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# XV. DIFFERENTIAL OBJECT MARKING AND (NON)SPECIFICITY IN SPANISH – SOME EMPIRICAL EVIDENCE FOR LEONETTI'S GENERALIZATION

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**Resumen:** Manuel Leonetti demostró en su artículo "Specificity and Differential Object Marking in Spanish" que en el español europeo el marcado diferencial de objeto (MDO) está determinado por la topicalidad más que por la especificidad. No obstante, el MDO mantiene una estrecha relación con la especificidad, que Leonetti (2004: 99) describe como una "generalización segura", a saber, que los objetos directos no marcados no admiten interpretación específica. En este artículo presentamos resultados originales basados en un cuestionario de elección forzada para distintos tipos de especificidad (referencial, de alcance y epistémica). Los resultados apoyan la Generalización de Leonetti con respecto a la especificidad de tipo referencial y de alcance, pero no en cuanto a la especificidad de tipo epistémico.

**Abstract:** Manuel Leonetti has convincingly shown in his seminal paper "Specificity and Differential Object Marking in Spanish" that Differential Object Marking (DOM) in European Spanish is determined by topicality, rather than by specificity. Still, he notes that there is a close relationship to specificity, which Leonetti (2004: 99) formulates as a "safe generalization", namely that unmarked direct objects must not be interpreted as specific. We present original results from a forced choice test for different types of specificity (referential, scopal and epistemic). The results support Leonetti's Generalization for the referential and scopal type, but not for the epistemic one.

**Palabras clave:** marcado diferencial de objeto, referencialidad, especificidad, Generalización de Leonetti, cuestionario de elección forzada.

**Keywords:** Differential Object Marking, Referentiality, Specificity, Leonetti's Generalization, forced choice task.

## 1. Introduction

In his seminal paper "Specificity and Differential Object Marking in Spanish", Manuel Leonetti (2004) provided a comprehensive overview of the different para-

meters and contextual conditions that determine Differential Object Marking (DOM) in European Spanish, which is realized by the marker *a*. He argues convincingly that animacy is the main predictor for the use of DOM, and referentiality a secondary predictor. He further argues that specificity is not the cut-off point on the referentiality scale, as was assumed for Spanish for some time. He rather shows that DOM and (non-)specificity are closely related, and he takes incorporation, i.e. the semantic integration of the direct object into the verb meaning, as one central instance of non-specificity, as in the following quote:

> One must conclude that nowadays *a* cannot be said to block semantic incorporation systematically. The 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. Thus, a link between DOM and the impossibility of semantic incorporation must still survive, with topicality, again, underlying such a link. (Leonetti, 2004: 99)

In this paper, we will discuss what Leonetti formulates as a "safe generalization", namely that unmarked direct objects must not be interpreted as specific, and for the first time present empirical evidence from a forced choice experimental task for this generalization, which we will call "Leonetti's Generalization". In Section 2, we provide an overview of DOM and (non-)specificity in European Spanish. In Section 3, we discuss different notions of (non-)specificity. In Section 4, we describe the experiment, present and discuss the results, and in Section 5, we conclude with a general discussion.

## 2. Differential Object Marking and (non-)specifity

In Spanish, the direct object can be marked or not by the marker *a*, which is an instantiation of Differential Object Marking (DOM), a widespread phenomenon among the languages of the world (Lazard, 1984; Bossong, 1985, 1991; Aissen, 2003, among others). The main parameters for marking the direct object in Spanish are animacy, referentiality, topicality, and affectedness (Torrego, 1999; von Heusinger and Kaiser, 2003; Laca, 2006; Fábregas, 2013; Romero Heredero, 2022). Generally, only human direct objects are marked (see for exceptions García García, 2007, 2014). When they are realized as 'strong' (i.e. non-clitic) personal pronouns, proper names, definite (and demonstrative) noun phrases and specific indefinite noun phrases, they are obligatorily marked, while human non-specific indefinite noun phrases are optionally marked, and human bare nouns are not marked, see Table 1 for an overview (see also Leonetti and Escandell-Vidal, 2022 for a discussion of the cognitive underpinning of this scale).

**Table 1: Referentiality Scale and Differential Object Marking ("a-marking") of human direct objects in Spanish according to von Heusinger and Kaiser (2007: 85)**

| strong pronoun | proper name | definite NP | specific indef. NP | non-spec. indef. NP | bare noun |
|---|---|---|---|---|---|
| a | a | a | a | a/Ø | Ø |

Following Leonetti (2004), we focus on the relation between (non-)specificity and DOM in Spanish and discuss sentences with intensional verbs and with universal quantifiers and then extend the observations to transparent sentences, i.e. sentences without further operators. Leonetti discusses indefinite human direct objects in opaque contexts created by an intensional verb like *necesitar* 'to need', as in (1), quoted according to Leonetti (2004: 80):

(1) a. Necesita a una enfermera que pasa la mañana con ella.
He-needs A a nurse that spends$_{IND}$ the morning with her
'He needs a nurse that spends the morning with her.'

b. Necesita una enfermera que pase la mañana con ella.
He-needs Ø a nurse that spends$_{SUBJ}$ the morning with her
'He needs a nurse to spend the morning with her.'

It is assumed that the contrast between (1a) and (1b) consists in the fact that the direct object in (1a) receives a specific interpretation, while it receives a non-specific interpretation in (1b), which is clearly signaled by the mood of the relative clause: indicative signals a specific interpretation of the head noun, while subjunctive allows only for a non-specific interpretation. The interpretation corresponds to the use of or the lack of DOM ('A'). Leonetti (1990) already summarizes this observation in his monograph "El artículo y la referencia":

> Como se puede apreciar, la presencia de *a* va unida a la interpretación específica y su ausencia a la inespecífica. ('As can be seen, the presence of *a* is linked to the specific interpretation and its absence to the non-specific one.') (Leonetti, 1990: 64)

Leonetti (2004: 80) further discusses examples like (2), where DOM can be used in a non-specific reading, since (2a) can also mean to look for any doctor. Finally, Leonetti shows that the use of DOM is only ungrammatical for bare nouns, as in (3), as bare nouns do not allow for a specific interpretation, but rather for a(n) (semantic) incorporation reading, which means that the descriptive content of the direct object is not an argument that satisfies an argument position, but rather modifies the verb creating a kind of complex predicate (Leonetti, 1990: 64).

(2) a. Busca a un médico.
(S)he-looks-for A a doctor
'(S)he is looking for a doctor.'
b. Busca un médico.
(S)he-looks-for Ø a doctor
'(S)he is looking for a doctor.'

(3) a. *Necesitan a camarero.
They-need A waiter
'They need a waiter.'
b. Necesitan camarero.
They-need Ø waiter
'They need waiter.'

Based on the observations in (1) and (3), Leonetti discusses the idea of Bossong (1985, 1991) that DOM is a privative feature with the function to block an incorporation reading. Leonetti (2004) follows McNally (1995) and assumes that bare nouns as in (3) are predicates of the property type <e,t>, which then semantically incorporate into the meaning of the main predicate[1]. In this view, DOM blocks a property reading of the noun phrase and thus hinders an incorporation into the verb.

Leonetti (2004: 80) notes that this view is incompatible with the observation that (2a) can also have a non-specific interpretation. He also argues that *a*-marked indefinite direct objects in sentences with extensional quantifiers, as in (4), allow for a narrow scope reading.

(4) Cada estudiante entrevistará a un personaje conocido.
Each student will-interview A a celebrity
'Each student will interview a celebrity.'

Leonetti (2004: 85) summarizes the relation between DOM and specificity as follows:

> Finally, it must be noticed that even in the limited contexts where the choice between *a* and *Ø* is allowed there is usually not an absolute contrast, but rather a sort of «privative opposition»: while *a*-case-marked objects may admit both strong and weak interpretations in most cases, non-case-marked objects take only weak interpretations. In (11) [= (5) below], for instance, a specific reading arises only with *a*, as has often been pointed out, but the non-specific reading is available both with *a* and without it.

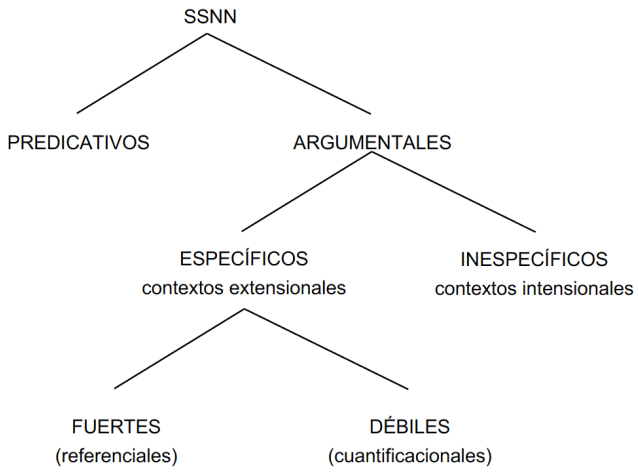
(5) Necesitaban (a) un especialista.
They-needed (A) a specialist
'They needed a specialist.'

[1] See also Bleam (2005) for a semantics for the *a*-marker in Spanish as a shift operator from property denotation of the noun of type <e,t> to an existential quantifier of type <<e,t>,t>.

## 3. Referential categories and (non-)specifity

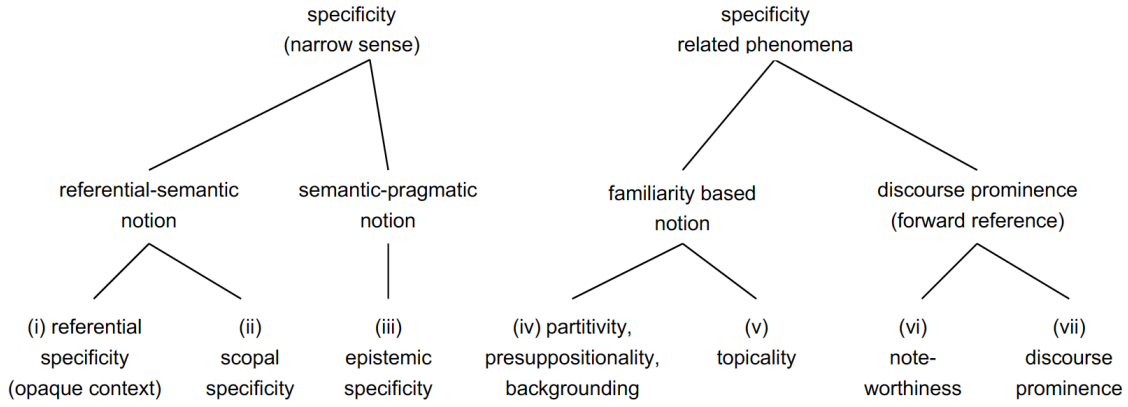
According to Leonetti's Generalization, the absence of DOM blocks a specific interpretation of the object in Spanish. Before we describe the experiment in the next section, we first want to clarify what a specific and a non-specific interpretation is. A specific reading of an indefinite NP is pretheoretically characterized by *the certainty of the speaker about the identity of the referent*. However, the term specificity has been used as a cover term for a whole range of different semantic and pragmatic notions. Fodor and Sag (1982) are the first who try to provide a coherent semantics of three different types of specificity, what von Heusinger (2011, 2019) calls referential, scopal and epistemic specificity. This was also the research focus of the dissertation "La especificidad en español" of Manuel Leonetti (1989), which appeared in 1990 as the monograph "El artículo y la referencia". According to this work, we have to distinguish between three referential categories: strong vs. weak, specific vs. non-specific and argumental vs. non-argumental, as summarized in Leonetti (1990: 163):

**Figure 1. Classification of semantic-pragmatic categories governing referential properties of noun phrases (=SSNN) (Leonetti, 1990: 163)**




As we concentrate on the direct object, we will not consider the contrast between the predicative and the argumental use in the sense of Leonetti (1990, 2012), but only focus on the argumental one and discuss the different types of referential categories. Following von Heusinger (2011, 2019), we embed this classification into a broader picture that includes notions of specificity in a narrow sense, including (i) referential specificity, (ii) scopal specificity and (iii) epistemic specificity, and specificity related phenomena, such as (iv) partitivity, (v) topicality, (vi) noteworthiness, and (vii) discourse prominence, as in Figure 2 below.

**FIGURE 2. A FAMILY RESEMBLANCE NOTION OF SPECIFICITY (VON HEUSINGER, 2019: 157)**




We will restrict our investigation to specificity in the above-mentioned narrow sense, which is also treated as a unified phenomenon of specificity by Fodor and Sag (1982). Note, however, that Farkas (2002) integrates partitive indefinite noun phrases into the discussion of specificity. Moreover, Leonetti (2004: 71–76) remarks that partitive constructions, as in (6), and topicality, that is, clitic left dislocation constructions, as in (7), are clearly contexts where DOM is required.

(6) He visto *(a) muchas de esas estudiantes.
I have seen *(A) many of those students
'I have seen many of those students.'

(7) *(A) muchos estudiantes, ya los conocía.
*(A) many students, I already knew them
'Many students I already knew.'

In the remainder of this paper, we focus on the narrow notion of specificity and discuss referential, scopal and epistemic specificity.

### 3.1. Referential specificity

The term referential specificity is used here to refer to indefinite noun phrases in intensional contexts, i.e. in contexts created by intensional verbs like *to look for*, or by verbs of propositional attitude like *to hope, to wish, to desire*, as in (8). Using these verbs set up "opaque contexts". Referential specificity is associated with different readings of the indefinite noun phrases in such opaque contexts (Fodor and Sag, 1982; Kamp and Bende-Farkas, 2019). In these contexts the notion of referential specificity describes a contrast between a reading that allows existential entailment,

and a reading that does not (von Heusinger, 2011). Thus, the indefinite direct object is understood as denoting either a particular entity or whatever satisfies the description; that is, on one reading it is "referring" (in some sense) and on the other it is not (examples from Leonetti, 1990: 28–29):

(8) a. Juana está buscando un cenicero.
'Juana is looking for an ashtray.'
b. Juana está intentando encontrar un cenicero.
'Juana is trying to find an ashtray.'

### 3.2. Scopal specificity

Scopal specificity concerns the interpretation of an indefinite noun phrase in sentences including extensional operators such as *all* and *every*, as in (9). The indefinite direct object *a una chica* 'a girl' might interact with the universal quantifier yielding readings with wide scope with respect to the universal quantifier or narrow scope. In the wide scope reading there is one girl that every boy loves, while in the narrow scope reading for each boy there is one or another girl that they love (example from Leonetti, 1990: 41):

(9) Todos los chicos aman a una chica.
'Every boy loves a girl.'

Note that in the literature on specificity (e.g., Farkas, 1994) the two notions of referential specificity and scopal specificity are subsumed under scopal specificity, since it is assumed that the effects in opaque contexts are also scopal effects.

### 3.3. Epistemic specificity

Farkas (1994) uses the term "epistemic specificity" to refer to the contrasts found in contexts without any other operator and that are caused just by the option of a referential intention. In this context, the specific vs. non-specific contrast is not reflected in truth conditions and arguably said to be of pragmatic nature. This is illustrated in (10), here the indefinite subject *un alumno de Cuarto* a fourth grader' is ambiguous between an epistemic specific and non-specific reading. In the epistemic specific reading, the speaker can identify the person, and in the non-specific reading, the speaker asserts that one or another student has cheated without being able to identify the student (example from Leonetti, 1990: 87; based on Fodor and Sag, 1982: 355).

(10) Un alumno de Cuarto ha copiado en el examen final.
'A fourth grader has cheated on the final exam.'

Summarizing, we have various positions on the phenomenon of specificity. According to Fodor and Sag (1982), all three kinds described above are instances of specific or referential indefinites. According to Farkas (1994), there are different kinds of specific indefinite noun phrases that are related to each other with scopal and referential specificity unified under her use of "scopal specificity". Leonetti (1990) provides a broad discussion of different contexts that determine a specific or non-specific interpretation without giving a definition of specificity. In his paper, he suggests a rather pragmatic notion of specificity that assumes that a specific indefinite noun phrase introduces a discourse referent that is "referentially anchored" to another already established discourse referent. He summarizes his position as follows[2]:

> Finally, in order to cover all the different types of specificity mentioned so far, including so-called cases of «relative specificity», we could resort to von Heusinger's (2002) new characterization of the notion as the property of a DP being referentially anchored to another object in the discourse. (Leonetti, 2004: 78)

In the next section we investigate whether Leonetti's Generalization that the absence of DOM blocks a specific reading applies to all of these types of specificity or only to some of them.

## 4. Testing DOM for (non-)specificity

### 4.1. Hypothesis

In order to test for (non-)specificity we conducted a forced choice study with a transitive sentence containing an indefinite human direct object with or without DOM followed by two continuations one of which is congruent with a specific and the other with a non-specific interpretation of the first sentence. Following Fodor and Sag (1982) and von Heusinger (2002, 2011), we assume three kinds of specificity: referential, scopal and epistemic. Note that we created two different contexts to test referential specificity: one with intensional verbs and the other with propositional verbs (see Section 4.2. below). In the experiment, we provided contexts for referential, scopal and epistemic specificity. Following Leonetti's Generalization for Spanish, we hypothesize that a non-marked indefinite direct object blocks a specific reading:

[2] See also the application of this view to Clitic Doubling for Spanish in Leonetti (2008) and for Catalan in Escandell-Vidal (2009).

(11) Leonetti's Generalization
An indefinite human direct object without DOM cannot receive a referential, scopal or epistemic specific interpretation.

## 4.2. Experimental design

We presented participants with transitive sentences with an indefinite human direct object, with or without DOM. We used four groups of constructions with four verbs each: A) constructions with a matrix verb of propositional attitude and an embedded transitive clause with the indefinite direct object; B) intensional verbs, (both testing referential specificity); C) sentences with a universal quantifier testing scopal specificity; and D) simple transitive sentences with activity verbs testing epistemic specificity. Each of the critical sentences as followed by two sentences indicating either a specific or a non-specific interpretation of the direct object in the critical sentence. Constructions and selected example items are illustrated below with a continuation that is congruent either i) with a specific interpretation or ii) with a non-specific interpretation of the direct object of the first sentence.

For verbs of propositional attitude (12) and intensional verbs (13), both of which create opaque contexts, we used the existential inference for the referential specific and the lack of such an inference for the non-specific interpretation. For scope interaction with the universal quantifier (14), we used the identification with one referent for the wide scope and the pair-list reading for the narrow scope reading. As for the epistemic case (15), we used the identification with one referent for the specific and the ignorance of such a referent for the non-specific reading.

(12) A: verbs of propositional attitude (referential specificity)
Juanito quiere besar (a) una princesa.
(i) Es la hija del Rey Felipe de España.
(ii) Es una pena que ya no haya ninguna en su país.
'Juanito wants to kiss (A) a princess.
(i) She is the daughter of King Felipe of Spain.
(ii) It's a pity there are none in his country anymore.'

(13) B: intensional verbs (referential specificity)
Tomás busca (a) un pianista taiwanés.
(i) Lo vio en el festival de jazz de Bilbao del año pasado.
(ii) Le han dicho que los pianistas taiwaneses son muy buenos.
'Tomás is looking for (A) a Taiwanese pianist.
(i) He saw him at last year's Bilbao Jazz Festival.
(ii) He has been told that Taiwanese pianists are very good.'

(14) C: sentences with universal quantifiers (scopal specificity)
Todos los estudiantes de bellas artes de nuestra facultad admiran (a) un pintor.

(i) Es Wolfgang Beltracchi.
(ii) Mientras que Silvia admira a Beltracchi, Marta admira a Velázquez.
'All fine arts students in our faculty admire (A) one painter.
(i) It is Wolfgang Beltracchi.
(ii) While Silvia admires Beltracchi, Marta admires Velázquez.'

(15) D: transparent contexts (epistemic specificity)
Carlos vio (a) un estudiante.
(i) Es el estudiante de filología que vino de Finlandia.
(ii) Pero no sé quién es.
'Carlos saw (A) a student.
(i) He is the philology student who came from Finland.
(ii) But I don't know who he is.'

We used 4 verbs for each type of context. In addition to the 32 critical items (16 lexicalizations with or without DOM), we designed 24 filler items functioning as distractor and control items. All filler items allowed only one congruent continuation, while the other continuation was as incongruent for pragmatic reasons, either for a presupposition violation as in (16), an incoherent continuation as in (17), or a violation of the lexical meaning as in (18):

(16) Hans dejó de fumar.
congruent: Había fumado casi 20 años.
incongruent: Nunca ha fumado en su vida.
'Hans quit smoking.
congruent: He had smoked for almost 20 years.
incongruent: He has never smoked in his life.'

(17) Lina compró un coche para su hermano.
congruent: Lo necesita para ir al trabajo.
incongruent: Es hija única.
'Lina bought a car for her brother.
congruent: He needs it to go to work.
incongruent: She is an only child.'

(18) La Guardia Civil ha detenido a tres menores.
congruent: Se trata de tres chicos de Vallecas que han vejado a una compañera.
incongruent: Tienen 52, 39 y 85 años.
'The Civil Guard has arrested three minors.
congruent: They are three boys from Vallecas who have harassed a classmate.
incongruent: They are 52, 39 and 85 years old.'

For each verb type we created four lexicalizations, each with DOM and without DOM, in total 32 test items, which were distributed over two lists (Latin Square)

such that each list had 8 DOM conditions and 8 conditions without DOM. Together with the 24 filler items, we presented the two lists with 40 items each in a pseudo-randomized order to 87 participants from Spain and Latin America. Participants read the critical sentences and had to choose one of the continuations for the critical items, either the continuation that allows only a specific interpretation or the continuation that only allows a non-specific interpretation. We excluded 6 participants since they chose more than 2 incongruent continuations for control items. Thus, 81 participants remained for the analysis. On average they had an age of 36 years (with a range of 21 to 75 years). 54 of the participants were female and 27 male individuals, and the majority of them hold a degree in higher education.

### 4.3. Results

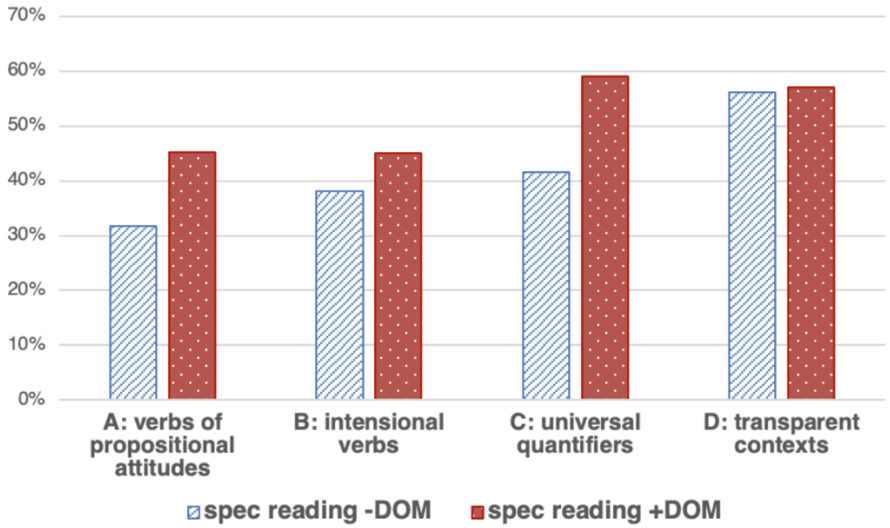
Overall, we see that indefinite human direct objects with DOM are more often interpreted as specific indefinites than unmarked ones across conditions. However, this effect is primarily driven by referential and scopal specificity (A: verbs of propositional attitude, B: intensional verbs, C: universal quantifiers), but not by epistemic specificity (D: transparent contexts). We also see that in transparent contexts indefinite direct objects with or without DOM are more often interpreted as specific than in contexts with intensional operators, as depicted in Figure 3.

A closer look at Figure 3 reveals that for opaque contexts created by A or B verbs, participants show a lower rate of specific interpretations than for the other conditions. In addition, it can be observed that direct objects with DOM are more often interpreted as specific than those without DOM. For scopal specificity, we see a very similar contrast: indefinite direct objects with DOM are more often interpreted as taking wide scope than those without DOM. Thus, our empirical data for referential and scopal specificity support the observation of Leonetti (2004: 99) that in "the central cases where *a* and *Ø* freely alternate, *a* represents a non-incorporated reading and *Ø* an incorporated one". However, the transparent contexts do not show any effect of DOM for the specific interpretation. In both conditions, participants clearly favored a specific interpretation. This observation clearly contradicts Leonetti's Generalization that unmarked indefinite direct objects must not be interpreted as specific. Note, however, that we tested only 4 verbs or constructions for each context and that we found quite some variation between different lexicalizations for each context type.

Summarizing, we see that in contexts with scopal and referential specificity unmarked indefinite direct objects reduce the frequency of a specific interpretation, while we do not find such an effect in transparent contexts. In other words, DOM seems to be sensitive only to some but not to any type of specific readings of the direct object.[3]

[3] In an email exchange from November 2021, Manuel Leonetti and Vicky Escandell-Vidal have commented on these results. They express some surprise with regard to unmarked indefinite direct objects allowing for specific readings, but they also hint at some open problems of this pilot experiment: We included speakers of

**Figure 3. Frequency of indefinite human direct objects with and without DOM and their specific interpretation depending on referential specificity (A: verbs of propositional attitude and B: intensional verbs), scopal specificity (C: universal quantifiers) and epistemic specificity (D: transparent contexts) (N = 81)**




## 5. Discussion and conclusion

We started with Leonetti's Generalization (2004: 99) that unmarked indefinite human direct objects must not be interpreted as specific, and assumed that they are rather interpreted as non-specific, i.e. the descriptive content of the direct object is incorporated into the verb meaning (by modifying or restricting the verb meaning, see López, 2012). This view is an elaboration of the classical view, also expressed in Leonetti (1990: 64) that DOM signals a specific reading and the absence of DOM a non-specific reading (see also Bossong 1985, 1991). We conducted a pilot forced choice experiment with four contexts: A: verbs of propositional attitude, B: intensional verbs (both testing referential specificity), C: constructions with a universal quantifier (testing scopal specificity) and D: transparent contexts (testing epistemic specificity). The results showed a distinction between epistemic specificity on the one hand, and referential and scopal specificity on the other hand. In transparent contexts, there was no effect of DOM on epistemic specificity. Put differently, the specific-nonspecific ambiguity is not signaled by means of DOM. However, in intensional

European and American Spanish, we used only 4 lexicalizations for contexts A-D and in some of the test items the sentence without DOM was not very natural. We had very much hoped to continue this fruitful and constructive discussion.

contexts, indefinite direct objects without DOM were less frequent with the referential specific reading when compared to those with DOM and in contexts with universal quantifiers, indefinite direct objects without DOM showed fewer wide scope readings than those with DOM. The results of our pilot study partly support Leonetti's Generalization, namely for referential and scopal specificity, though at the same time they challenge this generalization with respect to epistemic specificity. We speculate that these results show that DOM behaves differently with semantically defined specificity (referential and scopal) as opposed to pragmatically defined (epistemic) specificity. This perspective corresponds to the view of Leonetti (2004) that topicality might be a more important parameter than (non-)specificity.

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## Personal note

In a personal note we would like to add that Manuel was not only a very close colleague and friend, but also the expert in Romance linguistics we have learnt the most from. Klaus and Georg met Manuel for the first time at a conference in Konstanz in 2002, where he presented a paper that was first published as Leonetti (2003) and later as Leonetti (2004). Since then, we closely collaborated on many common interests and we met at least every two years at our joint conference series NEREUS (see https://nereus.uni-koeln.de/) where Manuel always gave a very inspiring paper. Marco met Manuel for the first time at the NEREUS meeting in 2004, which marked the beginning of a regular exchange on DOM and information structure issues that has profoundly inspired him to this day. We cannot say how lucky we feel that we have met Manuel and have learnt so much from him, but we can say that he has had a deep influence on our linguistic development. Besides that, we feel most privileged to have had such an extraordinary personality as a close friend. *¡Te echamos mucho de menos!*

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