perception verbs select either (i) a sound or (ii) the source from which the sound originated (Rodríguez Espiñeira 2002: 484). In relation to the latter point, Enghels (2007b) shows that the direct object of auditory perception verbs presupposes an agentive

[35] Abstract entities can also be perceived under specific contexts, but this perception involves a certain degree of inference. For instance, one can say *Vi el miedo en su cara* 'I saw the fear on his face' and *Oí la derrota en sus palabras* 'I heard defeat in his words'. However, it is important to note that *fear* cannot be seen in isolation; instead, one can observe expressions on people's faces and infer the emotion they are experiencing. Similarly, in the case of *defeat*, one can infer whether he or she is defeated or upset from the tone the speaker uses in his or her voice. Moreover, the perception in cases such as *No veo inconveniente* 'I don't see any inconvenience' or *No veo la ventaja* 'I don't see the advantage' is said to be indirect (Rodríguez Espiñeira 2002).

stimulus. For an entity to be heard, it must be (either a sound or) capable of producing a sound. More precisely, it requires an argument with agentivity features. This precondition is less strict with visual perception verbs; the stimulus only needs to exist (and be visible) in order to be physically seen,[36] which is the only proto-agent feature that the visual stimulus possesses, specifically independent existence (cf. Dowty 1991). For example, consider the example from Romero Heredero & García García (2023: 176) in (45) below. In example (45)a with the visual perception verb *ver*, the sentence is completely grammatical, as expected. However, the same is not true with the auditory verb *oír* in (45)b. It is semantically odd. The reason is that a house is neither a sound nor an entity capable of producing a sound. Notice, however, that the direct object *la campana* 'the bell' in sentence (46) with the verb *oír* is completely grammatical.

(45) a. *Veo la casa.*
'I see the house'.

b. *#Oigo la casa.*
'#I hear the house.'

(46) *Oigo la campana.*
'I hear the bell.'

Importantly, *la campana* cannot produce a sound on its own; it requires an external energy source to make it ring. Nevertheless, it still serves as the direct object of *oír.* According to Enghels (2007a: 30), this involves a metonymic projection in which the source of the noise substitutes for the sound itself. Notice that this is not possible with visual predicates, as shown by the contrast between (47) and (48) below.[37] The interpretation of (47)a is provided in (47)b. That is, hearing the engine has the same semantic interpretation as hearing the sound the engine produces. However, the same is not possible with the visual perception, as shown in (48)a–b. Although both sentences are grammatical, one is not a paraphrase of the other. While seeing Juan implies perceiving the entity called Juan, seeing his image does not mean perceiving him physically. This is because the image of an entity is indissociable from its referent (Fernández Jaén 2012: 314).

(47) a. *Oigo el motor.*
'I hear the engine.'

b. *Oigo el ruido del motor.*
'I hear the engine noise.'

[36] Of course, one can perceive something that does not exist as soon as the perceiver believes the entity exists. For example, one can see a horse with a fake horn in the real world and believe it is a unicorn (cf. *I saw a unicorn*).

[37] Olfactory perception verbs also allow metonymic projection. The reason is that the referent must have done something (with or without volition) in order to produce the smell/odor (cf. Fernández Jaén 2012).

(48) a. *Veo a Juan*.
'I see Juan.'

b. *#Veo la imagen de Juan.*
'#I see Juan's image.' (Fernández Jaén 2012: 314)

All in all, these observations raise the question of whether agentivity is related to the auditory modality or its complement features. A provisional answer (subject to revision) would be that agentivity depends on both the auditory modality and the type of entity, i.e., whether it is a sound or the source of energy (see also García García et al. 2018).

3.2.2. Volitional and non-volitional predicates

Regarding agentivity, from the perspective of the subject, both visual and auditory perception verbs can be categorized into two sets of actions: *active actions* and *pure actions* (Viberg 1983: 123; Fernández Jaén 2006: 393). More specifically, active actions refer to instances where the perceiver has control over the event and engages in it intentionally (volitionally). In contrast, pure actions denote situations where the perceiver lacks control over the event.[38] This distinction is lexically realized in Spanish, as well as in other languages, such as English.

It is commonly assumed that *mirar* and *escuchar* are agentive variants of *ver* and *oír*, respectively. For example, the RAE provides distinct definitions for each modality regarding volition, which are provided in (49).

(49) Definitions of each verb according to RAE (2023):
a. VER: *percibir con los ojos algo mediante la acción de la luz.*
'TO SEE: to perceive something with the eyes through the action of light.'
b. MIRAR: *dirigir la vista a un objeto.*
'TO LOOK: to direct the eye to an object.'
c. OÍR: *percibir con el oído los sonidos.*
'TO HEAR: to perceive sounds with the ear.'
d. ESCUCHAR: *prestar atención a lo que se oye*.
'TO LISTEN: to pay attention to what you hear.'

The entries for each pair of verbs clearly emphasize the contrast. *Ver* and *oír* are defined as non-volitional verbs, indicating that the perceiver *passively* receives input through his or her sensory organs. In contrast, *mirar* and *escuchar* are volitional verbs, requiring the perceiver to *actively* direct his or her eyes to a specific entity or pay attention to a

[38] Control with perception verbs means that the perceiver can volitionally stop the act of perception. However, it is crucial to note that the perceiver does not have control over the stimulus itself (cf. Rodríguez Espiñeira 2002).

particular sound, respectively. This distinction is reflected in the thematic roles assigned to the external argument of each verb. When the predicate denotes an active action, indicated by the feature [+VOLITION], the subject is assigned the agent role. However, if it represents a pure action, indicated by [-VOLITION], the subject is assigned the experiencer thematic role (Fernández Jaén 2006). According to Dowty's (1991) thematic proto-roles approach, in either case, the subject is categorized with the proto-agent role (see Chapter 4). In van Valin & LaPolla's (1997) framework, the subject of *ver* and *oír* is assigned the perceiver thematic role, while in *mirar* and *escuchar*, it is the *observer*, all considered as part of their *actor macrorole.*

Importantly, this distinction is not a recent development. As early as the 17th century, Cobarruvias Orozco (1611) had already presented similar definitions for these verbs in his dictionary, *Tesoro de la lengua castellana o española*. Analyzing (50), one can observe that these definitions, although less explicit, align with those of present-day Spanish in (49).

(50) Definitions of each verb according to Cobarruvias Orozco (1611):[39]
   a. VER: *es mirar y aduertir con los ojos*
      'TO SEE: it is to look and adduce with the eyes'
   b. MIRAR: *eſte mirar ſe haze con los ojos, poniendolos en el objeto, o coſa que miramos*
      'TO LOOK: this looking is done with the eyes, placing them on the object, or thing that we look at.'
   c. OIR: *es percebir alguna coſa con los oydos*
      'TO HEAR: it is to perceive something with the ears.'
   d. ESCVCHAR: *vale oyr con atencion*
      'TO LISTEN: analogous to hearing carefully'

Nevertheless, this distinction was not always entirely clear. For instance, some of the definitions provided by the *Diccionario del castellano del siglo XV en la Corona de Aragón* (DiCCA-XV) for the 15th century show that (beyond their standard definitions) these verbs were also capable of denoting agentive actions. Consequently, an association between the verbs *ver* and *oír* with *mirar* and *escuchar* was possible, as demonstrated by the definitions in (51) below.[40]

(51) Definitions of each verb according to DiCCA-XV:
   a. VER: *examinar <una persona> con atención y cuidado [algo].*
      'SEE: to examine <a person> attentively and carefully [something].'
   b. OÍR$_1$: *prestar <una persona> atención a [lo que dice] [alguien].*
      'HEAR$_1$: to pay <a person> attention to [what is said] [by someone].'

[39] The entries were kept in their original form, and the (literal) translation is mine.
[40] The argument between < > represents the subject, while the one between [ ] is the complement.

c. OÍR2: *examinar <una persona con autoridad> la veracidad o la legalidad de [alguien o algo].*
'HEAR2: to examine <a person in authority> the truth or legality of this [someone or something]'

Although all the definitions provided in (51) have an inanimate direct object, they illustrate that the distinction between volitional and non-volitional perception concerning auditory and visual modalities was not so strict in Medieval Spanish[41] compared to those provided in (49) above, i.e., present-day Spanish.[42] In fact, several authors have claimed that, in some cases, there is (still) an overlap between the meaning of each pair of verbs[43] (cf. Horno Chéliz 2002; Rodríguez Espiñeira 2002; Fernández Jaén 2006). For example, Rodríguez Espiñeira (2002) presents several tests indicating that both *ver* and *oír* can have agentive subjects in certain circumstances. All these tests rely on the agentivity properties of the subject. In (52), I provide one example for each test, all taken from Rodríguez Espiñeira (2002). The translations are my own.

(52) Tests to diagnose the subject agentivity:
a. Progressive aspect test:
Me parecía estar oyendo a Juan Pablo II.
'It seemed to me that I was hearing John Paul II.'
b. Complement of request, command, or promise verbs test:
¿No sería una de esas excrecencias que todo cuerpo expulsa periódicamente y que sólo él [...] estaba obligado a oír?
'Wouldn't it be one of those excrescences that every body expels periodically and that only he […] was obliged to hear?'
c. Substitution of the predicate for pro-verbs test:
Lo que hacemos por las noches es oír la radio.
Literal: 'What we do at night is hear the radio.'
d. Imperative test:
¡Oiga, sargento! ¿No sacaríamos algo ...
Literal: 'Hear, Sergeant! Wouldn't we get something out of it…'
e. Purposive clause test:
?? *Te oíremos para aprender*
?? We will hear you in order to learn.'
f. Intentional elements test:
He visto los cuadros con gran atención.
Literal: 'I saw the paintings with great attention.'

[41] Menéndez Pidal (1969) provides similar definitions for his dictionary of *Cantar de Mio Cid.*
[42] The selected dictionary definitions are intended only to illustrate how these entries were defined in the respective dictionaries. It is important to note that the definitions may be prescriptive rather than descriptive and therefore may not fully capture the meanings of the words.
[43] According to Demonte (1991: 45), the overlap only occurs from non-volitional predicates to volitional ones, but never the other way round.

Despite requiring specific contexts and often involving a very marked construction, *ver* and *oír* pass all the tests. However, as Rodríguez Espiñeira herself points out, the diagnostic tests used to check the (non-)agentivity of the subject of perception verbs "do not reveal that the distinction between agent-experiencer is presented as polar opposition, but rather as a gradual one, since the experiencer shares some features with typical agents"[44] (Rodríguez Espiñeira 2002: 474; my translation). Hence, it is expected that these verbs do not behave equally, but in certain contexts, they might be interpreted as synonyms. Even though *ver* and *oír* might be used with an agentive subject, the canonical cases would still have an experiencer subject.

Summarizing, the differences between volitional and non-volitional perception can be described based on the number of processes involved in the act of perception. If the perceiver is an agent, then two processes are involved: (i) directing the attention and (ii) perceiving the stimulus. In contrast, in cases where the perceiver is an experiencer, there is only one process involved, namely, perceiving the stimulus (Kirsner & Thompson 1973: 226). According to these authors, for these two processes to occur, it is necessary that the stimulus is not short or that the perceiver already expects the stimulus (Kirsner & Thompson 1973). In order to illustrate it, consider the contrast between the examples in (53) and in (54) below, from Kirsner & Thompson (1973: 227).

(53) a. *I saw a flash of light.*
b. ?*I watched a flash of light.*
c. *I heard a burst of machine-gun fire.*
d. ?*I listened to a burst of machine-gun fire.*

(54) a. *I saw the flash of light.*
b. *I watched the flash of light.*
c. *I heard the burst of machine-gun fire.*
d. *I listened to the burst of machine-gun fire.*

A flash of light and a burst of machine-gun fire are short events; consequently, sentences (53)b and (53)d are barely acceptable. The reason is that the perceiver cannot successfully direct his or her attention to the stimulus or event. However, when the stimulus is a definite NP, implying that the event is already anticipated, the sentences are fully grammatical and coherent, as illustrated in (54), showing that the perceiver can both direct his or her attention and perceive the stimulus or event. The same holds for Spanish, as the contrast between the translations of (53)b and (54)b shows, *?Miré un destello de luz* and *Miré el destello de luz.*

[44] Experiencers are considered to be Proto-Agents in Dowty's (1991) approach (see Chapter 4).

Nonetheless, an interesting question is whether the distinction between their thematic roles is also reflected in the occurrences of DOM. Specifically, can the thematic role of the external argument influence the emergence of DOM in Spanish? Torrego (1998: 29) suggests that the agentivity of the subject plays a role in triggering DOM. From this perspective, one would expect an earlier expansion of DOM with direct objects of volitional perception verbs. In Chapter 5, where I briefly address this aspect, I show that the results of my corpus study are inconclusive in relation to Torrego's suggestion. On the other hand, von Heusinger and Kaiser (2011) provide data in line with her intuition. Notice, however, that the centuries covered by the study offered by these authors differ from mine. The next section offers more details about their study.

3.2.3. DOM in mono-predicative constructions

In Chapter 2, I presented and discussed the main parameters that, according to the literature, affect the occurrence of DOM in Spanish. I showed that nominal parameters, specifically animacy and referentiality, are crucial for the case-marking alternation. Additionally, I also demonstrated that verbal parameters are relevant to the phenomenon, and certain verbs may favor its incidence. Thus, in this section, I provide an initial analysis of DOM with perception verbs.

Although perception verbs and DOM have received extensive individual attention, few studies consider these topics together, and even fewer adopt a diachronic perspective. One exception is the study conducted by von Heusinger and Kaiser (2011), whose corpus analysis was introduced and commented on in previous sections. Investigating the expansion of DOM in European Spanish, they compare the proportion of DOM with perception verbs, including the auditory verbs *escuchar* 'to listen' and *oír* 'to hear' as well as the visual verbs *mirar* 'to look' and *ver* 'to see'. Their analysis examines human definite and indefinite NPs across the 15th, 17th, and 19th centuries. Table 9 presents their results regarding the distribution of DOM with each perception verb.

Table 9: Percentage of DOM with definite and indefinite NPs in perception predicates across the 15th, 17th, and 19th centuries regarding European Spanish (von Heusinger & Kaiser 2011: Table 15-16).

	15th century		**17th century**		**19th century**	
verbs	**definite**	**indefinite**	**definite**	**indefinite**	**definite**	**indefinite**
escuchar	100% (17/17)	100% (3/3)	100% (51/51)	100% (6/6)	98% (84/86)	100% (9/9)
oír	87% (27/31)	67% (4/6)	96% (55/57)	81% (13/16)	96% (65/68)	100% (12/12)
mirar	75% (40/53)	- (0/0)	91% (61/67)	33% (3/9)	97% (95/98)	82% (9/11)
ver	76% (39/51)	- (0/0)	78% (21/27)	8% (2/25)	89% (32/36)	55% (6/11)

Upon initial examination, their results reveal a clear expansion of DOM with perception verbs for both definite and indefinite NPs. However, the distribution of DOM is uneven

across perception modalities. Notably, DOM has shown a preference for auditory verbs over visual verbs since the 15th century. This contrast becomes more pronounced with indefinite NPs. Although the data involving indefinite NPs is scarce, it is possible to observe a preference for DOM with auditory verbs. Interestingly, regardless of DOM, no cases of indefinite NPs were reported with visual predicates in the 15th century.

A striking difference emerges in the subsequent centuries, particularly with the verb *oír*, suggesting a systematic expansion of the phenomenon. On the other hand, DOM with indefinite direct objects of visual predicates was hardly attested until the 17th century. However, by the 19th century, DOM with *mirar* had become widespread, in contrast to *ver*, with which DOM was observed in just 55% (6/11) of the cases. This indicates that DOM with *ver* entered in the optional zone within the 19th century.

Of particular interest is the verb *escuchar*. According to the data, the expansion of DOM with this verb had already reached a categorical level with both definite and indefinite NPs as early as the 15th century, with DOM appearing in nearly 100% of the cases. An important observation that can be retrieved from their study is that, in addition to the earlier expansion of DOM with auditory perception verbs compared to visual verbs, there is a distinct difference regarding DOM and the type of predicate in relation to volition. Essentially, DOM seems to have expanded sooner with volitional verbs compared to non-volitional ones, i.e., *escuchar* as opposed to *oír,* and *mirar* to *ver*. Nonetheless, it is important to mention that, due to the small number of tokens provided, making any claim on this is problematic. This topic is revisited in Chapter 4, where I present data from different centuries that do not fully support this claim.

Another relevant paper that indirectly explores perception verbs, but under a synchronic perspective, is conducted by Romero Heredero & García García (2023). Their empirical study, utilizing a forced-choice task with native European Spanish speakers, examines the proportion of DOM with human indefinite NPs concerning affectedness. They used verbs that select an affected direct object and verbs that select a non-affected direct object. Their findings corroborate the importance of affectedness on the occurrence of DOM in Modern Spanish (cf. Romero Heredero 2022). However, the most important finding for the present investigation is related to the behavior of perception verbs, specifically *ver* and *oír* (from their non-affected class of verbs) in relation to DOM.

Their data reveal that *oír* 'to hear' displays a significantly higher proportion of DOM, standing at 87% (284/326) of the responses, while *ver* 'to see' exhibited a comparatively lower frequency of DOM, 76% (247/326). Overall, participants opted for constructions with DOM in 88% (4,579/5,216) of the cases when the direct object was affected and 79 % (3,890/4,890) when it was not affected.[45] Interestingly, their results

[45] These values represent the data without the verb *tener* 'to have', which is part of the non-affected class, as

demonstrate that *oír* aligns very closely with the predicates of the affected class, while *ver aligns* with those of the non-affected class.

The findings from both studies provide initial support for the hypothesis that agentivity affects the occurrence of DOM in Spanish. Verbs related to the auditory modality are more frequently associated with DOM than those related to the visual modality. This difference arises from the agentivity properties of direct objects provided by auditory perception verbs. Recall that according to Enghels (2007b), for someone or something to be heard, an entity must first produce a sound. Consequently, these objects are considered to have more agentivity features (see Chapter 4) than direct objects associated with visual perception verbs. This explanation is in agreement with the Role-dependent DOM concept in (27), which states that "DOM is licensed by an object qualifying as a minimal or potential proto-agent in a given event". Of course, being a human entity already makes the direct object a potential agent (cf. García García et al. 2018); nonetheless, the proto-agent properties relative to the entity can also be "subcategorized by the verb" (García García et al. 2018: 27), which makes these two modalities of perception differ regarding DOM.

3.3. Accusativus cum Infinitivo

Accusativus cum Infinitivo refers to a very particular construction found in Spanish, as well as in other Romance and non-Romance languages such as French, Italian, English, and German. Its origins can be traced back to Latin, where the term AcI has traditionally been used to describe constructions in which an element marked in accusative case appears together with an infinitive verb (Bolkestein 1976: 269-70; Da Milano & Cuzzolin 2019: 109). Let us consider the example in (55).[46]

(55) Latin:
Video / audio eum plorare.
see.1SG / hear.1SG him.ACC cry.INF
'I see/hear him cry.'

this verb systematically rejects direct objects that are case marked.

[46] The traditional hypothesis explaining the appearance of AcI posits its origin in double accusative constructions with both a human object and an inanimate object, such as *doceo te litteras* 'I teach you letters'. As Indo-European infinitives are abstract verbal nouns (cf. Jeffers 1975: 147), the infinitive was interpreted as the nominalization of the second accusative object, such as in *doceo te scribere* 'I teach you to write'. Over time, the construction extended to other verbs that initially did not take an accusative as their objects, thus giving origins to AcI (Rodriguez Espiñeira 1985: 68; cf. Bolkestein 1976, who criticizes this hypothesis). The prototypical AcI construction emerges with verbs of *saying* and *thinking*, such as *dico te scribere* 'I tell you to write' (del Rey Quesada 2022: 486).

In sentence (55), we find the perception verb *videre* 'to see' / *audire* 'to hear' in present tense, conjugated in the first-person singular with its correspondent covert subject, followed by the accusative pronoun *eum* 'him' and the infinitive form of the verb *prorare* 'to cry'. The syntactic structure of this type of construction has been a subject of intense scholarly debate for centuries. The essential dilemma revolves around ascertaining the grammatical function of *eum*: (i) Does it function as the direct object of the perception verb and have an infinitive complement (i.e., mono-clausal), or (ii) does it assume the grammatical function of the subject of an infinitival embedded clause (i.e., bi-clausal)? Adopting (i) implies that sentence (55) is not a case of AcI in the strict sense (cf. Bolkestein 1976; Rodriguez Espiñeira 1985; del Rey Quesada 2022). Some researchers, such as Da Milano & Cuzzolin (2019), do not consider perception verbs as true cases of AcI constructions, since the subject of the infinitival embedded clause is also the direct object of the main verb, which assigns accusative case to it. For them, true cases of AcI constructions involve verbs of *saying* and *thinking*, where the accusative-marked NP belongs only to the embedded clause and is not governed by the main predicate. Thus, they refer to constructions with perception verbs as 'AcI-like'. On the other hand, del Rey Quesada (2022:486) allows for an interpretation of sentences such as (55) as being a case of AcI. The ongoing debate highlights the complexity and intricacies surrounding the analysis of such constructions. Regardless of whether sentences like (55), which involve perception verbs with infinitives, are considered AcI constructions in Latin or not, there is a consensus that the case assigned to *eum* 'him' is accusative. This aspect is important to the present investigation as it deals with DOM.

AcI constructions in Latin were possible with many different verbs in complement clauses (Torres 2005: 49). However, in Spanish, as well as in other languages, AcI constructions survived through the centuries only with (i) perception verbs and (ii) causative constructions (Pons Rodríguez 2008: 2). As for perception verbs, the most productive ones are *ver* 'to see' and *oír* 'to hear', but it is also possible to have AcI constructions with *mirar* 'to look', *escuchar*[47] 'to listen', *notar* 'to notice', *observar* 'to observe', *percibir* 'to perceive', and *sentir* 'to feel'. Regarding causatives, the construction is available with *hacer* 'to make/to have' and *dejar* 'to let' (RAE-ASALE 2010: 503). Leaving Latin aside, let us focus on the construction with perception verbs in Spanish and compare it with Italian, French, German, and English. The examples in (56) illustrate this construction for each language.

[47] According to RAE-ASALE (2010: 503), *escuchar* 'to listen' is much more productive in American Spanish than in European Spanish.

(56) a. European Spanish:
Veo al hombre venir / bailar.
see.1SG DOM.the man come.INF / dance.INF

b. Italian:
Vedo l' uomo venire / ballare.
see.1SG the man come.INF / dance.INF

c. French:
Je vois l' homme venir / danser.
I see.1SG the man come.INF / dance.INF

d. German:
Ich sehe den Mann kommen / tanzen.
I see.1SG the.ACC man come.INF / dance.INF

e. English:
I see the man come / dance.
I see.1SG the man come.INF / dance.INF

As in Latin in (55), in each language in sentences (56), the logical subject of the infinitive (henceforth, the term NP2 is used interchangeably) is assigned accusative case. However, these languages differ in how they express accusative case. On the one hand, accusative case-marking is visible via DOM in Spanish, at least in relation to human definite direct objects (as shown in Chapter 2 above). German is a well-known case-marking language. On the other hand, Italian, French, and English do not overtly mark accusative case.[48] Nonetheless, in all these languages, except for English,[49] when the NP2 is represented by a pronoun/clitic, the accusative case becomes apparent, as shown in (57) (see Mensching 2000, 2017).

(57) a. European Spanish:
Lo veo venir / bailar.
him.ACC see.1SG come.INF / dance.INF

b. Italian:
Lo vedo venire / ballare.
him.ACC see.1SG come.INF / dance.INF

c. French:
Je le vois venir / danser.
I him.ACC see.1SG come.INF / dance.INF

d. German:
Ich sehe ihn kommen / tanzen.
I see.1SG him.ACC come.INF / dance.INF

e. English:
I see him come / dance.
I see.1SG him.ACC come.INF / dance.INF

[48] Nouns do not possess a morphological accusative case in Romance languages (Mensching 2017: 382).
[49] Accusative pronouns are homonyms with dative pronouns in English.

Until now, my focus has been exclusively on intransitive predicates. However, it is important to highlight that AcI constructions extend beyond this type of predicate. Every language under discussion permits the infinitive to be employed with transitive predicates, and, in some instances, even ditransitive predicates can be utilized. Sentence (58) exemplifies a construction with a transitive predicate, while (59) demonstrates a ditransitive one.

(58) *Oigo al hombre tocar la guitarra.*
hear.1SG DOM.the man play.INF the guitar
'I hear the man play the guitar.'

(59) *Juan vio a la mujer regalar un juguete a su hijo.*
Juan saw.1SG DOM the woman give.INF a toy to her son
'Juan saw the woman give her son a toy.'

The uniqueness of the Romance languages' examples lies in the fact that the construction is not only restricted to the configuration illustrated in (56) above, where the NP2 precedes the infinitive (pre-infinitival), as in German and English, but they also permit the NP2 to appear after the infinitive (post-infinitival) under some circumstances (cf. Mensching 2000), as illustrated by the Spanish example in (60).

(60) *Veo venir al hombre.*
see.1SG come.INF DOM.the man
'I see the man come.'

3.3.1. Accounts on the position of the NP2

The literature offers various explanations to address the two potential positions where the semantic subject of the infinitive may occur, namely, a pre- or post-infinitival position. Ever since Chomsky's (1981) *Government and Binding* grammar framework, constructions like (61) below have been referred to as *Exceptional Case Marking* (ECM).[50] On the other hand, constructions like (62) are considered instances of a *restructuring process*.[51]

[50] Spanish is much more restricted in licensing ECM constructions than English (cf. Castillo 2001).

[51] At times, this structure is denoted as *faire-infinitive construction*, a term introduced by Kayne (1975) in his work on causatives (though he initially used the term *faire + infinitive construction* in his dissertation (Kayne (1969)). Despite occasional comparisons between causative constructions and perception verbs, they remain distinct. This disparity is particularly evident in the behavior of clitics, especially *se* (cf. Hernanz 1999 for Spanish, and Labelle 2017 for a crosslinguistic comparison in Romance languages). Additionally, the event described by the infinitive in perception verbs exists independently of the act of perception, whereas the infinitive in causative verbs arises due to causation (cf. Felser 1999: 53-57; Roegiest 2003: 316). The thematic role assigned to the main subject is also different (Guasti 1993: 116). Consequently, I refrain from applying this term to perception verbs.

(61) Exceptional Case Marking:
Juan vio a la mujer trabajar.
Juan saw DOM the women work.INF
'Juan saw the woman work.'

(62) Restructuring:
Juan vio trabajar a la mujer.
Juan saw work.INF DOM the women.
'Juan saw the woman work.'

The fundamental distinction lies in the analysis of how the infinitives are treated in relation to the number of clauses in the overall constructions. In (61), the infinitive is considered to form a subordinated clause. The external argument of the infinitive is *exceptionally* assigned accusative case by the perception verb of the main predicate (Castillo 2001; Mensching 2017). In this case, there is a bi-clausal construction. In contrast, in (62), the structure of the sentence is said to undergo a *restructuring* process, where the infinitive combines with the perception verb to form a complex predicate (di Tullio 1998; Hernanz 1999; Ciutescu 2013, 2018; Labelle 2017; among others). Therefore, the semantic subject of the infinitive is assigned case by the complex predicate, and the structure is analyzed as having only one clause.

Note that the objective of this section is not to discuss the parameters contributing to how DOM is assigned but rather to explore whether the case assigned to the NP2 is indeed accusative case rather than dative. Furthermore, as I demonstrate in Chapter 5, the position where the NP2 appears does not play an important role in the presence or absence of DOM. Nonetheless, the data show a clear preference for the NP2 to appear post-infinitivally.

The following subsections present the reasons why sentences such as (61) and (62) are treated differently. Section 3.3.1.1 addresses the pre-infinitival constructions, which are considered to be cases of ECM constructions. In contrast, Section 3.3.1.2 discusses the arguments for and against analyzing these constructions as restructuring, i.e., cases where the NP2 appears post-infinitivally.

3.3.1.1. NP2 in pre-infinitival position

As in Latin, the Spanish example in (61) gives rise to several potential interpretations regarding the status of the NP2 (and the infinitive). The main analyses the literature offers are outlined in (63) and (64) below (cf. Hernanz 1999; Rodríguez Espiñeira 2000; Azpiazu Torres 2009; Devís Márquez 2010). The key distinction among these analyses lies in the number of clauses they involve. Cases such as those in (63) are analyzed as mono-clausal, whereas those in (64) are analyzed as bi-clausal.

(63) Mono-clause approaches:

a. Two direct objects: The construction has two direct objects, one nominal and the other verbal.

b. Predicative complement: The NP2 is treated as the direct object of the perception verb, with the infinitive (and its arguments) functioning as a predicative complement towards the direct object.

(64) Bi-clause approaches:

a. Object Control: The structure is analyzed as an instance of a control construction, where the perception verb selects an object serving as the controller of the embedded subject, realized as the null pronominal form PRO.

b. ECM: The entire string of words *NP2 + infinitive* is considered to be the direct object of the main predicate, forming an embedded clause.

The assumption considering the construction as mono-clausal seems less plausible, whereas the bi-clausal analysis appears more accurate. This is supported by several constituency diagnostic tests suggesting that the NP2 forms a constituent with the infinitive predicate, acting as a unit (cf. di Tullio 1998; Campos 1999; Ciutesco 2013; Labelle 2017, among others).

Building on this understanding, the *pseudo-cleft construction* in (65), serves as a test for constituent movement. This test is relevant because if a string of words, such as *a Sara lavar el coche,* can be moved together within a sentence, it indicates that they indeed form a constituent. Importantly, these elements retain their function as the direct object of the predicate *ver* 'to see'. However, it is worth noting that despite the support from Campos (1999) and di Tullio (1998) for this analysis, the construction is considered only acceptable by my native speaker consultants, highlighting some variability in judgment.

(65) Pseudo-cleft (adapted from Campos 1999: 1543):[53]

Lo	*que*	*vi*	*fue*	*a*	*Sara*	*lavar*	*el*	*coche.*
CL.3SG.M	that	saw.1SG	was	DOM	Sara	wash.INF	the	car

'What I saw was Sara washing the car.'

Numerous authors (di Tullio 1998: 207; Roegiest 2003: 314; RAE-ASALE 2010: 502) argue that the focus of perception is not only the individual participant, namely the NP2, but rather the event as a whole.[54] Therefore, when fragment sentences are used to answer the questions in (66)a and (66)b, the only grammatical option is (66)b. The infinitival

[53] According to Rodríguez Espiñeira (2000: 65) and Devís Márquez (2010: 115), pseudo-clefts with perception verbs are ungrammatical. On the other hand, di Tullio (1998: 202) considers the construction grammatical.

[54] See Rodríguez Espiñeira (2000: 64) for an analysis in which the perception is interpreted as bi-focal (an entity and an event) instead of mono-focal (an event).

clause, which can only be referential when linked with the interrogative pronoun *qué* 'what', as opposed to *quién* 'who', further supports the assertion that the infinitival clause indeed forms a constituent with its semantic subject (cf. di Tullio 1998; Ciutescu 2013). The ungrammaticality of the answer in (66)a is due to the impossibility of having an event as a reply to the question with the interrogative pronoun *a quién.* Notice that the sentence is grammatical if the reply is *a María* instead.

(66) Sentence fragments:

a. *¿A quién has visto? *A María leer una novela.*
DOM who AUX.2.SG seen *DOM María read.INF a novel
'Who have you seen? *I have seen Maria reading a novel.'

b. *¿Qué has visto? A María leer una novela.*
what AUX.2.SG seen DOM María read.INF a novel
'What did you see?I saw Maria reading a novel.'

Coordination serves as another syntactic constituent test to determine if a string of words forms a constituent. This test operates on the principle that only elements of the same syntactic category can be coordinated, as outlined by Carnie (2013: 99). Sentence (67) below confirms that the NP2 and the infinitive (together with its direct object argument) form a constituent, as it can be coordinated with a phrase that has the same syntactic structure. Notice, however, that it is only grammatical when the infinitival predicate is not omitted in the coordinated clause. The reason is that *a la niña*, in this case, would be considered an NP/DP.

(67) Coordination:

*Vi al niño componer un soneto y a la niña *(escribir*
saw.1SG DOM.the boy compose.INF a sonnet and DOM the girl *(write.INF
un cuento).
a short story)
'I saw the boy compose a sonnet and the girl *(write a short story).'

In summary, after applying the relevant syntactic tests, namely, movement, sentence fragments, and coordination, these tests suggest that the NP2 and the infinitive indeed form a constituent. As a result, the analysis that treats the construction with NP2 preceding the infinitive as a mono-clausal structure is ruled out. What still needs to be explained is whether the bi-clausal construction is a case of ECM or *Object Control construction* (see Davies & Dubinsky 2004). In order to show that perception verbs cannot be treated as an Object Control construction, let us compare the sentences in (68) below. Examples are adapted from Campos (1999: 1543).

(68) a. *Vi a Sara lavar el coche.*
saw.1SG DOM Sara wash.INF the car
'I saw Sara wash the car.'

b. *Obligué a Sara a lavar el coche.*
forced.1SG DOM Sara to wash.INF the car
'I forced Sara to wash the car.'

Upon initial examination, both sentences seem to have similar structures. However, they show notable differences. Despite being categorized as biclausal, only in example (68)a does the NP2 form a constituent with the infinitive. In (68)b, the verb *obligar* 'to force' selects three arguments: the covert first-person singular subject *yo* 'I', the accusative object *Sara*, and the embedded infinitive clause, containing a covert pronominal form, PRO, co-referential to *Sara*. Thus, the structure of (68)b can be expressed as *Obligué [a Sara$_i$][PRO$_i$ a lavar el coche].* This structural distinction becomes visible through the ungrammaticality of (69)b, a pseudo-cleft construction (adapted from Campos 1999: 1543).

(69) a. *Lo que vi fue a Sara lavar el coche.*
CL.3SG.M that saw.1SG was DOM Sara wash.INF the car
'What I saw was Sara washing the car.'

b. **Lo que obligué fue a Sara a lavar el coche.*
CL.3SG.M that forced.1SG was DOM Sara to wash.INF the car
Literal translation: '*What I forced was Sara to wash the car.'

Another piece of evidence comes from the replacement test for constituency (cf. Carnie 2013: 98). Only constituents can be replaced by similar syntactic categories. Consequently, (68)a permits the substitution of the embedded clause with the demonstrative pronominal form *eso* 'that', as demonstrated in (70)a. Contrastingly, such substitution triggers ungrammaticality with the verb *obligar*, as illustrated in (70)b.

(70) Substitution (adapted from Campos 1999: 1543):

a. *Vi eso.*
saw.1SG that
'I saw that.'

b. **Obligué eso.*
forced.1SG that
Literal translation: '*I forced that.'

Notice, however, that Devís Márquez (2010: 114), against Campos (1999), argues that substituting the NP2 and the infinitive clause with a pronoun is not possible. For Devís Márquez, (70)a would be the paraphrase of *Vi que Sara lavaba el coche* 'I saw that Sara was washing the car'. Conversely, (68)a can be paraphrased as *La vi lavar el coche* 'I saw

her wash the car'. In other words, the demonstrative pronoun *eso* can only replace one internal argument, excluding the infinitive clause. Nonetheless, the distinction between ECM and object control can still be identified via the co-referentiality with anaphoric pronouns. In (71)a, only the neutral pronoun *lo* 'it', which is co-referent with the whole infinitival clause is grammatical, whereas *la* 'her', which is only co-referent with the NP *Sara,* triggers ungrammaticality.[55] On the other hand, in (71)b, only *la* yields a grammatical construction. With the object control structure, the infinitive clause can remain covert. All in all, this shows that the infinitive clause of perception verbs indeed forms a constituent with the NP2. In contrast, the object control structure comprises two internal arguments.

(71) a. *Vi* *a* *Sara lavar* *el* *coche* *y* *Juan también* *lo/*la* *vio*.
saw.1SG DOM Sara wash.INF the car and Juan too it/*her saw.3SG
'I saw Sara wash the car and Juan also saw it/*her.'

b. *Obligué* *a* *Sara a* *lavar* *el* *coche* *y* *Juan también* **lo/la*
forced.1SG DOM Sara to wash.INF the car and Juan too *it/her
obligó.
forced.3SG
'I forced Sara to wash the car and Juan also forced it/*her.'

In conclusion, the ECM analysis explaining how accusative case is assigned to NP2 remains valid. When the NP2 precedes the infinitive, the perception verb assigns accusative case to it. Furthermore, I agree with Ciutescu (2013, 2018) and Labelle (2017) that the assignment of accusative case remains consistent, regardless of the number of arguments the infinitive predicate may select within an ECM construction. In other words, accusative case is assigned to the NP2 even in instances where the infinitive is transitive or ditransitive.[56]

Having presented the main analyses offered by the literature for the pre-infinitive construction, the next subsection presents the analyses concerning the construction where the NP2 appears post-infinitive.

[55] Using a similar example, Rodríguez Espiñeira (2004: 151) affirms that the sentence is ungrammatical if *lo* is co-referent with the whole embedded event. For her, only *la*, co-referent with Sara, yields a grammatical sentence. On the other hand, Roegiest (2003: 314) claims, following Fenser (1999), that the clitic *lo* can, in fact, refer to the entire infinitive clause (the embedded event), thereby yielding a grammatical structure.

[56] Notice, however, that other scholars have come to different conclusions. For example, López (2012) considers that only intransitive predicates assign accusative case to the NP2. For this author, the NP2 is assigned dative case when the infinitive is transitive. Torrego (2010) assumes that the NP2 is always assigned dative case, independently of the transitivity of the embedded infinitival verb, at least for causative constructions.

3.3.1.2. NP2 in post-infinitival position

The literature has used various terms to describe constructions similar to (62), repeated below as (72), such as *clause reduction* (Aissen & Perlmutter 1976), *reanalysis* (Baker 1988: 201), *restructuring* (Hernanz 1999), *incorporation* (Guasti 1993), among others. Despite the different terminologies, they all refer to the same phenomenon from different approaches (see Wurmbrand 2001 for an overview of the literature). Baker (1988: 290) claims that the two independent verbs are reanalyzed as only one verb (see also Comrie 1974, 1976). Consequently, the arguments of the infinitive verb become arguments of the complex verb. Many authors argue that when restructuring occurs, the complex predicate adopts the case valence of simple predicates, meaning the arguments of the infinitive are assigned case by the complex verb (cf. Aissen & Perlmutter 1976: 24; di Tullio 1998: 214; Hernanz 1999: 2246; López 2001; Ciutescu 2013: 303). When the infinitive is an intransitive predicate, accusative case is assigned to its only argument. On the other hand, when it is a transitive predicate, the NP2 is said to be assigned dative case, while the internal argument of the infinitive is assigned accusative case. Under this assumption, *a la mujer* in (72) is assigned accusative case but dative case in (73).

(72) *Juan vio trabajar a la mujer.*
Juan saw work.INF DOM the women.
'Juan saw the woman work.'

(73) *Juan vio escribir una carta a la mujer.*[57]
Juan saw write.INF a letter to the women.
'Juan saw the woman write a letter.'

In the preceding subsection, I presented strong reasons to believe that the cases where the NP2 appears in pre-infinitival position can be interpreted as ECM. Hence, the perception verb assigns accusative case to the NP2. In contrast, it has been claimed that in (72), it is the complex predicate *vio trabajar* that assigns accusative case to the NP2. An essential condition for assuming a restructuring process is that both verbs (the perception verb and the infinitive) must be adjacent (di Tullio 1998: 207). As a result, no intervening elements should be allowed between both verbs. With this in mind, this section presents syntactic tests, including *clausal negation*, *clitic placement,* and *binding*, to verify whether the post-infinitival position of the NP2 affects the syntactic structures of the construction, and consequently, case assignment. As will become apparent, none of these tests are free of problems. Therefore, I also provide crosslinguistic evidence from Catalan and Spanish to

[57] This sentence is ambiguous: *a la mujer* can be interpreted either as the recipient or the author of the letter. In the first interpretation, the NP2 is realized as an arbitrary *pro* and the agent of the writing. In the second, *a la mujer* is the author (cf. Hernanz 1999: 2244).

argue against Ciutescu's (2013) proposal that NP2s occurring in post-infinitival position with transitive predicates are assigned dative case by default.

Let us begin with negation. As is well known, clausal negation exclusively occurs in pre-verbal position in Spanish (cf. Sánchez López 1999). It can appear before the main predicate or, under certain conditions, before the infinitive (cf. Fábregas & González Rodríguez 2020). Consequently, negation is expected to occur before the infinitive if it forms a constituent with the NP2 rather than the infinitive forming a complex predicate with the perception verb. According to Ciutescu (2013), this possibility is viable under specific contexts. To illustrate this, the author provides the following scenario: Juan is very talkative, but in a specific situation, he did not say a word. Then, someone reports the situation to someone else, uttering (74). In such a scenario, according to Ciutescu's judgment, sentence (74)a would be possible, while (74)b would be ungrammatical. The ungrammaticality of (74)b suggests that the negation phrase is blocked from occurring in this position, indicating that the structures of these sentences are indeed different (cf. among others, Guasti 1993; Hernanz 1999; RAE-ASALE 2010; Ciutescu 2013, 2018; Labelle 2017).

(74) a. *Vi a Juan no hablar.*
saw.1SG DOM Juan NEG speak.INF

b. **Vi no hablar a Juan.*
saw.1SG NEG speak.INF DOM Juan
'I saw Juan not talk.' (adapted from Ciutescu 2013: 8)

Along the same line (but using a clitic instead of an NP), Hernanz (1999) points out that (75) below is ungrammatical. However, it is worth noting that the example in (76) is considered grammatical by Fábregas & González Rodríguez (2020). According to Devís Márquez (2010: 114), this distinction has nothing to do with restructuring. He argues that in AcI constructions, the two events co-occur (see Section 3.3.2.1). Consequently, he asserts that the ungrammaticality of (75) arises from the impossibility of achieving temporal simultaneity between the events expressed by the perception verb and the infinitive. Since this simultaneity cannot be reached when the event expressed by the infinitive does not occur, the sentence is ungrammatical. Nonetheless, at least for clitics, negation is still possible (between the perception verb and the infinitive) when it implies that an event did indeed occur (Devís Márquez 2010).[58] This fact seems to explain why

[58] Trying to support his argument, Devís Márquez (2010: 114) incorrectly uses the example in (i). In this example, *no* 'not' does not function as a NegP but as part of the periphrasis *no dejar de* which means 'not to stop / to keep on'.

(i) Las vi no dejar de caminar en todo el día.
CL.3PL.F.PL saw.1SG NEG stop.INF of walk.INF in all the day
'I saw them not stop walking all day long.'

(76) is grammatical, as *no obedecer* 'not obey' in (76) does not necessarily imply that an event *per se* did not take place. Instead, it allows for the interpretation that one may still be engaged in an action, which can be seen as not obeying an order or command (cf. Higginbotham 1983: 111). On the other hand, it is challenging to interpret *no caminar* 'not walk' as denoting an event in itself.

(75) **Las vi no caminar*
CL.3PL.F.ACC saw.1SG NEG walk.INF
'*I saw them not walk.' (Hernanz 1999: 2247)

(76) *Juan la vio no obedecer.*
John CL.3SG.F.ACC saw.3SG NEG obey.INF
'John saw her not obey.' (Fábregas & González Rodríguez 2020: 741)

The grammaticality of sentence (76) seems to contradict the restructuring approach assumed for sentences such as (72) above. If the restructuring approach is correct, a possible explanation for the grammaticality of (76) is that the perception verb does not report a direct perception but rather involves an interpretation of what was perceived (cf. Kirsner & Thompson 1976: 206), which may license negation. In fact, for all the sentences analyzed to be grammatical, they need a proper context (cf. Ciutescu 2013: 306). Notice that independently of having a proper context, all the constructions in (74)–(76) are ungrammatical with the verb *oír* 'to hear', which always reports a direct perception; consequently, a deduction cannot be licensed with *oír*[59] (see Section 3.3.2.1). Nonetheless, a more direct explanation for the grammaticality of (76) is to assume that it is a case of ECM. These observations, per se, do not solve the problem concerning the syntactic structure of these constructions or the issue of case assignment for the NP2 when it appears alongside transitive predicates. What becomes apparent is that the perception modality plays a role in licensing negation, i.e., whether the perception is direct or not, as well as how the NP2 is realized. Therefore, it seems that the (im)possibility of having a negative operator in AcI constructions is not only related to syntax but also to semantics.[60]

Azpiazu Torres (2009: 28) seems to argue along these lines. According to her, negation with an infinitive (in AcI constructions) is impossible, as direct perception requires that what is perceived exists. Hence, the unavailability of negation with verbs of

[59] According to RAE-ASALE (2009: §48.10b), negation is possible with auditory verbs. However, they acknowledge that the grammaticality judgment remains unclear, as exemplified by *Si lo escuchas no toser* 'if you hear him not coughing'.

[60] This seems to be corroborated by the impossibility of having the verb *faltar* 'to miss' with AcI constructions as illustrated by **Veo faltar tres capítulos de la obra* '*I see three chapters of the work missing' (Rodríguez Espiñeira 2004: 147). Another interesting observation is made by RAE-ASALE (2009: §48.10b), who assert that negation is easily accepted when it has a contrastive function, *Lo vieron no ya sonreírle, sino hacerle toda clase de cumplidos* 'They saw him not only smile at him but rather pay him all kinds of compliments'.

movement that denote inherent direction, such as *venir* 'to come', *entrar* 'to come in', *salir* 'to go out', as they behave similarly to verbs of existence/appearance (cf. Mendikoetxea 1999: 1606), such as *aparecer* 'to appear', *surgir* 'emerge', among others. Notice that even in ECM constructions, negation triggers ungrammaticality, as shown in (77). Azpiazu Torres' (2009) judgment contrasts sharply with that of Fábregas & González Rodríguez (2020: 749), who consider similar constructions fully grammatical.

(77) **Vio a los niños no salir a la calle.*
saw.3SG DOM the boys NEG go out.INF to the street
'*He/she saw the boys not go out to the street.' (Azpiazu Torres 2009: 28, fn. 40)

An extensive analysis of negation is beyond the scope of this study (interested readers are referred to Fábregas and González Rodríguez (2020)). Therefore, setting aside negation but still focusing on clitics, let us now turn to clitic placement.

An argument supporting the restructuring process comes from the phenomenon known as clitic climbing (cf. Aissen & Perlmutter 1976; di Tullio 1998; Hernanz 1999). Clitic climbing refers to a syntactic constraint about how clitics can move throughout the sentence and be attached pre-verbally to the verb or even (in some cases) to another verb which does not select it as its argument (see Zagona 2001; RAE-ASALE 2010). Interesting are the cases when they are used alongside finite verbs followed by an infinitive. Under this configuration, the direct object argument of the infinitive, represented by a clitic, can either appear *enclitic* with the infinitive or (under certain circumstances) climb onto the finite verb from a lower to a higher position in the syntactic structure, which is called *proclitic* (Fernández Soriano 1999: 1262), hence the term *clitic climbing*. This phenomenon is restricted to a small range of constructions, including modal and aspectual auxiliaries, causatives, and constructions with a subject co-referent with the one in the embedded clause (Fernández Soriano 1999). Fernández Soriano herself provides examples with perception verbs, which are included in this limited set of constructions. Moreover, intervening words between the infinitive and the finite verbs normally block the clitic from climbing. In order to illustrate it, let us consider sentence (78), which contains an ECM construction with a transitive infinitive (with the overt arguments: *María* as the NP2 and *la Traviata*, as its direct object), and analyze the use of the clitic *la* 'her/it' in (79). Examples are adapted from di Tullio (1998: 215 (35)).

(78) *Oyó a María cantar la Traviata en la ópera.*
heard.3SG DOM María sing.INF the Traviata in the opera house
'S/he heard Maria sing the Traviata at the opera house.'

(79) a. *La oyó cantar en la ópera.*
CL.3SG.F.ACC heard.3SG sing.INF in the opera house
'S/he heard her sing at the opera house.' or 's/he heard someone sing it...'

b. *Oyó* *cantar-la* *en la ópera*
heard.3SG sing.INF-CL.3SG.F.ACC in the opera house
'S/he heard someone sing it at the opera house.'

c. **La$_i$* *oyó* *[a María cantar (la Traviata$_i$)].*
CL.3SG.F.ACC heard.3SG [DOM María sing.INF the Traviata]

The clitic in example (79)a allows for two potential interpretations: (i) it refers to the NP2, i.e., *María*; or (ii) it refers to the direct object of the infinitive *cantar* 'to sing', which is *la Traviata* (the song). In this instance, the construction has a *pro* with an arbitrary interpretation acting as the NP2. In contrast, sentence (79)b has a singular interpretation, where the clitic can only refer to the direct object (cf. di Tullio 1998: 215, Hernanz 1999: 2243). Notably, under an ECM analysis, sentence (79)c, which has an overt embedded subject, is ungrammatical because the clitic co-referent with *la Traviata* (the direct object), cannot move outside its syntactic domain, i.e., the embedded clause. The analysis of the clitic placement in these sentences shows that for the clitic to successfully climb onto the perception verb, both elements must be in the same syntactic domain. This fact can be used as evidence for the restructuring approach.

However, one of the weakest arguments in the restructuring analysis for perception verbs is related to the case assignment of the logical subject of the infinitive. Some authors suggest that whenever restructuring occurs with a transitive infinitival predicate, the NP2 is assigned dative case (as mentioned above). Typically, the literature uses clitics to illustrate this point (cf. di Tullio 1998; Hernanz 1999; Ciutescu 2013; Labelle 2017, among others). However, as dative and accusative clitics are homonymous in Spanish, this distinction is only visible with the pronominal form in the third-person, i.e., *le* 'CL.3SG.DAT' for dative and *la/lo* 'CL.3SG.F/M.ACC' for accusative.[61] This argument is controversial, as case assignment does not uniformly apply to every construction. Furthermore, it is possible to find *le(s)* even when the infinitive is intransitive,[62] which, according to the restructuring approach, should only be able to assign accusative case to NP2 in this configuration.

To illustrate this point, Rodríguez Espiñeira's (2000: 67-68) corpus study on AcI constructions with human referents is worth mentioning. When comparing the contrast between dative and accusative clitics, she reports that dative clitics were utilized in approximately 26% (25/95) of intransitive constructions with the verb *ver*, while around 24% (4/17) with *oír*. However, it is important to highlight that, according to her, this result is attributed to *leísmo,*[63] as these cases consistently involved male referents, and the

[61] The same holds for the plural form *les* and *las/los*.

[62] Clitics are ambiguous in intransitive predicates regarding the type of construction, i.e., ECM or restructuring (see Labelle 2017: 306-307).

[63] *Leísmo* refers to the use of the dative clitic *le* instead of the accusative ones *lo/la* (see RAE-ASALE 2010:

sources of the texts originated from Peninsular Spanish. In Enghels & Roegiest's (2004: 50) corpus study, it is observed that *le* occurs with intransitive predicates, although they do not provide the proportion of occurrences considering the transitivity of the infinitive. An intriguing aspect of their study is that among authors considered not very 'leístas', *le* does occur with intransitive predicates, but only with the verb *oír*, as shown in the example (80). This suggests, firstly, that *ver* and *oír* do not behave equally, and secondly, that *le* also can occur with one-place predicates (see Enghels 2012 and Braun 2022 for studies on causatives that discuss the case assignment concerning the agentivity of the causee and the transitivity of the infinitive).

(80) *Lo único, que no le oí salir.*
'The only thing is that I didn't hear him leave.'

Considering the case alternation observed in intransitive verbs, I agree with Rodríguez Espiñeira's (2000: 69) assertion that the presence of an object of the infinitive does not automatically determine the case of the NP2 as dative, as both options remain available in Spanish.

The most important reason for considering a restructuring process is that it solves some technical issues inherent to/within Generative Grammar, including word order and case assignment. Indeed, restructuring with infinitives has a long tradition with causatives.[64] As a result, some scholars have attempted to extend its analysis to perception verbs. One such study comes from Ciutescu (2013). Using Catalan examples, she affirms that due to *restructuring*, the NP *en Joan*, which is assigned accusative case in (81)a, is assigned dative case in (81)b.

(81) Catalan:
a. *Vaig veure en Joan tocar el clarinet.*
saw the John.ACC play.INF the clarinet.ACC

b. *Vaig veure tocar el clarinet a en Joan.*
saw play.INF the clarinet.ACC to the John.DAT
'I saw John play the clarinet.' (Ciutescu 2013: 302 (7-8))

It is well-known that the dative prepositional marker *a* 'to' of indirect objects is obligatory in Spanish (Torrego 1999: 1781) as well as in Catalan (Palet 1987: 70). Therefore, if the *a* in (81)b is, in fact, a dative marker, it should also be obligatory with all sort of entities, i.e., both definite and indefinite ones, as well as with inanimate entities (cf. Pineda 2013: 63).

315-318).

[64] Kayne (1975: 206) himself, who provides the French example *J'ai entendu dire cela a un de tes amis* 'I heard one of your friends say that', leaves the question regarding the differences between perception verbs and causatives open.

However, this does not seem to be the case. In order to illustrate it, let us first consider the informal Catalan example in (82) below.

(82) Catalan:
Vaig veure creuar el carrer (a) un noi que passejava un gos gegant.
'I saw a boy walking a giant dog cross the street.'

The optionality of using *a* with *un noi* 'a boy', referring to a human-indefinite argument, challenges the claim that the NP2 is always marked with dative. The behavior of inanimate referents is also intriguing. Although the example in (83) is ungrammatical with an inanimate entity as the NP2, (84) is considered to be grammatical with a heavy NP, illustrating that *un cotxe* 'a car' does not occur with the prepositional marker *a*.[65] The same holds for the verb *sentir* 'to hear'.

(83) Catalan:
**Vaig veure creuar el carrer el cotxe.*
'*I saw the car cross the street.'

(84) Catalan:
Vaig veure creuar el carrer un cotxe que anava molt carregat.
'I saw a heavily loaded car cross the street.'

A comprehensive investigation into this crosslinguistic variation is still necessary. However, the intuition of my native European Spanish speaker consultants regarding the grammaticality of the Spanish version of the construction provided in (85) below varies concerning the presence or absence of *a*, suggesting that, contrary to Ciutescu's (2013) assertion of it being a dative marker, it appears to be DOM. What becomes apparent is that the animacy of the NP2 is a determining factor affecting the grammaticality of the construction.

(85) *Vi cruzar la calle (a) un coche que iba muy cargado.*
saw.1SG cross.INF the street (DOM) a car that go.IMP very loaded
'I saw a heavily loaded car cross the street.'

Although examples such as the one provided in (85), where the NP2 is an inanimate entity and the infinitive is a transitive predicate, are extremely rare, it is still possible to find a few cases in the Iberian Spanish literature. Examples (86)–(88), which come from prestigious Spanish authors, demonstrate that the prepositional marker *a* can be absent with the indefinite inanimate NP2. Hence, it provides further evidence to consider the prepositional marker as DOM.

[65] I am grateful to Maria Bardají i Farré for the examples in Catalan.

(86) *Como una milla antes de llegar a esta farola,* ***vimos surcar*** *los aires* ***un cohete de señales*** *que nos hizo presumir saldría de algún buque cercano […]*
'About a mile before reaching this lamppost, we **saw** a signal rocket soar into the air that made us presume it was coming from some nearby ship […]' (CDH, de las Barras y Prado 1925**,** *La Habana a mediados del siglo XIX*)

(87) *En el silencio suntuoso de la nieve, se oía una palabra, mejor dicho, se* ***veía cruzar*** *el espacio* ***una palabra****: «Zar».*
'In the sumptuous silence of the snow, a word was heard, or rather, a word was seen crossing the space: "Zar".' (CORPES XXI, Matute 2009, *Paraíso inhabitado*)

(88) *Estoy* ***viendo atravesar*** *el puente* ***un carromato tirado por una mula****, ¿te lo puedes creer?*
'I'm **watching a wagon pulled by a mule cross** the bridge, can you believe it?' (CORPES XXI, Marías 2021, *Tomás Nevinson*)

Another argument against the restructuring analysis arises from considerations within Binding Theory (Chomsky & Lasnik 1995: 96), specifically with respect to binding conditions A and B: "an anaphor must be bound in its local domain" (Radford 2020: 95) whereas "a pronominal must be free in its local domain" (Radford 2020: 97). If, as stated by the restructuring approach, the infinitive forms a unity with the perception verb, the sentences (89)a and (89)b would be ambiguous concerning the referent of the anaphora *a sí mismo* 'himself' and the pronominal form *lo* 'him'. As Contreras (1987: 228) demonstrates, the anaphor can only be bound to *Pedro*, while the clitic (which is free in its local domain) can only refer to *Juan*. In summary, the examples indicate contradictions with the restructuring analysis due to the presence of clause boundaries.

(89) Binding (Contreras 1987: 228):
a. *Juan vio [$_{VP}$ estudiarse a sí mismo a Pedro].*
'John saw Peter study himself.'

b. *Juan vio [$_{VP}$ estudiarlo a él a Pedro].*
'John saw Peter study him.'

This section aimed not to refute the restructuring analysis of AcI with perception verbs but to demonstrate that its assumption gives rise to several problems, consequently bringing into question the claim that the *a* used with transitive predicates is a dative marker. Through the analysis of several syntactic tests in Spanish, as well as the comparison between Catalan and Spanish, I have shown that, due to the lack of strong evidence in favor of the NP2 being assigned dative case in transitive post-infinitive constructions, it is still valid to assume that the *a*-marker appearing with the NP2 in AcI constructions is a case of DOM. Moreover, Labelle (2017: 327) herself concludes her paper by affirming that '[m]any aspects of the constructions remain poorly understood. Among the unsolved problems are questions regarding *case-assignment* […]' (my highlight). Therefore, in the

subsequent sections/chapters, I refrain from using the terms *ECM* and *restructuring* to maintain neutrality regarding their syntactic structures. Instead, I opt for the terms *pre-infinitival (construction)* and *post-infinitival (construction)*, respectively.

3.3.2. The semantics behind AcI with perception verbs

The previous section has highlighted several problems and difficulties in the syntactic analysis of AcI constructions with perception verbs. Nonetheless, their semantics are equally complex. In the following three subsections, I address relevant aspects of the semantics of these constructions. Firstly, I discuss (in)direct perception. Secondly, I examine the logical subject of the infinitive in AcI constructions. Lastly, I briefly explore why AcI constructions involving volitional perception verbs are rare.

3.3.2.1. Direct and indirect perception

Perception has been widely analyzed in several disciplines, including psychology, philosophy, cognitive sciences, and linguistics, among others. This multidisciplinary exploration is natural, given the inherent complexity of the cognitive processes involved in perception. All these disciplines aim to unveil the intricacies associated with how we perceive the world around us. Importantly, our perception of the world profoundly influences our language use (cf. Delbecque 1998: 412 for the same claim on DOM). An interesting example of this connection lies in whether the perception is direct or indirect.

As has been shown, perception verbs license several types of complements, each with distinct syntactic constructions. Dik & Hengeveld (1991) propose that each construction corresponds to different meanings, outlining four specific readings based on the perception verb and its complement:

(i) **Immediate perception of individual:** in this case, a perceiver directly perceives an individual (or an entity), either animate or inanimate, as exemplified in the sentence '*I saw your brother last night.'*

(ii) **Immediate perception of state of affairs:** this reading involves non-finite constructions, like '*I saw him walk down the street.',* where the perceiver observes an ongoing action, i.e., an event. Constructions involving a gerund, like '*I saw him walking down the street.'* also belong to this reading.

(iii) **Mental perception of propositional content:** the perceiver acquires knowledge through his/her senses, as illustrated in '*I saw that Mary had been crying.'* I.e., the complement of the perception verb is a proposition.

(iv) **Reception of propositional context of speech act:** this represents the information received from another individual through speech, often indicated by a covert verb of communication. For instance, '*I heard you will probably sing in the Royal Albert Hall next week*.'[66] It involves the reception of reported information.

These four readings can be divided into two groups, according to whether the perception is direct, i.e., cases (i) and (ii), or it is indirect, cases (iii) and (iv). Hence, *direct perception* (or *immediate perception*) is used when the speaker reports that he or she is a direct witness of a stimulus. On the other hand, *indirect perception* (or mental perception) shows that the speaker has received enough information to conclude that something has occurred. In Spanish, this is illustrated by the use of a nominal or an infinitive complement, or a finite embedded clause headed by the complementizer *that* (which may be covert in English and in German), respectively.[67] The most relevant ones for this work are the readings in (i) and (ii), i.e., direct perception. Nonetheless, for this section, it is fundamental to contrast the reading in (ii) with (iii). I argue against Rodriguéz Espiñeira (2000), and in line with Kirsner & Thompson (1973), it is not always the case that AcI constructions imply direct perception in the strict sense. Let us consider the Spanish examples in (90) and (91), the former being a case of direct perception, while the latter represents an instance of indirect perception.

(90) *Vi salir a María a las diez de la noche / después de las diez de la noche.*
'I saw Mary leave at 10 pm / after 10 pm.'

(91) a. *Vi que María había salido después de las diez de la noche.*
'I saw that Mary had left after 10 pm.'

b. *#Vi que María había salido a las diez de la noche.*
'#I saw that Mary had left at 10 pm.'

In (90), the perceiver needed to see, using his or her visual sensorial organ, that *María*, the stimulus, did something (in this case, *salir* 'to leave'), and that it occurred simultaneously with the perception act. In (91), however, the perceiver did not witness the action *per se* with his/her eyes; rather, *ver que* 'to see that' is used metaphorically, meaning 'to realize' or 'to understand'. For example, for interpreting (91)a, let us imagine that María owns a car that is always parked in front of her house. The perceiver, residing across from María's house, observed that her car was parked there until 10 pm. Later, the perceiver noticed that the car was gone. From this observation, he or she deduced that María left her house after

[66] Examples are extracted from Dik & Hengeveld (1991: 237-238).

[67] According to Campos (1999: 2241), finite subordinate clauses are ambiguous between a direct perception and an indirect one.

that time. Now, for (91)b, we can imagine a context in which the perceiver saw her car leaving her house at exactly 10 pm and deduced that it was María who was driving it. It is important to note that the perceiver did not see María in either of the examples in (91). The oddness of the example in (91)b is due to the simultaneity of both events, which is incoherent with an indirect perception.

Importantly, it is not only finite complement clauses that deal with some kind of interpretation by the perceiver; the same might also occur with AcI constructions under certain contexts. Kirsner & Thompson (1973: 206) illustrate it by showing the contrast between (92) and (93). The construction with a finite embedded clause in sentence (92) allows only for interpreting it as an indirect perception. In this example, the perceiver does not need to see Bill doing anything. The perceiver only needs to see some piece of evidence that indicates that the problem was solved without even seeing Bill. For example, seeing the solution to a math problem on the blackboard. On the other hand, in the AcI construction shown in (93),[68] the perceiver must see Bill doing at least something, e.g., writing something on a paper sheet, in other words, being the direct perceiver of an event. The problem with (93) is that the perceiver cannot see Bill's mental processes of solving the problem. Therefore, as these authors point out, even though both sentences are clear examples of indirect and direct perception, respectively, both "involve some interpreting of what is perceived" (Kirsner & Thompson 1973).

(92) *We can see that Bill solved the problem*.

(93) *We can see Bill solve the problem*.

One indispensable characteristic of direct perception is that both events must occur simultaneously (Suñer 1978; Rodriguéz Espiñeira 2000; RAE-ASALE 2010). However, this might be too strong of a claim, as there are examples that challenge this view. For instance, consider (94) below. Here, the perceiver only experiences the sound of the explosion after the sound waves get him, which happens 10 seconds later. This kind of non-simultaneous perception is only possible with auditory verbs because the speed of sound is much slower than the speed of light, as is well-known in physics. Consequently, the simultaneity of both events may not be a constraint but a consequence of the type of perception. Notice that (95) is odd with the verb to see. The reason behind this is that with direct visual perception, the perceiver cannot see the explosion with a delay (cf. Gisborne 1996: 175).

[68] Kirsner & Thompson (1976) do not consider this type of construction as an instance of AcI but rather a construction with a non-finite complement using an infinitive, which they call *Plain complements.* According to them, AcI constructions (in English) involve the non-finite form of the verb *to be*, illustrated in sentences like *I feel him to be growing rather hostile,* which is only available in Spanish with a finite embedded clause.

(94) *José solamente oyó la bomba explotar 10 segundos después de la explosión.*
'John only heard the bomb explode 10 seconds after the explosion.'

(95) *#José solamente vio la bomba explotar 10 segundos después de la explosión.*
'#John only saw the bomb explode 10 seconds after the explosion.'

3.3.2.2. The logical subject of the infinitive

In Section 3.2.1, I demonstrated that the most significant contrast between visual and auditory verbs lies in their restriction on argument selection. Recall that *la casa* in (45), repeated in (96) for convenience, is semantically odd as the internal argument of auditory verbs but entirely natural with visual ones. As Enghels (2007b: 86) observes, this oddity arises from the semantics of the auditory modality. For something to be heard, it needs to be audible (i.e., either a sound/noise or the source of the noise, accessible through metonymy). However, this restriction is less strict with AcI constructions, as demonstrated in (97); while the construction with *oír* is not completely natural without a context, it is better than the mono-predicative construction. The unnaturalness of (97)b can be understood considering that "auditory perception stimuli are necessarily dynamic (humans, animate, or inanimate dynamic) while visual perception stimuli are dynamic or non-dynamic" (Enghels 2007b: 86, my translation). Since neither the house nor the unaccusative predicates are dynamic (following her terminology), the construction with *oír* sounds worse than the one with *ver*, but still perfectly acceptable.

(96) a. *Veo la casa.*
'I see the house'.

b. *#Oigo la casa.*
'#I hear the house.'

(97) a. *Veo caerse la casa.*
'I see the house fall down.

b. *Oigo caerse la casa.*
'I hear the house fall down.'

Nonetheless, the grammaticality of sentence (97)b, compared to (96)b, is due to the stimulus no longer being merely an entity but an event which is audible. Therefore, a non-dynamic entity, like *house,* can also serve as the logical subject of the infinitive. However, there are still restrictions regarding *argument selection.* More precisely, the semantics of the NP2 must allow it to be involved in the event described by the infinitive. To illustrate this point, let us consider example (98), which is odd with the NP2 occurring with an unergative predicate instead of an unaccusative, as in (97)b.

(98) *#James heard the house groan.*

The oddness of (98) arises from *the house* lacking the agentivity properties necessary for *groaning,* unless it implies a metaphorical meaning, suggesting that the house is making noises resembling *groaning.* However, even in this scenario, the sounds are not actually produced by the house itself but by the materials the house is built with, such as wood, which can shrink and swell, resulting in noise or sound. However, if instead of 'house', the sentence has an entity with agentivity properties, such as a *car*,[69] the sentence would be semantically well-formed.

Generally, all sorts of entities can be selected as the logical subject of the infinitive, i.e., with the features [±HUMAN], [±ANIMATE], [±DYNAMIC], and/or [±CONCRETE], provided they possess the properties required to be involved in the action denoted by the verb. Enghels (2007b: 82), in her corpus study, shows a clear preference for [+HUMAN] entities as the NP2 compared to other categories. Although inanimate entities are also attested, whether dynamic or not, concrete or abstract, her data suggest that they face more restrictions regarding the transitivity of the infinitive, typically co-occurring with unaccusative predicates. By contrast, [+HUMAN] entities can appear freely with all types of predicates.

3.3.2.3. Volitional and non-volitional predicates in AcI constructions

Following Rodríguez Espiñeira (2002), I showed in Section 3.2.2 that under certain circumstances, the verbs *ver* 'to see' and *oír* 'to hear' can select a subject with the feature [+VOLITION], i.e., an agent. In contrast, *mirar* 'to look' and *escuchar* 'to listen' never select a subject with the feature [-VOLITION], i.e., an experiencer. Additionally, following Kirsner & Thompson (1973), I demonstrated that both the duration of the stimulus and the perceiver's expectation of its occurrence influence whether volition perception verbs, namely *mirar* and *escuchar*, are licensed. By contrast, these factors do not restrict the use of *ver* and *oír*. This alternation in volition also seems to be relevant to the type of perception verb that typically occurs in AcI constructions.

In this regard, Enghels (2007b) demonstrates, through a corpus study focusing on European Spanish from the 20th century, that the verb *ver* 'to see' is by far the most common verb to occur in AcI constructions, with 1,124 cases out of 1,874, followed by the verb *oír* 'to hear' with 543 cases. On the other hand, *escuchar* 'to listen' presents only 150 cases, followed by the verb *mirar* 'to look', which is rarely attested, with only 57 cases

[69] Notice, however, that in this case, the *car* would undergo *personification* due to the inherent human status of the verb *groan*, despite its agentivity properties. However, the sentence would be completely natural with the verb *to crash,* for example, *I saw the car crash into the barrier.*

(see Section 3.3.4.1). Although with more tokens in total, Enghels' results corroborate the results provided by Rodríguez Espiñeira's (2000) corpus study.[70] Notice that these numbers refer to constructions where the NP2 is realized as an NP, not as a clitic.

These results suggest that AcI constructions are much more commonly associated with non-volitional perception verbs than with volitional ones. This observation can be explained, in line with Kirsner & Thompson (1976: 227–228), by the expectedness of an event to occur (from the perspective of the perceiver), as illustrated in examples (99) and (100) through the use of the manner adverbs *inadvertently* and *conscientiously*, respectively. In (99), the presence of the adverb *inadvertently* triggers ungrammaticality with the volitional predicates *to watch* and *to listen,* while the sentences are grammatical with the non-volitional predicates *to see* and *to hear.* Conversely, in (100), the situation is reversed with the adverb *conscientiously.* While the volitional predicates yield grammatical sentences, those with the non-volitional predicates trigger ungrammaticality. It is important to note that while the same holds true for Spanish regarding the examples in (99), the examples in (100) could still be possible with the non-volitional predicates *ver* 'to see' and *oír* 'to hear' co-occurring with manner adverbs under certain circumstances (see Section 3.2.2). The examples in (99) and (100) are from Kirsner & Thompson (1976: 226).

(99) a. *The policeman inadvertently saw/*watched the children cross the street.*
b. *The professor inadvertently heard/*listened to the students sing.*

(100) a. *The policeman conscientiously *saw/watched the children cross the street.*
b. *The professor conscientiously *heard/listened to the students sing.*

A possible explanation for the low occurrences of volitional predicates in AcI constructions seems to be related to the duration or expectedness of the event. While *to see* and *to hear* are neutral towards the length of the event, *to watch/to look* and *to listen* are typically used either when expecting the event to be longer or when the event is already anticipated. In other words, non-volitional predicates are more suitably associated with *instantaneous perception*, while volitional predicates with *non-instantaneous perception.* In cases where the length of the event is not inferable, the event is more likely to be perceived as unanticipated (cf. Kirsner & Thompson 1976: 230). Since the expectedness of an event is not commonly assessable, an instantaneous perception is preferable. This is reflected in the substantially higher proportion of non-volitional predicates occurring in AcI constructions.

[70] Rodríguez Espiñeira's (2002: 47) corpus study retrieved 236 tokens with *ver*, and 90 tokens with *oír.* The occurrences of AcI constructions with *escuchar* and *mirar* are much lower, specifically, 6 and 8, respectively.

3.3.3. AcI constructions in Medieval and Classical Spanish

So far, I have only discussed AcI constructions in relation to their current use. However, it is crucial to also discuss them in relation to older varieties of Spanish. AcI constructions were not directly borrowed from Latin into present-day Spanish. This construction is already attested as early as Medieval Spanish (cf. Beardsley 1921), but with some important differences, as it will be shown below. Nonetheless, analyzing AcI constructions in Medieval Spanish presents challenges, primarily due to the scarcity of available examples. As Pons Rodríguez (2008) points out, the construction only started to become widespread from the 15th century onwards.

In Medieval Spanish, like in present-day Spanish, all types of predicates were allowed to occur in AcI constructions with perception verbs, i.e., transitive and intransitive predicates. Both the verbs *oír* 'to hear' and *ver* 'to see' could select either type of predicate. However, *oír* typically tended to select an infinitive realized as a communication verb, either a transitive one, e.g., *decir* 'to say' and *contar* 'to tell', or an intransitive one, e.g., *hablar* 'to speak'. *Oír* very often selected also verbs of movement, e.g., *pasar* 'to pass' and *andar* 'to walk', as well as verbs of sound, e.g., *tañer* 'to toll' (Fernández Lagunilla 1992). On the other hand, the verb *ver* 'to see' more often selected intransitive predicates, and transitive predicates are rarely attested with this verb (cf. Beardsley 1921: 70).

Although the construction is not a new development, there are evident contrasts between Medieval and Classical Spanish compared to present-day Spanish. In these older varieties, AcI constructions were less restricted, as it allowed the infinitive to occur with stative verbs, which in present-day Spanish is only possible with a completive clause headed by the complementizer *que* 'that'. Hence, AcI could express both direct and indirect perception (Pons Rodríguez 2008: 20). Moreover, it also allowed the occurrence of periphrastic infinitives (*infinitivos compuestos*). These two possibilities, lost in present-day Spanish, are illustrated in (101) and (102), respectively.[71]

(101) *[…] veyendo estar con ellos el hombre que fuera sano […]*
see.PROG be.INF with them.DAT the man who was healthy
'…seeing the man who was healthy being with them…' (CDH, Anon. 1260, *El Nuevo Testamento*)

(102) *[…] por que non crouieran a aquellos quel uieran seer resucitado.*
because NEG believed.3PL to those that.CL saw.3PL be.INF resurrect.PART
'…because they did not believe in those who saw him resurrect.' (CDH, Anon. 1260, *El Nuevo Testamento*)

[71] The examples were extracted from Fernández Lagunilla (1992).

Another interesting characteristic of AcI construction in Medieval Spanish is the flexibility of the NP2 to appear in different positions within the sentence. Throughout the analysis of the text *Cantar de Mio Cid,* multiple pertinent examples can be found. The NP2 could appear post-infinitivally, as shown in (103), pre-infinitivally, as in (104), or even before the perception verb, as seen in (105), among other configurations. Furthermore, constructions involving clitics, such as the example in (102) above, were extremely common.

(103) *Quando vido myo Çid afomar a Minaya,* (Cid 919)
'When Mio Cid saw Minaya appear'

(104) *Veriedes cavalleros venir de todas partes,* (Cid 1415)
'You would see knights come from all parts,'

(105) *Tres reyes veo de moros derredor de mi eftar* (Cid 637)
'I see three Moorish kings around me'

As in present-day Spanish, there were no restrictions regarding the animacy of the NP2 in Medieval Spanish. Beardsley (1921) provides a very relevant example from the 12th–13th century text *De los Signos que aparesçeran ante del Juigio*, illustrated in (106) below. This example is noteworthy because it provides a construction where DOM appears with an inanimate entity as the NP2 in conjunction with an unaccusative predicate. Moreover, the occurrence of DOM with an inanimate entity is notable at this early stage of the language, as discussed in Chapter 2 regarding DOM with inanimate NPs.

(106) *Verán a las estrellas caer de su logar.*
see.FUT.3PL DOM the stars fall.INF from their place.
They will see the stars fall from their place.' (CDH, de Berceo 1196-1264, *Los signos del juicio final*)[72]

In the 15th century, a syntactic innovation emerged in Spanish, namely the reinterpretation of AcI constructions. This reinterpretation, known as *AcI cuatrocentista*, expanded the range of verbs that could be used as the main predicate in AcI constructions, such as *decir* 'to say', *creer* 'to believe, *pensar* 'to think', among others (Pons Rodríguez 2007: 7). Another noteworthy aspect of this reinterpretation was the assignment of nominative case to the logical subject of the infinitive, instead of accusative case. This can be observed in the example Pons Rodríguez (2007: 7) retrieves from her corpus study in (107) below.

(107) *Amado de todos e muy amoroso, / quien vuestro poema verá tan cortés / **dirá lo que digo non ser al revés,** / nin que yo adulando traspasso nin gloso.*

[72] Although the original text dates back to the 13th century, the version used by Beardsley (1921) and provided by the CDH comes from a later edition, specifically from the 18th century.

'Beloved by all and very loving, / whoever sees your poem so courteous / **will say what I say is not backwards,** / nor that I trespass or gloss by flattering.'

Interestingly, the construction began to decline in its use, particularly in the 16th century, surviving only in official documents and disappearing in the 18th century (Pons Rodríguez 2007, 2008). Nonetheless, this reinterpretation seems to have facilitated the spread of AcI with perception verbs, as evidenced by a surprising increase in its usage from the 15th century onwards, as observed by Enghels' (2007b) diachronic corpus study (see 3.3.4). In the remainder of the book, I do not discuss this specific type of AcI construction any further. Interested readers are referred to the studies conducted by Pons Rodríguez (2007, 2008).

3.3.4. DOM in AcI constructions

Throughout this chapter, we have seen that AcI constructions involve both a perceiver, the participant engaged in the perceiving event, and another entity, the logical subject of the infinitive, i.e., the participant involved in the action denoted by the infinitive. Additionally, in Section 3.3.1, I have presented some syntactic diagnostic tests suggesting that the logical subject of the infinitive behaves as a direct object. Consequently, DOM is also applicable to AcI constructions.

While this construction has been documented in Spanish since the earliest written records of the language, there are hardly any quantitative studies analyzing the development of DOM in AcI constructions with perception verbs, as well as examining how specific properties of AcI constructions influence the occurrence of DOM. One exception is found in Enghels' (2007a, 2007b) work, which serves as the primary foundation for this section. In the following two subsections, I present and discuss her findings from both synchronic and diachronic perspectives.

3.3.4.1. Synchrony

Enghels' (2007b) corpus study is based on European Spanish and focused on the 20th century, in relation to the proportion of DOM with respect to the animacy and perception modality . Her study is based on data from various sources, including newspapers, novels, and electronic corpora such as CREA, CDE, SOL, comprising a total of 1,874 tokens.

Table 10 presents her findings regarding the proportion of DOM in AcI constructions for the visual perception verbs *ver* and *mirar*, as well as for the auditory verbs *oír* and *escuchar*. Overall, there is a higher incidence of cases with DOM than without DOM, specifically 55% and 45%, respectively. However, when focusing on each perception

modality, it becomes evident that DOM occurs much more frequently with auditory perception verbs (approximately 78% of the cases) than with visual perception verbs (about 41% of the cases), showing that the perception modality plays an important role for the occurrence of DOM in AcI constructions.

Table 10: Proportion of DOM independent of the animacy of the NP2 per verb (adapted from Enghels 2007b (Table 2)).

verbs	ver	mirar	oír	escuchar	total
all NPs	41% (465/1124)	37% (21/57)	77% (417/543)	83% (124/150)	55% (1,027/1,874)

In terms of the contrast between volitional and non-volitional predicates, Enghels' results indicate that while there are more instances of DOM with the volitional auditory verb *escuchar* (83%) compared to the non-volitional one *oír* (77%), the same does not hold for *mirar* (37%) and *ver* (41%), a volitional and a non-volitional visual verb, respectively. This suggests that DOM in AcI constructions may not depend on volition. However, drawing conclusions only from this data is problematic due to the low number of tokens with *mirar* and the lack of information regarding the animacy of the NP2 for each verb.

Despite not providing the proportion of DOM regarding the animacy of the NP2 per verb or perception modality, she does present the overall proportion of DOM by animacy, which is shown in Table 11.

Table 11: Proportion of DOM regarding the animacy of the NP2 (adapted from Enghels 2007b (Table 3)).

Animacy	human	animate	inan. dyn.	inan. non-dyn.	abstract
DOM	87% (957/1,102)	51% (39/77)	10% (17/172)	4% (14/381)	0% (0/142)

As can be observed, the vast majority of cases where the NP2 appears with DOM occur when it is a human NP (87%). Regarding inanimate NPs, she categorizes them into three types: dynamic, non-dynamic, and abstract entities. Dynamic NPs refer to entities that possess their own source of energy, such as self-controlled machines, in contrast to non-dynamic NPs, such as *house* and *table* (Enghels 2009: 778). Her data shows that while DOM rarely occurs with inanimate non-dynamic NPs (4%), there are no cases of DOM with abstract NPs. On the other hand, she reports that inanimate dynamic NPs appear with DOM in 10% of the cases.

With respect to the transitivity of the infinitive, Enghels (2007b) reports that DOM occurs more often when the infinitive represents a transitive predicate, with a rate of 95%, followed by unergative predicates at 78%. However, the occurrence of DOM with unaccusative predicates is much less common, accounting for only 31%, as indicated in Table 12. When considering the animacy of the NP2, it becomes evident that the exceptionally high proportion of DOM with transitive predicates is largely driven by the human status of the NP2 referent. Human NPs occur with DOM in 99% of cases,

indicating that DOM has reached a categorical status within this category. Other types of NPs are barely attested in transitive predicates. Similarly, this trend is also observed with unergative predicates, where human NPs are preceded by DOM in 95% of the cases, compared to 28% with dynamic NPs and only 6% with non-dynamic NPs. In the case of unaccusative predicates, DOM occurs in 71% of the cases with human NPs. Interestingly, the majority of the tokens refer to inanimate NPs, which are rarely preceded by DOM.

Table 12: Proportion of DOM regarding the transitivity of the infinitive and the animacy of the NP2 (adapted from Enghels 2007b (Table 5)).

transitivity	human	inan. dyn.	inan. non-dyn.	total[73]
transitive	99% (364/369)	25% (1/4)	60% (6/10)	95% (374/392)
unergative	95% (291/308)	28% (5/18)	6% (3/49)	78% (325/419)
unaccusative	71% (302/425)	7% (11/150)	2% (5/322)	31% (328/1,063)
total	87% (957/1,102)	10% (17/172)	4% (14/381)	55% (1,027/1,874)

While Enghels' (2007b) corpus study sheds light on the proportion of DOM in AcI constructions in European Spanish and provides further support for the link between agentivity and DOM (although her work focuses on dynamicity), it does not systematically address definiteness, a key aspect for analyzing DOM in Spanish. In another work using the same data, Enghels (2007a: 260) reports the proportion of DOM based only on the definiteness of the NPs. She shows that definite NPs registered DOM in 57% (815/1,424) of the cases and indefinite NPs in 47% (212/450). However, she does not differentiate between perception modality and animacy, making these results less informative. Additionally, her analysis includes proper names, with which DOM has been obligatory since Medieval Spanish (cf. Melis 1995; Laca 2006), as well as collective nouns. The inclusion of these categories certainly blurs the accuracy of her results.

To address these gaps, Chapter 5 provides a more fine-grained corpus study, considering the animacy and definiteness of the NP2, along with the perception modality.

3.3.4.2. Diachrony

I present in this subsection Enghels' (2007b) findings on the development of DOM in AcI constructions with perception verbs. Her corpus study analyzes the expansion of DOM in European Spanish from the 12th to the 19th centuries. Based on the *Corpus Diacrónico del Español* (CORDE), the study includes 820 tokens comprising human, animate, and inanimate NPs. Although the study examines both volitional and non-volitional predicates (i.e., *ver, mirar, oír* and *escuchar*), Enghels only presents the data differentiating the perception modality, specifically visual versus auditory perception.

[73] The total values include the categories of animated NPs as well as abstract NPs.

Table 13 presents Enghels' (2007b) results regarding the proportion of DOM with all types of NPs over the centuries. As we can observe, the expansion of DOM is not consistent. Disregarding the 12th century, which has only 3 tokens, DOM occurs in about 54% of the cases in the 13th and 14th centuries. This is followed by a sharp decrease in the 15th century, where DOM accounts for 38% of cases, and a sudden increase in the 16th century, reaching a peak of 69%. In the subsequent centuries, DOM occurs less frequently, ranging between 53% in the 17th century and 62% in the 18th and 19th centuries.

Table 13: Proportion of DOM with NPs from the 12th to the 19th centuries regarding the features [±HUMAN] and [±ANIMATE] (adapted from Enghels 2007b (Table 7)).

centuries	**12th**	**13th**	**14th**	**15th**	**16th**	**17th**	**18th**	**19th**
all NPs	100% (3/3)	55% (24/44)	53% (19/36)	38% (67/177)	69% (108/156)	53% (70/133)	62% (48/78)	62% (120/193)

Although Enghels (2007b) does not provide an analysis based on definiteness, she does distinguish animacy. Table 14 below reports her results specifically for human NPs.[74] Without the interference of other categories, a stable development of DOM with human NPs can be observed throughout the centuries, except for the 15th and 16th centuries, where there is the lowest occurrence of DOM (48%), followed by the second-highest (88%).

Comparing Table 13 with Table 14, we observe that the majority of cases with DOM occur with a human NP. From the 12th century until the 15th century, all instances where the NP2 appears with DOM involve a human NP. This trend continues in the following centuries, with very few occurrences of DOM with non-human NPs, ranging from 4 to 8 cases.

Table 14: Proportion of DOM from the 12th to the 19th century with human NPs (adapted from Enghels 2007b (Table 9)).

centuries	**12th c.**	**13th c.**	**14th c.**	**15th c.**	**16th c.**	**17th c.**	**18th c.**	**19th c.**
human	100% (3/3)	63% (24/38)	63% (19/30)	48% (67/139)	88% (104/118)	71% (62/87)[75]	79% (44/56)	89% (115/130)

Now, if we turn our attention to each perception modality individually, as shown in Table 15 below, it is evident that DOM occurs much more frequently with the auditory modality than with the visual one. Additionally, there is also a notable difference in the number of tokens retrieved for each modality from the 13th century until the 14th century. Enghels's results suggest that AcI constructions with auditory verbs were rarely attested during these centuries. However, in the subsequent centuries, the construction seems to have become

[74] She only reports the number of cases in which the NP is preceded by DOM, along with the respective percentage. The total number per century displayed in Table 14 was manually calculated using her data.

[75] In Table 14, she reports 70 cases of DOM out of 133 tokens. However, when considering animacy, she presents only 68 tokens with DOM: 62 from human NPs, 5 from animate non-human NPs, and 1 for inanimate NPs. The paper does not explain this discrepancy.

more widespread. While the results are interesting because they clearly show the contrast between each perception modality regarding the occurrence of DOM, they cannot fully capture the development of the phenomenon, as all the categories are treated as a whole; i.e., she does not differentiate either animacy or definiteness.

Table 15: Proportion of DOM from the 12th to the 19th century regarding the perception modality independently of animacy (adapted from Enghels 2007b (Table 9)).

centuries	**12th c.**	**13th c.**	**14th c.**	**15th c.**	**16th c.**	**17th c.**	**18th c.**	**19th c.**
visual	100% (1/1)	53% (21/40)	47% (14/30)	35% (54/155)	52% (29/56)	41% (33/80)	50% (24/48)	53% (40/76)
auditory	100% (2/2)	75% (3/4)	83% (5/6)	59% (13/22)	79% (79/100)	70% (37/53)	80% (24/30)	69% (80/117)

The last point worth mentioning is related to the transitivity of the infinitive. Similar to the 20th-century data (see Table 12), Enghels (2007b: 93) reports a high tendency of DOM to occur in transitive predicates since the 12th century, ranging from 67% to 95%. The NP2 in unergative predicates also tended to occur with DOM but in a lower proportion, ranging from 38% to 70%. Lastly, DOM occurs in unaccusative predicates much less frequently, ranging from 29% to 53% (disregarding the 12th century since it has only two tokens, and both are cases with DOM).

Once again, if we assume that the agentivity of the direct object is directly linked with DOM, her results suggest that not only does agentivity influence the occurrence of DOM in Spanish, but also facilitates its diachronic development. However, although her study provides new empirical data that contributes to a better understanding of the phenomenon, as it was the case with her 20th-century corpus analysis, she does not consistently differentiate the nominal parameters. This lack of control/information makes it challenging to draw further conclusive observations. In Chapter 5, I provide a more detailed corpus analysis differentiating definiteness, and focusing specifically on human NPs in relation to the 14th, 16th, and 20th centuries.

3.4. Summary

The aim of this chapter was to provide a literature review on the visual and auditory modalities of perception. To accomplish this, the chapter explored two different constructions: (i) mono-predicative constructions and (ii) AcI constructions.

In discussing mono-predicative constructions, I demonstrated that visual predicates impose fewer restrictions on argument selection, particularly on semantic selection, compared to auditory predicates, which tend to be more restrictive. Auditory predicates typically select either sounds/noises or the source of the sound/noise. When the source of sound is selected, it is allowed to occur due to metonymy.

I then addressed disparities between volitional and non-volitional predicates. I argued that while *escuchar* 'to listen' and *mirar* 'to look' invariably imply a volitional act, *oír* 'to hear' and *ver* 'to see' are more flexible. The latter predicates typically suggest a non-volitional act but can also imply a volitional act under certain circumstances. Additionally, volitional predicates typically denote longer events, while non-volitional predicates denote shorter ones. Consequently, the duration of the event or the expectedness of its occurrence by the perceiver influences predicate selection.

Next, I presented data from different studies demonstrating the development of DOM with perception verbs involving human NPs. The data indicate that DOM with the auditory perception modality developed earlier than with the visual modality, particularly concerning indefinite NPs. On the other hand, the data suggest that DOM was obligatory with definite NPs as early as the 15th century. Regarding present-day Spanish, I provided evidence that *oír* and *ver* do not behave uniformly in terms of DOM with indefinite NPs, showing that *oír* tends to appear with DOM much more often than *ver*.

Transitioning to AcI constructions, I started the section by showing that the construction is not a recent development, tracing its origins back to Latin. Moreover, I showed that the construction is not exclusive to Spanish but is also present in several other languages. Regarding syntax, I showed that in Spanish, AcI constructions can manifest in two configurations, specifically, the NP2 can appear either pre- or post-infinitivally. I provided several syntactic tests suggesting that the case assigned to the NP2 is accusative rather than dative.

Then, I focused on some semantic aspects of the construction and discussed the distinctions between direct and indirect perception. Importantly, I highlighted that AcI constructions do not invariably imply direct perception; in some circumstances, the construction involves some degree of interpretation or deduction of the event denoted by the infinitive. Furthermore, the events represented by the AcI constructions do not always need to occur simultaneously. The auditory modality allows for the events to occur at different times under certain circumstances.

Unlike mono-predicative predicates, AcI constructions are much more flexible regarding their complements, particularly in relation to the logical subject of the infinitive. The only restriction imposed by the constructions is that the NP2 must be able to be involved in the event the infinitive denotes.

Before concluding the discussion on semantic aspects of the construction, I presented some notes on why AcI constructions are rare with volitional perception verbs, arguing that this is related to the short duration of the perception event and the expectedness of the event (by the perceiver).

Subsequently, I discussed the construction in two specific periods of Spanish: Medieval and Classical Spanish. I showed that AcI constructions in these older varieties of the language were less restrictive than in present-day Spanish, allowing the occurrence of stative and periphrastic infinitives. Additionally, I briefly commented on an innovation known as the *AcI cuatrocentista,* which emerged in the 15th century.

Finally, I illustrated the behavior of DOM in AcI constructions from both synchronic and diachronic perspectives using data from Enghels (2007a, 2007b), one of the few empirical studies addressing this topic. These data provide preliminary support for the hypothesis that agentivity influences the occurrence of DOM in Spanish. The numbers show a clear difference in the proportion of DOM in relation to the perception modality: auditory predicates appear much more frequently with DOM than visual predicates in every century since the 12th century.

Given the vast and complex body of literature on perception verbs, along with ongoing debates among scholars about several aspects, this chapter could not resolve all the issues addressed. This is particularly evident in the diverse analyses that AcI constructions have received. Despite these challenges, the chapter establishes a foundational understanding that enables us to proceed to the next chapter, which presents the framework I adopt with respect to agentivity.

4. Agentivity and Thematic Proto-Roles

The chapter explains how the concept of *agentivity* is applied in this work. It highlights some limitations of traditional thematic role approaches in capturing the agentive properties of direct objects and advocates for the adoption of Dowty's (1991) Thematic Proto-Roles approach as a more suitable alternative for dealing with DOM.

4.1. Introduction

Agentivity has been a topic of linguistic interest for decades. However, as the chapter demonstrates, providing a clear definition for this semantic property is not easy, as scholars disagree regarding what should or should not be considered part of its characteristics. However, there seems to be a consensus that it refers to the properties of what is typically called *agent*, namely, an entity that initiates or controls an 'action', is sentient, and acts with volition.

Traditionally, agent is a semantic role (out of several others) according to traditional thematic role approaches, which was named *deep case* by Fillmore (1968). Using the term *agentive,* this author defines it as "the case of the typically animate perceived instigator of the action identified by the verb" (Fillmore 1968: 46). Although it is one of the first attempts to describe agentivity (cf. Gruber 1965), the definition leaves many aspects open, which are pointed out by Cruse (1973: 12).

The first point concerns the term 'perceived'. An agent does not need to be witnessed by an entity to perform an action. Thus, perception is not a requisite condition for agentivity. The second point addresses the term 'instigator'. Cruse (1973) argues that this term also fails to define agentivity clearly. For instance, in a causative construction such as (108), only *John* can be considered the instigator of the prisoners' marching. However, this term does not allow for any interpretation of *the prisoners*, who were actually marching, as agents. Hence, Cruse suggests the term *performer* instead.

(108) *John marched the prisoners across the yard.* (Cruse 1973: 12)

The last aspect concerns the term 'typically animate'. While agents are generally animate, this is not exclusively the case. Some inanimate entities, such as certain types of machines and natural forces, can also be agents. Aware of this, Fillmore (1968: 46 (fn. 31)) briefly mentions in a footnote that he considers some machines and human institutions to be animate entities.

Trying to solve the problems with Fillmore's definition of agentivity, Cruse (1973: 18–21) proposes that agentivity is composed of four semantic features, namely *agentive, effective, initiative,* and *volitive*, which are provided in (109) below. Notice, however, that these features do not need to co-occur.

(109) Agentive: this feature is present in any sentence referring to an action performed by an object which is regarded as using its own energy in carrying out the action. Included amongst these objects are living things, certain types of machine [*sic*], and natural agents.

Effective: this feature is present in a sentence which refers to something which exerts a force (literally or metaphorically), not by virtue of an internal energy source, but because of its position, motion.

Initiative: this feature is glossed as the initiation of an action by giving a command.

Volitive: this feature is present when an act of will is stated or implied. Willing is a kind of doing, whether what is willed is a state, process or action.

Cruse's (1973) definition of agentivity addresses several limitations found in Fillmore's definition (albeit at the cost of increased complexity). First, the definition encompasses both animate and inanimate entities. Second, it clarifies that the entity can or cannot have its own driving force to perform the action denoted by the verb. Third, the use of the term *object* (understood as *entity*) instead of *subject*, shows neutrality regarding the grammatical function of the agentive noun. Lastly, by including *volitive* in the concept of agentivity, Cruse highlights that while "agentivity and volitivity frequently co-occur, they are nevertheless independent features" (Cruse 1973: 19).

Analyzing the construction (108) above through the lens of traditional thematic role approaches, one would classify *John* as the agent and *the prisoners* as the theme. However, as Cruse (1973) points out, the argument *the prisoners* also exhibits agent-like properties, which traditional approaches fail to adequately capture. In fact, this issue touches upon one of the central criticisms of traditional thematic role theory, namely the Theta-Criterion (Chomsky 1981). According to the Theta-Criterion, "each argument bears one and only one theta-role, and each theta-role is assigned to one and only one argument" (1981: 31). Since *John* in (108) would be assigned the agent role, *the prisoners* cannot also be assigned the same role under this constraint. Therefore, the traditional thematic role approaches fall short in providing an adequate analysis of constructions such as (108).

This discrepancy highlights the need for an alternative framework capable of accounting for arguments that show overlapping semantic properties. A promising candidate is Dowty's (1991) Thematic Proto-Roles (proto-roles). Accordingly, the objective of this chapter, which is relatively modest, is to introduce the framework employed in this book.

To this end, I discuss in Section 4.2 the limitations of traditional thematic role approaches in accounting for agentive direct objects. In Section 4.3, I outline the main characteristics of Dowty's (1991) proto-roles. In Section 4.4, I address some issues related to split intransitivity and how they can be accommodated within the proto-role framework. In Section 4.5, I discuss how the proto-role approach can be applied to perception verbs. Finally, I present in Section 4.6 a summary of the chapter.

4.2. Thematic roles

Thematic roles (also known as *theta-roles, participant roles,* and *semantic roles*, among others) characterize the role a participant plays in the event/situation the verb denotes (Primus 1999a: 32, Davis 2019: 99). They also depict the relationship between the arguments of verbs (Everaert et al. 2012: 1).

Thematic roles approaches have become popular in modern linguistics since the mid-1960s and early 1970s (cf. Gruber 1965; Fillmore 1968; Jackendoff 1972).[76] Over the years, numerous lists of thematic roles have been proposed in the literature (cf. Gruber 1965; Fillmore 1968; Jackendoff 1972; Cruse 1973; Dowty 1989; Haegeman 1994; Parsons 1995, among others). In (110) below, I present some of the most frequently mentioned thematic roles, based on the definitions provided by Andrews (1985: 6–8).

(110) AGENT: a participant which the meaning of the verb describes as doing something or causing something to happen, possibly intentionally.

PATIENT: a participant, which the verb describes as having something happen to it and as being affected by what happens to it.

THEME: a participant who is characterized as being in a state or position or changing its state or position.

EXPERIENCER: the entity that experiences some (psychological) state expressed by the predicate.

CAUSER: a participant who causes something to happen but does not act intentionally.

INSTRUMENTAL: a participant that the agent uses to act on the patient.

RECIPIENT: a participant who 'gets' something.

As Andrews (1985: 6) points out, thematic roles are defined arbitrarily. Each scholar seems to adapt their definitions according to the phenomenon they are dealing with. This becomes very clear if we compare the several different (though related) descriptions that

[76] The original proposal is usually attributed to the Sanskrit grammarian Pāṇini (Davies 2019: 100, Levin 2022: 103).

the agent role receives from distinct scholars.[77] For example, for some scholars, the agent must act volitionally. Others do not consider volition to be a necessary condition for being an agent (Andrew 1985). Additionally, it is not infrequent for scholars to assign different thematic roles to a specific argument of a specific verb (Dowty 1986).

Although thematic roles work relatively well with some verbs, such as *to kill*, where there is a clear one-to-one correspondence between arguments and roles, they fail to accurately account for others, such as *to see* or *to watch*. While the verb *to kill* has an agent as its subject and a patient as its direct object, things are not straightforward with *to see* and *to watch*. Are their subjects agents or experiencers? It seems that they can be both depending on the context (see Chapter 3). What about their direct objects? Neither of the thematic roles mentioned above seems to fit them. In trying to solve this type of problem, more thematic roles have been created to the point that some linguists use *individual thematic roles* (cf. Dowty 1989).

The debate about the number of thematic roles available and which role a participant might play in a given situation remains unsettled (Dowty 1986). Thematic roles have been used and implemented by scholars working in different linguistic areas, such as the lexical semantics and syntax-semantics interface (Davis 2019). For example, it has been an important aspect for Chomsky's (1981) Principles and Parameters Theory, with the inclusion of the Theta-Criterion (as mentioned above), as well as in Carlson's (1984) Thematic Uniqueness.[78] Both authors argue that an argument cannot have more than only one thematic role.

As Cruse (1973) notices, the traditional thematic roles approach cannot satisfactorily explain cases such as example (108) above. In this example, it is clear that *the prisoners,* i.e., the direct object, also exhibit agent-like properties. Despite this, the traditional approach would assign *the prisoners* with the theme role*,* which cannot capture its agentive properties. A similar situation can be observed in relation to the direct object of perception verbs such as *oír* and *escuchar* (as discussed in Section 4.5 below).

This brief review of the traditional thematic roles approach (for an extensive overview of the topic, see Davis 2019; Levin & Rappaport Hovav 2005, among others) makes it apparent that it is insufficient to deal with the problems described above. However, it is in this sense that proto-roles can provide a better tool for dealing with objects that have subject-like properties, i.e., agentive features. Hence, the following section presents the thematic proto-role approach and explains how it is essential for the claims made in this work.

[77] Although I use Andrews' (1985) definitions, note that similar problems are present in other scholars' definitions as well (cf. Fillmore 1968; Haegeman 1994, among others).

[78] Calsons' (1984: 271) Thematic Uniqueness states that "no verb seems to be able to assign the same thematic role to two or more of its arguments".

4.3. Thematic proto-roles

Dowty (1991), in a highly influential paper, proposes that thematic roles can be decomposed according to lexical entailments that verbs impose on their arguments depending on which role each (or the only) argument might play in a certain event.[79] Consequently, he suggests that only two proto-roles are sufficient to cover all the traditional thematic roles, namely the *Agent Proto-Role* (proto-agent) and the *Patient Proto-Role* (proto-patient). His proposal offers an alternative to traditional thematic role approaches (cf. Gruber 1965; Fillmore 1968, among many others), which treats thematic roles as discrete categories, considering them cluster concepts (Dowty 1991: 571). Hence, in his approach, arguments are not assigned thematic roles. Instead, verbs impose proto-agent or proto-patient entailments on their arguments. The author provides two clusters of entailments (or properties) associated with each proto-role. The proto-agent properties are presented in (111) and the proto-patient properties are presented later in (113).

(111) Contributing properties for the Agent Proto-Role (Dowty 1991: 572):
   a. volitional involvement in the event or state
   b. sentience (and/or perception)
   c. causing an event or change of state in another participant
   d. movement (relative to the position of another participant)
   (e. exists independently of the event named by the verb)

The list in (111) outlines five properties associated with the proto-agent role. The first is about volition (see Chapter 3), i.e., an argument intentionally engaged in the event/state denoted by the verb. Notice that although Dowty does not include animacy as one of the proto-agent properties (cf. Fillmore 1968), it is implicit in volition. Only animate entities are provided with this property (and maybe some intelligent machines). The second property, shown in (111)b, is sentience/perception, which is closely related to the traditional experiencer theta-role. Interestingly, Dowty himself wonders whether sentience and perception should or should not be classified under the same category. Nonetheless, once again, it implicitly refers to animacy. However, as he explains, sentience must be understood in relation to "the event or state denoted by the verb" (Dowty 1991: 573). Moving forward, (111)c says that causing an event or inducing a change of state in another participant, i.e., affecting the participant, are also properties characterizing the proto-agent. Regarding movement, (111)d denotes that being in movement is a proto-agent property. Importantly, movement can occur independently of volition and/or causation. Lastly,

[79] Rozwadowska (1989: 128) suggests an interpretation of the thematic roles according to three semantic features: *sentient*, *cause*, and *change*. Different combinations of these features correspond to specific thematic roles, such as *agent, patient,* and *instrument,* among others.

(111)e says that the existence of the proto-agent entity is independent of the event denoted by the verb. I.e., it exists independently of the event. Importantly, for an argument to be considered a proto-agent, it does not need to have all entailments but at least one of them.

In order to demonstrate that the proto-agent entailments are independent of each other, Dowty (1991: 572-573) provides the examples in (112) below. In these examples, the argument with proto-agent under the scope is the subject of each sentence.

(112) a. VOLITION:
John is being polite to Bill / is ignoring Mary.

b. SENTIENCE/PERCEPTION:
John knows / believes / is disappointed at the statement.
John sees / fears Mary.

c. CAUSATION:
His loneliness causes his unhappiness.
Teenage unemployment causes delinquency.

d. MOVEMENT:
The bullet overtook the arrow.
Water filled the boat.
He accidentally fell.

e. INDEPENDENT EXISTENCE:
John needs a new car.

Here, some comments are necessary. First, in (112)a, *John* might be polite without intending to do so or *ignoring Mary* unintentionally. The examples are ambiguous and allow both interpretations, i.e., the presence or absence of volition, an aspect also criticized by Primus (1999a: 37). Second, he includes the verb *to be disappointed at* in (112)b as an example of sentience to show that the subject *John* is aware of the event denoted by the verb, unlike the object *the statement*; the same is meant to hold if the direct object were animate. Nonetheless, perception, as well as sentience, might overlap with volition (as discussed in Chapter 3 regarding the verb *ver* 'to see' used as a volitional verb), which is not the case for *to know* and *to believe*. The examples with *see* and *fear* represent perception. Third, the examples in (112)c show that causation also includes inanimate entities. Fourth, his choice regarding the verb in the third example for movement in (112)d, namely, *to fall,* is intriguing. As he himself demonstrates, this verb should be characterized as an unaccusative verb (see Section 4.4). However, what Dowty apparently intends to demonstrate here is that this verb entails movement, although performed unintentionally, as it becomes evident due to his choice to use the adverb *accidentally*, which isolates movement from volition in this specific example.

After presenting the proto-agent properties, let us now turn our attention to the proto-patient properties. Like the list in (111) above, the list in (113) includes five properties, all intended to be independent of each other.

(113) Contributing properties for the Patient Proto-Role (Dowty 1991: 572):
  a. undergoes change of state
  b. incremental theme
  c. causally affected by another participant
  d. stationary relative to movement of another participant
  (e. does not exist independently of the event, or not at all)

The first property contributing to the proto-patient involves a participant *undergoing* a change of state, indicating that a participant may come into or out of existence, either being permanently or temporarily affected. Regarding (113)b, *incremental theme* is characterized by the gradual involvement of an entity during the unfolding of an event (cf. Krifka 1989; Primus 1999a). The properties described in (113)c–e are intended to be the opposite of the proto-agent properties provided in (111)c–e. Exactly as with the proto-agent properties in (111), an argument does not need to have all the properties described in (113) to be described as a proto-patient; possessing only one already qualifies it as a (possible) proto-patient. Importantly, as described in (118) below, Dowty's (1991) model also allows arguments not to be associated with any of the proto-roles.

The sentences in (114) below, adapted from Dowty (1991: 573), provide examples of each proto-patient entailment described above. Each of them is intended to occur independently. In (114)a, the direct object *a mistake* comes into existence, *the error* goes out of existence, and *the rock* undergoes a change of state as it was moved from its location. In (114)b, the incremental theme is accessible by the *path* or *aspectual implication*. (114)c illustrates a case of a direct object being affected. In (114)d, the examples demonstrate that the proto-patient might be motionless, as with *the target*, or in movement, as with *the arrow.* Regarding the last property, in (114)e, the examples show that the existence of the entity depends on the event denoted by the verb. However, it is worth noting that (114)e is not independent of the other properties, specifically from (114)a–b.

(114) a. CHANGE OF STATE:
  John made a mistake / moved the rock / erased the error.

  b. INCREMENTAL THEME:
  John crossed the driveway / filled the glass with water.

  c. CAUSALLY AFFECTED:
  Smoking causes cancer.

d. STATIONARY RELATIVE TO ANOTHER PARTICIPANT:
The bullet entered the target. The bullet overtook the arrow.

e. EXISTENCE NOT INDEPENDENT OF EVENT:
John built a house / erased an error.

As has been just shown, Dowty (1991) offers five proto-entailment properties for each proto-role. However, as he himself highlights, the proto-entailments in (111) and (113) are preliminary and are not intended to be exhaustive, allowing for possible modifications, which have been proposed by some scholars, as I show later in this section.

The proto-roles are the cornerstone of Dowty's theory, as he claims that the proto-roles are strictly connected to argument realization (cf. Levin & Rappaport Hovav 2005), which Dowty (1991: 576) formalizes through the *argument selection principle* presented in (115), along with two corollaries, provided in (116) and (117), below.

(115) Argument Selection Principle: In predicates with grammatical subject and object, the argument for which the predicate entails the greatest number of Proto-Agent properties will be lexicalized as the subject of the predicate; the argument having the greatest number of Proto-Patient entailments will be lexicalized as the direct object.

(116) Corollary 1: If two arguments of a relation have (approximately) equal numbers of entailed Proto-Agent and Proto-Patient properties, then either or both may be lexicalized as the subject (and similarly for objects).

(117) Corollary 2: With a three-place predicate, the nonsubject argument having the greater number of entailed Proto-Patient properties will be lexicalized as the direct object and the nonsubject argument having fewer entailed Proto-Patient properties will be lexicalized as an oblique or prepositional object (and if two nonsubject arguments have approximately equal numbers of entailed P-Patient properties, either or both may be lexicalized as direct objects).

According to the Argument Selection Principle, in transitive predicates, the argument with most proto-agent properties/entailments is lexicalized as the subject; and the argument with most proto-patient properties/entailments is lexicalized as the direct object (Dowty 1991: 576). For example, in the sentence *The bricklayer built a house*, the verb *to build* imposes all proto-agent properties to the argument *the bricklayer* but none of the proto-patient ones, while *a house* entails all proto-patient properties and none of the proto-agent ones. Consequently, *the bricklayer* is lexicalized as the subject and *a house* as the direct object. Thus, the more proto-agent properties an argument has, the better candidate it is to be a subject, and the more proto-patient properties an argument has, the better it qualifies to be a direct object. In relation to the corollaries, Corollary 1 makes explicit that when both arguments are similar (in relation to their entailments), both of them can be the either the subject or the object, for example psychological verbs such as *fear* and *frighten*. Corollary 2 is meant to include ditransitive predicates in his model.

One of the main advantages of adopting the proto-role approach is that it allows arguments to bear entailments of both proto-roles simultaneously, thus permitting entailments to overlap. Differently than the traditional thematic roles, proto-roles are not discrete categories.[80] Moreover, Dowty's model allows arguments to have more than one proto-role or even no role at all, as shown in (118).

(118) Nondiscreteness (Dowty 1991: 576):
Proto-roles, obviously, do not classify arguments exhaustively (some arguments have neither role) or uniquely (some arguments may share the same role) or discretely (some arguments could qualify partially but equally for both proto-roles).

Despite the popularity of Dowty's model, it has faced criticism and calls for refinement (cf. Blume 1998, 2000; Primus 1999a, 2006; Ackerman & Moore 2001; Levin 2022, among others). For example, Primus (1999a, 2006) introduces some critical adjustments to Dowty's model. She suggests that *role semantics* can be defined according to two dimensions, namely *involvement* and (*causal) dependency* (Primus 2006: 54). Starting with involvement, it is basically a revision of Dowty's proto-agent entailments. She proposes the substitution of *volition* with *control* (Primus 2006: 37). According to her, volition only captures the meaning of someone's will or intention of doing something, which only partially describes the properties of being an agent. On the other hand, *control* provides a broader description. It implies that the agent can start or stop the event according to their own will; they are capable of doing it, and they are responsible for it.[81] The second adjustment is the replacement of causation for *physical involvement*, which subsumes the concept of movement and (partially that of) causation. The third adjustment is the inclusion of *possession.* Lastly, she excludes *independent existence* as one of the entailments of the proto-agent.[82] Primus' (2006: 55) modifications are provided in (119). Notice that she also includes the number of arguments each entailment may have, making it explicit that her approach also includes intransitive predicates.

(119) a. ctrl(x,s) — x controls the situation s denoted by the predicate
b. exp(x,y) — x is sentient of y
c. phys(x,y), phys(x) — x physically contacts or moves y, x moves or is active
d. poss(x,y) — x possesses y

In relation to the second dimension, i.e., (causal) dependency, Primus suggests that causation does not belong to the proto-agent entailments, but serves as a characteristic

[80] Other scholars have already suggested that theta-roles might overlap. For example, Jackendoff (1972: 32-34) had already pointed out that an NP can bear more than one thematic role.
[81] Delancey (1985) shows that *volition* and *control* are different terms, and they are coded differently in certain languages. The disadvantage of *volition* is that it only applies for entities with the feature [+ANIMATE].
[82] In a later work, Barker & Dowty (1993) do not include independent existence.

differentiating both proto-roles from each other (Primus 2006: 56). Therefore, in her approach, there is no need for the proto-patient to have a list of entailments such as the proto-agent, since the proto-patient "is defined by a co-argument dependency relation" (Primus 2006: 56). In other words, the type of involvement of a participant depends on the involvement of the other. Hence, in her approach, the involvement properties are "controller / controlled, mover / moved, experiencer / experienced ("stimulus"), possessor / possessed, etc" (Primus 2006: 56). Additionally, Primus (1999a) introduces a new proto-role called *proto-recipient*, to deal with some thematic roles not discussed by Dowty (1991), such as *recipient* and *benefactive*, and organizes the proto-roles into a scale.[83]

As I have shown, there are other models available (e.g., Blume 1998, 2000; Ackerman & Moore 2001, among others), but their main ideas remain the same, i.e., to allow arguments to have properties/entailments from both proto-roles and the proposed argument selection. Since Dowty's (1991) proto-roles approach is simpler than the others and is able to meet most of the needs of the present investigation, I stick to Dowty's model with some implementations of Primus' (1999a, 2006) model. However, it is important to note that some clarifications are still necessary, for example in relation to intransitive predicates, which is the topic of the next section.

4.4. Unaccusative and unergative predicates

In the late 1970s, Perlmutter (1978) suggested that intransitive predicates could be categorized into two classes: *unergative* and *unaccusative predicates*. In both constructions, there is only one argument, namely the subject. However, one crucial distinction between these predicates lies in the position where the subject is externally merged. If it is merged as the external argument, the predicate is considered unergative, whereas if it is merged as the internal one, then it is considered an unaccusative predicate.[84] This split in intransitive predicates is known as the *Unaccusative Hypothesis* (UH). The simplified structures in (120) illustrate the differences in their syntactic structures (Levin & Rappaport Hovav 1992: 247).

(120) a. Unaccusative Verb: ___ [$_{VP}$ V NP]
b. Unergative Verb: NP [$_{VP}$ V]

As shown in (120)a, the subject of unaccusative predicates is merged inside the VP as its complement and subsequently moves to a higher position in the syntactic structure.

[83] Thematic Hierarchy (Primus 1999a: 3 (2)): Proto-Agent <θ Proto-Recipient <θ Proto-Patient.

[84] Perlmutter (1978) does not use the term *(external) merge* in his paper, as this term was coined later by Chomsky (2001), but as *initial 1* (for unergative predicates) and *initial* 2 (for unaccusative ones), following the relational grammar. As for *internal merge*, he refers to it as *advancement from 2 to 1*.

Conversely, with unergative predicates, as demonstrated in (120)b, the subject is externally merged in a higher position than the V.

Although initially, the UH depended on syntactic terms to explain the differences between both types of intransitive predicates, many authors realized that it could also be explained in semantic terms (cf. van Valin 1990). For example, unergative predicates denote *activities* or *processes* that depend on the *agentive* properties of their subjects. On the other hand, unaccusative predicates denote *states* or *non-agentive events* (achievements) (Mendikoetxea 1999: 1579). Consequently, the thematic roles assigned to the only argument of intransitive predicates are also distinct. While the subject of unaccusative predicates, such as *to go, to die,* and *to fall,* is assigned the theme role, the subject of unergative predicates, such as *to fly, to talk,* and *to play*, is assigned the agent role. In other words, the subject of unaccusative predicates behaves similarly to objects of transitive predicates. In contrast, the subject of unergative predicates behaves like the subject of transitive predicates. This contrast is important for this work since, in both Chapters 5 and 6, the type of predicate is also considered a measurement of agentivity.

Based on the description provided above, it may seem straightforward to categorize the type of intransitive predicate. However, determining whether a verb is unaccusative or unergative in a specific language can be complex. Dowty (1991: 605–613) proposes that his proto-roles approach provides an explanation for the semantic distinction between unergative and unaccusative predicates. Recall that for Dowty's approach, the distinction between the proto-agent and the proto-patient regarding argument selection is not discrete. Instead, the distinction is a matter of degree. Hence, according to him, the more entailments associated with the proto-agent, the more likely the intransitive is to be an unergative predicate. Conversely, the more proto-patient entailments the intransitive verb imposes on its argument, the more likely it is to be an unaccusative predicate.

Nonetheless, Dowty (1991: 607) suggests that the most important proto-agent property for accessing this distinction seems to be volition. If an action involves volition (consequently also involving sentience), it means that the intransitive is always unergative. Notice, however, that volition is not always easily discerned, as the author himself illustrates using the verbs *sneeze, bleed, vomit, snore,* and *blush*. On the other hand, according to him, the incremental theme proto-patient entailment seems to be the most significant for distinguishing unaccusative from unergative, just as it is for object selection regarding transitive predicates. Therefore, building on van Valin (1990: 252), who suggests that telicity and agentivity "are the primary semantic parameters governing split intransitivity", Dowty proposes the following schema provided in Table 16.

Table 16: Split intransitivity based on the entailments the proto-roles possess (adapted from Dowty 1991: 607).

	ATELIC	TELIC
AGENTIVE	cell 1: unergative	cell 2: ?
NON-AGENTIVE	cell 3: ?	cell 4: unaccusative

If split intransitivity is available in a specific language and if it primarily depends on agentivity to determine whether the predicate is unaccusative or unergative, in this language, the verbs of cells 1 and 2 will be unergative predicates, while those in cells 4 and most verbs in 3, unaccusative. On the other hand, if the language depends on telicity, then in this language, verbs of cells 2 and 4 would be unaccusative predicates (cf. Pérez Jiménez & Moreno Quibén 2007).[85]

Notice that Dowty relies on the NP's volition (along with telicity) in order to characterize the type of a certain intransitive predicate. As it is well-known, volition is a property of animate entities. Hence, it would imply that all inanimate entities occurring with intransitive predicates could be cases of unaccusative predicates, which does not seem accurate at all. To solve this problem, Primus (2006: 59) proposes (using her causal dependency) that the type of intransitive can be determined according to the number of proto-agent entailments the only argument of a certain predicate accumulates, as well as "aspectual factors".

In order to deal with the ambiguous cases, the literature outlines several characteristics to discern whether the only argument of intransitive predicates aligns more closely with a subject or a direct object of a typical transitive predicate (cf. Perlmutter 1978; Burzio 1986; Campos 1999; Mendikoetxea 1999; López García 2016). In what follows, I present the key characteristics applicable to Spanish, excluding telicity, which has already been discussed.

Auxiliary Selection

One of the most discussed distinctions about the UH is related to *auxiliary selection.* Certain languages, for example, Italian, German, Dutch, Medieval Spanish, and Classical Spanish, to name but a few, have two auxiliary verbs, and each of them is used with specific types of predicates. For example, the Italian verb *avere* 'to have' is typically employed with both transitive and unergative predicates, while *essere* 'to be' is used with unaccusative predicates; similar behavior is found with the German auxiliaries *haben* 'to have.AUX' and *sein* 'to be.AUX'.[86] Although this distinction is lost in present-day Spanish, it was available until the 16th century (Campos 1999: 1566), as can be observed in *un*

[85] Importantly, Dowty (1991: 610) recognizes that telicity is influenced not only by the lexical classes of the verb but also by the aspectual adverbs in the sentence.

[86] Notice that it is not a rule but a trend, and one language varies from another.

strela es nacida, *son idos, son entrados* (Lapesa 1981: 212). Nevertheless, Lapesa shows that *haber* 'to have.AUX' also occurred with unaccusative predicates, as in *arribado an las naves* (Lapesa 1981),[87] which might indicate a point when this distinction in older varieties of Spanish started to disappear (Rosemeyer 2014). Important for the present discussion are movement verbs in which the single argument might undergo a change of location or volitionally move. The main difference between these verbs is whether the verb refers to an external or internal source of movement (cf. Levin y Rappaport 1995; Mendikoetxea 1999). Since movement is a proto-agent entailment, these types of predicates are the most complex to analyze, as they may appear (in certain circumstances) with one auxiliary or the other. However, since the auxiliary selection distinction is lost in Modern Spanish, this auxiliary alternation, which is more clearly defined in Italian, for example, does not help us anymore to determine the type of intransitive a certain predicate is. Hence, other tests can fit better for Spanish.

Participial constructions

Another very well-known distinction is about the (un)availability of the *participial absolute constructions* and *participial adjective constructions* (cf. Knapp 2000). In these types of constructions, *participles* can occur with both transitive predicates and unaccusative ones, but not with unergative predicates (cf. RAE-ASALE 2010: 735). Let us consider the absolute participle construction on the following examples from Campos (1999: 1576).

(121) *Entregados los premios, se irán todos felices a casa.*
'The prizes having been awarded, everyone will go home happily.'

(122) *Una vez salido el sol, nos entraremos a la mar.*
'The sun having risen, we will head out to sea.'

(123) **Ladrados los perros, ...*
'The dogs having barked, …'

As we can observe, both (121) and (122), which contain a transitive and an unaccusative verb, respectively, are grammatical with the participial constructions. However, the participle cannot occur with unergative verbs, as demonstrated in (123) above. If both intransitive verbs in (122) and (123) belonged to the same class of verbs, there would be no explanation for the (un)grammaticality of the examples. The same restriction applies to adjectival participle constructions, as illustrated in (124). In this construction, the

[87] The literal translations for the examples are: 'a star is born', 'they are gone', 'they are entered', and 'the ships have arrived', respectively.

participles can be used as modifiers of an NP when it is the subject of an unaccusative predicate but not of an unergative one. The reason for the grammaticality of (124)a is that the subject of unaccusative verbs is merged as the complement of the verb before being internally merged to a higher position on the syntactic tree. Notice that the same holds true for the direct object of a transitive verb (cf. *un tesoro recientemente encontrado* 'a recently found treasure').

(124) a. *Un tesoro recientemente aparecido.*
'A recently discovered treasure.'

b. **Un perro muy ladrado.*
'*A very barking dog.' (Mendikoetxea 1999: 1583)

The suffix *-dor*

Another distinction between unaccusative and unergative predicates lies in their nominalization patterns. Unergative predicates, along with transitive ones, normally undergo nominalization by the insertion of the suffix *-dor*, implying an agentive NP (Campos 1999: 1576), which aligns with the instigator of the action the verb denotes, i.e., the proto-agent. For example, the nominalization of the verb *trabajar* 'to work' with the insertion of *-dor* (and *-er* for English) results in *trabajador* 'worker', *correr 'to run'* becomes *corredor* 'runner', *volar* 'to fly' becomes *volador* 'flier, among many other cases. Conversely, the same is not possible with unaccusative predicates (e.g., *venir* 'to come' - **venidor* '*comer', *salir* 'to go out' - *salidor '*goer out', *morir* 'to die' - **moridor* '*dier'). None of them accepts the insertion of the suffix. Notice, however, that it is not a rule but a tendency, as there are exceptions for the (un)viability of *-dor* with both types of intransitive predicates.

(Un)availability of bare NPs in post-verbal position

Bare NPs can normally occur as an object. However, their occurrence is more restricted in relation to subjects (cf. Laca 1999; Espinal & Dobrovie-Sorin 2006, among others). In this regard, it is important to note the different behavior of unaccusative and unergative predicates.

Unaccusative predicates might select a bare NP as its only argument. On the other hand, unergative predicates normally reject bare NPs (cf. Torrego 1989: 255). The distinction is interesting because, normally, there are fewer restrictions for an object to be a bare NP. Hence, the subject of unaccusative predicates behaves more similarly to the objects of transitive predicates, which (normally) do not accept bare NPs as their subjects. On the other hand, the only argument of unergative predicates is closer to the subject

argument of transitive predicates. Examples in (125) and (126) illustrate the distinction. While unaccusative verbs accept bare NPs, unergative verbs reject them.[88]

(125) Unaccusative predicates (Mendikoetxea 1999: 1583):
a. *Siempre vienen mujeres*.
Literal: 'Always come women.'

b. *Todos los años llegan cigüeñas*.
Literal: 'Every year arrive storks.'

(126) Unergative predicates (Mendikoetxea 1999: 1583):
a. ?*Duermen mujeres*.
Literal: 'Sleep women.'

b. ?*Juegan niños*.
Literal: 'Play children.'

In summary, this section aimed to briefly discuss the UH and demonstrate that the subjects of unaccusative and unergative predicates are distinctly characterized mainly through their behavior similar to objects or subjects of transitive predicates, respectively. While the subject of unaccusative predicates entails (more) proto-patient features (according to Dowty's model, or fewer proto-agent features in Primus' model), the subject of unergative predicates entails (more) proto-agent features.

4.5. Proto-roles, perception verbs and AcI

Turning our attention now to perception verbs, let us analyze how the proto-roles approach can be implemented with this type of verbs, particularly focusing on the visual and auditory perception modalities.

Under traditional thematic role approaches, perception verbs assign the experiencer (or agent) role to their subjects, i.e., the perceivers, and the theme/stimulus role to their direct objects, i.e., the percepts (cf. Blansitt 1978; Croft 1991; Parsons 1995; Saeed 2016). In the proto-roles approach, the proto-agent entailments listed in (111) clearly capture the entailments associated with the subject of perception verbs. While *mirar* and *escuchar* involve both volition and sentience/perception (as well as independent existence), *ver* and *oír* involve only sentience/perception[89] (as well as independent existence). Discussing psychological verbs, Dowty points out that "the Stimulus causes some emotional reaction or cognitive judgment in the Experiencer" (Dowty 1991: 579). Assuming that perception verbs function in a similar way, this would imply that the subject of perception verbs

[88] Torrego (1989) shows that unergative predicates can occur with bare NPs when a locative appears in initial position, such as **(En este parque) juegan niños* 'In this park play children'.
[89] As shown in Chapter 3, *ver* and *oír* can also entail volition in specific circumstances.

might also entail at least one proto-patient property, specifically, undergoing a change of state, (113)b (cf. Dowty 1991: 587). However, in perception verbs, this change of state (if any) would occur on a more abstract level, e.g., mental or perceptual, rather than physical. Nonetheless, whether the subject undergoes a change of state is not important here. What I want to emphasize is that the experiencer's entailments, at least those related to the proto-agent, are more clearly defined compared to the stimulus, whose analysis is not straightforward.

Although Dowty (1991) includes *perception* as one of the entailments of the proto-agent role, he does not pay special attention to perception verbs. In fact, as mentioned above, he only discusses *stimulus* in relation to psychological predicates. On the other hand, Primus (1999a: 3), who does include stimulus as a proto-patient entailment (in her causal dependency), points out that "[t]here is little terminological agreement about […] perceived object" which is "often called stimulus." (Primus 1999a: 43). This uncertainty is indeed reflected on the entailments associated with the percept/stimulus. None of the proto-patient properties listed in (113) above seems to fit it. The stimulus does not undergo a change of state, it is not an incremental theme, it is not affected (by being perceived), and it is not stationary relative to the movement of another participant since the experiencer is not moving at all. Nonetheless, it is still perceived, a proto-patient entailment according to Primus (1999a). On the other hand, the stimulus may have at least one proto-agent entailment listed in (111), specifically (autonomous) movement. The stimulus argument may be able to move, but it depends on the perception modality and construction type. To illustrate this aspect of the stimulus, let us return to Cruse's (1973) work.

Using the logic of *necessary implication,* the author notes that the agentive status of the direct object, or in his words "the agentive relationship between a verb and its object" (Cruse 1973: 14), can be assessed by means of entailments using what he denominates *do-test*. In example (127), the verb *to march* implies an action (or movement) coming from *the prisoners.* Hence, the prisoners are doing something. On the other hand, the same entailment is absent in (128) with the verb *to shoot.* That is, being shot does not imply any type of action (or movement) from *the prisoners.* This contrast in agentivity can also be observed by the semantic restriction on complement selection. While the verb *to shoot* barely imposes any requirement on the selection of its direct object, *to march* selects only entities with proto-agent features. Hence, the semantic oddness of #*John marched the table* in contrast to *John shot the table.* Both examples are taken from Cruse (1973: 15).

(127) *John marched the prisoners* entails *The prisoners did something.*

(128) *John shot the prisoners does not* entail *The prisoners did something.*

Of course, one could argue that it is because the verb *to march* is a syntactically causative verb, unlike the verb *to shoot*.[90] However, the use of this type of verb, which undoubtedly selects a direct object with proto-agent features, serves to demonstrate that verbs other than causatives can be analyzed under the same scope. A similar implication can be observed in relation to the auditory perception, specifically with the verbs *to hear* and *to listen*, but not with the visual perception, as shown by the contrast in examples (129) and (130).

(129) *John heard/listened to the prisoners* entails *The prisoners did something.*

(130) *John saw/looked at the prisoners* does not necessarily entail *The prisoners did something.*

While the verbs *to hear* and *to listen* imply that *the prisoners* did something, since in another way the stimulus would not be audible, *the prisoners* in the visual perception modality do not necessarily have to do anything to be seen/looked. It might only imply their existence. As Enghels (2013: 45) argues, the "visual perception of an entity merely follows from its presence whereas auditory perception follows from the effect of the presence of a stimulus". Therefore, the contrast in the semantic restriction in complement selection that affects *to march* (but not *to shoot*) also affects *to hear* (but not *to see*), as can be observed in #*John heard the table* and *John saw the table* (as discussed in Chapter 3).

The contrast between both perception modalities in relation to the proto-agent features of their direct objects is also observed by Mürmann (2023: 85), who, following Blume's (1998) proto-agent property *autonomous activity*,[91] uses negation to differentiate presuppositions from verbal entailments. To this end, she suggests the following test: *x did not PREDICATE$_a$ y* $\rightarrow_P$ *y was active before*. As (131)a shows, the test works for the auditory perception, but it fails for the visual perception, as shown in (131)b. Examples are taken from Mürmann (2023: 85).

(131) a. *The woman did not listen to Peter.*
$\rightarrow_P$ Peter was active before (= produced some chain of sounds).

b. *The woman did not see Peter.*
$\rightarrow_P$ #Peter was active before.

Notice, however, that for Mürmann (2023), it is important to differentiate verbal entailments from presuppositions, since she is interested in measuring and organizing

[90] Although *to shoot* may be analyzed as a lexical causative verb, similar to *to kill* (i.e., to cause someone to die), the key difference lies in the agentivity of the direct objects. While the direct object (i.e., the causee) of *to march* is agentive, the direct object of *to shoot* is not.

[91] Blume (1998: 266) offers three functions which characterize the proto-agent, which are based on Primus (1995). In relation to autonomous activity, she defines it as "[a participant] A is autonomously active/has an essential function in [the subevent] E".

agentivity on a scale according to four grades: *entailed agentivity* > *presupposed agentivity* > *potential agentivity* > *unspecified for agentivity*. However, this fine-grained differentiation is not important to the present work.[92] What is important here is that her test provides further evidence that both perception modalities behave differently in relation to agentivity. In view of this difference, the author characterizes auditory verbs as belonging to *presupposed agentivity*, since the direct object has Blume's proto-role entailment of *autonomous activity*, while visual verbs belong to *unspecified for agentivity*, as they do not have any proto-agent feature (Mürmann 2023: 119).[93]

Based on the aspects presented above, it can be argued that the stimulus of visual perception in mono-predicative constructions has fewer proto-agent features than the stimulus of the auditory perception. Taking into account Dowty's (1991) and Primus' (1999) proto-agent entailments, shown in (111) and (119), respectively, the direct object of each perception modality can be characterized as follows:

(132) Proto-agent features of the direct object of perception verbs:
visual: (independent existence)
auditory: movement or activity (and independent existence)

As can be observed, the key difference between the proto-agent features of the stimulus in each modality lies in the presence of the entailment of *movement* (or *activity*, following Primus 1999). The inclusion of *independent existence* in brackets aligns with Dowty's (1991) uncertainty regarding its status as a proto-agent entailment; however, since this entailment does not vary across perception modalities, it can be set aside in the present analysis.

Shifting the focus now to AcI constructions, the contrast observed between the proto-agent features provided to the direct object by the semantics of each perception modality in mono-predicative constructions is not so clearly distinguished in AcI constructions in relation to the NP2. The reason is that in these constructions, the NP2 has both proto-patient and proto-agent features, which, in principle, is regardless of the perception modality. The NP2 has the proto-patient entailment of being perceived (which

[92] Dowty (1991: 552) himself states that some of his entailments could be "correctly described as presuppositions". However, the distinction is not relevant to his model.

[93] Following Blume (1998), Mürmann (2023: 111) classifies auditory perception verbs as part of the set of interaction verbs. However, this generalization may be too broad. Blume (1998: 273) herself limits her analysis to the verb *to listen* and to contexts where the stimulus is human. Her interpretation of *to listen* as an interaction verb is based on the fact that both the subject and the direct object are "agents [that] act independently of each other". The object produces an "aesthetic or meaningful chain of sounds", and the subject perceives it consciously. Yet, as discussed in Chapter 3, the stimulus of the auditory perception can also be inanimate (e.g., sounds, natural forces, and machines), and such entities cannot interact with the perceiver in the same way. Hence, while the categories of perception and interaction are not mutually exclusive, it is difficult to maintain that all auditory perception verbs fall under the interaction class.

is implicit in Dowty's (1991) model but explicit in Primus' (1999a, 2006) causal dependency), as well as other proto-agent entailments depending on the type of infinitive predicate (cf. Primus 1999b: 161–163; García García 2018: 236).

Since the NP2 has proto-agent features in AcI constructions regardless of the perception modality, it is not surprising that Cruse's (1973) *do-test* works well with both the auditory and visual perception modalities, as shown in (133). In the minimal pair, where the infinitive is realized as the unergative verb *to walk*, both sentences entail that the NP2 is performing the action of walking.

(133) *John heard/saw the prisoners walk* entails *The prisoners walked.*

In the previous section, I argued that intransitive predicates behave differently regarding the proto-agent features they provide their only argument with. Thus, if one assumes that the only argument of unergative predicates behaves more closely to the subject of a typical transitive predicate, it suggests that the NP2 of unergative predicates is richer in proto-agent features than the NP2 of unaccusative predicates. In example (133), the NP2 has almost all of Dowty's (1991) proto-agent entailments: volition, sentience, and movement (and independent existence). On the other hand, in (134), where the infinitive is realized by the unaccusative predicate *to fall*, the NP2 is supposed to behave similarly to the direct object of typical transitive predicates. Hence, it has fewer proto-agent feature(s), specifically movement (and independent existence).

(134) *John heard/saw the prisoners fall* entails *The prisoners fell.*

Recall from Chapter 3 that AcI constructions impose fewer restrictions on complement selection than mono-predicative constructions. As shown above, the direct object of the auditory perception must have proto-agent features (unless it is a sound) differently than the direct object of visual perception. In AcI constructions, however, this restriction is normally not imposed by the perception modality, but rather by the infinitive predicate. The NP2 must be able to perform (or undergo) the action denoted by the infinitive. Nonetheless, an important question is whether the semantics of the perception modality has any influence on the proto-agent entailments of the NP2 in AcI constructions. There is no direct answer to this question.

To address this issue, it is worth mentioning that the results of the corpus study on AcI constructions reveal that each perception modality has a clear preference for selecting specific types of infinitives. The auditory perception almost exclusively selects transitive and unergative predicates, while the visual perception tends to select unaccusative predicates more often than transitive or unergative ones (cf. Enghels 2009).

Given these preferences, one might be tempted to argue that the auditory modality provides the NP2 with more agentivity features than the visual modality. However, since the only difference between the modalities in mono-predicative constructions, as shown in (132), is the presence or absence of movement (or activity), and since this feature (when present) is entailed by the infinitive in AcI constructions, there is no compelling reason to assume that the auditory perception is more agentive than the visual perception in such a construction.

Returning to the proto-agent features of the NP2, and based on the preceding discussion, it seems that these features can be characterized by considering only the transitivity of the infinitival predicate, i.e., without the inclusion of the perception modality. Nonetheless, the analysis is much more complex than that offered for mono-predicative constructions. Therefore, following Dowty's (1991) proto-agent entailments, I present in (135) a list of the relevant proto-agent features each predicate type provides to the NP2. Notice that the list only takes into account cases without modifiers.

(135) Proto-agent features of the NP2 of AcI constructions
transitive: ±volition, ±sentience, causation, movement (and independent existence)
unergative: ±volition, ±sentience, ±movement (and independent existence)
unaccusative: ±movement (and independent existence)

As can be observed in (135), most of the entailments are represented as binary features, i.e., they are either present or absent. This is because not all verbs within a predicate class behave equally, making it problematic to create a schema that generalizes all verbs. Nonetheless, the analysis of transitive predicates is more straightforward than of intransitive ones. For example, the binary entailments of volition and sentience depend on whether the subject is animate or not (or intelligent in the case of certain machines). As for causation and movement, these features are always entailed by transitive predicates, since AcI constructions in present-day Spanish do not allow stative, psychological verbs, among others, with which these features may be absent.

Regarding unergative predicates, the same animacy-based criterion applies to volition and sentience. However, some unergative verbs can occur with animate subjects without entailing volition (and maybe also without sentience). This is the case with certain emission verbs, such as *apestar* 'to stink', *sangrar* 'to bleed', and *roncar* 'to snore'. In some instances, an unergative verb can also lack the movement entailment, as in *dormir* 'to sleep'.

In relation to causation, Dowty (1991) characterizes it as 'causing an event or change of state *in another participant*' (my highlight). Since intransitive predicates involve only one participant, this entailment is not considered under the current analysis (although it is worth noting that the only participant in such cases may still cause an event).

Lastly, the unaccusative predicates, which, in addition to independent existence (a feature shared across all predicate types) normally entail movement, can also lack this feature, as in *morir* 'to die'. Interesting is the comparison between *to die* and *to sleep* (an unaccusative and an unergative predicate, respectively), as both lack all proto-agent entailments except independent existence. In this case, their difference comes from the proto-patient features. While *to die* entails several, *to sleep* lacks them altogether.

In view of the above, it is possible to say that the stimulus of visual perception in mono-predicative constructions has fewer proto-agent features than the stimulus of the auditory perception. In relation to AcI constructions, the primary factor affecting the proto-agent features of the NP2 seems to be the type of infinitive selected by each perception modality. Moreover, transitive predicates normally entail more proto-agent features than unergative ones, which in turn entail more proto-agent features than unaccusative predicates.

4.6. Summary

Throughout the literature review, the chapter has highlighted the difficulties encountered in describing agentivity. Trying to provide a satisfactory answer for that, I relied on Cruse's (1973) definition(s). Additionally, I presented and described some of the limitations the traditional thematic roles approach exhibits in assigning the agent role to the direct object. As an alternative, the chapter presented Dowty's (1991) model, discussing its strong and weak aspects, as well as showing that other models (based on his own) are also available, for example, Primus (1999, 2006), which is also partially implemented in the framework followed in this study.

In relation to intransitivity, the chapter also offered different tests, such as the availability of participial constructions, bare NPs in post-verbal position, and telicity, which can be used to differentiate these types of predicates, since Dowty's model does not offer a satisfactory solution to deal with them. I also provided evidence that the only argument of unergative predicates is more subject-like (in relation to typical transitive predicates), i.e., it has more proto-agent features than the only argument of unaccusative predicates, which is more object-like.

Subsequently, it was briefly discussed how the model can be implemented in relation to perception verbs, concluding that the stimulus of auditory perception has proto-agent properties, while the visual perception might have, but does not need to, unless under specific circumstances, such as in AcI constructions. In these constructions, it was argued that the proto-agent features of the NP2 depend primarily on the transitivity of the infinitive.

Having laid the fundamental bases of the investigation in this and the previous chapters, regarding (i) proto-roles and agentivity, (ii) DOM in Spanish, and (iii) perception verbs and AcI constructions, it is now possible to address the empirical part of this investigation. Chapter 5 will present two corpus studies, while Chapter 6 will provide two forced-choice experiments with native Spanish speakers in order to examine how the agentivity of the direct object (and NP2) influences the occurrence of DOM in Spanish.

5. Diachrony – Corpus studies

The chapter presents two diachronic corpus studies on the evolution of DOM with human NPs in relation to both visual and auditory perception verbs considering two specific constructions: mono-predicative and AcI constructions. The aim is to empirically verify whether and how the perception modality and the constructional type influence the occurrence of DOM in three historical varieties of European Spanish.

5.1. Introduction

As shown in Chapter 2, the evolution of DOM in the history of Spanish has been widely studied in relation to the impact of nominal parameters such as animacy and definiteness (Laca 2006). However, verbal factors, particularly agentivity, have been much less explored (cf. von Heusinger 2008; García García 2018; Romero Heredero 2022). In this chapter, I provide evidence that agentivity plays a significant role in the occurrence of the phenomenon and that it can be observed not only in present-day Spanish but also in older varieties of Spanish.

Building on Enghels (2007b) and von Heusinger & Kaiser (2011), the chapter presents two corpus studies on the development of DOM with perception verbs, focusing on two modalities of perception: (i) visual, composed of the verbs *ver* 'to see' and *mirar* 'to look', and (ii) auditory, with the verbs *oír* 'to hear' and *escuchar* 'to listen'. Additionally, it investigates the evolution of DOM in relation to two different constructions, namely, mono-predicative constructions and AcI constructions (cf. Rodrigues Espiñeira 2002; Pons Rodríguez 2008). I hypothesize that verbs that presuppose an agentive stimulus appear more often with DOM than those that do not. To verify this hypothesis, I carried out two diachronic studies, consisting of approximately 2,000 tokens covering three centuries of European Spanish, specifically the 14th, 16th, and 20th centuries, i.e., Medieval, Classical, and Modern Spanish, respectively. In addition to analyzing the contrast between both modalities of perception, the study also considers nominal parameters (animacy and definiteness) as well as constructional ones (mono-predicative constructions versus AcI constructions).

The reason for conducting a diachronic study to verify the impact of agentivity on DOM is that DOM in present-day Spanish has expanded so much that it is now obligatory with certain direct objects, such as human definite NPs and human indefinite specific NPs, and optional with human indefinite non-specific NPs. In contrast, there is still considerable variation in other categories, such as animate and inanimate entities. Recall, however, that

the historical evolution of DOM with human NPs has been relatively constant over the centuries, as shown by Laca (2006) (see Table 6), which makes human NPs an ideal category for testing this hypothesis. Thus, if the agentivity of the direct object indeed plays a role in the occurrence of DOM in Spanish, its effect should be detectable in earlier stages of the language, when DOM was not yet widespread, revealing an earlier expansion of the phenomenon with agentive direct objects.

Based on the results of the corpus studies, I argue that both the perception modality (visual versus auditory) and the construction type (mono-predicative construction versus AcI construction) have a great influence on the incidence of DOM. The auditory perception in mono-predicative constructions showed a higher frequency of DOM across the centuries than the visual perception in AcI constructions. This suggests that the agentivity linked to auditory perception verbs has a greater impact on DOM than the agentivity linked to the logical subject of the infinitive of the AcI construction, at least in relation to the visual perception.

The chapter is structured as follows. Section 5.2 presents the hypotheses of the study. Section 5.3 introduces the first corpus study, which focuses on mono-predicative constructions. Section 5.4 provides the second corpus study, which focuses on AcI constructions. Each corpus study contains information on the design, search and annotation decisions, results, and discussion. Finally, Section 5.5 offers an interim discussion and a preliminary conclusion.

5.2. Hypotheses

It has been pointed out by a few scholars that agentivity is an important verbal parameter contributing to the occurrence of DOM in Spanish (cf. Delbecque 1998, 2002; Laca 2006; García García 2007, 2014, 2018; von Heusinger & Kaiser 2011; Fábregas 2013, among others). For example, Laca (2006) reveals in her diachronic corpus analysis that the very high rate of DOM cases with indefinite human objects observed in the 18th century, precisely 75% (12/16) of the cases, which is higher than in every other century, is attributed to causative constructions.[94] Similarly, von Heusinger and Kaiser (2011) explain the higher incidence of DOM with the verb *temer* 'to fear' compared to *querer* 'to want' since the 15th century, arguing that some direct objects have more prototypical properties of a subject (due to agentivity features) than of a direct object. Hence, there are more cases of DOM with these types of verbs.

[94] This data is not included in Table 6 of Chapter 2, because the source, *Documentos lingüísticos de la Nueva España* 'Linguistic documents of New Spain', originates from America rather than Spain.

Following the review of the literature (cf. Chapter 2.2.2.3), I hypothesize that the proto-agent features of the direct object are directly connected with the occurrence of DOM in Spanish. Specifically, direct objects with more proto-agent features occur more frequently with DOM than those with fewer proto-agent features. Nonetheless, testing this hypothesis is challenging, as agentivity is usually attributed to subject arguments, rather than object arguments, which makes it difficult to determine whether a direct object also has proto-agent features (cf. Dowty 1991).

In this regard, perception verbs are useful, as perception modalities differ in relation to agentivity (see Chapter 4.5). The direct object of an auditory perception verb presupposes an agentive direct object, whereas the direct object of a visual perception verb does not. To hear someone or something generally implies that someone or something had to produce a sound first (unless the stimulus is a sound itself). On the other hand, it is not necessary for anyone to perform an action for the stimulus to be seen.

Based on Dowty's (1991) Contributing Properties for the Agent Proto-Role in (111), it is possible to say that the visual perception modality assigns to its direct object only the feature of *independent existence*. In contrast, the auditory perception modality additionally assigns at least the property of *movement,* and *activity* in Primus' (2006) framework. Therefore, to test whether the agentivity of the direct object is indeed relevant to the occurrence of DOM in Spanish, I compare its frequency in auditory perception modality with the visual perception modality. Accordingly, I present the first hypothesis under (H1).

(H1) Predicates that presuppose an agentive direct object, such as auditory predicates, will appear more frequently with DOM than predicates that do not presuppose an agentive direct object, such as visual predicates.

Perception verbs are also useful for further testing the impact of agentivity on DOM, as they can occur in a very specific type of construction, namely AcI constructions, as extensively discussed in Chapter 3.3. If, as Laca's (2006) data suggest, causative constructions influence the incidence of DOM, then AcI constructions with perception verbs should also affect its occurrence. This is because the logical subject of the infinitive in AcI constructions also entails proto-agent features such as volition or control, sentience, movement or activity, causation, and independent existence (cf. Dowty 1991; Primus 1999b). Differently than mono-predicative constructions, where the proto-agent features of the direct object depend exclusively on the type of perception modality, this dependency seems to be less strict in AcI constructions, as the NP2 always has, in addition to independent existence, other proto-agent features, which are assigned by the embedded infinitive. The number and type of proto-agent features depend on the transitivity of the infinitival predicate. While transitive and unergative predicates may assign the full set of

proto-agent features listed in (111), unaccusative predicates assign fewer, such as movement (or activity) and independent existence.

Because the NP2 in AcI constructions generally bears more proto-agent features than the direct object in mono-predicative constructions (except when the embedded predicate is unaccusative), I expect the frequency of DOM to be higher in AcI constructions than in mono-predicative ones. In light of this, I present the next hypothesis below.

(H2) AcI constructions will appear more frequently with DOM than mono-predicative constructions.

If the number of proto-agent features an argument bears is relevant to the occurrence of DOM, then I predict that DOM will be more frequent with transitive and unergative predicates than with unaccusative ones (cf. Enghels 2007b: 82). This is because the subjects of transitive and unergative predicates tend to bear more proto-agent features than the only argument of unaccusative predicates.

Finally, to further assess whether agentivity contributes to this phenomenon, the frequency of DOM with human indefinite NPs can be compared across AcI and mono-predicative constructions. As shown in Chapter 2.2.1, DOM is optional with human indefinite direct objects.[95] Therefore, if agentivity does influence DOM, I predict a higher number of DOM cases with human indefinite NPs when the stimulus is auditory rather than visual. Furthermore, a higher rate of DOM with definite NPs should also be observable over time with the auditory modality.

Having outlined the objective of the chapter and the hypotheses necessary for conducting the study, let us now focus on the corpus studies.

5.3. Corpus Study 1: Mono-predicative constructions

5.3.1. Study design

The study is based on the *Corpus del diccionario histórico de la lengua española* (CDH),[96] which covers three distinct periods of European Spanish: Medieval Spanish, Classical Spanish, and Modern Spanish, representing the 14th, 16th, and 20th centuries, respectively.

[95] A generalization is made here, as according to von Heusinger & Kaiser (2005), DOM is optional only with [+HUMAN, -SPECIFIC] direct objects. However, it is very difficult to check specificity in a corpus study. Therefore, I do not consider specificity in this corpus study.

[96] The CDH is a free online corpus provided by the RAE, composed of more than 355 million registers from different varieties of Spanish, spanning from the 12th century to the early 21st century and containing texts from different genres. The corpus consists of three distinct 'layers', i.e., three other corpora, namely, (i) the CDH nuclear, (ii) the data proceeded from the CORDE (labeled as S. XII-1975) and (iii) data from the CREA (labeled as 1975-2000).

It examines the occurrence of DOM in mono-predicative constructions in relation to two modalities of perception: visual and auditory perception, represented by the verbs *ver* and *mirar*, as well as *oír* and *escuchar*, respectively. The corpus analysis is composed of 1,519 tokens and focuses exclusively on [+HUMAN] entities while considering the definiteness of the NPs. This focus on human entities is based on the relatively consistent expansion of DOM within human NPs throughout the centuries, as shown in Chapter 2 (cf. Laca 2006 and Romero Heredero 2022). Because constructional parameters also affect the occurrence of DOM, the study consistently considered only sentences with a post-verbal direct object, i.e., sentences containing one of the perception verbs followed by a direct object with a lexical head. The subject, which appears either overt or covert, very often appears in a pre-verbal position. Nonetheless, the cases where the subject appears in a post-verbal position were also considered. Moreover, no restriction was imposed on adjuncts appearing between the words.

The reason for analyzing these particular centuries is threefold: First, it encompasses three varieties of Spanish. Second, this selection focuses on the century immediately before the widespread adoption of AcI constructions and the one right after their popularization (cf. Pons Rodríguez 2008), and compares it with Modern Spanish. Lastly, these centuries align with the centuries/periods examined by Romero Heredero (2022), which allows for a direct comparison of the evolution of DOM.

5.3.1.1. Queries for the search

The queries were simplified as much as possible to maximize the token retrieval from the searches. This involved querying only by the lemma of the perception verbs and setting their grammatical category as a *verb.* This query retrieves all tokens containing the selected verb, regardless of its tense, aspect, and conjugation, i.e., its complete paradigm, including infinitive and participle forms. This decision was made due to the limited number of verbs being investigated and the restriction regarding the animacy of the direct object. This approach is crucial, because, as it will become apparent in what follows, the construction containing a human direct object is quite rare, and imposing any further restriction would considerably reduce the total number of tokens retrieved. Moreover, this method also allows for a comparison of the proportion of mono-predicative constructions with AcI construction.

Therefore, all the queries were configured to search within the three corpora available in the CDH (*CDH nuclear, S.XII-1975,* and *1975-2000*). The subfield *subcorpus* was set up to retrieve tokens only from *Spain* (for European Spanish), and the date range of the texts was specified as follows: from the year 1301 to 1400 for Medieval Spanish,

from 1501 to 1600 for Classical Spanish, and from 1901 to 2000 for Modern Spanish. Furthermore, the search was configured to exclude tokens found within quotations, foreign languages, captions, glosses, notes, and corrections, among others, as illustrated in Figure 1 below. This exclusion helps avoid repetition of tokens, sentence fragments, foreign language words, captions, notes, and other elements that could potentially obscure the actual frequency of the relevant constructions under analysis.

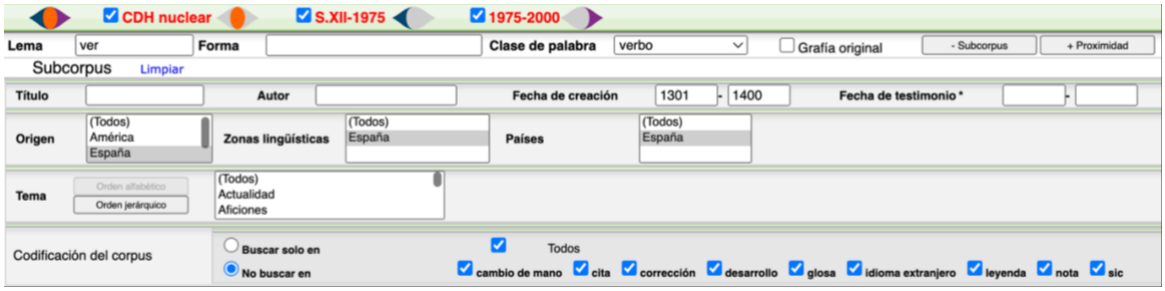

Figure 1: Example of a query for the verb ver 'to see', set up as a lemma in the 14th century. The subfield 'subcorpus' is configured for the variety from Spain. Tokens contained within quotations, foreign languages, captions, glosses, notes, and corrections, among others, are excluded from the search.

The total number of tokens retrieved by the queries and the number of tokens analyzed are provided in Table 17 below. As the table shows, the number of tokens for volitional predicates is very low in the 14th century. The same is true for the verb *escuchar* 'to listen' in the 16th century. Therefore, all of the tokens were analyzed. However, for the other verbs/centuries, the searches retrieved many more tokens. Hence, it was necessary to analyze only a sample of the total number of tokens retrieved. Importantly, they were randomly selected to minimize the chances of having too many tokens from the same author/work and to certify that the tokens represent all decades of each century.[97]

Table 17: Tokens retrieved and analyzed for each verb based on the 14th, 16th, and 20th centuries.

Verb	14th century		16th century		20th century	
	retrieved	analyzed	retrieved	analyzed	retrieved	analyzed
ver	19,802	7,500	181,018	10,160	226,046	18,840
mirar	331	331	33,087	6,000	60,912	4,000
oír	7,101	7,101	36,256	8,100	42,584	13,730
escuchar	292	292	2,382	2,382	16,938	4,000
TOTAL	27,526	15,224	252,743	26,642	346,480	40,570[98]

[97] The CDH presents the results of the queries in sets of 20 tokens per page. The random selection was made based on pages, not individual tokens.

[98] Since the CDH was created using a semi-automated process of annotation, some tokens retrieve false positives. For example, queries with the verb *ver* retrieve some tokens with the Roman numeral *VI* (homonymous with the first-person singular of the verb *ver* in past tense), and queries with *oír* retrieve some tokens with the noun *oído* 'ear'. Consequently, the total number of valid tokens analyzed is slightly smaller than those provided in Table 17.

The disparity between the numbers of tokens analyzed per verb and century is due to the difference in the frequency of occurrences of sentences having a human direct object. The total number of tokens was initially determined based on the valid tokens identified after manually selecting those containing a human direct object. An attempt was made to collect a comparable number of tokens for each verb. However, this was not possible due to the low number of tokens containing a human direct object. Consequently, the maximal number of tokens possible was collected instead.

5.3.1.2. Annotation and token samples

Since the CDH is not annotated for animacy, each token retrieved by the queries was analyzed individually, and the tokens containing human NPs were collected manually. Each case where the direct object was a human NP within the next 12 words following the queried verb was collected and annotated using Microsoft Excel.

The annotation included the perception verb, the century from which the token originates, the presence or absence of DOM, the definiteness of the NP, along with its grammatical category, and the source. Regarding definiteness, the direct objects were categorized as follows: (i) definite NPs, which included the definite article, demonstratives, possessives, and universal quantifiers; and (ii) indefinite NPs, which encompassed the indefinite article, numerals, and existential quantifiers. Below, I provide sample tokens retrieved by the search for each century and perception modality.

Sentences in (136) refer to the 14th century, with examples using the verbs *escuchar* and *ver*. While the direct object in the former is definite, it is indefinite in the latter.

(136) Token samples from the 14th century:

a. *No es conuenible cosa de* ***escuchar*** *al traidor, […]*
NEG BE.3SG convenient thing of listen.INF DOM.the traitor
'It is not advisable to listen to the traitor, …' (CDH, Fernández de Heredia 1379–1384, *Traducción de Vidas paralelas de Plutarco*)

b. *Yo* ***vi*** *vn renegador, disoluto fablador;*
I saw.1.SG a.M renegade dissolute talker
'I saw a renegade, a dissolute talker;' (CDH, de Veragüe 1350, *Doctrina de la discripción o Tractado de la doctrina*)

In (137), the examples illustrate tokens from the 16th century, showing an indefinite NP with the verb *ver* and a definite NP with *oír*.

(137) Token samples from the 16th century:

a. […] *se enojará el corregidor contigo en* ***oyr*** *a la loca.*
REF.3SG angry the magistrate with-you in hear.INF DOM the crazy
'…the Corregidor will be angry with you when he hears the madwoman.' (CDH, Gómez De Toledo, 1536. *Tercera parte de la tragicomedia de Celestina*)

b. *¿Avéis* ***visto*** *aquí un señor?*
AUX.2PL see.PART here a man
'Have you seen a man here?' (CDH, de Miranda 1554, *Comedia Pródiga*)

In (138), the examples represent tokens from the 20th century, providing examples with the verbs *mirar* and *oír*. The former is a case of a definite NP, realized via a possessive, and the latter is an indefinite NP

(138) Token samples from the 20th century:

a. *Pero el gusto de* ***oír*** *a un hombre tan sabio vale por diez camas*
but the pleasure of hear.INF DOM a.M man so wise worth for ten beds
'But the pleasure of listening to such a wise man is worth ten beds...' (CDH, Pérez Galdós 1909, *El caballero encantado*)

b. *[...] y antes de apagar la luz* ***mir-ó*** *a su mujer.*
and before of turn.INF off the light look-PAST.3SG DOM his woman
'…and before turning off the light, he looked at his wife.' (CDH, Blasco Ibáñez 1906–1919, *La Maja Desnuda*)

5.3.1.3. Discarded and separated tokens

As demonstrated in Chapter 2, animacy and referentiality are crucial factors affecting the occurrence of DOM. Additionally, certain constructional parameters also influence the phenomenon. Therefore, to minimize potential interferences that could blur the accuracy of the results, specific criteria were established for discarding certain tokens that may either favor or disfavor the occurrence of DOM. Below, I outline the criteria for exclusion related to the direct object and specific constructions.

Exclusion criteria related to the object:

(i) Pronominal forms:
- Examples: *Vuestra merced* 'your worship', *su alteza* 'your highness'*, nadie* 'no one'*, alguien* 'someone'*, uno* 'one', *los demás* 'the others', etc.
- Reason: These types of NPs favor the occurrence of DOM.

(ii) Metonymies:
- Examples: *Su figura* 'his figure'*, su imagen* 'his image', etc.
- Reason: These entities seem to behave more like an inanimate than an animate one.

(iii) Words representing dead or imaginary people, as well as mythological entities:
- Examples: *El muerto* 'the dead'*, el personaje* 'the character'*, fantasmas* 'ghosts', *sirena* 'mermaid', etc.
- Reason: The occurrence of DOM with such entities seems to oscillate, likely because they occupy an intermediate position between humans and non-human animates.

(iv) Words referring to deity entities:
- Examples: *La Virgen* 'the Virgin Mary', *Dios* 'God', *el Hijo de Dios* 'Son of God', *el Señor*[99] 'the Lord', etc.
- Reason: Deity terms function similarly to proper names and tend to trigger more cases of DOM (cf. Caro Reina 2020).

(v) Coordinated NPs with mixed animacy:
- Criteria: Tokens in which two or more NPs are coordinated and the first element is non-human while the second is human were not taken into consideration.
- Reason: According to Fábregas (2013: 35–36), two direct objects cannot be coordinated if one is preceded by DOM and the other is not.

Exclusion criteria related to constructions:

(i) Clitic doubling and preposed direct objects:
- Reason: These constructions, including cleft and pseudo-cleft, have a significant impact on DOM in Spanish (as discussed in Chapter 2).

(ii) Comparative constructions:
- Form: Perception verb + como (a) + NP.
- Reason: Comparative constructions favor the occurrence of DOM (cf. Laca 2006: 452).

(iii) Nominalization of the perception verb:
- Examples: *El ver* 'seeing'*, el oír* 'hearing'*, el mirar* 'looking', etc.
- Reason: The study only considers VPs.

(iv) Constructions with two objects (cf. García Martín 1992: 473):
- Examples: (i) *Et non <u>lo</u> oy <u>todo</u>* ***a vna persona*** 'and I did not hear it all from one person'; (ii) *El viejo Ciriaco recibió contento de oír <u>esto</u>* ***al monge*** 'Old Ciriaco was pleased to hear this from the monk'; (iii) *Se <u>la</u> oí* ***a un compañero*** comediante 'I heard it from a fellow comedian', etc.
- Reason: Since the construction seems to have two objects,[100] it is not clear whether the *a,* which accompanies the human NP, is an accusative, dative, or a genitive case marker.

[99] The noun *señor* is a polyvalent word that can be used in different ways: (i) as a treatment form, similar to *mister* in English; (ii) with the function of the pronominal form *usted* 'you', in which case it must be preceded by an article; (iii) as a reference to the Christian God; or (iv) with the meaning of *gentleman*.

[100] Throughout the corpus analysis, this construction, characterized by the presence of two objects, a human entity and an inanimate one (or vice versa), appears frequently with auditory predicates in every century. Despite disregarding its specific status, in this type of construction, *a* consistently appears with the human entity nearly 100% of the time.

(v) Gerunds:
- Example: *Era corriente ver a un hombrón con sus herramientas de juguete en la mano* enfrentado *a un terreno* 'It was common to see a man with his toy tools in his hand facing a terrain'; *Ya oigo al murmurador* diciendo *la mala voz que tuvo* 'I can already hear the whisperer saying the bad voice he had'.
- Reason: The embedded subject PRO (coreferential with the direct object) may also have proto-agent features. To avoid possible interference in the results, these constructions were not considered (see di Tullio 1998 for a study on gerunds and AcI constructions). Notice, however, that finite relative clauses were included in the study.

Tokens annotated separately:

(i) Collective nouns:
- Examples: *La gente* 'the people', *el pueblo* 'the people', *la hueste* 'the army', *el público* 'the public', *la policía* 'the police', etc.
- Reason: DOM with collective nouns presents considerable variation.

(ii) AcI constructions:
- Criteria: When there was an infinitival predicate complement, constituting an AcI construction, within the next ten words of the queried verb, the tokens were annotated separately as part of the second study.
- Reason: This approach allows for a comparison of the occurrence and proportion of each construction type. Since mono-predicative and AcI constructions are the focus of the study, they are analyzed in separate studies.

(iii) When proper names appeared with determiners:
- Examples: *El comisario Ramos* 'the commissar Ramos', *el buen don Isidro* 'the good don Isidro', *mi tío José* 'my uncle José', etc.
- Reason: The behavior of DOM with this category is unclear.

(iv) Bare NPs:
- Examples: *Gente(s)* 'people', *personas* 'persons', *hombre(s)* 'man/men', etc.
- Reason: DOM with bare NPs is very rarely found (cf. Ramírez Fernández [1951] 1986; Laca 1995, 2006, among others).

Another important point to highlight regarding the CDH is that the corpus is organized by the year the text was created (*fecha de creación* 'date of creation'), and also the year the text was retrieved from a later version/copy of itself (*fecha de testimonio* 'date of testimony'), as illustrated in Figure 1 above. This is a fundamental tool for historical linguistic research based on electronic corpora, as a later version of a text may not faithfully represent the original work and the historical linguistic context in which it was written (cf. Rodríguez Molina & de Toledo y Huerta 2017). Therefore, when the century of creation and the century of testimony did not coincide, such texts were not used as sources for the century in which this corpus study is interested. This approach ensures consistency with the development of DOM, avoiding mixing texts from different centuries.

5.3.2. Results

This section presents the results of the corpus study on mono-predicative constructions, focusing on the frequency of DOM across the three centuries, considering both perception modalities and the specific verbs investigated. Statistical analyses were conducted using RStudio version 2024.04.2 (Posit team 2024). Generalized linear models were performed using the *glm* function from the *stats* package in R (R Core Team 2023).[101] The predictors included the perception modality and definiteness of the direct object on DOM. Each model analyzed a different century.[102]

After selecting only those cases where the direct object has the feature [+HUMAN] and following the established guidelines described in the previous section, the study comprises 1,519 data points, with 367 related to the auditory perception and 1,152 to the visual perception. As shown in Table 18, the proportion of tokens containing a human NP as the direct object represents approximately 2.0% of the total tokens analyzed. The lowest occurrence is registered in the 14th century, with 1.3% of cases. In the 16th century, this number nearly doubled, reaching 2.5%, followed by a slight decrease in the 20th century to 2.0%. These results demonstrate that the occurrence of a human full NP appearing in a post-verbal position with perception verbs is relatively low.[103] Notice further the variation between the verbs. The verb *ver* is the most common one in the 14th and 16th centuries, being only surpassed by *mirar* in the 20th century. At the other extreme, the verb *oír* is by far the verb with the lowest rate in every century, reaching 1% of cases only in the 16th century.

Table 18: Percentage and number of tokens before and after selecting the cases with a human direct object based on century and verb. The 'analyzed' columns represent the number of tokens manually verified, while the 'valid' ones represent the tokens that passed the established criteria. The asterisk (*) means that all tokens available were analyzed.

verb	14th century		16th century		20th century		TOTAL VALID
	analyzed	valid	analyzed	valid	analyzed	valid	
ver	7,500	2.2% (162)	10,160	2.8% (288)	18,840	2.4% (446)	2.5% (896)
mirar	331*	0.6% (2)	6,000	1.8% (106)	4,000	3.7% (148)	2.5% (256)
oír	7,101*	0.4% (26)	8,100	1.0% (80)	13,730	0.9% (117)	0.8% (223)
escuchar	292*	2.1% (6)	2,382*	1.6% (39)	4,000	2.5% (99)	2.2% (144)
TOTAL	15,224	1.3% (196)	20,648	2.5% (513)	40,570	2.0% (810)	2.0% (1,519)

[101] As it is illustrated in Table 18, there is considerable variation in the number of tokens across the centuries, leading to an unbalanced dataset. Therefore, analyzing each century separately helps to ensure that the results are not influenced by the century with the larger dataset.

[102] I explored models fitting the source of the texts as random effects in a generalized linear mixed-effects. However, since there are 649 out of 1,519 unique observations, and its inclusion does not significantly improve the model, it was opted for the simpler GLM instead.

[103] García García (2014) reports in his corpus study (based on ADESSE) that animate/human entities are also rare regard to other verbs.

Given the imbalance in data points between the two perception modalities, the results for each are reported separately. Figure 2[104] below summarizes the results regarding the visual perception modality, alongside the corresponding absolute data in Table 19. The results show that DOM has a clear evolution with this type of perception. A distinct but expected difference between its occurrence with definite and indefinite NPs is also observed. In the 14th century, the incidence of DOM with definite NPs is 45% of cases, increasing to 61% in the 16th century and 91% in the 20th century. On the other hand, the frequency of DOM with indefinite NPs is much lower. In the 14th century, only 4% of cases occur with DOM. This figure slightly increases to 20% in the 16th century, with a peak of 56% in the 20th century. Interestingly, the expansion of both definite and indefinite NPs follows a similar path, maintaining a more or less constant difference per century of approximately 40% between each category of NPs.

Table 19: Frequency of DOM in mono-predicative constructions with the visual perception modality considering definiteness and century.

definiteness	14th century	16th century	20th century
indefinite	4% (1/26)	20% (16/79)	56% (78/140)
definite	45% (62/138)	61% (192/315)	91% (416/454)

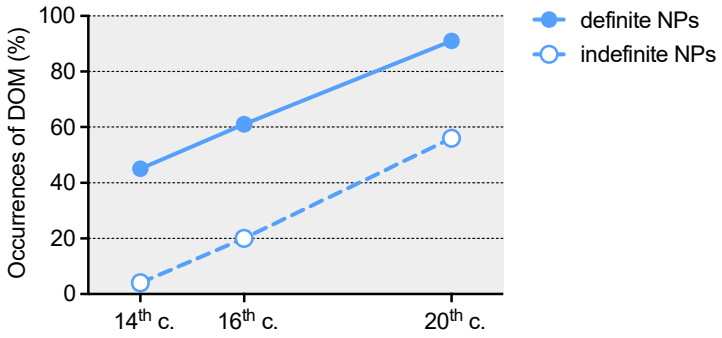

Figure 2: Frequency of DOM in mono-predicative constructions with the visual perception modality considering definiteness and century.

In relation to the occurrence of DOM with the auditory perception modality, the results are summarized in the line chart provided in Figure 3, along with their corresponding absolute data in Table 20. An expansion of the incidence of DOM for both types of NPs is clearly observed. Starting with indefinite NPs, 50% of the cases involve DOM in the 14th century, followed by a slight increase to 61% in the 16th century. In the 20th century, however, DOM reached a categorical peak of 100%, suggesting a complete expansion of the phenomenon. Regarding definite NPs, DOM is observed in 69% of cases in the 14th century, increasing to 81% in the 16th century. In the 20th century, the use of DOM reached 98% of cases.

[104] The line charts provided in this chapter were created using GraphPad Prism 10.

Table 20: Frequency of DOM in mono-predicative constructions with the auditory perception modality considering definiteness and century.

definiteness	14th century	16th century	20th century
indefinite	50% (3/6)	61% (14/23)	100% (38/38)
definite	69% (18/26)	81% (78/96)	98% (175/178)

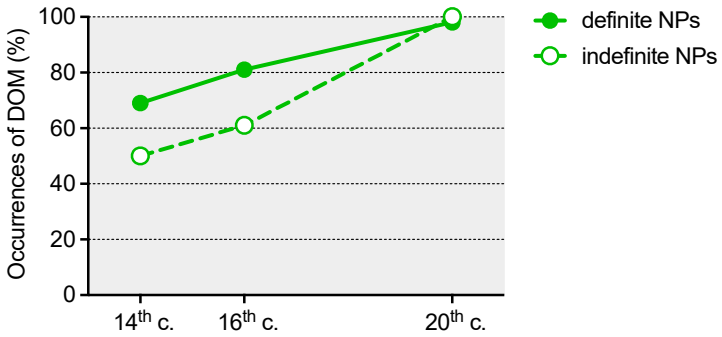

Figure 3: Frequency of DOM in mono-predicative constructions with the auditory perception modality considering definiteness and century.

The comparison of both results is provided in Table 21 below, where it can be easily observed that both perception modalities, i.e., visual and auditory, do not behave in the same form in relation to DOM. The auditory perception consistently registered a higher incidence of DOM compared to the visual perception in each century, regardless of definiteness.

Table 21: Comparison of the frequency of DOM in mono-predicative constructions between visual and auditory perception modalities, considering definiteness and century.

perc. modality	14th century		16th century		20th century	
	indefinite	**definite**	**indefinite**	**definite**	**indefinite**	**definite**
visual	4% (1/26)	45% (62/138)	20% (16/79)	61% (192/315)	56% (78/140)	91% (416/454)
auditory	50% (3/6)	69% (18/26)	61% (14/23)	81% (78/96)	100% (38/38)	98% (175/178)

Indefinite NPs present a consistent difference of approximately 40% between both perception modalities across the centuries, with a clear preference for DOM to occur with auditory verbs compared to visual ones. Furthermore, although based on only a few tokens, the results suggest that DOM with auditory verbs was already optional by the 14th century, occurring in 50% of the cases. In contrast, DOM with visual verbs only reached a comparable incidence in the 20th century, with 56% of cases. By this century, DOM with auditory verbs became obligatory, reaching a peak of 100% of occurrence. A similar, though less pronounced, trend is observed with definite NPs. DOM is consistently more frequent with auditory verbs than visual verbs, particularly in the 14th and 16th centuries. In the 14th century, a difference of 24% in favor of auditory verbs can be observed, which decreases to 20% in the 16th century. By the 20th century, the gap narrows to 7%, suggesting that the perception modality becomes less relevant for DOM with definite NPs (since DOM becomes categorical within the visual perception modality, reaching the

obligatory zone). However, for indefinite NPs, the perception modality continues to play a significant role.

This preference for DOM to occur with the auditory perception is confirmed by the statistically significant results across all centuries: the 14th century ($\beta = 1.31$; SE = 0.4437; $p < 0.01$), the 16th century ($\beta = 1.23$; SE = 0.2559; $p < 0.001$), and the 20th century ($\beta = 2.70$; SE = 0.5992; $p < 0.001$). The same is observed for definiteness, with statistically significant effects in the 14th century ($\beta = 2.05$; SE = 0.5791; $p < 0.001$), for the 16th century ($\beta = 1.59$; SE = 0.2511; $p < 0.001$), and the 20th century ($\beta = 2.03$; SE = 0.2323; $p < 0.001$).

5.3.3. Discussion

The results presented in the previous sections demonstrate a clear evolution of DOM with perception verbs. They also showed that there was a strong preference for DOM to occur with the auditory perception over the visual perception throughout the centuries. In view of the contrast between each perception modality, one wonders how they compare in relation to other verbs.

To this end, Figure 4 offers a line chart of these results as well as the results presented by Romero Heredero (2022) in his corpus study (as discussed in Chapter 2, Table 7). The data clearly show that auditory verbs also stand out compared to the collection of verbs he uses in his study. Even when comparing the incidence of DOM with indefinite NPs, they appear with a higher proportion of DOM compared to the data he provides for definite NPs, except for the 16th century, where Romero Heredero's data show a slightly higher incidence of DOM, specifically, a 4% difference in favor of his data. This indicates that, in general, indefinite direct objects of auditory verbs occur with DOM more often than even definite direct objects of regular verbs. On the other hand, DOM with definite NPs in visual verbs behaves similarly to the data reported by the author. In fact, they are almost a mirror image of each other; while my data present DOM at 61%, his data show 65%. However, indefinite NPs of visual verbs present a much lower incidence of DOM compared to what he reports.

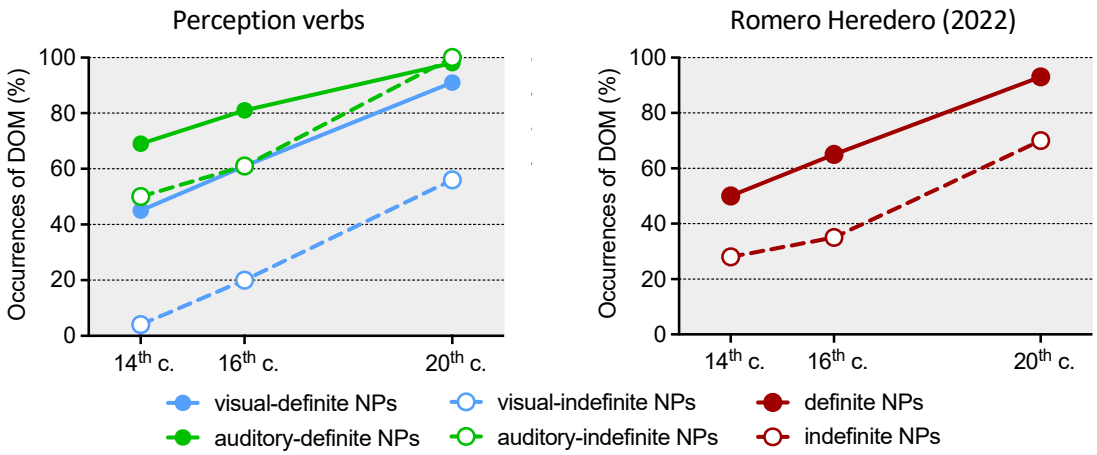

Figure 4: Comparison between the results of both corpus studies (left line chart) with those provided by Romero Heredero (2022: 123) (right line chart), which provides the frequency of DOM in mono-predicative constructions with a collection of different verbs, considering definiteness and century.

These results and comparisons indicate that the proto-agent features of the direct object do indeed influence the occurrence of DOM in Spanish. Furthermore, given that auditory verbs occur much more frequently with DOM than visual verbs and other verb types, the data also support (H1).

Although I have been differentiating the data only regarding the perception modality type, the study analyzes two verbs for each modality, one volitional and the other non-volitional. The occurrence of DOM in relation to each verb is presented in Table 22 below. As the table shows, some variation can be observed between the verbs within the same modality. The most marked contrasts come exactly from those verbs that do not have a high number of tokens, such as *escuchar* in the 14th century and *mirar* in the 16th century in the indefinite column.

Table 22: Percentage and proportion of DOM in mono-predicative constructions regarding individual verbs in relation to definiteness and century.

VERB	DEFINITE			INDEFINITE		
	14th c.	**16th c.**	**20th c.**	**14th c.**	**16th c.**	**20th c.**
ver	45% (61/136)	64% (142/221)	90% (283/314)	4% (1/26)	13% (9/67)	55% (72/132)
mirar	50% (1/2)	52% (49/94)	94% (132/140)	-	58% (7/12)	75% (6/8)
oír	62% (13/21)	79% (53/67)	98% (96/98)	60% (3/5)	69% (9/13)	100% (19/19)
escuchar	100% (5/5)	86% (25/29)	99% (79/80)	0% (0/1)	50% (5/10)	100% (19/19)

Now, let us shift the focus from the impact of the proto-agent features of the direct object to focus briefly on the subject. Torrego (1999) suggests that the availability of DOM in Spanish does not only depend on the properties of the direct object and the predicate but also on the thematic role of the subject, specifically, the *agent-role* (or, under specific conditions, the *causer-role*).

Following this view, it would be expected to have more cases of DOM with *mirar* and *escuchar* than *ver* and *oír*. However, the results do not provide clear evidence that the distinction between (non-)volitional verbs significantly impacts the occurrence of DOM (cf. von Heusinger and Kaiser 2011). Several factors contribute to this. First, the limited number of tokens involving volitional verbs in the 14th century makes it difficult to assert that the subject's volition plays a role in the occurrence of DOM. Second, in the 16th century, the data reveal that DOM occurs more often with *ver* than *mirar* when the NP is definite, but the opposite is true for indefinite NPs. Interestingly, the reverse pattern is observed with *oír* and *escuchar*. While *escuchar* registers slightly more cases of DOM than *oír* with definite NPs, *oír* is more frequently associated with DOM when the NP is indefinite. In the 20th century, the differences are more subtle with definite NPs but more pronounced with indefinite NPs, especially within the visual perception, where *mirar* shows a clear preference for DOM. However, notice that the number of tokens for *mirar* is much smaller than *ver*, which could potentially influence the results. Given that perception verbs, except for *ver*, in general, rarely select a human indefinite direct object, and since this category allows for more variation in present-day Spanish, a possible way to investigate Torrego's (1999) suggestion would be to conduct an experiment with an equal number of volitional and non-volitional predicates with indefinite NPs.

Coming back to the direct object, further evidence of the impact of agentivity on DOM can be observed from the incidence of DOM with proper names. Subsection 5.3.1.3 discussed the criteria used for conducting the corpus analysis. One of these criteria is that some additional tokens were collected and annotated, though they are not part of the results reported above. One such case involves proper names preceded by determiners, such as *el Cid* 'the Cid'*, el comisario Ramos* 'the commissioner Ramos'*,* and *su prima Isabel* 'her cousin Isabel'. It is important to recall that DOM with human proper names has been obligatory since the earliest records of Spanish (Melis 1995; Laca 2006).[105] In total, 166 tokens were collected,[106] of which 14 appeared without DOM, accounting for 8% of the cases. Interestingly, and consistent with (H1), the vast majority of these instances involved visual verbs, specifically, 13 out of 113 tokens (or 12%),[107] while only 1 out of 53 cases (or 2%) lacked DOM with auditory verbs. This single case is from the 16th century. In (139) and (140) below, I provide two such tokens, i.e., without DOM. The

[105] I leave open the question of whether a proper name with a determiner/modifier should still be considered a proper name or it becomes a common noun. For further information on this topic, see Fábregas (2018). For more on DOM with proper names in Romance languages, refer to Caro Reina (2020).

[106] Only cases in which the proper name was definite were considered. For example, cases like *un jovencísimo Gregory Peck* 'a very young Gregory Peck'*, un otro Carlos* 'another Carlos'*, miles de pequeños Berlusconis* 'thousands of little Berlusconi' were not included.

[107] In terms of temporal distribution, six tokens are from the 14th century, another six tokens are from the 16th century, and only one token is from the 20th century.

former is the single case retrieved with *oír*, while the latter contains a token with the verb *ver*.

(139) *[...] invoco tu piadosa clemencia para que despierte los oídos de tu libre señorío a oír* este tu captivo Floriano*, el más dichoso de los cavalleros [...]*
'...I invoke your merciful clemency to open the ears of your free lordship to hear ∅ this, your captive Floriano, the most fortunate of knights...' (CDH, Rodríguez Florián 1554, *Comedia llamada Florinea*)

(140) *¿Ves allá* el señor don Juan*?*
'Do you see ∅ Señor Don Juan over there?' (CDH, de Miranda 1554, *Comedia Pródiga*)

Another piece of evidence highlighting the influence of agentivity on DOM can be observed in the contrast between the incidence of DOM with bare NPs as direct objects in the two modalities of perception (cf. Fernández Ramírez [1951] 1986: 166-168). Recall from Chapter 2 the referentiality scale in (12), where bare NPs (described as *non-argumental* according to von Heusinger 2008) are positioned at the very bottom of the scale. Additionally, Laca's (2006) diachronic corpus analysis, illustrated in Table 6, demonstrates that DOM with bare NPs is extremely rare over the centuries. In my own corpus analysis, I identified and collected 70 tokens where a human entity is realized as a bare NP in plural form, with 16 of these appearing with DOM.[108] The findings are summarized in Table 23.

Table 23: Percentage of DOM with bare NPs in the plural form regarding the perception modality and century.

CENTURY	VISUAL	AUDITORY
14th	0% (0/4)	25% (1/4)
16th	8% (1/11)	33% (3/9)
20th	12% (4/29)	88% (7/8)

While the majority of the cases do not occur with DOM, the data reveal a high difference in the occurrence of DOM between the two modalities of perception. Specifically, DOM is much more frequent with the auditory perception than the visual perception across all centuries. This asymmetry is particularly pronounced in the 20th century, when DOM occurs in 88% of the cases with the auditory perception, compared to only 12% with the visual perception.

To illustrate this contrast, let us consider two tokens from the 20th century. In example (141), DOM occurs with the auditory perception preceding the bare plural NP

[108] It is important to note that, similar to the cases with proper names mentioned earlier, these tokens are not included in the main results presented in Section 5.3.2 above.

periodistas 'journalists'. On the other hand, in example (142), DOM does not appear with the bare plural NP *gendarmes* 'gendarmes'.

(141) *No es raro* oír a periodistas *en cualquier redacción que se lamentan de la actitud de algún personaje [...]*
'It is not uncommon to hear DOM journalists in any newsroom bemoaning the attitude of some character...' (CDH, Alsius 1997, *Catorce dudas sobre el periodismo en televisión*)

(142) *Ahora* vemos gendarmes *con sus gorritos a lo Louis de Funnès [...]*
'Now we see ∅ gendarmes with their little Louis de Funnès-style hats...' (CDH, García Sánchez 1994, *El Alpe d'Huez*)

The last point to be discussed in this section concerns the occurrence of DOM with demonstratives. It is well-known that demonstratives are part of the set of definite NPs with unquestionable referential properties. Given their high degree of referentiality, one would expect DOM to consistently occur with demonstratives. However, the data retrieved from the corpus study reveal that not all demonstratives behave uniformly in relation to the incidence of DOM.[109] This is in agreement with Fernández Ramírez's observation that "[i]n isolation, the 'a' is omitted before human common nouns in the singular or plural preceded by a demonstrative even in the case of concrete mentions" ([1951] 1986: 171-172, my translation and emphasis). The corpus study shows that demonstratives derived from *aquel* occur less frequently with DOM compared to those derived from *este* and *ese*. The data show that DOM occurs in 40% (17/43) of cases with *aquel* and 69% (36/52) with *este* and *ese*. Although the total number of demonstratives in the dataset is not large enough to significantly affect the overall results, this finding is noteworthy. Notice, however, that Fernández Ramírez criticizes an explanation in terms of a transcription approximation of the phonetic realization ([1951] 1986: 172 (fn. 69)). Nonetheless, independently of the reason, this oscillation can only be observed in the visual perception modality, where demonstratives derived from *aquel* consistently occur less frequently with DOM than those with *este* and *ese* in every century.[110] Interestingly, with the auditory perception modality, this variation does not affect the occurrence of DOM as strongly as with the visual perception, as DOM occurs in an equal proportion with all demonstratives. Nevertheless, more data is necessary to verify this observation, which is left for future research.

[109] In Spanish, demonstratives vary not only in gender and number but also in grades of proximity, with forms such as *este* (close to the speaker), *ese* (close to the hearer), *aquel* (far from both interlocutors).
[110] García Martín (1992: 54), who, while investigating the variation in the use of DOM in the reproduction of texts in Medieval Spanish, noted that the occurrence of DOM varies with words beginning with the letter *a.*

Table 24: Percentage of DOM with demonstratives in relation to the initial letter, perception modality, and century.

CENTURY	VISUAL		AUDITORY	
	aquel-	***est-/es-***	***aquel-***	***est-/es-***
14th	0% (0/6)	71% (5/7)	-	-
16th	7% (1/15)	38% (3/8)	60% (3/5)	60% (3/5)
20th	67% (8/12)	73% (19/26)	100% (5/5)	100% (6/6)

In conclusion, the results of this corpus study provide evidence that agentivity is a relevant factor affecting the occurrence of DOM in Spanish. The data show that the direct objects of auditory verbs exhibit significantly higher rates of DOM than those of visual verbs, providing support for (H1). In other words, verbs that presuppose an agentive direct object tend to occur with DOM more frequently than those that do not. Furthermore, this contrastive behavior between perception modalities has been shown to be relevant even in those contexts where DOM is typically obligatory (e.g., with proper names) and in those where it is rarely found (e.g., with bare NPs).

Having discussed the behavior of DOM with perception verbs in mono-predicative constructions, the next section will focus on its behavior in AcI constructions. This shift will allow us to verify whether DOM is also affected by constructional parameters.

5.4. Corpus Study 2: AcI constructions

5.4.1. Study design

The design for this corpus analysis is very similar to that of mono-predicative constructions. It is based on the same corpus and covers the same centuries, considering only European Spanish. It also examines the same perception verbs, namely, *oír, escuchar*, *ver,* and *mirar*, and focuses exclusively on human NPs with regard to their definiteness. However, for this study, the constructions under analysis are AcI constructions. In total, the study involves 537 tokens.

Since AcI constructions are characterized by a complex structure that allows for at least two different configurations, as discussed in Chapter 3, these two possibilities were considered in the analysis: (i) the infinitive appears alongside the perception verb, followed by the NP2 or (ii) the NP2 follows the perception verb, followed by the infinitive. These structures are exemplified in (143) and (144) below, respectively. The ellipsis in the examples represents a placeholder for a possible adjunct or the internal argument of a transitive predicate. Moreover, the main subject may be realized overtly or covertly and preceded or followed by the verb of perception.

(143) Pre-infinitival construction:
a. $VP_{PERCEPTION}$ + INF + (…) + NP2

b. *Oigo / veo cantar a la mujer.*
hear.1SG / see.1SG sing.INF DOM the.FEM woman
'I hear/see the woman sing.'

(144) Post-infinitival construction:
a. $VP_{PERCEPTION}$ + NP2 + (…) + INF

b. *Oigo / veo a la mujer cantar.*
hear.1SG / see.1SG DOM the.FEM woman sing.INF
'I hear/see the woman sing.'

5.4.1.1. Queries for the search

The query used for this study is the same as the one used in Corpus Study 1, specifically querying only for the perception verbs as *lemma* and as *verb.* In fact, the same tokens retrieved in the previous study were utilized. Therefore, the number of tokens used in the previous corpus study also applies to the present study (see Table 17 above).

The decision is based on two reasons. First, the CDH platform imposes a significant limitation on the distance between words, specifically a maximum of five words. While this restriction is not problematic for the post-infinitival construction like (143), where both the perception verb and the infinitive appear side by side, it poses a substantial limitation for pre-infinitival constructions like (144).[111] Given that AcI constructions with the NP2 realized as an overt human NP are particularly rare, especially in Medieval Spanish, this simplified query allows for the retrieval of all possible structures of the construction.

Second, since the query is the same as the previous study, it allows for a proportional comparison between the occurrences of mono-predicative and AcI constructions.

5.4.1.2. Annotation and token samples

As in the previous study, the tokens retrieved by the queries were manually analyzed one by one. When an AcI construction containing a human NP2 was found, it was annotated

[111] To illustrate this, let us simulate a possible query for retrieving this type of construction with the verb *ver*. Since the platform is not annotated for tense and mood, a wildcard must be used to query infinitives. One possibility is to use the wildcard '*' along with the infinitive suffix in Spanish, **r,* in the field *forma* 'form'; and the perception verb *ver* under the subfield *proximidad* 'proximity' as a lemma, with a distance (*distancia*) of up to 5 words to the left of the infinitive, the maximum allowed. This query would retrieve all the tokens containing the verb *ver* with all verbs ending in *r* 5 words to its right. Of course, one could and should refine the query to include the NP as well. Nonetheless, a sentence with the structure of (144) above would almost reach the limitation of the distance field. Consequently, many tokens would be missed.

using Microsoft Excel. The annotation consisted of the perception verb, the century from which the token originates, the presence or absence of DOM, the NP2 and its definiteness (definite NPs include the definite article, demonstratives, possessives, and universal quantifiers, while indefinite NPs include the indefinite article, numerals, and existential quantifiers), the verb representing the infinitive predicate and its transitivity, as well as the configuration of the AcI construction, i.e., whether the NP2 appears pre- or post-infinitivally.

To better illustrate the type of constructions addressed in this study, I provide in (145)–(147) sample tokens for each century under analysis. In example (145)a, a pre-infinitival construction from the 14th century features the verb *ver*, while (145)b showcases a post-infinitival construction with the verb *oír*, where the NP2 occurs with DOM. In both instances, the NP2 is definite.

(145) Token samples from the 14th century:

a. *[…] el moço andava por la torre e* vido la madre llorar
the.M man walk.PAST for the.F tower and saw the.F mother cry.INF
'…and the young man walked through the tower and saw the mother cry' (CDH, Anon. 1313-1469, *La estoria de Merlín*)

b. *E quando el rrey* oyo *asy* fablar ala ynfante *maraujllose*
and when the king heard thus speak.INF DOM.the princess marveled.3SG
'And when the king heard the princess speak thus, he marveled.' (CDH, Anon. 1350, *Sumas de la historia troyana de Leomarte*)

Examples from the 16th century are given in (146). While in (146)a, the NP2 is indefinite and is not preceded by DOM, in (146)b, it is definite (realized as a possessive) and preceded by DOM. Both examples represent post-infinitival constructions: the former with *ver* and the latter with *oír*.

(146) Token samples from the 16th century:

a. *E mientra ellos se combatían,* vieron venir un cavallero armado*,*
and while they REF fought.3PL saw.3PL come.INF a.M knight armed
'And while they were fighting, they saw an armed knight approaching, ...' (CDH, Anon. 1501, *Tristán de Leonís*)

b. *La infanta, que ansí* oyó fablar al su ortolano*, […]*
the infanta, who thus hear.3SG.PST speak.INF the-DOM her garderner
'The Infanta, who thus heard her ortolano speak, ...'(CDH, Anon. 1512, *Primaleón*)

The examples in (147) represent the 20th century. Both feature an indefinite NP2, each preceded by DOM. Example (147)a is constructed with *ver*, where the NP2 appears pre-infinitivally, and (147)b with *oír,* where the NP2 appears post-infinitivally.

(147) Token samples from the 20th century:

a. *He* visto a un comerciante estafar *a* *una* *viuda*
AUX.1SG see.PART DOM a merchant scam.INF DOM a.F widow
'He has seen a merchant scam a widow.' (CDH, Landero 1989, *Juegos de la edad tardía*)

b. *Cuando* oí reír a una mujer *entre* *la* *nieve.*
when heard.1SG laugh.INF DOM a.F woman between the snow
'When I heard a woman laugh in the snow.' (CDH, García Hortelano 1972, *El gran momento de Mary Tribune*)

5.4.1.3. Discarded and separated tokens

As in Corpus Study 1, decisions were made to consistently avoid parameters that might interfere with the occurrence of DOM. This corpus analysis follows the same criteria as Corpus Study 1, with two obvious differences: (i) the NP under analysis is the logical subject of the infinitive, and (ii) mono-predicative constructions were not considered. All other criteria remain unchanged (see Subsection 5.3.1.3).

5.4.2. Results

After outlining all the relevant details necessary for conducting this corpus study, this section presents the results on the frequency of DOM in AcI constructions with perception verbs across the three centuries under investigation: the 14th, 16th, and 20th centuries. The corpus analysis comprises 524 data points, with 254 belonging to the visual and 270 to the auditory perception modality. As in the previous study, statistical analyses were performed using RStudio (Posit team 2024), with a generalized linear model from the *stats* package in R (R Core Team 2023). It included perception modality, definiteness of the direct object, and transitivity of the infinitive as predictors.[112] Each century was analyzed individually using a separate model.[113] Nonetheless, it is important to highlight that due to minimal variation in the occurrence of DOM in the 20th century (as it will become evident later in the section), fitting a model led to inflated estimates. Therefore, no statistical results are provided for this century, only numerical differences.

Similar to the findings in Corpus Study 1, tokens containing a human NP2 are rare. As shown in Table 25, AcI constructions with a human NP2 were found in less than 1% of the analyzed tokens, with the lowest incidence in the 14th century, where they appeared in

[112] The decision to use GLM instead of GLMM is due to the high variability in the source of the texts, which would otherwise be used as a random effect. The dataset consists of 326 unique references out of 524 tokens.
[113] As was the case with Corpus Study 1, there is considerably variability in the number of tokens per century (see Table 25). Therefore, this approach ensures that the centuries with more tokens do not disproportionally affect the fit of a single model.

only 0.4% of the cases, split almost evenly between *ver* and *oír*, and without any occurrences with *mirar* and *escuchar*. This absence continues into the 16th century, although the construction becomes slightly more common, reaching 0.8% of the total tokens analyzed, with a slight preference for *oír*. By the 20th century, AcI constructions start to appear with *mirar* and *escuchar*, but still at a very low rate. Overall, the prevalence of AcI constructions remains stable, with no significant increase from the 16th century, occurring in 0.7% of the cases. In total, these constructions are recorded in just 0.7% of the entire analyzed corpus, accounting for 524 instances out of 76,442.

Table 25: Percentage and number of tokens before and after selecting the cases with a human NP2 based on century and verb. The columns labeled 'analyzed' represent the total number of tokens manually verified in the corpus, while the 'valid' ones represent the tokens that passed the established criteria. The asterisk symbol (*) means that all tokens available were analyzed for that century

verb	14th century		16th century		20th century		TOTAL
	analyzed	valid	analyzed	valid	analyzed	valid	
ver	7,500	0.4% (31)	10,160	0.9% (95)	18,840	0.7% (126)	0.7% (252)
mirar	331*	0.0% (0)	6,000	0.0% (0)	4,000	0.1% (2)	0.02% (2)
oír	7,101*	0.3% (23)	8,100	1.0% (79)	13,730	1.1% (155)	0.9% (257)
escuchar	292*	0.0% (0)	2,382*	0.0% (0)	4,000	0.3% (13)	0.2% (13)
TOTAL	15,224	0.4% (54)	20,648	0.8% (174)	40,570	0.7% (296)	0.7% (524)

Shifting the focus to DOM, starting with the visual perception, Figure 5 reports the findings about the DOM frequency based on the definiteness of the NP2, and Table 26 provides the absolute corresponding data. The line chart reveals a clear evolution of DOM with both definite and indefinite NPs. Although this evolution is subtle from the 14th to the 16th century, it becomes much more pronounced from the 16th to the 20th century, particularly for indefinite NPs. Specifically, with indefinite NPs, DOM is observed in 10% of cases in the 14th century and 15% in the 16th century. However, there was an astonishing increase in the 20th century, when DOM reached 85%. On the other hand, for definite NPs, DOM is registered in 48% of cases in the 14th century, with an increase to 53% in the 16th century and 95% in the 20th century.

Table 26: Frequency of DOM in AcI constructions with the visual perception considering definiteness and century.

definiteness	14th century	16th century	20th century
indefinite	10% (1/10)	15% (7/48)	85% (39/46)
definite	48% (10/21)	53% (25/47)	95% (78/82)

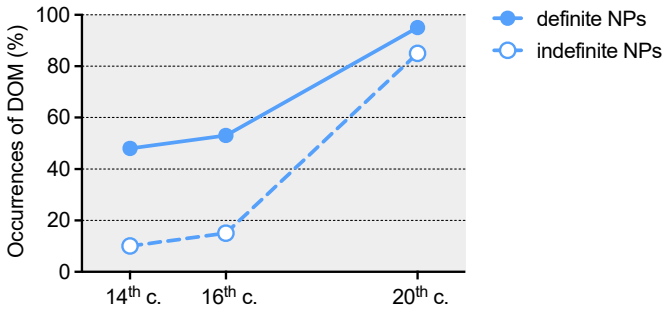

Figure 5: Frequency of DOM in AcI constructions with the visual perception modality considering definiteness and century.

Turning the attention to the auditory perception modality, Figure 6 presents the findings, and Table 27 shows the corresponding absolute data. As can be seen in the line chart, there is an exceptionally high incidence of DOM with this type of perception. For indefinite NPs, the analysis reveals an 80% occurrence of DOM cases in the 14th century, a slight increase to 93% in the 16th century, and a peak of 100% in the 20th century. As for definite NPs, DOM is present in 94% of the cases in both the 14th and the 16th centuries, reaching a categorical 100% in the 20th century.

Table 27: Frequency of DOM in AcI constructions with the auditory perception considering definiteness and century.

definiteness	14th century	16th century	20th century
indefinite	80% (4/5)	93% (14/15)	100% (50/50)
definite	94% (17/18)	94% (60/64)	100% (118/118)

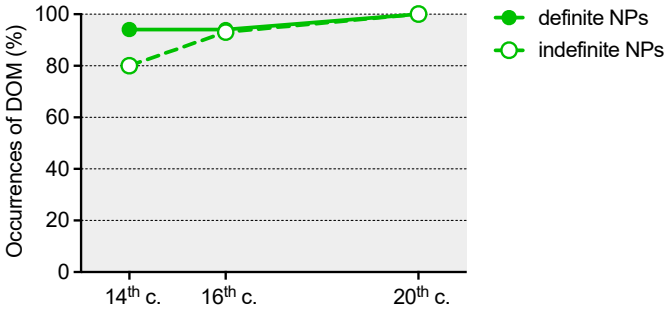

Figure 6: Percentage of DOM in AcI constructions with the auditory perception modality, considering definiteness and century.

Comparing the frequency of DOM between both perception modalities, it becomes clear that their evolution across the centuries differs tremendously, as illustrated in Table 28 below. First, DOM with the auditory perception in AcI constructions was already obligatory for both definite and indefinite NPs by the 14th century. In contrast, DOM with the visual perception only reached the obligatory zone by the 20th century. Second, the contrast between indefinite NPs is particularly interesting. While DOM was rarely

observed with the visual perception in the 14th century, the results suggest that it was more frequently employed with the auditory perception. However, the number of tokens for this century is scarce, so caution is required when interpreting these results. Nevertheless, a similar trend can be observed in the 16th century, where a larger number of tokens makes the results more reliable.

The statistical analyses confirmed the significant effect of the auditory modality on DOM for the 14th century ($\beta = 2.90$; SE = 1.3817; $p < 0.05$) and 16th century ($\beta = 3.10$; SE = 0.6325; $p < 0.001$). Not surprisingly, the definiteness of the NP also turned out to be a significant factor influencing the occurrence of DOM for the 14th century ($\beta = 1.80$; SE = 0.8948; $p < 0.05$) and the 16th century ($\beta = 1.65$; SE = 0.4457; $p < 0.001$). Nevertheless, it is still possible to see a stronger influence of the auditory perception on DOM compared to the visual perception. While DOM occurs in 100% of cases with the auditory perception regardless of definiteness, DOM was registered with visual perception in 85% of cases with indefinite NPs and 95% with definite NPs.

Table 28: Frequency of DOM in AcI constructions in Spanish regarding perception modality and definiteness across the 14th, 16th and 20th centuries.

perc. modality	14th century		16th century		20th century	
	indefinite	**definite**	**indefinite**	**definite**	**indefinite**	**definite**
visual	10% (1/10)	48% (10/21)	15% (7/48)	53% (25/47)	85% (39/46)	95% (78/82)
auditory	80% (4/5)	94% (17/18)	93% (14/15)	94% (60/64)	100% (50/50)	100% (118/118)

In Chapter 3, I demonstrated that AcI constructions do not impose restrictions on the transitivity of the infinitive (as soon as the NP2 can perform or undergo the action/event the infinitive represents). In other words, AcI constructions can select a transitive, an unergative, or an unaccusative predicate as its complement. In the following, I present the results on the occurrence of DOM in relation to the transitivity of the infinitive. The findings are divided into three tables. The first considers the proportion of DOM taking only the transitivity into account. The second presents the results also considering the perception modality. Finally, the last table provides the results in relation to the other two factors along with definiteness.

As can be observed in Table 29, there is a higher preference for the occurrence of DOM in transitive predicates, followed by unergative and unaccusative ones. This preference is clearly observed in both the 14th and 16th centuries. In the 20th century, transitive and unergative predicates appeared in almost identical proportions (99% and 98%, respectively), closely followed by the unaccusative ones (89%). However, the statistical analyses showed that these preferences are not statistically significant.[114] As

[114] 14th c.: unergative ($\beta = -0.15$; SE = 1.2744; $p = 0.9052$); transitive ($\beta = -0.48$; SE = 1.2921; $p = 0.7048$).
16th c.: unergative ($\beta = -0.71$; SE = 0.6469; $p = 0.2683$); transitive ($\beta = 0.28$; SE = 0.5676; $p = 0.6201$).

demonstrated in the previous subsection, perception verbs cannot be considered as a homogenous category since they differ considerably, especially in older varieties of Spanish.

Therefore, Table 30 considers the proportion of DOM in relation to each perception modality individually. The first aspect that stands out is the high preference of the visual perception for unaccusative predicates and the auditory perception for transitive ones, followed by unergative predicates. Despite these preferences, it is also interesting to note the extremely low frequency of transitive and unergative predicates with the visual perception in the 14th century (not DOM, but AcI), as well as the total absence of unaccusative predicates with the auditory perception.

Table 29: Percentage of DOM in AcI constructions in relation to the transitivity of the infinitive and century.

cent.	transitivity	both perc.
14th	transitive	90% (18/20)
	unergative	71% (5/7)
	unaccusative	33% (9/27)
16th	transitive	84% (65/77)
	unergative	64% (18/28)
	unaccusative	33% (23/69)
20th	transitive	99% (110/111)
	unergative	98% (111/113)
	unaccusative	89% (64/72)

Table 30: Percentage of DOM in AcI constructions in relation to perception modality, considering the transitivity of the infinitive and century.

cent.	transitivity	visual	auditory
14th	transitive	50% (1/2)	91% (17/18)
	unergative	50% (1/2)	80% (4/5)
	unaccusative	33% (9/27)	-
16th	transitive	38% (6/16)	97% (59/61)
	unergative	42% (5/12)	81% (13/16)
	unaccusative	31% (21/67)	100% (2/2)
20th	transitive	96% (23/24)	100% (87/87)
	unergative	95% (35/37)	100% (76/76)
	unaccusative	88% (59/67)	100% (5/5)

As can be seen by the comparison of both tables, the very high occurrences of DOM with the auditory perception modality considerably affect the results in relation to the transitivity of the infinitive. When perception is not taken into account, it seems that the transitivity of the infinitive is the main factor influencing DOM. However, the results suggest that it is the perception modality that is playing an important role. Nonetheless, there is still another important point to consider, namely, the definiteness of NP2.

Table 31 below summarizes the results considering all three factors. In relation to the auditory perception modality, the frequency of DOM shows some numerical fluctuation with both definite and indefinite NPs when all factors are taken into account, specifically in the 14th and 16th centuries. However, these variations likely reflect limited data density[115] for the 14th century in general (with the exception of definite NPs with transitive predicates) and for unergative predicates in the 16th century. Nonetheless, the results for

[115] Recall that the data for the auditory modality consists of all available tokens for *escuchar* 'to listen' (14th and 16th centuries) and *oír* 'to hear' (14th century) in the CDH corpus. For *oír* in the 16th century, due to the high volume of occurrences, a representative sample of approximately 25% of the total tokens in the corpus was analyzed (see Table 17).

this perception modality remain relatively stable. In contrast, a clear shift is observed in the results for the visual perception. As the results show, the visual perception barely registers any case of DOM with indefinite NPs in the 14th century, specifically 10% (1/10) of cases compared to 47% (8/17) with definite NPs. In the 16th century, a similar pattern can be observed in relation to unaccusative predicates, DOM is registered in 63% (17/27) of cases with definite NPs but only 10% (4/40) with indefinite NPs. By the 20th century, the results indicate that DOM has reached the obligatory zone with the visual perception modality, independent of definiteness and the transitivity of the predicate. The only exception is indefinite NPs in unaccusative predicates, which show a lower incidence of DOM but still display a sharp expansion. In addition, this modality expands further to include a wider range of predicate types. On the other hand, the auditory perception modality still very rarely selects unaccusative predicates.

Table 31: Percentage of DOM in AcI constructions considering perception modality, the transitivity of the infinitive, definiteness and century.

		definite NP		**indefinite NP**	
CENTURY	**TRANSITIVITY**	**VISUAL**	**AUDITORY**	**VISUAL**	**AUDITORY**
14th c.	transitive	50% (1/2)	100% (15/15)	-	67% (2/3)
	unergative	50% (1/2)	67% (2/3)	-	100% (2/2)
	unaccusative	47% (8/17)	-	10% (1/10)	-
16th c.	transitive	40% (4/10)	96% (46/48)	33% (2/6)	100% (13/13)
	unergative	40% (4/10)	86% (12/14)	50% (1/2)	50% (1/2)
	unaccusative	63% (17/27)	100% (2/2)	10% (4/40)	-
20th c.	transitive	94% (15/16)	100% (58/58)	100% (8/8)	100% (29/29)
	unergative	96% (26/27)	100% (56/56)	90% (9/10)	100% (20/20)
	unaccusative	95% (37/39)	100% (4/4)	79% (22/28)	100% (1/1)

5.4.3. Discussion

The results reported in the previous section provide evidence that the proto-agent features of the NP2 affect the incidence of DOM, further indicating that agentivity influences its occurrence in Spanish. This influence can be observed by the differing distribution of DOM across auditory and the visual perception modalities. Specifically, DOM occurs much more frequently with the auditory verbs than the visual ones, supporting (H1). However, since the two perception modalities exhibit a very distinct diachronic development in relation to DOM, a more detailed analysis of the data is necessary.

The comparison of the results on the frequency of DOM in AcI constructions, provided in Table 28 above, with those of Corpus Study 1 (on mono-predicative constructions), reveals a complex pattern, as illustrated in Figure 7, for convenience.

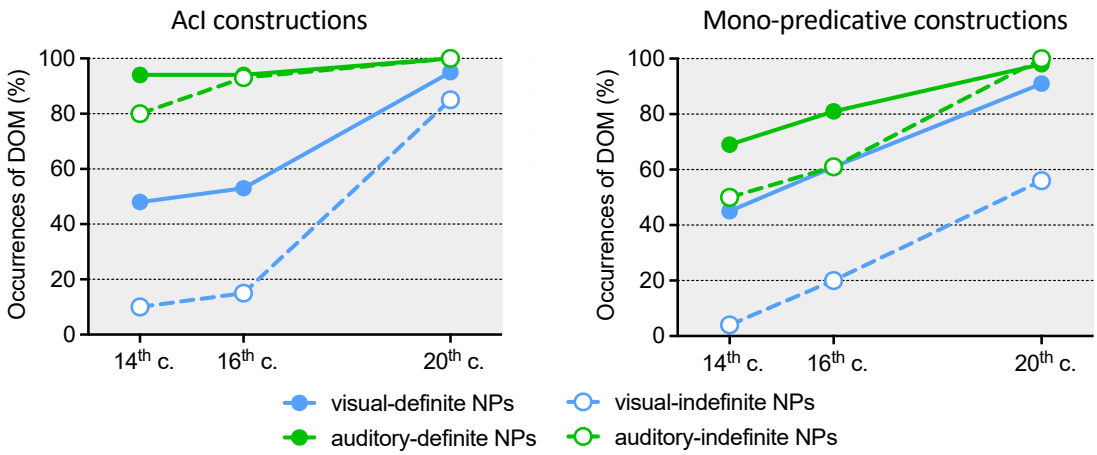

Figure 7: Comparison of the frequency of DOM in AcI and mono-predicative constructions with visual and auditory perception modalities, considering definiteness and century.

DOM in AcI constructions with the auditory perception modality clearly stands out, occurring more frequently than in all other cases. In contrast, DOM with the visual perception modality in AcI constructions mirrors its behavior in mono-predicative constructions, except for indefinite NPs in the 20th century, where DOM is notably higher in AcI constructions. Given the mixed results from the comparison of both corpus studies, it is difficult to conclude whether the results support (H2). On the one hand, the consistent occurrence of DOM over the centuries with the auditory perception supports the hypothesis. On the other hand, the similar occurrence of DOM with the visual modality in AcI constructions and mono-predicative constructions in the 14th and 16th centuries does not allow us to reach a clear conclusion. Additionally, the higher occurrence of DOM in AcI constructions in the 20th century further blurs the situation. Thus, one may say that the data partially support (H2). Nonetheless, the data suggest that the constructional parameter, although very important for present-day Spanish, did not act independently of other parameters in Medieval and Classical Spanish, specifically in relation to the visual perception. This clear contrast between the two perception modalities regarding the occurrence of DOM raises questions about the reason behind it.

One possible interpretation of this contrast is to consider the transitivity of the infinitive. Given that the visual modality shows a clear preference for selecting unaccusative predicates, which are associated with fewer proto-agent features than transitive and unergative predicates (see Chapter 4), the lower incidence of DOM may be attributed to the high frequency of unaccusative predicates. Further supporting this interpretation is the behavior of the auditory perception, which has shown a consistently high incidence of DOM since the 14th century and tends to select transitive and unergative predicates, while very rarely selecting unaccusative ones. If this line of reasoning is correct, one would expect DOM to occur more frequently when visual verbs take transitive or unergative predicates as their complements, as is the case with auditory verbs. This,

however, is only partially supported by the data presented in Table 31 above. While the occurrence of DOM with unaccusative predicates reaches 63% of cases in the 16th century when the NP2 is definite, transitive and unergative predicates register only 40% each. On the other hand, when the NP2 is indefinite, the data show results in line with this expectation. DOM occurs in only 10% of cases with unaccusative predicates, compared to 33% with transitive predicates and 50% with unergative ones.

Due to the methodological decisions made to conduct the corpus study and the difficulties AcI constructions present when querying (see Subsection 5.4.1.1), it was not possible to get a comparable number of tokens for each type of (embedded) predicate. I believe that when a larger, more balanced set of tokens becomes available, it will be possible to clarify this issue, a matter I leave open for future work. Nonetheless, it is important to mention that these historical AcI constructions, specifically in Medieval and Classical Spanish, were much less strict than in Modern and present-day Spanish. As shown in Subsection 3.3.3, in these older varieties, AcI constructions allowed stative predicates and even passive constructions, which are ungrammatical in present-day Spanish, e.g., **las campanas son oídas sonar* "the bells are heard to ring" (Devís Márquez 2010: 114). Given that the AcI constructions permitted these low-transitivity environments and the visual perception modality shows a clear preference for unaccusative predicates, it may be that being the NP2 of a visual perception verb in these older AcI constructions was not semantically distinct from being a direct object in a mono-predicative construction. Therefore, it seems that the most important parameters affecting the occurrence of DOM with the visual stimulus in these older Spanish varieties are not the constructional ones but the nominal parameters, specifically animacy and definiteness/referentiality. Obviously, this is just an assumption that cannot be proven without a much larger dataset. Contrastively, being the NP2 of an auditory perception verb in these varieties considerably increased its proto-agent features, which were already high in mono-predicative constructions, and became even higher in AcI constructions. This seems to justify the almost 100% incidence of DOM, including with indefinite NPs.

Another interesting distinction between the two perception modalities lies in complement selection. Although AcI constructions do not impose restrictions on the transitivity of the infinitive, each perception modality shows a clear preference for selecting specific types of verbs. The auditory perception generally selects verbs of communication, whereas the visual perception tends to select verbs of movement. For example, in the 14th century, all the verbs appearing with the auditory perception were verbs of communication, with the majority being the verb *decir* 'to say' (14 out of 23 cases). This trend continues in the 16th century, with *decir* (45/79) and *hablar* 'to speak' (11/79) occupying the first and second places by a significant margin. While other types of

verbs start to occur with the auditory perception in this century, such as *venir* 'to come' (2 cases) and *llorar* 'to cry' (3 cases), their incidence remains very low. In the 20th century, the selection of other types of verbs expands further, but they still occur infrequently, with *decir* (43/168) and *hablar* (40/168) being the most common.

Contrastively, the most common verbs occurring with the visual perception were *venir* 'to come' (10 out of 31 cases) and *ir* 'to go' (5 out of 31 cases) in the 14th century. Despite their low incidence, other verbs such as *estar* 'to be'[116] (3 cases) and *yacer* 'to lie' (2 cases) were also registered. This trend continues in the 16th century, with *venir* remaining the most frequent verb (29/95), followed by *ir* 'to go', *hacer* 'to make', and *morir* 'to die' (each appearing 5 times). Although the set of verbs diversifies considerably in this century, each verb still occurs only a few times. In the 20th century, while verbs of movement, such as *pasar* 'to pass' (10/128) and *entrar* 'to enter/to get in' (9/128), remain the most common ones, a total of 70 different verb lexicalizations are registered, indicating a great diversification, in contrast to the auditory perception, which registered 46 different verbs.

As in Corpus Study 1 (on mono-predicative constructions), the distinctive behavior of bare plural NPs regarding DOM is also particularly significant in AcI constructions. In the cases of auditory perception, DOM strikingly occurs without exception in all 20 tokens collected. In contrast, the visual perception modality registers DOM in only 4 out of 16 cases, as reported in Table 32.[117] Although the overall incidence of bare plural NPs is low, the 16th century registers 1 out of 3 DOM cases with the visual perception, while the 20th century records 3 out of 10 cases. Importantly, despite the limited occurrences of bare plural NPs, the incidence of DOM with these types of NPs in AcI constructions is notably higher than in mono-predicative constructions, as provided in Table 23.

Table 32: Percentage of DOM with bare plural NPs in AcI constructions regarding the perception modality and century.

CENTURY	VISUAL	AUDITORY
14th c.	0% (0/3)	100% (2/2)
16th c.	33% (1/3)	100% (12/12)
20th c.	30% (3/10)	100% (6/6)

In the mono-predicative constructions, DOM occurs in approximately 10% of the cases in both the 16th and 20th centuries with the visual perception. In comparison, it appears in about 30% during the 14th and 16th centuries with the auditory perception, increasing dramatically to 88% in the 20th century. These findings provide further evidence that not

[116] Only cases in which the verb *estar* was used along with a locative preposition were considered. Other instances were considered as *copula* and were discarded from the analysis.

[117] As in Corpus Study 1, the data regarding bare NPs do not constitute part of the main corpus analysis reported in Section 5.4.2 above.

only does the perception modality influence the occurrence of DOM, but the constructional parameter, i.e., AcI versus mono-predicative, also plays a significant role, supporting (H2). In order to illustrate this contrast, I provide below two sample tokens from the 14th century: (148) shows a token with the verb *ver*, and (149) with the verb *oír.* While DOM is absent in the example with *ver,* it does occur in the one with *oír*.

(148) *assi como si uos* uidiessedes sieruos *contra uos* tomar *armas.*
'As if you see ∅ your servants take up arms against you.' (CDH, Fernández de Heredia 1385, *Gran crónica de España, I*)

(149) *Biuiendo yo en casa de vn sennor con qui guareçia,* oy fablar a omnes *muy letrados en muchas siençias [...]*
'While living in the house of a lord with whom I stayed, I heard DOM very learned men speak about many sciences…' (CDH, Manuel 1326, *Libro del caballero y del escudero*)

An interesting aspect, briefly discussed in Chapter 3 and further confirmed by the present corpus analysis results, is the almost total absence of volitional predicates (*mirar* 'to look' and *escuchar* 'to listen') in AcI constructions, as Table 33 shows. Recall that the present investigation focuses on four specific verbs as part of both perception modalities: the non-volitional verbs *ver* and *oír*, and the volitional verbs *mirar* and *escuchar*. Interestingly, the corpus analysis barely registers occurrences of *mirar* and *escuchar* in AcI constructions. Specifically, only 2 cases with *mirar* and 13 with *escuchar* (11 with a definite NP2 and 2 with an indefinite NP2) were documented, all of which were found exclusively in the 20th century.

Table 33: Percentage and proportion of DOM in AcI regarding individual verbs in relation to definiteness and century.

VERB	DEFINITE			INDEFINITE		
	14th c.	**16th c.**	**20th c.**	**14th c.**	**16th c.**	**20th c.**
ver	48% (10/21)	53% (25/47)	95% (76/80)	10% (1/10)	15% (7/48)	85% (39/46)
mirar	-	-	100% (2/2)	-	-	-
oír	94% (17/18)	94% (60/64)	100% (107/107)	80% (4/5)	93% (14/15)	100% (48/48)
escuchar	-	-	100% (11/11)	-	-	100% (2/2)

Despite the low occurrence of these predicates, all the cases co-occurred with DOM. Notice, however, that *escuchar* appeared much more often than *mirar.* The higher occurrence of *escuchar* might be explained by its possible use as a synonym for *oír* in present-day Spanish. While the RAE's dictionary does not include such a definition, RAE-ASALE's *Diccionario panhispánico de dudas* (DPD) affirms that *escuchar* has been used since older varieties of Spanish without necessarily implying intentionality by the subject of the predicate. On the other hand, *mirar* seems to be possible (according to the data) only

in cases where the intention of the subject is explicit, as the qualitative analysis of (150) and (151) demonstrates.

In (150), this is indicated by the adverbial phrase *por el ojo de la cerradura* 'through the keyhole'. In (151), the imperfective aspect of the sentence describes the ongoing action of watching the passersby while leaning out of the window. Because the vast majority of tokens are cases with DOM, showing its nearly total expansion by the 20th century, the data do not allow us to verify whether a volitional predicate influences the occurrence of DOM. While a contrast could theoretically be suggested by the 100% frequency for *mirar* compared to 95% for *ver*, the former is based on only two documented tokens; given this limited data, this aspect remains inconclusive. Nonetheless, the results confirm the rarity of these predicates in AcI constructions, as shown in Table 25 (on page 131). Moreover, it aligns with Kirsner & Thompson's (1976: 230) arguments about the expectedness of an event to occur and its duration, as discussed in Chapter 3. Since *mirar* always requires a volitional subject, its occurrence strongly depends on the context. On the other hand, *escuchar* might be in process of reinterpretation, against what was discussed earlier in the aforementioned chapter.

(150) *Eso era lo que me decían a mí de pequeñito cuando* miraba desnudarse a la criada *por el ojo de la cerradura...*
'That's what they used to tell me when I was little when I watched DOM the maid undress through the keyhole...' (CDH, Martínez Mediero 1982, *La* [sic] *bragas perdidas en el tendedero*)

(151) *Después me asomé a la ventana, desde donde estuve* mirando pasar a los transeúntes*, con los mismos ojos que los vería Quirón el centauro,* [...]
'Afterwards, I leaned out of the window, from where I watched DOM the passersby go by, with the same eyes that Chiron the centaur would have seen them with, ...' (CDH, Herrera Petere 1940, *Niebla de cuernos*)

The final aspect to be discussed is related to the position of the NP2 in AcI constructions, specifically whether it appears pre-infinitivally or post-infinitivally, and the corresponding proportion of DOM in each position. The results presented in Table 34 below reveal a clear preference for the NP2 to appear post-infinitivally, in agreement with Enghels (2009). The NP2 occupies this position in 75% of instances or 392 out of 524 cases. Regarding DOM, the data show that there is only a slight preference for DOM to occur in the post-infinitival position, recording 82% (321/392) of the cases, compared to 77% (102/132) of the cases in the pre-infinitival position registers.

Table 34: Percentage of DOM with AcI constructions depending on perception modality and position of the NP2 in relation to century.

CENTURY	MODALITY	PRE-INFINITIVE	POST-INFINITIVE
14th c.	*visual*	55% (6/11)	25% (5/20)
	auditory	67% (4/6)	100% (17/17)
16th c.	*visual*	36% (10/28)	33% (22/67)
	auditory	75% (6/8)	96% (68/71)
20th c.	*visual*	92% (35/38)	91% (82/90)
	auditory	100% (41/41)	100% (127/127)
TOTAL		77% (102/132)	82% (321/392)

The proportion of DOM between the two positions is relatively balanced in the 20th century. However, in the 14th century, there is more variability, likely due to the limited number of tokens, which may skew the results. In this century, although the numbers are low, the data suggest a numerical effect on the occurrence of DOM with the auditory modality in favor of the post-infinitival position, the same holds for the 16th century. Note, however, that only 2 out of 6 cases in the 14th century and 2 out of 8 in the 16th century occur without DOM but in both instances, one case per century involves a demonstrative derived from *aquel* 'that', as illustrated in (152) and (153). Recall from Corpus Study 1 that demonstratives beginning with the letter *a* influence the occurrence of DOM.

(152) *Sus mo[ç]os en estauan todos corroscados / car eill* ***oya*** *volenters* **aquel prodome predicar** […]
'His servants stood around, all huddled together, for they gladly listened to ∅ that nobleman preach…' (CDH, Anon. 1400, *Viaje de Juan de Mandevilla*)

(153) *Mas quien* ***oyese aquellas Religiosas contar*** *esta historia con todas las particularidades y circunstancias* […]
'But whoever heard ∅ those nuns recount this story with all its details and circumstances…' (CDH, Granada 1583, *Segunda parte de la Introducción del Símbolo de la Fe*)

Based on the data provided in Table 34, one may say that the position in which the NP2 appears does not play an important role in determining the presence or absence of DOM. Notice, however, that this analysis does not take definiteness into account. When focusing only on definite NPs (since indefinite NPs generally occur without DOM in both the 14th and 16th centuries), the picture shifts slightly, particularly in relation to visual predicates. There is a considerable increase in the proportion of DOM in favor of the post-infinitival position across the centuries: from 25% (5/20) to 42% (5/12) in the 14th century, from 33% (22/67) to 61% (17/28) in the 16th century, and from 91% (82/90) to 96% (52/54) in the 20th century. Interestingly, the proportion of DOM in pre-infinitival construction remains relatively unaffected, regardless of the perception modality. Hence, the data considering

only definite NPs suggest that the position the NP2 occupies might have had an impact on the incidence of DOM in Medieval and Classical Spanish, particularly with the visual perception.

Continuing with the discussion on the position of the NP2, I now turn to tokens where DOM is absent. In Subsection 3.3.1.2, I dedicated several pages to examining the claim defended by some scholars that the NP2 is assigned dative case by default when it appears post-infinitivally alongside a transitive predicate (cf. Ciutescu 2013, among others). In that section, I argued that if the prepositional marker *a* were indeed a dative marker, it should occur consistently in every construction, similar to how it behaves with ditransitive predicates in mono-transitive constructions. However, this consistency is not observed. As evidence against this claim, I provided examples from the 20th century (from the CDH and CORPES XXI), which contained an inanimate NP2 occurring without the prepositional marker *a,* suggesting that the *a*-marker in such constructions is not a dative marker but rather an accusative marker, i.e., DOM. Furthermore, using Catalan, a language in which DOM is much more restricted than in Spanish, I showed that the supposed dative marker does not appear with inanimate dynamic indefinite and heavy NPs, which further supports the argument that *a* functions as DOM rather than as a dative marker. Further evidence challenging that claim comes from the present corpus analysis, from which I retrieved three such examples with the visual perception modality coming from the 16th century.[118] In (154), the NP2 is realized as the plural definite NP *los viejos* 'the old men', while the direct object of the infinitive is *el seso* 'lit. the brain'. In (155), the NP2 is realized as a singular indefinite NP, *un pastorcillo* 'a little shepherd', while in (156), the NP2 appears coordinated with two singular indefinite NPs, specifically *un hablador* 'a talker' and *un malsín* 'a slanderer'. Interestingly, while in (155), the NP2 precedes the direct object *la cañada* 'the valley', in (156), it follows the direct object *privanzas* 'privileges'.

(154) *Siempre* vi perder los viejos *el seso y tornarse niños* […]
'I have always seen ∅ the old men lose their wits and turn back into children…' (CDH, Fernández 1514, *Comedia*)

(155) *Apresura el caballo en la jornada, y no caminó mucho, cuando* vido dejar un pastorcillo *la cañada, trayendo su ganado recogido.*
'He hastened the horse on the journey, and had not traveled far when he saw ∅ a little shepherd leave the valley, leading his gathered flock.' (CDH, Urrea 1549, *Traducción de "Orlando furioso" de Ludovico Ariosto*)

[118] In total, there were 15 cases where DOM is absent in transitive predicates. Except for the tokens in (154)–(156), in all the others, the NP2 appears pre-infinitivally.

(156) Ver arremedar *privanzas* un hablador y un malsín […]
'To see ∅ a talkative person and a slanderer mimic privileges…' (CDH, Quevedo y Villegas 1597, *Poesías*)

Having considered all the aspects discussed above, in the next section, I offer a brief interim discussion and provide a conclusion for the chapter.

5.5. Interim discussion and conclusion

In Chapter 1, I formulated five research questions this investigation aims to address. For clarity and convenience, I restate the first three questions below, which are the ones relevant to this chapter.

(RQ1) Does agentivity influence the occurrence of DOM in European Spanish?

(RQ2) How does the degree of agentivity impact DOM?

(RQ3) How was the development of DOM with perception verbs in mono-predicative constructions and in AcI constructions regarding human NPs?

First and foremost, both corpus studies have demonstrated that the perception modalities under investigation, visual and auditory, do not behave homogeneously. The results indicate that DOM occurs much more frequently with the auditory perception than with the visual perception, providing evidence for the claim that different perception modalities entail a direct object/NP2 with different proto-agent features. While the auditory perception modality presupposes a direct object/NP2 with proto-agent features (except in cases where the entity is inanimate non-dynamic), the visual perception does not necessarily imply this. In other words, hearing someone typically presupposes that the person is performing some action, thus having proto-agent features. On the other hand, seeing someone does not necessarily imply that the person is performing an action; hence, the direct object/NP2 may or may not have proto-agent features. Each perception modality entails a different degree of agentivity (if any) to its direct object/NP2, and this variation in agentivity has played a significant role in the presence or absence of DOM since at least the 14th century. Therefore, the present results provide clear evidence for the hypothesis that agentivity influences DOM in Spanish, offering a positive answer to (RQ1). Crucially, while this analysis focuses on perception verbs, these findings do not stand alone; rather, they align with broader evidence from various verb classes, such as verbs of sequencing, verbs of replacement, verbs of competition, verbs of attribution, verbs of naming, and reversible predicates (some of which are briefly introduced in Chapter 2 and further discussed in Chapter 7), collectively providing robust support for the agentivity hypothesis.

In relation to (RQ2), the corpus analyses indicate that while the perception modality clearly affects the occurrence of DOM, the same cannot be unequivocally said regarding the constructional parameter, as the comparison of the results of both studies demonstrates, which is presented in Table 35.

Table 35: Frequency of DOM with perception verbs in mono-predicative constructions and AcI constructions in Spanish regarding human definite and indefinite direct objects/NP2 across the 14th, 16th and 20th centuries.

		14th century		16th century		20th century	
CONSTRUCTION	**MODALITY**	**indefinite**	**definite**	**indefinite**	**definite**	**indefinite**	**definite**
mono-predicative	***visual***	4% (1/26)	45% (62/138)	20% (16/79)	61% (192/315)	56% (78/140)	91% (416/454)
	auditory	50% (3/6)	69% (18/26)	61% (14/23)	81% (78/96)	100% (38/38)	98% (175/178)
AcI	***visual***	10% (1/10)	48% (10/21)	15% (7/48)	53% (25/47)	85% (39/46)	95% (78/82)
	auditory	80% (4/5)	94% (17/18)	93% (14/15)	94% (60/64)	100% (50/50)	100% (118/118)

First, AcI constructions strongly favor the occurrence of DOM with the auditory perception modality, a trend that is highly visible in the 14th and 16th centuries with both indefinite and definite NPs. By the 20th century, AcI constructions no longer had an impact on DOM with auditory perception verbs, as DOM had become obligatory in mono-predicative constructions in this perception modality. On the other hand, DOM with visual perception behaves similarly across the two constructions in both the 14th and 16th centuries. In fact, the occurrence of DOM in AcI constructions in the 16th century is lower than its occurrence with mono-predicative constructions. I have argued that this low occurrence of DOM in AcI constructions with the visual perception modality may be due to the very high preference for selecting an unaccusative embedded predicate as a complement. However, in the 20th century, AcI constructions do show an influence over DOM, which is observable when comparing indefinite NPs in both constructions. The reason for this sharp increase is not entirely clear. Since the time span between the 16th and the 20th centuries is relatively long, it is reasonable to think that this evolution did not emerge abruptly, but rather underwent a gradual expansion, bringing the occurrence of DOM closer to (but still smaller than) that of the auditory perception modality.

When comparing the auditory perception in mono-predicative constructions with the visual perception in AcI constructions, the results show a higher frequency of DOM with the auditory modality than the visual perception in AcI constructions, which can be observed in each century regardless of definiteness. This suggests that the agentivity associated with the auditory perception modality has a greater impact on DOM than the agentivity linked to the logical subject of the infinitive in AcI constructions with the visual perception.

To provide an answer to (RQ3), Table 36 summarizes the findings from both corpus studies, illustrating the behavior and evolution of DOM with the perception modalities in both mono-predicative and AcI constructions over the three centuries/periods investigated.

Table 36: Evolution of DOM with human NPs in Medieval (14th c.), Classical (16th c.), and Modern Spanish (20th c.) by construction type and perception modality. The symbols '+', '±', and '-' indicate that DOM is obligatory, optional, rarely/not found, respectively. Shaded cells represent categories where there has been an expansion of DOM.

CONSTRUCTION	MODALITY	definite NP			indefinite NP		
		Medieval	Classical	Modern	Medieval	Classical	Modern
mono-predicative	*visual*	±	±	+	-	-	±
	auditory	+	+	+	±	±	+
AcI	*visual*	±	±	+	-	-	+
	auditory	+	+	+	+	+	+

Starting with the visual perception, the table shows that DOM with definite NPs evolved from being optional in Classical Spanish to becoming obligatory in Modern Spanish across both types of constructions. Additionally, DOM with indefinite NPs in mono-predicative constructions transitioned from being rarely observed in Classical Spanish to becoming optional, whereas in AcI constructions, DOM shifted from being optional to obligatory in Modern Spanish. In relation to the auditory perception, it is only possible to see an evolution with indefinite NPs in mono-predicative constructions, where DOM went from being optional to obligatory in Classical Spanish, while in all other categories, DOM has been already obligatory since the 14th century.

Beyond the frequency of DOM itself, the distribution of tokens across mono-predicative and AcI constructions provides important information for a better understanding of both perception modalities. Based on the same set of 40,570 tokens (extracted from the CDH corpus) used in both Corpus Study 1 and Corpus Study 2 (see Table 17), Table 37 illustrates the proportions for both constructions. Although the comparison does not measure the occurrence of DOM directly, it reveals the relative frequency with which each construction appears.

Table 37: Proportion of valid tokens per verb and construction type. An asterisk (*) indicates that all available tokens for that century were analyzed.

VERB	const.	14th century		16th century		20th century		TOTAL
		TOTAL	VALID	TOTAL	VALID	TOTAL	VALID	
ver	mono	7,500	2.2% (162)	10,160	2.8% (288)	18,840	2.4% (446)	2.5% (896)
	AcI		0.4% (31)		0.9% (95)		0.7% (126)	0.7% (252)
oír	mono	7,101*	0.4% (26)	8,100	1.0% (80)	13,730	0.9% (117)	0.8% (223)
	AcI		0.3% (23)		1.0% (79)		1.1% (155)	0.9% (257)
mirar	mono	331*	0.6% (2)	6,000	1.8% (106)	4,000	3.7% (148)	2.5% (256)
	AcI		0.0% (0)		0.0% (0)		0.1% (2)	0.02% (2)
escuchar	mono	292*	2.1% (6)	2,382*	1.6% (39)	4,000	2.5% (99)	2.2% (144)
	AcI		0.0% (0)		0.0% (0)		0.3% (13)	0.2% (13)

The data provided in the table demonstrate a fundamental difference in how these verbs select their complements. Interestingly, *oír* 'to hear' has maintained a nearly identical balance of occurrences between both constructions in the 14th and 16th centuries (with a minimal difference of only 3 tokens and 1 token, respectively). In the 20th century, the proportion shifted slightly in favor of AcI constructions (a 0.2% difference). This balanced ratio contrasts starkly with *ver* 'to see', where mono-predicative constructions remain significantly more frequent across all periods. This syntactic divergence reflects a deep semantic distinction. While the visual modality more often selects nominal complements, the auditory modality more easily licenses infinitival complements. These results indicate that the distinct semantic characteristics of these perception modalities are closely mirrored in their syntactic distribution.

6. Synchrony – Experiments

To examine further the influence of agentivity on the use of DOM in present-day Spanish, this chapter provides two forced-choice experiments on perception verbs. The experiments were designed to investigate whether the high incidence of DOM with human entities in both mono-predicative and AcI constructions involving perception verbs has started to expand to the category of inanimate entities. The experiments focus exclusively on inanimate dynamic entities.

6.1. Introduction

In the previous chapter, the findings provided support for the hypothesis that agentivity has significantly influenced the development of DOM in European Spanish over time. This influence became evident through the analysis of DOM occurrences with perception verbs in mono-predicative and AcI constructions involving human entities. Although Chapter 5 focuses specifically on perception verbs, the results corroborate previous investigations across different verb classes that also support the agentivity hypothesis (cf. García García 2007, 2014).

To further investigate the impact of agentivity on the occurrence of DOM in Spanish, the chapter verifies whether the saturation of DOM with the category of human direct objects has started to expand to the category of inanimate entities, more specifically, with [-ANIMATE, +DYNAMIC] features. To achieve this goal, I present and discuss two forced-choice task experiments conducted with native European Spanish speakers. The experiments control the verbal parameter agentivity by means of the perception modalities (i.e., the contrast between *ver* and *oír*) along with a nominal parameter, namely the definiteness of the direct object and the NP2. In line with the corpus studies provided in Chapter 5, the primary difference between the two experiments is related to constructional parameters. While Experiment 1 examines the occurrence of DOM in AcI constructions, Experiment 2 explores its occurrence in mono-predicative constructions.

The motivations for these experiments are twofold. First, given that DOM in Spanish is in constant expansion, with the saturation of one category typically followed by the expansion into other categories (cf. Aissen 2003; von Heusinger & Kaiser 2005, 2011; Laca 2006), and considering the results of the corpus studies, I predict that since agentivity plays a role in the occurrence of DOM with human entities, its impact should be observable with inanimate entities as well.[119] Second, due to the difficulty in controlling

[119] The prediction also holds for the category with the features [-HUMAN, +ANIMATE]. However, since there is

the agentivity features of the direct object/NP2 using corpora, the experimental approach provides greater control over this aspect.

The results of the experiments support the hypothesis that the agentivity of the direct object increases the occurrences of DOM. Participants opted for the DOM option in 53% of cases in AcI constructions, compared to 22% in mono-predicative constructions. However, despite this higher preference for DOM in AcI constructions, the perception modality was not a significant factor influencing DOM in AcI constructions. On the other hand, the results indicate that perception modality does play a significant role in DOM occurrence in mono-predicative constructions, with participants choosing DOM approximately twice as often with the auditory perception in comparison to the visual perception.

The chapter is structured as follows: Section 6.2 outlines the hypotheses. Section 6.3 presents and discusses Experiment 1 on AcI constructions, while Section 6.4 deals with Experiment 2 on mono-predicative constructions. Both sections comprise the study design, containing information on the materials, the participants, and the task. Subsequently, the results and a discussion thereof are provided. Finally, Section 6.5 provides a concise interim discussion and conclusion of the chapter.

6.2. Hypotheses

Bossong (1991: 162) argues that "[i]n typical DOM languages, only those direct objects tend to be marked which share a more or less great amount of semantic features with prototypical subjects while those direct objects showing prototypical object properties tend to be left unmarked." Although Bossong does not explicitly refer to verbal parameters but rather to nominal ones (cf. Bossong 2021: 26), his statement aligns well with the argument presented here, namely, that agentivity is a relevant property for the occurrence of DOM in Spanish, specifically in relation to the direct object or the NP2. Nonetheless, it is important to clarify what is intended with the semantic features of a prototypical subject and of a prototypical object.

Comrie (1989: 128) suggests that in transitive constructions the information flow is typically organized from an agent subject towards a patient object. Furthermore, the agent correlates with a more animate and definite argument, while the patient correlates with a less animate and less definite argument. When there is a deviation from this prototypical configuration, such as when an object is high in animacy or definiteness, the construction becomes semantically marked. Therefore, following Dowty's proto-roles approach, if a

much variation regarding the occurrences of DOM with such a category, it was decided to skip it.

direct object is rich in proto-agent features, it correlates more closely with a subject than an object. To disambiguate this marked configuration, languages frequently employ morphological marking. Consequently, if proto-agent features make an argument similar to a subject, and if the subject-like elements are precisely those preceded by DOM, then the impact of agentivity should also be observable with inanimate dynamic direct objects (or NP2s) of perception verbs.

In light of the above, I present under (H3) and (H4) the hypotheses that this chapter aims to test.

(H3) Participants will choose DOM more frequently in AcI constructions than in mono-predicative constructions.

(H4) Participants will choose direct objects with DOM more frequently when it is an auditory stimulus than when it is a visual stimulus.

In addition to testing these hypotheses, the chapter aims to provide an answer to (RQ4), which was outlined in Chapter 1 and is restated below for clarity. Specifically, this chapter investigates whether the saturation of DOM in AcI constructions with human entities, as observed in Chapter 5, also extends to inanimate dynamic entities. Additionally, it compares the findings with the incidence of DOM in mono-predicative constructions.

(RQ4) Can the impact of agentivity also be observed with inanimate NPs?

Given this objective, the chapter first addresses the experiment on AcI constructions and then the experiment on mono-predicative constructions.

6.3. Experiment 1: AcI constructions

6.3.1. Study design

The experiment consists of a judgment task, specifically a forced-choice task in which participants are asked to perform a *gap-fill task.* The reason behind using this particular methodology is that DOM with inanimate entities is normally forbidden (as discussed in Chapter 2), and only in certain contexts is it accepted or even required (cf. García García 2007, 2014). Therefore, this method guarantees participants are judging the presence or absence of DOM in specific constructions. However, if I had decided to use, for example, a Likert scale task instead, it would not be totally clear what participants would be rating, as the construction by itself is rarely found in corpora, as discussed in Chapter 5.

The experiment employs a 2 x 2 x 2 factorial design, comprising three independent and one dependent variable, each with two levels. These independent variables consisted

of (i) the type of perception verb, [VER vs OÍR]; (ii) the definiteness of the NP2, [±DEFINITE], manipulated using both definite and indefinite articles; and (iii) the transitivity of the infinitive predicate, manipulated using transitive and unergative predicates representing [TRANS./UNERG.], and unaccusative predicates representing [UNACC.]. The dependent variable is based on participant responses, denoted as [±DOM]. Crossing all independent variables yields eight conditions, presented in Table 38.

Table 38: The eight conditions used in Experiment 1, according to the variables [VER vs OÍR], [±DEF.] and [TRANS./UNERG. vs UNACC.]. The abbreviation DEF. stands for definite, while TRANS./UNERG. stands for transitive/unergative and UNACC. for unaccusative.

conditions	variables	conditions	variables
condition 1:	[VER, +DEF., TRANS./UNERG.]	condition 5:	[VER, +DEF., UNACC.]
condition 2:	[OÍR, +DEF., TRANS./UNERG.]	condition 6:	[OÍR, +DEF., UNACC.]
condition 3:	[VER, -DEF., TRANS./UNERG.]	condition 7:	[VER, -DEF., UNACC.]
condition 4:	[OÍR, -DEF., TRANS./UNERG.]	condition 8:	[OÍR, -DEF., UNACC.]

The decision to test only the non-volitional verbs (*ver* and *oír*) and to exclude the volitional ones (*mirar* and *escuchar*) is due to the extremely low occurrence of the latter in Corpus Study 2 (on AcI constructions), indicating that they were not productive in AcI constructions even in the 20th century. Merging the transitive and unergative predicates into the same variable level is justified for two reasons. First, finding enough unergative verbs suitable for both types of perception modalities proved to be very challenging. Second, it allows the experiment to verify whether DOM behaves similarly between these types of predicates, as Enghels' (2007b) study suggests. Moreover, there are also theoretical reasons. Both are supposed to have a VP-external (agentive) argument as a subject.

Following Schütze and Sprouse (2014: 39), 12 lexicalizations of each condition were created, resulting in a total of 96 experimental items. Due to the similarities in the structure of the items, the experimental items were distributed across four lists via a Latin square design using Qualtrics.[120] Each list contained 48 randomized items, of which 24 were experimental items, i.e., each condition was presented three times per participant, but no participant saw the same item twice. Additionally, each list contained 24 filler items, of which 8 were control items (see Appendix 1 for a list of all items used in the experiment, including filler and control ones). The purpose of the filler items is twofold: First, they prevent participants from discerning the researcher's interests in the experiment and subsequently developing strategies for their responses. Second, they allow us to verify whether participants are responding normally, i.e., by answering accurately based on

[120] Qualtrics is an online platform used to create, distribute and analyze online surveys.

intuition rather than randomly, or by inverting the order of their responses (Cowart 1997: 51-52). Therefore, each participant saw a total of 48 randomized items.

6.3.1.1. Materials

Each experimental item was constructed using a strict linear word order containing at least five elements: (i) a subject, (ii) one of the perception verbs, (iii) the NP2, (iv) a verb in the infinitive form, containing a complement when it is a transitive predicate, and (v) a locative prepositional phrase. In other words: NP1 + $VP_{PERCEPTION}$ + NP2 + INF (+COMP) + PP.

The subject of the main clause (NP1) was always an NP with the features [+HUMAN, SINGULAR], which was consistently realized as a proper name, either as a masculine or a feminine referent, with an equal distribution of gender.

For the perception verbs, both the verb *ver* 'to see' and *oír* 'to hear' were employed in the past tense (*preterite*) and distributed based on specific conditions. As for the infinitive predicates, 24 were selected, composed of 8 transitive, 4 unergative, and 12 unaccusative verbs. Their distribution was determined by the conditions. Table 39 presents the infinitive predicates selected for the experiment.

Table 39: Infinitival verbs used in the experiment, divided between transitive/unergative and unaccusative.

transitive and unergative verbs		**unaccusative verbs**	
aplastar 'to crush'	*navegar* 'to sail'	*arrancar* 'to start'	*llegar* 'to arrive
arrollar 'to run over'	*recoger* 'to collect'	*aterrizar* 'to land'	*pasar* 'to pass'
bombardear 'to bomb'	*rodar* 'to roll'	*descarrilar* 'to derail'	*resbalar* 'to slip'
cavar 'to dig'	*romper* 'to break'	*despegar* 'to take off'	*salir* 'to leave'
circular 'to drive'	*viajar* 'to travel'	*estallar* 'to burst'	*venir* 'to come'
derribar 'to take down'	*volar* 'to fly'	*explotar* 'to explode'	*zarpar* 'to set sail'

The NP2s always had the features [-ANIMATE, +DYNAMIC, +SINGULAR], i.e., inanimate entities with their own source of energy. Specifically, dynamic machines capable of movement, in other words, motorized vehicles. Gender distribution was maintained equally across all the items. The machines used in the experiment are provided in Table 40 below. It is important to highlight that each NP appears specifically with only one of the infinitive verbs provided in Table 39, i.e., no other NP appears with more than one verb.

Table 40: Inanimate dynamic NPs used in the experiment, split by gender. Left column presents the feminine machines, while right column presents the masculine ones.

feminine NPs		**masculine NPs**	
avioneta 'light aircraft'	*furgoneta* 'van'	*autobús* 'bus'	*dron* 'drone'
ambulancia 'ambulance'	*grúa* 'tow truck'	*avión* 'airplane'	*helicóptero* 'helicopter'
camioneta 'pickup'	*lancha* 'motor boat'	*barco* 'boat'	*navío* 'ship'
caravana 'motorhome'	*limusina* 'limousine'	*camión* 'truck'	*tanque* 'tank'
escúter[121] 'scooter'	*locomotora* 'locomotive'	*caza* 'fighter jet'	*tractor* 'tractor'
excavadora 'bulldozer'	*motocicleta* 'motorcycle'	*coche* 'car'	*tren* 'train'

Regarding the locative prepositional phrases, they consistently comprised three elements: a preposition (*a* 'to', *de* 'from', *en* 'in', *por* 'through', and *sobre* 'over') followed by the definite article *el/la* 'the.M/F. and a singular noun.

To better illustrate how the experimental items were constructed, I provide three sample items representing each type of infinitive employed, specifically: a transitive predicate in (157),[122] an unergative in (158), and an unaccusative in (159). In this experiment, the sentences are presented with a gap, representing a missing element, particularly the NP2. Along with the sentences, two options of the NP2 are presented: an option without DOM and one with DOM. The presentation order of the two options available was randomized to avoid the possibility of a *priming effect*.

(157) Sample of an experimental item for condition 2: [OÍR, +DEF., TRANS./UNERG.]
Victoria oyó _____ *cavar hoyos en la calle.*
Victoria hear.PST _____ dig.INF holes in the.F street
☐ *la excavadora* ☐ *a la excavadora*
the.F bulldozer DOM the.F bulldozer
'Victoria heard the bulldozer dig holes in the street.'

(158) Sample of an experimental item for condition 1: [VER, +DEF., TRANS./UNERG.]
Clara vio _____ *volar sobre el barrio.*
Clara see.PST _____ fly.INF on the.M neighborhood
☐ *el helicóptero* ☐ *al helicóptero*
the.M helicopter DOM.the.M helicopter
'Clara saw the helicopter fly over the neighborhood.'

(159) Sample of an experimental item for condition 8: [OÍR, -DEF., UNACC.]
Óscar oyó _____ *venir por el camino.*
Óscar hear.PST _____ come.INF through the.F path
☐ *un coche* ☐ *a un coche*
a.M car DOM a.M car
'Óscar heard the car coming down the road.'

[121] The term *escúter* 'scooter' is typically used in the masculine form. Nevertheless, the RAE acknowledges and accepts its usage in the feminine form as well.

[122] The complements of the infinitive transitive predicates were consistently realized as bare NPs in plural, with an equal number of masculine and feminine NPs.

All 24 filler items were constructed similarly to the experimental items, with the most striking difference being related to the infinitive clause. An infinitive subordinate clause of purpose (*oración subordinada adverbial final*) was used, with a covert subject co-referent with the subject of the main clause. Another important difference is regarding the entity preceding the infinitive, in this case, the direct object of the main predicate, which consisted of a singular NP with the features [-ANIMATE, -DYNAMIC]. Like the experimental items, the NPs were equally distributed by gender and definiteness (see Appendix 1).

As for the 16 filler items intended to disguise the pattern of the experimental items, there are three important differences to highlight. First, instead of a perception verb as the main predicate, verbs of answering were employed, specifically *contestar* 'to answer/to reply' and *responder* 'to respond/to answer'. Second, the infinitive predicates chosen were also different, including both transitive predicates and (prepositional) intransitive ones, as illustrated in (i) and (ii), respectively.

(i) *analizar* 'to analyze', *confirmar* 'to confirm', *evitar* 'to avoid', *obtener* 'to obtain', *recabar* 'to gather', and *recibir* 'to receive'.

(ii) *colaborar* 'to collaborate', *dar luz* 'to shed light', *darse de baja* 'to unsubscribe', *graduarse* 'to graduate', *hablar* 'to talk', *lamentarse* 'to lament', *opinar* 'to opine', *oponerse* 'to object', *participar* 'to participate', and *quejarse* 'to complain'.

It is crucial to mention that these 16 filler items allow both options to be employed, i.e., with or without *a*. Notice, however, that I am using *A* in the glosses in order to maintain neutrality regarding its *status*. According to the RAE-ASALE (2023), both *responder* and *contestar* can have more than one valency pattern when co-occurring with specific NPs, i.e., they are considered to be either prepositional verbs when occurring with *a*, or transitive ones when *a* is absent (cf. Heidinger 2022). In (160) and (161), I present a sample filler item for each type of predicate.

(160) Sample of a filler item with the verb *responder*:

Martín	*respondi-ó*	_____	*para*	*quejarse*	*de*	*una*	*tienda*	*en*	*Madrid.*
Martín	answer-PST	_____	to	complain.INF	of	a.F	store	in	Madrid
☐ *un*	*formulario*		☐ *a*	*un*	*formulario*				
a.M	form		A	a.M	form				

'Martín answered a form to complain about a store in Madrid.'

(161) Sample of a filler item with the verb *contestar*:

Pedro	*contest-ó*	_____	*para*	*recibir*	*ayudas*	*en*	*Navarra.*
Pedro	answer-PST	_____	to	receive.INF	aids	in	Navarra
☐ *una*	*solicitud*		☐ *a*	*una*	*solicitud*		
a.F	request		A	a.F	request		

'Pedro answered a request to receive aid in Navarra.'

The remaining eight filler items were used as control items. These control items have the exact same structure as the other filler items. However, a fundamental difference lies in the mandatory occurrence of the locative preposition *a* with the prepositional verbs *acudir* 'to attend/to go to' and *volver* 'to come back', or the prohibition of DOM with the transitive verbs *buscar* 'to search', and *hacer* 'to make'. A sample control item for each case is provided in (162) and (163).

(162) Sample of a control item where the locative preposition is obligatory:
Julia volvi-ó _____ *para estudiar en verano.*
Julia return-PST _____ to study.INF in summer
☐ *la escuela* ☐ *a la escuela*
the.F school A the.F abroad
'Julia returned to school to study in the summer.'

(163) Sample of a control item where DOM is forbidden:
José hizo _____ *para quedar bien en la fábrica.*
José make.PST _____ to be.INF well in the.F factory
☐ *una donación* ☐ *a una donación*
a.F donation DOM a.F donation
'José made a donation to make himself look good in the factory.'

6.3.1.2. Pre-test with intransitive verbs

Before proceeding further, it is necessary to highlight that, prior to the main experiment, a pre-test was conducted with 13 native European Spanish speakers[123] to ascertain that the selected intransitive predicates could indeed be classified as either unergative or unaccusative predicates. This step was important due to the difficulties of finding intransitive verbs compatible with inanimate dynamic NPs and applicable in AcI constructions with both the verbs *ver* and *oír*. Most of the selected verbs belong to the class of movement verbs (see Table 39), which includes both unergative and unaccusative predicates (cf. Mendikoetxea 1999). According to the literature, the verbs chosen for the experiment are unambiguously categorized (see Appendix 2), and the pre-test reassures their classification.

To achieve this, I employed two well-established tests for diagnosing split intransitivity in Spanish: the telicity test and the participial absolute construction test. As discussed in Chapter 4, unergative predicates normally imply an atelic reading and do not

[123] All participants volunteered to answer the questionnaires. The majority, specifically 8, were from Navarra, while the rest were from Catalonia and the Canary Islands. Their average age was 46 years old. Gender-wise, 8 identified as female and 5 as male. In terms of education, 10 held a university degree, 2 had completed high school, and 1 had completed elementary school.

accept the participial absolute construction, while unaccusative predicates imply a telic reading and are compatible with the participial absolute construction.

Each of these tests consisted of acceptability judgment tasks. The telicity test was conducted using a forced-choice task, while the participial absolute construction test was implemented with a 5-point Likert scale task. In each task, each verb was presented once, resulting in a total of 32 pre-test items[124] (see Appendix 2 for a list with all the items). Importantly, the same NPs used for the main experiment were used in the pre-test with exactly the same verbs. Below, I present one sample item from each test.

(164) Sample of a pre-test item for telicity test (forced-choice):
El helicóptero vol-ó _____ .
the.M helicopter fly-PST _____
☐ *en 5 minutos* ☐ *durante 5 minutos*
un 5 minutes during/for 5 minutes
'The helicopter flew during/for 5 minutes.'

(165) Sample of a pre-test item for participial absolute construction test (5-points Likert scale):
Resbalada la escúter, me choqué contra un árbol.
slipped.PART the.F scooter REF.1SG crash.PST against a tree
☐ *1 – it sounds terrible* ☐ *2* ☐ *3* ☐ *4* ☐ *5 – it sounds very well*
'The scooter slipped, I crashed into a tree.'

The results of the telicity test showed that all the verbs behaved as expected according to the literature. However, three unaccusative verbs presented some oscillation. For example, the verb *salir* 'to go out/to leave' received 23% atelic responses; *resbalar* 'to slip', 30%; and *pasar* 'to pass through', 38%. This behavior is not surprising, as some unaccusative predicates, particularly movement verbs that do not involve a *final point/destination*, can exhibit atelic readings (Cifuentes Honrubia 1999: 62-63).

In relation to the participial absolute construction test, the results showed more variation in general, which was somehow already expected, given the type of task (Likert scale) and the small number of participants (cf. Schütze & Sprouse 2014). Nonetheless, it was observed that participants tend to dislike the construction with unergative predicates, rating them from 1.85 to 2.69 out of 5.00. On the other hand, the test also shows that three unaccusative verbs also reject the construction, namely, *resbalar* (1.62)*, venir* (1.85), and *explotar* (2.15). All the other verbs were ranked higher than 3.00. Specifically, ranging from 3.00 to 4.62 (cf. Knapp 2000 for a similar study).

In general, what the pre-test results demonstrate is that all the unergative verbs selected behave precisely as expected according to the literature, i.e., only accepting atelic

[124] Additionally, 4 control items (2 per task) were used to check the participants' attention. However, no participants needed to be excluded, as their responses aligned with the expectations.

readings and not being well rated in the participial absolute construction. Additionally, the results show that the construction does work for all unaccusative verbs (cf. de Miguel 1992: 78-83).

6.3.2. Participants and task

The experiment was conducted with 81 native European Spanish speakers; however, one participant was excluded due to failing half of the control items.[125] Thus, the final sample consisted of 80 participants, of whom 36 identified as women, 43 as men, and one as other. Among them, 65 had a university degree, while 15 had a high school diploma. The participants' mean age was 34 years, ranging from 21 to 59. Participants were recruited via Prolific[126] and represented various regions of Spain, with the majority from Andalusia (23%) and Madrid (20%), followed by Castilla y León (8%) and Catalonia (8%). Of the participants, 65 (81%) were monolingual, while 5 (6%) also spoke Catalan, 3 (4%) Basque, 3 (4%) Galician and 4 (5%) other languages. They received £2 as compensation for their participation in the experiment.

Regarding the task assigned to the participants, it involved reading the sentences as they appeared and following their intuitions to select the most suitable option. It was made clear that the task was not a test of grammatical knowledge but rather a study of how native Spanish speakers who grew up in Spain use the language. Before starting the task, participants were briefed on the procedure and informed of their rights as participants in a scientific experiment. Subsequently, their consent was obtained. Personal data, such as educational level, age, and gender, were collected. Then, participants received a brief training (composed of one practical sentence similar to the items) to ensure clarity on how to proceed with the assigned task. The task took an average of 9 minutes to be finished.

6.3.3. Results

After outlining all the details of the experiment, I now present the results based on the judgment of 80 native European Spanish speakers. The experiment yielded a total of 1,920 data points. Data organization and processing were conducted using Microsoft Excel, which was also used to create the plots. All statistical analyses were performed using RStudio (Posit team 2024). A mixed-effects logistic regression model was fitted using the *glmer* function from the *lme4* package (Bates et al. 2015) to examine the effects of the perception modality, definiteness of the NP2, the transitivity of the infinitive, and gender

[125] All the other participants chose the correct option for each control item.
[126] Prolific is a digital platform that facilitates the recruitment of participants for online research.

of the NP2 on DOM. Participants and experimental items were included as random effects to account for within-subject and within-item variability.[127]

Figure 8 presents the results regarding the proportion of DOM in relation to the perception modality, specifically between *ver* and *oír*. As shown in the bar plot, there is essentially no difference in the occurrences of DOM depending on the perception modality. Participants chose the option with DOM 53% of the time for both *ver* and *oír,* with only a minor difference of 5 cases between each verb, specifically 506 out of 960 against 511 out of 960, respectively. As one can infer from this minimal difference, the results are not statistically significant (β = 0.04; SE = 0.1659; p = 0.8064), indicating that the perception modality does not influence the occurrence of DOM in AcI constructions having an NP2 with the features [-ANIMATE, +DYNAMIC].

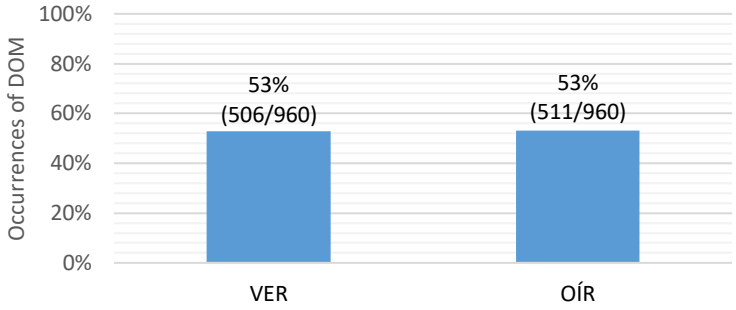

Figure 8: Proportion of DOM in AcI constructions in relation to VER and OÍR.

In relation to the impact of the transitivity of the infinitive predicate on DOM, Figure 9 shows a slight 2% difference favoring constructions where the logical subject of the infinitive is externally merged (i.e., transitive and unergative verbs) over those where it is internally merged (i.e., unaccusative verbs). However, this small numerical difference is not statistically significant (β = 0.10; SE = 0.1660; p = 0.5139), suggesting that the transitivity of the infinitive does not play a significant role in the incidence of DOM with inanimate entities.

[127] Before selecting this model, I tested other models that included interactions between perception modality, definiteness, and transitivity of the infinitive, as well as interactions between perception modality and definiteness. However, since these interactions were found not to be statistically significant, and did not retrieve significant improvements, resulting in higher AIC and BIC values, these more complex models were not adopted.

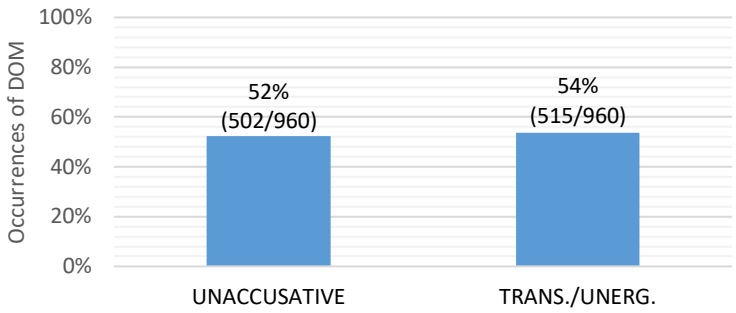

Figure 9: Distribution of DOM in AcI constructions in relation to the variable [UNACCUSATIVE vs TRANS./UNERG.].

Turning our focus now to the influence of definiteness on DOM in AcI constructions, Figure 10 provides a summary of the results. Unlike the previously mentioned predictors, definiteness exhibits a clear and significant contrast. DOM occurs in 42% (404/960) of the cases where the NP2 was realized as an indefinite NP, and in 64% (613/960) of the cases where it was realized as a definite NP. The analysis reveals that the predictor definiteness is highly statistically significant ($\beta = 1.41$; SE = 0.1705; p-value $p < 0.001$). These results demonstrate that the definiteness of the NP2 plays a very significant role in the occurrence of DOM in AcI constructions with inanimate entities.

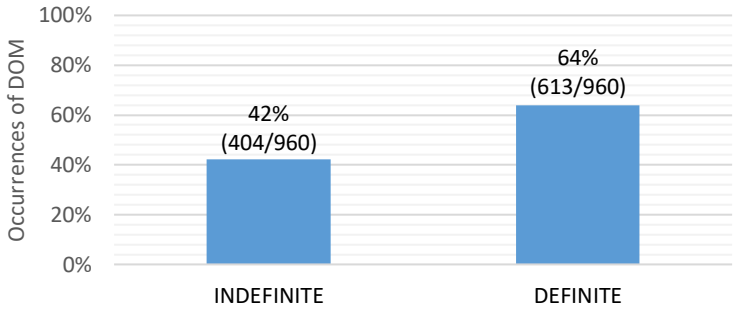

Figure 10: Proportion of DOM in AcI constructions in relation to definiteness.

As already described at the beginning of this section, the statistical model used in the analysis does not include interactions between the predictors. Instead, it focuses on the main effects of perception modality, definiteness, transitivity of the infinitive, and grammatical gender on DOM. Nonetheless, for clarity, I provide the statistical results of a parallel exploratory analysis[128] in relation to the proportion of DOM considering the interaction between perception modality and definiteness (shown in Figure 11), as well as the interaction between the transitivity of the infinitive with these two predictors (in Figure 12) (see fn. 127)

Starting with the former, the bar plot in Figure 11 basically reflects the results seen above in relation to the non-existent impact of the perception modality and the strong

[128] This exploratory parallel model resembles the structure of the main model but it also includes the interaction between the perception modality, definiteness, and transitivity of the infinitive.

influence of definiteness on DOM. There is almost no difference between *ver* and *oír* in relation to definite NPs, with only 5 points of difference in favor of *ver*. For indefinite NPs, the picture is reversed, with 10 points in favor of *oír*.[129]

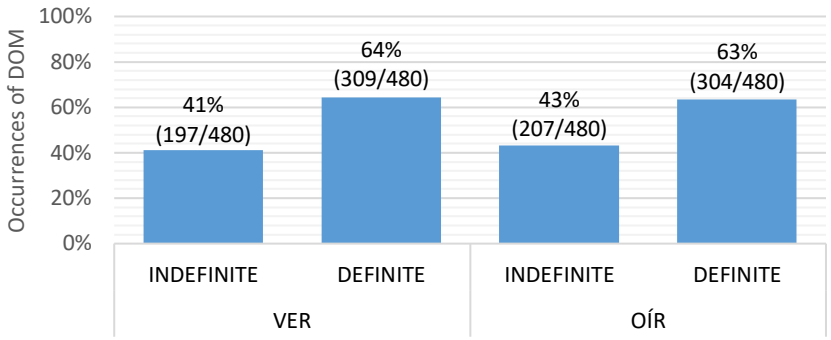

Figure 11: Proportion of DOM in AcI constructions in relation to perception modality and definiteness.

The last point to consider is the interaction among the three predictors, namely perception modality, transitivity, and definiteness. The results summarized in Figure 12 below are consistent with the previous results, with definiteness, once again, being the main factor influencing the occurrence of DOM. Similar to Figure 11, the data for the verb *ver* almost mirrors that of *oír,* with the biggest difference arising in the occurrence of DOM with definite NPs regarding the transitivity of the infinitive. For *ver*, DOM occurs 66% of the time with transitive/unergative predicates and 63% with unaccusative predicates. In contrast, *oír* shows a slightly larger difference, with DOM occurring 65% of the time with transitive/unergative predicates and 61% with unaccusative ones. However, the actual numerical difference is minimal, with only 9 cases for *ver* and 10 for *oír*.[130]

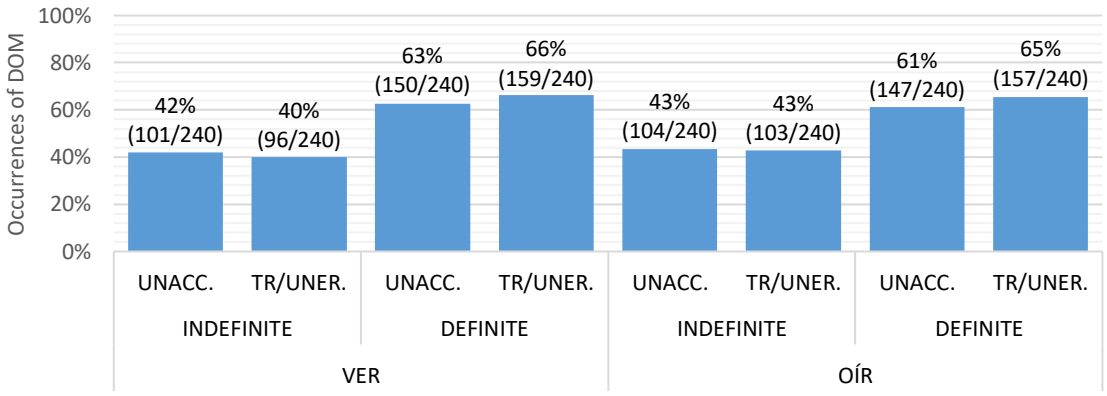

Figure 12: Proportion of DOM in AcI constructions with inanimate entities regarding perception modality, transitivity of the infinitive, and definiteness. UNACC. = unaccusative, and TR/UNER. = transitive/unergative predicates.

[129] Hence, it is not a surprise that the results are not statistically significant (β = -0.15; SE = 0.4624; p = 0.7395).

[130] The interaction among the three predictors was not statistically significant (β = -0.08; SE = 0.6581; p = 0.892), nor were the two-way interactions between perception modality and transitivity (β = 0.14; SE = 0.4604; p = 0.759) and definiteness and transitivity (β = 0.42; SE = 0.4652; p = 0.363).

6.3.4. Discussion

One of the most important results of this experiment is the clear effect of the constructional factor on the occurrences of DOM. As several authors demonstrate, DOM with inanimate NPs is normally forbidden, and only in certain cases is it possible or even required, as discussed in Chapter 2. However, the results of the experiment show that participants chose the option with DOM in 53% of the cases, specifically in 1,017 out of 1,920. This is a much higher incidence than that provided by Enghels (2007b). In her corpus analysis on the distribution of DOM in AcI constructions, Enghels reports only a few occurrences of DOM with inanimate dynamic entities (see Table 11 on page 81). Specifically, DOM occurs with this type of NP in only 10% (17/172) of the cases, which is, nevertheless, a higher incidence compared to other studies focusing on mono-predicative constructions with inanimate entities. For example, García García (2014: 71) reports that only 1.2% (573/48,231) of cases involve DOM; Tippets (2011), who investigates three varieties of Spanish (Argentinian, European, and Mexican), reports a higher incidence of DOM ranging from 5% to 8% of the cases. On the other hand, Company Company (2002) is an exception, reporting 17.2% (64/373) of DOM cases in her study for Mexican Spanish. Therefore, the experiment's results of 53% of cases of DOM with inanimate entities provide further support for the hypothesis that agentivity is a parameter that affects the occurrence of DOM in Spanish.

Given these results, it is valid to question whether this very high percentage of DOM is indeed driven by semantics (agentivity) rather than by information structure (topicality) or syntax. As discussed in Chapter 2.2.3, topicality has been a crucial factor in the historical expansion of DOM (cf. von Heusinger & Kaiser 2005). Therefore, one could argue that due to the higher topical status the NP2 possesses as the logical subject of the infinitive (defined as a secondary topic in Chapter 2), the increased occurrence of DOM is primarily a pragmatic or structural effect. Nonetheless, there are several pieces of evidence that strongly support the agentivity hypothesis over a purely topical or syntactic explanation. First, inanimate entities are inherently low on the topicality scale (Givón 2015: 185). Second, if the high incidence of DOM were driven exclusively by syntax or topicality, the contrast between the visual and auditory perception modalities regarding DOM should not be detectable; however, exactly such a contrast emerges in the diachronic corpus study. Third, as illustrated in Figure 13 below, the transitivity of the embedded predicate significantly impacts DOM; if syntax or topicality were the sole triggers for DOM, this difference in transitivity would yield no visible difference in DOM occurrence. Taken together, while I do not dismiss the potential relevance of topicality or syntax in AcI constructions, these pieces of evidence strongly suggest that agentivity is the primary factor behind the high occurrence of the phenomenon with inanimate entities.

Yet, despite this conclusion, a closer look at the results regarding the comparison between each specific perception modality reveals a surprising finding. Recall that my initial prediction (based on the results of the corpus studies) posited that the auditory modality would elicit more cases of DOM compared to the visual modality. However, the results summarized in Figure 8 indicate no difference at all; participants chose the option with DOM in equal proportions for both verb types, specifically 53% of the time. This result starkly contradicts the findings from Corpus Study 2 in Chapter 5, which demonstrated that the perception modality significantly influenced the occurrence of DOM with human NPs. Consequently, a key question arises from this disparity: Why does the perception modality play no role in the occurrence of DOM with inanimate dynamic entities in AcI constructions, while it clearly affects the occurrence of DOM with human entities, as shown in the corpus study?

In order to address this question, it is necessary to analyze the results of the corpus study (provided in Chapter 5), focusing specifically on the data from the 20th century. These data indicate that, by this century, DOM with a human NP2 in the visual modality reaches very high levels of occurrence, specifically 95% with definite NPs and 85% with indefinite NPs, demonstrating the near-categorical expansion of DOM within AcI constructions. Recall that with *oír,* DOM was already obligatory by the 14th century. Thus, a possible answer to the question raised is that, since the expansion of DOM is basically saturated across both perception modalities, the distinction in proto-agent features attributed to the NP2 by each perception modality ceases to be a relevant factor for the occurrence of DOM. This aligns with the argument presented by von Heusinger & Kaiser (2005: 44-45) regarding topicality. They suggest that the diachronic evolution of DOM is "facilitated by intervening categories", which "are only active for the categories DOM is developing". Therefore, when the evolution of DOM affects the whole category (e.g., definite NPs), features that were once important for the phenomenon become neutralized, and DOM expands to the next category (e.g., indefinite NPs). In von Heusinger & Kaiser's case, the feature is topicality; in the present study, agentivity. In other words, a prominent feature ceases to be a distinct and relevant parameter in the occurrences of DOM when the category for which that feature was relevant becomes saturated.

Shifting the attention to the transitivity of the infinitive, Figure 9 showed only a small numerical difference in the occurrence of DOM. However, recall that the experiment design included both transitive and unergative verbs: specifically, 8 transitive verbs and 4 unergative verbs, at the same variable level in opposition to 12 unaccusative verbs. Therefore, it is important to analyze the results in more detail. As shown in Chapter 4, the only argument of unergative verbs seems to behave like the subject of transitive verbs. In both cases, their subjects are externally merged, while the only argument of unaccusative

verbs is internally merged. Following the literature, one may argue that both the subject of transitive verbs and unergative verbs have more proto-agentive features than the subject of unaccusative verbs (cf. Dowty 1991). Therefore, my prediction was that the occurrence of DOM with unergative verbs would be similar to that of transitive verbs. However, it turned out that the four unergative verbs selected for the experiment exhibited completely different behavior in relation to DOM compared to transitive predicates, as well as to unaccusative ones. Differently from the results presented in Figure 9 above, the bar plot in Figure 13 clearly demonstrates the contrast between the three types of verbs.

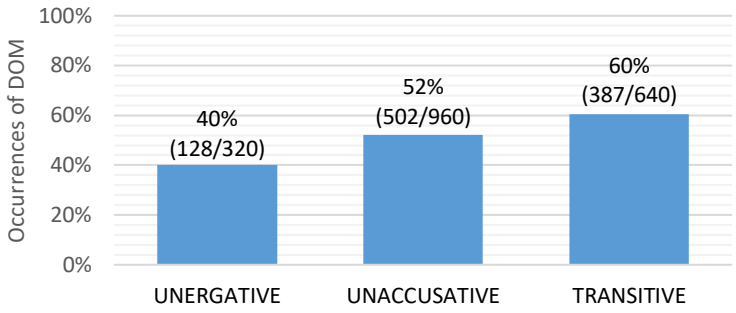

Figure 13: Proportion of DOM in AcI constructions considering the transitivity of the infinitive separately: unergative, unaccusative and transitive verbs.

First, contrary to the results of the corpus analysis, unergative verbs presented the lowest incidence of DOM, appearing in 40% (128/320) of the cases. This is still a very interesting result, given that inanimate direct objects do not normally occur with DOM. Nevertheless, this rate is much lower compared to transitive verbs, which displayed DOM in 60% (387/640) of the cases. Notably, unergative verbs also occurred at a lower rate than unaccusative verbs, presenting DOM in 52% (502/960) of the cases. Given this unexpected result regarding unergative verbs, one wonders why they behave differently. Before addressing this question, let us first analyze the result for each unergative verb individually, as presented in Table 41[131] below.

Table 41: Proportion of DOM regarding perception modality and definiteness, considering only the unergative verbs: navegar 'to sail', circular 'to go around', rodar 'to roll', and volar 'to fly'.

modality	definiteness	navegar	circular	rodar	volar	total
ver	*indefinite*	19% (4/21)	35% (7/20)	22% (4/18)	29% (6/21)	26% (21/80)
	definite	56% (10/18)	48% (10/21)	71% (15/21)	65% (13/20)	60% (48/80)
oír	*indefinite*	30% (6/20)	39% (7/18)	24% (5/21)	29% (6/21)	30% (24/80)
	definite	24% (5/21)	24% (5/21)	50% (10/20)	83% (15/18)	44% (35/80)
TOTAL		**31% (25/80)**	**36% (29/80)**	**43% (34/80)**	**50% (40/80)**	**40% (128/320)**

[131] The differences between the total number of responses between verbs, in terms of perception modality and definiteness, are due to the automatic distribution of the lists by Qualtrics. Additionally, the exclusion of one participant, as explained above, also contributed to these differences. Overall, list A was distributed to 20 participants, list B to 18 participants, and list C and D to 21 participants each.

As the table shows, *navegar* 'to sail' was by far the verb with the fewest occurrences of DOM, specifically occurring in 31% (25/80) of the cases, followed closely by *circular,* with 36% (29/80) of the cases. On the other hand, *rodar* 'to roll' and *volar* 'to fly' ranked slightly higher, with DOM occurring in 43% (34/80) and 50% (40/80) of the cases, respectively. This contrast indicates a great variation between both verbs and participants.

This difference is even more pronounced when considering definiteness and perception modality. For example, let us consider the verb *navegar.* The occurrence of DOM with definite NPs in relation to the verb *ver* 'to see' is more than double that of *oír,* 56% and 24%, respectively. Interestingly, there is also a curious contrast in the DOM cases regarding definiteness with the verb *oír* in relation to the verbs *navegar* and *circular*. There were more cases of DOM with indefinite NPs than definite NPs. While *navegar* presented 30% of DOM cases with indefinite NPs, there were only 24% with definite NPs. Similarly, with *circular* there were 39% of DOM cases with indefinite NPs, while only 24% with definite ones. Importantly, the lists used for these cases are all different. Moreover, since the experimental items representing these verbs are all very similar, as illustrated in (166)–(169), explaining the contrast and variation observed in the results is challenging.

(166) *Emilio vio/oyó (a) una/la lancha navegar por la playa.*
'Emilio saw/heard (DOM) a/the boat sail along the beach.'

(167) *Luis vio/oyó (a) una/la motocicleta circular por el pueblo.*
'Luis saw/heard (DOM) a/the motorcycle circulate through the town.'

(168) *Laura vio/oyó (a) un/el tanque rodar en el desfile militar.*
'Laura saw/heard (DOM) a/the tank roll in the military parade.'

(169) *Clara vio/oyó (a) un/el helicóptero volar sobre el barrio.*
'Clara saw/heard (DOM) a/the helicopter fly over the neighborhood.'

Nonetheless, a possible argument aligns with Sorace's (2000) *auxiliary selection hierarchy* (ASH). As is well-known, some languages, such as German, Dutch, and Italian, possess two different auxiliaries that occur with intransitive predicates. Unergative verbs tend to select HAVE, while unaccusative verbs select BE. These selections are not straightforward, as some classes of verbs allow for variation and can be characterized as either unergative or unaccusative verbs, according to the predicate (cf. Levin & Rappaport Hovav 1995). According to ASH shown in (170), each extreme of the hierarchical scale is where there is the least variation regarding auxiliary selection.

(170) Auxiliary selection hierarchy (Sorace 2000: 863):

change of location	selects BE (least variation)
change of state	
continuation of a pre-existing state	
existence of state	
uncontrolled process	
controlled process (motional)	
controlled process (nonmotional)	selects HAVE (least variation)

In the experiment, all the verbs chosen to represent the class of unergative predicates are categorized as *controlled process (motional)* in the ASH, or in other words, *manner of motion* verbs. Hence, all of them were supposed to have a proto-agent as their only argument, in agreement with the pre-test in Section 6.3.1.2. However, in those languages that allow for variation, (some of) these verbs can, in fact, occur in specific contexts with either HAVE or BE. For example, German accepts both auxiliaries with every verb: *ich bin / habe gesegelt / zirkuliert / gerollt / geflogen* 'I HAVE / BE sailed / circulated / rolled / flown'. On the other hand, Italian is more restricted in this regard (cf. Sorace 2000: 875-877).

Therefore, if there are variations within and across languages regarding the UH, it is plausible that these verbs may behave differently when they have inanimate subjects. More specifically, instead of selecting an argument with proto-agent features, speakers might reinterpret the construction as involving a proto-patient argument. Sorace (2000: 876) provides evidence of this using Italian. According to her, verbs that allow both auxiliaries show a preference for the auxiliary HAVE when the subject is a volitional argument. In contrast, BE is preferred when the subject is a non-volitional one, as illustrated in her examples in (171). In (171)a, the sentence is completely natural with HAVE when the subject is a human entity, but its grammaticality becomes marked when BE is used. Conversely, (171)b shows the opposite pattern: when the subject is an inanimate dynamic entity, BE is preferred over HAVE.

(171) a. *Il pilota ha/?è atterrato sulla pista di emergenza*
the pilot has/is landed on the runway of emergency
'The pilot landed on the emergency runway.'

b. *L'aereo è/?ha atterrato sulla pista di emergenza*
the plane is/has landed on the runway of emergency
'The plane landed on the emergency runway.' (Sorace 2000: 876)

What remains a conundrum, however, is that these verbs seem to reject DOM even more strongly than the unaccusative ones. This puzzle is left for future research. Including a wider range of unergative verbs and additional inanimate entities may help to clarify this

aspect. Importantly, when a simplified model[132] was run without considering the unergative verbs, the difference in the occurrence of DOM between unaccusative and transitive verbs, shown in Figure 13, was statistically significant ($\beta = 0.55$; SE = 0.1507; $p < 0.001$). This suggests that the type of predicate may indeed have an impact on the occurrence of DOM. However, since DOM with the unergative predicates occurred at a lower rate than the transitive predicates, the total proportion of DOM was reduced in the variable containing both structures, i.e., [TRANS./UNERG.]. This reflects the more balanced proportion of DOM between [UNACC.] versus [TRANS./UNERG.], as observed in Figure 9 above.

This variation in DOM cases can also be observed in relation to specific inanimate NPs. Certain machines showed a higher preference for DOM than others, as can be observed in Table 42, which presents the results in relation to specific machines and the perception verbs. The higher rates of DOM are observed with *camión* with *oír* (77%), followed by *autobús* with *ver* (76%), *tractor* (73%) and *navío* (72%), both with *oír*. Notice that *camión* and *tractor* were constructed with transitive predicates, while *autobús* and *navío* were constructed with unaccusative predicates. At the other extreme of the list, skipping the NPs associated with unergative predicates (*lancha* and *motocicleta*), are *caravana* (34%) and *escúter* (33%), both occurring with *oír* and constructed with unaccusative predicates.

Table 42: Percentage of DOM based on machine and perception verb in AcI constructions.

NP	***ver***		***oír***		**NP**	***ver***		***oír***	
ambulancia	51%	(21/41)	56%	(22/39)	*excavadora*	44%	(18/41)	49%	(19/39)
autobús	76%	(31/41)	74%	(29/39)	*furgoneta*	56%	(22/39)	46%	(19/41)
avión	56%	(22/39)	66%	(27/41)	*grúa*	54%	(21/39)	51%	(21/41)
avioneta	62%	(24/39)	54%	(22/41)	*helicóptero*	46%	(19/41)	54%	(21/39)
barco	62%	(24/39)	54%	(22/41)	*lancha*	36%	(14/39)	27%	(11/41)
camión	66%	(27/41)	77%	(30/39)	*limusina*	54%	(21/39)	61%	(25/41)
camioneta	49%	(20/41)	56%	(22/39)	*locomotora*	41%	(17/41)	54%	(21/39)
caravana	38%	(15/39)	34%	(14/41)	*motocicleta*	41%	(17/41)	31%	(12/39)
caza	41%	(17/41)	54%	(21/39)	*navío*	61%	(25/41)	72%	(28/39)
coche	62%	(24/39)	59%	(24/41)	*tanque*	49%	(19/39)	37%	(15/41)
dron	49%	(19/39)	61%	(25/41)	*tractor*	64%	(25/39)	73%	(30/41)
escúter	49%	(20/41)	33%	(13/39)	*tren*	59%	(24/41)	46%	(18/39)

Since each machine was used with specific verbs, never co-occurring with other verbs, it is not surprising that this variation in the incidence of DOM can also be observed across the verbs themselves. Table 43 summarizes the results. Overall, the data demonstrate that the verbs with the highest incidence of DOM are the transitive ones, with *arrollar* (75%),

[132] This mixed-effects logistic regression model is very similar to the main model described in Section 6.3.3, except that unergative predicates were excluded from the analysis.

recoger (71%), and *arrancar* (69%) at the top of the list. In contrast, the unergative verbs tend to appear at the bottom, such as *navegar* (31%) and *circular* (36%), while unaccusative verbs generally occupy an intermediate position.

Table 43: Percentage of DOM across all the verbs, ordered from the highest to the lowest occurrences of DOM.

verb - transitivity	DOM		verb - transitivity	DOM	
arrollar - trans	75%	(60/80)	*derribar - trans*	53%	(42/80)
recoger - trans	71%	(57/80)	*descarrilar - unacc*	53%	(42/80)
arrancar - trans	69%	(55/80)	*aplastar - trans*	51%	(41/80)
llegar - unacc	66%	(53/80)	*volar - uner*	50%	(40/80)
bombardear - trans	61%	(49/80)	*despegar - unacc*	48%	(38/80)
venir - unacc	60%	(48/80)	*pasar - unacc*	48%	(38/80)
romper - trans	58%	(46/80)	*cavar - trans*	46%	(37/80)
aterrizar - unacc	58%	(46/80)	*rodar - uner*	43%	(34/80)
zarpar - unacc	58%	(46/80)	*resbalar - unacc*	41%	(23/80)
estallar - unacc	55%	(44/80)	*circular - uner*	36%	(29/80)
arrancar - unacc	54%	(43/80)	*explotar - unacc*	36%	(29/80)
salir - unacc	53%	(42/80)	*navegar - uner*	31%	(25/80)

An interesting point to highlight, which is directly connected to the variation in DOM cases, is the influence of grammatical gender on the occurrence of DOM. Recall from Table 40 that the grammatical gender of the dynamic NPs used in the experiment was controlled to ensure an equal balance between feminine and masculine NPs across the perception modalities and the transitivity of the infinitive. Although gender does not initially constitute one of the research questions, it turns out to be a significant parameter affecting the phenomenon with inanimate entities. Figure 14 below summarizes the results.

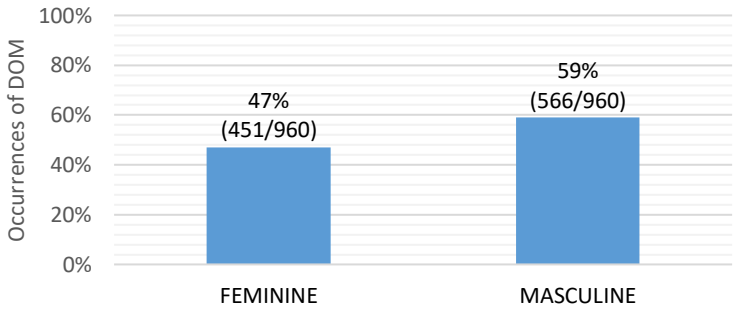

Figure 14: Proportion of DOM in relation to the grammatical gender of the NP2.

The bar plot clearly shows that DOM occurred much more frequently with masculine NPs compared to feminine NPs. Specifically, the NP2 was preceded by DOM in 59% (566/960) of the time when it was masculine, in contrast to 47% (451/960) when it was feminine. This difference is highly statistically significant ($\beta = 0.80$; $SE = 0.1679$; $p < 0.001$).

The difference is even more pronounced when considering the grammatical gender in relation to the definiteness of the NPs. The bar plot presented in Figure 15 below illustrates the results.

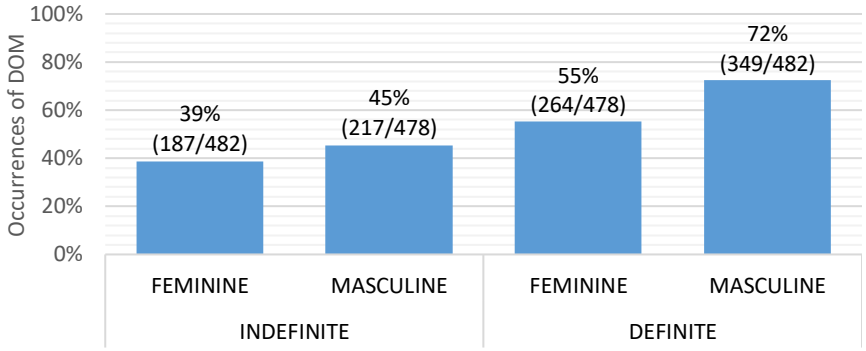

Figure 15: Proportion of DOM in relation to the grammatical gender of the NP2 and its definiteness.

First, definite masculine NPs constitute the category with the most cases of DOM, reaching 72% (349/482). This is followed by definite feminine NPs, with 55% (264/478), a striking difference of 17%. In relation to indefinite NPs, DOM occurred in 45% (217/478) of the cases with indefinite masculine NPs, compared to 39% (187/482) with indefinite feminine NPs. These results suggest that it is not only the grammatical gender, masculine over feminine, that affects the occurrence of DOM but also the definiteness of the NPs.[133] Interestingly, the effect is much stronger in definite NPs than in indefinite NPs. Further investigation is necessary to verify whether it is the definite masculine article that is facilitating the occurrence of DOM. An experiment with other types of determiners, such as demonstratives, possessives, or even plural NPs, in addition to articles, could be a way of testing this preference of DOM for masculine definite NPs. Nonetheless, I leave this question open for future work.

Since grammatical gender is inherently a nominal factor, a question that emerges from these results is: what is the relevance of gender in relation to agentivity? Esaulova & von Stockhausen (2015) propose that gender is conceptualized as a prominence feature. According to them, the masculine gender is higher in prominence than the feminine gender, and masculine arguments are more often associated with the agent role, while feminine ones are with the patient role. This perspective is also defended by Krifka (2009:

[133] As an exploratory analysis, I conducted an additional mixed-effects logistic regression model using the same predictors as the main model, i.e., the effect of perception modality, definiteness, transitivity, and gender on DOM, but also integrating the interaction between gender and definiteness. The interaction was found to be statistically significant ($\beta = 0.92$; $SE = 0.3281$; $p < 0.01$), suggesting that the effect of gender on DOM varies depending on the definiteness of the NP. However, since this interaction is not the main focus of the investigation, and the main model proved to be more suitable, I did not include interactions in the main analysis.

27), who presents evidence that gender has influenced the case-marking system in German (see also Esaulova & von Stockhausen 2022 and the references therein).

These arguments, however, go far beyond my goals and are left aside for future research. Nonetheless, this observation seems a promising line of research, which should also be investigated in relation to human entities, of course, taking into consideration indefinite NPs since, as shown in Chapter 2 and Chapter 5, DOM strikingly occurs with definite NPs in Present-day Spanish.

Having presented and discussed the results, in the next section, the focus shifts to the second experiment, which deals with mono-predicative constructions.

6.4. Experiment 2: mono-predicative constructions

6.4.1. Study Design

This experiment consists of a forced-choice task of gap-fill with a design structure similar to Experiment 1 (see Section 6.3.1); the fundamental difference lies in the number of variables. In contrast to the previous experiment, Experiment 2 employs a 2 x 2 factorial design. This design incorporated two independent variables with two levels: (i) the perception modality (*ver* vs *oír*), and (ii) the definiteness of the direct object, manipulated by the use of definite and indefinite articles ([±DEFINITE]). The dependent variable is the participants' responses, i.e., [±DOM]. Combining all the independent variables resulted in 4 conditions, which are provided in Table 44.

Table 44: The four conditions used in Experiment 2, according to the variables [VER vs OÍR, ±DEFINITE].

conditions	variables	conditions	variables
condition 1:	[VER, +DEFINITE]	condition 3:	[OÍR, +DEFINITE]
condition 2:	[VER, -DEFINITE]	condition 4:	[OÍR, -DEFINITE]

Each condition was lexicalized 24 times, yielding 96 experimental items, which were distributed across four lists using a Latin square design via Qualtrics. Each list consisted of 24 experimental items, and each condition was presented six times. Additionally, each list contained 24 filler items, including eight control items. In total, each list comprised 48 items. No participant saw the same item twice.

6.4.1.1. Materials

Each experimental item consists of two segments: (i) a sentence where there is a gap, representing a missing element, namely, the direct object, and (ii) two NPs representing

the missing direct object, one with DOM and the other without DOM. In what follows, I present information on each part of the items. I will refer to the sentence in (i) as the *critical sentence*.

The critical sentences were created following a canonical linear order (SVO). Each of them comprises a subject, one of the perception verbs, a direct object, and a prepositional phrase.

Building upon the methodology of Experiment 1, the subjects chosen had the features [+HUMAN, +DEFINITE, SINGULAR]. Moreover, both masculine and feminine entities were employed, realized as proper names. The distribution of gender was equally balanced. Both perception verbs, *ver* and *oír,* were always used in the past tense (preterite) and conjugated in the third-person singular. Regarding the direct objects, the exact set of machines (with the features [-ANIMATE, +DYNAMIC, SINGULAR]) employed in Experiment 1 was used, as shown in Table 40 above, either preceded by a definite article or an indefinite one, according to specific conditions.

In relation to the prepositional phrase, it comprises three elements: a preposition (such as *en* 'in', *por* 'through', *sobre* 'on', *bajo* 'under', *dentro de* 'within') followed by an article (both definite and indefinite, singular and plural), and a noun. The prepositional phrases were constructed according to two patterns: (i) the direct object was in an open space (e.g., in the sky, on the highway, on the waves), implying some form of movement, or (ii) the direct object was in a confined environment (e.g., in the garage, in the hangar, under the shed), indicating it is stationary. The pattern in (i) was matched with those machines used with transitive and unergative infinitives in Experiment 1, while the pattern in (ii) was used for those with unaccusative verbs. The idea behind this setup was to try controlling the movement of the direct object and, consequently, their agentivity features. I acknowledge that it is not entirely possible without inserting additional information, since being in an open space does not imply being in movement, and being inside does not imply being stationary. Nonetheless, this setup provides more similarities between the items of Experiment 1 and 2.

In (172) and (173) below, I provide two samples of the experimental items to more effectively illustrate how the items were constructed. In (172), the perception verb used is visual, whereas in (173), it is auditory.

(172) Sample of an experimental item for condition 1: [VER, +DEFINITE]

Victoria	*vio*	_____	*por*	*la*	*calle.*
Victoria	see.PST	_____	through	the.F	street
☐ *la*	*excavadora*		☐ *a*	*la*	*excavadora*
the.F	bulldozer		DOM	the.F	ambulance

'Victoria saw the bulldozer on the street.'

(173) Sample of an experimental item for condition 4: [OÍR, -DEFINITE]
Lorena oyó _____ *dentro del hangar.*
Lorena hear.PST _____ inside of.the.M hangar
☐ *un caza* ☐ *a un caza*
a.M fighter jet DOM a.M fighter jet
'Lorena heard a fighter jet inside the hangar.'

Shifting our focus now to the filler items, they were constructed similarly to the experimental items. However, there were significant differences that require clarification. Firstly, a different set of verbs was chosen. Instead of perception verbs, verbs of answering were employed, specifically *responder* 'to respond/to answer' and *contestar* 'to reply/to answer'. Secondly, although the direct object was also an inanimate entity, it had the feature [-DYNAMIC]. Like the experimental items, gender and definiteness were equally distributed. Thirdly, the contexts provided did not imply any implicature regarding the critical sentences; their purpose was exclusively to distract the participants from the experimental items. Lastly, similar to Experiment 1, all filler items allowed both options to be used to fill the gap in the critical sentence. A sample of a filler item is shown in (174).

(174) Sample of a filler item for the verb *contestar*:
Pilar contest-ó _____ *en la entrevista.*
Pilar answer-PST _____ in the.F interview.
☐ *la pregunta* ☐ *a la pregunta*
the.F question A the.F question
'Pilar answered the question in the interview.'

In relation to the control items, four different verbs were used, of which two were prepositional verbs, namely *volver* 'to come back' and *acudir* 'to go to/to attend', while the other two were transitive predicates, specifically *tener* 'to have' and *encontrar* 'to find'. The former obligatorily selects a prepositional complement headed by the preposition *a*, while the latter totally rejects DOM with inanimate entities. They were also constructed similarly to the experimental and filler items. In (175), I provide a sample control item used in the experiment (see Appendix 3 for the whole list of items).

(175) Sample of a control item where DOM is forbidden:
José tuvo _____ *en el banco.*
José have.PST _____ in the.M bank.
☐ *un problema* ☐ *a un problema*
a.M problem DOM a.M problem
'José had a problem in the bank.'

Overall, it is evident that the experimental, filler and control items used for this experiment closely resemble those used in Experiment 1. The primary difference lies in the construction type, as this experiment focuses on DOM in mono-predicative constructions.

6.4.2. Participants and task

The same participants who took part in Experiment 1 were recruited for this experiment. Of the 80 participants initially contacted, 75 took part in the experiment.[134] All participants were native European Spanish speakers. The group consisted of 34 women, 40 men, and one individual who identified as other. In terms of education, 64 participants held a university degree, while 11 had completed high school. The mean age of the participants was 35 years, with ages ranging from 21 to 59. Participants were recruited via Prolific, representing various regions of Spain, with the majority from Andalusia (20%), Comunidad de Madrid (19%), Castilla y León (12%), and Catalonia (8%), among others. In addition to Spanish, 7 participants were bilingual in Catalan, 3 in Galician, 3 in Basque, and 4 in other languages. They received a compensation of £2 for their participation.

The procedure for this experiment was the same as that of Experiment 1. Participants were informed of their rights and given instructions on how to proceed during the experiment. They also underwent a training session consisting of answering a practice item before starting the main task. During the task, participants were asked to choose one of two available options (as discussed in Section 6.4.1.1) based on their intuition. This process was repeated until the experiment was completed. On average, the task took approximately 6 minutes to be completed.

6.4.3. Results

In this section, I present the results of the experiment. Since all the participants answered all control items correctly, no participant was excluded from the study. Thus, the experiment is composed of the grammatical judgment of 75 European Spanish speakers, providing a total of 1,800 data points. The data were organized and treated using Microsoft Excel, which was also employed to generate the plots. Statistical analysis was conducted using RStudio (Posit team 2024). A mixed-effects logistic regression model was fitted using the *lme4* package (Baters et al., 2015). The predictors perception modality, definiteness, gender of the direct object, and location of the stimulus were treated as fixed effects on DOM. Both participants and experimental items were included as random effects to account for variability within subjects and items.[135]

[134] A total of 76 participants initially agreed to take part in the experiment. However, one participant did not conclude the experiment for unknown reasons and is therefore not included in the personal details provided.

[135] As in Experiment 1, several models were tested, including models considering the interactions between the predictors (in different configurations). However, since none of the interactions were significantly significant, and they did not significantly improve the model fit, I decided on the simpler model without interactions. Additionally, the model without interaction produced lower AIC and BIC values, which indicates a better fit.

Starting with the results regarding the proportion of DOM based on the perception modality, specifically on *ver* and *oír*, Figure 16 provides the findings. As the bar plot shows, the perception modality has a clear effect on the use of DOM. Participants chose the DOM option with the verb *ver* in 15% (131 out of 900) of the cases. In contrast, they opted for the DOM option more than twice as often with the verb *oír*, specifically in 30% (271 out of 900) of the cases. This difference is highly statistically significant ($\beta = 1.49$; $SE = 0.1865$; $p < 0.001$), indicating that the auditory perception verb *oír* has a much stronger association with DOM than the visual perception verb *ver*.

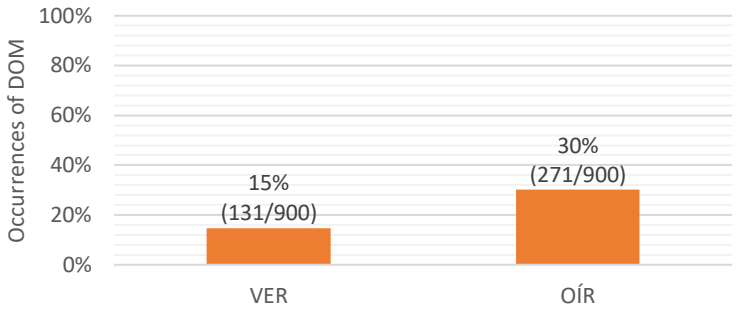

Figure 16: Proportion of DOM in mono-predicative constructions in relation to the verb ver and oír.

Regarding the factor *definiteness*, the results summarized in the bar plot in Figure 17 demonstrate that the definiteness of the NP also plays a statistically significant role in the occurrence of DOM with inanimate dynamic NPs. Similar to the results related to the perception modality, participants selected the option with DOM in 15% (136 out of 900) of the cases when the NP was indefinite, compared to 30% (266 out of 900) when the NP was definite. The statistical analysis confirms this significance ($\beta = 1.36$; $SE = 0.1848$; $p < 0.001$), indicating a clear effect of definiteness on DOM with inanimate dynamic NPs.

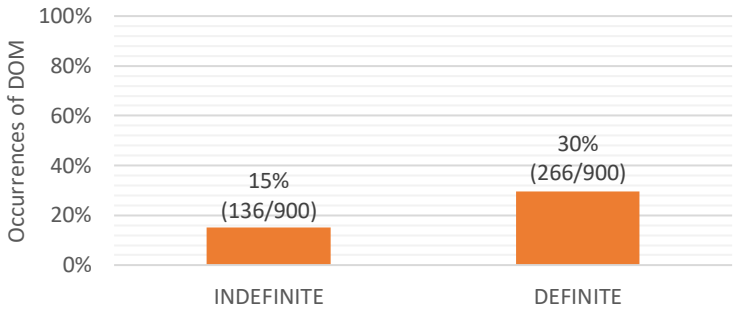

Figure 17: Proportion of DOM in mono-predicative constructions in relation to definiteness.

Although the main effects of perception modality and definiteness individually show a similar difference in the use of DOM, a cumulative effect is observed when considering both perception modality and definiteness.[136] Figure 18 below illustrates these results.

[136] Although no interactions were included in the main model, alternative models were tested. One such model considered the same predictors as the main model but included an interaction between perception

Focusing first on the verb *ver,* the bar plot shows that participants opted for DOM in 9% (40/450) of the cases when the NP was indefinite, compared to 20% (91/450) when the NP was definite. On the other hand, with the verb *oír*, participants chose DOM more than twice as often with indefinite NPs, and in a striking 39% (175/450) of cases when the NP was definite.

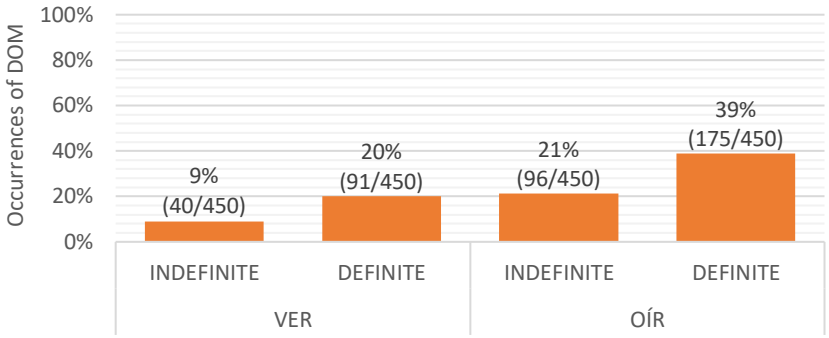

Figure 18: Proportion of DOM in mono-predicative constructions in relation to the verb ver and oír and definiteness.

6.4.4. Discussion

First and foremost, the results of the experiment show that participants opted for DOM in 22% (402 out of 1,800) of the cases, a significantly higher incidence of DOM than what has been reported in previous studies, as discussed in Section 6.3.4 (cf. Company Company 2002; Tippets 2011; García García 2014, 2018, among others). This finding suggests that the animacy scale presented in (8) above is overly general, containing too few categories. Specifically, inanimate dynamic entities do not behave in the same way regarding DOM as inanimate non-dynamic entities.[137] On the other hand, it is also evident that inanimate dynamic entities do not behave like human entities either, as the contrast of these results with those of Corpus Study 2 indicates.

Despite the notably high incidence of DOM with inanimate dynamic entities, the crucial observation here lies in the contrast in the occurrence of DOM between the perception verbs *ver* and *oír*. While participants selected the DOM option in 30% of the cases with *oír*, they chose DOM in only 15% with *ver*. This contrast shows the grammatical and morphosyntactic relevance of the role-semantic differences regarding the agentivity of the internal argument of the corresponding verbs. These differences become

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modality and definiteness. However, the results showed that this interaction was not statistically significant (β = -0.03; SE = 0.3634; p = 0.926). These results are provided only for clarity.

[137] This point is further reinforced by the total absence of DOM in the control items used to filter out participants in the experiment. None of the participants opted for constructions with DOM when the direct objects were represented by the non-dynamic inanimate NPs *miedo* 'fear' and *problema* 'problem' along with the verb *tener* 'to have', as well as by *verdad* 'truth', and *respuesta* 'answer' along with *encontrar* 'to find' (see Appendix 3).

even more evident when comparing the incidence of DOM using the exact same NP, i.e., the same machine. Recall that the items were constructed as minimal pairs, meaning the basic differences between each set of items were the type of machine and the locative PP, representing where the perception occurred. Since the type of machine always matches the same locative PP, comparing the occurrences of DOM with each machine based on the perception verb used is valid.

As Table 45 illustrates, DOM consistently occurred more frequently with *oír* than with *ver*, regardless of the specific machine being employed. Although the results reveal considerable variation among different machines, ranging from 3% (for *escúter* and *caravana*) to 26% (for *tractor*) with *ver*, and from 16% (for *escúter*) to 50% (for *camión*) with *oír*, there was not a single instance where the use of DOM with *ver* surpassed that of *oír.* The contrast is particularly notable with *camión*, where DOM appears in more than double the cases with *oír,* specifically 50% (19/38) compared to just 24% (9/37) with *ver*. Other instances show even more pronounced differences, such as with *caravana*: while DOM occurs in only 3% (1/37) of cases with *ver*, it is present in 24% (9/38) of cases with *oír*, representing an eightfold difference in favor of *oír.* On the other hand, it is difficult to explain the lower rate of DOM with *avioneta* (11%) compared to *avión* (21%) in relation to *ver*, since they represent very similar vehicles. However, two factors seem to contribute to this difference: (i) the type of locative PP used in the construction of the items, and (ii) the grammatical gender of the direct object. These factors will be discussed below, but it is worth noting that frequency might also play a role. *Avión* is a basic-level term with an undoubtedly higher frequency than *avioneta*, which is not a basic-level term. The same holds true for *camión* and *camioneta*.

Table 45: Proportion of DOM based on machine and perception verb in mono-predicative constructions.

NP	VER		OÍR		NP	VER		OÍR	
ambulancia	21%	(8/38)	43%	(16/37)	*excavadora*	22%	(8/37)	29%	(11/38)
autobús	24%	(9/37)	47%	(18/38)	*furgoneta*	11%	(4/38)	24%	(9/37)
avión	21%	(8/38)	30%	(11/37)	*grúa*	14%	(5/37)	39%	(15/38)
avioneta	11%	(4/37)	32%	(12/38)	*helicóptero*	19%	(7/37)	39%	(15/38)
barco	14%	(5/37)	24%	(9/38)	*lancha*	8%	(3/38)	19%	(7/37)
camión	24%	(9/37)	50%	(19/38)	*limusina*	16%	(6/38)	35%	(13/37)
camioneta	19%	(7/37)	32%	(12/38)	*locomotora*	5%	(2/38)	19%	(7/37)
caravana	3%	(1/37)	24%	(9/38)	*motocicleta*	11%	(4/37)	24%	(9/38)
caza	8%	(3/38)	35%	(13/37)	*navío*	13%	(5/38)	32%	(12/37)
coche	16%	(6/37)	24%	(9/38)	*tanque*	18%	(7/38)	27%	(10/37)
dron	5%	(2/37)	24%	(9/38)	*tractor*	26%	(10/38)	27%	(10/37)
escúter	3%	(1/38)	16%	(6/37)	*tren*	18%	(7/38)	27%	(10/37)

To begin with the type of locative PP, recall that in the experiment design, locatives were equally distributed between those representing confined spaces (such as *en la cochera* 'in

the garage' and *en la nave industrial* 'in the industrial warehouse') and those representing open spaces (such as *en la calle* 'on the street', *en la autopista* 'on the highway'), as shown in Section 6.4.1.1 above.

The idea behind using these two types of locative PPs was to have some control over the implicatures they might convey. For example, in a sentence such as *Lucy saw the car on the highway*, the locative PP itself does not provide explicit information whether the car was moving or stationary. However, given that vehicles are typically in motion on a highway, one is more likely to infer that the car was moving. By contrast, if the car is located *in the garage*, one might reasonably infer that Lucy saw the car while it was parked or stationary, rather than moving.

Of course, without additional context, these inferences cannot be determined unambiguously. Nonetheless, the results regarding the location of the stimulus suggest that the agentivity conveyed by (generalized) conversational implicatures significantly influences the occurrence of DOM ($\beta = 0.54$; SE = 0.1822; $p < 0.01$).[138] The results are summarized in Figure 19.

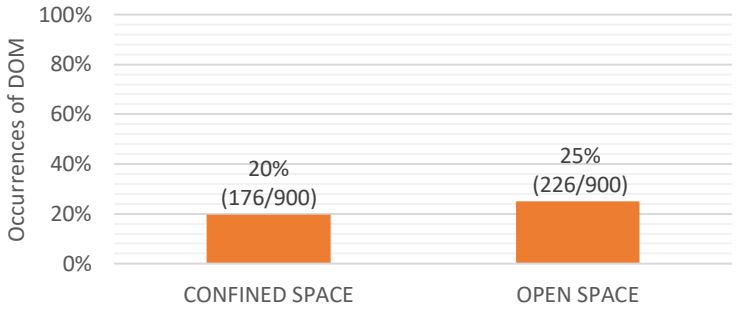

Figure 19: Proportion of DOM in relation to the type of locative used in the items.

As shown in the bar plot, participants opted for the DOM option in 20% (176/900) of cases when the NP was perceived in a confined environment. In contrast, when the NP was perceived in an open space, the choice for DOM increased to 25% (226/900) of cases.

Relying on this implicature to analyze the agentivity of the direct object presents certain limitations, particularly in the context of auditory perception. As has been repeatedly emphasized throughout this investigation, the stimulus in auditory perception presupposes an entity with proto-agent features (except when the stimulus represents a sound/noise). Therefore, whether the dynamic entity is in motion or stationary, the stimulus associated with auditory perception typically implies some form of action.

This characteristic makes the specific location of the stimulus less relevant for further controlling its agentivity. This is, in fact, reflected in the results when considering

[138] Notice, however, that the type of location was not explicitly treated as an independent variable in the analysis but was controlled to account for its effects.

both perception modality and the type of locative, as illustrated in Figure 20. As expected, the effect of location is less pronounced with the auditory perception, specifically, with a numeric difference of 4% in favor of open space locatives. However, the effect is stronger with the visual perception, showing a 7% difference. This suggests that the agentivity conveyed by the (generalized) conversational implicatures associated with being in an open space is more pronounced when combined with the visual perception, reflecting in a higher proportion of DOM cases. Conversely, when the direct object is perceived within a confined environment, it is more likely to be interpreted as having fewer proto-agent features, if any.

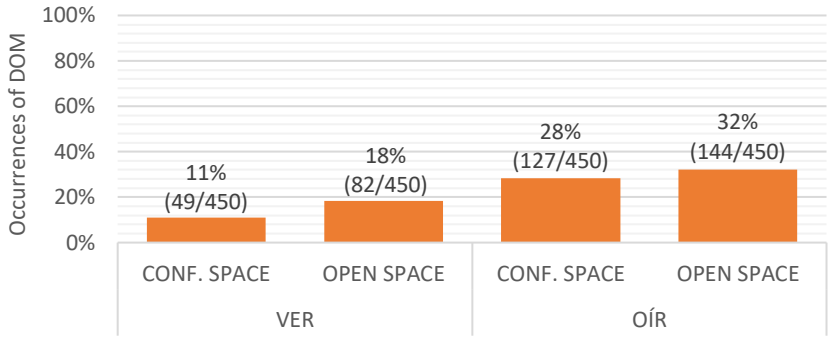

Figure 20: Proportion of DOM according to perception verb and type of locative (confined space versus open space).

Shifting the attention to the influence of grammatical gender of the direct object on DOM, as with Experiment 1, this parameter was controlled and evenly distributed in this experiment. Similar to Experiment 1, but with a less pronounced effect, the results demonstrate that grammatical gender also seems to play a significant role in the incidence of DOM in mono-predicative constructions, as shown in Figure 21 below.

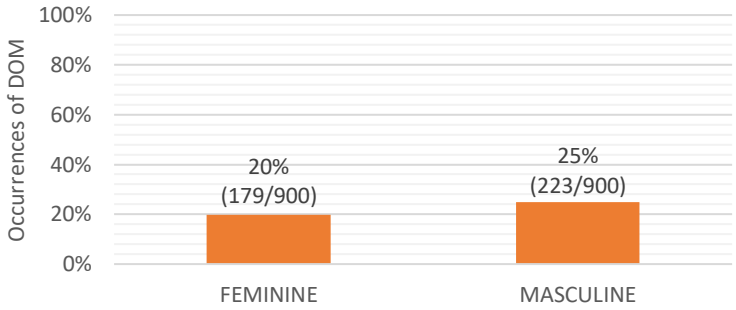

Figure 21: Proportion of DOM in relation to the grammatical gender of the direct object.

As can be observed in the bar plot, participants chose the construction with DOM in 25% (223 out of 900) of cases when the direct object was represented by a masculine noun, compared to 20% (179 out of 900) when the noun was feminine. The statistical analysis indicates that this difference is significant ($\beta = 0.45$; $SE = 0.1766$; $p < 0.01$).

Importantly, unlike what was observed in Experiment 1 (as reported in Figure 15 above), this contrast is only observable with definite NPs, as illustrated by the bar plot in Figure 22.[139]

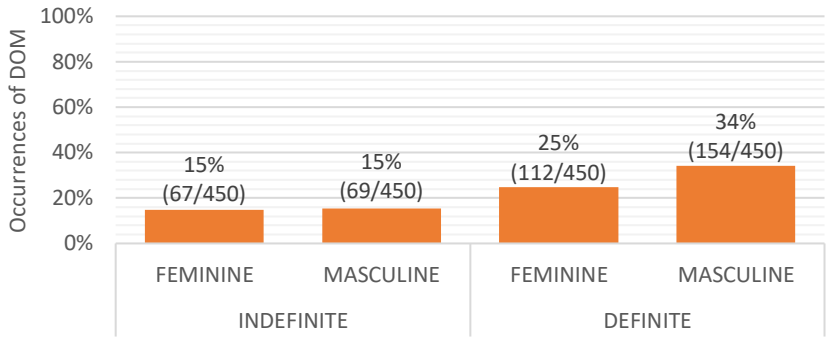

Figure 22: Proportion of DOM in relation to the grammatical gender of the direct object and its definiteness.

For definite NPs, DOM was opted in 25% (112/450) of the cases with feminine direct objects, compared to 34% (154/450) with masculine direct objects. In contrast, with indefinite NPs, almost no difference was observed; DOM was chosen in 15% of cases regardless of the grammatical gender, with a difference of only 2 cases in favor of masculine NPs. This lack of distinction, which contradicts the results of Experiment 1 (where there was a difference of 6% in favor of DOM with masculine indefinite NPs), further suggests that the definite masculine NPs are more easily associated with DOM than other categories. Again, this makes one wonder about the reasons behind it. Why could no difference be observed with indefinite NPs? Is the masculine definite article the primary factor driving this preference for DOM with masculine NPs? If so, why? As already suggested in Experiment 1, controlling the determiners of the direct object arguments may provide a way to test it. Nonetheless, this aspect is left aside for future work.

6.5. Interim discussion and conclusion

The chapter has provided two experimental studies examining the occurrence of DOM with the perception verbs *ver* and *oír* in relation to inanimate dynamic entities. The first study focuses on AcI constructions, while the second focuses on mono-predicative constructions. Through the analysis of the results from both experiments, it has been further demonstrated that agentivity significantly influences the incidence of DOM in Spanish. This influence is supported through several aspects, which are discussed below.

[139] As it was the case in Experiment 1, an exploratory analysis was conducted to verify whether there was an interaction between grammatical gender and definiteness. This exploratory model considered the same predictors as the main model. I.e., perception modality, definiteness, grammatical gender, and location of the stimulus as fixed effects, with participants and items as random effects. Although the interaction was not statistically significant, it was very close ($\beta = 0.66$; SE = 0.3475; $p = 0.0541$).

In relation to the constructional parameter, the findings reveal that participants are more likely to choose DOM with inanimate dynamic entities in AcI constructions (53%) compared to mono-predicative constructions (22%), providing strong support for (H3). Since the logical subject of the infinitive is richer in proto-agent features than the direct object of mono-predicative constructions, this difference suggests that the constructional parameter is the most significant factor influencing the occurrence of DOM with inanimate dynamic entities. This also implies that the more proto-agent features an entity has, the more likely it is to appear with DOM.

Regarding the perception modality, although it does not show any effect on DOM in AcI constructions (both visual and auditory perception yielded the same 53% DOM rate), a clear and significant effect appeared in mono-predicative constructions. Participants chose DOM in 15% of cases with *ver*, but opted for DOM in 30% of cases with *oír*. This contrast suggests that the inherent differences between each perception modality strongly influence the occurrence of DOM when no other factors affect the proto-agent features of the direct object, which provides support for (H4). However, when the NP2 serves as the logical subject of the infinitive (in AcI constructions), this distinction is neutralized, resulting in no observable differences in the occurrences of DOM between each perception modality. In other words, the results suggest that in the absence of a predicate explicitly showing verbal action, the proto-agent features of the inanimate direct object depend primarily on the perception modality. Since the auditory stimulus inherently possesses more proto-agent features than the stimulus of the visual perception, DOM occurrence is higher with the auditory perception. A comparison of the results of the experiments is presented in Table 46 below.

Table 46: Frequency of DOM with [-ANIMATE] entities in mono-predicative vs. AcI constructions, categorized by perception modality and definiteness of the direct object/NP2.

CONSTRUCTION	MODALITY	INDEFINITE	DEFINITE	TOTAL
Mono-predicative	*visual*	9% (40/450)	20% (91/450)	15% (131/900)
	auditory	21% (96/450)	39% (175/450)	30% (271/900)
AcI	*visual*	41% (197/480)	64% (309/480)	53% (506/960)
	auditory	43% (207/480)	63% (304/480)	53% (511/960)

As for the transitivity of the infinitive, participants opted for DOM slightly more often in the condition including transitive and unergative predicates ([TRANS./UNERG.]), with 54% of the cases, compared to 52% with unaccusative predicates ([ACCUS.]). However, when only transitive predicates were considered (excluding unergative ones), the proportion of DOM cases increased significantly, reaching 60%. This suggests that the transitivity of the infinitive may play a role in the occurrence of DOM in AcI constructions. The behavior of DOM with unergative predicates complicates this interpretation. When considering unergative predicates in isolation, DOM occurred in only 40% of the cases (see Figure 13

on page 162). It is important to highlight that the experimental design included only a narrow set of unergative predicates, specifically manner of motion verbs. As a result, it remains unclear whether the unergative class as a whole tends to disfavor DOM, or whether this tendency is limited to a specific subset within the unergative class. Further research including a broader range of unergative verbs is necessary to clarify this aspect.

The last aspect is the (generalized) conversational implicatures. The results indicate that the adverbial or the locative PP expressing the location where the stimulus is perceived significantly influences the occurrence of DOM. This aspect was investigated exclusively within the mono-predicative constructions. Participants opted for DOM more often when the stimulus was perceived in an open space (suggesting some sort of movement), with a choice rate of 25% compared to 20% when the stimulus was perceived in a confined space (pointing to a stationary stimulus). Furthermore, the effect is notably stronger with the visual perception than the auditory perception (despite the overall higher incidence of DOM with auditory stimuli). This contrast arises because the auditory stimulus typically involves an entity with proto-agent features, meaning that whether the stimulus is in an open or confined space does not prevent it from producing a sound (even when stationary). In contrast, while the visual stimulus can also involve an entity with proto-agent features, it does not necessarily have to be the case. Thus, when the visual stimulus is perceived in an open space, it is more likely to be interpreted as a proto-agent (i.e., the doer of an action in that context).

To conclude, let us return to the research question (RQ4) posed at the beginning of the chapter. Based on the results from both studies, there is sufficient evidence to provide a positive answer to this question, i.e., the impact of agentivity on DOM can indeed be observed with inanimate entities. Nonetheless, it is important to highlight that inanimate entities do not constitute a homogeneous group. Instead, they can be categorized into at least two distinct categories: dynamic and non-dynamic entities. The experiments demonstrate the impact of agentivity on DOM in relation to dynamic entities by focusing on perception verbs.

7. The impact of agentivity on DOM

This chapter synthesizes the main findings from the previous studies and offers a discussion on the influence of agentivity on the occurrence of DOM. I argue that entities high in proto-agent features are highly prominent, and that this prominence is directly connected to the occurrence of DOM with agentive direct objects (or NPs).

7.1. Introduction

In the previous two chapters, I presented evidence that agentivity significantly influences the occurrence of DOM in European Spanish. This impact was clearly observed through the contrast between the perception modalities and the construction types. Further evidence is provided by the transitivity of the infinitive, which proved relevant for DOM in relation to inanimate entities. Other results indicate that conversational implicatures also affect the occurrence of DOM with inanimate dynamic NPs, and that grammatical gender may be connected with the case-marking alternation.

Collectively, these results provide strong support for the agentivity hypothesis. Importantly, the influence of agentivity on DOM is not only limited to the distinction between the visual and auditory perception modalities; as other scholars have shown, its impact is also observable in verb classes such as sequencing, competition, attribution, and naming (see García García 2014).

Based on these empirical findings, the most natural question to ask is: why? This question is formulated as research question (RQ5) and is repeated below for convenience.

(RQ5) Why is agentivity relevant for the occurrence of DOM?

To answer this question, while being neutral regarding the functional approaches for DOM, I argue that my results provide further evidence for the distinguishing approach. Furthermore, drawing upon the Thematic Distinctness generalization (García García 2007), Role-dependent DOM (García García et al. 2018), and Aissen's (2003) model for DOM, I suggest that the proto-agent features a verb (or a construction) entails for its direct object (or NP2) increase the prominence of the direct object (or NP2). Consequently, the more agentive a direct object (or an NP2) is, the more likely the occurrence of DOM becomes.

The chapter is structured as follows: Section 7.2 reviews previous works dealing with DOM and agentivity across various verb classes. Section 7.3 then provides a summary of the key findings from my corpus and empirical studies. Subsequently, Section

7.4 discusses how the influence of agentivity on DOM can be accommodated under the theoretical concept of prominence. Finally, Section 7.5 offers a concluding summary of the chapter.

7.2. Agentivity and DOM beyond perception verbs and AcI

As I briefly commented in Chapter 2, there are relatively few works addressing the influence of agentivity on DOM in Spanish. In this section, I revisit some of these studies to analyze them in more detail. Given that the primary parameters for DOM are typically animacy and definiteness, the majority of previous studies focus on inanimate or non-human animate entities, where the impact of agentivity is more easily observed.

I begin with Fernández Ramírez's ([1951] 1986: 188–189) observation regarding the verbal impact on DOM with non-human animate entities. According to his data, DOM with such entities occurs about as frequently as it is absent, i.e., it is optional in García García's (2018) terminology. Moreover, Fernández Ramírez notes that when an animal functioning as the direct object acts as a passive entity (or is "objectivized", in his terms), DOM tends to be absent. He exemplifies this with the following verbs: *amarrar* 'to tie', *aparejar* 'to rig', *cargar* 'to load', *desamarrar* 'to untie', *descargar* 'to unload', *desensillar* 'to unsaddle', *ensillar* 'to saddle', *maniatar* 'to tie up', *pesar* 'to weigh', *sujetar* 'to fasten', and *uncir* 'to yoke'. Following Dowty's (1991) proto-role approach, all these verbs share a common denominator, namely, they entail proto-patient features for their direct objects (cf. (113) in Chapter 4.3), but no proto-agent features (cf. (111) in Chapter 4.3).

In contrast, when the animate entity is capable of reacting to stimuli, Fernández Ramírez affirms that DOM occurs more frequently. He illustrates this with the verbs: *animar* 'to animate', *aquietar* 'to calm down', *impeler* 'to impel, to propel', *incitar* 'to incite', *llamar* 'to call', and *silbar* 'to whistle'. Unlike the verbs mentioned previously, all of these do entail proto-agent features, with *sentience* being a feature common to all of them. Interestingly, these verbs also entail proto-patient features; for example, the direct object of *aquietar* and *animar* is affected (via a change of state, in Dowty 1991). Thus, an open question remains as to whether proto-patient features interact with proto-agent features, and if so, how this interaction influences the occurrence of DOM. This aspect is left open for future investigation (cf. Mürmann 2023; for an analysis of DOM considering agentivity-based distinctiveness in Catalan and Sicilian).

Despite the relevance of Fernández Ramírez's ([1951] 1986) work, he does not provide the exact proportion of DOM cases for these verbs. In contrast, García García (2014) offers concrete numbers that support the hypothesis that agentivity influences DOM

in Spanish. The author demonstrates this influence by focusing on inanimate entities, with which DOM is normally ungrammatical (see Chapter 2). The occurrence of DOM with such entities is so rarely attested that García García's (2014) study registers it in only 1.2% (573 out of 48,231) of cases. However, in the few instances where DOM does occur with inanimate entities, it can be systematically explained by the proto-agent features of the direct object. Building on Weissenrieder (1991), Delbecque (2002) and García García (2007), García García (2014: 147–189, 2018: 8) identifies several specific classes of verbs where agentivity plays a role in the occurrence of DOM as illustrated in the list in (176). While this list is not intended to be exhaustive, it includes the following classes:

(176) DOM-sensitive verb classes:
   a. verbs of sequencing (e.g., *preceder* 'to precede', *suceder* 'to succeed');
   b. verbs of replacement (e.g., *sustituir* 'to substitute', *reemplazar* 'to replace');
   c. verbs of competition (e.g., *vencer* 'to win', *derrotar* 'to defeat');
   d. verbs of attribution (e.g., *caracterizar* 'to characterize', *definir* 'to define');
   e. verbs of naming (e.g., *considerar* 'to consider', *llamar* 'to call').

According to García García's (2014: 100) data, DOM occurs with the highest frequency with verbs of sequencing. Specifically, the verbs *suceder* 'to succeed', *preceder* 'to precede', and *anteceder* 'to antecede' all registered 100% of DOM cases (11/11, 10/10, and 2/2, respectively). This categorical DOM incidence stands in sharp contrast to *seguir* 'to follow', which registered only 8% (12/160) of DOM cases, and *superar* 'to overcome', which was even lower at 7% (2/31). As already discussed in Chapter 2.2.2.3, the low occurrence of DOM with *seguir* can be attributed to its polyvalence; it often denotes continuation rather than strictly sequencing (cf. Delbecque 1998: 404–405). Furthermore, other meanings include *to observe* and *to follow with the eyes* (RAE 2026). The second class showing the highest DOM rates is the replacement verbs (García García 2014: 153). In this class, the verb *suplantar* retrieved 83% (5/6) of DOM cases, followed by *reemplazar* with 60% (3/5) and *sustituir* with 46% (18/39). Notably, *suplir* did not register any cases of DOM (0/4).

The influence of agentivity is further evidenced in the classes of competition and attribution. In the competition class, García García (2014: 178) retrieved 63% (5/8) of the cases for *derrotar*, while *vencer* registered 41% (9/22), *atacar* 36% (4/11), *asaltar* 25% (2/8), and *defender* only 7% (4/62). A similar variation is found with verbs of attribution (García García 2014: 172): *caracterizar* registered DOM in 58% of cases, followed by *definir* at 28% (7/25) and *distinguir* at 8% (3/40).

These results demonstrate not only that DOM with inanimate entities is possible, or even required in some instances, but also that there is considerable variation between verbs both within and across classes. This variation can be explained by the Thematic Distinctness generalization, repeated in (177) below for convenience.

(177) Thematic Distinctness (García 2007: 71, 2014: 145):
DOM with inanimate direct objects is correlated primarily with the thematic relation between subject and object. When the direct object is equally or more agentive than the subject, *a*-marking is required.

Taking the Thematic Distinctness generalization into account, let us analyze the example in (178), which involves both inanimate subjects and direct objects where DOM is obligatory with every verb. The reason is that both the subject *el vodka* and the direct object *la ginebra* possess proto-agent features and are equal in their agentive status within the replacement event. García García (2014: 152), whose notion of agentivity is based on Primus's (1999a; 2006) proto-roles model, argues that the two arguments of verbs of replacement in their reversible-symmetric meaning are characterized as 'x fulfills the function of y', i.e., ACT-LIKE(x,y) → ACT-LIKE(y,x).

(178) *El vodka puede reemplazar/sustituir/suplir/suplantar* ***a la/*la*** *ginebra.*
'Vodka can replace gin.' (adapted from García García 2014: 152; my translation)

Contrastively, the examples in (179) with the verb *suplir* are ungrammatical with DOM. The reason for this contrast is that the direct object *la póliza* does not possess any proto-agent features. In these sentences, *suplir* has the meaning of *añadir* / *integrar (lo que falta)* 'to add/integrate (what is missing)', and *forjar* 'to forge', respectively. Unlike in (178), where both arguments function as a proto-agent, in (179)a–b the subject *el seguro* clearly functions as the sole proto-agent, while the direct object *la póliza* functions as a typical proto-patient.[140]

(179) a. *El seguro ha suplido* ***ø/*a*** *la póliza*.
'The insurance agency has supplemented the policy.'

b. *El seguro ha suplantado* ***ø/*a*** *la póliza*.
'The insurance agency has forged the policy.' (García García 2014: 152)

In short, García García (2014) convincingly demonstrates that the occurrence of DOM with inanimate entities in Spanish is primarily driven by the thematic relation between both arguments of a predicate. This is formalized through the Thematic Distinctness generalization, which states that DOM becomes necessary when the direct object receives as many or more proto-agent features than the subject. The contrastive behavior of DOM in (178) and (179) makes it evident. Crucially, the Thematic Distinctness generalization is not only applicable to Present-day Spanish, but it has also been shown to be relevant diachronically (cf. García García 2018), as discussed in Chapter 2.2.2.3.

[140] In Section 7.4, I discuss similar examples in (192), with the verb *sustituir,* and in (193), with *reemplazar.*

While García García (2014) provides an extensive qualitative analysis of several other verbs, my objective here was to introduce his main findings and supporting data (the interested reader is referred to his detailed work for further evidence of the agentivity hypothesis). Nonetheless, it is important to highlight that García García's (2014) analysis of DOM differs from mine in the sense that he utilizes a fine-grained proto-roles approach, while I mainly follow a more traditionalist framework following Dowty (1991). Since my analysis focuses partially on AcI constructions, where basically any predicate can be selected as the complement of the infinitive, I provide a more general classification of proto-agent features based on the transitivity of the infinitive, as well as the perception modalities themselves (cf. (132) and (135) in Chapter 4.5).

Importantly, as I have argued, agentivity does not universally make DOM categorical on its own, but rather strongly facilitates the occurrence of the phenomenon. While the primary parameters for DOM in Spanish are generally the nominal ones (animacy and definiteness/referentiality), agentivity serves as a secondary verbal parameter, which becomes a decisive factor in cases where the direct object is an inanimate entity. However, because DOM has reached an obligatory status with human entities (except for non-specific NPs) in Present-day Spanish, isolating the influence of agentivity on these types of entities is challenging, which is why most previous works focus on non-human or inanimate entities. Furthermore, the number of verbs that entail proto-agent features for their direct objects is quite limited. Therefore, to provide further evidence for the agentivity hypothesis, my investigation brings a new perspective by providing a clear comparison between agentive and non-agentive verbs/constructions (focusing specifically on the contrast between the visual and auditory perception modalities, as well as between mono-predicative and AcI constructions). By offering both diachronic and synchronic data, the study reveals the evolution of DOM in Spanish and its expansion from human entities to inanimate ones, facilitated by agentivity.

7.3. Agentivity and DOM with perception verbs and AcI

Having reviewed the relevant works addressing the importance of agentivity in the occurrence of DOM in Spanish, this section synthesizes the contributions of the present investigation. As discussed in previous chapters, DOM in Spanish cannot be analyzed without considering the animacy of the direct object. Therefore, I first discuss the influence of agentivity on DOM with human entities (Section 7.3.1) and subsequently with inanimate entities (Section 7.3.2). To verify the impact of agentivity on DOM, I focused on two perception modalities (visual and auditory) and two distinct constructions (mono-

predicative and AcI). Accordingly, each section is divided into two subsections addressing each of the investigated constructions.

7.3.1. Human stimuli

The expansion of DOM with human entities in Present-day Spanish is so broad that nearly all direct objects are obligatorily case-marked, with the exception of certain non-referential NPs (see Chapter 2). Therefore, to verify the impact of agentivity on DOM with human direct objects, I conducted a diachronic investigation focusing on different historical varieties of European Spanish in which DOM was not yet obligatory, namely, the 14th and 16th centuries (Medieval and Classical Spanish), and contrasted them with the 20th century (Modern Spanish). This approach made it possible to track the evolution of the phenomenon. The following sections focus on the most important contributions of the diachronic study for human stimuli, starting with the mono-predicative constructions in Section 7.3.1.1 and moving to AcI constructions in Section 7.3.1.2.

7.3.1.1. Mono-predicative constructions

Although examples (180)a–b constitute a minimal pair constructed with perception verbs, the requirement for DOM varies between them. Recall that DOM is optional with indefinite NPs, specifically with non-referential ones. Thus, both (180)a and (180)b should exhibit a similar behavior in relation to DOM. However, the corpus study reveals a different situation. While DOM occurs nearly categorically with *oír* 'to hear' in the 20th century reaching nearly 100% of cases regardless of the definiteness of the direct object, DOM with *ver* 'to see' shows a considerably lower rating. For the same period, indefinite NPs with ver were registered in only about 50% of the cases.

(180) a. *El profesor vio (a) un estudiante.*
the teacher see.PAST (DOM) a student

b. *El profesor oyó a un estudiante.*
the teacher hear.PAST DOM a student

Throughout this work, I have argued that the observed difference in the use of DOM with auditory and visual stimuli can be attributed to differences in relation to proto-agent features. As discussed in Chapter 4, the sentence *the teacher heard a student* implies that the student did something, i.e., it was involved in some action that produces a sound. In contrast, *the teacher saw a student* does not necessarily imply that the student was engaged in any specific activity (cf. Cruse 1973). In other words, the auditory stimulus is more

agentive because it has at least the (autonomous) movement proto-agent entailment, while the visual stimulus does not have any (see Chapter 4.5).

The proto-agent entailments of the stimulus have influenced the occurrence of DOM not only in present-day Spanish but also in older varieties of the language. The corpus study on mono-predicative constructions with human NPs showed that this influence was already relevant in the 14th century, presenting a pronounced preference for the auditory stimulus. This preference is so marked that even the indefinite auditory stimuli registered a higher frequency of DOM than the definite visual stimuli in the 14th and 20th centuries; in the 16th century, both categories yielded the exact same percentage, as illustrated in Table 47 below. This contrast demonstrates that agentivity has a stronger influence on DOM than definiteness, at least with perception verbs.

Table 47: Comparison of DOM between human NPs: definite visual vs. indefinite auditory stimuli.

definiteness	**14th century**	**16th century**	**20th century**
definite visual	45% (62/138)	61% (192/315)	91% (416/454)
indefinite auditory	50% (3/6)	61% (14/23)	100% (38/38)

The influence of agentivity on DOM was also found to be relevant in environments where DOM is normally either absent, such as (plural) bare NPs, or categorical, such as proper names (cf. Laca 2006; see Table 6). Regarding bare NPs, although the number of tokens containing a bare NP stimulus was relatively low in the present analysis, a numerical difference in favor of the auditory stimulus over the visual stimulus was observed across every century. This effect was particularly pronounced in the 20th century, where DOM occurred in 88% of cases with the auditory modality, compared to only 12% with the visual modality. Conversely, at the upper end of the definiteness scale, it is the absence of DOM with proper names that is noteworthy. As expected, there are very few instances without DOM in this category. However, almost all such cases occur with the visual modality, with only a single exception found in the auditory modality. These contrastive results provide further evidence that the agentivity associated with the auditory modality is not only relevant for definite and indefinite NPs, but operates across the entire definiteness scale.[141]

7.3.1.2. AcI constructions

The constructional parameter presented the most substantial influence on the expansion of DOM. However, this impact was not uniform across both perception modalities over the centuries. By the 14th century, DOM in AcI constructions with the auditory perception modality was basically categorical with definite NPs (appearing in 94% of the cases), while being found much less frequently with the visual perception modality (48% of the

[141] Except for personal pronouns, which were not part of this investigation but are widely recognized as having no variability regarding DOM since the first registers of the language (cf. Pensado 1995a: 19a).

cases). Although the number of tokens for indefinite NPs within the auditory perception modality was limited in this century, the influence of the construction was nonetheless evident: DOM occurred in 80% of cases, a 30% difference in favor of AcI constructions over the mono-predicative ones. An illustration of this early widespread occurrence is provided in example (181).

(181) *...oyo dezir a un moro que asi commo los de Cordoua mataran...*
heard.3SG say.INF DOM a Moor that just as the of Cordoba killed
'...he heard a Moor say that just as those from Cordoba had killed...' (CDH, Juan Manuel c. 1348, *Gran Crónica de Alfonso XI*)

While no evolution was observed in the 16th century with definite NPs within the auditory perception modality, the incidence of DOM with indefinite NPs reached 93% of cases in this century, a 32% difference from the mono-predicative constructions. In the 20th century, DOM reached 100% of the cases within this perception modality regardless of definiteness, a trend also observed in mono-predicative constructions. This indicates that by this century (if not earlier, since the study does not consider the 17th–19th centuries), the constructional parameter ceased to facilitate DOM occurrence, as DOM had become obligatory in both constructions.

In short, the influence of the AcI construction with the auditory perception modality on DOM is evident in the 14th and 16th centuries, showing that the high level of agentivity associated with the logical subject of the infinitive makes DOM categorical. However, this was not the case with the visual perception modality. This perception modality presented a completely different behavior in the 14th and 16th centuries, where DOM occurred in very similar proportions to those of the mono-predicative constructions.

I have argued that the reason for this contrast may lie in the predicate selection. Since the visual perception modality has a clear preference for selecting an unaccusative predicate as its complement, it was hypothesized that this is a primary reason behind the low incidence of DOM compared to the auditory perception modality (which has a preference for unergative and transitive predicates). As the only argument of unaccusative predicates has fewer proto-agent features (if any) than those of transitive and unergative ones, this difference in agentivity aligns with the lower DOM rate. Nonetheless, the lack of enough data for transitive and unergative predicates does not allow for a definitive conclusion on these contrastive results. Due to the preference for the visual modality to select unaccusative predicates and the clear difference between DOM incidence between definite and indefinite NPs, I assumed that DOM in the historical AcI constructions, specifically with the visual modality, depended primarily on nominal parameters, rather than the constructional one.

Interestingly, in the 20th century, this behavior changed completely, and the construction showed a pronounced impact on DOM, particularly evident with indefinite NPs. While DOM with definite NPs had become obligatory in both constructions (appearing in nearly 100% of cases), DOM was registered in 85% of cases with indefinite NPs in AcI constructions, a difference of almost 30% compared to the mono-predicative ones. In this century, the transitivity of the infinitive seems to play a clear role: DOM was registered in 100% of cases with transitive predicates and 90% with unergative predicates, but only 79% with unaccusative predicates. This suggests that the proto-agent features entailed by the infinitive are indeed connected with the incidence of DOM, at least in this century.

Now that the main findings for the diachronic studies have been recapitulated, the next section deals with the synchronic studies.

7.3.2. Inanimate stimuli

Given the clear impact of agentivity on DOM observed in the diachronic investigation and its nearly categorical occurrence with the auditory modality in the 20th century due to its proto-agent features, it was logical to test if this influence was starting to extend to other categories of the animacy scale. Because DOM is in constant evolution (cf. Aissen 2003), I conducted two forced-choice experiments to determine whether the impact of agentivity on DOM has already started to expand to inanimate entities, which occupy the lowest point of the scale and normally disallow DOM.

Following the structure of the previous section, this segment synthesizes the key findings from the experiments. First, I address mono-predicative constructions in Section 7.3.2.1, and then I examine AcI constructions in 7.3.2.2.

7.3.2.1. Mono-predicative constructions

The literature shows that, in contrast to human NPs, DOM with inanimate objects is normally forbidden (von Heusinger & Kaiser 2005; García García 2018). Therefore, it is not surprising that DOM is ungrammatical with the inanimate NP *esta película* 'this film' in (182)b, whereas it is obligatory with the human NP *este actor* 'this actor' in (182)a.

(182) a. *Conozco* **este* *actor* / *a* *este* *actor.*
know.1SG *this.M.SG actor / DOM this.M.SG actor
'I know this actor.'

b. *Conozco* *esta* *película* / **a* *esta* *película*.
know.1SG this.F.SG film / *DOM this.F.SG film

'I know this film.' (adapted from García García 2007: 63)

Nonetheless, under specific conditions, DOM is licensed or even required with inanimate NPs (cf. García García 2007, 2014). While the contrast in (182) reflects the standard occurrence of DOM in European Spanish regarding animacy, the results of the experiment on mono-predicative constructions (Experiment 2) suggest that the behavior of DOM with inanimate direct objects is significantly more nuanced. Specifically, it reveals that DOM with inanimate entities occurs in 22% of the cases (see example (184) below), which is a much higher incidence than what is reported by other studies (cf. Tippets 2011; García García 2014, among others). However, when we divide the data by perception modality, the impact of agentivity on DOM becomes clear. DOM with the auditory perception modality occurred in 30% of the cases, compared to 15% with the visual perception. This effect is further amplified when definiteness is taken into account. DOM with definite NPs in the auditory modality was chosen in 39% of the cases. This frequency puts this category within what Laca (1995: 64) calls *dominio de la posibilidad* 'domain of possibility', i.e., the use of DOM is facultative rather than forbidden.

Of course, the inanimate NPs used in the experiment are not simple inanimate entities but dynamic entities with their own source of energy. Therefore, they can be considered potential agents (García et al. 2018). Nonetheless, being a potential agent does not directly imply co-occurrence with DOM. If this were the case, DOM would always be required with human entities, which is not the case, as the example in (180)a above illustrates. More than being a potential agent, what makes this high DOM rate possible with inanimate dynamic definite NPs is that they have (at least) Dowty's proto-agent entailment (autonomous) movement, aligning exactly with the Role-dependent DOM from García García et al. (2018: 27), repeated below in (183) for convenience.

(183) Role-dependent DOM:
A differential object marker is licensed by an object qualifying as a minimal or potential proto-agent in a given event. The proto-agent properties may either be subcategorized by the verb or assigned according to intrinsic properties of the object referent.

It is important to highlight that having proto-agent features does not automatically imply the occurrence of DOM. The strength of the Role-dependent DOM lies in the fact that it provides an account not only for cases where DOM is the rule (i.e., non-exceptional cases) but also for those in which DOM occurs as an exception. Hence, it explains the high incidence of DOM in examples such as (184)a compared to (184)b. DOM was chosen more than twice as often with the former (50%) compared to the latter (24%).[143] When

[143] This percentage represents both definite and indefinite NPs as a whole, as provided in Table 45 above.

camión 'truck' represents an auditory stimulus, it entails the proto-role entailment (autonomous) movement, which results in a higher occurrence of DOM. In contrast, the visual stimulus does not necessarily imply that the object referents possess this entailment, leading to a lower DOM rate.

(184) a. *Mateo oyó (a)l camión en la autovía.*
'Mateo heard (DOM) the truck on the highway.'

b. *Mateo vio el camión en la autovía.*
'Mateo saw the truck on the highway.'

Nevertheless, DOM presented a very different behavior with very similar examples. For instance, the example in (185)a with the auditory stimulus *coche* registered a much lower DOM rate, specifically 24%, and the visual stimulus in (185)b even lower, at 16%. This pronounced difference in the occurrence of DOM between similar constructions is intriguing.

(185) a. *Óscar oyó el coche en el aparcamiento.*
'Oscar Heard the car in the parking.'

b. *Óscar vio el coche en el aparcamiento.*
'Oscar Heard the car in the parking.'

The explanation given to this contrast was that the location where the stimulus is perceived also plays a role in the occurrence of DOM. Recall from Chapter 6, that the critical items were balanced between a locative PP representing an open space environment and a confined space environment. Unlike in (184), where the stimulus is perceived in an open space environment (on the highway), in (185) it occurs in a confined space environment (in the parking). Of course, this presupposition is difficult to attain without a proper context. Nonetheless, this contrast was shown to be statistically significant. The possible explanation for this is that when the stimulus is in an open space, it is more likely that speakers interpret the stimulus as being more agentive than when it is in a confined space. Therefore, the results suggest that DOM does not only depend on the proto-agent features entailed by the verb, but may also be influenced by conversational implicatures. This influence is consistent with Primus' (1999: 48) observation that "a proposition such as MOVE(x) or CONTROL(x, y) can also be determined compositionally by *other parts of the sentence* besides the verb or *by the context*" (my highlight).

Since each machine appeared in all four conditions, providing the percentage considering definiteness and perception modality would reduce the total number to 10 cases per condition, which is not ideal for the analysis. However, if considering only definite NPs, the percentage is 68% for *oír* and 32% for *ver*.

7.3.2.2. AcI constructions

As hypothesized in (H3), the impact of the constructional parameter on DOM was significantly more pronounced with inanimate stimuli. A comparison across both constructions demonstrated that DOM tends to occur much more frequently in AcI constructions than in mono-predicative ones; in AcI constructions, DOM was selected in 53% of the cases. This represents more than double the frequency observed in mono-predicative constructions, indicating that DOM is facultative in this configuration. This finding aligns with Torrego's (1999: 1792) intuition that DOM is "possible but not obligatory" (my translation) in constructions such as (186).

(186) *Veo* / *oigo* *el* *agua* *caer*.
see.1.SG / hear.1.SG the water fall.INF
'I see/hear the water falling.' (Torrego 1999: 1792)

However, unlike what was observed in the mono-predicative constructions, the results for AcI constructions showed that the perception modality plays no role in the occurrence of DOM. Both perception modalities yielded the same proportion of DOM cases, indicating that the mere fact that the NP2 possesses any proto-agent features already allows it to occur with DOM independently of the perception modality, in line with the Role-dependent DOM in (183) above. Notice, however, that the results presented considerable variation, as shown in Table 42. For example, *autobús* 'bus', in (187), occurred very often with DOM, specifically in about 75% of cases across both perception modalities. On the other hand, *caravana* 'caravan' in (188) occurred with DOM in only about 36% of cases.

(187) *David oyó/vio al autobús arrollar contenedores por el camino.*
'David heard/saw the bus run over containers on the road.'

(188) *Andrés oyó la caravana explotar en el camping.*
'Andres heard the caravan explode at the campsite.'

It is important to highlight that despite DOM occurring in the same proportions in both perception modalities, the transitivity of the infinitive proved to be a significant parameter on DOM (when unergatives are not considered). Transitive predicates presented a stronger effect on DOM than unaccusative ones; while the former reached 60%, the latter stood at 52%. This suggests that the more proto-agent features the NP2 accumulates, the more likely it is to occur with DOM. However, the results for unergative predicates, which registered the lowest DOM rate at 40%, do not support this trend. These results contradict the agentivity hypothesis, given that unergative predicates typically imply a higher degree of proto-agent features for the NP2 than unaccusative predicates (see Chapter 4.5). Therefore, it was expected that unergative predicates would behave similarly to transitive

ones, rather than showing the lowest incidence of DOM. Nonetheless, since only four verbs were selected to represent the class of unergatives, the class may have been underrepresented; this, along with speaker variation, might have affected the results. A plausible explanation for this unexpected outcome is that unergative predicates might differ in relation to proto-agent features depending on the animacy of their subjects (cf. Sorace 2000: 876). Nevertheless, further investigation is necessary to clarify this puzzle.

In addition to the effect of transitivity, the definiteness of the NP2 also presented a statistically significant effect on DOM. Definite NPs occurred in about 64% of the cases, while indefinite NPs occurred in about 42%, which reinforces the importance of the nominal parameters on DOM in Spanish.

Another important finding was the influence of agentivity through conversational implicatures. It was shown that when the event occurred in an open space, DOM incidence was higher than when the event took place in a confined space. This contrast was even stronger when considering each perception modality, as the effect was stronger with the auditory modality than the visual one.

Lastly, the results of both experiments showed that DOM is more likely to occur with masculine NPs than with feminine NPs. In AcI constructions, masculine NPs received DOM in 59% of the cases, while feminine NPs did so in 47%. Although with a less pronounced difference, the effect was also observed in mono-predicative constructions, where masculine NPs occurred in 25% of cases, compared to 20% for feminine NPs. Following Krifka (2009) and Esaulova & von Stockhausen (2015), it was argued that masculine NPs are higher in prominence than feminine NPs. Moreover, an interesting pattern was observed. The incidence of DOM with masculine NPs was much higher when the NPs were definite, as Table 48 illustrates. This might suggest an add-on effect. Nonetheless, this topic falls outside the primary goal of this investigation and deserves its own work to be investigated in more depth.

Table 48: Proportion of DOM with inanimates regarding constructions type, definiteness, and gender.

	AcI		**mono-predicative**	
gender	**indefinite**	**definite**	**indefinite**	**definite**
feminine	39% (187/482)	55% (264/478)	15% (67/450)	25% (112/450)
masculine	45% (217/478)	72% (349/482)	15% (69/450)	34% (154/450)

7.4. Some thoughts on DOM, agentivity and prominence

In Chapter 2, I discussed the two main functional approaches to DOM, namely the distinguishing and the indexing approaches. Although both approaches possess distinct properties, they share a fundamental dependence on the individuation properties of the

direct object (cf. Hopper & Thompson 1980). In other words, DOM tends to occur with those objects that are highly individuated, i.e., proper names, human, definite, referential, singular, and countable NPs. All these properties share a common denominator, namely, they are characteristics of a prominent referent. This is the term Aissen (2003) uses to model the occurrence of DOM crosslinguistically, as shown in (189).

(189) The higher in prominence a direct object, the more likely it is to be overtly case-marked. (Aissen 2003: 436)

In Aissen's model, which is based on markedness theory, prominence is mapped onto the scales of animacy and definiteness. These are precisely the main factors traditionally described as driving DOM in Spanish, as discussed in Chapter 2. The animacy scale is provided in (190)a and the definiteness scale in (190)b below, for convenience (cf. Comrie 1989:185; Aissen 2003: 437).

(190) a. Animacy Scale:
human > animate > inanimate

b. Definiteness Scale:
personal pronoun > proper name > definite NP > indefinite specific NP > indefinite non-specific NP

According to these hierarchical scales, entities placed in the leftmost positions (e.g., human or personal pronoun) are higher in prominence than those to the right. While Aissen's model focuses exclusively on these nominal parameters, her generalization regarding DOM and prominence is broad enough to capture the distinctive behavior observed for agentive stimuli in the present study. However, before making further assumptions, it is necessary to examine the notion of prominence in more detail, as the term is often used in ways that go beyond these two scales.

The term prominence is frequently employed to indicate that an entity stands out from others in a particular situation; it is often used as a synonym for salience, highlighting, attention, or activation, among other concepts (von Heusinger & Schumacher 2019). Beyond these uses, prominence is also employed in diverse disciplines to explain different (but related) phenomena. Regarding its role in grammar, von Heusinger & Schumacher (2019: 2), drawing on Himmelmann & Primus (2015), propose the three criteria presented in (191) below.

(191) Proposed criteria of prominence in grammar:

a. linguistic units of equal rank (e.g., syllables, co-arguments of a predicate) compete for the status of being in the center
b. their status may shift
c. prominent units act as structural attractors in their domain

Following the first criterion (191)a, prominence is a relational property between two or more elements of the same type. Importantly, an element is not prominent in isolation; rather, its status is determined relative to another element of the same category, such as the competition between agents and patients. The second criterion (191)b explains that this status is dynamic and may shift, e.g., as discourse unfolds, the topic may shift to a different participant. Finally, the third criterion (191)c indicates that prominent elements act as structural attractors that license a broader range of grammatical operations, such as passivization and clitic doubling.

This relational character of prominence is central to the distinguishing approach to DOM. Following Comrie (1979), a canonical transitive construction typically features an animate, definite subject and an inanimate, indefinite direct object. DOM normally occurs when this expected asymmetry is disrupted, i.e., when the direct object's properties are similar to those of the subject. In such cases, DOM serves to differentiate the direct object from the subject.

Importantly, if we take prominence to be a relational property between two arguments, the crucial factor for the occurrence of DOM is not that the direct object must rank high on the animacy or referentiality scales, but rather that the direct object argument is at least as prominent as the competing argument, namely the subject. Thus, DOM may arise even with a low-prominence direct object, provided that its prominence is comparable to that of the subject. Importantly, prominence is not restricted to nominal parameters; a key factor that can enhance the prominence of an argument is agentivity (cf. Himmelmann & Primus 2015).

This interplay between prominence, agentivity, and DOM aligns very well with García García's (2007: 71) Thematic Distinctness generalization (cf. Weissenrieder 1985, 1991) in (177) above. His hypothesis accounts for the occurrences of DOM in constructions where the direct object is inanimate, a configuration in which, based purely on the nominal scales, DOM would not otherwise be expected, as illustrated in (192). While García García does not explicitly use the term 'prominence' in his definition, agentivity is a highly prominent feature.

(192) *En esta receta la leche puede sustituir al huevo.*
in this recipe the milk can.3SG replace DOM.the egg
'In this recipe, egg can be replaced by milk.' (García García 2007: 67)

Following the Thematic Distinctness generalization, it is possible to explain why DOM occurs with the direct object *el huevo* 'the egg' in the example (192). This direct object is as agentive as the subject *la leche* 'milk'; hence DOM is licensed to occur in such a configuration. Notice, however, that only being equal (in animacy) does not automatically

trigger DOM. The key aspect in (177) is the fact that the direct object possesses proto-agent features, i.e., it is prominent. This dynamic is even better illustrated by the contrast between examples (193)a and (193)b below, in which the subject is a human entity and the direct object is inanimate. In this classic example, the arguments occupy opposite extremes of the animacy scale; nonetheless, DOM is forbidden in the former but obligatory in the latter.

(193) a. *El profesor reemplaza el libro.*
the teacher replaces the book
'The professor replaces the book (with something else.)'

b. *El profesor reemplaza al libro.*
the teacher substitutes DOM.the book
'The professor takes the place of the book.' (Weissenrieder 1991: 149)

As the translations demonstrate, the presence or absence of DOM changes the meaning of the sentence. In (193)a, where DOM is absent, the direct object *el libro* 'the book' behaves as a typical patient, i.e., it simply undergoes the action that the verb denotes. Conversely, in (193)b, where DOM does occur, the direct object has proto-agent features, making it more 'active' in the event. In this interpretation, the book is viewed as having the functional capacity of a teacher. It is precisely this increase in activity (agentivity) that Weissenrieder (1991: 149) connects to prominence, which aligns with von Heusinger & Schumacher's (2019) first criterion of prominence: "[s]ince higher activity correlates to saliency, marked noun phrases call for greater attention than unmarked nouns." In other words, agentive direct objects are more prominent than non-agentive ones, consequently being more frequently found with DOM.

Recall that agentivity is not the only verbal parameter influencing DOM in Spanish. As discussed in Chapter 2.2.2.1, affectedness also significantly influences the occurrence of the phenomenon and is closely related to prominence; affected direct objects are more prominent than non-affected ones (cf. Romero Heredero 2022: 175). Consequently, affected objects appear more frequently with DOM. This can be illustrated using the minimal pair provided in (194). Following this logic, the direct object *un ladrón* 'a thief' is more prominent in (194)a than in (194)b because the verb *golpear* 'to hit' implies a change of state (physical impact) that *ver* 'to see' does not.

(194) a. *El policía golpeó a un ladrón.*
'The police officer hit a thief.'

b. *El policía vio un ladrón.*
'The police officer saw a thief.' (Romero Heredero 2022: 175; my translation)

Nonetheless, my diachronic findings regarding mono-predicative constructions (Corpus Study 1, Chapter 5.3) suggest that the impact of agentivity on DOM is stronger than that of affectedness. By comparing the proportions of DOM in Romero Heredero's (2022) study of affected NPs (Table 3) with those for the auditory modality in Corpus Study 1 (Table 20), this contrast becomes evident. Table 49 illustrates the comparison: human indefinite NPs associated with the auditory perception modality present a much higher incidence of DOM than affected NPs, even though Romero Heredero (2022) reports affectedness to have a statistically significant effect on DOM.

Table 49: Comparison of DOM frequency between indefinite affected NPs (Romero Heredero 2022: Table 5.6) and auditory stimuli (Corpus Study 1).

indefinite NPs	**14th century**	**16th century**	**20th century**
affected	39% (31/80)	45% (54/120)	84% (167/200)
auditory	50% (3/6)	61% (14/23)	100% (38/38)

Although the number of tokens is uneven and the set of agentive verbs analyzed is limited to *oír* 'to hear' and *escuchar* 'to listen', the contrast is observable across all three centuries studied, with a margin of 11%–16% higher for auditory stimuli over affected NPs. Moreover, the 100% incidence of DOM with the auditory modality in the 20th century (where a larger number of tokens is available) clearly indicates that this difference is not merely an artifact of low representativeness, but a direct reflection of the influence of agentivity on DOM.

Given the clear impact of agentivity on the occurrence of DOM in Spanish, demonstrated through both corpus studies and experiments, as well as the interplay between the opposing verbal features of agentivity and affectedness, it is necessary to address the theoretical reason behind this influence. Therefore, let us return to the research question posed at the beginning of the chapter.

(RQ5) Why is agentivity relevant for the occurrence of DOM?

Building on Aissen's (2003) model for DOM, García García's (2007) Thematic Distinctness generalization, and García García et al.'s (2018) Role-dependent DOM, I assume that agentivity is relevant because it increases the semantic prominence of the direct object. This makes the object argument subject-like, thus licensing DOM as a means of highlighting its atypical status as an object. The theoretical foundation for this lies in the link between agentivity and subjecthood. According to Himmelmann & Primus (2015), agentive participants tend to be of greater human interest than non-agentive participants. Furthermore, the agent is normally associated with the subject of transitive predicates, the most prominent function of an argument (cf. Hopper & Thompson 1980). Similarly, Dowty's (1991) Argument Selection Principle states that the argument with the most

proto-agent features is lexicalized as the subject of the predicate. Therefore, when a direct object possesses proto-agent features, it encroaches on the semantic territory of the subject. This same logic naturally extends to the NP2, which already possesses an elevated degree of prominence. As the logical *subject* of the infinitive, it typically exhibits proto-agent features.

These observations bring us back to the traditional discussion regarding the two main functional approaches for DOM introduced in Chapter 2: the distinguishing and the indexing approaches. While both approaches offer compelling arguments, it remains an open question whether DOM in Spanish is primarily driven by one or the other (cf. García García 2014, 2022). Nonetheless, the findings I presented in this investigation provide further evidence for the distinguishing approach. Importantly, I am not suggesting that DOM functions strictly as a disambiguating device, since in the majority of "ambiguous" cases, there are other devices to resolve the ambiguity. Rather, my point is that the proto-agent features of the direct object enhance its prominence, and it is precisely this increase in prominence that makes the object subject-like, thereby facilitating the occurrence of DOM.

Throughout this chapter, it has been demonstrated that in basically every aspect related to the agentivity of the direct object (or NP2), the occurrence of DOM was consistently pronounced. The results suggest that the impact of agentivity on DOM is even stronger than that of affectedness. All in all, based on Aissen (2003), I propose the generalization presented in (195) regarding the association between agentivity and DOM.

(195) The more agentive a direct object (or an NP2) is, the more likely it is to occur with DOM.

7.5. Summary

I started the chapter by reviewing previous studies that demonstrate the influence of agentivity on DOM across various verbal classes. Taking this broad scope was important to show that the agentivity hypothesis is not restricted to perception verbs, but can also be observed across different verb classes in Spanish.

Subsequently, I synthesized the findings of my empirical investigations. By isolating the proto-agent features of direct objects through the use of perception verbs and specific construction types, I provided further evidence for the agentivity hypothesis. Focusing on human entities, my diachronic results demonstrated that, overall, DOM occurs significantly more frequently within the auditory perception modality than the visual one, thereby illustrating the impact of agentivity through the verbal parameter. Furthermore, while the constructional parameter (AcI constructions) proved to be the strongest, its

evolution was very different with each perception modality. DOM was categorical with the auditory modality, while with the visual modality, the construction parameter did not show any influence in either the 14th or 16th centuries. Nonetheless, by the 20th century, DOM occurrences with the visual modality surpassed those of the mono-predicative construction.

I then extended the analysis to inanimate entities, where the experimental results suggest that DOM has started to expand to this category, a process facilitated by agentivity. There was a clear contrast between the two perception modalities in mono-predicative constructions: the agentive auditory stimuli occurred much more frequently with DOM than the non-agentive visual stimuli. However, while this contrast was not observed in AcI, DOM was registered much more frequently overall than in mono-predicative constructions. Although the perception modality seems not to affect the phenomenon with inanimate entities in AcI constructions, I also showed that other factors may influence the appearance of DOM, such as the transitivity of the infinitive, the grammatical gender of the inanimate entities, and also conversational implicatures.

Lastly, returning to (RQ5), I addressed the theoretical motivation behind the relationship between agentivity and DOM. I argued that the relevance of agentivity lies in the highly prominent status a direct object (or NP2) reaches when it possesses proto-agent features. Because these features make the object argument subject-like, DOM is licensed to highlight its atypical and prominent status. This influence of agentivity was shown to be even more important than that of affectedness. Additionally, I proposed a generalization stating that the likelihood of DOM is directly proportional to the direct object's agentive status.

8. General conclusions

The objective of this investigation was to verify whether agentivity influences the occurrence of DOM in European Spanish. To achieve this goal, I analyzed the behavior of DOM with perception verbs, focusing specifically on the contrast between the visual and auditory perception modalities. The choice of using perception verbs was motivated by their applicability in both mono-predicative and AcI constructions and also due to the differences in the proto-agent features entailed by each perception modality to the stimulus. It was, therefore, possible to isolate agentivity and analyze its impact on DOM individually. These aspects make perception verbs ideal for this purpose, as they allowed me to examine DOM across perception modalities and construction types. Before proceeding, let us recall the research questions posed by the investigation in Chapter 1.

(RQ1) Does agentivity influence the occurrence of DOM in European Spanish?

(RQ2) How does the degree of agentivity impact DOM?

(RQ3) How was the development of DOM with perception verbs in mono-predicative constructions and in AcI constructions regarding human NPs?

(RQ4) Can the impact of agentivity also be observed with inanimate NPs?

(RQ5) Why is agentivity relevant for the occurrence of DOM?

To address these questions, it was necessary first to provide a review of the state of the art of the main topics connected to the investigation, i.e., DOM, perception verbs, and agentivity. Therefore, let us set aside the research questions to summarize the key observations gathered from the literature review before returning to the questions.

Chapter 2 provided the theoretical basis for understanding DOM, describing the main factors attested to influence its occurrence in Spanish. It was shown that DOM in Spanish depends mainly on animacy and referentiality, nominal parameters organized on a gradual scale. It was also demonstrated that, although the effects of the nominal parameters are well-documented and established, verbal parameters have not yet received appropriate attention. An exception is found in Romero Heredero (2022), whose work shows the significant influence of affectedness on the occurrence of DOM with human NPs. Affected direct objects are more likely to occur with DOM than non-affected ones. Furthermore, the literature review demonstrated that although there are some suggestions that agentivity is also a relevant factor influencing DOM in Spanish (cf. Pensado 1999; Laca 2006; von Heusinger 2011, among others), there is a gap in empirical research systematically investigating this influence (see García García 2014 for an exception).

Since perception verbs can appear in different configurations and constructions, Chapter 3 provided a literature review focusing on the visual and auditory perception modalities. A key observation was that while the visual perception modality imposes (almost) no restrictions on complement selection, the auditory perception modality is much more restrictive, typically selecting either a sound or an entity capable of producing a sound, as illustrated by the contrast between the acceptability of *veo/#oigo la casa* 'I see/#hear the house' (cf. Enghels 2007b; Romero Heredero & García García 2023). This restrictive selection is much weaker in AcI constructions (cf. *veo/oigo caerse la casa* 'I see/hear the house fall down'). The chapter also showed that in the absence of solid evidence indicating that the NP2 in AcI constructions is assigned dative case when it appears in a post-infinitival position alongside a transitive predicate, it is reasonable to assume that the NP2 is assigned accusative case instead. Furthermore, the chapter also demonstrated that, although Enghels (2007b) provides a diachronic corpus study on DOM and AcI constructions, her study does not consistently control for the nominal parameters necessary for analyzing the phenomenon. Consequently, this opened the door to the corpus analyses conducted in Chapter 5.

Chapter 4 explored the concept of agentivity, criticizing traditional thematic role approaches (for their limitations in assigning the agent role to direct objects, for example) and advocating instead for proto-roles (Dowty 1991). Besides presenting the model, the chapter also discussed its limitations, particularly its difficulties in dealing with intransitive predicates. For that, some adjustments from Primus (1999a, 2006) were implemented. Despite this, the model fulfilled the needs of the investigation since it allows predicates to entail proto-agent features for their direct objects. Furthermore, I also showed how the proto-roles could be used in relation to perception verbs, showing that the auditory stimulus entails proto-agent features (when it is dynamic) but not necessarily the visual one.

This theoretical background set the stage for the empirical components of the investigation, presented in Chapters 5 and 6. Therefore, coming back to (RQ1), the results from both corpus studies, detailed in Chapter 5, provided a positive answer to this question. Agentivity significantly influences the occurrence of DOM in European Spanish. In order to answer it, the chapter provided two diachronic corpus studies covering the 14th, 16th, and 20th centuries, focusing exclusively on human NPs (due to the consistent development of DOM with this category as attested in Chapter 2). Corpus Study 1 analyzed mono-predicative constructions, while Corpus Study 2 focused on AcI constructions. Both studies revealed that DOM occurrence varies between both perception modalities and constructions. Starting with the mono-predicative constructions, the results showed that the perception modality significantly influences the occurrence of DOM. The

auditory perception showed a much higher association with DOM in each century than what was observed with the visual perception, indicating that direct objects high in proto-agent features are more likely to occur with DOM than those low(er) in proto-agent features. In relation to AcI constructions, the data show interesting results. While there is a clear effect of the construction on DOM with the auditory perception already in the 14th century, the occurrence of DOM with the visual perception in the 14th and 16th centuries is very similar to that of mono-predicative constructions. However, in the 20th century, there was an abrupt increase in DOM cases, making its occurrence similar to that of the auditory perception in the same century, suggesting that the perception modality is no longer a decisive factor in the occurrence of DOM in AcI constructions with human definite NPs. All in all, the studies showed that both the perception modality and the constructional parameter affect the incidence of DOM in European Spanish, but the impact varied in relation to each modality and century, which provides answers to (RQ2) and (RQ3). Another interesting result is related to the almost total absence of volitional perception verbs in AcI constructions. The corpus study registered cases with *escuchar* and *mirar* only in the 20th century and in a very scarce number.

To further analyze the impact of agentivity on DOM, Chapter 6 addressed (RQ4), i.e., whether its impact on DOM could also be observable in inanimate entities. To achieve this goal, two forced-choice experiments were conducted. Both experiments provided a positive answer to (RQ4). It was demonstrated in Experiment 1, on AcI constructions, that participants opted for the DOM option in more than half of the cases, more specifically, in 53% of cases, which is a very high incidence compared to what previous studies have reported for mono-predicative constructions (cf. García García 2014). Interestingly and unexpectedly in view of the corpus study results in relation to the diachronic evolution of DOM, no differences between *ver* and *oír* were observed. Both verbs received the same proportion of DOM. Moreover, when taking into account the transitivity of the infinitives, the results revealed only a small 2% difference in favor of transitive/unergative predicates over unaccusative predicates. However, when unergatives were not considered, DOM occurred more frequently with transitive predicates (60%) than with unaccusative predicates (52%) suggesting that the transitivity of the infinitive plays a role in the occurrence of the phenomenon. In relation to Experiment 2, on mono-predicative constructions, participants opted for DOM in 22% of the cases. However, contrary to Experiment 1, this experiment did show a strong effect of perception modality on DOM. The verb *oír* occurred in 30% of the cases with DOM, while *ver* occurred only in 15%. Still important, there was considerable variation in the incidence of DOM between the different types of inanimate dynamic NPs chosen. Some machines strongly favor the presence of DOM, e.g., *camión* 'truck' and *autobús* 'bus', while other ones seem to

disfavor its presence, e.g., *escúter* 'scooter' and *locomotora* 'locomotive'. Further evidence of the relevance of agentivity came from the contrast between the locations where the stimulus was experienced. The results indicate that when the stimulus is perceived in an open space, such as *en la calle* 'on the street', it is more likely to occur with DOM than when the stimulus is in a confined environment, such as *en la cochera* 'in the garage'.

Using these two methods (corpus analysis and judgment task) allowed for more reliability of the results collected from the studies. Furthermore, both diachronic and synchronic studies found similar results, corroborating their validity. Nonetheless, the strength of one method is the weakness of the other, and vice versa. While the corpus analysis method permits retrieving more naturalistic examples, one cannot have control over all the variables (as discussed in Chapter 5 about the difficulties of finding valid tokens). On the other hand, while the experiment allows for more control over the variables, the examples are based on introspection, which might affect the applicability of the findings in "real" language use. Therefore, both methodologies complemented each other.

Finally, Chapter 7 demonstrated that the agentivity hypothesis is not limited to perception verbs but can be observed across different verb classes, consistent with the findings of García García (2014). Then, the chapter synthesized the results of both the corpus studies and the experiments, highlighting the main findings, which provide further support for the influence of agentivity on DOM. The impact of agentivity could be observed in the contrastive behavior of the two perception modalities and the constructional types regarding the historical evolution of the phenomenon, as well as its expansion from human entities to inanimate dynamic entities. Additionally, I suggested a link between DOM and prominence based on Himmelmann & Primus (2015) and von Heusinger & Schumacher (2019). More specifically, I argued that direct objects high in agentivity reach a subject-like status, making them prominent and thus more likely to occur with DOM, thereby addressing (RQ5).

Although the investigation has contributed valuable insights into the influence of agentivity on DOM in Spanish, some aspects could not be fully answered or explored in depth throughout the work. One of those cases is related to the influence of grammatical gender on the occurrence of DOM in Spanish. It was shown in Chapter 6 that the experiment participants tended to opt for DOM more frequently when the stimulus was represented by a masculine NP than a feminine NP. While in AcI constructions, the effect was clearly observable with both definite and indefinite NPs, in mono-predicative constructions, the effect was only present in definite NPs, with no differences in indefinite NPs. Given these different results, it is still necessary to clarify the reason for this

preference. Future studies could verify this aspect by conducting both corpus studies and experiments that have a balanced number of direct objects regarding their grammatical gender and syntactical categories.

A second aspect left open is the real impact of the transitivity of the infinitive on the occurrence of DOM in AcI constructions. This was due to two reasons. First, there is a strong preference for the auditory perception to select a transitive or an unergative predicate as its complement, and for the visual perception to select an unaccusative predicate. Given this limitation, the diachronic study could not provide a definite answer for this aspect. Second, due to the experiment design and the limitation on the choice of verbs that allow an inanimate dynamic NP to appear as the NP2 with both types of perception modalities, only movement verbs could be found to represent the unergative predicates, which turned out to show different behavior in relation to the other predicates. Nonetheless, the results of both studies suggest that transitivity may play a role in the occurrence of DOM. However, it is still necessary to collect more data to clarify this aspect.

In sum, the investigation contributes to providing strong evidence of the influence of agentivity on DOM by bringing two in-depth studies: the first one analyzing more than 2,000 tokens, and the second examining the grammatical intuition of around 80 native European Spanish speakers. As a novelty, the experimental studies brought a better understanding of the expansion of DOM from human entities to inanimate dynamic entities, demonstrating that agentivity is an important factor in this expansion.

Although DOM in Spanish has received much attention across the years, the reader may have noticed that the phenomenon is still far from being totally understood. As Pensado (1995a: 36) correctly points out, the phenomenon is not grammaticalized, and as Bossong (1991: 152) argues, DOM is a “living category”. Hence, it is safe to conclude that there is still much to be investigated to comprehend and describe with more accuracy this phenomenon that has been puzzling grammarians and linguists since at least the 15th century (cf. Nebrija 1492) but has been present in the language for as long as written records exist.

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Appendix 1: exp. with AcI constructions

In this appendix, I provide details about the experiment regarding DOM with inanimate entities in AcI constructions discussed in Chapter 6.

In this appendix, I present the instructions given to the participants of the experiment, as well as the text used to request their consent. I also outline all the 96 critical items utilized in the experiment. The items are organized into sets. Each set is divided into two parts based on the type of intransitive it contains (unergative/transitive vs. unaccusative). Furthermore, each set contains every condition utilized. Additionally, I include the 16 filler and 8 control items employed.

THE INSTRUCTION THE PARTICIPANTS WERE GIVEN:

El propósito de este estudio es ampliar nuestra comprensión sobre cómo los hablantes de español que han crecido en España utilizan el idioma en su vida cotidiana. Completarlo llevará cerca de **10 minutos**. El cuestionario está compuesto de **48 frases de estudio** en las que faltan algunos elementos. Tu tarea consiste en leer cada una de las frases y completar el hueco con la opción que mejor te parezca según **tu intuición**. El objetivo no es analizar tus conocimientos gramaticales (¡no es un examen!), sino cómo utilizas realmente el idioma. Por lo tanto, no dediques mucho tiempo pensando en la respuesta correcta (¡porque no la hay!). Simplemente **escoge la opción que mejor te suene**.

La estructura de las frases es muy similar, así que no te desanimes y, por favor, completa el cuestionario **individualmente** hasta el final.

¡Muchas gracias!

INFORMED CONSENT:

La participación en este estudio es estrictamente voluntaria. Puedes abandonar el cuestionario en cualquier momento si así lo deseas. Además, tus datos estarán protegidos en todo momento y se utilizarán únicamente con fines científicos. El cuestionario es completamente anónimo, por lo que en ningún caso será posible identificar a ninguno de los participantes.

Estoy de acuerdo con que los datos recogidos en el ámbito de este estudio puedan ser registrados y remitidos al director del estudio o a otros científicos que participen en el estudio para su evaluación científica, revisión y publicación.

CRITICAL ITEMS:

Set 1 (items 1-8):

***cavar* 'to dig' (transitive):**

Cond. 1: *Victoria vio (la excavadora / a la excavadora) cavar hoyos en la calle.*
Cond. 2: *Victoria vio (la excavadora / a la excavadora) cavar hoyos en la calle.*
Cond. 3: *Victoria oyó (una excavadora / a una excavadora) cavar hoyos en la calle.*
Cond. 4: *Victoria oyó (una excavadora / a una excavadora) cavar hoyos en la calle.*

***arrancar* 'to start' (unaccusative):**

Cond. 5: *Silvia vio (la ambulancia/a la ambulancia) arrancar en el aparcamiento.*
Cond. 6: *Silvia oyó (la ambulancia/a la ambulancia) arrancar en el aparcamiento.*
Cond. 7: *Silvia vio (una ambulancia/a una ambulancia) arrancar en el aparcamiento.*
Cond. 8: *Silvia oyó (una ambulancia/a una ambulancia) arrancar en el aparcamiento.*

Set 2 (items 9-16):

***aplastar* 'to crush' (transitive):**

Cond. 1: *Inés vio (la furgoneta/a la furgoneta) aplastar latas y botellas de plástico en el callejón.*
Cond. 2: *Inés oyó (la furgoneta/a la furgoneta) aplastar latas y botellas de plástico en el callejón.*
Cond. 3: *Inés vio (una furgoneta/a una furgoneta) aplastar latas y botellas de plástico en el callejón.*
Cond. 4: *Inés oyó (una furgoneta/a una furgoneta) aplastar latas y botellas de plástico en el callejón.*

***salir* 'to go out' (unaccusative):**

Cond. 5: *Sofía vio (la grúa/a la grúa) salir del taller.*
Cond. 6: *Sofía oyó (la grúa/a la grúa) salir del taller.*
Cond. 7: *Sofía vio (una grúa/a una grúa) salir del taller.*
Cond. 8: *Sofía oyó (una grúa/a una grúa) salir del taller.*

Set 3 (items 17-24):

***circular* 'to drive around' (unergative):**

Cond. 1: *Luis vio (la motocicleta/a la motocicleta) circular por el pueblo.*
Cond. 2: *Luis oyó (la motocicleta/a la motocicleta) circular por el pueblo.*
Cond. 3: *Luis vio (una motocicleta/a una motocicleta) circular por el pueblo.*
Cond. 4: *Luis oyó (una motocicleta/a una motocicleta) circular por el pueblo.*

***resbalar* 'to slide' (unaccusative):**

Cond. 5: *Javier vio (la escúter/a la escúter) resbalar sobre el hielo.*
Cond. 6: *Javier oyó (la escúter/a la escúter) resbalar sobre el hielo.*
Cond. 7: *Javier vio (una escúter/a una escúter) resbalar sobre el hielo.*
Cond. 8: *Javier oyó (una escúter/a una escúter) resbalar sobre el hielo.*

Set 4 (items 25-32):

***navegar* 'to sail' (unergative):**

Cond. 1: *Emilio vio (la lancha/a la lancha) navegar por la playa.*
Cond. 2: *Emilio oyó (la lancha/a la lancha) navegar por la playa.*
Cond. 3: *Emilio vio (una lancha/a una lancha) navegar por la playa.*
Cond. 4: Emilio oyó *(una lancha/a una lancha)* navegar por la playa.

***explotar* 'to explode' (unaccusative):**

Cond. 5: *Andrés vio (la caravana/a la caravana) explotar en el camping.*
Cond. 6: *Andrés oyó (la caravana/a la caravana) explotar en el camping.*
Cond. 7: *Andrés vio (una caravana/una caravana) explotar en el camping.*
Cond. 8: *Andrés oyó (una caravana/una caravana) explotar en el camping.*

Set 5 (items 33-40):

***derribar* 'to drop' (transitive):**

Cond. 1: *María vio (la camioneta/a la camioneta) derribar macetas en la plaza.*
Cond. 2: *María oyó (la camioneta/a la camioneta) derribar macetas en la plaza.*
Cond. 3: *María vio (una camioneta/a una camioneta) derribar macetas en la plaza.*
Cond. 4: *María oyó (una camioneta/a una camioneta) derribar macetas en la plaza.*

***pasar* 'to pass through' (unaccusative):**

Cond. 5: *Sara vio (la locomotora/a la locomotora) pasar por la estación.*
Cond. 6: *Sara oyó (la locomotora/a la locomotora) pasar por la estación.*
Cond. 7: *Sara vio (una locomotora/a una locomotora) pasar por la estación.*
Cond. 8: *Sara oyó (una locomotora/a una locomotora) pasar por la estación.*

Set 6 (items 41-48):

***romper* 'to break' (transitive):**

Cond. 1: *Raquel vio (la limusina/a la limusina) romper retrovisores en el parking.*
Cond. 2: *Raquel oyó (la limusina/a la limusina) romper retrovisores en el parking.*
Cond. 3: *Raquel vio (una limusina/a una limusina) romper retrovisores en el parking.*
Cond. 4: *Raquel oyó (una limusina/a una limusina) romper retrovisores en el parking.*

***aterrizar* 'to land' (unaccusative):**

Cond. 5: *Lucía vio (la avioneta/a la avioneta) aterrizar en la pista.*
Cond. 6: *Lucía oyó (la avioneta/a la avioneta) aterrizar en la pista.*
Cond. 7: *Lucía vio (una avioneta/a una avioneta) aterrizar en la pista.*
Cond. 8: *Lucía oyó (una avioneta/a una avioneta) aterrizar en la pista.*

Set 7 (items 49-56):

***recoger* 'to collect/to pick' (transitive):**

Cond. 1: *Mateo vio (el camión/al camión) recoger basura en la calle.*
Cond. 2: *Mateo oyó (el camión/al camión) recoger basura en la calle.*
Cond. 3: *Mateo vio (un camión/a un camión) recoger basura en la calle.*
Cond. 4: *Mateo oyó (un camión/a un camión) recoger basura en la calle.*

***descarrilar* 'to derail' (unaccusative):**

Cond. 5: *Iván vio (el tren/al tren) descarrilar en la curva.*
Cond. 6: *Iván oyó (el tren/al tren) descarrilar en la curva.*
Cond. 7: *Iván vio (un tren/a un tren) descarrilar en la curva.*
Cond. 8: *Iván oyó (un tren/a un tren) descarrilar en la curva.*

Set 8 (items 57-64):

***bombardear* 'to bomb' (transitive):**

Cond. 1: *Rubén vio (el avión/al avión) bombardear casas por la ciudad.*
Cond. 2: *Rubén oyó (el avión/al avión) bombardear casas por la ciudad.*
Cond. 3: *Rubén vio (un avión/a un avión) bombardear casas por la ciudad.*
Cond. 4: *Rubén oyó (un avión/a un avión) bombardear casas por la ciudad.*

***estallar* 'to explode' (unaccusative):**

Cond. 5: *Jaime vio (el dron/al dron) estallar en el cielo.*
Cond. 6: *Jaime oyó (el dron/al dron) estallar en el cielo.*
Cond. 7: *Jaime vio (un dron/a un dron) estallar en el cielo.*
Cond. 8: *Jaime oyó (un dron/a un dron) estallar en el cielo.*

Set 9 (items 65-72):

***volar* 'to fly' (unergative):**

Cond. 1: *Clara vio (el helicóptero/al helicóptero) volar sobre el barrio.*
Cond. 2: *Clara oyó (el helicóptero/al helicóptero) volar sobre el barrio.*
Cond. 3: *Clara vio (un helicóptero/a un helicóptero) volar sobre el barrio.*
Cond. 4: *Clara oyó (un helicóptero/a un helicóptero) volar sobre el barrio.*

***despegar* 'to take off' (unaccusative):**

Cond. 5: *Lorena vio (el caza/al caza) despegar del aeropuerto.*
Cond. 6: *Lorena oyó (el caza/al caza) despegar del aeropuerto.*
Cond. 7: *Lorena vio (un caza/a un caza) despegar del aeropuerto.*
Cond. 8: *Lorena oyó (un caza/a un caza) despegar del aeropuerto.*

Set 10 (items 73-80):

***rodar* 'to roll through' (unergative):**

Cond. 1: *Laura vio (el tanque/al tanque) rodar en el desfile militar.*
Cond. 2: *Laura oyó (el tanque/al tanque) rodar en el desfile militar.*
Cond. 3: *Laura vio (un tanque/a un tanque) rodar en el desfile militar.*
Cond. 4: *Laura oyó (un tanque/a un tanque) rodar en el desfile militar.*

***zarpar* 'to set sail' (unaccusative):**

Cond. 5: *Paula vio (el barco/al barco) zarpar del puerto.*
Cond. 6: *Paula oyó (el barco/al barco) zarpar del puerto.*
Cond. 7: *Paula vio (un barco/a un barco) zarpar del puerto.*
Cond. 8: *Paula oyó (un barco/a un barco) zarpar del puerto.*

Set 11 (items 81-88):

***arrollar* 'to run over' (transitive):**

Cond. 1: *David vio (el autobús/al autobús) arrollar contenedores por el camino.*
Cond. 2: *David oyó (el autobús/al autobús) arrollar contenedores por el camino.*
Cond. 3: *David vio (un autobús/a un autobús) arrollar contenedores por el camino.*
Cond. 4: *David oyó (un autobús/a un autobús) arrollar contenedores por el camino.*

***llegar* 'to arrive' (unaccusative):**

Cond. 5: *Carlos vio (el navío/al navío) llegar al astillero.*
Cond. 6: *Carlos oyó (el navío/al navío) llegar al astillero.*
Cond. 7: *Carlos vio (un navío/a un navío) llegar al astillero.*
Cond. 8: *Carlos oyó (un navío/a un navío) llegar al astillero.*

Set 12 (items 89-96):

***arrancar* 'to remove/to uproot' (transitive):**

Cond. 1: *Joaquín vio (el tractor/al tractor) arrancar árboles en el bosque.*
Cond. 2: *Joaquín oyó (el tractor/al tractor) arrancar árboles en el bosque.*
Cond. 3: *Joaquín vio (un tractor/a un tractor) arrancar árboles en el bosque.*
Cond. 4: *Joaquín oyó (un tractor/a un tractor) arrancar árboles en el bosque.*

***venir* 'to come' (unaccusative):**

Cond. 5: *Óscar vio (el coche/al coche) venir por el camino.*
Cond. 6: *Óscar oyó (el coche/al coche) venir por el camino.*
Cond. 7: *Óscar vio (un coche/a un coche) venir por el camino.*
Cond. 8: *Óscar oyó (un coche/a un coche) venir por el camino.*

FILLER ITEMS:

***contestar* 'to answer/to reply'**

Filler 1: *Pilar contestó (una duda/a una duda) para evitar malentendidos en el curso.*
Filler 2: *Pedro contestó (una solicitud/a una socilitud) para recibir ayudas en Navarra.*
Filler 3: *Catalina contestó (un argumento/a un argumento) para oponerse a la elección en la dirección.*
Filler 4: *Mariano contestó (un mensaje/a un mensaje) para lamentarse de su decisión en la reunión.*
Filler 5: *Noelia contestó (la pregunta/a la pregunta) para colaborar con el proyecto en Burgos.*
Filler 6: *Salvador contestó (la llamada/a la llamada) para confirmar asistencia en el evento.*
Filler 7: *Alba contestó (el requerimiento/al requerimiento) para obtener infomación sobre el proyecto.*
Filler 8: *Antonio contestó (el teléfono/al teléfono) para hablar de sus problemas en la empresa.*

***responder* 'to respond/to reply'**

Filler 9: *Montserrat respondió (una encuesta/a una encuesta) para analizar hábitos de consumo en los bares.*

Filler 10: *Ángel respondió (una petición/a una petición) para recabar fondos para la cultura en León.*

Filler 11: *Blanca respondió (un cuestionario/a un cuestionario) para participar en un experimento.*

Filler 12: *Martín respondió (un formulario/a un formulario) para quejarse de una tienda en Madrid.*

Filler 13: *Ana respondió (la cuestión/a la cuestión) para dar luz a la situación de la organización.*

Filler 14: *Roberto respondió (la carta/a la carta) para darse de baja de la suscripción.*

Filler 15: *Jacinta respondió (el sondeo/al sondeo) para opinar sobre una red social en EEUU.*

Filler 16: *Benjamín respondió (el test/al test) para graduarse en derecho.*

CONTROL ITEMS:

The occurrence of *a* is mandatory with the prepositional verbs:

Control filler 1: *Julia volvió (la escuela/a la escuela) para estudiar en verano.*

Control filler 2: *Arturo volvió (el trabajo/al trabajo) para resolver problemas sobre las 8.*

Control filler 3: *Carmela acudió (una comisaría/a una comisaría) para hacer denuncias por la mañana.*

Control filler 4: *Pepe acudió (un bar/a un bar) para beber con amigos por la tarde.*

The occurrence of DOM is forbidden:

Control filler 5: *Leire buscó (la cura/a la cura) para sanar heridas en su corazón.*

Control filler 6: *Mario buscó (el método/al método) para lidiar con la ignorancia en la red.*

Control filler 7: *Valentina hizo (una donación/a una donación) para contribuir con un proyecto en su ciudad.*

Control filler 8: *José hizo (un favor/a un favor) para quedar bien en la fábrica.*

Appendix 2: pre-test with intransitives (exp. 1)

This appendix provides all the pre-test items used in order to diagnose split intransitivity, discussed in Chapter 6. For informed consent and the task instructions, see Appendix 1.

TELICITY TEST:

Arrancar: *La ambulancia arrancó (en un segundo / durante un segundo).*
Salir: *La grúa salió del taller (en 5 segundos / durante 5 segundos).*
Circular: *La motocicleta circuló (en 5 minutos / durante 5 minutos).*
Resbalar: *La escúter resbaló sobre el hielo (en un segundo / durante un segundo).*
Navegar: *La lancha navegó (en 10 minutos / durante 10 minutos).*
Explotar: *La caravana explotó (en cuestión de segundos / durante segundos).*
Pasar: *La locomotora pasó por la estación (en menos de 15 segundos / durante 15 segundos).*
Aterrizar: *La avioneta aterrizó (en unos segundos / durante unos segundos).*
Descarrilar: *El tren descarriló en la curva (en pocos segundos / durante pocos segundos).*
Estallar: *El dron estalló (en un segundo / durante un segundo).*
Volar: *El helicóptero voló (en 5 minutos / durante 5 minutos).*
Despegar: *El caza despegó (en 30 segundos / durante 30 segundos).*
Rodar: *El tanque rodó (en varios minutos / durante varios minutos).*
Zarpar: *El barco zarpó (en 60 segundos / durante 60 segundos).*
Llegar: *El navío llegó (en pocos minutos / durante pocos segundos).*
Venir: *El coche vino (en 2 minutos / durante 2 minutos).*

ABSOLUTE PARTICIPLE TEST:

Arrancar: *Una vez arrancada la ambulancia, nos dirigimos al hospital.*
Salir: *Salida la grúa del taller, se estropeó el motor.*
Circular: *Una vez circulada la motocicleta, reventó el neumático.*
Resbalar: *Resbalada la escúter, me choqué contra un árbol.*
Navegar: *Navegada la lancha, se rompió el motor.*
Explotar: *Una vez explotada la caravana, se accionó los bomberos.*
Pasar: *Una vez pasada la locomotora, cruzamos las vías.*
Aterrizar: *Aterrizada la avioneta, desembarcaron los pasajeros.*
Descarrilar: *Una vez descarrilado el tren, se detuvo el tráfico ferroviario.*
Estallar: *Estallado el dron, cayó en pedazos al suelo.*
Volar: *Una vez volado el helicóptero, empezó a llover.*
Despegar: *Despegado el caza, se intensificó la vigilancia.*
Zarpar: *Una vez zarpado el barco, empezó una tormenta.*
Rodar: *Rodado el tanque, comenzó la ofensiva.*
Llegar: *Una vez llegado el navío, empezaron las reparaciones.*
Venir: *Venido el coche, nos montamos inmediatamente.*

CONTROL ITEMS:

FC - Volver: *La astronave volvió a la Tierra (la próxima semana / la semana pasada).*

FC - Regresar: *La embarcación regresó al puerto (mañana / ayer).*

LS - Inaugurar: *Una vez inaugurado el crucero, embarcaron los pasajeros.*

LS - Hablar: *Hablado el robot, luego se rompió.*

Appendix 3: exp. with mono-predicative constructions

In this appendix, similar to Appendix 1, I provide additional details on Experiment 2, i.e., DOM with inanimate entities in mono-predicative constructions, as discussed in Chapter 6. The appendix includes the following information: (i) the conditions, (ii) all the 64 experimental items, and (iii) the filler and control items. For informed consent and the task instructions, see Appendix 1.

CONDITIONS:

Condition 1: [VER, +DEFINITE]
Condition 2: [VER, -DEFINITE]
Condition 3: [OÍR, +DEFINITE]
Condition 4: [OÍR, -DEFINITE]

CRITICAL ITEMS:

Set 1 (items 1-4)

Cond. 1: *Victoria vio (la excavadora / a la excavadora) por la calle.*
Cond. 2: *Victoria vio (una excavadora / a una excavadora) por la calle.*
Cond. 3: *Victoria oyó (la excavadora / a la excavadora) por la calle.*
Cond. 4: *Victoria oyó (una excavadora / a una excavadora) por la calle.*

Set 2 (items 5-8)

Cond. 1: *Silvia vio (la ambulancia / a la ambulancia) en la cochera.*
Cond. 2: *Silvia vio (una ambulancia / a una ambulancia) en la cochera.*
Cond. 3: *Silvia oyó (la ambulancia / a la ambulancia) en la cochera.*
Cond. 4: *Silvia oyó (una ambulancia / a una ambulancia) en la cochera.*

Set 3 (items 9-12)

Cond. 1: *Inés vio (la furgoneta / a la furgoneta) en la manifestación.*
Cond. 2: *Inés vio (una furgoneta / a una furgoneta) en la manifestación.*
Cond. 3: *Inés oyó (la furgoneta / a la furgoneta) en la manifestación.*
Cond. 4: *Inés oyó (una furgoneta / a una furgoneta) en la manifestación.*

Set 4 (items 13-16)

Cond. 1: *Sofía vio (la grúa / a la grúa) en el taller.*
Cond. 2: *Sofía vio (una grúa / a una grúa) en el taller.*
Cond. 3: *Sofía oyó (la grúa / a la grúa) en el taller.*
Cond. 4: *Sofía oyó (una grúa / a una grúa) en el taller.*

Set 5 (items 17-20)

Cond. 1: *Luis vio (la motocicleta / a la motocicleta) en el circuito.*
Cond. 2: *Luis vio (una motocicleta / a una motocicleta) en el circuito.*
Cond. 3: *Luis oyó (la motocicleta / a la motocicleta) en el circuito.*

Cond. 4: *Luis oyó (una motocicleta / a una motocicleta) en el circuito.*

Set 6 (items 21-24)

Cond. 1: *Javier vio (la escúter / a la escúter) bajo el cobertizo.*
Cond. 2: *Javier vio (una escúter / a una escúter) bajo el cobertizo.*
Cond. 3: *Javier oyó (la escúter / a la escúter) bajo el cobertizo.*
Cond. 4: *Javier oyó (una escúter / a una escúter) bajo el cobertizo.*

Set 7 (items 25-28)

Cond. 1: *Emilio vio (la lancha / a la lancha) sobre las olas.*
Cond. 2: *Emilio vio (una lancha / a una lancha) sobre las olas.*
Cond. 3: *Emilio oyó (la lancha / a la lancha) sobre las olas.*
Cond. 4: *Emilio oyó (una lancha / a una lancha) sobre las olas.*

Set 8 (items 29-32)

Cond. 1: *Andrés vio (la caravana / a la caravana) dentro del garaje.*
Cond. 2: *Andrés vio (una caravana / a una caravana) dentro del garaje.*
Cond. 3: *Andrés oyó (la caravana / a la caravana) dentro del garaje.*
Cond. 4: *Andrés oyó (una caravana / a una caravana) dentro del garaje.*

Set 9 (items 33-36)

Cond. 1: *María vio (la camioneta / a la camioneta) en la autopista.*
Cond. 2: *María vio (una camioneta / a una camioneta) en la autopista.*
Cond. 3: *María oyó (la camioneta / a la camioneta) en la autopista.*
Cond. 4: *María oyó (una camioneta / a una camioneta) en la autopista.*

Set 10 (items 37-40)

Cond. 1: *Sara vio (la locomotora / a la locomotora) en el taller ferroviario.*
Cond. 2: *Sara vio (una locomotora / a una locomotora) en el taller ferroviario.*
Cond. 3: *Sara oyó (la locomotora / a la locomotora) en el taller ferroviario.*
Cond. 4: *Sara oyó (una locomotora / a una locomotora) en el taller ferroviario.*

Set 11 (items 41-44)

Cond. 1: *Raquel vio (la limusina/ a la limusina) en la plaza.*
Cond. 2: *Raquel vio (una limusina / a una limusina) en la plaza.*
Cond. 3: *Raquel oyó (la limusina / a la limusina) en la plaza.*
Cond. 4: *Raquel oyó (una limusina / a una limusina) en la plaza.*

Set 12 (items 45-48)

Cond. 1: *Lucía vio (la avioneta/ a la avioneta) en la nave industrial.*
Cond. 2: *Lucía vio (una avioneta / a una avioneta) en la nave industrial.*
Cond. 3: *Lucía oyó (la avioneta / a la avioneta) en la nave industrial.*
Cond. 4: *Lucía oyó (una avioneta / a una avioneta) en la nave industrial.*

Set 13 (items 49-52)

Cond. 1: *Mateo vio (el camión / al camión) en la autovía.*
Cond. 2: *Mateo vio (un camión / a un camión) en la autovía.*
Cond. 3: *Mateo oyó (el camión / al camión) en la autovía.*
Cond. 4: *Mateo oyó (un camión / a un camión) en la autovía.*

Set 14 (items 53-56)

Cond. 1: *Rubén vio (el tren / al tren) en la estación.*
Cond. 2: *Rubén vio (un tren / a un tren) en la estación.*
Cond. 3: *Rubén oyó (el tren / al tren) en la estación.*
Cond. 4: *Rubén oyó (un tren / a un tren) en la estación.*

Set 15 (items 57-60)

Cond. 1: *Iván vio (el avión / al avión) entre las nubes.*
Cond. 2: *Iván vio (un avión / a un avión) entre las nubes.*
Cond. 3: *Iván oyó (el avión / al avión) entre las nubes.*
Cond. 4: *Iván oyó (un avión / a un avión) entre las nubes.*

Set 16 (items 61-64)

Cond. 1: *Jaime vio (el dron / al dron) en la tienda.*
Cond. 2: *Jaime vio (un dron / a un dron) en la tienda.*
Cond. 3: *Jaime oyó (el dron / al dron) en la tienda.*
Cond. 4: *Jaime oyó (un dron / a un dron) en la tienda.*

Set 17 (items 65-68)

Cond. 1: *Clara vio (el helicóptero / al helicóptero) en el cielo.*
Cond. 2: *Clara vio (un helicóptero / a un helicóptero) en el cielo.*
Cond. 3: *Clara oyó (el helicóptero / al helicóptero) en el cielo.*
Cond. 4: *Clara oyó (un helicóptero / a un helicóptero) en el cielo.*

Set 18 (items 69-72)

Cond. 1: *Lorena vio (el caza / al caza) dentro del hangar.*
Cond. 2: *Lorena vio (un caza / a un caza) dentro del hangar.*
Cond. 3: *Lorena oyó (el caza / al caza) dentro del hangar.*
Cond. 4: *Lorena oyó (un caza / a un caza) dentro del hangar.*

Set 19 (items 73-76)

Cond. 1: *Laura vio (el tanque / al tanque) en el desfile militar.*
Cond. 2: *Laura vio (un tanque / a un tanque) en el desfile militar.*
Cond. 3: *Laura oyó (el tanque / al tanque) en el desfile militar.*
Cond. 4: *Laura oyó (un tanque / a un tanque) en el desfile militar.*

Set 20 (items 77-80)

Cond. 1: *Paula vio (el barco / al barco) en el muelle.*
Cond. 2: *Paula vio (un barco / a un barco) en el muelle.*

Cond. 3: *Paula oyó (el barco / al barco) en el muelle.*
Cond. 4: *Paula oyó (un barco / a un barco) en el muelle.*

Set 21 (items 81-84)

Cond. 1: *David vio (el autobús / al autobús) en la rotonda.*
Cond. 2: *David vio (un autobús / a un autobús) en la rotonda.*
Cond. 3: *David oyó (el autobús / al autobús) en la rotonda.*
Cond. 4: *David oyó (un autobús / a un autobús) en la rotonda.*

Set 22 (items 85-88)

Cond. 1: *Carlos vio (el navío / al navío) en el astillero.*
Cond. 2: *Carlos vio (un navío / a un navío) en el astillero.*
Cond. 3: *Carlos oyó (el navío / al navío) en el astillero.*
Cond. 4: *Carlos oyó (un navío / a un navío) en el astillero.*

Set 23 (items 89-92)

Cond. 1: *Joaquín vio (el tractor / al tractor) en el campo.*
Cond. 2: *Joaquín vio (un tractor / a un tractor) en el campo.*
Cond. 3: *Joaquín oyó (el tractor / al tractor) en el campo.*
Cond. 4: *Joaquín oyó (un tractor / a un tractor) en el campo.*

Set 24 (items 93-96)

Cond. 1: *Óscar vio (el coche / al coche) en el aparcamiento.*
Cond. 2: *Óscar vio (un coche / a un coche) en el aparcamiento.*
Cond. 3: *Óscar oyó (el coche / al coche) en el aparcamiento.*
Cond. 4: *Óscar oyó (un coche / a un coche) en el aparcamiento.*

FILLER ITEMS 1-16:

Filler 1: *Pilar contestó (la pregunta / a la pregunta) en la entrevista.*
Filler 2: *Catalina respondió (la cuestión / a la cuestión) en el concurso*.
Filler 3: *Alba contestó (el teléfono / al teléfono) en el consultorio.*
Filler 4: *Laura respondió (el test / al test) en la escuela.*
Filler 5: *Manolo contestó (la solicitud / a la solicitud) por internet.*
Filler 6: *Martín respondió (la carta / a la carta) durante el café.*
Filler 7: *Salvador contestó (el requerimiento / al requerimiento) en el ayuntamiento*.
Filler 8: *Roberto respondió (el sondeo / al sondeo) por teléfono.*
Filler 9: *Maribel contestó (una llamada / a una llamada) por el altavoz*.
Filler 10: *Blanca respondió (una encuesta / a una encuesta) en la tienda.*
Filler 11: *Luisa contestó (un correo / a un correo) de madrugada.*
Filler 12: *Montserrat respondió (un cuestionario / a un cuestionario) en el hospital.*
Filler 13: *Benjamín contestó (una duda / a una duda) en el seminario*.
Filler 14: *Jaime respondió (una petición / a una petición) en el comité escolar*.
Filler 15: *Ismael contestó (un mensaje / a un mensaje) por WhatsApp*.
Filler 16: *Ángel respondió (un formulario / a un formulario) en la secretaria*.

CONTROL ITEMS 1-8:

The occurrence of *a* is mandatory with the following prepositional verbs:

Control filler 1: *Julia volvió (la escuela / a la escuela) en septiembre.*
Control filler 2: *Arturo volvió (el trabajo / al trabajo) por la noche.*
Control filler 3: *Nuria acudió (una comisaría / a una comisaría) de madrugada.*
Control filler 4: *Pepe acudió (un bar / a un bar) sobre las 8.*

The occurrence of DOM is forbidden:

Control filler 5: *Valentina tuvo (un problema / a un problema) en el banco.*
Control filler 6: *José tuvo (un miedo intenso / a un miedo intenso) durante toda la noche.*
Control filler 7: *Leire encontró (la verdad / a la verdad) en una carta.*
Control filler 8: *Mario encontró (la respuesta / a la respuesta) en un libro.*