

THE ACQUISITION OF DIFFERENTIAL OBJECT MARKING IN SPANISH AND ROMANIAN: SEMANTIC SCALES OR SEMANTIC FEATURES?

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Abstract. This study investigates the acquisition of differential object marking in Spanish and Romanian. Both languages differentially mark those direct objects which are higher on the animacy and the specificity scales. The main aim is to identify whether the acquisition route strictly follows these semantic scales or whether it is merely guided by the underlying semantic feature of each scale. The analysis of three longitudinal corpora of spontaneous speech for each language (age range: Spanish: 1;1–3;1; Romanian: 1;9–3;1) reveals that the acquisition process of differential object marking builds on the core semantic features underlying the relevant scales, which correspond to semantic universals constraining the acquisition process.

Keywords: differential object marking, Spanish, Romanian, animacy, referential stability.

1. INTRODUCTION

Direct objects which are higher in prominence are differentially case-marked. The phenomenon is known as differential object marking (DOM) (Bossong 1991, 1998). High prominence (or high individualization) has been discussed mainly in relation to the semantic features of the object noun phrase. The empirical generalization, especially in the typological-functional literature, is that an object which is higher on the animacy and/or on the definiteness/specificity scales (1) is more likely to be overtly differentially case-marked (Aissen 2003):

- (1) a. *animacy scale*
human > animate > inanimate
- b. *definiteness/specificity scale*
personal pronoun > proper noun > definite DP > indefinite specific DP >
non-specific indefinite DP

Much important work focused on the relationship between such semantic scales and DOM. Semantic scales were argued to be able to account both for object marking across

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languages as well as for language change. This view, however, is far from being uncontroversial. According to von Heusinger *et al.* (2008), in some studies they are used as “an explanatory notion postulated in order to account for implicational universals and certain patterns of language change”, whereas in others they are “descriptive shortcuts of implicational universals”. Similarly, Carnie (2005) argued that these hierarchies are mere “descriptive statements of grammatical tendencies”. Kiparsky (2008) suggests that one should distinguish *true universals* from *typological generalizations*. The former constrain synchronic grammars and language change, and are “manifested spontaneously in child language”, whereas the latter are simply “the results of typical paths of change”.

The aim of the present study is to investigate the role of semantic scales in the L1 acquisition of DOM with a view to identifying to what extent they “are manifested spontaneously in child language”, *i.e.* if semantic hierarchies are reflected in the acquisition path. We rely on longitudinal corpora of monolingual Spanish and Romanian, two languages whose DOM systems are constrained by the same semantic features: animacy and specificity (Torrego 1998, Bleam 1999, Farkas and von Heusinger 2003, Tigău 2011). The results can shed light on the role of semantic universals in language acquisition. From a theoretical perspective, they can contribute to our understanding of the distinction between true universals and typological generalizations.

The paper is organized as follows: Section 2 briefly presents the theoretical framework, with focus on the referential stability scale of Farkas and von Heusinger (2003). The main semantic constraints relevant to the DOM systems of Spanish and Romanian are illustrated in Section 3. Section 4 presents the acquisition study, whose main goal is to identify the extent to which the acquisition path of DOM in the two languages investigated reflects the ordering predicted by the animacy and the referential stability scales. The main conclusions are summarized in Section 5.

2. DOM AND SEMANTIC SCALES

The semantic features which constrain DOM systems have often been discussed in relation to scales. According to Aissen (2003), the animacy and the definiteness scales (see 1 above) are central. The latter interferes in an obvious way with specificity, placing specific indefinite DPs higher than non-specific indefinites. According to Farkas (2002), the various distinctions in the domain of determiner phrase semantics which are relevant to the distinctions between the DPs on the definiteness scale build on the conditions on how values are assigned to variables introduced by DPs. On such a view, the differences and the similarities between the various types of definite and indefinite DPs are explained in terms of determined reference, *i.e.* in terms of the degree to which the condition contributed by a DP restricts the choice of value for the variable which it introduces at the point of discourse update. Importantly, the value which is assigned to the variable introduced by a DP across verifying assignment functions may be more or less ‘fixed’.

The bonus of identifying referential stability as the underlying feature of the definiteness/specificity scale is that it can account for what various types of specificity have in common and it can also explain why partitives behave more like definite DPs than like narrow scope indefinites. Following this line, Farkas and von Heusinger (2003) replace Aissen’s (2003) definiteness scale (in 1 above) with the referential stability scale in (2):

(2) *referential stability scale*

proper nouns, definite pronouns > definite DPs > partitives > indefinite DPs

Object prominence on the scale in (2) is measured in terms of relative referential stability, *i.e.* the more referentially stable a direct object is the stronger DOM trigger it will be. Proper names and definite pronouns, whose value remains unchanged throughout the discourse in virtue of their inherent properties, are *unconditionally* referentially stable (URS), they are ‘no choice’ DPs. Definite DPs introduce a variable which is required to be stable, but their referential stability depends on some property of the context. They are *conditionally* referentially stable (CRS). Indefinites and partitives are not required to have determined reference. The value assigned to the variable which they introduce can vary across updates. They are referentially non-stable (RNS). Partitives, however, differ from (specific) indefinites in one important respect: the value which is assigned to the variable which they introduce is restricted to a subset of the value of a discourse referent, *i.e.* their non-stability is contextually restricted. Non-stability, therefore, can be restricted and non-restricted.

In the present study we adopt the view that the underlying feature of the specificity scale is *referential stability*. This allows us to distinguish between partitives and indefinites, while also capturing what the former have in common with both definite and indefinite DPs.

3. DOM IN SPANISH AND ROMANIAN**3.1. DOM in Spanish**

A subset of Spanish accusative objects displays a marker *a* preceding them (3a). This marker is homophonous to the preposition *a* that is used to mark dative objects in Spanish (3b), and to the locative preposition *a* used with verbs such as *go* in this language (3c).

- (3)
- a. Juan visitó al niño /*el niño
Juan visited A-the child /the child
‘Juan visited the child.’
 - b. Juan envió flores a María.
Juan sent flowers to Maria
‘Juan sent flowers to Maria.’
 - c. Juan va a la fiesta.
Juan goes to the party
‘Juan goes to the party.’

Previous research on DOM in Spanish (Torrego 1998, Rodríguez-Mondoñedo 2007, among many others) has characterized the presence of this marker as required whenever the accusative object is [+ animate; + specific], as in (4a), while it is not required when the accusative object is [– animate], as shown in (4b–c), or [– specific], as shown in (4d).

- (4) a. [+animate; +specific]
 Juan vio al niño / *el niño/ a Pedro /*Pedro.
 Juan saw A-the child/ the child/ A Pedro /Pedro
 ‘Juan saw the child/Pedro.’
- b. *[-animate; –specific]
 Juan vio *a un libro / un libro.
 Juan saw A a book / a book
 ‘Juan saw a book.’
- c. *[-animate; +specific]
 Juan vio *al libro /el libro.
 Juan saw A-the book /the book
 ‘Juan saw the book.’
- d. *[+animate; –specific]
 Juan vio *a un niño /un niño.
 Juan saw A a child /a child
 ‘Juan saw a child.’

In terms of referential stability, DOM is obligatory in Spanish whenever accusative objects are animate URS and CRS, as in (4a), and animate RNS. This characterization excludes the undesired [-animate] and [\pm specific] objects, as in (4b–c), and the [+animate; –specific] in (4d).

Some other factors, such as verbal aspectual class, the affectedness of the object or the semantic properties of the subject, have been analyzed as DOM triggers in Spanish (Torrego 1998, Rodríguez-Mondonedo 2007). Crucially, these cases do not prevail over the descriptive generalizations above and, as the examples in (5) show, differentially marked objects must obey the referential stability requirements discussed above.

- (5) a. La policia encarceló *(a) varios ladrones.
 ‘The police jailed several thieves.’
- b. Escondieron (a) varios prisioneros.
 ‘They hid several prisoners.’ (from Torrego 1998: 17)

The only cases in which the referential stability requirements do not seem to apply is in some upgrading effects context, such as (6), and in some cases in which the dative preposition *a* is already in the sentence, to avoid duplication (7):

- (6) Los ácidos atacan (a) los metales.
 the acids attack A the metals
 ‘Acids attack metals.’ (from Torrego 1998)
- (7) Presentaron (*a) Juan a María.
 introduced.3rd pl A_{DOM} Juan A_{DAT} María
 ‘They introduced Juan to María.’

Putting these cases aside, the Spanish *a* is obligatory with (i) animate definite pronouns and proper names (URS); (ii) animate definite DPs (common nouns) (CRS); (iii) animate partitives and (iv) animate specific indefinites.

3.2. DOM in Romanian

In Romanian, the differential object marker is *pe*, which derives diachronically from a preposition. Generally, only *animate* direct objects are differentially marked:

- (8) Ion a desenat *(pe) Maria/ (*pe) casă.
 Ion has drawn *(PE) Maria/ PE house
 ‘Ion has drawn Maria/the house.’

Marking of inanimate DPs is, however, found in the spoken language, but it is rare and associated with an upgrading effect.

Referential stability determines obligatory and optional contexts of use. DOM is obligatory only with animate URS direct objects, *i.e.* with proper names and definite pronouns (10). According to all available studies, the presence of an accusative clitic (AC) is obligatory with marked definite pronouns. In this case, the role of animacy is weaker. The pronominal direct object in (9) can be both animate and inanimate.

- (9) Ion a desenat *(pe) Maria/ (*pe) ăla de acolo.
 Ion has visited *(PE) Maria/ PE that of there
 ‘Ion has drawn Maria/the one over there.’

According to many studies (see, *e.g.* Dobrovie-Sorin 1994, Farkas and von Heusinger 2003, Tigău 2011) the AC is obligatory with marked proper names as well³, *i.e.* whenever the use of *pe* is obligatory, it is always in combination with an AC. With CRS direct objects, the use of *pe* is optional:

- (10) Am desenat (pe) omul din cameră.
 have.1st sg drawn PE man.the of room
 ‘I have drawn the man in the room.’

On the referential stability scale (see 2), partitives are stronger DOM triggers than indefinite DPs but weaker than definite DPs. This predicts some gradability: *pe* marking should be favoured with definite DPs (10 above), dispreferred with indefinite DPs (11) and truly optional with partitives (12) (Farkas and von Heusinger 2003):

- (11) (O) caut (pe) o fată.
 her look.1st sg PE a girl
 ‘I am looking for a girl.’
- (12) (Le) cunosc (* / pe) două dintre aceste studente.
 them know.1st sg PE two of these students
 ‘I know two of these students.’

³ See, however, Carabulea (2008), Avram and Coene (2009), Avram (2014) for different empirical data.

With indefinites the marker has been argued to induce a specific interpretation⁴ (Farkas 1978).

Further evidence that referentiality plays a role in DOM comes from the impossibility of *pe* marking with bare plurals (13) or with incorporated indefinite DPs (14) (Mardale 2008, Tigău 2011):

(13) Am cunoscut (*pe) lingviști la conferință.
have.1st sg met PE linguists at conference
'I met linguists at the conference.'

(14) Caut (*pe) profesor de spaniolă.
look.1st sg PE teacher of Spanish
'I am looking for a teacher of Spanish.'

The use of *pe* is always obligatory with overt post-verbal objects in the presence of an AC (in accordance with Kayne's generalization⁵, Avram 2014), irrespective of the referential stability of the DP (15), *e.g.* even with kind-denoting DPs (16):

(15) O caut *(pe) o studentă/ *(pe) studenta care [...].
her-CL look.1st sg PE a student/ PE student.the who [...]
'I am looking for a student/the student who [...].'

(16) Îi știu eu pe politicieni!
them-CL know.1st sg I PE politicians
'I know politicians.'

The examples above show that in Romanian DOM interferes with clitic doubling (CD). Farkas and von Heusinger (2003) argue, however, that CD, unlike *pe* marking, is sensitive to topicality. This is why, according to them, *pe* marking and CD should be separated. This view differs from the description in Bossong (1998: 222), according to which in Romanian CD is, actually, DOM⁶. Avram (2014) shows, on the basis of experimental data, that for some speakers, this is indeed the case. According to her results, for some speakers *pe* marking is acceptable only in the presence of the clitic, *i.e.* they accept *pe* only in CD constructions, where the use of *pe* is obligatory. For these speakers, in CD *pe* is a case-marker constrained by animacy. In spite of the fact that the animacy constraint weakens with definite pronouns, the use of *pe* continues to be constrained by animacy with other DPs (as shown in 17).

⁴ Avram (2014) discusses experimental data which show that not all speakers distinguish between marked and unmarked indefinites in terms of specificity.

⁵ See Tigău (2014) for a different point of view.

⁶ DOM via cliticization 'est grammaticalisé et obligatoire [...] il s'est transformé en catégorie figée.' (Bossong 1998: 222).

- (17) *L- am vizitat pe Berlin.
 it-CL have visited PE Berlin
 ‘I have visited Berlin.’

Other speakers, however, accept both CD and ‘single’ *pe* marking.

This indicates that in Romanian one can identify two competing grammars: one according to which *pe* marking is allowed only in the presence of an AC, *i.e.* in which CD *is* DOM (as suggested by Bossong 1998), and one which allows both CD and single *pe* marking. The input which Romanian children receive is variable. Variation in the input is doubled by optionality. For those speakers who accept *pe* marking in the absence of a clitic, the use of *pe* is optional with definite DPs, partitives and indefinite DPs. Both variable input and optionality of the system are predictors of delayed acquisition.

3.3. Summing up

The brief description of the DOM systems of Spanish and Romanian in the previous sections shows that they are constrained by the same semantic features of the DP. But the way in which the two features are implemented as well as the inventory of other intervening factors are different. In particular, animacy seems to be a stronger factor in Spanish, where it triggers obligatory marking of all DP types, with the exception of non-specific indefinites. In Romanian, it is referential stability which is more relevant. Definite pronouns, which are high on the scale, have to be marked, irrespective of animacy. The Romanian DOM system evinces a higher degree of optionality. Obligatoriness/optionality of differential marking is guided mainly by referential stability in this language. The similarities and the differences are summarized in Table 1.

Table 1

DOM in Spanish and Romanian

Property	Spanish	Romanian
DOM marker: ‘fake’ preposition	<i>a</i>	<i>pe</i>
DOM with animate URS objects	obligatory	obligatory
DOM with animate CRS objects	obligatory	optional
DOM with animate NRS objects	obligatory	optional
marking is sensitive to aspectual class	yes	no
semantic make up of subject is a relevant factor – agentivity	yes	no
affectedness bears on marking	yes	no
marking linked with accusative/dative case	dative	accusative
clitic doubling <i>is</i> DOM	no	yes

The comparison of the L1 acquisition of object split in Spanish and Romanian can shed light on whether similar semantic make-up is reflected in acquisition parallelism, in spite of language specific implementation.

4. THE ACQUISITION OF DOM IN SPANISH AND ROMANIAN

4.1. Main research questions

DOM has recently received considerable attention in language learning studies. The focus has been mainly on the Spanish marker *a* in L2 Spanish (Guijarro-Fuentes and Marinis 2007, 2009), in Spanish as a heritage language (Montrul 2004, Montrul and Bowles 2009) and in a simultaneous bilingual context (Ticio 2015). The results reveal significant vulnerability of the DOM system. The L1 picture, however, is not only much less generous but it is also different. To our knowledge, the only (published) study which investigates the L1 acquisition of DOM is that of Rodríguez-Mondoñedo (2008). He analyzes the early use of the object marker *a* in L1 Spanish by six monolingual children on the basis of longitudinal corpora from the CHILDES database (MacWhinney 2000). The results show that the differential marker *a* is used target-like before the age of 3;0. The aim of his study, however, was not to offer a longitudinal picture of the acquisition of DOM. Therefore, it does not mention, for example, whether children mark some DP types earlier than others or whether some DP types are never marked before age 3;0.

The present study investigates the acquisition route of DOM in Spanish and Romanian, two languages whose DOM systems are constrained by the same semantic features of the object DP: animacy and referential stability. The goal is to identify to what extent this route reflects the hierarchies predicted by the animacy and the referential stability scales, *i.e.* to what extent semantic scales are manifested 'spontaneously' in child language. We focus on two related questions: (i) does the acquisition route follow the trigger strength ordering predicted by the animacy and the specificity scales?; (ii) is the acquisition path constrained by the underlying semantic features of these semantic hierarchies at all stages? If the acquisition route reflects the strict ordering predicted by semantic scales, the children will start marking those direct objects which are the highest on each scale and (gradually) extend marking to those which are immediately lower on the scale. For the referential stability scale, for example, this predicts that marking will first apply to URS objects, *i.e.* to proper names and definite pronouns, and then gradually extend to definite DPs, partitives and indefinites. If the acquisition route is constrained by the underlying semantic feature of each hierarchy, the children will mark objects correctly at all stages, but the route will not include stages which reflect the strict ordering on each scale. As a bonus, the similarities and the differences between the Romanian and the Spanish DOM systems offer the perfect ground for the investigation of semantic universals and language-specific properties in the acquisition of DOM.

4.2. Corpus and method

The data used in the present study come from three longitudinal corpora of spontaneous speech for each language. The details are given in Table 2:

Table 2

The longitudinal corpus

Language	Child	Age	MLU	Nr of files	Total child utterances
Spanish	Irene	1;1 – 2;5	1.0 – 2.92	44	7,553
	Magin	1;7 – 2;3	1.3 – 3.68	21	7,373
	Nieva	1;8 – 2;3	1.48 – 1.72	31	12,000
	Total	1;1 – 2;5	1.0 – 3.68	96	26,926
Romanian	Bianca	1;5 – 2;11	1.30 – 2.79	19	9,823
	Antonio	1;9 – 3;1	1.51 – 2.79	17	8,047
	Iosif ⁷	1;9 – 3;0	1.11 – 2.85	16	8,006
	Total	1;5 – 3;1	1.11 – 2.85	52	25,879

We first identified all the DOM contexts: both *in situ* contexts, *i.e.* [verb object], and contexts in which the marked object moved from post-verbal position. We then analyzed object marking in those contexts. We coded marking as: (i) target-like; (ii) omission; (iii) commission. All the marked objects were coded for animacy and referential stability. With respect to the former, they were coded as: (i) animate (human and non-human); (ii) inanimate. With respect to the latter, we coded the objects as: (i) URS: definite pronouns, proper names; (ii) CRS: definite DPs; (iii) RNS: partitives, specific indefinites. Percentages of correct marking were calculated against the total number of DOM contexts. Child-directed speech was also analyzed.

4.3. Results

4.3.1. Overall results

The overall results (summarized in Table 3) reveal very early emergence of DOM (1;7–1;11 for Spanish and 1;9–2;2 for Romanian) and a low number of errors. The percentage of correct marking is relatively high in both languages⁸.

⁷ The Iosif corpus was recorded and transcribed by Ioana Stoicescu, whom we thank for generously sharing her data with us.

⁸ The overall number of marked objects is lower in Spanish, but this might be due to age differences. The Spanish children in the present study are younger than the Romanian children.

Table 3

Overall results: DOM in L1 Spanish and L1 Romanian

Language	Child	Earliest DOM (age/MLU)	Mean accuracy rate	Omission ⁹	Overextension
Spanish	Irene	1;7/1.58	71.6% (n = 48/67)	19	1
	Magin	1;10/3.68	81% (n = 17/21)	4	0
	Nieva	1;11/1.4	83.3% (n = 5/6)	1	0
			74.5% (n = 70/94)	24	1
Romanian	Antonio	1;9/1.51	76.4% (n = 110/144)	26	5
	Bianca	2;1/1.75	86.8% (n = 72/83)	11	6
	Iosif	2;2/1.93	94.4% (n = 168/178)	9	22
			86.4% (n = 350/405)	46	33

The inventory of errors includes omissions, illustrated in (18a) for Spanish and in (18b) for Romanian:

- (18) a. Quiero *(a) mamá mucho.
 love.1st sg mommy a lot .
 ‘I love mommy a lot.’

(Magin 1;10)

- b. *(pe) Panda bat.
 Panda spank.1st sg
 ‘I’m spanking Panda.’

(Antonio 1;11)

The omission stage (which ends before age 3;00) coincides with the early stage when prepositions are generally omitted, *i.e.* the early omission of *pe* and *a* might reflect a deficit which does not necessarily target (only) DOM.

In Romanian, there is one context in which *pe* is omitted even at the end of the period investigated: all the three children omit *pe* with the relative pronoun in direct object relative clauses (illustrated in 19):

⁹ *i.e.* omission in obligatory contexts.

- (19) *ăla urâtul *(pe) care-l cheamă [...]*
 that ugly.the PE who him-CL calls
 ‘The ugly one whose name is...’ (Iosif 2;6)

This omission, however, is also found in adult speech and it has been reported for object relatives produced as late as age 6 (see, for example, Sevccenco *et al.* 2012, 2013). Sevccenco *et al.* (2012) argue that a non-marked relative pronoun signals a non-movement derivation of the direct object relative (as suggested by Grosu 1994), which children seem to prefer over the movement derivation. This is why we believe that the absence of *pe* in this case should not be interpreted as delayed acquisition of DOM.

One identifies two types of overextension. In both Romanian and Spanish one finds marked inanimate objects, but the number is much higher in Romanian (18 overall, illustrated in 20a). In Spanish only one such overextension is attested. In Romanian one also finds instances of *pe* used in nominative case contexts (15 overall, illustrated in 20b):

- (20) a. *o întrec pe minge.*
 her-CL outrun.1st sg PE ball
 ‘I am outrunning the ball.’ (Antonio 2;11)
- b. *da(r) *pe ăsta e bun?*
 but PE this is good
 ‘But is this one good?’ (Iosif 2;9)

Use of *pe* with inanimate DPs is also attested in the adult language and in child directed speech, with an upgrading effect. Therefore it is relatively difficult to decide whether they are genuine errors or target-like overextensions. The erroneous use of *pe* in nominative contexts was found exclusively with unaccusative verbs, in most cases with the verb *be*. Such uses indicate that children treat the post-verbal argument as subject-like, as prominent and therefore they differentially mark it. These errors provide evidence that children have tacit knowledge of unaccusativity and that they correctly associate the use of *pe* with prominent internal arguments.

Summing up, in both Spanish and Romanian, DOM emerges early and it is used target-like before age 3;0.

4.3.2. *The animacy scale and DOM in L1 Spanish and L1 Romanian*

With respect to animacy, the pictures identified in the two languages are different. The Spanish children practically mark only animate objects during the whole period investigated. In Romanian, the overall rate of marked animate objects is lower and subject to individual variation. The comparison is summarized in Table 4:

Table 4

Results: DOM and animacy in L1 Spanish and L1 Romanian

Spanish			Romanian		
Child	Animate DP	Inanimate DP	Child	Animate DP	Inanimate DP
Irene	98%	2%	Antonio	78%	22%
Magin	100%	0	Bianca	76.8%	23.2%
Nieva	100%	0	Iosif	60%	40%

For Romanian, Bianca is the only one who goes through a stage when she marks exclusively animate objects. She extends marking to inanimate objects at 2;4. With her, the acquisition order mirrors the “direction” on the animacy scale: animate DPs > inanimate DPs. Iosif, on the other hand, marks both animate and inanimate objects from the very beginning, whereas Antonio goes through an early stage (1;9–2;2) when he marks exclusively inanimate objects, *i.e.* in his case the order is the opposite of what the animacy scale would predict: inanimate > animate. Remember that in Romanian animacy weakens with definite pronouns. During this early stage, Antonio uses *pe* only with definite pronouns. The analysis of child-directed speech in the Romanian corpora offers a picture which is similar to the one found with the children: both animate and inanimate DPs are marked, with a bias for animate DPs. The way in which Romanian children mark objects is target-like, showing that DOM *is* sensitive to animacy at all stages.

In the Spanish corpora, the animacy bias is stronger; the number of marked inanimate objects is very low, but the data reveal that the acquisition path does not mirror the hierarchy predicted by the scale: both Magin and Nieva start marking human and non-human objects simultaneously.¹⁰

Summing up, animacy effects are transparent in the child’s DOM system in both languages, the acquisition path is constrained by animacy at all stages. But it does not reflect the strict ordering predicted by the animacy scale in (1). Variation with respect to marking strategy in the DOM system of the target-language is reflected in variation in the acquisition route: the Spanish children correctly restrict object marking to animate DPs, the Romanian children, in accordance with the target system, mark both animate and inanimate objects from the beginning.

4.3.3. The referential stability scale and DOM in L1 Spanish and L1 Romanian

With respect to referential stability one notices the same overall preference in both languages: *a* and *pe* are preferentially used with URS objects. In both the Spanish and the

¹⁰ However, one should mention that the Spanish corpora contained a small number of marked objects overall and also a very small number of [– human + animate] marked objects.

Romanian longitudinal corpora the number of marked CRS objects is lower than the marked URS ones.

In Spanish, in the Magin corpus, the first marked URS object is attested at 1;10 (see 21):

- (21) El teléfono y llamamos a papá.
 the phone and call.1st pl A daddy
 ‘(we pick up) the phone and call daddy.’

Magin, however, also marks NRS objects at the same age, *i.e.* in this corpus marked indefinites are attested as early as marked URS objects. The first use of *a* with CRS objects is also attested early, at 2;0.

Irene starts marking indefinites very early, at 1;9, only two months after the emergence of *a* as a differential object marker (22). Marked CRS objects are attested at 2;1 in this corpus.

- (22) <a_ve(r) a ot(r)a [*] tita> [/] a_ve(r) a ot(r)a [*] tita .
 see-inf A another auntie
 ‘See another auntie.’ (Irene 1;9)

Nieva starts marking URS objects at 1;11 and at 2;1 marked indefinites are already attested. No marked CRS objects are found in this corpus.

In Spanish, marked indefinites are attested early. In Romanian, however, they are practically absent. In the longitudinal corpora investigated in the present study, marked indefinites are attested only in the Iosif corpus at 2;6 (see 23), four months after the emergence of DOM. In this corpus, URS and CRS objects emerge simultaneously, at 2;2.

- (23) eu l- am auzit pe un băiat [...]
 I him-CL have heard PE a boy
 ‘I heard a boy....’ (Iosif 2;6)

The number of marked indefinite objects is, however, very low. Child speech is similar to adult speech in this respect. The same strong bias is attested in child directed speech. Avram (2014) also reports rejection of *pe*-marked indefinite DPs by adult speakers in an acceptability judgment task. Similarly Avram *et al.* (forthcoming) report a very low acceptance rate of sentences with marked indefinite objects by a control group of adults.

Antonio goes through an early stage when he marks exclusively URS objects (definite pronouns) (illustrated in 24).

- (24) ia -o pe asta
 take her-CL PE this
 ‘Take this one.’ (Antonio 2;2)

He extends the use of *pe* to CRS objects at 2;6, several months after the emergence of DOM.

Bianca starts marking URS and CRS objects at the same time. No marked indefinites have been found in this corpus.

The comparison between the two languages is summarized in Table 5:

Table 5

Results: DOM and referential stability in L1 Spanish and L1 Romanian

Spanish				Romanian			
Child	URS	CRS	NRS	Child	URS	CRS	NRS
I.	66.7%	22.9%	10.4%	Antonio	85.1%	14.9%	0
M.	58.8%	29.4%	11.8%	Bianca	72.1%	27.9%	0
N.	80%	0	20%	Iosif	76.6%	21.3%	2.1%

For Romanian (Section 3), the input which children receive is variable: some speakers only use *pe* in CD, whereas others accept the use of *pe* both in CD and in single *pe* constructions. This means that at least for some speakers CD *is* DOM in this language. This is why we also analyzed the use of CD with various DP types in child Romanian. The analysis of the three longitudinal corpora reveals that single *pe* and ACs are attested earlier than CD constructions, which emerge at a stage when the rate of produced ACs is higher than 75%. CD is attested with proper names, definite pronouns and definite nominals from the very beginning. No acquisition order mirroring the hierarchy predicted by the referential stability scale is attested with CD either.

- (25) **Î** cunoști **pe** Luca?
 him-CL know.2nd sg PE Luca
 ‘Do you know Luca?’ (Iosif 2;5)
- (26) A luat- **o** domnu’ **pe** aia.
 has taken her-CL mister.the PE that
 ‘The man took that one.’ (Antonio 2;3)
- (27) Uite-**o** aici **pe** vrăjitoare.
 look-her-CL here PE witch
 ‘Look, here’s the witch.’ (Bianca 2;4)

Summing up, the data show that DOM is constrained by referential stability at all stages in both Spanish and Romanian. No child marks referentially non-stable objects at a stage when marked referentially stable objects are absent. The six children preferentially

mark referentially stable objects. But the acquisition route does not follow the strict ordering predicted by the referentiality scale (given in 2) in either language. Just like with animacy, one notices significant individual variation. The results are summarized in Table 6:

Table 6

DOM and referential stability: marking order

Spanish		Romanian	
Child	Marking order	Child	Marking order
Irene	URS > NRS > CRS	Antonio	URS > CRS
Magin	URS, NRS > CRS	Bianca	URS, CRS
Nieva	URS > NRS	Iosif	URS, CRS > NRS

4.4. Discussion

In spite of the complexity of the DOM systems of Spanish and Romanian, our analysis reveals early emergence and early target-like use of DOM in both languages. Children mark objects correctly, in accordance with the semantic constraints at work in each language. The variation and the high degree of optionality in the Romanian input are not reflected negatively in the acquisition process.

With respect to animacy, our data show an obvious preference of all the six children to mark animate objects. In spite of this tendency, the order in which they begin to mark objects does not straightforwardly follow Aissen's (2003) animacy scale. In Romanian, where high referential stability overrides animacy, one finds marked inanimate DPs very early, in some corpora at the same time or even earlier than marked animate DPs. The rate is higher than in Spanish and there is also significant individual variation. Animacy effects are stronger in Spanish (in accordance with those theoretical studies which consider animacy as the initial trigger of DOM in this language, see, *e.g.* Rodríguez-Mondoñedo 2007 and references therein). The difference between the way in which animacy constrains DOM in the two languages is mirrored in different early strategies of object marking. But even in child Spanish, where marking is attested practically exclusively with animate objects, the acquisition order does not mirror the animacy scale. Children do not go through an early stage when marking is restricted to [+human] objects. The animacy scale does not seem to be manifested spontaneously in the acquisition of DOM in either language¹¹. But the system is sensitive to animacy, the semantic feature underlying the scale, at all stages.

¹¹ Actually, for Romanian, the scale does not constrain language change either. In the 16th century, when *pe* began to be used, in spite of a preference for animate objects, it was attested both with animate and inanimate DPs (Dimitrescu 1960:223). In the 17th–18th centuries, inanimate DPs continue to be *pe*-marked.

With respect to referential stability, the data reveal an overall preference for proper names and definite pronouns in both languages, *i.e.* there is a bias towards URS objects. Children preferentially mark referentially stable objects to the detriment of the non-stable ones. In Romanian, at least at first sight, this preference may reflect the fact that the use of *pe* is obligatory only with URS objects and optional with all the other semantic types. But in Spanish the use of *a* is obligatory with definite nominals as well (as long as they are + animate). And the same bias has been found in child Spanish. Therefore optionality cannot explain the observed preference. Another possible account targets (potential) computational complexity. van Hout (2008), van Hout and Veenstra (2010), discussing coercion within the domain of aspect, claim that coercion involves computational complexity which makes it vulnerable in language acquisition. By analogy, marking CRS and NRS objects could be argued to be more computationally costly than marking URS objects. In child Spanish and child Romanian, the number of marked definite DPs is significantly lower than the number of marked proper names and definite pronouns. The variable introduced by definite lexical DPs is required to be stable, but their referential stability depends on some property of the context. The use of DOM, in this case, requires some integration and updating of contextual information. Similarly, a strong tendency to avoid DOM with indefinites has been found in both child Spanish and child Romanian. The corpora contain very low numbers of marked RNS objects. In this case, the value assigned to the variable which the DP introduces can vary across updates since RNS objects are not required to have determined reference. With indefinite DPs, just like with definite nominals, the use of DOM requires updating of contextual information, and it also triggers semantic type-shifting; the presence of the markers forces a specific reference reading. The number of marked indefinites is even lower than the number of marked definite descriptions. Could this early marking be accounted for in terms of computational complexity? There are at least three reasons for which the answer should be negative. The first one is that a similar bias is found in adult speech, *i.e.* the marking preference is the same in child and in child directed speech. Secondly, the Spanish children start marking indefinites very early and earlier than the Romanian children. In one Spanish corpus, URS and NRS objects emerge simultaneously. In the Romanian corpus, there is individual variation; only one child uses *pe* with indefinites and he does it relatively early. Computational complexity cannot be invoked as a plausible account for the observed marking pattern. Instead, we argue that the DOM system is sensitive to referential stability at all stages. The order in which object marking is attested with various semantic DP types, on the other hand, does not strictly follow the scale. The acquisition pattern is different in the two languages. In Romanian, marking of indefinites is extremely rare and is attested several months after the emergence of DOM with referentially stable objects. In Spanish, indefinite objects are marked early, in some corpora even earlier than CRS objects. Interestingly, if we compare marking on the animacy scale to marking on the referential stability scale, the overall results for the two languages are the mirror image of one another. With respect to animacy, child Spanish is stricter: DOM is used (almost) exclusively with animate DPs. In child Romanian, animacy interferes with referential stability and DOM is used both with animate and inanimate DPs at all stages. With respect to referential stability, child Romanian is the stricter of the two:

DOM is used (almost) exclusively with referentially stable DPs. In child Spanish, the partition is less strict; both referentially stable and non-stable DPs are marked very early.

The acquisition data signal an important difference between the role of the two semantic features in the two languages, previously assumed to be similar in most studies. The view from acquisition casts doubt on this alleged similarity.

5. CONCLUSIONS

The main question which we addressed in this study was whether the hierarchy predicted by the animacy and the specificity scales is reflected in the order in which Spanish and Romanian children begin to differentially mark objects. Our data reveal early acquisition of object split. DOM emerges early and the error rate is low.

The comparative analysis of the L1 acquisition of DOM in these two languages allows us to see that not only is the DOM system sensitive to animacy and referential stability from the onset of acquisition; it is also sensitive to feature strength, in accordance with the properties of the target system. For the Spanish children, animacy is a stronger trigger. For the Romanian children, referential stability overrides animacy.

Our findings also show that the acquisition process of DOM is constrained, at all stages, by the core semantic features underlying the relevant scales. But the acquisition route does not follow the stages predicted by the two scales, which do not seem to be spontaneously manifested in child speech. This suggests that the true semantic universal is the underlying feature of each scale while the scales themselves only capture general tendencies. They are mere descriptive generalizations.

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