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"Referential Properties of the Romance DP in the Context of Multilingualism"

Teresa Parodi (ed.)

Fachbereich Sprachwissenschaft der Universität Konstanz

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Preface

This volume offers selected papers presented at the international workshop "Referential properties of the Romance DP in the context of multilingualism" held at the University of Cambridge in December 2016. This workshop was part of the series organised by NEREUS (Research Network for Referential Categories in Spanish and other Romance languages) biannually since 2002.

The papers in this volume deal with Romance DPs in the context of the sentence and discourse with a strong focus on Differential Object Marking (DOM) (Pomino, Schmitz & Neuburger, von Heusinger, Kaiser & Arriortua, Parodi & Avram, Cyrino & Ordóñez) as well as on clitic doubling (Fischer, Navarro & Vega Vilanova) and binding in ditransitive constructions (Cornilescu & Tigău). Together these contributions shed light on syntactic, semantic and discourse properties that anchor DPs in their context, such as case, movement, animacy, specificity, referential stability, among many others.

The multilingualism component is addressed in language contact situations, as in the Basque-Spanish case and in Spanish-Catalan as well as Spanish varieties, diachronically and synchronically. Language contact together with developmental issues are key components in bilingualism, which can be observed at two different developmental stages. On the one hand, simultaneous or sequential bilingualism in early childhood and, on the other, the outcome and route of the developmental process as observed in heritage speakers (HS), i.e. older speakers, who speak a minority language within a community with a different language. Language acquisition under different conditions, including second language acquisition by children and adults in classroom settings, completes the developmental picture.

An additional essential component of the study of multilingualism both in language acquisition and in language contact is the observation of a range of language pairings: Spanish in combination with Basque, Catalan, German, Brazilian Portuguese, English, Turkish, Romanian in combination with Hungarian, Persian and English, Persian in combination with Balochi and with Romanian. The variety of language pairings makes it possible to distinguish the syntactic, semantic and discourse properties of DPs from language-specific and cross-linguistic effects.

The committed engagement of presenters and participants contributed to an inspiring discussion, which resulted in equally inspiring papers. I am grateful to the Thyssen Foundation for their financial support (Grant 30.16.0.183SL) and to the Department of Theoretical and Applied Linguistics at the University of Cambridge for the logistic support. I am also very grateful to the reviewers: András Bárány, Vicky Chondrogianni, Manuel Leonetti, Edgar Onea, Javier Ormazábal, Eva-Maria Remberger, Elaine Schmidt, Michelle Sheehan and Vicenç Torrens. Georg Kaiser provided invaluable help with editorial issues.

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Differential Object Marking in Spanish as a heritage language in Germany

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1. Introduction

As is well-known, English, German and Spanish all belong to the accusative case alignment type, i.e. the single argument of an intransitive clause receives the same case marking as the most agent-like argument of a monotransitive clause (which is usually zero-coded), whereas the most patient-like argument of a monotransitive clause receives (abstract) accusative case (cf. e.g. Comrie 2013). For Spanish and English, being case-poor languages (i.e. languages with overt case marking only on pronouns), this typological classification holds only for certain verbal arguments, i.e. mainly for pronominal ones. If we leave pronouns aside, we detect a significant difference in argument marking among the three languages (cf. (1)): English patterns to a certain extent with those languages that have a neutral case alignment system in the sense that, on the overt level, there is only one single case and this is morphophonologically always zero. That is, in (1a) there is no morphological difference between the subject *the man* and the direct objects *the boy* and *the car*; all DPs are morphologically zero-marked for case. In contrast, German distinguishes the functions of subject and direct object in some NPs/DPs (cf. nominative *der Junge*$_{\text{M.NOM}}$ and *der Wagen*$_{\text{M.NOM}}$ vs. accusative *den Jungen*$_{\text{M.ACC}}$ and *den Wagen*$_{\text{M.ACC}}$). This kind of argument marking, however, depends on the respective declension class (gender and number) and may be absent in some cases (cf. *Die Frau*$_{\text{F.NOM}}$ *sieht die Oma*$_{\text{F.ACC}}$ 'The woman sees the grandmother' without morphological case-difference between subject and direct object). Finally, in Spanish, a language where differential object marking (DOM) is active, direct objects fall in two different classes, depending on several semantic, pragmatic-discursive and referential factors as e.g. [human], [specific]: only one of the classes receives a marker, the other being unmarked (cf. *al niño* but *el coche*). With respect to argument marking, German and Spanish are thus opposed to English: in both languages the direct object can be marked morphophonologically, but not all direct objects are marked differentially – even though the reasons for the non-marking are different. The non-marking is associated in German with the declension class of the noun, whereas for Spanish several semantic, pragmatic-discursive and referential factors are decisive.

(1) Differences in argument marking
  (a) The man sees the boy / the car.
  (b) Der Mann sieht den Jungen / den Wagen.
  det.NOM.M.SG man.M.SG see.3SG DET.ACC.SG boy.ACC.SG DET.ACC.SG car.ACC.SG
  'The man sees the boy / the car'
  (c) El hombre ve al niño / el coche.
  det.M.SG man.M.SG see.3SG DOM.DET.SG boy.M.SG DET.M.SG car.M.SG
  'The man sees the boy / the car'

The described differences may impinge on (early) bilingual language acquisition, because the learning task for a person acquiring German and Spanish simultaneously differs from the one of a person acquiring English and Spanish simultaneously. Assuming that either English or German is the dominant language, the English-Spanish bilingual has to learn that direct object DPs can be marked morphophonologically and additionally (s)he has to identify the respective

triggers for the marking, whereas the German-Spanish bilingual has to identify "only" the triggers for DOM in Spanish, morphological marking *per se* being well known. Hence, if the dominant language, e.g. German or English, is the cause of transfer (and possibly incomplete acquisition), we should expect that an early bilingual with the language combination German-Spanish has less problems to master DOM in Spanish than one with the combination English-Spanish.

In this paper, we investigate how (adult) early bilinguals master the case system in the language combination German-Spanish. In particular, we are interested in Spanish heritage speakers (HS) who often receive a reduced input and are deemed to be subject to incomplete acquisition of their heritage language (HL). HS are usually defined as proposed by Valdés (2000: 1): "The term heritage speaker as used in the United States refers to a bilingual 'raised in a home where a non-English language is spoken, who speaks or merely understands the heritage language, and who is to some degree bilingual in English and the heritage language." A HL is a language that someone learns at home, and which is crucially not the dominant language of the surrounding society (see e.g. Silva-Corvalán 1994; Montrul & Bowles 2009). Being minority languages, HLs very much tend to change under the influence of the dominant language, i.e. the language of the surrounding society. The imprecise definition of HS gave rise to an abundant research (see survey in Guijarro-Fuentes & Schmitz 2015 and Montrul 2016) which is detailed in section 2.3. Most previous studies have focused on the acquisition of DOM for the language combination English-Spanish (cf. e.g. Luján & Parodi 2001; Montrul 2004; Montrul & Bowles 2009; Montrul & Walker 2013; Guijarro-Fuentes 2011, 2012; Guijarro-Fuentes & Marinis 2011) and shown that English dominant heritage language speakers of Spanish do not fully acquire DOM, but show persistent inaccuracy in their marking system. Nevertheless, HS still perform much better than L2 learners of Spanish. Based on data from an ongoing investigation, we will show in this pilot study that there are quantitative and qualitative differences between English-Spanish and German-Spanish early bilinguals: Our German HS of Spanish master DOM as well as our group of monolinguals. We will thus argue that our results do not reflect a difference in linguistic competence between monolinguals and HS, but rather a difference in their respective language attitude. The difference between English-Spanish HS and German-Spanish HS may be due to the influence of German, but, taking into consideration that the German L2-learners have similar problems with Spanish DOM as the English ones, it may also be due to other reasons such as e.g. the way the test items are presented (i.e. in its expected grammatical or in its ungrammatical version), which we will discuss in more detail in section 4.2.

Our paper is structured as follows: In section 2 we will briefly present DOM in Spanish, with a focus on bilingual speakers. To this end, we introduce some general remarks on DOM in Spanish (section 2.1), followed by details about L1 acquisition (section 2.2) in comparison to the acquisition of DOM in the heritage (= first) language of Spanish of English-Spanish bilinguals (section 2.3), and finally, we present results from previous studies on L2 acquisition of Spanish DOM (section 2.4), before we conclude the section with our research questions and hypotheses (section 2.5). Our study will be introduced in section 3, starting with participants and tasks (section 3.1) and the results (section 3.2). We will discuss our results from the three speaker groups in section 4 while section 5 concludes the article.

2. The acquisition of Spanish DOM in different constellations

2.1 Short notes about DOM

As mentioned in the introduction, Spanish marks some direct objects with *a* but not others (cf. e.g. Torrego 1998; Laca 2002, 2006; Leonetti 2004; von Heusinger & Kaiser 2011; García-García 2014). According to Leonetti (2004), the most dominant triggers for DOM in Spanish are animacy and specificity. This explains why in the examples in table 1 *Pedro* has to be

marked with *a*, but not *libro* or *casa*. The last example further shows that specificity rather than definiteness is the relevant trigger, at least with human direct objects (cf. Leonetti 2004). The direct object *un camarero* 'a waiter' is marked with *a* as soon as the speaker refers to a specific waiter who speaks English and who is already known (cf. *Busco a un camarero que sabe$_{ind}$ hablar inglés*) independent of whether or not the DP is indefinite. In contrast, if (s)he refers to any waiter speaking English (cf. *Busco un camarero que sepa$_{sbj}$ hablar inglés*), i.e. if the referent of the DP is not specific, the marker *a* will be absent.

	With *a*	Without *a*
+anim, +spec	Vi **a** Pedro en el cine. 'I saw Pedro in the cinema.'	*Vi Ø Pedro en el cine.
-anim, +spec	*Puso al libro en la mesa.	Puso **Ø** el libro en la mesa. 'S/he put the book on the table.'
-anim, -spec	*María busca a una casa.	María busca **Ø** una casa. 'Mary is looking for a house.'
+anim, ±spec	Busco **a** un camarero. 'I am searching (a specific) waiter.'	Busco **Ø** un camarero. 'I am looking for a waiter.'

Table 1. Main triggers for DOM in Spanish

Von Heusinger & Kaiser (2005: 40) have combined the animacy scale (cf. Comrie 1989; Croft 1990; Aissen 2003) with the definiteness/specificity scale (cf. Aissen 2003). They propose the following bi-dimensional classification for Standard Castilian Spanish (cf. also Aissen 2003: 459) which predicts that the more prominent a direct object is, the more likely DOM is (cf. also Silverstein 1976: 254; Comrie 1979: 62; Bossong 1985: 651; Aissen 2003: 436); the prominence of the direct object decreases from top-left to bottom-right.

	Pro >	PN >	definite >	specific >	non-specific
human	+	+	+	+	±
animate	+	+	+	+	-
inanimate	Ø	±	-	-	-

Table 2. DOM in Standard Castilian Spanish (cf. von Heusinger & Kaiser 2005: 40)

But the above-mentioned classification gathers only the core cases of Spanish DOM. The literature reports plenty of non-core cases and "exceptions" for which definiteness, aspect, topicality, agentivity, telicity, affectedness, referential stability and other pragmatic notions are postulated as determining factors (cf. e.g. Torrego 1998; Farkas & von Heusinger 2003; Leonetti 2004; Rodríguez-Mondoñedo 2008). With respect to the features of animacy and specificity we expect, for example, in (2a) a facultative marking of the direct object, but DOM is obligatory with the indefinite pronoun *nadie* (Leonetti 2004: 83). Furthermore, as the object is inanimate in (2b), DOM should not show up, but it is very common if not obligatory in these types of examples (cf. Torrego 1999: 1788 as well as García-García 2007 for more details). Finally, in (2c) DOM should be obligatory due to the features [+animate, +specific], however it is not always realized, most probably due to the presence of the indirect object.

(2) Non-core cases of Spanish DOM
(a) No vi a nadie.
not saw.1SG DOM anyone
'I didn't see anyone.'

(b) El adjetivo modifica al sustantivo.
det adjective modify.3SG DOM.DET noun
'Adjectives modify nouns.'
(c) Presentó (a) su novio a sus padres.
present.3SG (DOM) poss boyfriend to poss parent.PL
'She presented her boyfriend to her parents.'

Taken together, DOM is semantically, pragmatically and syntactically complex. The factors conditioning the use of DOM in Spanish are manifold and characterize the domain as an interface phenomenon, both at the syntax-semantics and the syntax-pragmatics interfaces which are considered to be particularly vulnerable to cross-linguistic influence in bilingual first language acquisition (see e.g. Müller & Hulk 2000, 2001) as well as for transfer in L2 acquisition (see e.g. Slabakova 2008; Rothman 2009a). This complexity should have an impact on the acquisition of DOM, albeit at different degrees in (2)L1 and L2 acquisition and in different language combinations. We might thus expect that the assumed core instances of DOM are acquired earlier than other ones. Furthermore, as mentioned by Parodi & Avram (in this volume) the vulnerability in the acquisition of DOM may vary or not across different languages and it is also possible that some aspects or triggers of DOM get lost before others. Another factor that impinges on the acquisition of DOM is related to the polyfunctionality of the marker *a*. It is the marker for DOM (e.g. *Veo a María* 'I see Mary'), the marker of the indirect object in ditransitive clauses (e.g. *Le doy el libro a María* 'I give the book to Mary') and it is also present with *gustar*-type psych verbs (e.g. *A María le gustan las manzanas* 'Mary likes apples') (cf. Montrul & Bowles 2008).

2.2 Monolingual L1 acquisition of DOM

As far as we know, until now there are only two published papers devoted to the L1 acquisition of DOM in Spanish based on children, Rodríguez-Mondoñedo (2008) and Ticio & Avram (2015). Rodríguez-Mondoñedo (2008) conducted an analysis of spontaneous production of 4 Spanish-speaking children (between the ages of 0;9 and 2;11) from the CHILDES database. He states that from 991 analysed verb-object structures, the children made only a total of 17 errors (this amounts to an error rate of 1.62% or an accuracy rate of 98.38%): In 8 cases *a* was present, but not required (= error of commission), whereas in the remaining 9 cases *a* was omitted, but required (= error of omission). Due to this high accuracy rate, Rodríguez-Mondoñedo (2008) concludes that monolingual Spanish-speaking children acquire (at least) the core cases of DOM very early, i.e. between the ages 0;9 and 2;11. Unfortunately, it is unclear which uses of DOM were considered in his study. Rodríguez-Mondoñedo (2008) only states that neither of those uses considered by Aissen (2003) to be optional – i.e. inanimate pronouns, animate (non-human) definite objects, inanimate proper nouns, animate specific (non-human, non-definite) objects – nor topicalized or *wh*-objects were included in the analysis. As Rodríguez-Mondoñedo's study is (most probably) restricted to cases of animacy it does not allow us to conclude that DOM is completely acquired at this early age.

Ticio & Avram (2015) investigate the monolingual acquisition route of DOM in Spanish and Romanian, using three longitudinal corpora for each language. More precisely, for each language the spontaneous speech of three children during the age span of 1;1 to 2;5 years is analyzed. For all possible DOM-contexts in the corpora, the tokens were coded as either target-like, omission or commission. Furthermore, all the marked objects were additionally coded for animacy and referential stability. Based on Farkas & von Heusinger (2003), Ticio & Avram (2015) assume that proper names and definite pronouns are *unconditionally referentially stable* (URS), because their value does not change throughout the discourse. In contrast, definite DPs are *conditionally referentially stable* (CRS) and indefinites as well as partitives

are *referentially non-stable* (RNS)[1]. The overall results of Ticio & Avram (2015) are very similar to the one of Rodríguez-Mondoñedo (2008) since the authors observed both in Spanish and in Romanian a very early emergence of DOM (between the ages of 1;7 and 1;11) which is additionally characterized by a very high accuracy rate (cf. 74.5% for Spanish and 86.4% for Romanian). According to them, DOM is used in a target-like way before the age of 3;0, i.e. the analysed children mark the direct objects correctly, in accordance with the semantic-pragmatic constraints at work in the respective language. Furthermore, Ticio & Avram (2015: 398-399) emphasize that, even though referentially stable and non-stable DPs are marked very early in Spanish, animacy is a stronger trigger.[2] It becomes clear from the results illustrated in table 3 that animate DPs are nearly categorically marked with *a* in child Spanish – the percentage for child Romanian is with 60%-78% lower (cf. Ticio & Avram 2015). With respect to the referential stability (cf. table 4), the number of marked CRS is lower than the marked URS ones. Furthermore, the marking appears in a certain chronological order: the child Magin marks the URS objects and the NRS objects at the same age (at the age of 1;10), whereas the other two children mark first the URS objects and only afterwards the NRS objects. The CRS objects are marked by Irene and Magin in the last stage; there were no marked CRS objects in the corpus of Nieva.

	Spanish	
Child	Animate DP	Inanimate DP
Irene	98%	2%
Magin	100%	0
Nieva	100%	0

Table 3. Results related to animacy (cf. Ticio & Avram 2015: 394)

	Spanish		
Child	Marking order		
Irene	URS (1;9)	> NRS (1;11)	> CRS (2;1)
Magin	URS, NRS (1;10)		> CRS (2;0)
Nieva	URS (1;11)	> NRS (2;1)	

Table 4. Results related to referential stability (cf. Ticio & Avram 2015: 396)

The results of both studies show that Spanish DOM is acquired early (i.e. before the age of 3) by monolingual children. The results of Ticio & Avram (2015) indicate further that, at least in Spanish, the role of the semantic feature animacy for DOM is acquired earlier, whereas that of discourse-dependent triggers are acquired later or at least in subsequent steps. That is, marked URS appear earlier than NRS and these ones earlier than CRS. A cautious note is in order since the results are obtained based on only three longitudinal studies which reflect large individual differences in morphological development if measured by age. To overcome this general methodological problem in most (2)L1 studies, the measure of Mean Length of Utterance (MLU) became widely used but also criticized (cf. discussion and examples in Müller et al. 2011). Nevertheless, the observations are a good starting point for assumptions on the development in early bilinguals: We expect that they are equally successful in acquiring (at least) those cases of Spanish DOM which are triggered by animacy and/or those cases with unconditionally referentially stable objects (i.e. proper names and definite pronouns).

[1] Ticio & Avram (2015) use the shortcut RNS and NRS interchangeably. We have opted to cite their original abbreviations.

[2] In contrast, for the Romanian children, "referential stability overrides animacy" (Ticio & Avram 2015: 399). For reason of space, we cannot discuss the results for L1 Romanian here. This is addressed in Parodi & Avram (this volume).

2.3 Bilingual acquisition of DOM in L1 systems

2.3.1 Theoretical aspects of 2L1 and HS acquisition

Before we present the state of research related to the bilingual acquisition of DOM, we have to briefly distinguish between different types of bilingualism. Simultaneous bilingualism is normally conceived as the acquisition of both languages from birth (2L1) while successive bilingualism supposes the acquisition of L1 from birth and a later L2. Successive bilingualism can be achieved in an unguided constellation in child age or in a guided acquisition at school age or later (L2). This seemingly "easy" distinction has been challenged in the last couple of years as research on the acquisition of HL intensified and advanced. In the case of our study, Spanish is the HL, whereas German is the dominant language of the surrounding society. HS are (typically) children of immigrants who are born in the host country or who arrived in the host country in early childhood (= 2nd or 3rd generation; see Silva-Corvalán 1994). They are thus early bilinguals, because they are exposed to the HL and the majority language since birth (= simultaneous bilinguals) or at least in early childhood (= sequential bilinguals). Although the latter case is most likely the more frequent one, both count as HS (see also Montrul 2016). The linguistic competences of HS are influenced by many factors and these speakers are far from being a homogenous group, even though what all HS seem to have in common is that by the time they reach adulthood the HL is their weaker language (see Montrul 2016).

As illustrated in (1), HS are first confronted with the HL (= A) which is up to a certain time the dominant language. Nevertheless, the surrounding language (= B) is already present to a certain extent, because the child hears this language outside the family. Influenced by several factors (e.g. school enrolment, little contact with the home country, brothers and sisters), which vary considerably from one individual to another, there might be at some point a switch whereby the HL becomes weaker and may get even lost (cf. language attrition, i.e. the process of losing a L1 entirely or only certain features of it).

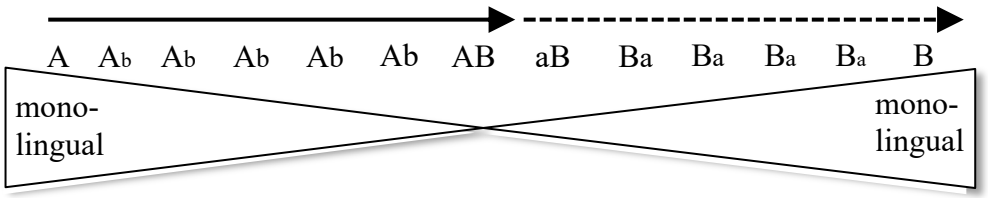


Figure 1. The monolingual-bilingual-continuum (cf. Valdés 2005: 414)

The continuum proposed by Valdés (2005) illustrates well the problems of the distinction between simultaneous and successive early bilinguals and of a clear definition of a HS in terms of a clear competence profile beyond the individual level. That is, we cannot clearly state at which point(s) we are talking about HS. Valdés (2005) and, more recently, Kupisch & Rothman (2016) proposed to distinguish between the HS acquiring his HL from birth and HL "acquirers", i.e. those learners who (re-)learn their HL at adult age. Our study refers to HS acquiring Spanish from birth in a dominant German environment, as opposed to learners of Spanish as a L2, based on the information gathered in the biographical part of the online questionnaire (see section 3).

But not only the definition of HS is controversial. The research led to very different theoretical assumptions and ideas about their ultimate attainment. As for the interpretation of observed differential language use and knowledge by HS, two major approaches developed in the research literature: The first one (in particular Tsimpli et al. 2003; Montrul 2008, 2010; Polinsky & Kagan 2007; Benmamoun et al. 2013a,b; Montrul 2016) assumes language attrition (LA) in the first migrant generation and incomplete acquisition (IA) in second and further generations. LA refers to eroded features of the L1 after its complete acquisition and a phase of stability (e.g., Sorace 2003; Tsimpli et al. 2004), while IA occurs in childhood due to

insufficient input to maintain or develop the full system of the L1 (Domínguez 2009; Montrul 2004, 2010, 2016). In contrast, the second approach presumes processes of linguistic change in a completely acquired contact variety of the native language by the HS which may differ from monolingual grammars without losing their native quality (see e.g. Rothman 2009b; Rothman & Treffers-Daller 2014; Kupisch & Rothman 2016). In this perspective, the discussion of the modifications of the input in the first migration generation plays a crucial role (see in particular the *missing-input competence divergence approach* by Pires & Rothman 2009, and the proposals for a modelling of HS grammars by Putnam & Sánchez 2013).

In our opinion, one major problem of considering HL acquisition as "incomplete" language acquisition resides in the fact that it is scarcely clear which basis of comparison is chosen, i.e. is it the norm of a prescriptive institution (e.g. the RAE) or the performance of monolingual speakers. Many studies in the field of HS research take, implicitly or explicitly, monolingual speakers as "norm" or "baseline" (see e.g. Polinsky & Kagan 2007 and the criticism in e.g. Rothman & Treffers-Daller 2014; Guijarro-Fuentes & Schmitz 2015; Schmitz et al. 2016) and then measure the results of HS against the supposed norm of monolinguals finding them different. Deviation between both groups are considered as a "deficiency" in the competence of HS. These approaches, however, do not take into account that also monolinguals (may) vary with respect to the prescriptive norm and also among each other. That is, although HS are most often concerned by the problem to access the prescriptive norm or standard variety, not all monolinguals have necessarily access to it either. Keeping the RAE-norm, the monolingual behavior and the behavior of our HS clearly separate from one another in our study (see section 3), we are able to judge the performance of monolinguals and HS in a neutral way.

2.3.2 The acquisition of DOM in Heritage Speakers of Spanish

With respect to the acquisition of DOM in Spanish as L1, we have seen in section 2.2 that (at least) the core cases are acquired early (i.e. before 3 years) by monolingual children. Against this backdrop, one might thus expect that early bilinguals are equally successful in acquiring the core cases of Spanish DOM (cf. Montrul & Bowles 2009). Research based on early adult bilinguals show however that HS of Spanish with English as dominant language have not properly acquired DOM (cf. e.g. Silva-Corvalán 1994; Luján & Parodi 2001; Montrul 2004). The overall result is that Spanish-English HS have solid knowledge about accusative and dative clitics, but they omit *a* with animate (human) direct objects.

There are some studies based on simultaneous bilingual children for the language combination Spanish-English (cf. Ortiz-Vergara 2013; Montrul & Sanchez-Walker 2013; Ticio 2015) which point into the same direction. Overall, one finds a late emergence of DOM with a high rate of omission. This contrasts with the early emergence of DOM in monolingual children. According to Ticio (2015) who observes an early correct marking in 2L1 children (i.e. before the age of 3), this result is only valid for DPs which are high in the specificity scale. Parodi & Avram (in this volume) point out that in 2L1 the number of marked definite and indefinite descriptive DPs for which consideration of discourse conditions is required, is lower than in L1 Spanish.

2.4 DOM in L2 acquisition

2.4.1 Theoretical aspects of L2 acquisition

As shown above, DOM is highly complex and an interface phenomenon. For such phenomena, L2 acquisition researchers proposed several approaches in order to explain the development of various complex grammatical domains in (early and late) successive bilinguals, namely: (i) The *Interpretability Hypothesis* proposed by Tsimpli & Dimitrakopoulou (2007) (ii) the *Interface Hypothesis* proposed by Sorace (2003, 2011), Sorace & Filiaci (2006) and Tsimpli & Sorace (2006) and (iii) the *Feature Reassembly Hypothesis* (Lardiere 2008). Although the

focus of the present paper is the acquisition of DOM by HS, we will briefly sketch these hypotheses with respect to their predictions on the L2 acquisition of DOM.

According to the *Interpretability Hypothesis.* L2 learners can only acquire new [+ LF-interpretable] features in their L2 which are not contained in their L1. Since the features taken to be responsible for both the core cases (animacy, specificity) and non-core cases (in particular definiteness, aspect, topicality, agentivity, telicity, affectedness, referential stability) are [+ LF-interpretable] features, we should expect a successful acquisition and no particular order of those features and the associated cases. This expectation, however, is not met as the studies presented in 2.4.2 show. The problem is possibly better captured by the *Feature Reassembly Hypothesis* (Lardiere 2008) according to which it is not the nature of features which poses the problem but the reassembly of the feature (bundles) and the morphological material required by the L2. In this context, the task of the learner is not to (re-)set a parameter but to reconfigure the assembly first transferred from the L1 with respect to the L2 target properties. According to Lardiere (2008), an ultimate native competence can be reached. For DOM, the task for the learner is to recognize that certain [+ LF-interpretable] features require the presence of *a*, i.e. a free morpheme, which serves as a functional element. More precisely, learners with the L1 German have to reassemble [+ LF-interpretable] features while their own system provides them with a [- LF-interpretable] case feature requiring bound morphology without a particular interpretation: the verbs *helfen* 'to help' and *unterstützen* 'support' are semantically closely related but *helfen* requires dative marking on the object (*Die Frau*$_{\text{F.SG.NOM}}$ *hilft der Oma*$_{\text{F.SG.DAT}}$ 'The woman helps the grandmother') while *unterstützen* requires an accusative marking (*Die Frau*$_{\text{F.SG.NOM}}$ *unterstützt die Oma*$_{\text{F.SG.ACC}}$ *beim Überqueren der Straße* 'The woman support the grandmother in crossing the street'). Pragmatic and semantic features do not play a role in the German system and the German learner of Spanish has to integrate them into his L2 feature assembly. We might expect a difficulty in the reassembly process but also an advantage of German learners of Spanish compared to English learners who do not have evidence for any case marking beyond the pronominal system.

While the aforementioned theories mainly differ with respect to the assumptions about the possibility to acquire in particular those (un-)interpretable features which are not part of the L1, the *Interface Hypothesis* takes another starting point by stating, in simplified terms, that adult L2 learners have no or little problems in acquiring a given grammatical characteristic of the L2 language, if this characteristic belongs to one single component of grammar (e.g. phonology, syntax). Things are different, however, when confronted with properties at the interface. In this regard, Sorace & Filiaci (2006) distinguish between *internal interfaces*, i.e. the linking between two or more components of the grammar, and *external interfaces*, i.e. the linking between a component of the grammar and an external component (e.g. discourse information, pragmatics). They assume that while internal interface phenomena are acquired quite easily by L2 learners, external interface phenomena cause problems and may even not be acquired completely. With respect to animacy and referentiality, the main triggers for DOM, this means that animacy-based DOM should be acquired more easily, because animacy is related to the syntax-semantic interface (i.e. to an internal interface). In contrast, L2 learners are expected to master discourse-triggered DOM less well (if at all), because referentiality is related to the syntax-discourse interface (i.e. to an external interface). It should be noted, however, that Montrul (2011) criticizes the distinction of internal and external interfaces as problematic in the light of findings from both L2 and HL acquisition (HLA). In contrast, the results from the monolingual children reported above seem to support the distinction since the semantic feature of animacy is acquired before discourse-related properties and the related features.

2.4.2 The acquisition of DOM by L2 learners of Spanish

Several studies have shown that L2 learners of Spanish who have English as a L1 show considerable difficulties to master DOM (cf. e.g. VanPatten & Cadierno 1993; VanPatten & Oikkenon 1996; Farley & McCollam 2004; McCollam Wiebe 2004; Montrul & Bowles 2008, 2009; Guijarro-Fuentes & Marinis 2011). They continue to make errors in comprehension and production even up to advanced levels of proficiency (see Guijarro-Fuentes & Marinis 2011), and even after receiving instruction and/or feedback on the structure (Farley & McCollam 2004; McCollam Wiebe 2004; Montrul & Bowles 2008). For instance, Guijarro-Fuentes (2011, 2012) documents a "piecemeal fashion" of acquisition where only one condition, namely the animacy distinction, was fully acquired while L2 learners (of all proficiency levels) continued to struggle with the conditions related to definiteness, and specificity of the objects as well as the telicity of the predicates. The latter property, however, is also a semantic feature which should be acquired more easily, alongside animacy, than those related to the given context.

2.5 Research questions and hypotheses

The studies discussed so far all have in common that the language pairing is Spanish-English, either in a 2L1 or in a L1-L2 constellation. Both involve Spanish and a language that does not only have no DOM, but that completely lacks argument marking with full DPs. The question thus arises as to whether other language pairings lead to other results. What happens if the two languages have DOM, but they are differently triggered? What happens if one of the languages does not have DOM, but some kind of argument marking with full DPs? We therefore study the acquisition of DOM in the combination German-Spanish which, to our knowledge, has not yet been studied and which can give us new insights with respect to the second question. For the present paper, we chose a subset of data to investigate the following research questions:

(i) How do the grammatical of Spanish monolinguals conform with what is said by the RAE with respect to DOM, i.e. the prescriptive norm?
(ii) How do the grammatical judgments of German-Spanish HS and German L2-learners of Spanish conform with what is said by the RAE concerning DOM and with the judgments of the Spanish monolinguals?

Based on these questions, we derive the following hypotheses:

(I) All groups deviate to a certain degree from the norm predicted by the RAE.
(II) The grammatical judgments of German L2-speakers of Spanish differ significantly from the ones given by monolinguals.
(III) The grammatical judgments of German-Spanish HS differ significantly from the ones given by Spanish monolinguals.
(IV) German-Spanish HS are closer to the judgments of the Spanish monolinguals than the German L2-speakers of Spanish.

3. The present study of DOM in Spanish as HL in Germany

In order to answer the above mentioned research questions, we have designed an online questionnaire (under http://www.soscisurvey.de/test087409/, accessed 29.03.2017) based on which we want to investigate several aspects of Spanish DOM.[3] In the following subsections we will present the methodology (participants, tasks and materials, 3.1) and the results (3.2).

[3] We want to thank Tim Diaubalick for his support during the creation of the online questionnaire. A special thanks goes also to all those persons who have offered their time and filled out the questionnaire.

3.1. Methodology

3.1.1 The participants

By the end of October 2016, a total of 110 speakers of Spanish participated in our study:[4] 45 participants are Spanish monolinguals living in Spain and 9 are Spanish monolinguals which have recently moved to Germany. Additionally, there were 24 HS, of which 11 are Spanish-German bilinguals and 13 are bilinguals with Spanish and another non-German language. Finally, 32 L2-learners participated by mid October 2016. The following table gives a survey of the most important biographical data of our participants.

	speakers (n=)	age (in years)		time in GER (in months)	gender (n=)	
		mean	range	mean	male	female
Monoling. Sp. in Sp.	45	38.8	19-66	---	17	28
Monoling. Sp .in Ger.	9	34.1	21-44	96	2	7
Bil. HS (Sp.-Ger.)	11	30.2	13-56	since birth	5	6
Bil. HS (Sp.-other)	13	38.6	26-53	since birth	4	9
L1 Ger. and L2 Sp.	32	30.6	20-48	since birth	8	24

Table 5. Survey: Participants

As can be seen, the groups are not equally big and we are well aware of the fact that this may skew the results to a certain extent. Future analyses of more data may overcome this problem. In our current analysis, we take the partially very low numbers into account by choosing adequate, robust statistics, namely tests which do not require normal distribution and cope with low numbers of participants and items.

3.1.2 Tasks, procedure and analysis

Our questionnaire comprises three different types of tasks: The written acceptability judgement task, a fill-in-the-blank task and a synonymy checking task. Since the present paper only presents the results from the first test, the remainder of this methodological subsection will exclusively focus on the details of this test. It consists of a total of 40 items out of which 17 are fillers / distractors[5] and 23 are DOM relevant. These DOM-relevant items (cf. table 8) were taken from the online version of the *Diccionario panhispánico de dudas* of the *Real Academia Española* (cf. http://lema.rae.es/dpd/srv/search?id=ctMgM8Bp2D6ELPuNfg, accessed 29.03.2017). We followed the presented core and non-core cases as provided by the norm taught in schools and other language classes and thus taken to be commonly known, irrespectively of their frequency in everyday language and their complexity. This selection of items allows us to find out, in a first step, how strongly the different speaker groups vary with respect to the RAE-norm. Some of the examples were slightly modified in order to make them less complex or more akin to the other items with respect to the frequency of occurring words. Despite this modification, our items are syntactically not of a comparable complexity, because we wanted to test the realization of DOM not only in simple, canonical sentences (e.g. *Veo a Pedro* 'I see Peter') but also in more complex sentences (e.g. in sentences with secondary predications, see item 13 *Tiene a un hijo enfermo* 'S/he has a sick child'). We will show in section 3.2 that complexity (in terms of numbers of words and clauses contained) does not seem to be the decisive ingredient that triggers differences between the three types of speaker groups.

[4] We have only counted those participants who have completed the whole set of tasks.

[5] We have included different types of fillers / distractors, e.g. (i) semantic deviants (e.g. *El triciclo tiene cuatro ruedas* 'The tricycle has four wheels', (ii) agreement errors (e.g. *Ana es amigo mía* 'Ana is my$_{fem}$ friend$_{masc}$'), (iii) argument omission (e.g. **Pongo el libro* 'I put the book'), (iv) preposition error (e.g. **Compré dos libros por mi madre* 'I bought two books because of my mother').

In the acceptability judgement task, we have tested items where animacy and specificity are the triggers for DOM (so-called "core cases", see section 2), but we have also included some "fuzzy" cases of DOM (involving the "non-core cases" and some optional items see table 6 for the complete list of DOM relevant items). The participants were asked to judge the items along a three point scale using smiley faces for the following categories: ☺ stands for "bien", 😐 for "más o menos" and ☹ for "mal".

	Example	Relevant DOM-features	Complexity
1	Echaron a la gente del parque.	[+human, +spec]	6 words, monoclausal
2	No conozco a nadie.	[+human, -spec]	4 words, monoclausal
3	Vi a Pedro en el cine.	[+human, +spec]	6 words, monoclausal
4	Engañar a un jefe es imposible.	[+human, -spec]; *engañar*	6 words, monoclausal
5	*Puso al libro en la mesa.	[-anim, +spec]	6 words, monoclausal
6	Dejé a Pluto en la perrera.	[+anim, +spec]	6 words, monoclausal
7	Estaba mirando a una señora cuando sentí que me llamaban.	[+human, +spec]; *mirar*	10 words, biclausal
8	??Conocí una persona encantadora, se llama María.	[+human, +spec]	7 words, biclausal
9	??Busco a un camarero que hable inglés.	[+human, -spec]	7 words, biclausal
10	Conocí a una persona encantadora, se llama María.[6]	[+human, +spec]	7 words, biclausal
11	Conocí a una persona encantadora, se llama María.	[+human, +spec]	7 words, biclausal
12	*Solo había a dos estudiantes en el aula.	[+human, +/-spec]; *haber*	8 words, monoclausal
13	Tiene a un hijo enfermo.	[+human, +spec]; transitory state	5 words, monoclausal
14	***No conozco a Francia.**	[-anim, +spec]; name of country	4 words, monoclausal
15	*Tiene a un hijo invidente.	[+human, +spec]; permanent state	5 words, monoclausal
16	*Eligió su hermano.	[+human, +spec]	3 words, monoclausal
17	Vi a ése hablando con tu jefe.	[+human, +spec]	7 words, monoclausal
18	El aceite sustituye a la mantequilla en esta receta.	[-anim, -spec], linear order with *sustituir*	9 words, monoclausal
19	Escaló el Himalaya.	[-anim, +spec], geographical name	3 words, monoclausal
20	Os necesito a todos.	[+human, +spec]; indefinite personal pronoun	4 words, monoclausal
21	***Vi los hijos del vecino escalar la tapia.**	[+human, +spec]	8 words, biclausal
22	Convocaron a la comunidad de vecinos para que tomara una decisión.	[-anim, +spec]; collective noun for a group of humans	11 words, biclausal
23	**Reunieron a chicos y chicas en la misma aula.**	[+human, -spec]; coordinated bare plurals	9 words, monoclausal

Table 6. DOM-relevant items

We counter-balanced the grammatical and ungrammatical cases yielding the following four way presentation: 14 items show the marker *a* and this conforms to what is seen to be grammatically correct by the *Real Academia Española* (RAE). In these cases, we thus expect the participants to click on "good" (or ☺). 3 examples appear without *a* in our questionnaire, but according to the RAE the direct objects are to be *a*-marked. In this case we expect the

[6] Examples 10 and 11 are identical. With these examples, we wanted to check whether there is any "learning effect" via repetition in our acceptability task. And indeed, both groups show a higher acceptability the second time (cf. 79.6% of the monolinguals and 75% of the HS accepted the example as "good" the first time, whereas 80.9% of the monolinguals and 83.3% of the HS considered it as "good" the second time), but the difference is too small for being statistically relevant.

participants to click on "bad" (or ☹) (cf. error of omission). In another 5 items we have exactly the opposite situation: They are presented with the DO-marker *a*, but it is not required. The participants should thus again click on "bad" (or ☹) (cf. error of commission). Finally, we have one example (+ all the filler items) where *a* is neither present nor required. This example should thus be judged as "good" (or ☺). Table 7 shows the distribution including examples of each type.

Example *a*-marked	*a* required (RAE)	expected judgement and example	
yes	yes	☺ *Vi a Pedro.*	N = 14
no	yes	☹ **Vi los hijos del vecino escalar la tapia*.	N = 3
yes	no	☹ **Puso al libro en la mesa.*	N = 5
no	no	☺ *Escaló el Himalaya.*	N = 1 (+fillers)

Table 7. Presentation of the examples

Two methodological issues may appear problematic: First, there are different opinions on whether an odd or even number scale is best as well as on what is the best number of items to include in a Likert-style scale (cf. Allen & Seaman 2007 among others). We think that both have strengths and weaknesses (which we cannot discuss in our article for reason of space) and they have also different uses. We have opted for an odd rating scale with a middle choice because an even number of options would have forced our participants to give a (clearly) positive or negative response. A middle choice such as *más o menos* allows for a range of interpretative options, e.g. "between good and bad" but also "I don't know", i.e. it is a multidimensional option which allows the HS to express the perceived variation in their HS community and/or a perceived individual insecurity, the latter being an attitude towards the own language competence. We are aware of the ambiguity of this conception of middle choice which is a potential disadvantage but in our view the advantage of capturing language attitude justifies our choice. Furthermore, a distribution of the several dimensions and projection onto several less ambiguous middle options might have implied a difficulty for the participants and possibly have caused them to abandon the experiment. In section 4.2 we will show how our result can be interpreted without interpreting the middle choice as evidence for missing competence.

Second, the number of items is reduced and not balanced between the ☺ and ☹ cases. As we address different learner groups, we tried to find items understood by all participants. Furthermore, a fully balanced test would have become much longer which constitutes another problem since we could not personally motivate the participants.[7]

Finally, we applied a cautious (and preliminary) statistical analysis: We compared the groups using Mann Whitney-U (see e.g. Bortz 1999) which does not require normal distribution in our data. In our study, we test whether or not there is a difference in the acceptability judgement of the DOM-relevant items. The Null Hypothesis (H_0) is, that there is no difference between the group of monolinguals and HS. Thus, a high *p*-value (= not significant) indicates that our data confirms H_0, whereas a low *p*-value indicates that we have to reject H_0 (i.e. that the two groups perform in significantly different ways).

[7] Our decision has been inspired by discussions with Cristina M. Flores (p.c.) about elicitation tasks with HS and with Tim Diaubalick (p.c.) about the problems with very long questionnaires.

3.2 Results

Based on our two research questions formulated in section 2.5, we first analyze to what extent the monolingual speakers conform to the RAE-norm without taking deviations from the RAE-norm to be a deficit in native competence. Second, we analyze how "native-like" the linguistic competence of HS and L2 learners is in comparison with either the RAE-norm and/or the monolingual speakers. The first step is represented in figure 2 where the monolingual speakers are characterized in terms of (non-)correspondence of their judgments to the RAE-norm for the 23 items. As mentioned before, the acceptability judgement task consists of 23 DOM-relevant items, out of these 15 items are expected to be judged as "bien" following the line of the RAE and the remaining 8 as "mal". In figure 2, the black dots symbolise the expected judgment along the line of the RAE, whereas the grey triangle represents the mean value of the item-specific judgments of our monolingual group. It is interesting to notice that for some items (i.e. for the items 7, 9, 13, 16, 22 and 23, see table 6) the acceptability judgment of our monolingual participants deviate considerably from what one expects by the description of the RAE.

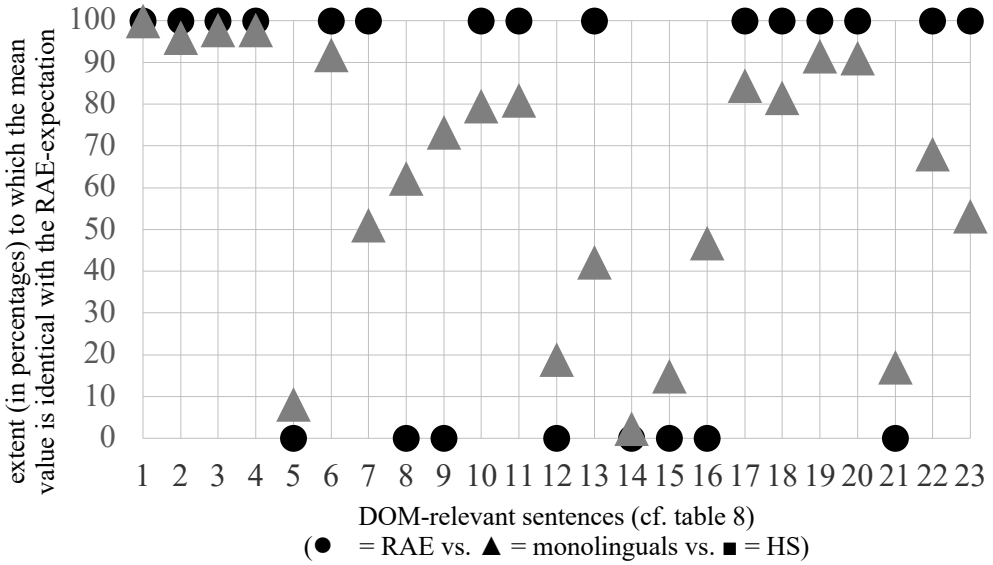


Figure 2. Item-specific classification (RAE) and item-specific judgement (only monolinguals)

With respect to the second step announced above, we have included the mean value of the item-specific judgments of our HS (cf. the grey squares) in figure 3 which shows that our monolingual speakers and our HS conform in examples 1-4 more or less to the norm established by the RAE. For the items 5-11, the mean percentage value for our monolinguals and our HS are very similar, however both groups deviate to a certain extent from the RAE. In other words, both groups pattern not only with respect to the mean value, but also with respect to the deviation from the norm. Before turning to the items 12-23, let us consider item 7 more in detail (*Estaba mirando a una señora cuando sentí que me llamaban*): Our expectations for this example based on the description of the RAE[8] is thus that *a* should be accepted to 100%. As the results in figure 3 show, however, only 51% of our monolinguals and 50% of our HS judge this example as "good". In other examples the judgments slightly deviate between the two groups, but, as the *p*-values in table 8 show, there is no statistically significant difference between the monolinguals and the HS. Interestingly, the complexity of the items (in terms of number of words and clauses), does not seem to play a role since the observed statistically

[8] According to the RAE, the use of *a* is obligatory before indefinite common nouns whenever they are the direct object of a perception verb (cf. "Ante nombres comunes de persona precedidos de un indefinido, cuando son complemento directo de verbos de percepción como *mirar*, […]", http://lema.rae.es/dpd/srv/search?id=ctMgM8Bp2D6ELPuNfg, accessed 29.03.2017).

significant divergences do not target only the most complex items (with more than one clause or the highest number of words).

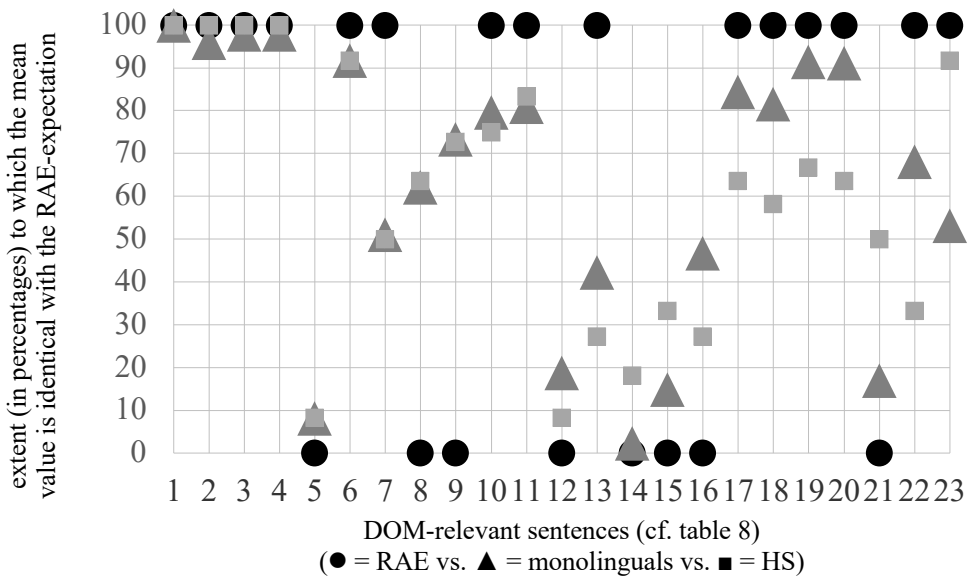


Figure 3. Item-specific classification (RAE) and item-specific judgement (monolinguals and HS)

While HS and monolingual speakers still behave closely similar with respect to the first eleven items, their judgments differ much more with respect to the items 12-23. The calculation of the corresponding *p*-values (cf. table 8) shows however that only in three cases (i.e. items 14, 21 and 23) the difference is statistically significant in our two-tailed Mann-Whitney-U-test.

	Example	Significance	
1	Echaron a la gente del parque.	$p = 0.496$	$U = 247.5$
2	No conozco a nadie.	$p = 0.837$	$U = 282$
3	Vi a Pedro en el cine.	$p = 0.919$	$U = 242$
4	Engañar a un jefe es imposible.	$p = 0.919$	$U = 242$
5	*Puso al libro en la mesa.	$p = 0.865$	$U = 284$
6	Dejé a Pluto en la perrera.	$p = 1.007$	$U = 294$
7	Estaba mirando a una señora cuando sentí que me llamaban.	$p = 1.007$	$U = 294$
8	??Conocí una persona encantadora, se llama María.	$p = 0.992$	$U = 247.5$
9	??Busco a un camarero que hable inglés.	$p = 0.797$	$U = 213$
10	Conocí a una persona encantadora, se llama María.	$p = 0.893$	$U = 286.5$
11	Conocí a una persona encantadora, se llama María.	$p = 0.874$	$U = 237$
12	*Solo había a dos estudiantes en el aula.	$p = 0.777$	$U = 272$
13	Tiene a un hijo enfermo.	$p = 0.312$	$U = 198.5$
14	***No conozco a Francia.**	$\mathbf{p < 0.05}$	$U = 109.5$
15	*Tiene a un hijo invidente.	$p = 0.376$	$U = 234$
16	*Eligió su hermano.	$p = 0.464$	$U = 243.5$
17	Vi a ése hablando con tu jefe.	$p = 0.177$	$U = 202$
18	El aceite sustituye a la mantequilla en esta receta.	$p = 0.224$	$U = 226$
19	Escaló el Himalaya.	$p = 0.193$	$U = 212$
20	Os necesito a todos.	$p = 0.074$	$U = 177.5$
21	***Vi los hijos del vecino escalar la tapia.**	$\mathbf{p < 0.05}$	$U = 166.5$
22	Convocaron a la comunidad de vecinos para que tomara una decisión.	$p = 0.050428$	$U = 178$
23	**Reunieron a chicos y chicas en la misma aula.**	$\mathbf{p < 0.05}$	$U = 169$

Table 8. Mann-Whitney-U analysis for all test items (monolinguals vs. HS)

In what follows we will discuss the three cases with a statistically significant difference between HS and monolinguals more in detail: Starting with item 14, figure 4 shows the mean values of responses of "bien", "más o menos" and "mal" of the two groups. Notice that the RAE states that the marker *a* should not appear in this item, i.e. the "correct" answer under this normative perspective would be "mal" (as *a* appears in the example) or, the other way round, choosing "bien" can be considered as "incorrect" in item 14. Figure 4 shows that the amount of clicks on "mal" (i.e. the correct answer according to the RAE) is considerably smaller for the group of the HS than for our monolinguals. At the same time, the amount of clicks on "bien" (i.e. the incorrect answer according to the RAE) is only slightly higher, but not significantly higher (see *p*-values in table 8). It is rather the amount of clicks on "más o menos" what makes the difference between the two groups. In sum, it stands out that our HS are more "undecided" (= grey with stripes) and they deviate more from the RAE (= dark grey) in item 14. The two groups are not equally homogeneous in their acceptability judgment: While the monolinguals behave in a more or less homogenous way, the group of HS behaves more heterogeneously.

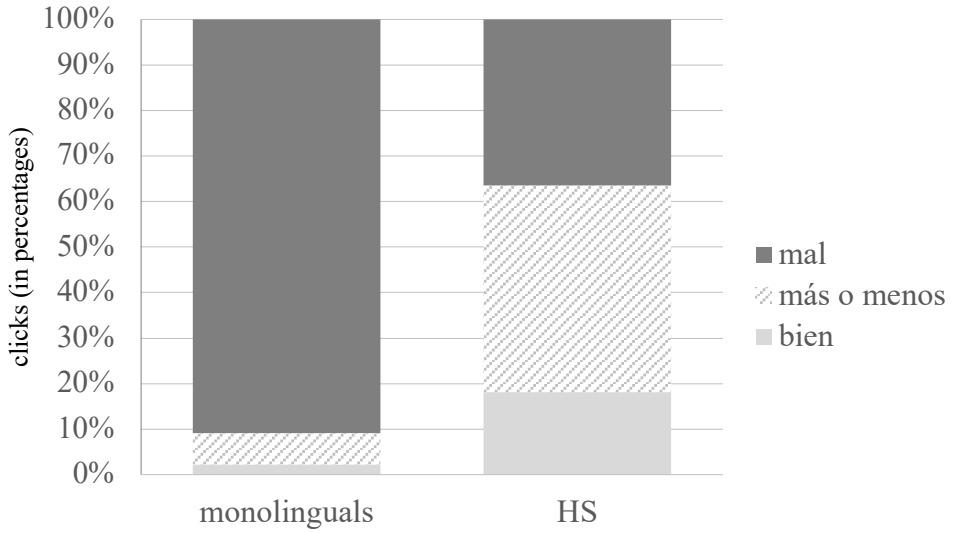


Figure 4. Detailed results for item 14

Interestingly, figure 5 shows that we obtained nearly the opposite result for item 23: According to the RAE the marker *a* is expected in this case because, even though the complement appears bare (i.e. without determiner), we have a coordinated noun phrase and the referent is known. This means, clicks on "bien" can be considered to be the "correct" answer under this normative view. The majority of our HS have indeed clicked on "bien", whereas it stands out that our monolinguals are more "undecided" (= grey with stripes) this time and deviate more with respect to the norm (= dark grey). Again, the two groups are not equally homogeneous in their acceptability judgment. The acceptability judgments of the monolinguals are more heterogeneous than the ones of the HS in the sense that all three possibilities have been chosen to a considerable extent. Furthermore, in this case, the HS are more in line with what is expected from the viewpoint of RAE.

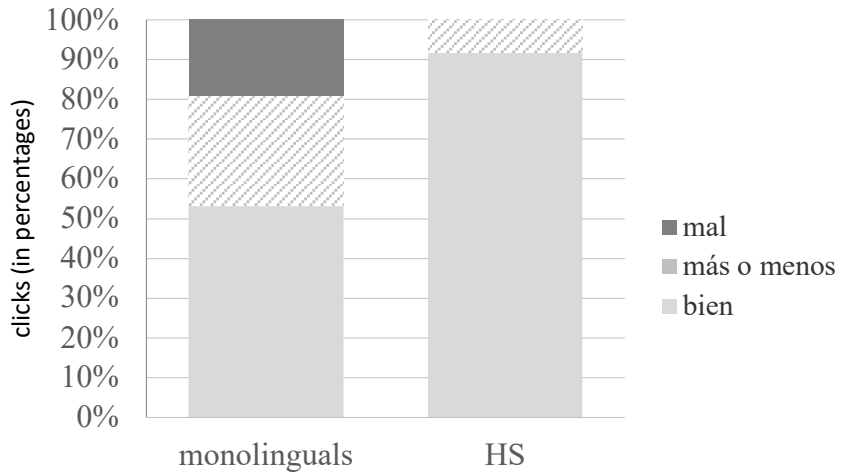


Figure 5. Detailed results for item 23

Finally, item 21 yielded another distribution. As illustrated in figure 6, the two groups are equally heterogeneous in their acceptability judgement. In contrast to the other two cases, this time it is not the amount of "más o menos" responses that makes the difference between the two groups, instead the number of clicks on "bien" and "mal" is almost reversed. That is, in this case monolinguals are clearly closer to the RAE-norm than our HS.

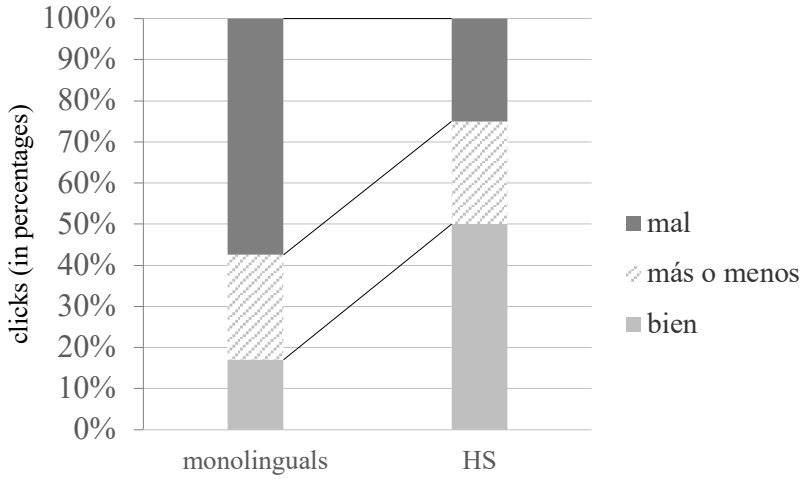


Figure 6. Detailed results for item 21

Before we discuss more in detail how these results have to be interpreted in relation to the hypotheses, let us briefly look at the results for the L2 learners. As expected from the results in the studies presented in section 3, our L2 learners significantly differed in 8 out of the 23 cases from the group of monolinguals. In order to compare them also with the HS, we show all groups in figure 7.

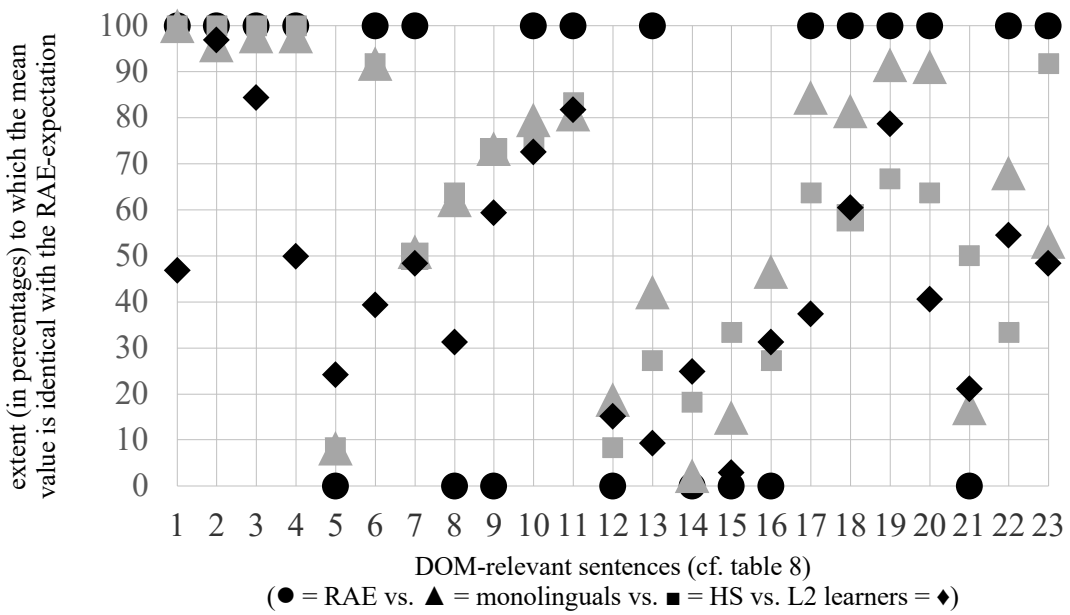


Figure 7. Item-specific classification (RAE) and item-specific judgement (monolinguals, HS and L2 learners)

To sum up so far, our HS deviate in 3 out of 23 cases significantly from monolinguals, but only in one case they really do "worse" (with respect to the norm) than monolinguals. This amounts to an "accuracy" rate of 86.96% (or 95.7%). Our L2-learners deviate in 8 out of 23 cases significantly from monolinguals; this amounts to an "accuracy" rate of only 65.2%. These item-specific results show thus that HS pattern much closer to monolinguals than L2 learners.

In addition to the item specific results, we have checked for every participant in a group how many times (s)he has clicked (in)correctly on "bien", (in)correctly on "mal" and on "más o menos". Remember that we have presented the items either in the expected as well as in the unexpected form, cf. table 6. If a participant was to judge the items in consistence with the RAE, (s)he should have 15 correct clicks on "bien", 8 correct clicks on "mal" and no click on "más o menos". It goes without saying that no participant of our study has obtained this score. Every participant has given at least one "incorrect" answer and every participant has clicked at least once on "más o menos".

The mean percentage values for the groups show however that there seem to be some differences with respect to speaker competences into which we tried to tap via the grammatical judgment task. When comparing the group of monolinguals with the group of HS, we see that the mean value of our HS do not give more "incorrect" answers, they are rather more undecided in the sense that they click more often on "más o menos" than the monolinguals.[9] In contrast, the mean value of our L2 learners give more "incorrect" answers than the other two groups. Figure 8 illustrates this distribution.

[9] As our groups are not equally big, it might be that this result goes back to this.

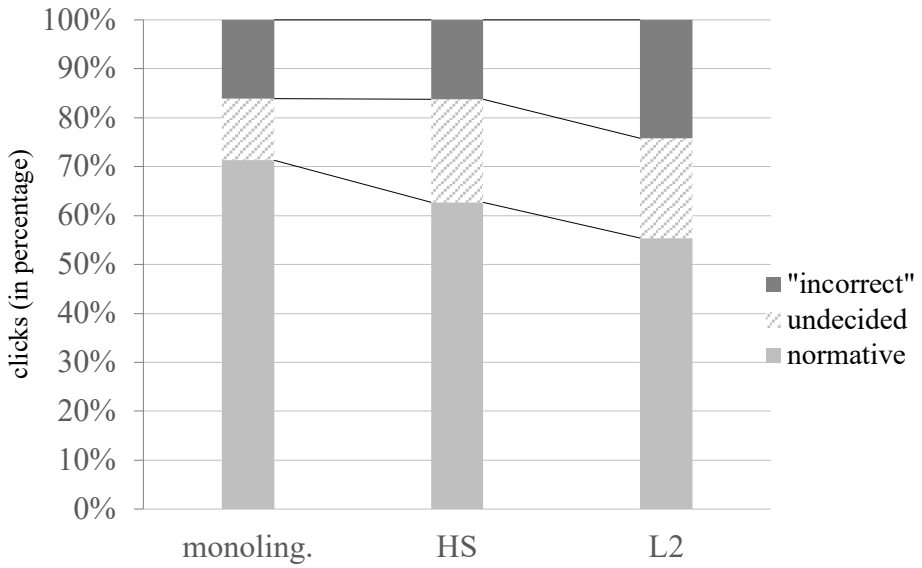
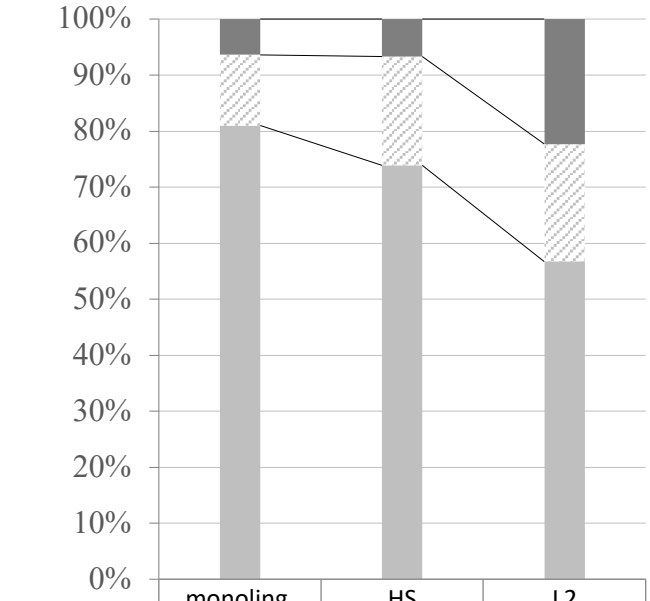


Figure 8. Overall results speaker competence (mean percentage values for the groups)

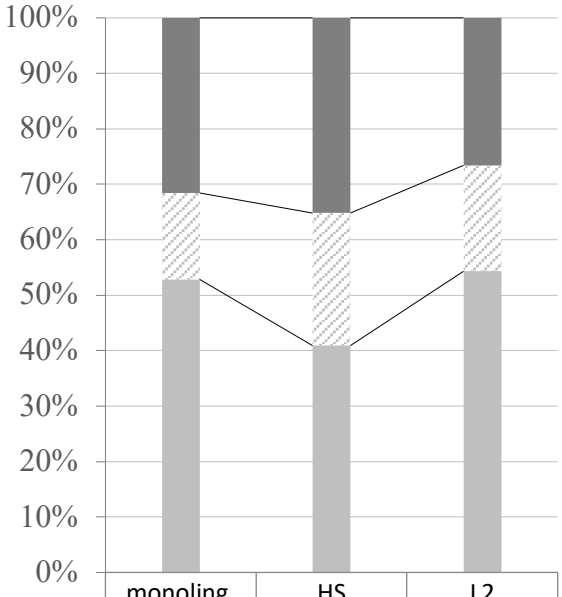
Furthermore, we found that the way we presented the items (in the expected vs. in the unexpected way, see table 6) impinges on the acceptability judgement. This means that each item is only presented in one way, either to be judged as "bien" or as "mal" but the coincidence with "grammatical" and "ungrammatical" in terms of the RAE seems to have an impact. For the 15 items that are presented as expected by the RAE (i.e. where "bien" is the expected answer, see figure 9), monolinguals and HS make less than a 10% of incorrect answers. As said before, HS and monolinguals deviate from each other in the amount of clicks on "más o menos". In contrast, our L2 learners give more than 20% of incorrect answers and they have also a higher rate of clicks on "más o menos" compared to the monolinguals.



	monoling.	HS	L2
"incorrect"	6.4	6.7	22.3
undecided	12.6	19.4	21
normative	81	73.9	56.7

Figure 9. "bien" expected (N=15)

Things are different for those items that were presented in the unexpected way (i.e. where “mal” is the expected answer, see figure 10): While our L2 learners are not sensitive for the way of presentation, i.e. the mean values in figure 9 and figure 10 are nearly identical, monolinguals and HS show with more than 30% a higher rate of “incorrect” answers in these cases.



	monoling.	HS	L2
"incorrect"	31.5	35.2	26.6
undecided	15.6	23.9	19.1
normative	52.8	40.9	54.3

Figure 10. “mal” expected (N=8)

In the next section we will discuss what the results presented so far tells us about the acquisition of DOM in HS and L2 learners with respect to our research questions and hypotheses and also in relation to the literature presented in section 2.

4. Discussion

We now turn to discuss the results in relation to our research questions and hypotheses repeated here for convenience:

(i) How do the grammatical judgments of Spanish monolinguals conform with what is said by the RAE with respect to DOM, i.e. the prescriptive norm?
(ii) How do the grammatical judgments of German-Spanish HS and German L2-learners of Spanish conform with what is said by the RAE concerning DOM and with the judgments of the Spanish monolinguals?

(I) All groups deviate to a certain degree from the norm predicted by the RAE.
(II) The grammatical judgments of German L2-speakers of Spanish differ significantly from the ones given by monolinguals.
(III) The grammatical judgments of German-Spanish HS differ significantly from the ones given by Spanish monolinguals.
(IV) German-Spanish HS are closer to the judgments of the Spanish monolinguals than the German L2-speakers of Spanish.

Our hypothesis (I) relates the observed performance of all investigated groups to the prescribed

RAE-norm. It is clearly confirmed since our study shows that not only the (early and late) bilinguals (i.e. HS and L2 learners) but also monolinguals differed from the RAE-norm. Note that this is a totally neutral way of describing our results. If, in contrast, we were to take monolingual speakers (and not the RAE) as *tertium comparationis*, there would be no neutral judgement for HS, because *per definitionem* monolinguals are considered better. That is, from the very beginning, the HS are denied native competence.

The three groups differ, however, with extent to the deviation of their judgments from those of RAE. These differences are dealt with by the hypotheses (II-IV). Starting with the differences between L2 learners and monolinguals, hypothesis (II) is also clearly confirmed. We observed that L2 significantly differed from them in 8 out of the 23 cases (cf. figure 7 and table 8).[10] This expected result will be further discussed below in relation to the assumptions about L2 acquisition in the literature.

Turning to the comparison of the HS with the monolinguals (hypothesis III), we observed that our results clearly contradict the expectation: The item-specific results show that our HS deviate significantly from monolinguals only in 3 out of 23 cases (i.e. showing an accuracy rate of 86.96%). But only in one of these three cases do our HS judge differently from both, the RAE-norm and from the group of monolinguals. This result leads us to conclude that HS master Spanish DOM as well as our monolinguals related to the expectations of the RAE. In the other two cases where we had a *p*-value smaller than 0.05, the HS-group behaved in one case more heterogeneously and in the other case more homogeneously compared to the group of monolinguals (cf. figures 4 and 5).[11] Compared to the RAE-norm, HS sometimes do even better than monolinguals (see items 11, 12, 16 and 23 in figure 3).

In total, HS are shown to produce judgments which are much closer to those of the monolinguals than the L2 speakers which confirms again hypothesis (IV).

Summing up the results mentioned so far, our research questions can be answered as follows:

(i) Monolingual speakers do not always judge according to the RAE-norm. We identified three groups of items with a different degree of correspondence with the RAE-norm. Interestingly, there are several items where the majority of monolingual speakers are distant from the RAE-target (see visualization in figure 2). The concerned items with the largest distance (items 7, 9, 13, 16, 22 and 23) do not all correspond in length and complexity with the maximum (see table 8) which rules out these differences as an explanation. Before turning to possible alternative explanations, we will turn to our results for the second research question.

(ii) Our overall result shows that HS and monolinguals produce more or less the same amount of deviations from the RAE-norm (i.e. comparable rates). They differ, however, in the amount of correct answers (from the RAE-perspective). This is due to the fact that the mean percentage of our HS more often chose the option “más o menos” than the mean percentage of our monolinguals. The L2 learners, in contrast, differed significantly in their judgments from the two other groups and provided clearly higher rates of incorrect answers (from the RAE-perspective).

While the differences between the L2 learners and the other two groups could be explained as a reflex of their overall Spanish competence, the observed difference between monolinguals and HS are harder to explain. We could not detect any common factor (e.g. animacy, specificity) as underlying cause for the difference between HS and monolinguals. We tentatively assume that it does not reflect a difference in linguistic competence between these groups, but rather a difference in their respective language attitude. Our HS may believe that they are less competent in their HL and click thus more often on “más o menos” than monolinguals. Independently from

[10] With respect to the items 2, 7, 11, 12, 21 and 23 their judgments are, however, close to the monolinguals.

[11] Based on our data we cannot confirm that HS behave overall more homogenously or more heterogeneously.

the individual uncertainty and crucially in the context of the debate concerning HS competences, however, our investigation clearly separates the norm and the monolingual competence, comparing HS only with the latter.

Comparing our results with those of other studies in the domain of the acquisition of DOM in Heritage Language Acquisition (HLA), our overall result differs from the one obtained for HS with the language combination English-Spanish (cf. e.g. Luján & Parodi 2001; Montrul 2004; Montrul & Bowles 2009; Montrul & Walker 2013; Guijarro-Fuentes 2011, 2012; Guijarro-Fuentes & Marinis 2011). This difference may be due to an influence of German which operates in an indirect way: As shown in section 2.1, Spanish and German have more in common with respect to argument marking than Spanish and English and this may be the cause for the different results. The German system, even though it is based on morphosyntactic cues in contrast to the semantic-pragmatic system of Spanish, might help to remind the early bilinguals of a general presence of a marking system. This is, in contrast, not the case if English is the majority language. German thus helps to establish and maintain the Spanish L1 DOM system based on [+ LF-interpretable] features (LF = logical form) (which are acquired before non-interpretable ones, see Tsimpli 2001).[12]

Relating our results of the L2 learners to the hypotheses of L2A theory (see section 2.4), there is an important difference with respect to HLA: The assumed advantage of the present German system does not seem to hold for the L2 speakers since we observe that the German L2-learners have similar problems as the English ones. These problems may lie in the rather opaque Spanish DOM system (see all the non-core cases documented in section 2.1) which obscures the pertinent feature composition in the case of obligatory marking (according to Lardiere´s *Feature Reassembly Hypothesis*; Lardiere 2008). Interestingly, however, our results for the L2 speakers contradict the assumption underlying the *Interpretability Hypothesis* (Tsimpli & Dimitrakopoulou 2007) according to which the uninterpretable features cannot be acquired whereas the interpretable features should not cause any problem in LA. In this line of reasoning, German L2-learners of Spanish should not have any problem with DOM, because their task is to acquire a DOM system based on [+ LF-interpretable] features. However, our (advanced) L2-learners clearly show a non-native performance. We therefore assume that the status of features (alone) cannot explain the L2 development of DOM, in particular if learners are confronted with a complex and opaque interface domain in their L2. In contrast, the *Interface Hypothesis* (Sorace 2003, 2011) seems to be more suitable as we are dealing with a phenomenon at the semantics/pragmatics as well as semantics/syntax-interface. Due to the complexity of DOM, it may also be very likely that not only one single hypothesis can explain the L2 acquisition process.

Finally, we would like to mention a further result of our study: In contrast to the L2-learners, monolinguals and HS are sensitive to how the examples were presented, i.e. whether or not the DOM expectation based on the RAE and the presentation of the items were conform (cf. table 7). The presence (or absence, respectively) of this sensitivity may be another crucial difference between (monolingual and bilingual) L1 language acquisition as opposed to L2 acquisition. From a methodological point of view, grammaticality judgment tasks may differ from other test formats where L2 learners may perform equally well as bilinguals from birth or even monolinguals.

5. Conclusion

In this paper, we have presented the first results of an ongoing study on the acquisition of Spanish DOM by HS and by L2-learners in Germany. Based on our results, we conclude the

[12] Another reason for the different outcomes of the two language combinations could be, for example, that the other studies are based on Spanish varieties that (may) differ with respect to DOM from the peninsular Spanish variety of our study.

following three points: First, monolingual speakers deviate, just as bilinguals, from the RAE-norm. Second, HS and monolingual speakers pattern mostly similarly, unlike in studies in the language combination Spanish-English. The observed amount of deviations produced by HS can be tentatively explained in terms of uncertainty of their judgments (tested by the use of the option "más o menos"). In the detailed quantitative and qualitative item-related analysis, we found the only "incorrectness" to be related to one single test item. We further observed that both groups are sensitive to the presentation of the items in the way that they converge more often to the RAE-norm when we presented the item in the correct way (where "bien" was the expected answer) than when we presented the incorrect version (where "mal" was the expected answer). Third, the L2 learners pattern very differently and produce significantly more "errors" related to the RAE-norm. In addition, they are not sensitive to the presentation of the items.

Our preliminary results obviously require more data for confirmation, in particular better balanced groups which allow for more subtle statistics. Furthermore, additional results from the analysis of the other two tests, which we did not present here for reasons of space, will prove important in order to see how the different speakers perform in those tests and to which extent the different speaker groups prove sensitive to other types of tasks and test items.

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Differential Object Marking in ditransitive constructions in Basque

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1. Introduction*

Many modern Basque varieties are characterized by a phenomenon which has been called 'dative over-marking' (Austin 2006, Rodríguez-Ordóñez 2013) or referred to as the use of 'quirky dative' (Fernández & Rezac 2010). Instead of using the absolutive case for the direct object, which is morphologically unmarked in the singular, as illustrated in (1), speakers of these varieties tend to mark the direct object by the dative suffix *-(r)i*, as shown in (2) (Mounole 2012: 363):

(1) Nik zu ikusi zaitut.
I.ERG you.ABS see AUX
'I have seen you.'

(2) Nik zu**ri** ikusi dizut.
I.ERG you.DAT see AUX
'I have seen you.'

It has been noted that this 'dative over-marking' depends on properties of the direct object. For instance, in Bizkaian varieties of Basque spoken in Lekeitio or Gernika, speakers mark the direct object with the dative case when it is human, but always use the absolutive case in combination with a non-human object (Hualde, Elordieta & Elordieta 1994:89, Austin 2006, Mounole 2012:366f, Odria 2014, Fernández & Rezac 2016, Rodríguez-Ordóñez 2017:320, Odria Tudanca 2017):

(3) (a) Pedrori ikusi dotzat.
Peter.DAT see AUX
'I have seen Peter.'
(b) Etxie ikusi dot.
house.ABS see AUX
(b') *Etxieri ikusi dotzat.
house.DAT see AUX
'I have seen the house.'

Given this difference, the use of the dative form in (3a) has been interpreted as an instance of Differential Object Marking (DOM). Generally, it is assumed that this differential marking of

* We would like to thank the audience of the *8th Nereus Workshop on referential properties of the Romance DP in the context of multilingualism,* Cambridge University, December 2-3, 2016, in particular Teresa Parodi for organizing the event and editing this volume as well as for commenting our paper. We also like to thank an anonymous reviewer for very helpful comments. Our thanks also go to the participants of the *Workshop on language variation in the Basque Country*, Palma de Mallorca, December 4, 2017, in particular to the organizer of this event, Maria del Mar Vanrell. The research conducted by Klaus von Heusinger and Alazne Arriortua for this paper was funded by the German Research Foundation (DFG) as part of the SFB 1252 "Prominence in Language" in the project B04 "Interaction of nominal and verbal features for Differential Object Marking" at the University of Cologne.

the direct object is due to the influence of Spanish, in particular to the Spanish variety spoken in the Basque Country (or Basque Spanish in the following, see Austin 2006, Rodríguez-Ordóñez 2013, 2016, 2017). Spanish is a DOM language which marks human direct objects with the marker *a* if they are introducing a discourse referent (Leonetti 2004, Bleam 2005, von Heusinger & Kaiser 2005). The DOM marker *a* is a homophone of the marker for the indirect object and the preposition *a* 'to' (Torrego 1999, Laca 2006, Fábregas 2013):

(4) (a) Vi a Pedro.
saw.1SG DOM Pedro
'I saw Peter.'
(b) Vi la casa.
saw.1SG the house
(b') *Vi a la casa.
saw.1SG DOM the house
'I saw the house.'

In addition, Basque Spanish displays a further 'dative over-marking' phenomenon. It exhibits 'animated leísmo' which consists of the fact that the (etymologically) dative clitic pronoun *le* – and (less often) also its plural counterpart *les* – is used instead of the accusative masculine clitic pronoun *lo(s)* – and (less often) also the feminine form *la(s)* – when referring to a human direct object ((5a)). In contrast, non-human and inanimate direct objects are usually referred to by accusative clitic forms ((5b)) (Fernández-Ordóñez 1999):

(5) (a) (A Pedro) le he visto esta mañana.
DOM Peter CLIT.DAT.3SG have.1SG seen this morning
'I saw Peter this morning.'
(b) (El coche) lo he comprado esta mañana.
the car CLIT.ACC.3SG have.1SG bought this morning
'I bought the car this morning.'

It is assumed that the use of the dative clitic pronoun *le* for the direct object likewise triggers DOM as a contact phenomenon in the Basque dialects, as we have two structural elements that are parallel and might motivate the development of DOM in Basque: (i) the DOM marker *a* in Spanish, which is a homophone of the dative case marker *a* and which corresponds to the dative suffix *-(r)i* in Basque that is used for DOM, (ii) the (etymologically) dative clitic pronoun *le* which cliticizes to the verb and may co-occur with the *a*-marked direct object and which corresponds to the verbal suffix for the dative in the auxiliary in Basque. See (6) for a comparison.

(6) (a) **A** Pedro **le** he visto esta mañana.
DOM Peter CLIT.**DAT.3SG** have.1SG seen this morning
(b) Pedro**ri** gaur goizean ikusi do**tza**t.
Peter.DAT today morning see AUX.DITR.PRES.ABS.3SG.**DAT.3SG**.ERG.1SG
'I saw Peter this morning.'

Thus, the data suggest a close structural similarity between transitive sentences in Basque Spanish and the neighboring Basque dialects: the DOM marker *a*, which is a homophone of the dative marker *a* in Spanish, corresponds to the dative suffix *-(r)i*, which is used as a DOM

marker in Basque. The etymologically dative clitic *le(s)* in Spanish corresponds to the agreement marker for the dative in the auxiliary in Basque.[1]

Extending these corresponding features to ditransitive constructions, it has been argued that in Basque DOM varieties a human direct object is blocked from DOM in constructions where two internal (case-marked) arguments are present (Albizu & Fernández 2006:86, fn 18). This is illustrated by the contrast in (7): While in (7a) the DOM-marked direct object *Aneri* may co-occur with an animate goal argument when this is marked with allative case (*amona-rengana* 'grandma-ALL'), DOM is blocked or at least less accepted when the other argument is an animate indirect object marked with dative (*amona-ri* 'grandma-DAT'), as in (7b).

(7) (a) Martak Aneri eraman dio amona**rengana**.
Marta.ERG Ana.DAT carry AUX grandmother.ALL
'Marta has carried Ana to (her) grandmother.'
(b) */?? Martak Aneri eraman dio amona**ri**.
Marta.ERG Ana.DAT carry AUX grandmother.DAT
'Marta has carried Ana to (her) grandmother.'

A similar contrast exists in Spanish. As shown by Comrie (2013:42), nothing prevents DOM for a human direct object in constructions with a prepositional phrase marked by *a* 'to'. However, this is less accepted when the direct object co-occurs with a human indirect object:

(8) (a) Marta envió a Ana a la escuela.
Marta sent DOM Ana to the school
'Marta sent Anne to school.'
(b) */?? Marta (le) envió a Ana a la abuela.
Marta CLIT.DAT.3SG sent DOM Ana to the grandmother
'Marta sent Anne to (her) grandmother.'

In this paper, we examine in a more detailed manner the conditions for DOM in Basque dialects, and in particular the blocking effects for DOM in Spanish and Basque and discuss whether these effects are identical or whether there are differences with respect to DOM constraints. We first describe the distribution and the use of DOM in Basque varieties in transitive constructions by contrasting them with Spanish (section 2). Second, we do the same for ditransitive constructions in Spanish by discussing the results from a recent questionnaire-based study on DOM in ditransitive constructions in Spanish (section 3). Third, we present original data from a recent questionnaire of speakers in Soraluze (Deba Valley, Gipuzkoa). The results show interesting similarities, but also very crucial contrasts to the constraints, as described for Spanish (section 4).

2. DOM in transitive constructions: Contrasting Basque and (Basque) Spanish

Differential Object Marking denotes the phenomenon of languages marking their direct objects in different ways. The most common and best-investigated type of DOM is that a language

[1] An anonymous reviewer has pointed out to us two additional arguments for this view:

1. As noted above, in Basque Spanish *le*(*s*) is generally used not only instead of masculine *lo*(*s*), but also instead of feminine *la*(*s*). In other words, 'animate leísmo' in Basque Spanish does not make any gender distinction as it is the case in Basque too.

2. An important specificity of Basque Spanish among all other Peninsular Spanish varieties is that clitic doubling is also possible (and frequent) with direct (animate) objects in postverbal position. In other words, accusative *le*(*s*) behaves in a similar way as dative *le*(*s*) which is often analyzed as agreement marker since it almost obligatorily doubles the indirect object (cf. e.g. Franco 2000, Enrique-Arias 2005, Ormazábal & Romero 2013; but see also Baker & Kramer 2018 for important arguments against this assumption).

shows an alternation between no overt marking and some kind of overt case marking, such as a prenominal lexeme *a* in Spanish or *et* in Hebrew, or a case suffix as in Turkish or Hindi (Bossong 1991, Aissen 2003, de Hoop & Narasimhan 2005, Fernández & Rezac 2016). DOM languages show obligatory marking, optional marking and obligatory non-marking of their direct objects. Various parameters have been identified that determine this alternation: The most important parameters are animacy and referentiality, but topicality and affectedness have also been shown to be relevant for DOM.[2] The parameters can have two or more values, aligned on a scale or hierarchy. Languages differ in which parameters are crucial for DOM and at what point on a scale they make the cutoff point. In the following, we focus on animacy and referentiality, and argue that the Basque dialects – like Spanish – show (at least) two-dimensional DOM – depending on animacy and referentiality.[3]

As for animacy, it is assumed that there is a scale with three values, as in (9) (Silverstein 1976): human, animate and inanimate which can be subdivided either in +human vs. -human (comprising non-human animate and inanimate) or in +animate (comprising human and non-human animate) vs. inanimate. DOM in Spanish is generally assumed to depend on the ±animate contrast, but in some cases the ±human contrast also plays a role (see von Heusinger & Kaiser 2005).[4] As already shown in (4), repeated here as (10), the human direct object in (10a) must have DOM, while the inanimate direct object in (10b) cannot be marked.

(9) Animacy Scale:
human > animate > inanimate

(10) (a) Vi *(a) Pedro.
saw.1SG DOM Pedro
'I saw Peter.'
(b) Vi (*a) la casa.
saw.1SG DOM the house
'I saw the house.'

The second parameter is the referentiality of the direct object, which is broken down to different values according to the type of nominal phrase, from personal pronouns to indefinite noun phrases, including the distinction between specific and non-specific noun phrases (Aissen 2003:437). We have extended this Definiteness Scale or Referentiality Scale (11) by the additional value of 'non-referential nouns', i.e. direct objects that do not introduce discourse referents and behave like non-referential or weak referential terms such as bare nouns or weak definites.[5] We need this additional value in order to account for the cutoff point in Spanish,

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[2] See von Heusinger & Kaiser (2003, 2005) or Leonetti (2004, 2008) for the discussion of the role of specificity and topicality for DOM in Spanish.

[3] Topicalized direct objects in Spanish are always DOM-marked, even if they are not marked in the non-topicalized position (Leonetti 2004:86):
(i) (a) *(A) muchos estudiantes, ya los conocía.
DOM many students, already CLIT.ACC.3PL.M knew.1SG
'Many students I already knew.'
(b) Ya conocía muchos estudiantes.
already knew.1SG many students
'I already knew many students.'
Furthermore, we have argued elsewhere (von Heusinger & Kaiser 2011) that affectedness also influences DOM in Spanish. In this paper, we cannot extend the analysis to these two factors, but rather confine ourselves to animacy and referentiality in Basque.

[4] See Krause & von Heusinger (2018) for a gradient analysis of animacy in the DOM language Turkish.

[5] In earlier work, we termed this value 'non-argumental', which might be misleading, as the direct object is filling in the theme argument or the grammatical role of the direct object. However, the noun phrases do not introduce a discourse referent, but rather refer to a predicate or property (see Bleam 2003 for Spanish). In this view, we distinguish between non-specific referential noun phrases and non-referential noun phrases. The

which is between a non-specific noun phrase and a non-referential expression, as in (12). The definite noun phrase in (12a) and the indefinite specific one in (12b) must be DOM-marked. The direct object *un ayudante que sepa inglés* is non-specific, as indicated by the subjunctive of the predicate *sepa* of the relative clause. In this case, DOM is optional. However, in (12d) with a non-referential interpretation of the direct object *un ayudante*, DOM is ungrammatical (but note that DOM would be possible in the referential but non-specific reading).

(11) Referentiality Scale:
personal pronoun > proper noun > definite NP > indefinite specific NP > indefinite non-specific NP > non-referential nouns ('bare nouns')

(12) (a) Vi *(***a**) **la mujer.**
saw.1SG DOM the woman
'I saw the woman.'

(b) Vi *(***a**) **una mujer**.
saw.1SG DOM a woman
'I saw a woman.'

(c) Necesitan (***a***) **un ayudante que sepa inglés**.
need.3PL DOM an assistant that speak-SUBJ.3SG English
'They need an assistant who knows English.'

(d) El dentista necesita ***a** **un ayudante**.
the dentist needs DOM an assistant
Intended reading: 'The dentist needs some kind of assistant.'

Basque is an ergative-absolutive verb-final language with a free word order that marks its main arguments with agreement morphemes for person and number on the auxiliary in finite clauses, as in (13) to (15) (Etxepare 2003). The agent of intransitive (monovalent or bivalent) sentences is in the absolutive and is marked on the auxiliary, as in (13). In a transitive sentence, the subject is in the ergative case and the direct object in the absolutive case, both also agreeing in person and number with the auxiliary, as in (14). In a ditransitive construction, the indirect object is marked by the dative case *-(r)i* and agrees with the auxiliary, as in (15):

(13) (a) Ni joan naiz. (monovalent intransitive sentence)
I.ABS leave AUX.INTR.ABS.1SG
'I have left.'

(b) Niri adiskide bat joan zait. (bivalent intransitive sentence)
I.DAT friend one leave AUX.INTR.ABS.3SG.DAT.1SG
'A friend of mine has left.' (literally: 'To me a friend has left')

(14) Nik zu ikusi zaitut.
I.ERG you.ABS see AUX.TR.ABS.2SG.ERG.1SG (transitive sentence)
'I have seen you.'

(15) Nik zuri liburua eman dizut. (ditransitive sentence)
I.ERG you.DAT book-the.ABS give AUX.DITR.ABS.3SG.DAT.2SG.ERG.1SG
'I have given the book to you.'

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contrast can best be seen in simple episodic sentences without further operators, such as (i) with a specific or non-specific interpretation, vs. (ii) with a non-referential interpretation. While the indefinite in (i) introduces a discourse referent that can be reintroduced by the pronoun *it*, sentence (ii) has a reading (besides the strong definite reading) that is a weak and does not introduce a discourse referent which is shown by the infelicitous continuation.

(i) Peter reads a newspaper. It is thick.
(ii) Peter reads the newspaper. #It is thick.

As far as DOM is concerned, standardized Basque (*Euskara Batua* 'Unified Basque', in the following: Standard Basque) does not show any effect of it. DOM only occurs in dialects and in colloquial speech. It is highly stigmatized and often corrected by teachers of Basque or by parents (Ezeizabarrena 1996:112, Austin 2006:140, Fernández & Rezac 2016:102, fn.8). This explains why many speakers, when asked, strongly reject the use of dative objects in transitive constructions. In Spanish, in contrast, DOM is not restricted to dialectal or other varieties. It is part of the grammar of every native speaker of Spanish, even though some differences exist with respect to some specific conditions of its use. On the other hand, *leísmo* is a dialectal phenomenon in Spanish. However, it is widespread in European Spanish and considered to be correct in Standard Spanish when the pronoun refers to a masculine (singular) person (*leismo de persona masculina*) (Real Academia Española 2009:1215).[6]

According to Fernández & Rezac (2016), DOM occurs to different degrees in many dialects of Western Basque varieties. It is attested in dialectal varieties of Bizkaian Basque (B), Gipuzkoan Basque (G) and High Navarrese (HN). It does not occur, however, in the eastern varieties of Basque, namely in Lapurdian (L), Low Navarrese (LN) and Zuberoan (Z). In other words, as one can draw from figure 1, DOM is absent from the varieties spoken in the French part of the Basque Country.

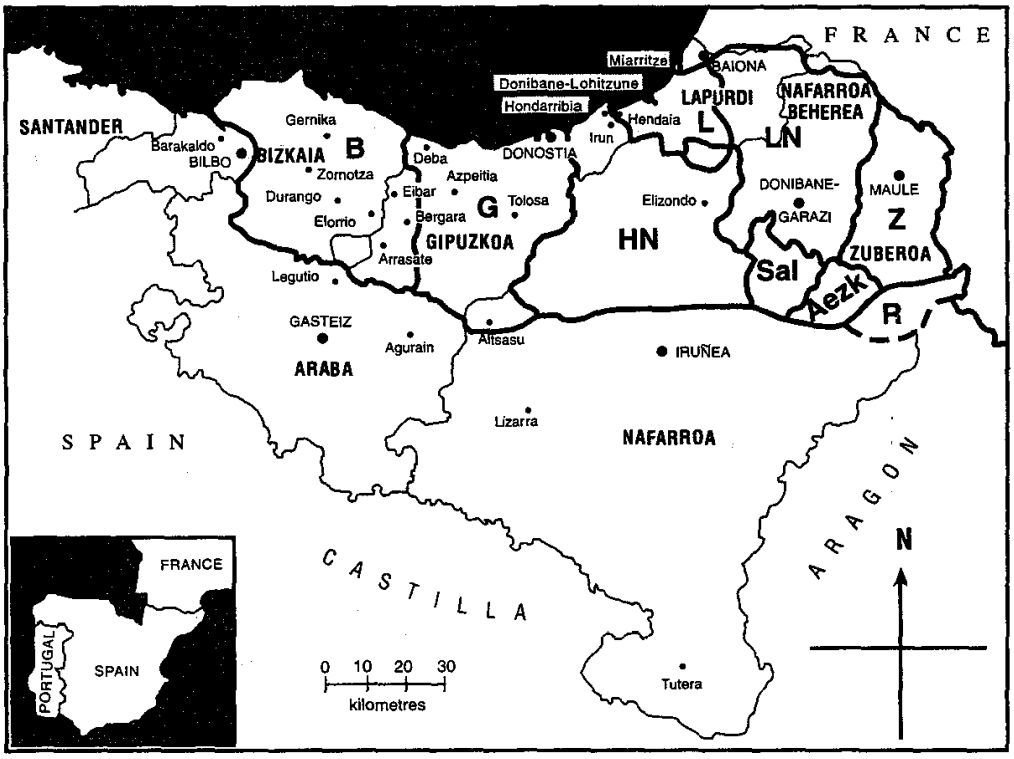

Figure 1: The main dialectal varieties of Basque (Trask 1997:6)

This distribution strongly supports the assumption that DOM in Basque is due to language contact. In contrast to Spanish, both contact languages for Basque in France, namely French and Occitan (Gascon), are not DOM languages, since they only exhibit DOM in very limited contexts (Rohlfs 1971, Roegiest 1979, Iemmolo 2010). Furthermore, they have not developed

[6] It is interesting to note that, in comparison to other varieties of Spanish, *leísmo* is used in the Basque Country in one of its most extended forms (Fernández-Ordoñez 1999:1349-1355). In addition to masculine pronouns, it is also widely employed with feminine animate pronouns and it may also occur with non-animate pronouns among speakers of Basque Spanish with both low and high sociocultural levels (Urrutia Cárdenas 1995).

a personal pronoun system with dative overmarking as is the case in Basque Spanish with *leísmo*.[7]

In Basque DOM varieties, the conditions for DOM are different, but all depend on the referentiality and animacy scales. Fernández & Rezac (2016) report that most Basque DOM dialects show DOM with 1st and 2nd person pronouns, while only some exhibit DOM with 3rd person objects. In those varieties exhibiting DOM with 3rd person objects, DOM is rather more frequent with 1st and 2nd person direct objects (Hualde, Elordieta & Elordieta 1994:125f). In many varieties, DOM is only obligatory or optional for 1st and 2nd object pronouns, but completely excluded for 3rd person objects even if they are [+human] (pro)nouns or proper nouns. This is the case of the Bizkaian variety from Arratia, as illustrated in (16) (Fernández & Rezac 2016:105):

(16) (a) (Zuk) (neri) ikusi dostesu.
you.ERG I.DAT see AUX.DITR.PRES. ABS.3SG.DAT.1SG.ERG.2SG
'You have seen me.'
(b) (Nik) (suri) ikusi dotzut.
I.ERG you.DAT see AUX.DITR.PRES.ABS.3SG.DAT.2SG.ERG.1SG
'I have seen you.'
(c) (Nik) Jon ikusi dot.
I.ERG John.ABS see AUX.TR.PRES.ABS.3SG.ERG.1SG
(c') (Nik) *Joneri ikusi dotzat.
I.ERG John.DAT see AUX.DITR.PRES.ABS.3SG.DAT.3SG.ERG.1SG
'I have seen John.'

For those dialects that allow DOM for full descriptive nouns, i.e. proper names, definite and indefinite noun phrases, animacy can be a further crucial condition for marking. This is illustrated by data from Gernika Basque where the dative marking of 3rd person direct objects is only possible with human nouns, as in (17a), but not with inanimate nouns, as in (17b) (Rodríguez Ordóñez 2017:320):

(17) (a) Nik Mikeleri ikusi dotsat.
I.ERG Michael.DAT see AUX.DITR.PRES.ABS.3SG.DAT.3SG.ERG.1SG
'I have seen Michael.'
(b) Nik etxie ikusi dot.
I.ERG house.ABS see AUX.TR.PRES.ABS.3SG.ERG.1SG
(b') *Nik etxieri ikusi dotsat.
I.ERG house.DAT see AUX.DITR.PRES.ABS.3SG.DAT.3SG.ERG.1SG
'I have seen the house.'

Those varieties showing DOM with 3rd person pronouns and definite and indefinite noun phrases generally may also exhibit a definiteness or specificity constraint. Mounole (2012:369) reports a specificity contrast in DOM in Gipuzkuan Basque. The absolutive on the indefinite *idazkari bat* 'a secretary' in (20a) allows only for a non-referential reading, while the dative

[7] As noted by Austin (2006:140), some dialects of Northern Basque are characterized by a phenomenon that is called 'dative undermarking'. Speakers of these dialects make use of transitive auxiliary forms instead of ditransitive ones in ditransitive constructions, using for instance the auxiliary *nau* 'PRES.ABS1SG.ERG3SG' instead of the auxiliary *daut* 'PRES.ABS3SG.ERG3SG.DAT1SG'. Austin (2006:140) notes that there are also speakers of Southern Basque who make use of this kind of dative undermarking.

case on the indefinite *idazkari bati* 'a secretary-DAT' in (18b) forces a referential and specific reading. Compare the Spanish examples in (12c-d).[8]

(18) (a) Idazkari bat bilatzen det.
secretary one.ABS looking-for AUX.TR.PRES.ABS.3SG.ERG.1SG
'I am looking for a secretary.' (in general)
(b) Idazkari bati bilatzen diot.
secretary one.DAT looking-for AUX.DITR.PRES.ABS.3SG.DAT.3SG.ERG.1SG
'I am looking for a secretary.' (= one particular who is working in my office)

Further conditioning features for DOM in Basque are tense, finiteness and agreement. Fernández & Rezac (2016:107) point out by referring to Sagarzazu (2005:82) that in some Basque DOM varieties, as in the dialects of Hondarribia and Irun, DOM is restricted to past tense only. They further report that in the Navarrese dialect of Araitz-Betelu, for some speakers DOM is optional in the present tense, while it is obligatory in the past:

(19) (a) Nik zu ikusi zattut.
I.ERG you.ABS see AUX.TR.PRES.ABS.2SG.ERG.1SG
'I saw you.'
(a') Nik zui ikusi dizut.
I.ERG you.DAT see AUX.DITR.PRES.ABS.3SG.DAT.2SG.ERG.1SG
'I see you'
(b) *Nik zu ikusi zintudan.
I.ERG you.ABS see AUX.TR.PAST.ABS.2SG.ERG.1SG
(b') Nik zui ikusi nizun.
I.ERG you.DAT see AUX.DITR.PAST.ERG.1SG.(ABS.3SG).DAT.2SG
'I saw you.'

In addition, Fernández & Rezac (2016:108) note that in the Bizkaian dialect spoken in Dima, DOM is obligatory with the 1st and 2nd persons if the direct object agrees with the finite auxiliary, as in (20a), while it is optional for non-agreeing objects of non-finite clauses, as in (20b):

(20) (a) Seuri eroan gure dotzut.
you.DAT carry want AUX.DITR.PRES.ABS.3SG.DAT.2SG.ERG.1SG
'I want to bring you.'
(b) Seu ikusten etorri nes.
you.ABS seeing come AUX.INTR.PRES.ABS.1SG
(b') Seuri ikusten etorri nes.
you.DAT seeing come AUX.INTR.PRES.ABS.1SG
'I am coming to see you.'

Another factor influencing DOM in Basque seems to be the presence or absence of the external and internal arguments of the verb (Austin 2006). Basque, being a language with a morphologically rich inflectional verbal system which encodes person and number for subject, direct and indirect object, allows omitting up to three arguments, as illustrated in (21) for a ditransitive construction with the verb *eman* 'to give':

[8] Fernández & Rezac (2016:106) quote Mounole (2012) for Lekeito Basque, where indefinite (human) direct objects cannot take DOM, and for Tolosa Basque, where indefinites and reciprocals are barred from DOM.

(21) (a) Nik zuri hori emango dizut.
I.ERG you.DAT that.ABS give.FUT AUX.DITR.PRES.ABS3SG.DAT2SG.ERG1SG
(b) Emango dizut.
give.FUT AUX.DITR.PRES.ABS3SG.DAT2SG.ERG1SG
'I will give it to you.'

The relevant point here is that in DOM-marked contexts, Basque obligatorily resorts to the ditransitive auxiliary form. As a consequence, the absolutive marker *d-* in the auxiliary does not have any corresponding argument in such a clause, but refers to an obligatory empty (direct) object.[9]

(22) Nik zuri **Ø** ikusi **d**izut.
I.ERG you.DAT **Ø.ABS** see AUX.DITR.PRES.**ABS3SG**.DAT2SG.ERG1SG
'I have seen you.'

Due to this behavior, Austin (2006:143) conjectures that the omission of arguments in DOM Basque dialects may lead to a 'confusion' as to whether the dative marker in the auxiliary refers to a direct object or an indirect object and facilitates dative marking of animate direct objects in transitive constructions. In an experimental study, Rodríguez-Ordóñez (2013:243) confirms this hypothesis by observing that in clauses with null objects, DOM (on the auxiliary) was rated significantly higher than when an overt object was present.[10]

Summarizing our observations with respect to DOM in transitive constructions of Spanish and Basque, we state the following:

1. DOM is a special marking of a specific subgroup of direct objects; it is a general property of Spanish and a property which exists in a number of Basque dialects, except in the eastern ones, i.e. those spoken in the French part of the Basque Country;
2. Both in Spanish and in Basque dialects, this marking underlies typical restrictions for Differential Object Marking in general; in particular, DOM is marked in accordance with the referentiality and animacy parameters;
3. DOM in Basque dialects differs from DOM in Spanish in that
    i. all Basque DOM dialects allow DOM for the 1st and 2nd personal pronoun, but vary considerably with respect to the conditions of marking 3rd person pronouns and noun phrases;
    ii. in some Basque dialects, DOM further depends on tense, finiteness and agreement patterns;
    iii. in Spanish, DOM is morphologically realized by the prenominal marker *a* – and sometimes additionally by clitic doubling of the marked object –, while in Basque, DOM is morphologically indicated by a dative case suffix at the noun and a dative agreement morpheme in the auxiliary.

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[9] Note that here Basque does not allow the use of the auxiliary form for bivalent intransitive clause (see (13b)) which would exclude the presence of an additional empty object:
(i) *Ni zuri ikusi *natzaizu*.
I.ABS you.DAT see AUX.INTR.PRES.ABS1SG.DAT2SG
'I have seen you.'
The reason for this lies in the ergative-absolutive system of Basque which requires the subject of a transitive action to be marked by the ergative. As a consequence, when the intransitive auxiliary form is used, the subject cannot be marked by the ergative although the action is transitive. Therefore, (i) is ruled out.

[10] Note that there is convincing evidence that DOM-marked objects in Basque are indeed direct objects, and not indirect objects. Fernández & Rezac (2016:109-126; partly based on the work of Odria 2014) provide broad evidence of the behavior of DOM objects in (i) secondary predication, (ii) exceptional case marking, (iii) concomitantly, i.e. the requirement of agreement, (iv) the dependency on tense marking.

3. DOM in ditransitive constructions: Contrasting Basque and (Basque) Spanish

As just noted in footnote 8, a fundamental peculiarity with respect to DOM in Basque is that the auxiliary used in these constructions obligatorily bears the ditransitive form. Thus, a crucial question is what happens to the marking of a (human) direct object in Basque DOM varieties when it co-occurs with an overt indirect object in ditransitive constructions. In particular, the question is whether DOM may be blocked or disfavored in these contexts as is the case in Spanish and if so, whether there are similar parameters for DOM in ditransitive constructions as has been observed for Spanish.

We already noted in the introduction that there are some blocking effects for DOM in ditransitive constructions in both languages. This has been illustrated in examples (7b) and (8b), repeated here as (23) and (24), respectively, which show that speakers hesitate to accept DOM of the human direct object in constructions containing an internal (dative-marked) indirect object:

(23) */?? Martak Aneri eraman dio amonari.
Marta.ERG Anne.DAT carry AUX.DITR.ABS.3SG.DAT.3SG grandmother.DAT
'Marta has carried Anne to (her) grandmother.'

(24) */?? Marta (le) envió a Ana a la abuela.
Marta CLIT.DAT.3SG sent DOM Anne to the grandmother
'Marta sent Anne to (her) grandmother.'

However, the situation is more complicated since judgements strongly differ with respect to the grammaticality of the use of a DOM-marked direct object in ditransitive constructions. As for Spanish, we have already discussed this extensively in von Heusinger, Romero, Kaiser (2016) and von Heusinger (2018) and showed that DOM is determined by a number of parameters in these constructions. These parameters are, among others, the respective order of direct and indirect object, the presence or absence of a doubling dative clitic pronoun and the (semantic) class of the finite verb. There is, in particular, a controversy as to the effect of clitic doubling of the indirect object. According to certain grammatical conditions, indirect objects can or must be doubled by a clitic (pronoun) form that agrees in case and number with the indirect object (Campos 1999). There are at least three positions in the literature on the effect of clitic doubling in ditransitive constructions: (i) it facilitates DOM of the direct object, (ii) it favors blocking of DOM, or (iii) it makes DOM ungrammatical. As for (i), Company Company (1998, 2002) claims that the clitic *le* in (25) facilitates the DOM of the direct object. As regards (ii), Rodríguez-Mondoñedo (2007:216) claims that "[...] clitic-doubled IOs seem to allow the dropping [of the DOM marker] more easily than their non-doubled counterparts, at least for some speakers […]." As for (iii), Fábregas (2013:31) reports that *a*-marking of the direct object is more grammatical without clitics than it is with clitics, as in (26). Ormazábal & Romero (2013:224) also assume that clitic doubling bans *a*-marking of the direct object.

(25) El maestro le presentó a su mujer a Juan.
the teacher CLIT.DAT.3SG introduced.3SG DOM his wife to Juan
'The teacher introduced his wife to Juan.'
(judgement according to Company Company 2001:20)

(26) *Le enviaron a todos los heridos a la doctora.
CLIT.DAT.3SG sent.3PL DOM all the injured to the doctor
'They sent all the injured to the doctor.'
(judgement according to Fábregas 2013:31)

Judgements on such subtle differences may easily become controversial. Therefore, in von Heusinger, Romero & Kaiser (2016) and von Heusinger (2018), we performed our own empirical study and investigated DOM in ditransitive constructions in Spanish with two questionnaires, which will be summarized in the next two sections.

3.1. The design of the study

We tested the conditions presented in the previous sections both in Spanish and in Basque.

The Spanish test was a forced-choice task based on the presence or absence of the (doubling) clitic pronoun *le* and on the respective order of the direct object and the indirect object, as shown in Table 1 below.

A	SUBJECT > Ø VERB > DO > IO
B	SUBJECT > Ø VERB > IO > DO
C	SUBJECT > CL VERB > DO > IO
D	SUBJECT > CL VERB > IO > DO

Table 1: Four conditions for each context

We distributed the critical items according to a Latin Square on four versions of the test, such that each participant saw each context once and each condition 4 times. Each questionnaire had 16 critical items and 36 filler items, in total 52 times. The participants were 40 students of the University of Alcalá in Spain (situated in Alcalá de Henares, near Madrid). They were all monolingual speakers of Spanish. The participants were asked to read a comprehensive context introducing the particular sentence. The participants had to decide by a forced-choice task whether the direct object is *a*-marked or not (Ø). We collected the answers of 10 participants for each of the four lists. In total, we had 640 judgments of the 2x2 design.

We categorized the 16 verbs in three classes: (i) verbs of caused perception (e.g. *presentar* 'to present'), (ii) verbs of caused possession, where the indirect object realizes a secondary possessor (e.g. *vender* 'to sell'), (iii) verbs of caused motion (e.g. *mandar* 'to send'). In order to illustrate how we proceeded in our study, we will provide one example for each verb class from our questionnaire. We will indicate the presence or absence of DOM by '*a*/Ø', but only provide the gloss 'DOM'. We will also highlight the direct object and the clitic pronoun for the indirect object in bold.

We used four verbs of caused perception: *presentar, mostrar, proponer, enseñar* ('to introduce', 'to show', 'to propose', 'to show'). They take the agent as subject, the theme as direct object (theme) and a secondary experiencer as the indirect object. (27) represents an example from the questionnaire for the verb *presentar*.

(27) Todo el mundo en la comisaría esperaba la llegada del nuevo policía. Cuando este por fin llegó, se dirigió al despacho del comisario. Pasado un rato, el comisario mandó llamar al agente López. Entonces …
'Everybody at the police station was awaiting the arrival of the new policeman. When he arrived, he went to the superintendent's office. Afterwards, the superintendent ordered that agent López be called. Then …'

(a) el comisario presentó **a/Ø su nuevo compañero** al agente.
the superintendent introduced.3SG DOM his new colleague the.DAT agent

(b) el comisario presentó al agente **a/Ø su nuevo compañero**
the superintendent introduced.3SG the.DAT agent DOM his new colleague

(c) el comisario **le** presentó **a/Ø su nuevo compañero**.
the superintendent CLIT.DAT.3SG introduced.3SG DOM his new colleague
al agente.
the.DAT agent

(d) el comisario **le** presentó al agente
the superintendent CLIT-DAT-3SG introduced-3SG the.DAT agent
a/Ø su nuevo compañero.
DOM his new colleague

We used four verbs of caused possession: *vender, encomendar, incorporar, devolver* ('to sell', 'to entrust sth. to sb.', 'to incorporate', 'to return'). The semantics of these verbs is that the agent moves the theme (direct object) towards the recipient (indirect object) and, at the end of the event, the recipient possesses the theme. The indirect object of *devolver* ('to return') is also a secondary possessor, but the verb expresses a presupposition that this possessor must have been a possessor before – however, it is not the same as a primary possessor. See (28) for an example from the questionnaire for the verb *encomendar*:

(28) Manuel y Elena salen de viaje mañana hacia Estados Unidos. Tienen un niño de apenas un año y es muy pequeño aún para llevarlo de viaje con ellos. Por ello, mientras ellos están fuera, …
'Manuel and Elena are going to travel to the United States tomorrow. They have a child of just one year and he is still too young to take on the road with them. Therefore, while they are out, …'
(a) Manuel ha encomendado **a**l**/Ø** el **niño** a su hermana.
Manuel has entrusted.3SG DOM-the child DAT his sister

For the verbs of caused motions we used *llevar, mandar, enviar, acercar* ('to carry', 'to send', 'to send', 'to come close'). The event described by these verbs contains an agent (subject), a theme (direct object) and a goal or recipient (indirect object) such that the agent causes the theme to move towards the recipient. (29) is an example with the verb *llevar*:

(29) Carlos se pasaba el día comiendo chucherías. Siempre que podía compraba chocolatinas o caramelos. De tanto comer dulces se le acabaron picando los dientes y, cuando se dio cuenta, …
'Carlos spent the whole day eating candy. He bought chocolate or sweets whenever he could. Eating so many sweets gave him cavities, and when his mother noticed it, …'
(a) su madre llevó **a**l**/Ø** el **niño** al dentista
his mother took.3SG DOM-the child DAT-the dentist
para que le hiciese una revisión.
for that him make.3SG an examination

3.2 The results of the study

The results show that there are overall more *a*-marked direct objects than unmarked ones. About 60% are marked and 40% are unmarked. This is quite a surprising result, since the literature suggests a much higher rate of DOM blocking.

	DOM	no-DOM	total
Clitic	50%	50%	100%
no clitic	65%	35%	100%
Total	**58%**	**42%**	**100%**

Table 2: Overall results of DOM vs. no-DOM depending on clitic doubling of the IO

We can state that for the verbs of caused perception, as well as for the verbs of caused possession, DOM is distributed almost randomly and that there is no effect of clitic doubling. However, for the verbs of caused motion we see two effects: First, the whole group clearly

favors DOM with and without clitic doubling (80% DOM). Second, clitic doubling has a very strong effect: with clitic doubling we find 66% DOM.[11] But without clitic doubling we have 92% DOM.

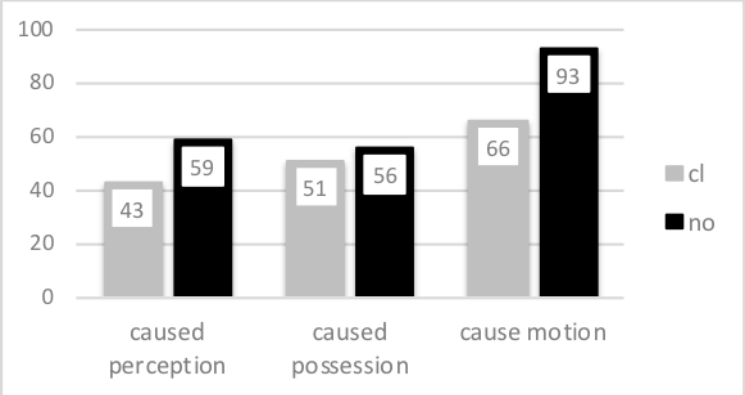

Figure 2: Percentage of DOM with and without the clitic of the indirect object by verb class (von Heusinger, Kaiser, Romero 2016)

We can now speculate that for verbs of caused motion clitic doubling is not just an additional way to mark the indirect object, but rather that it shows us that we are dealing with two different constructions. In one construction with clitic doubling, we have a recipient that competes with the human theme with respect to *a*-marking. In the construction without clitic doubling, the *a*-marked noun phrase is a goal, which, like other prepositional phrases, does not block DOM of definite human noun phrases. If we are on the right track, then this would mean that clitic doubling itself does not enhance or block DOM, but that the underlying construction of verbs of caused motion provides two very different argument structures, and that these argument structures are providing the relevant properties to enhance or block DOM. Needless to say, more research is necessary. To summarize our findings for Spanish: (i) overall, there is no clear blocking effect of DOM in ditransitive constructions with DOM-marked indirect objects. (ii) For most verbs, DOM does not depend on the clitic doubling of the indirect object; (iii) but for verbs of motion, clitic doubling has a clear effect on DOM: no clitic doubling licenses DOM, while clitic doubling clearly reduces the rate of DOM, but for many speakers DOM is still grammatical.

4. Testing DOM in Basque ditransitive constructions

Following the recent literature on DOM in Basque dialects and our observations with respect to Spanish, we can formulate the following hypotheses:

(30) Hypotheses about DOM in Basque dialects
H1: Basque dialects allow for DOM in transitive and ditransitive sentences
H2: DOM in Basque dialects depends on the Referentiality Scale.
H3: DOM in Basque dialects depends on the verb class.
H4: DOM in ditransitive constructions is blocked by the dative-case-marked indirect object

[11] The results of a follow up questionnaire in von Heusinger (2018) with the same design and verbs, but definite and indefinite noun phrases, are very similar. There is no clear contrast for clitic doubling for verbs of caused perception (with clitic doubling: 31% DOM, without clitic doubling: 43% DOM), but a stark contrast for verbs of caused motion (with clitic doubling: 37% DOM, without clitic doubling: 81% DOM)

In order to confirm these hypotheses, we undertook the first systematic questionnaire on DOM in a Basque dialect. The results of this questionnaire will lead to a better understanding of language contact between Spanish (or Spanish dialects) and Basque, but also contribute to a general theory of ditransitive constructions. It will also provide additional evidence for the underlying principles of DOM.

4.1 Experimental conditions

The Basque test was an acceptability judgement that included transitive and ditransitive sentences. The experimental stimuli consisted of two blocks with short sentences. Block A contained short transitive sentences, and Block B ditransitive sentences. Block A with the transitive sentences should provide a baseline for the range of the acceptance of DOM in general, and Block B should provide data on the acceptance of DOM in ditransitive sentences or its blocking.

4.1.1 Transitive test items

The experimental stimuli of the transitive sentences consisted of a definite human subject and the direct object (always human and in 3rd person). The test items varied according to the dependent variable, i.e. DOM on the direct object and DOM agreement on the auxiliary vs. no case marking and no auxiliary marking. We had two independent experimental conditions: (1) referentiality of the direct object: (a) proper names (PN), (b) (possessive) family names (FN), (c) definite noun phrases (DEF), and (d) indefinite noun phrases (IND); (2) verb classes: (a) highly affected, and (b) non-affected.

(31) Verb list of the two verb classes according to the affectedness of the direct object
(i) (highly) affected: *altxatu* 'to lift'; *hil* 'to kill'; *atera* 'to take out'; *jo* 'to hit', *harrapatu* 'to run over'; *bortxatu* 'to rape'
(ii) non-affected: *agurtu* 'to greet'; *maite izan* 'to love'; *ikusi* 'to see'; *salatu* 'to report'; *ezagutu* 'to meet'; *zaindu* 'to take care of'

Each verb appeared in two different sentences, such that we had 24 transitive test sentences. We had 6 test sentences for each of the 4 referentiality conditions. Each of the 24 test sentences had a DOM version with marking on the direct object and agreement morphology on the auxiliary, and a no DOM version with the direct object in the absolutive case and the appropriate agreement on the auxiliary. We distributed these sentences over two lists such that each participant saw each sentence only in the DOM or no-DOM condition. Examples for each condition are presented below.

(32) Sample test item for transitive sentences ([IND, affected, DOM])
Gaur goizian terroristak kazetari bati hil
Today morning.INESS terrorist.the.ERG journalist ART.INDEF.DAT kill
dotsa
AUX.DITR.ABS3SG.DAT3SG.ERG3SG
'This morning the terrorist killed a journalist.'

(33) Sample test item for transitive sentences ([IND, affected, no-DOM])
Gaur goizian terroristak kazetari bat hil
Today morning.INESS terrorist.the.ERG journalist ART.INDEF.ABS kill
dau
AUX.TR.ABS3SG.ERG3SG
'This morning the terrorist killed a journalist.'

(34) Sample test item for transitive sentences ([DEF, non-affected, DOM]

Kaseruak	auzokuari	salatu	dotsa
Farmer.the.ERG	neighbor.the.DAT	report	AUX.DITR.ABS3SG.DAT3SG.ERG3SG
barazkixak	lapurtziagaitxik		
vegetables.ABS.PL	steal.for		

'The farmer has reported the neighbor for stealing vegetables.'

(35) Sample test item for transitive sentences ([DEF, non-affected, no-DOM]

Kaseruak	auzokua	salatu	dau
Farmer.the.ERG	neighbor.the.ABS	report	AUX.TR.ABS3SG.ERG3SG
barazkixak	lapurtziagaitxik		
vegetables.ABS.PL	steal.for		

'The farmer has reported the neighbor for stealing vegetables.'

4.1.2 Ditransitive test items

The experimental stimuli of the ditransitive sentences consisted of a definite human subject, a definite indirect object and the direct object (both direct and indirect objects human and in 3rd person). The test items varied according to the dependent variable, i.e. DOM on the direct object and DOM agreement on the auxiliary. We had three independent experimental conditions: (1) referentiality of the direct object (a) (possessive) family names and (b) definite noun phrases; (2) verb classes (a) verbs of caused perception, (b) verbs of caused possession, and (c) verbs of caused motion, and (3) finite vs. non-finite verb forms.

We reduced the different values of referentiality to two values, family names and definite noun phrases, as we assumed that the higher values support DOM. We sorted the 12 verbs into three classes according to type. Here, we expected some also some contrast for Basque, following the observations reported for Spanish and other languages, about a difference between caused motion verbs and other verbs.

The verbs of group (a) are those of caused perception, such as *aurkeztu, gomendatu, proposatu, deskribatu* ('to introduce', 'to recommend', 'to propose', 'to describe'). They take the agent as subject, the theme as direct object (theme) and a secondary experiencer as the indirect object. The verbs of group (b) are those of caused possession: *saldu, eman, bueltatu, lapurtu* ('to sell', 'to give, 'to return', 'to steal'). The semantics of these verbs is that there is a change of possession of the theme (direct object). For the first three verbs, the possession changes from the agent to the experiencer realized in the indirect object, while for *to steal* it changes from the indirect object to the subject. The indirect object of *bueltatu* ('to return') is also a secondary possessor, but the verb expresses a presupposition that this possessor must have been a possessor before – however, it is not the same as a primary possessor. Group (c) covers verbs of caused motions such as *eraman, bidali, hurbildu, bota* ('to carry', 'to send', 'to bring (closer)', 'to throw'). The event described by these verbs contains an agent (subject), a theme (direct object) and a goal or recipient (indirect object) such that the agent causes the theme to move towards the recipient. The agent does not accompany that theme and the recipient does not become the possessor of the theme which becomes clear(er) by adding a final clause with *–t(z)eko* ('so that'), with the subject of that clause being the recipient.

(36) Verb list of the three verb classes

(a) caused perception:	*aurkeztu* 'to introduce'; *gomendatu* 'to recommend'; *proposatu* 'to propose; *deskribatu* 'to describe'
(b) caused possession:	*saldu* 'to sell'; *eman* 'to give'; *bueltatu* 'to return'; *lapurtu* 'to steal'
(c) caused motion:	*eraman* 'to carry'; *bidali* 'to send'; *hurbildu* 'to bring (closer)'; *bota* 'to throw'

Finally, we added the parameter of finiteness in order to see whether we would find a different sort of behavior from the situation in non-finite clauses, where DOM is only marked on the direct object but not on the verb or the auxiliary, if DOM is marked on the direct object and the auxiliary in the finite clauses. We had four verbs per verb class and each of these 12 verbs appeared once in a finite and once in a non-finite clause. We distributed family names and definite noun phrases equally over the 24 ditransitive test items. We also distributed these sentences over two lists so that each participant saw each sentence only in the DOM or no-DOM condition.

See below the four realizations of the verb *eraman* 'to carry' in the conditions finite vs. non-finite and DOM vs. no-DOM:

(37) Sample test item for ditransitive sentences ([FN, caused motion, finite, DOM]
Osatzeko aukeraren bat euki ahal dabelakuan, aitxitxak
recover.to chance some have can AUX.TR.ABS3SG.ERG3SG.COMP grandpa.ERG
amamari herriko sorginari eruan dotsa
grandma.DAT town.the.of witch.the.DAT carry AUX.DITR.ABS3SG.DAT3SG.ERG3SG
'Hoping she has a chance of recovering, (my) grandfather has taken (my) grandmother to the town's witch doctor.'

(38) Sample test item for ditransitive sentences ([FN, caused motion, finite, no DOM]
Osatzeko aukeraren bat euki ahal dabelakuan, aitxitxak
recover.to chance some have can AUX.TR.ABS3SG.ERG3SG.COMP grandpa.ERG
amama herriko sorginari eruan dotsa
grandma.ABS town.the.of witch.the.DAT carry AUX.DITR.ABS3SG.DAT3SG.ERG3SG
'Hoping she has a chance of recovering, (my) grandfather has taken (my) grandmother to the town's witch doctor.'

(39) Sample test item for ditransitive sentences ([DEF, caused motion, non-finite, DOM]
Ospitaleko arduradunek erabaki dabe pailazuari
hospital.the.of managers.the.ERG decide AUX.TR.ABS3SG.ERG3PL clown.the.DAT
ume gaixuei hilero eruatia
child sick.DAT.PL every.month carry.NOMIN
'The managers of the hospital have decided to take the clown to sick children every month.'

(40) Sample test item for ditransitive sentences ([DEF, caused motion, non-finite, no-DOM]
Ospitaleko arduradunek erabaki dabe pailazua
hospital.the.of managers-the.ERG decide AUX.TR.ABS3SG.ERG3PL clown.the.ABS
ume gaixuei hilero eruatia
child sick.DAT.PL every.month carry.NOMIN
'The managers of the hospital have decided to take the clown to sick children every month.'

We merged the first and second list of 24 transitive sentences with the first and second list of the 24 ditransitive sentences, respectively, which yielded two lists of 48 test items each. We did not add filler items or control items as we were wary of influencing the participants with such grammatical or ungrammatical items.

test item	transitivity	verb class	lexicalization	finiteness	DP type
1-12	transitive	affected	6 verbs twice	finite	IND, DEF, FN, PN
13-24	transitive	non-affected	6 verbs twice	finite	IND, DEF, FN, PN
25-32	ditransitive	caused perception	4 verbs twice	finite, non-finite	DEF, FN
33-40	ditransitive	caused possession	4 verbs twice	finite, non-finite	DEF, FN
41-48	ditransitive	caused motion	4 verbs twice	finite, non-finite	DEF, FN

Table 3: design of the test items

4.2 The participants and their dialect

The study was conducted with 44 Basque speakers, all of whom have Basque as their mother tongue, more specifically, speakers of the dialect of Soraluze. All but one (born in Soraluze but living in Bilbao for the last 18 months) were residents in Soraluze. 20 of them were older than 56 and 24 of them were between 20 and 56 years old.

4.3 The dialect of Soraluze (Deba Valley, Gipuzkoa).

Soraluze is located towards the west of Gipuzkoa, in the region of the Lower Deba. According to EUSTAT, 3949 people live here (data from 2017) and in 2016 59.39 % and 15.38% of the population were Basque speakers and quasi-Basque –people who understand but have difficulties speaking Basque–, respectively, whereas 25.23% were Spanish speakers. However, the *Street Measurement of Basque Use* carried out in Soraluze by the *Sociolinguistic Cluster* in 2017 shows that only the 31% of the street conversations are in Basque. Thus, Spanish has a great impact on, at least, the streets of Soraluze.

The Basque variety spoken in Soraluze is included in Zuazo's (2003, 2008, 2013, 2014) classification of the Western Basque dialect, more precisely in the Eastern sub-dialect. The Eastern sub-dialect is divided into varieties. Soraluze Basque, together with the varieties spoken in Antzuola, Bergara, Eibar, Elgeta and Ermua, constitutes what we know as Central Deba Valley variety (Zuazo 2006, 2017).

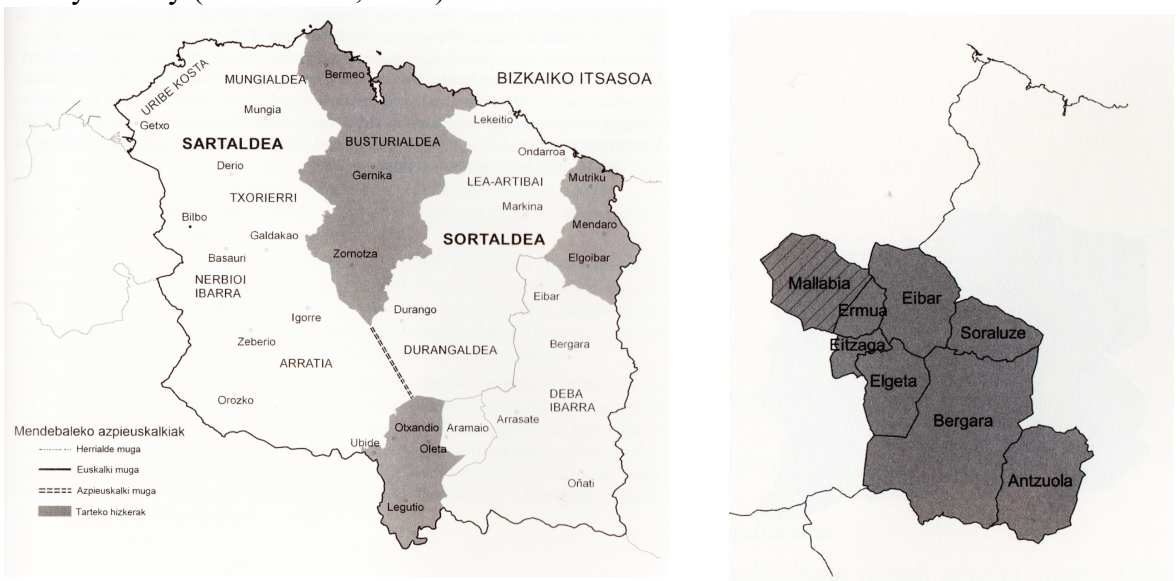

Figure 3: Western Basque (Zuazo 2017:67) and Central Deba Valley variety

4.4 Participants and experimental method

The experiment had three parts: the first part consisted of a bilingualism test – based on Weber-Fox and Neville (1996) and Munarriz (2015) – whereby we could get to know the participants' sociolinguistic profile, i.e. their language background and characteristics. Three sets of questions can be distinguished in this test: The first eight questions were related to personal

information such as age, gender, place of birth and residence, level of education, etc. The aim of the second group of questions was to gather data about the participants' acquisition of Basque and Spanish (at what age they acquired each language, their parents' mother tongues, whether they have ever learnt Basque in a formal context – i.e. at school, language schools, whether they have ever lost Basque – etc.). Finally, participants were asked to provide information about their language use (how often they read and wrote in Basque and Spanish,what language they tended to speak in some specific situations and which language they felt more comfortable in), in order to know whether they are balanced bilinguals or, on the contrary, one of the languages predominates over the other).

The second part provided detailed instructions explaining the experimental procedure. The whole procedure of the questionnaire was explained orally to the participants to avoid any misunderstandings. The third and main part consisted of the experimental items. A six-point scale was used to measure the perceived acceptability of the isolated short sentences in which the above-mentioned five conditions and the presence/absence of DOM are systematically manipulated. '1' represented 'unacceptable' and '6' represented 'acceptable', with the numbers between 1 and 6 ranging between these two in their acceptability level. The participants were instructed to select a value on this scale depending on 'how natural they find the sentence they hear'. Lexicon being the most variable part of the grammar, they were instructed to ignore vocabulary differences when giving their judgements. The participants were free to select any number they wanted and were also not forced to respond to the experimental items within a certain time limit, but were encouraged to provide the first response that occurred to them in order to obtain intuitive judgments.

Though the test items were originally composed in standard Basque, they were translated into the local variety by a speaker of the Soraluze variety due to several reasons: 1) Soraluze Basque differs from Standard Basque and we wanted experimental items to be as natural as possible for participants and 2) we aimed to avoid the influence the standard norm could have on the speakers' judgement. Therefore, test items were read aloud by the experimenter in the local variety, as in appendix 1. The experimenter also wrote down the answers.

On average, the experiment lasted about 15 minutes for each participant (usually somewhat longer for the oldest participants). Throughout the test, participants could ask for further information and instructions orally.

In order to get reliable results, four participants had to be excluded for the following reasons: one did not understand the exercise and instead of giving grammatical judgements, provided their opinion of the semantic content of the test items. Another one clearly answered following the standard norm. Finally, we had to exclude two participants since they did not accept ditransitive constructions when objects are human, whether the direct object is DOM-marked or not. In fact, in Basque there are specific constructions of the form of (41) and (42) with a postposition phrase instead of the indirect object:

(41) Construction with human allative
Aititek amama sorgina**rengana** eraman du
grandpa.ERG grandma.ABS witch.the.ALL carry AUX.TR.ABS3SG.ERG3SG
'Grandpa has taken grandma to the witch doctor.'

(42) Construction with human allative and DOM
Aititek amamari sorgina**rengana** eraman dio
grandpa.ERG grandma.DAT witch.the.ALL carry AUX.DITR.ABS3SG.DAT.3SG.ERG3SG
'Grandpa has taken grandma to the witch doctor.'

We therefore categorized all the 42 informants according to their acceptance of ditransitive constructions (without DOM). As related above, we eliminated two speakers who did not accept ditransitive constructions from further analysis, which gave us 40 participants.

4.5 Results

Initial inspection of the results suggested that there is one group of speakers who do not accept DOM and another group of speakers who do accept DOM in their Basque dialect. Since we were interested in the parameters of DOM in Basque dialects, we had to look at the group that accepts DOM. Therefore, we created two groups of 20 participants each according to their acceptance rate for DOM with ditransitive sentences. As we see in the table below, we have 240 judgements for each of the cells, and 1920 judgements in total.

Inspection of the mean rate of these two groups show that (i) both groups rate transitive sentences without DOM equally very good (5.68 and 5.81), ditransitive sentences without DOM in the high group are better rated than in the low group (5.03 vs. 4.06). DOM for transitive and ditransitive sentence in the high group are nearly as good as the no-DOM version; however, in the low group, both DOM in transitive as well as ditransitive sentences are rated badly.

		transitive		Ditransitive	
	Participants	no-DOM	DOM	no-DOM	DOM
high group	20	5.68	5.11	5.03	4.56
low group	20	5.81	2.80	4.06	1.61
Total	40	5.74	3.95	4.55	3.09

Table 4: Acceptance of DOM and no-DOM between groups

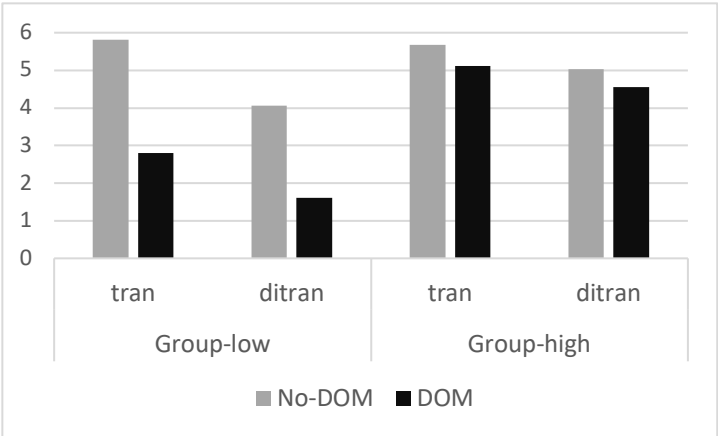

Figure 4: Acceptance of DOM and no-DOM between group-low and group high for transitive and ditransitive constructions

The results clearly indicate that there is a group of speakers that accept DOM as optional for transitive and ditransitive sentences. The other group – more similar to Standard Basque –does not accept DOM. We can only speculate whether the participants speak a different dialect or whether they are simply too heavily influenced by their metalinguistic knowledge of the situation in Standard Basque. The somewhat lower acceptance of the no-DOM ditransitive construction may be caused by some speakers dispreferring ditransitive constructions, preferring the postpositional alternative, as illustrated in (41) and (42).

4.5.1 Effect of age, sex, location, bilingualism and Basque literacy

There is no effect of age, sex or the location on the division onto the judgements of DOM transitive or intransitive sentences. As expected there is an effect of language dominance and literacy in Basque.

4.5.2 Language dominance

Language dominance shows statistical effects, though there is no effect on the no-DOM condition (see appendix 2). In other words, all speakers accept both, transitive and ditransitive sentences with the direct object in the absolutive case, even if the latter are less well-reviewed than those in transitive sentences. Likewise, DOM ditransitive sentences are less well-reviewed than DOM transitive sentences. Nevertheless, the DOM condition clearly depends on language dominance, since those speakers whose predominant language is Spanish tend to accept more easily DOM sentences than the other speakers do. Speakers whose dominant language is Basque show the lowest level of acceptance of DOM sentences:

		transitive		Ditransitive	
	participants	no-DOM	DOM	no-DOM	DOM
Basque dominant	23	5.81	3.58	4.39	2.36
Balanced	13	5.68	4.03	4.60	3.32
Spanish dominant	4	5.85	4.71	4.73	4.15

Table 5: Acceptance of DOM according to language dominance

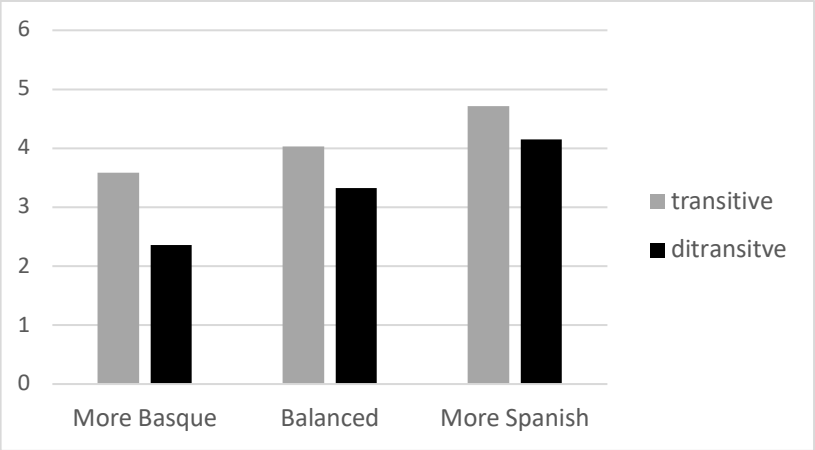

Figure 5: Acceptance of DOM according to language dominance for transitive and ditransitive constructions

4.5.3 Literacy in Basque

There is a no statistic effect of the literacy in Basque (see appendix 2). Inspection of the mean values, however, seem to show a tendency that literacy in Basque reduces the acceptability of DOM in transitive as well as in intransitive sentence.

literacy in Basque		transitive		Ditransitive	
	participants	no-DOM	DOM	no-DOM	DOM
Unclear	1	5.92	5.83	5.42	6.00
No	9	5.94	4.21	4.42	3.20
Yes	30	5.68	3.81	4.56	2.96

Table 6: Acceptance of DOM and no-DOM for transitive and ditransitive constructions according to literacy in Basque

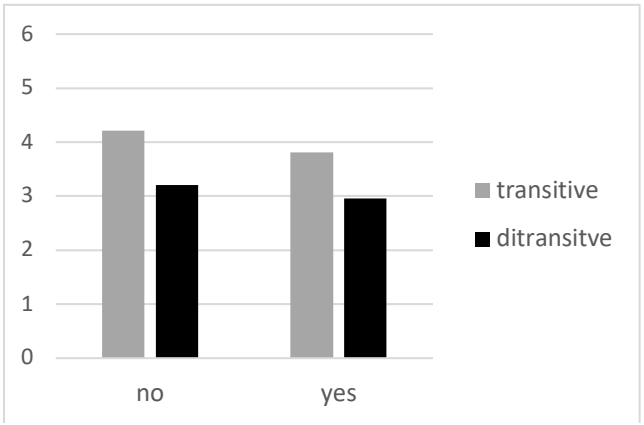

Figure 6: Acceptance of DOM for transitive and ditransitive constructions according to literacy in Basque

4.5.4 Transitive sentences and referentiality

We tested transitive sentences in order to get a baseline for DOM in this particular dialect. Additionally, we tested the parameter of referentiality (proper names, possessive family names, definite noun phrases and indefinite noun phrases) and the affectedness of the direct object. As shown in Table 4 and Figure 4 (above) participants of the group with higher acceptance of DOM rate DOM-marked constructions nearly as highly as transitive sentences with the absolutive case. There is only a marginal effect of the type of referential expression. Indefinites are somewhat less acceptable than definites. Note that the rating for proper names and possessive family names should be higher according to the referentiality hierarchy. There was no effect of affectedness.

acceptance of	proper names	family names	definite NP	indefinite NP
no-DOM	5.77	5.71	5.88	5.62
DOM	3.90	4.06	4.10	3.76

Table 7: Acceptance of DOM according to DP type (referentiality) (both groups)

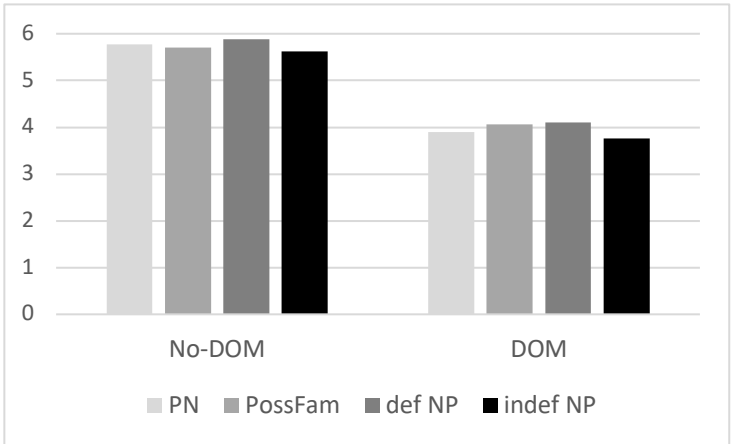

Figure 7: Acceptance of DOM and no-DOM according to DP type (referentiality) (both groups)

4.5.5 Ditransitive sentences and verb class

In the ditransitive sentences, we manipulated (1) referentiality, (2) finiteness of the clause and (3) verb class. We did not find any effect of referentiality. The finiteness of the clause also does not influence preference or dispreference for DOM. The table 8 below provides the mean values according to the two groups introduced above. We see that both finite as well as non-finite ditransitive sentences with DOM are very acceptable for group 1 and inacceptable for group 2:

Finiteness	finite		non-finite	
	no-DOM	DOM	no-DOM	DOM
high group	4.95	4.49	5.12	4.63
low group	3.60	1.50	4.52	1.73

Table 8: Acceptance of DOM and no-DOM for high group and low group according to finiteness

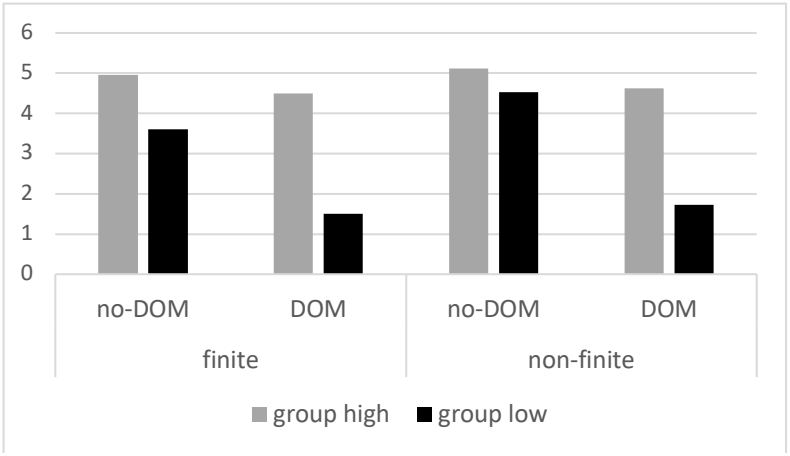

Figure 8: Acceptance of DOM and no-DOM for high group and low group according to finiteness

The final parameter is verb class. We compared three classes: (i) verbs of caused perception, (ii) verbs of caused possession, and (iii) verbs of caused motion. In section 3. we presented evidence that verb class influences the acceptability of DOM for Spanish. The experiments on Spanish were forced-choice experiments, where participants had to decide whether to use or to drop the DOM marker in different conditions. The results showed that clitic doubling of the indirect object does not influence the rate of DOM for the first two verb classes, but it did influence the class of verbs of caused motion. We interpreted this result as evidence that clitic-doubled indirect object in verbs of caused motion (*to send, to carry*) are indirect objects that compete with the direct object, while non-clitic doubled datives do not compete with the direct object. If Basque also shows a similar contrast between different dative arguments, we would expect to see some differences between the three verb classes.

The data from Basque do not show an effect of verb class for either group. It is obvious that speaker clearly have different judgements for DOM vs. no-DOM, which is much more dramatic in the second group. But there is at most a very marginal difference between verbs of caused perception and caused possession on the one hand and verbs of caused motion on the other. Ditransitive constructions with verbs of caused motion are in all conditions less acceptable than those with other verbs.

verb class	caused perception		caused possession		caused motion	
	no-DOM	DOM	no-DOM	DOM	no-DOM	DOM
high group	5.18	4.65	5.08	4.51	4.85	4.53
low group	4.56	1.69	4.18	1.76	3.44	1.39

Table 9: Acceptance of DOM and no-DOM for high group and low group according to verb class

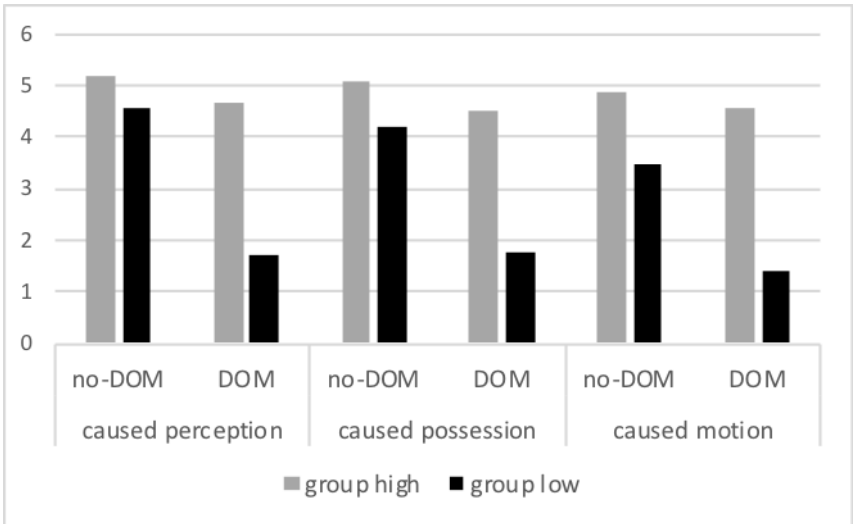

Figure 9: Acceptance of DOM and no-DOM for high group and low group according to verb class

To sum up: The data show that there are participants that disprefer DOM in transitive and ditransitive sentences, and that there are speakers of Basque that do accept them to a similar extent as they do the absolutive form. The only parameter we were able to identify that plays a role in a preference for DOM is language dominance. The more dominant Spanish is, the more acceptable DOM forms are. All other language-internal parameters were not significant: There is no effect on affectedness for transitive verbs, and only a very marginal one, if any, for referential forms; there is no effect of finiteness and no effect of verb class. Thus, all the data clearly support the observation that DOM is established in this Basque dialect. From what our data suggest, we can say that the effect is very similar for all verbs. The only difference is the level of acceptance for a speaker with respect to DOM.

5. Summary and outlook

We began the last section by formulating four hypotheses, repeated here:

(30) Hypotheses about DOM in Basque dialects
H1: Basque dialects allow for DOM in transitive and ditransitive sentences
H2: DOM in Basque dialects depends on the Referentiality Scale.
H3: DOM in Basque dialects depends on the verb class.
H4: DOM in ditransitive constructions is blocked by the dative case marked indirect object.

The results of our questionnaire for the dialect of Soraluze (Deba Valley, Gipuzkoa) provided the first in-depth study of DOM in a Basque dialect. For this dialect, we can formulate the following results: (i) The dialect has speakers that accept the marking of the direct object by the dative case marker (i.e. DOM) just as they accept marking it by the absolutive case – confirming H1. What is different from Spanish is that DOM is optional and that the no-DOM form is always acceptable. This optionality ranges across all parameters (i.e. all referential forms and all verb classes) – against H2 and H3. This is typologically rare and therefore we speculate that this behavior mirrors the sociolinguistic split between the dialect and Standard Basque taught in schools. We speculate that the acceptance of no-DOM is a reflex of Standard Basque, and not a genuine condition of the dialect.[12] (ii) DOM is facilitated by a higher level of knowledge of Spanish, while a high literacy in Standard Basque blocks DOM. This would correspond to the sociolinguistic split and awareness discussed above. (iii) DOM is equally

[12] For instance, Karlos Arregi informed us that his wife cannot use the no-DOM form in her dialect.

triggered by all investigated referential forms (proper names, family names, definite NPs, and indefinite NPs). This would mean that Basque dialects have a further developed system of DOM, where all referential forms trigger DOM in the same way. This would suggest that DOM in these dialects is not a recent innovation, but rather an old feature of their grammar. (iv) In ditransitive constructions, we cannot detect any blocking effect of the dative-marked indirect object on the dative case marker for DOM – against H4. Again, this is surprising as such constructions are systematically ambiguous as to which argument is the direct object and which is the indirect object. But we have seen in section 3 that in Spanish, the blocking effect is less effective than argued in the literature. (v) In contrast to Spanish, we could not detect any effect of the verb class on DOM in the Basque dialect. These original results provide additional empirical evidence for the discussion of DOM in Basque dialects and for DOM blocking in ditransitive constructions.

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Appendix 1: Transitive test items

test item	transitivity	verb class	lexicalization	finiteness	DP type
1-12	trans	i) affected	6 verbs twice	finite	IND, DD, FN, PN
13-24	trans	ii) non-affected	6 verbs twice	finite	IND, DD, FN, PN
25-32	ditran	i) caused perception	4 verbs twice	finite, non-finite	DD, FN
33-40	ditran	ii) caused possession	4 verbs twice	finite, non-finite	DD, FN
41-48	ditran	iii) caused motion	4 verbs twice	finite, non-finite	DD, FN

Table 10: Design of the test items

a: +DOM: DOM condition
b: -DOM: no-DOM condition

Altxatu 'to lift' [INDEF, +DOM]	
Egoitzako zaintzailiak agure bati ohetikan altxau dotsa	**Soraluze dialect test items**
Egoitzako zaintzaileak agure bati ohetik altxatu dio	Standard Basque
La cuidadora de la residencia ha levantado a un anciano de la cama	Spanish
The carer of the residence has lifted an elderly man from the bed.	English

Table 11: Soraluze Dialect test items and translations to Standard Basque, Spanish and English

Transitive verbs

i) Affected

(TI01a)	*Altxatu 'to lift'* [INDEF, +DOM] **Egoitzako zaintzailiak agure bati ohetikan altxau dotsa** Egoitzako zaintzaileak agure bati ohetik altxatu dio La cuidadora de la residencia ha levantado a un anciano de la cama The carer of the residence has lifted an elderly man from the bed.
(TI01b)	*Altxatu 'to lift'* [INDEF, -DOM] **Egoitzako zaintzailiak agure bat ohetikan altxau dau** Egoitzako zaintzaileak agure bat ohetik altxatu du La cuidadora de la residencia ha levantado un anciano de la cama The carer of the residence has lifted an elderly man from the bed.
(TI02a)	*Altxatu 'to lift'* [FN, +DOM] **Nere amamak lurretikan altxau dotsa nere birramamari, jausi in da ta** Nire amamak lurretik altxatu dio nire birramamari, jausi egin da eta Mi abuela ha levantado a mi bisabuela del suelo, pues se ha caído My grandmother has lifted my great-grandmother from the ground, since she fell down.
(TI02b)	*Altxatu 'to lift'* [FN, -DOM] **Nere amamak nere birramama lurretikan altxau dau, jausi in da ta** Nire amamak nire birramama lurretik altxatu du, jausi egin da eta Mi abuela ha levantado mi bisabuela del suelo, pues se ha caído My grandmother has lifted my great-grandmother from the ground, since she felt down.
(TI03a)	*Atera 'to take out'* [DEF, +DOM] **Irakasliak berbetan zeuan ikasliari arbelera atara dotsa etxerako lanak zuzentzeko** Irakasleak hizketan zegoen ikasleari arbelera atera dio etxerako lanak zuzentzeko La profesora ha sacado al alumno que estaba hablando a la pizarra para corregir los deberes The teacher has selected the student who was talking to come to the blackboard and go over the homework.
(TI03b)	*Atera 'to take out'* [DEF, -DOM] **Irakasliak berbetan zeuan ikaslia arbelera atara dau etxerako lanak zuzentzeko** Irakasleak hizketan zegoen ikaslea arbelera atera du etxerako lanak zuzentzeko La profesora ha sacado el alumno que estaba hablando a la pizarra para corregir los deberes The teacher has selected the student who was talking to come to the blackboard and go over the homework.

(TI04a)	*Atera 'to take out'* [PN, +DOM] **Entrenatzailiak Messiri zelaira atara dotsa** Entrenatzaileak Messiri zelaira atera dio El entrenador ha sacado a Messi al campo The manager has brought on Messi into the field.
(TI04b)	*Atera 'to take out'* [PN, -DOM] **Entrenatzailiak Messi zelaira atara dau** Entrenatzaileak Messi zelaira atera du El entrenador ha sacado Messi al campo The manager has brought on Messi into the field.
(TI05a)	*Bortxatu 'to rape'* [INDEF, +DOM] **Kartzelan dauan gizon horrek neskato gazte bati biolau dotsa** Kartzelan dagoen gizon horrek neskato gazte bati bortxatu dio Ese hombre que está en la cárcel ha violado a una chica joven That man who is in jail has raped a young girl.
(TI05b)	*Bortxatu 'to rape'* [INDEF, -DOM] **Kartzelan dauan gizon horrek neskato gazte bat biolau dau** Kartzelan dagoen gizon horrek neskato gazte bat bortxatu du Ese hombre que está en la cárcel ha violado una chica joven That man who is in jail has raped a young girl.
(TI06a)	*Bortxatu 'to rape'* [FN, +DOM] **Maria triste dau jaixetatikan bueltan gazte batek bere alabari biolau dotsalako** Maria triste dago jaietatik bueltan gazte batek bere alabari bortxatu diolako Maria está triste porque al volver de las fiestas un joven ha violado a su hija Maria is sad because a young man has raped her daughter when she was returning from the town fair.
(TI06b)	*Bortxatu 'to rape'* [FN, -DOM] **Maria triste dau jaixetatikan bueltan gazte batek bere alabia biolau dabelako** Maria triste dago jaietatik bueltan gazte batek bere alaba bortxatu duelako María está triste porque al volver de las fiestas un joven ha violado su hija Maria is sad because a young man has raped her daughter when she was returning from the town fair.
(TI07a)	*Harrapatu 'to run over'* [DEF, +DOM] **Goizeko zezenian zezenak toreruari harrapau dotsa** Goizeko zezenketan zezenak toreroari harrapatu dio En la corrida de esta mañana el toro ha pillado al torero During this morning's corrida, the bull has caught the torero.
(TI07b)	*Harrapatu 'to run over'* [DEF, -DOM] **Goizeko zezenian zezenak torerua harrapau dau** Goizeko zezenketan zezenak toreroa harrapatu du En la corrida de esta mañana el toro ha pillado el torero During this morning's corrida, the bull has caught the torero.
(TI08a)	*Harrapatu 'to run over'* [PN, +DOM] **Zebrabidia gurutzatzen zeuala, gidari mozkor batek Patxiri harrapau dotsa** Zebrabidea gurutzatzen zegoela, gidari mozkor batek Patxiri harrapatu dio Mientras cruzaba el paso de peatones, un conductor borracho ha atropellado a Patxi While he was crossing the crosswalk, a drunk driver has run Patxi down.
(TI08b)	*Harrapatu 'to run over'* [PN, -DOM] **Zebrabidia gurutzatzen zeuala, gidari mozkor batek Patxi harrapau dau** Zebrabidea gurutzatzen zegoela, gidari mozkor batek Patxi harrapatu du Mientras cruzaba el paso de peatones, un conductor borracho ha atropellado Patxi While he was crossing the crosswalk, a drunk driver has run Patxi down.
(TI09a)	*Hil* 'to kill' [INDEF, +DOM] **Gaur goizian terroristak kazetari bati hil dotsa** Gaur goizean terroristak kazetari bati hil dio Esta mañana el terrorista ha matado a un periodista This morning the terrorist has killed a journalist.
(TI09b)	*Hil* 'to kill' [INDEF, -DOM] **Gaur goizian terroristak kazetari bat hil dau** Gaur goizean terroristak kazetari bat hil du Esta mañana el terrorista ha matado un periodista This morning the terrorist has killed a journalist.

(TI10a)	*Hil* 'to kill' [FN, +DOM] **Krisialdi bat dala ta aitxak bere semiari hil dotsa** Krisialdi bat dela eta, aitak bere semeari hil dio Debido a una crisis, el padre ha matado a su hijo Due to a mental breakdown, the father has killed his son.
(TI10b)	*Hil* 'to kill' [FN, -DOM] **Krisialdi bat dala ta aitxak bere semia hil dau** Krisialdi bat dela eta, aitak bere semea hil du Debido a una crisis, el padre ha matado su hijo Due to a mental breakdown, the father has killed his son.
(TI11a)	*Jo 'to hit'* [DEF, +DOM] **Poliziak lurrian zeuan manifestarixari jo dotsa** Poliziak lurrean zegoen manifestariari jo dio La policía ha pegado al manifestante que estaba en el suelo The police has beaten the protester who was on the ground.
(TI11b)	*Jo 'to hit'* [DEF, -DOM] **Poliziak lurrian zeuan manifestarixa jo dau** Poliziak lurrean zegoen manifestaria jo du La policía ha pegado el manifestante que estaba en el suelo The police have beaten the protester who was on the ground.
(TI12a)	*Jo 'to hit'* [PN, +DOM] **Gabeko borrokan McGregorrek Mayweatherri jo dotsa** Gaueko borrokan McGregorrek Mayweatherri jo dio En la pelea de esta noche McGregor ha pegado a Mayweather During tonight's fight, McGregor has hit Mayweather.
(TI12b)	*Jo 'to hit'* [PN, -DOM] **Gabeko borrokan McGregorrek Mayweather jo dau** Gaueko borrokan McGregorrek Mayweather jo du En la pelea de esta noche McGregor ha pegado Mayweather During tonight's fight, McGregor has hit Mayweather.

ii) Non affected

(TI13a)	*Agurtu 'to greet'* [INDEF, +DOM] **Peruk ezagutzen ez zeban pertsona bati agurtu dotsa kalian** Peruk ezagutzen ez zuen pertsona bati agurtu dio kalean Peru ha saludado a una persona que no conocía en la calle Peru has greeted in the street a person he did not know.
(TI13b)	*Agurtu 'to greet'* [INDEF, -DOM] **Peruk ezagutzen ez zeban pertsona bat agurtu dau kalian** Peruk ezagutzen ez zuen pertsona bat agurtu du kalean Peru ha saludado una persona que no conocía en la calle Peru has greeted in the street a person he did not know.
(TI14a)	*Agurtu 'to greet'* [FN, +DOM] **Amamak lobiari agurtu dotsa autobusera igotzerakuan** Amamak bilobari agurtu dio autobusera igotzerakoan La abuela ha despedido al nieto al subir al autobús The grandmother has said goodbye to her grandson while getting into the bus.
(TI14b)	*Agurtu 'to greet'* [FN, -DOM] **Amamak lobia agurtu dau autobusera igotzerakuan** Amamak bilobari agurtu du autobusera igotzerakoan La abuela ha despedido el nieto al subir al autobús The grandmother has said goodbye to her grandson while getting into the bus.
(TI15a)	*Ezagutu 'to meet'* [DEF, +DOM] **Gaur batzar batian nere lagunak Berri Txarrakeko abeslarixari ezagutu dotsa** Gaur batzar batean nire lagunak Berri Txarrakeko abeslariari ezagutu dio Hoy, en una reunión, mi amigo ha conocido al cantante de Berri Txarrak Today, during a meeting, my friend has met the singer of 'Berri Txarrak'.

(TI15b)	*Ezagutu 'to meet'* [DEF, -DOM] **Gaur batzar batian nere lagunak Berri Txarrakeko abeslarixa ezagutu dau** Gaur batzar batean nire lagunak Berri Txarrakeko abeslaria ezagutu du Hoy, en una reunión, mi amigo ha conocido el cantante de Berri Txarrak Today, during a meeting, my friend has met the singer of 'Berri Txarrak'.
(TI16a)	*Ezagutu 'to meet'* [PN, +DOM] **Donostiako Zinemaldixan nere amak Angelina Jolieri ezagutu dotsa** Donostiako Zinemaldian nire amak Angelina Jolieri ezagutu dio En el Zinemaldia de Donostia mi madre ha conocido a Angelina Jolie During the Donostia Film Festival, my mother has met Angelina Jolie.
(TI16b)	*Ezagutu 'to meet'* [PN, -DOM] **Donostiako Zinemaldixan nere amak Angelina Jolie ezagutu dau** Donostiako Zinemaldian nire amak Angelina Jolie ezagutu du En el Zinemaldia de Donostia mi madre ha conocido Angelina Jolie During the Donostia Film Festival, my mother has met Angelina Jolie.
(TI17a)	*Ikusi 'to see'* [INDEF, +DOM] **Gaur goizian nere semiek futbol jokalari ospetsu bati ikusi dotse** Gaur goizean nire semeek futbol jokalari ospetsu bati ikusi diote Esta mañana mis hijos han visto a un famoso jugador de futbol This morning my children have seen a famous football player.
(TI17b)	*Ikusi 'to see'* [INDEF, -DOM] **Gaur goizian nere semiek futbol jokalari ospetsu bat ikusi dabe** Gaur goizean nire semeek futbol jokalari ospetsu bat ikusi dute Esta mañana mis hijos han visto un famoso jugador de futbol This morning my children have seen a famous football player.
(TI18a)	*Ikusi 'to see'* [FN, +DOM] **Playan nere aitxak zure lehenguasuari ikusi dotsa** Hondartzan nire aitak zure lehengusuari ikusi dio En la playa mi padre ha visto a tu primo On the beach, my father has seen your cousin.
(TI18b)	*Ikusi 'to see'* [FN, -DOM] **Playan nere aitxak zure lehengusua ikusi dau** Hondartzan nire aitak zure lehengusua ikusi du En la playa mi padre ha visto tu primo On the beach, my father has seen your cousin.
(TI19a)	*Maite izan 'to love'* [INDEF, +DOM] **Nere auzokuak/bezinuak gazte afrikar bati maitxe dotsa** Nire auzokoak gazte afrikar bati maite dio Mi vecino ama a una joven africana My neighbor loves an African girl.
(TI19b)	*Maite izan 'to love'* [INDEF, -DOM] **Nere auzokuak/bezinuak gazte afrikar bat maitxe dau** Nire auzokoak gazte afrikar bat maite du Mi vecino ama una joven africana My neighbor loves an African girl.
(TI20a)	*Maite izan 'to love'* [FN, +DOM] **Ume horrek bere aitxari asko maitxe dotsa** Ume horrek bere aitari asko matie dio Ese niño quiere mucho a su padre That boy loves his father a lot.
(TI20b)	*Maite izan 'to love'* [FN, -DOM] **Ume horrek bere aitxa asko maitxe dau** Ume horrek bere aita asko matie du Ese niño quiere mucho su padre That boy loves his father a lot.
(TI21a)	*Salatu 'to report'* [DEF, +DOM] **Kaseruak auzokuari salatu dotsa barazkixak lapurtziagaitxik** Baserritarrak auzokoari salatu dio barazkiak lapurtzearren El casero ha denunciado al vecino por robarle verduras The landlord has sued the neighbor for stealing vegetables.

(TI21b)	*Salatu 'to report'* [DEF, -DOM] **Kaseruak auzokua salatu dau barazkixak lapurtziagaitxik** Baserritarrak auzokoa salatu du barazkiak lapurtzearren El casero ha denunciado el vecino por robarle verduras The landlord has sued the neighbor for stealing vegetables.
(TI22a)	*Salatu 'to report'* [PN, +DOM] **Josunek Mikeli salatu dotsa tratu txarrak diala ta** Josunek Mikeli salatu dio tratu txarrak direla eta Josune ha denunciado a Mikel por malos tratos Josune has reported Mikel for maltreatment.
(TI22b)	*Salatu 'to report'* [PN, -DOM] **Josunek Mikel salatu dau tratu txarrak diala ta** Josunek Mikel salatu du tratu txarrak direla eta Josune ha denunciado a Mikel por malos tratos Josune has reported Mikel for maltreatment.
(TI23a)	*Zaindu 'to take care of'* [DEF, +DOM] **Erizainak gurpildun aulkixan dauan gaixuari zaindu dotsa urte askuan** Erizainak gurpildun aulkian dagoen gaixoari zaindu dio urteetan zehar La enfermera ha cuidado al enfermo que está en silla de ruedas durante años The nurse has taken care of the sick who is on a wheelchair for years.
(TI23b)	*Zaindu 'to take care of'* [DEF, -DOM] **Erizainak gurpildun aulkixan dauan gaixua zaindu dau urte askuan** Erizainak gurpildun aulkian dagoen gaixoa zaindu du urteetan zehar La enfermera ha cuidado el enfermo que está en silla de ruedas durante años The nurse has taken care of the sick who is on a wheelchair for years.
(TI24a)	*Zaindu 'to take care of'* [PN, +DOM] **Aitorrek Maiderri zaindu dotsa gaixorik egon danian** Aitorrek Maiderri zaindu dio gaixorik egon denean Aitor ha cuidado a Maider cuando ha estado enferma Aitor has taken care of Maider whenever she has been sick.
(TI24b)	*Zaindu 'to take care of'* [PN, -DOM] **Aitorrek Maider zaindu dau gaixorik egon danian** Aitorrek Maider zaindu du gaixorik egon denean Aitor ha cuidado Maider cuando ha estado enferma Aitor has taken care of Maider whenever she has been sick.

Appendix 2: Ditransitive test items

i) Caused perception

(TI25a)	*Aurkeztu 'to introduce'* [FIN, DD, +DOM] **Antzerkixa amaitxu ostian zuzendarixak aktoriari presentau dotsa ikusliari** Antzerkia amaitu ostean zuzendariak aktoreari aurkeztu dio ikusleari Al finalizar la obra de teatro el director ha presentado al actor a los espectadores When the play finished, the director introduced the actor to the audience.
(TI25b)	*Aurkeztu 'to introduce'* [FIN, DD, -DOM] **Antzerkixa amaitxu ostian zuzendarixak aktoria presentau dotsa ikusliari** Antzerkia amaitu ostean zuzendariak aktorea aurkeztu dio ikusleari Al finalizar la obra de teatro el director ha presentado el actor a los espectadores When the play finished, the director introduced the actor to the audience.
(TI26a)	*Aurkeztu 'to introduce'* [NON-FIN, FN, +DOM] **Nere lehengusuak erabaki dau tiori bere irakasle daneri presentatzia** Nire lehengusuak erabaki du osabari bere irakasle guztiei aurkeztea Mi primo ha decidido presentar a mi tío a todos sus profesores My cousin has decided to introduce my uncle to all his teachers.
(TI26b)	*Aurkeztu 'to introduce'* [NON-FIN, FN, -DOM] **Nere lehengusuak erabaki dau tio bere irakasle daneri presentatzia** Nire lehengusuak erabaki du osaba bere irakasle guztiei aurkeztea Mi primo ha decidido presentar mi tío a todos sus profesores My cousin has decided to introduce my uncle to all his teachers.

(TI27a)	*Deskribatu 'to describe'* [FIN, FN, +DOM] **Literatura tallerrian nere semiak bere anaixari deskribidu dotsa lagunari** Literatura tailerrean nire semeak bere anaiari deskribatu dio kideari En el taller de literatura, mi hijo ha descrito a su hermano al compañero During the literature workshop, my son has described his brother to the schoolmate.
(TI27b)	*Deskribatu 'to describe'* [FIN, FN, -DOM] **Literatura tallerrian nere semiak bere anaixa deskribidu dotsa lagunari** Literatura tailerrean nire semeak bere anaia deskribatu dio kideari En el taller de literatura, mi hijo ha descrito su hermano al compañero During the literature workshop, my son has described his brother to the schoolmate.
(TI28a)	*Deskribatu 'to describe'* [NON-FIN, DD, +DOM] **Umiari eskatu dotse entrenadoriari bere amari deskribitzeko** Umeari eskatu diote entrenatzaileari bere amari deskribatzeko Al niño le han pedido que describa al entrenador a su madre The kid was asked to describe the manager to his mother.
(TI28b)	*Deskribatu 'to describe'* [NON-FIN, DD, -DOM] **Umiari eskatu dotse entrenadoria bere amari deskribitzeko** Umeari eskatu diote entrenatzailea bere amari deskribatzeko Al niño le han pedido que describa el entrenador a su madre The kid was asked to describe the manager to his mother.
(TI29a)	*Gomendatu 'to recommend'* [FIN, FN, +DOM] **Hutsik zeuan lanposturako lehendakarixak bere lobiari gomendatu dotsa lantegiko nagusixari** Hutsik zegoen lanposturako lehendakariak bere ilobari gomendatu dio lantegiko nagusiari Para el puesto vacante, el presidente ha recomendado a su sobrino al jefe For the job vacancy, the president has recommended his nephew to the boss.
(TI29b)	*Gomendatu 'to recommend'* [FIN, FN, -DOM] **Hutsik zeuan lanposturako lehendakarixak bere lobia gomendatu dotsa lantegiko nagusixari** Hutsik zegoen lanposturako lehendakariak bere iloba gomendatu dio lantegiko nagusiari Para el puesto vacante, el presidente ha recomendado su sobrino al jefe For the job vacancy, the president has recommended his nephew to the boss.
(TI30a)	*Gomendatu 'to recommend'* [NON-FIN, DD, +DOM] **Herriko abesbatzako zuzendarixak erabaki dau bere taldeko bakarlarixari Donostiako Orfeoiari gomendatzia** Herriko abesbatzako zuzendariak erabaki du bere taldeko bakarlariari Donostiako Orfeoiari gomendatzea El director del coro del pueblo ha decidido recomendar al solista de su grupo al Orfeón Donostiarra The director of the town's choire has decided to recommend the lead singer of his group to the Orfeón Donostiarra.
(TI30b)	*Gomendatu 'to recommend'* [NON-FIN, DD, -DOM] **Herriko abesbatzako zuzendarixak erabaki dau bere taldeko bakarlarixa Donostiako Orfeoiari gomendatzia** Herriko abesbatzako zuzendariak erabaki du bere taldeko bakarlaria Donostiako Orfeoiari gomendatzea El director del coro del pueblo ha decidido recomendar el solista de su grupo al Orfeón Donostiarra The director of the town's choire has decided to recommend the lead Singer of his group to the Orfeón Donostiarra.
(TI31a)	*Proposatu 'to propose'* [FIN, DD, +DOM] **Behin castinga amaitxuta arduradunak dantzarixari proposau dotsa musikalaren zuzendarixari** Behin castinga amaituta arduradunak dantzariari proposatu dio musikalaren zuzendariari Una vez finalizado el casting, el encargado del casting ha propuesto al bailarín al director del musical Once the casting was over, the casting director has recommended the dancer to the musical director.
(TI31b)	*Proposatu 'to propose'* [FIN, DD, -DOM] **Behin castinga amaitxuta arduradunak dantzarixa proposau dotsa musikalaren zuzendarixari** Behin castinga amaituta arduradunak dantzaria proposatu dio musikalaren zuzendariari Una vez finalizado el casting el encargado del casting ha propuesto el bailarín al director del musical Once the casting was over, the casting director has recommended the dancer to the musical director.

(TI32a)	*Proposatu 'to propose'* [NON-FIN, FN, +DOM] **Alkatiak laguntzaile bat biar dabenez kultura zinegotzixari bururatu jako bere semiari alkatiari proposatzia** Alkateak laguntzaile bat behar duenez kultura zinegotziari bururatu zaio bere semeari alkateari proposatzea Como el alcalde necesita un ayudante, al concejal de cultura se le ha ocurrido proponer a su hijo al alcalde Because the mayor is in need of a helper, the councillor of culture has come up with the idea to propose his son to the mayor.
(TI32b)	*Proposatu 'to propose'* [NON-FIN, FN, -DOM] **Alkatiak laguntzaile bat biar dabenez kultura zinegotzixari bururatu jako bere semia alkatiari proposatzia** Alkateak laguntzaile bat behar duenez kultura zinegotziari bere semea alkateari proposatzea bururatu zaio Como el alcalde necesita un ayudante, al concejal de cultura se le ha ocurrido proponer su hijo al alcalde Because the mayor is in need of a helper, the councillor of culture has come up with the idea to propose his son to the mayor.

ii) Caused possession

(TI33a)	*bueltatu 'to return'* [FIN, FN, +DOM] **Atzo Jonen aitxitxa galdu in zan ta gaur goizian poliziak aitxitxari onik bueltau dotsa familixari** Atzo Joneren aitita galdu zen eta gaur goizean poliziak aititari onik bueltatu dio familiari Ayer el abuelo de Jone se perdió y esta mañana la policía ha devuelto al abuelo a la familia en buenas condiciones Yesterday, Jone's grandfather got lost and this morning the police brought the grandfather back to the family safe and sound.
(TI33b)	*bueltatu 'to return'* [FIN, FN, -DOM] **Atzo Jonen aitxitxa galdu in zan ta gaur goizian poliziak aitxitxa onik bueltau dotsa familixari** Atzo Joneren aitita galdu zen eta gaur goizean poliziak aitita onik bueltatu dio familiari Ayer el abuelo de Jone se perdió y esta mañana la policía ha devuelto el abuelo a la familia en buenas condiciones Yesterday, Jone's grandfather got lost and this morning the police brought the grandfather back to the family safe and sound.
(TI34a)	*bueltatu 'to return'* [NON-FIN, DD, +DOM] **Adopzinuan arazuak diala ta nere lagunak erabaki dau mutikuari bere gizarte languntzaileei bueltatzia** Adopzioan arazoak direla eta nire lagunak erabaki du mutikoari bere gizarte laguntzaileei bueltatzea Por problemas en la adopción mi amiga ha decidido devolver al niño a sus asistentes sociales Because of problems during the adoption process, my friend has decided to return the child to his social workers.
(TI34b)	*bueltatu 'to return'* [NON-FIN, DD, -DOM] **Adopzinuan arazuak diala ta nere lagunak erabaki dau mutikua bere gizarte laguntzaileei bueltatzia** Adopzioan arazoak direla eta nire lagunak erabaki du mutikoa bere gizarte laguntzaileei bueltatzea Por problemas en la adopción mi amiga ha decidido devolver el niño a sus asistentes sociales Because of problems during the adoption process, my friend has decided to return the child to his social workers.
(TI35a)	*eman 'to give'* [FIN, FN, +DOM] **Tia ta tio hil in dia ta epailiak/juezak nere lehengusuari amamari emon dotsa** Izeko eta osaba hil dira eta epaileak nire lehengusuari amamari eman dio Mis tíos se han muerto y el juez le ha dado a mi primo a la abuela My uncles have died and the judge has given my cousin to the grandmother.
(TI35b)	*eman 'to give'* [FIN, FN, -DOM] **Tia ta tio hil in dia ta epailiak/juezak nere lehengusua amamari emon dotsa** Izeko eta osaba hil dira eta epaileak nire lehengusua amamari eman dio Mis tíos se han muerto y el juez le ha dado mi primo a la abuela My uncles have died and the judge has given my cousin to the grandmother.

(TI36a)	*eman 'to give'* [NON-FIN, DD, +DOM] **Etxerik ez zekanez, poliziak erabaki dau nerabiari tutore bati emotia** Etxerik ez zuenez, poliziak erabaki du nerabeari tutore bati ematea Como no tenía casa, la policía ha decidido dar al adolescente a un tutor Because he did not own a house, the police have decided to give the teenager to a tutor.
(TI36b)	*eman 'to give'* [NON-FIN, DD, -DOM] **Etxerik ez zekanez, poliziak erabaki dau nerabia tutore bati emotia** Etxerik ez zuenez, poliziak erabaki du nerabea tutore bati ematea Como no tenía casa, la policía ha decidido dar el adolescente a un tutor Because he did not own a house, the police have decided to give the teenager to a tutor.
(TI37a)	*lapurtu 'to steal'* [FIN, DD, +DOM] **Mercedeseko jefiak ingenieruari ostu dotsa Ferrariko jefiari** Mercedeseko nagusiak ingeniariari lapurtu dio Ferrariko nagusiari El jefe de Mercedes ha robado al ingeniero al jefe de Ferrari Mercedes' CEO has stolen the engineer from Ferrari's CEO.
(TI37b)	*lapurtu 'to steal'* [FIN, DD, -DOM] **Mercedeseko jefiak ingenierua ostu dotsa Ferrariko jefiari** Mercedeseko nagusiak ingeniaria lapurtu dio Ferrariko nagusiari El jefe de Mercedes ha robado el ingeniero al jefe de Ferrari Mercedes' CEO has stolen the engineer from Ferrari's CEO.
(TI38a)	*lapurtu 'to steal'* [NON-FIN, FN, +DOM] **Urte askoren ostian Loreak lortu dau senarrari bere lagunik onenari ostutzia/lapurtzia** Urte askoren ostean Loreak lortu du senarrari lapurtzea bere lagunik onenari Después de mucho tiempo, Lorea ha conseguido robarle al marido a su mejor amiga After a long time, Lorea has managed to steal away the husband from her best friend.
(TI38b)	*lapurtu 'to steal'* [NON-FIN, FN, -DOM] **Urte askoren ostian Loreak lortu dau senarra bere lagunik onenari ostutzia/lapurtzia** Urte askoren ostean Loreak lortu du senarra lapurtzea bere lagunik onenari Después de mucho tiempo Lorea ha conseguido robarle el marido a su mejor amiga After a long time, Lorea has managed to steal away the husband from her best friend.
(TI39a)	*saldu 'to sell'* [FIN, DD, +DOM] **Dirua biar ginuanez aitxak gure etxeko morroiari saldu dotsa herriko jauntxoari** Dirua behar genuenez gure aitak gure etxeko morroiari saldu dio herriko jauntxoari Como necesitábamos dinero, mi padre ha vendido a nuestro esclavo al señor del pueblo Because we were in need of money, my father has sold our slave to the town's lord.
(TI39b)	*saldu 'to sell'* [FIN, DD, -DOM] **Dirua biar ginuanez aitxak gure etxeko morroia saldu dotsa herriko jauntxoari** Dirua behar genuenez gure aitak gure etxeko morroia saldu dio herriko jauntxoari Como necesitábamos dinero, mi padre ha vendido nuestro esclavo al señor del pueblo Because we were in need of money, my father has sold our slave to the town's lord.
(TI40a)	*saldu 'to sell'* [NON-FIN, FN, +DOM] **Gerra garaian ez da bape rarua pertsona batek bere anaixari etsaiari saltzia** Gerra garaian ez da batere arraroa pertsona batek bere anaiari etsaiari saltzea En tiempos de guerra no es nada raro que una persona venda a su hermano al enemigo During wartime, it is not rare that some people sell their brother to the enemy.
(TI40b)	*saldu 'to sell'* [NON-FIN, FN, -DOM] **Gerra garaian ez da bape rarua pertsona batek bere anaixa etsaiari saltzia** Gerra garaian ez da batere arraroa pertsona batek bere anaia etsaiari saltzea En tiempos de guerra no es nada raro que una persona venda su hermano al enemigo During wartime, it is not rare that some people sell their brother to the enemy.

iii) Caused motion

(TI41a)	*bidali 'to send'* [FIN, DD, +DOM] **Eskolako egoeria konpontzeko zentroko zuzendarixak inspektoriari bidali dotsa irakasliari** Eskolako egoera konpontzeko zentroko zuzendariak inspektoreari bidali dio irakasleari Para solucionar la situación de la escuela, el director del centro ha mandado al inspector al profesor To solve the school's situation, the principal has sent the school inspection to the teacher.

(TI41b)	*bidali 'to send'* [FIN, DD, -DOM] **Eskolako egoeria konpontzeko zentroko zuzendarixak inspektoria bidali dotsa irakasliari** Eskolako egoera konpontzeko zentroko zuzendariak inspektorea bidali dio irakasleari Para solucionar la situación de la escuela el director del centro ha mandado el inspector al profesor To solve the school's situation, the principal has sent the school inspection to the teacher.
(TI42a)	*bidali 'to send'* [NON-FIN, FN, +DOM] **Klasian txarto portau danez irakasliak erabaki dau nere ahizpari zuzendarixari bidaltzia** Klasean txarto portatu denez, irakasleak erabaki du nire ahizpari zuzendariari bidaltzea Como se ha portado mal en clase, la profesora ha decidido mandar a mi hermana al director Since she was misbehaving in class, the teacher has decided to send my sister to the principal.
(TI42b)	*bidali 'to send'* [NON-FIN, FN, -DOM] **Klasian txarto portau danez irakasliak erabaki dau nere ahizpa zuzendarixari bidaltzia** Klasean txarto portatu denez, irakasleak erabaki du nire ahizpa zuzendariari bidaltzea Como mi hermana se ha portado mal en clase, la profesora ha decidido mandar mi hermana al director Since she was misbehaving in class, the teacher has decided to send my sister to the principal.
(TI43a)	*bota 'to throw'* [FIN, FN, +DOM] **Sutean ama leihora hurbildu da eta alabari aitxari bota dotsa ez erretzeko** Sutean ama leihora hurbildu da eta alabari aitari bota dio erre ez zedin En el incendio, la madre se ha acercado a la ventana y ha tirado a su hija a su padre para que no se quemara During the fire, the mother has gotten close to the window and has thrown her daughter to her father so she would not burn.
(TI43b)	*bota 'to throw'* [FIN, FN, -DOM] **Sutean ama leihora hurbildu da eta alabia aitxari bota dotsa ez erretzeko** Sutean ama leihora hurbildu da eta alaba aitari bota dio erre ez zedin En el incendio, la madre se ha acercado a la ventana y ha tirado su hija a su padre para que no se quemara During the fire, the mother has gotten close to the window and has thrown her daughter to her father so she would not burn.
(TI44a)	*bota 'to throw'* [NON-FIN, DD, +DOM] **Negar besterik itxen ez zebanez, medikuak jaioberrixari erizainari botatzia erabaki dau** Negar besterik ez zuenez egiten, medikuak jaioberriari erizainari botatzea erabaki du Como no hacía más que llorar, el médico ha decidido lanzarle al niño a la enfermera. As she kept crying, the doctor decided to throw the baby to the nurse.
(TI44b)	*bota 'to throw'* [NON-FIN, DD, -DOM] **Negar besterik itxen ez zebanez, medikuak jaioberrixa erizainari botatzia erabaki dau** Negar besterik ez zuenez egiten, medikuak jaioberria erizainari botatzea erabaki du Como no hacía más que llorar, el médico ha decidido lanzarle el niño a la enfermera. As she kept crying, the doctor decided to throw the baby to the nurse.
(TI45a)	*eraman 'to carry'* [FIN, FN, +DOM] **Osatzeko aukeraren bat euki ahal dabelakuan aitxitxak amamari herriko sorginari eruan dotsa** Sendatzeko aukeraren bat izan dezakeelakoan aititek amamari herriko sorginari eraman dio Pensando que pudiera tener alguna opción de curarse, mi abuelo ha llevado a mi abuela a la bruja del pueblo Hoping she would have a chance of recovering, my grandfather has taken my grandmother to the town's witch doctor.
(TI45b)	*eraman 'to carry'* [FIN, FN, -DOM] **Osatzeko aukeraren bat euki ahal dabelakuan aitxitxak amama herriko sorginari eruan dotsa** Sendatzeko aukeraren bat izan dezakeelakoan aititek amama herriko sorginari eraman dio Pensando que pudiera tener alguna opción de curarse mi abuelo ha llevado mi abuela a la bruja del pueblo Hoping she would have a chance of recovering, my grandfather has taken my grandmother to the town's witch doctor.
(TI46a)	*eraman 'to carry'* [NON-FIN, DD, +DOM] **Ospitaleko arduradunek erabaki dabe pailazuari ume gaixuei hilero eruatia** Ospitaleko arduradunek erabaki dute pailazoari ume gaixoei hilero eramatea Los responsables del hospital han decidido llevar al payaso a los niños enfermos todos los meses The managers of the hospital have decided to take the clown to the sick children every month.

(TI46b)	*eraman 'to carry'* [NON-FIN, DD, -DOM] **Ospitaleko arduradunek erabaki dabe pailazua ume gaixuei hilero eruatia** Ospitaleko arduradunek erabaki dute pailazoa ume gaixoei hilero eramatea Los responsables del hospital han decidido llevar el payaso a los niños enfermos todos los meses The managers of the hospital have decided to take the clown to the sick children every month.
(TI47a)	*hurbildu 'to bring (closer)'* [FIN, DD, +DOM] **Galtzagorriz jantzitako laguntzailiak umiari hurbildu dotsa Olentzerori** Galtzagorriz jantzitako laguntzaileak umeari hurbildu dio Olentzerori El ayudante vestido de duendecillo ha acercado al niño a Olentzero The helper dressed as an elf has brought the kid closer to Olentzero.
(TI47b)	*hurbildu 'to bring (closer)'* [FIN, DD, -DOM] **Galtzagorriz jantzitako laguntzailiak umia hurbildu dotsa Olentzerori** Galtzagorriz jantzitako laguntzaileak umea hurbildu dio Olentzerori El ayudante vestido de duendecillo ha acercado el niño a Olentzero The helper dressed as an elf has brought the kid closer to Olentzero.
(TI48a)	*hurbildu 'to bring (closer)'* [NON-FIN, FN, +DOM] **Kontzertuan Mirenek anaixa besoetan hartu dau baina ez dau lortu bere anaixari abeslarixari hurbiltzia** Kontzertuan Mirenek neba besoetan hartu du baina ez du lortu bere nebari abeslariari hurbiltzea Miren ha cogido a su hermano en brazos en el concierto, pero no ha conseguido acercar a su hermano al cantante Miren has held her brother in her arms during the concert, but she has not managed to get her brother closer to the singer.
(TI48b)	*hurbildu 'to bring (closer)'* [NON-FIN, FN, -DOM] **Kontzertuan Mirenek anaixa besoetan hartu dau baina ez dau lortu bere anaixa abeslarixari hurbiltzia** Kontzertuan Mirenek neba besoetan hartu du baina ez du lortu bere neba abeslariari hurbiltzea Miren ha cogido a su hermano en brazos en el concierto pero no ha conseguido acercar su hermano al cantante Miren has held her brother in her arms during the concert, but she has not managed to get her brother closer to the singer.

Appendix 3: Statistics[13]

Statistical analyses were conducted in R version 1.0.136 using the lme4 package (Bates et al. 2015) to perform linear mixed-effect models (LMEM) with the score as outcome variable. As fixed effects, we entered DOM, Language Dominance and Group into the model. As random effects, we had intercepts for subjects and items. The DOM *yes* condition, the Language Dominance *balanced* (*b*) condition and the Group *high* condition were mapped onto the intercept. To identify the best model fit we performed likelihood ratio tests. This revealed that the full model with a three-way interaction affected the acceptance rate (χ^2 (7) = 300.04, $p <$ .001).

	Estimate	Std. Error	t value
(Intercept)	4.8622	0.1825	26.649
DOM *no*	0.4643	0.1685	2.756*
Group *low*	-2.7205	0.2403	-11.321*
Language Dominance *mB*	-0.6124	0.3283	-1.865
Language Dominance *mS*	0.6238	0.3666	1.702
DOM *no* : Group *low*	2.2720	0.1662	13.670*
DOM no : Language Dominance *mB*	0.5910	0.2282	2.590*
DOM *no* : Language Dominance *mS*	-0.3510	0.2540	-1.382
DOM *no*: Language Dominance *mS*	**-0.9420**	**0.3017**	**-3.123***
Group *low* : Language Dominance *mB*	0.8688	0.4199	2.069*
Group *low* : Language Dominance *mS*	-1.5992	0.7033	-2.274*
Group *low* : Language Dominance *mS*	**-2.4680**	**0.7472**	**-3.303***
DOM *no* : Group *low* : Language Dominance *mB*	-0.7029	0.2909	-2.416*
DOM *no* : Group *low* : Language Dominance *mS*	0.9961	0.4873	2.044*
DOM *no* : Group *low* : Language Dominance *mS*	**1.6990**	**0.5191**	**3.273***

Factors: DOM: yes vs. no; Language Dominance: b vs. mB vs. mS; Group: high vs. low (due to acceptance of DOM). * t-values greater than 2 and less than -2 are considered significant. For the comparison between Language Dominance mB and mS the intercept was mapped onto the mB condition (in bold).

[13] We gratefully acknowledge that Elyesa Seidel provided us with the statistics.

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DOM in language acquisition: an overview

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1. Introduction*

Contact-induced language change can take place in various contexts, which include language acquisition in a bilingual or multilingual context (Appel & Muysken 2006, Rodríguez-Ordóñez 2017). According to Meisel (2011:123), "cross-generation reanalysis of grammars is most likely to happen in successive acquisition of bilingualism or if second language speakers provide a substantial amount of input in monolingual or bilingual first language development." This line of analysis suggests that observing the acquisition path of a certain phenomenon in a bilingual and in an L2 learning setting could shed light on its possible reanalysis in language contact situations. The aim of the present paper is to offer an overview of available studies on the acquisition of differential object marking (DOM) across learning contexts, with a view to providing a bridge between the picture in acquisition and in language contact situations.

1. DOM: Some main assumptions and their implication for language acquisition

1.1. DOM in a nutshell

Differential object marking (DOM) refers to the phenomenon whereby a subset of direct object DPs are differentially case marked. It is related to case marking, but semantic and discourse factors, such as animacy, definiteness, specificity, referential stability, telicity, affectedness, topicality, play an important role (see, among others, work by Bossong 1985, 1991, 1998, Torrego 1998, 2002, Aissen 2003, Farkas & von Heusinger 2003, Rodríguez-Mondoñedo 2007, 2008, Leonetti 2008, Dalrymple & Nikolaeva 2011). Consider the Spanish examples under (1), which illustrate the role of animacy. In (1a), as opposed to (1b), the direct object *la niña* 'the girl' is animate and it is marked by the preposition *a*, the differential object marker in Spanish. The inanimate direct object *el árbol* 'the tree' in (1b) remains morphologically unmarked.

(1) (a) La mujer ve *a* la niña. DOM
DET.F.SG woman.F.SG see.3SG PREP DET.F.SG girl.F.SG
'The woman sees the girl.'

(b) La mujer ve el árbol. not DOM
DET.F.SG woman.F.SG see.3SG DET.M.SG tree.M.SG
'The woman sees the tree.'

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The literature shows two main lines of analysis. According to some studies, mainly in the functional and typological traditions, DOM refers exclusively to overt case marking. On such a view, DOM is a parameter which distinguishes between DOM and non-DOM languages (Bossong 1985, 1991, 1998, Aissen 2003). For example, languages like Spanish, Romanian, Turkish and Persian have an overt differential object marker, whereas a similar marker is absent in English or German. There is, however, a growing number of studies which argue that DOM is a universal phenomenon (Torrego 1998, Carnie 2005, Rodríguez-Mondoñedo 2007, 2008). According to this view, every language evinces a form of differential object marking, reflected either in the morphological marking of the direct object and/or in its occurrence in a designated syntactic position. What is different is, on the one hand, the types of direct object that require differential marking and, on the other, the way in which languages mark these objects (Rodríguez-Mondoñedo 2007, 2008). These two approaches, i.e. whether DOM is a parametric choice of some languages or a universal phenomenon, are less incompatible than it might look at first sight. Languages may universally have a way of marking subsets of objects, but the way in which they do it is still subject to parametric differences.

As mentioned above, object marking can be constrained by semantic and discourse features. In Hebrew, definite objects require DOM (Uziel-Karl 2015). In Spanish and in Romanian, direct objects which are specific and animate must be differentially marked (Torrego 1998, Farkas & von Heusinger 2003). Consider the examples in (2): in (2b) the direct object marked with the preposition *a* is interpreted as referring to a specific set of visitors, as opposed to (2a), without *a*, which is interpreted as non-specific.

(2) (a) Encontraron unos visitantes.
(b) Encontraron *a* unos visitantes.
'(They) met some visitors.'

Another property of marked objects is prominence. In many studies, the dimensions along which prominence is weighed include an animacy scale and a definiteness scale, as proposed, among others, by Aissen (2003), and illustrated in (3) and (4) below:

(3) **Animacy scale**
human > animate > inanimate

(4) **Definiteness scale**
personal pronoun > proper noun > definite DP > specific indefinite DP > non-specific DP
(Aissen 2003)

Farkas (2002) and Farkas & von Heusinger (2003) redefined the definiteness scale within the framework of referential stability:

(5) **Referential stability scale**
proper nouns, definite pronouns > definite DPs > partitives > indefinite DPs
(Farkas & von Heusinger 2003)

These authors suggest that the semantic dimension which underlies Aissen's (2003) definiteness scale is referential stability, i.e. prominence on the scale is measured in terms of relative referential stability. While the way in which languages choose to partition the scale in terms of what triggers DOM can differ from one language to another, trigger strength itself

will always observe the direction on the scale, namely, from referentially stable to referentially non-stable DPs.

DOM has also been discussed in terms of aspect. Torrego (1998, 2002) argues that the realization of the preposition *a* in Spanish involves not only features of the direct object, but also of the subject and of the predicate. Animacy and specificity relate to the object. In addition the subject must have the feature [+human] and the predicate must be [+telic].

Besides semantic features, DOM has been argued to be constrained by discourse information properties. According to this view, in some languages, topical arguments are more likely to be marked (Dalrymple & Nikolaeva 2011, Iemmolo 2010). Mood and negation have also been shown to interact with differential object marking.

It is important to notice that the features that play a role in DOM operate at different levels. Animacy is a property of lexical elements. On the other hand, specificity and definiteness go beyond the lexical level and involve the context, at discourse level. Telicity, in turn, is a property of predicates, obviously beyond the lexical level. In syntactic terms some of these features play a role in the DP (e.g. animacy) and in the vP (e.g. telicity, affectedness). Mood and negation, on the other hand, are properties of clauses.

1.2 Predictions for language acquisition and an outlook on language contact

This complex picture predicts a possible delay in the acquisition of DOM systems across learning contexts. It also predicts cross-linguistic variation due to the different nature of the relevant features which constrain object marking in various languages. Syntactic, semantic and discourse pragmatic features have been observed to follow different acquisition paths across contexts (L1, 2L1, and L2 learning) (Meisel 1989, Wexler 1998, Guasti 2002, a.m.o. on the early acquisition of syntax on the one hand, and, on the other one on the acquisition of discourse features, Hulk & Müller 2000, Sorace 2004, Sorace & Filiaci 2006). Overall, differences were observed with respect to syntax compared to additional semantic and discourse conditions, and also with respect to the level at which these conditions apply (i.e. lexical, phrasal, clausal, discourse). Different hypotheses about acquisition have tried to identify the nature of the difficulties observed. The distinction between narrow syntax, the syntax-semantics interface and the syntax-discourse interface has been formalised for L2 acquisition in an attempt to offer a principled account of vulnerable domains. The Interpretability Hypothesis (Tsimpli & Dimitrakopoulou 2007, Tsimpli & Mastropavlou 2008) banks on the contrast between interpretable and uninterpretable features, and claims that those uninterpretable features not available in the L1 are not learnable in L2 acquisition beyond the Critical Period. The learners can compensate for the failure to acquire uninterpretable features by relying on interpretable ones. For DOM this predicts that the acquisition of case marking will interact with interpretable features such as animacy, which may boost acquisition. On the other hand, in many languages DOM is constrained by discourse-related features. According to the Interface Hypothesis (Sorace 2004, 2011, 2012, Sorace & Filiaci 2006, Tsimpli & Sorace 2006), phenomena which involve both syntax and discourse pragmatics can be vulnerable in 2L1 and L2 learning (Sorace & Filiaci 2006). In a more fine-grained version it distinguishes between types of interface conditions, namely, internal interfaces, that link syntax to semantics (e.g. animacy) and, on the other hand, external interfaces, that link syntax to discourse (e.g. referentiality). Only the latter would be vulnerable in 2L1 and L2 settings. According to this hypothesis, those DOM systems which involve discourse constraints would be more difficult to both bilinguals and L2 learners. One could also find a developmental asymmetry in the acquisition of those DOM systems which are constrained by both semantic and discourse features; the former should be less vulnerable.

Finally, according to the Feature Reassembly Hypothesis (Lardiere 2008, 2009) it is not the existence of certain features in L1 and L2 *per se* what is problematic, but the way in

which they are assembled or configured in the different languages: even if L1 and L2 display the same feature set, discovering their specific realisation will pose a learnability problem for L2 learners.

Although these accounts have been formulated with respect to L2 learning, they focus on distinctions between narrow syntax and interface structures, which also play a role in L1 development as well. DOM is a case in point, where case, semantic and discourse features may or may not develop in parallel.

The different positions about DOM may make in turn different predictions for first language acquisition (including simultaneous bilingualism – 2L1). If DOM is a parameter that distinguishes DOM and non-DOM languages, the learning task would include parametric choice, i.e. identifying if the target language is a DOM one or not. If, on the other hand, DOM is a universal phenomenon, marked differently in different languages, the learning task is to identify only the triggers of the split and how the split is marked. As mentioned above, the constraints on DOM can be syntactic, semantic and/or pragmatic in nature and involve different features across languages where considerable variation can be observed. On this view, the learners' task is to identify the relevant features and how they determine object marking.

The nature of the relevant features which constrain object marking in various systems will have an impact on the timing of their acquisition. Systems within which object marking is triggered exclusively by animacy should be acquired early. But if the system involves features such as topicality, it is plausible to assume that acquisition of DOM could be delayed.

Though understanding language contact obviously requires more than identifying degrees of area vulnerability in acquisition, it is not implausible to assume that those features which are more vulnerable in the 2L1 and L2 acquisition of DOM will also be more prone to change as a result of language contact. The picture which we get from acquisition studies can also shed light on what features which are DOM-related we should expect to remain unaffected by language contact. It goes without saying that other factors may be relevant here: optionality, frequency, language pairing. The discourse features which constrain DOM systems are often associated with syntactic optionality, a source of possible instability in language contact situations. In addition to the specific linguistic issues at stake, it becomes clear that the type and amount of input also play an important role.

On this background, a number of questions arise:

Does the acquisition of DOM vary across learning contexts (L1, 2L1, L2)?

(i) Are some features which constrain DOM systems more vulnerable than others across learning contexts (L1, 2L1, L2)?
(ii) Will the acquisition process vary, depending on DOM-related properties in the target language?
(iii) What can 2L1 and L2 data on the acquisition of DOM predict for language contact situations?

In what follows we will review several studies of DOM in L1 acquisition, bilingual acquisition and L2 learning. The focus will be on the last two, as they are more likely to shed light on DOM in language contact situations.

2. DOM in L1 acquisition

In the L1 acquisition literature, there is a growing number of longitudinal studies which report early emergence and early target-like production of DOM, with a very low number of errors. In languages where animacy determines DOM (Croatian, Russian, Spanish,

Romanian), children mark animate direct objects from early on (Hržica & al 2015, Rodríguez-Mondoñedo 2008, Ticio & Avram 2015). In the languages in which definiteness is the trigger, such as Hebrew, definite direct objects are case marked very early (Uziel-Karl 2015). When telicity and definiteness interact, as in Estonian, children acquire the two features concurrently, at an early stage, i.e. before age 3 (Argus 2015). Clause level triggers (such as mood and polarity) might somewhat lag behind the other factors but they are also integrated in DOM systems early (as shown for child Estonian and Lithuanian, Argus 2015, Dabašinskienė 2015). The main findings, summarised in the table in Appendix 1, show that case structures requiring the satisfaction of semantic conditions are acquired under age 3 in L1 across languages.

The few experimental studies, however, display more mixed results, challenging the picture of early target-like use offered by spontaneous production data. Overall, differences can be observed with respect to narrow syntax compared to additional semantic and discourse conditions. Ketrez (2015) uses a comprehension task to test whether 4;0-6;0-year-old Turkish children can differentiate between accusative case marked indefinite direct objects and non-case marked ones in terms of scope taking properties. Her findings show that Turkish children have problems with the wide scope interpretation of the accusative marked indefinite objects even at age 6, which could be due to their infrequent use in child directed speech or/and to their complexity. This result is, in principle, in accordance with the data in longitudinal studies on DOM in L1 Turkish (Ketrez 2015 and references therein), which reveal the absence of marked indefinite objects during early acquisition stages. DOM in Turkish emerges early and is used in a target-like way; however, the attested structures in naturalistic speech corpora appear to be bound to a narrow range of contexts, namely, definite objects.

A comparable mismatch between longitudinal corpus studies and experimental data is also observed for Spanish. Guijarro-Fuentes, Pires & Nediger (2017) investigate the acquisition of DOM in Spanish on the basis of an acceptability judgment task, whose results reveal that even at age 10-15 years, Spanish monolinguals do not mark direct objects in a target-like way. The results are in stark contrast to those reported for L1 Spanish in longitudinal corpus studies, according to which Spanish children use the marker *a* correctly before age 3 (Rodríguez-Mondoñedo 2007, 2008, Ticio & Avram 2015). The results reported in this experimental study reveal degrees of feature vulnerability. Animacy seems to be the least vulnerable. The Spanish-speaking teenagers obtained the highest scores in those conditions which targeted the role of animacy. But when the aspectual class of the predicate or the semantic features of the subject played a part the scores obtained were unexpectedly low (either below or around 50%). The results indicate that some of the features involved in the Spanish DOM system raise acquisition difficulties which persist until late. Similarly, for Romanian, a language where DOM is constrained by animacy and specificity (Farkas & von Heusinger 2003), animacy is not problematic. But the neat picture of early DOM use in corpus studies is challenged by data from narratives by 3-year olds, 4-year olds, and 9-year olds. The longitudinal data reveal early acquisition of DOM, by age 3, with both animacy and referential stability constraining object marking in an adult-like manner (Ticio & Avram 2015). But in narratives one finds an asymmetry between the early marking of definite pronouns and proper names, on the one hand, and the early marking of definite and indefinite descriptive DPs (Avram & Tomescu 2016). With the latter, DOM is syntactically optional and, when present, it signals topicality (Chiriacescu & von Heusinger 2009, 2010), i.e. their marking is constrained by discourse pragmatics. The results show that in narratives, 3-, 4- and 9-year olds mark definite pronouns and proper names at ceiling. But descriptive DPs are undermarked by the younger children.

What all these studies show is that, in spite of the language-specific properties of the systems, DOM emerges before age 3. In spontaneous production it appears to be used in a target-like way early, but the results of experimental studies reveal selective vulnerability of the features which constrain object marking: semantic features (e.g. animacy) constrain the system from the very beginning, whereas discourse-dependent features are implemented in the system later.

3. DOM in 2L1

3.1 L1 acquisition: main assumptions

Reanalysis of grammars in contact situations takes place in successive and simultaneous bilingual acquisition (Meisel 2011). The learning task in simultaneous bilingual acquisition (2L1) is not different from that of the L1 child, if we assume that each language input develops a differentiated system in the bilingual mind (Meisel 1989; de Houwer 1990, Paradis & Genesee 1996). Age of language exposure is the same as in L1. The difference between the two lies in the fact that the bilingual acquisitional process is always input deprived compared to L1, as there is less exposure to each of the languages (de Houwer 2009). Different learning conditions also play a role, i.e. both the quantity and the quality of the input may be different and clearly related to how the languages are used in the family and/or the larger community. For this reason it is important to keep the distinction between simultaneous bilinguals and the rest, i.e. sequential bilinguals, L2 learners, and heritage speakers (HS). As defined by Kupisch & Rothman (2016), HSs are native speakers of a language of familial heritage, i.e. a language that is spoken at home, but is not the dominant one in the larger community (Rothman 2009). As in the case of simultaneous bilinguals and differently from monolinguals, there may be qualitative and quantitative differences in the input, influence from the dominant society language as well as in literacy and formal education (Rothman 2009: 156). It is worth noting that HSs started out as simultaneous bilinguals. While studies on 2L1s observe the beginning of the acquisition process, studies of HSs typically consider the outcome of the acquisition process at a much older age.

The main issues which we address in this section are (i) whether the acquisition of DOM in a simultaneous bilingual setting is similar to what was reported for L1 acquisition; in particular, to what extent the selective vulnerability which was found in the L1 acquisition of DOM also determines the 2L1 acquisition path; (ii) to what extent the acquisition of DOM in a simultaneous bilingual context is affected by possible cross-linguistic interference effects.

3.2 DOM emergence in 2L1

All available L1 studies which looked into the early differential marking of objects uniformly report early emergence of DOM. For 2L1, the data coming from the very few studies which document the emergence of DOM are relatively similar, in this respect, to the L1 data. Ticio (2015) investigates the early acquisition of DOM in Spanish by simultaneous bilinguals at a young age. Her analysis relies on data from 7 longitudinal corpora of Spanish-English simultaneous bilingual children (age range 1;1–3;6), which she compares to the results for L1 Spanish reported in Rodríguez-Mondoñedo (2008). The bilingual English-Spanish children begin to mark objects relatively early, though one notices important individual variation. One bilingual child (Leo) starts using *a*-marking as early as 1;9 (which is similar to what was reported for Spanish monolinguals in Rodríguez-Mondoñedo 2008 and in Ticio & Avram 2015). But there is also one child (Simon) who begins to use DOM only after age 3, an age at which monolingual Spanish children already use *a* in a target-like way.

Early emergence of DOM has also been reported for 2L1 Romanian (Tomescu 2016, Avram & Tomescu 2016). Hungarian-Romanian bilinguals begin to use the differential object

marker *pe* early, at 1;9 – 2;1, practically at the same time as Romanian monolinguals (1;11 – 2;1).

3.3 DOM in 2L1 and the role of linguistic input

In spite of the fact that the available studies document early emergence of DOM in both L1 and 2L1, the acquisition route differs across 2L1 contexts. In 2L1 Spanish, in a Spanish-English context, the rate of omission is overall high and full acquisition of DOM is severely delayed. The omission rate found with the Spanish-English bilinguals in Ticio's (2015) longitudinal study is as high as 74.62% (significantly higher than the approximately 30% found in L1 Spanish, according to her data). Experimental studies report that 7-year-old Spanish-English simultaneous bilinguals living in the Unites States produce *a* in only 35% of the contexts that require it. At age 9, they still omit *a* in 20% of obligatory contexts (Ortiz-Vergara 2013)[1]. Montrul & Sánchez-Walker (2013) examined the production of DOM by Spanish-English simultaneous (mean age 10.1) and sequential (mean age 12.2) bilingual children who lived in the United States at testing time. In a retelling a story task both groups of bilinguals omitted the marker *a* at a rate of approximately 30% of the relevant contexts, whereas age-matched monolinguals (from Mexico) omitted DOM only in 2% of those contexts. In a picture description task, the bilinguals also performed differently from the monolinguals: they were approximately 40% accurate with animate objects, while the monolinguals were clearly more accurate and produced the required markings in 84% of the contexts with animates. Guijarro-Fuentes, Pires & Nediger (2015) offer comprehension data which show that even at age 12 English-Spanish bilinguals from Spanish immigrant families living in the UK[2] do not fully master the properties of the Spanish DOM system.

The error pattern in 2L1 Spanish is also different from the one found in L1 acquisition. While both omission and commission errors are found in the monolingual data, practically only omission errors are found in the bilingual corpora (Ticio 2015). Similar results are attested with older Spanish-English bilinguals (age range 7 - 12 years), born in the United States (Ortiz Vergara 2013, Montrul & Sánchez Walker (2013). Overgeneralization of *a* to inanimate objects is extremely rare.

But in 2L1 Romanian, in a Hungarian-Romanian context, the simultaneous bilinguals (age range 1;11 – 2;11) behave very similarly to the Romanian monolinguals with respect to DOM omission in obligatory contexts (Avram & Tomescu 2016). They omit DOM at a low rate (12.2% -15.6%), comparable to the one found with age matched Romanian monolinguals (7.4% - 19.4%). By age 3 DOM in 2L1 Romanian is correctly marked 100% in obligatory contexts. Inanimate objects are only rarely marked, with an upgrading effect, similarly to what is found with Romanian monolinguals and also in adult speech.

At first sight, the difference between 2L1 Spanish and 2L1 Romanian bilinguals could be accounted for in terms of language of the community. The Spanish-speaking bilinguals in Ticio's (2015) study live in the United States or in the UK, where English is the language of the community. The Romanian-speaking bilinguals in Avram & Tomescu's (2016) study live

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[1] Ortiz Vergara (2013) investigates the acquisition of DOM by bilingual children all born in the US, under conditions that make it more appropriate to call them heritage speakers.

[2] In spite of this fact, the authors state that 'this study refers to its non-monolingual subjects as bilinguals rather than heritage speakers. Even though heritage speakers are often distinguished from other types of childhood bilinguals in the acquisition literature, [...], the lack of a variable effect of amount of exposure to Spanish relative to English indicates that the heritage status of the group of bilinguals considered here is not, in the case of the current study, a primary factor in the acquisition of personal *a*, whereas their overall status as English–Spanish bilinguals will be shown in this study's results to have a partial effect on their knowledge about DOM, in comparison to age-matched Spanish monolinguals. Thus, the bilinguals tested here are treated as childhood bilinguals broadly, rather than heritage bilinguals specifically.' (p. 9)

in Bucharest, a city where Romanian is the language of the community. Such an account is at least in part supported by the data in Montrul, Bhatt & Girju (2015) on DOM use in Spanish and Romanian by older simultaneous Spanish-English and Romanian-English bilinguals. The simultaneous bilingual Romanian HSs (age range 18-23 years) were either born in the United States or immigrated there before age 5. The simultaneous bilingual Spanish HSs (age range 18-28 years) were all born in the United States to Mexican parents. The rate of participants in each group who accepted ungrammatical omission of DOM is similar for Romanian and Spanish: 74% and 78% respectively (Montrul et al. 2015: 598), which shows that the two DOM systems are equally attrited in the first generation of HSs. The mean acceptability rate for unmarked animate specific direct objects is the same with Romanian and Spanish simultaneous bilinguals. Interestingly, though, the first generation of Romanian immigrants, i.e. those that offer input to the simultaneous bilingual Romanian HSs, do not differ with respect to DOM use from speakers of Romanian who live in Romania. The first generation immigrants whose native language is Spanish, on the other hand, already have a qualitatively different DOM system, i.e. the Spanish bilinguals receive not only reduced/restricted input but this input seems to be affected by the contact with English. As in any bilingual situation both the quantity and the quality of the input play an important role and, in the case of Spanish, the input is reduced in both dimensions. In Romanian, where DOM seems to be more resistant to change than in Spanish, there is no change in the linguistic input provided by the first generation of immigrants. But under conditions of relatively prolonged language contact with English, DOM undergoes a qualitative change in the first generation of HSs. Similar results are reported for DOM in Hindi; no qualitative difference is found with the first generation of immigrants, but simultaneous bilingual Hindi HSs have high rates of DOM omission (Montrul, Bhatt & Girju 2015). The comparison of the reanalysis of DOM in Spanish, on the one hand, and in Romanian and Hindi, on the other, clearly shows that amount of input and language of the community may be important factors but language specific properties are the ones which determine whether reanalysis of grammar is likely to happen within the first generation of bilinguals born in a language contact situation (as is the case of Romanian and Hindi HSs in the United States) or even earlier, within the first generation of immigrants, as shown for Spanish. Montrul, Bhatt & Girju (2015) account for the different degrees of DOM attrition in terms of the properties of the object marker and the semantic features which constrain DOM. Specifically, the Spanish marker *a* is less acoustically salient than the Hindi *ko* and the Romanian *pe,* a property which might explain why the Spanish marker begins to be eroded as early as with the first generation of immigrants. Another difference which the authors discuss is related to the definiteness/specificity feature. Hindi lacks a definite article, which makes the object marker *ko* "more needed" in the system to mark definiteness and specificity.

3.4 DOM in 2L1: selective vulnerability

A closer look at the data reveal that not all the features relevant to DOM systems are equally vulnerable and, hence, prone to late acquisition. Ticio (2015) for Spanish and Avram & Tomescu (2016) for Romanian coincide in the observation that animacy is not problematic in the 2L1 acquisition of DOM. These authors also notice that in 2L1 early differential marking applies more robustly to proper names and pronouns, i.e. DPs high on the specificity scale, which are referentially stable (Farkas & von Heusinger 2003). With (definite and indefinite) descriptive DPs, whose marking requires integration and updating of contextual information, the rate of differentially marked objects is lower. With descriptive lexical DPs, specificity can be determined after inspection of the discourse context, i.e. it involves syntax-pragmatics/discourse consideration. For 2L1 Romanian, overall, longitudinal data show that there are no significant differences with respect to DOM between monolinguals and

simultaneous bilinguals, with one exception: the rate of marked descriptive DPs is significantly lower with the bilinguals (27% - 29%) than with the monolinguals (75% - 100%). These early data are supported by those coming from the use of DOM in narratives by 7-year-old Hutsul Ukrainian[3] – Romanian bilinguals and Lipovan Russian[4] – Romanian bilinguals (Avram & Tomescu 2016). The former mark proper names and personal pronouns in 100% of obligatory contexts but definite and indefinite descriptive DP objects only in 29% of those; the latter also mark proper names and pronouns at ceiling but descriptive DPs only at a rate of 27%, similar to the one found with 3-year-old Romanian monolinguals. These data show that in a 2L1 setting the acquisition of DOM is delayed in contexts in which discourse considerations play a role.

Guijarro-Fuentes, Pires & Nediger (2015) offer further data that feature vulnerability remains selective in DOM in 2L1 until late. In an acceptability judgment task, Spanish-English bilinguals (mean age 12.5 years) from Spanish immigrant families living in the UK obtained higher scores in those conditions which tested knowledge of the role of the animacy feature (approximately 57%) but they gave random answers in those conditions which targeted specificity and/or telicity. The results reported by Guijarro-Fuentes, Pires & Nediger (2015) show that acquisition difficulties in Spanish DOM persist until late. But they also indicate that not all DOM triggers are equally vulnerable and subject to prolonged vulnerability in 2L1 acquisition.

One more area of vulnerability is DOM in clitic left dislocation structures. In 2L1 Spanish, 9-year-old simultaneous bilingual heritage speakers living in the United States use the marker *a* at a rate of 80% when the object occurs in post-verbal position but they omit it across the board in clitic left dislocation structures (Ortiz Vergara (2013).

3.5 DOM in 2L1: cross-linguistic effects

We have already seen that the contact with a language like English, which lacks overt DOM, can result in an attrited DOM system either in the first generation of immigrants (the case of Spanish) or in the first generation of simultaneous bilingual HSs (the case of Romanian). But contact with another language does not have to always result in an attrited system. The L1/L2 pairing may play an important part. The comparison of the use of DOM in 2L1 Romanian by three groups of simultaneous bilingual children: Hungarian-Romanian (mean age 4;5), Lipovan Russian – Romanian (mean age 7;1) and Hutsul Ukrainian – Romanian mean age 7;2) reveals that the contact with another language may have a boosting effect (Avram & Tomescu 2016). The children in all these groups use DOM correctly in syntactically obligatory contexts (when the object is a proper name or a definite pronoun). But their use of DOM differs in syntactically optional contexts: marking of descriptive lexical DPs lags behind in 2L1 Romanian pairing with Lipovan-Russian (36%) and Hutsul-Ukrainian until age 7 (29%); with these two groups the rate of marked descriptive DPs is at the level of monolingual 3-year-olds. But in the case of the Hungarian-Romanian pairing, fewer marked descriptive DPs are observed only until age 3. As early as age 4, these bilinguals reach a marking rate with these DPs (69%) which is higher than the rate attested with age-matched Romanian monolinguals in the same context (48%). Hungarian does not have overt DOM, but it does use a definite conjugation with definite objects, which may have a positive effect on the development of DOM (see Tomescu & Avram 2016 for a similar account with respect

[3] Hutsul is a dialect of western Ukrainian, which has overt DOM constrained by animacy. The bilingual children in the study are from the village of Brodina, in the northern part of Romania.

[4] Lipovan Russian is a dialect of Russian spoken by the Lipovan community in Romania. In this dialect, like in standard Russian, DOM is overt and it is constrained by animacy. The 2L1 group in the study are from Brăila, a town with a small Lipovan Russian community (3,499, according to the site of the ethnic community).

to the acquisition of accusative clitics). As soon as the bilinguals become aware of this property of Hungarian, they possibly extend it to object marking in the other language. Lipovan-Russian has overt DOM, but differential case marking is constrained by animacy, not by definiteness or specificity. Therefore, cross-linguistic effects, if present, could enhance only the integration of the animacy feature in the DOM system of Romanian. Besides, the observed difference can also be accounted for in terms of amount of input in Hungarian and Russian, respectively. The positive cross-linguistic effect with the Hungarian-Romanian group is probably (also) favoured by the bilinguals' exposure to Hungarian. Though they live in a city where Romanian is the language of the community, they go to a kindergarten and a school where instruction is exclusively in Hungarian. The Lipovan Russian–Romanian bilinguals, just like the Hungarian-Romanian children, live in a city in which Romanian is the community language. But in their case school instruction is also in Romanian, with only three 50 minute Russian classes per week. This suggests that it cannot be language dominance in the community which affects the acquisition of DOM but rather the properties of the DOM system(s) of the language pair in conjunction with the quantity and the nature of the input received for both languages. This conclusion is reinforced by the data presented in Montrul, Bhatt & Girju (2015) in relation to the reanalysis of DOM in Spanish and in Romanian by the first generation of immigrants and by older HSs. The simultaneous bilingual Spanish and Romanian HSs showed the same degree of DOM attrition in spite of the fact that only the first generation of Spanish immigrants is affected by the language contact situation, i.e. only the Spanish bilinguals receive an input which features attrited DOM. This may be due to the fact that the Romanian group receives a lower amount of heritage language input than the Spanish group, since Spanish is more widely spoken in the media in the United States than Romanian is and, unlike Romanian, it is also taught in schools within bilingual programmes (Montrul, Bhatt & Girju 2015).

3.6 DOM in 2L1: summing up

The few studies presented in this section offer similar results. In the 2L1 acquisition of DOM, vulnerability is determined primarily by language specific properties. The results of the study by Montrul, Bhatt & Girju (2015) in particular highlight the role of language specific properties, predicting that DOM might not be equally difficult across languages in language contact situations. Language specific properties are also reflected in different cross-linguistic interference effects (see the study by Avram & Tomescu 2016). One more common finding is that vulnerability of DOM is selective; integration of animacy in the DOM system is not problematic, but the integration of specificity is. Quantity and quality of linguistic input in both languages are also determining factors, which interact with vulnerability and cross-linguistic interference patterns.

4. DOM in L2 learning

4.1 Preliminary remarks

The various studies on DOM in L2 learning usually build on experimental data coming from subjects who are learning the respective language in a formal environment. At first sight, the findings of such studies seem to be unable to contribute in a relevant way to any prediction for language contact situations. There are, however, several reasons for which data from L2 learning may prove instrumental. Firstly, L2 learning in a formal setting, like any other type of language learning in a bi- or multilingual setting, involves some type of language contact. Secondly, L2 learning studies shed light both on child and on adult language learning. And given that the experimental design which can be used with adult learners can be more elaborate, they can offer a more fine-grained evaluation of the degree of vulnerability of

DOM-related features. Besides, L2 studies offer access, at least in principle, to a higher number of language pairings. According to Meisel (2011:123), "cross-generation reanalysis of grammars is most likely to happen in successive acquisition of bilingualism or if second language speakers provide a substantial amount of input in monolingual or bilingual first language development." Therefore the picture from L2 learning could shed light on the nature of the linguistic input which is available in reanalysis in language contact situations.

4.2 L2 learning of DOM: delayed acquisition

The DOM system is not target-like during the early stages of L2 learning and, in some languages, it may remain so until relatively late. Available studies report low frequency of DOM use with beginner and intermediate learners regardless of whether the learners are children or adults. Child L2 learners of Persian with L1 Balochi (age range 8 – 11 years), for example, underuse the Persian object marker *rā*. But a gradual learning of object marking can be observed: the beginners underuse the marker (45%) whereas the proficient learners use it in 65.7% of the required contexts (compared to 75.5% in the case of the native speakers of Persian).

DOM in Persian is also vulnerable in adult L2 learning during the early stages. Ciovârnache & Avram (2013) report data from an acceptability judgment task which reveal a significant difference between (beginner and intermediate) L2 learners of Persian (with L1 Romanian) and native speakers. Although object marking observes the direction of the referential stability scale (given in 5 in section 1.1), with DPs higher on the scale being preferentially marked, the groups of L2 learners accepted DOM slightly above chance (approx. 60%), whereas the native speakers accepted DOM in almost 90% of the required contexts. But the advanced learners behaved in a native-like way. Similarly, in a sentence completion task, beginner L2 learners of L2 Persian (with L1 Romanian) used the Persian differential object marker *rā* at a significantly lower rate than a group of native speakers (Avram & Ciovârnache 2017).

Similar findings were reported for DOM in L2 Spanish, though in this case DOM remains problematic even with advanced learners. Guijarro-Fuentes & Marinis (2007), on the basis of an acceptability judgment task, show that adult L2 learners of Spanish (with L1 English) of both intermediate and advanced levels, perform at chance with respect to the semantic features which constrain DOM. Even the responses of advanced learners were different from those of native speakers. Actually, most of the available studies show that L2 learners of Spanish of all proficiency levels differ from native speakers with respect to DOM (Guijarro-Fuentes 2014, Nediger et al. 2016a, 2016b, Nediger, Pires & Guijarro-Fuentes 2017). Nediger et al. (2016a), in particular, report data from two grammaticality judgment tasks, according to which even advanced L2 learners of Spanish (mean age 42.7), who were living in Spain at testing time, performed differently from native speakers on several DOM structures.

DOM seems to be vulnerable in the beginning of L2 learning across the board; but there are different degrees of vulnerability, with DOM remaining an area of difficulty for advanced learners only in some languages, such as Spanish. At first sight, one possible explanation of this difference would be that the vast majority of the studies which investigated DOM in L2 Spanish tested L2 learners whose L1 was English, a language which lacks overt DOM, while the studies on DOM in L2 Persian, for example, involved an L1 which had overt DOM. This view also finds support in the results of those studies which investigated the L2 learning of DOM in Turkish, a language with overt DOM, by speakers of L1 English (Gürel 20, in Montrul 2016). The L2 learners of Turkish have problems with overt case morphology. Along the same line, the results reported in Montrul & Gürel's (2015) study on the L2 learning of Spanish by L1 Turkish learners show that L2 learning of DOM is less problematic when both languages have overt DOM. The authors used a written production task, a written

comprehension task and an acceptability judgment task to evaluate to what extent the delay found in the learning of DOM in L2 Spanish by native speakers of English is replicated when the learners' L1 is Turkish. The participants in the study were Turkish learners of Spanish (mean age 21.7 years) at a university in Istanbul. They had been studying Spanish for a mean length of 2.43 years at testing time and they had low and intermediate proficiency. They all spoke English as L2. The Turkish learners of Spanish, irrespective of proficiency level, did not show the developmental delay found with English learners. Their responses were 'quite successful' and showed that their object marking was constrained by animacy and specificity. But the mere overtness of DOM in the two languages does not necessarily guarantee successful learning. Though the results of e.g. Montrul & Gürel (2015) show that when L1 has overt DOM the learning of DOM in L2 is not as vulnerable, the experimental data reported in Nediger, Pires & Guijarro-Fuentes (2017) cast doubt on this conclusion. The comparison of an L2 Spanish group whose L1 is English to an L2 Spanish group whose L1 is Brazilian Portuguese reveals no clear advantage for the latter with respect to DOM in spite of the fact that Brazilian Portuguese, like Spanish, has overt DOM. The results of a sentence completion task and a grammaticality judgment task showed no difference between the pattern of responses given by the two groups of L2 learners, i.e. the Brazilian Portuguese L2 learners of Spanish had no advantage over the L1 English group. They all obtained significantly lower scores than the L1 group on some conditions in both tasks. Nediger, Pires & Guijarro-Fuentes (2017) account for this difference in terms of difficulties with the morphological realization of DOM. In spite of the fact that Brazilian Portuguese has an overt object marker, this is morphologically different from the one in Spanish.

The results in Bohnacker & Mohammadi (2012) also show that DOM can be vulnerable even when both L1 and L2 have overt DOM. They show that children with L1 Balochi, a language with overt DOM, have problems learning DOM in L2 Persian during the early stages. On the other hand, the studies where both languages have overt DOM report initial vulnerability but they also offer data showing that DOM marking develops gradually and advanced learners behave almost target-like. Formal instruction (with negative evidence) might facilitate the learning of DOM (Montrul & Bowles 2009, Killam 2011). Martoccio (2012) also provides evidence that explicit instruction and negative feedback can improve knowledge of DOM in L2. This facilitates an increase in awareness of the structure. Actually, the L2 learners of Persian in Ciovârnache & Avram's (2013) study and the L2 learners of Spanish in Montrul & Gürel (2015), whose learning of DOM is successful, are university language students.

4.3 L2 learning: selective vulnerability of DOM-related features

The results reported in various L2 studies reveal, in line with those observed for 2L1, that differential object marking is not random: L2 learners, at all levels, show sensitivity to the semantic constraints relevant to the DOM system of the target-language. And even when DOM is vulnerable in a language, it is not so across the board. For L2 Spanish, for example, the animacy feature is less problematic than specificity or telicity.

Guijarro-Fuentes & Marinis (2007), on the basis of an acceptability judgment task, show that adult L2 learners of Spanish, of both intermediate and advanced levels, performed at chance with respect to specificity, subject theta-roles, and situation-type aspect (with focus on telicity) within the DOM system. Animacy was the least problematic. Still, only the advanced group showed sensitivity to this feature. But even their responses were different from those of native speakers.

Guijarro-Fuentes (2012) starts from Torrego´s (1998, 2002) analysis of DOM in Spanish; in particular, the analysis includes not only features of the object itself, but also of the subject and of the predicate: the object has to be [+animate] and [+specific], the subject [+human]

and the predicate [+telic]. He tested knowledge of these constraints in L2 Spanish, using a sentence completion task and an acceptability judgment one. The L2 learners had been exposed to English in the classroom and had no immersion experience. The experimental conditions can be found in Table 1 below (Guijarro-Fuentes 2012: 708).

Condition 1 (C1)	[+animate, +specific]	+a	(OK *a*)
Condition 2 (C2)	[–animate, +specific]	–a	(∗*a*)
Condition 3 (C3)	[+animate, –specific]	–a	(∗*a*)
Condition 4 (C4)	stative/activity predicate, [+human subject]	+a	(OK *a*)
Condition 5 (C5)	stative/activity predicate, [–human subject]	–a	(∗*a*)
Condition 6 (C6)	accomplishment/achievement predicate, [+/-human subject]	+a	(OK *a*)

Table 1. Experimental conditions testing the use of *a* in Guijarro-Fuentes (2012: 708)

The responses of the L2 learners of Spanish, irrespective of proficiency level, differed from those of native speakers. The L2 learners appear to have acquired the [+/-animate] distinction, but are delayed with other features. In particular, Guijarro-Fuentes observes a great deal of variability in the conditions which also required access to more than one feature (Conditions 1, 3), and which involved features related to the predicate and the subject (Conditions 4, 5, 6) (Guijarro-Fuentes 2012: 714), i.e. the number of features involved seems to affect the acquisition of *a*. The more the features are clustered in the mapping of form to meaning in DOM, the harder the acquisition task will be. As the features in question are all interpretable features, the results disprove the Interpretability Hypothesis, as interpretable features are expected to be learnable. Guijarro-Fuentes points out that all these interpretable features are present in L1 and L2 but realised differently. In this line, the Feature Reassembly Hypothesis (Lardiere 2008, 2009) may offer a better analysis of the results. His proposal, which he calls Feature (In)accessibility Hypothesis, states that all linguistic features may posit learnability problems, but the level of complexity will play a role: "a feature is more easily accessible when it is concentrated on a single item (i.e., animacy), whereas accessibility is reduced when the whole functional category or an entire phase is involved (i.e., vP). In that regard, the learnability problem may be related to the location of the feature rather than the nature of the feature itself" (Guijarro-Fuentes 2012: 717). As already mentioned, some features refer to the lexical level (i.e. animacy), but not specificity and telicity, which refer to the phrasal level. The point about the location of features may well be the crucial point, rather than the number of differences.

Similar results are reported for DOM in L2 Spanish in an L1 English context in Nediger et al. (2016a,b). In Nediger et al. (2016a), the participants were advanced L2 learners of Spanish (mean age 42.7), who were living in Spain at testing time. The first grammaticality judgment task tested the use of the marker *a* in 8 conditions: (i) [+ animate, + specific, - definite] (atelic verb); (ii) [+ animate, - specific] (atelic verb); (iii) [+ animate, + specific, - definite, + topic] (clitic left dislocation); (iv) [+ animate, - specific] (bare noun objects); (v) [+ animate, - specific] (existential construction); (vi) [- animate, + specific, - definite]; (vii) [+ animate, + specific, + definite]; (viii) [+ animate, - specific, + agent subject]. The L2 learners gave responses which differed significantly from those of the native speakers on conditions (i), (iii), and (vii). The second task was a context-driven grammaticality judgment task which tested only 5 out of the 8 conditions in the first task: (i), (ii), (iii), (vi) and (vii). In this task the responses of the L2 learners were significantly different from those of the native speakers across the board. In both tasks, the participants performed better on those conditions in which animacy of the object could determine object marking. The authors argue, on the basis

of these results, that the L2 learners in the study have not acquired the role of specificity (the D feature) in the DOM system yet. The fact that they performed better on those conditions where animacy was sufficient to indicate whether marking was allowed or not shows that this feature, determined by the object alone, is acquired earlier. The role of this feature is also the one which is usually explicitly taught in L2 Spanish classes, which could additionally explain why it is easier to acquire than specificity. Since the latter is partly determined by discourse information packaging, the authors account for the delay in the acquisition of this feature within the DOM system of Spanish in terms of the Interface Hypothesis (Tsimpli & Sorace 2006).

Nediger et al. (2016b) report data from three tasks. Two of them are identical to the two grammaticality judgment tasks used in Nediger et al. (2016a), with one exception; both tasks included all the 8 conditions reported in the previous study. The third task required the participants to fill in a blank before the direct object with *a* when possible. This task as well included all the 8 conditions described above. The participants were advanced L2 learners of Spanish with L1 English (mean age 37.3) living in Spain when they took the test. The L2 learners in this study performed less accurately than native speakers on condition (i) in the grammaticality judgment task and in the elicited production task, and on condition (iii) in the context-driven grammaticality task, but they performed native-like on those conditions in which the object was inanimate and hence banned *a*-marking. This is interpreted as indicative of a tendency to avoid object marking, a possible effect of L1 transfer. On the other hand, the L2 learners also identified definiteness as a strong DOM trigger, on a par with L1 speakers of Spanish. The results are taken to suggest that the L2 learners acquire those features which are strong triggers of DOM earlier.

That animacy is not a vulnerable DOM-related feature has also been reported for L2 Persian (in an L1 Romanian context) and L2 Romanian (in an L1 Persian context) (Ciovârnache & Avram 2013, Avram, Ciovârnache & Sevcenco 2016). Both Romanian and Persian have an overt marker, but in Persian DOM is constrained by specificity alone, while in Romanian DOM is constrained by specificity and animacy. In an acceptability judgment task, adult Romanian learners of L2 Persian (age range 19–34) (beginners, intermediate, advanced) treated animate and inanimate DPs alike, in accordance with the Persian DOM system (Ciovârnache & Avram 2013). The picture which emerges from a production study is similar. In a sentence completion task, beginner learners of Persian as L2 (age range 19–32) with L1 Romanian, who had been studying Persian in a formal setting for 9 months (10 hours/week) at testing time, marked direct objects in accordance with the DOM system of Persian, i.e. there were no L1 transfer effects with respect to animacy (Avram & Ciovârnache 2017). This semantic feature is non-vulnerable in a language pair in which the learners' L1 is a superset in relation to the animacy feature in the DOM system of the L2. Intermediate learners (age range 21–48) of L2 Romanian (where only animate objects must be differentially marked) with L1 Persian (a language in which DOM applies to both animate and inanimate direct objects) did not accept marked animate and marked inanimate objects at equal rates; they showed an animacy bias, in accordance with the DOM system in Romanian (Avram, Ciovârnache & Sevcenco 2016).

Animacy appears not to be a vulnerable feature in various L2 DOM systems, as also shown for L2 Spanish. But, unlike in L2 Spanish, it is integrated in the DOM systems of Persian and Romanian earlier.

The develomental asymmetry between animacy and specificity which was reported for L2 Spanish in several studies is also reported for L2 Persian, though the general picture of the latter is less clear cut. Ciovârnache & Avram (2013), Avram, Ciovârnache & Sevcenco (2015) used an acceptability judgment task to test knowledge of the semantic features that underlie DOM choice in L2 Persian in an L1 Romanian context. Importantly, in Persian

DOM is obligatory with proper names, definite pronouns, definite descriptive DPs and partitives. Optionality applies only in the case of indefinite DPs. In Romanian, DOM is obligatory only with proper names and definite pronouns. With definite descriptive DPs, partitives and indefinite DPs DOM is syntactically optional (Farkas & von Heusinger 2003). These facts are summarized in Table 2.

Language	proper names and definite pronouns	definite descriptive DPs	partitives	indefinite DPs
Romanian	obligatory	optional		
Persian	obligatory			optional

Table 2. Specificity in the DOM systems of Romanian and Persian

The task included 4 conditions: DOM with (i) proper names and definite pronouns; (ii) definite descriptive DPs; (iii) partitives; (iv) indefinite DPs. Condition (iii), which targeted the marking of partitives was the only difficult one. The beginner learners did not treat partitives as stronger DOM triggers than indefinites. But the intermediate and the advanced learners treated partitives as stronger DOM triggers than specific indefinite objects, in accordance with the properties of the target language, which shows that DOM can be acquired in L2 (at least in a learning context where both L1 and L2 have overt DOM). Partitives were also problematic in a production task. Beginner learners of L2 Persian (with L1 Romanian) were less native-like with partitives and indefinite DPs. The L2 learners were more categorical in not using the marker *rā* with these DP types, with which DOM is optional (or even dispreferred) in their L1 (Romanian) (Avram & Ciovârnache 2017). The authors account for the data in terms of selective transfer in L2.

Specificity is also vulnerable in L2 Romanian (in an L1 Persian context). In an acceptability judgment task, similar to the one used in Ciovârnache & Avram (2013) for DOM in L2 Persian, with the same four conditions (listed above), intermediate adult L2 learners of Romanian treated proper names, lexically headed definite DPs and partitives as equally strong DOM triggers (Avram, Ciovârnache & Sevcenco 2016), unlike native speakers for whom DOM is obligatory with proper names but syntactically optional with the other DP types. The learning of how specificity constrains the DOM system can be delayed when there is some 'proximity' between the two languages with respect to the role of this semantic feature in L1 and L2.

The asymmetry between animacy and specificity is also reflected in L1 transfer effects. The latter have been attested with specificity but are practically absent in the case of animacy. Cross-linguistic effects have been found in object marking by child L2 learners of Persian with L1 Balochi (Bohnacker & Mohammadi 2012) and, possibly, by L2 learners of Spanish with L1 Catalan (Puig Mayenco et al. 2017, Nediger et al. 2016b). Weak L1 transfer effects have also been reported for learners of L2 Persian with L1 Romanian but only with respect to specificity (not to animacy). This suggests that feature make-up and the way in which this make-up is designed in L1 and L2 might actually determine the possible transfer effects included.

The results of various L2 studies are summarised as a table in Appendix 3.

4.4 DOM in L2 learning: evaluated according to different accounts

Let us now go back to the accounts of L2 learning mentioned at the beginning, the Interpretability, the Interface and the Feature Reassembly hypotheses. Many L2 studies revealed delayed acquisition of DOM across languages, with differences among languages with respect to how early/late the L2 system becomes target-like. Importantly, there is also variation with respect to feature vulnerability: animacy is integrated early in the DOM system across languages, but telicity and specificity are more difficult. As Guijarro-Fuentes (2012) shows, not all interpretable features are equally easy to learn, not all semantic features are equally difficult. This suggests that the Feature Interpretability Hypothesis cannot account for the data. The Interface Hypothesis seems to be more adequate as the integration of discourse-level features is challenging in all learning contexts. Lardiere´s (2008) Feature Reassembly Hypothesis may also be relevant in this context. According to this approach, what is or is not learnable in L2 acquisition does not only depend on which features differ in the respective L1 and L2, but also how they are configured. In this case the L2 learners should process the input, identify the features in the object, the predicate, and the subject, and, even if these features are present in their L1, reassemble them in the way they are conditioned and realized in Spanish. Guijarro-Fuentes (2012) follows this line: he does not only evaluate how the learners perform in Torrego´s conditions, but also the number of features involved in each case and their configuration, as a measure of complexity, in this case, of the constraints on the object DP. His prediction is that it will be more difficult to acquire conditions where learners need to conjoin features of the predicate and the subject because the learner will have to identify them first and then decide which features are relevant to mark the object.

5. Open questions

The overview presented allows us to formulate some open questions and avenues of research for future studies.

In the first place we can mention the difference between DOM in obligatory and optional contexts. Data from L1, 2L1 and L2 reveal that marking is more consistent in obligatory contexts. It is worth noting that there is an obvious overlap between those DPs which require obligatory DOM and those which are high on the animacy and/or the definiteness scale. This raises the question of whether early and more frequent marking of these DPs is due to their frequency in the input, because the learner is sensitive to the direction on the scale or a coalition of these factors.

A further aspect that needs more study is the location of the feature in question, i.e. whether it holds at lexical level (animacy), at predicate level (telicity) or at clause level, which includes the computation of discourse. Selective vulnerability in the acquisition of DOM can be observed across learning contexts, i.e. L1, 2L1 and L2. In L1 studies there is a difference between DOM computed at the level of the predicate or at the level of the clause: both are acquired early, but the latter lags behind. In L2 studies there are consistent results that indicate that conditions which involve computation of features at clause level are more problematic. This consistency leads to questions about how learners enlarge and compute larger structures: to what extent this is related to cognitive or language development in L1 and 2L1, and/or to the integration of discourse information. L2 learners have by definition already acquired their L1; they are, thus, older and - we assume - cognitively further developed. However, the integration of information and its language specific realization may well be problematic in an L2, as it is in an L1.

A third point is the role of language pairing in L2 and language contact situations. It is clear that the L1-L2 pairing plays a part with respect to the vulnerability or facilitation of

DOM in L2. The question arises as to whether the language pairing can affect the implementation of semantic universals in the learning and the loss of DOM systems. Is it the case that the same effects are observed independently of the L1-L2 pairing?

Variation and vulnerability can be expected both in L2 and in language contact situations. In both cases the source of variation may differ: (i) it may derive from the similarity/difference between L1 and L2; (ii) it may derive from language-specific properties (different relevant factors/ different weight of relevant factors). If the acquisition of discourse features is delayed in L1 acquisition and more difficult in L2 acquisition, one may hypothesise that DOM is more likely to be vulnerable in situations of language contact when the languages involved are more strongly discourse dependent, whereas syntactically-triggered DOM is likely to be less vulnerable.

6. From language acquisition to language contact

Having reviewed vulnerable domains in different types of language acquisition, it is timely to ask what to expect in language contact situations.

Parodi (2016) discusses approaches to L2 acquisition and what they can tell about situations of language contact. The question addressed is that of vulnerable domains in L2 acquisition, with a focus on formal features. Following work by Prévost & White (2000) and White (2003), Parodi (2016) points out that the lack of overt morphological realisation is not to be equated with the lack of a certain feature. Three scenarios are then considered: (i) how learners deal with formal features not instantiated in the L1; (ii) how they reconfigure features that exist both in L1 and L2; (iii) how they inhibit features instantiated in the L1 but not in the L2. While this approach is useful when dealing with narrow syntax, it does not account for a phenomenon like DOM, which involves interfaces.

In the brief overview of acquisition studies presented in this paper the acquisition of some of the features which constrain DOM appear vulnerable across learning contexts (L1, 2L1, L2), i.e. the discourse-related ones. It has also shown that in a language like Spanish, full mastery of DOM is more severely delayed than in other languages. And it is also in Spanish that, in language contact situations, DOM gets qualitatively changed in the first generation of immigrants. In Romanian and Hindi, on the other hand, DOM is a less vulnerable domain; in a language contact situation, it is not affected in the first generation of immigrants. This difference highlights the role of the language specific properties relevant to the DOM system. It also predicts that those DOM systems which are acquired late should be the ones which are affected early in language contact. Since some DOM-related features are more vulnerable than others, we could also predict that the qualitative change of DOM in language contact situations should target those features which are more vulnerable, possibly leaving the others intact. One finding which is robust across learning contexts is that discourse-related features which constrain DOM are more difficult to acquire. Their integration in the system is delayed in L1, 2L1 and L2 acquisition and they are also more likely to be affected by L1 transfer. We therefore expect that these features should be prone to early change in language contact situations.

In the current volume two papers are devoted to language contact: Pomino, Schmitz & Neuburger and von Heusinger, Kaiser & Arriortua. Both papers indicate that, in line with L2 studies, syntactic features are less vulnerable, as illustrated in von Heusinger & al with respect to the role of verb classes or the blocking of a dative-marked indirect object in Basque and, in Pomino & al. in that overt morphology in both languages raises the HS´ awareness for the relevant markings, without directly influencing it. The study by Pomino & al. also confirms that the integration of semantics and pragmatics to syntactic features is problematic.

These results align, thus, with those from language acquisition in the vulnerability of interface features as compared to syntactic features alone.

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Appendix 1: The L1 acquisition of DOM across languages: longitudinal studies

language	relevant feature(s)	age range	study/studies	main results
Spanish	animacy specificity	0;9-3;0	Rodríguez-Mondoñedo (2008) Ticio & Avram (2015)	early emergence errorless use indefinite DPs are very rarely marked
Romanian	animacy specificity	1;5 – 3;1	Ticio & Avram (2015)	early emergence errorless use strong bias to mark proper names and personal pronouns indefinite DPs are very rarely marked
Croatian	animacy	0;10-3;2	Hržica & al. (2015)	early emergence very few errors
Russian	animacy	1;5-4;1	Hržica & al. (2015)	early emergence very few errors
Lithuanian	definiteness telicity negative (sentence)	1;7-2;6	Dabašinskienė (2015)	early emergence few errors
Estonian	telicity (vP) definiteness voice mood	1;2 -3;0	Argus (2015)	early acquisition few errors
Hebrew	definiteness	1;5-3;0	Uziel-Karl (2015)	early emergence very few errors
Turkish	specificity	4;0-6;0	Ketrez (1999, 2015) Ketrez & Aksu-Koç (2009)	early emergence almost errorless early use during early stages only definite DPs are marked

Appendix 2: The bilingual acquisition of DOM across languages

language pair	type	age range	studies	main results
Spanish-English	simultaneous	1;1 – 3;6	Ticio (2015)	late emergence; high omission rate; DPs inherently specified for person preferentially marked
Spanish-English	simultaneous	mean age 9;5 and 7	Ortiz Vergara (2013)	high omission rate; omission rate decreases with age; selective vulnerability: DOM more difficult in clitic left dislocation structures
Spanish-English	simultaneous sequential monolinguals	mean age 10.1 mean age 12.2	Montrul & Sánchez Walker (2013)	no difference between sequential and simultaneous bilinguals; higher scores with inanimate objects
Spanish-English	possibly simultaneous[5]	mean age 12.5	Guijarro-Fuentes, Pires & Nediger (2015)	the bilinguals performed similarly to the monolinguals but below ceiling; animacy is less/not problematic
Romanian-Hungarian	simultaneous	1;11 – 2;11 3;3 – 5;10	Avram & Tomescu (2016) Tomescu (2016)	- the role of language pair: differences between Hungarian-Romanian, and Lipovan Russian-Romanian // Ukrainian (Hutsul)-Romanian - selective vulnerability: DOM with DPS with which marking is obligatory is acquired early; the acquisition of DOM with DPs with which marking is syntactically optional is delayed (unless there are positive transfer effects)
Hindi-English	HS		Montrul, Bhatt & Bhatia (2012)	higher omission rate than the monolinguals
Spanish/Hindi/Romanian-English	HS		Montrul, Bhatt & Girju (2015)	- high omission rate; - effect of age of onset of bilingualism; - DOM is an attrited feature only in the first generation of Spanish immigrants, but not in Hindi and Romanian – the role of language specific properties

[5] The authors do not explicitly state whether the participants are simultaneous and/or sequential bilinguals.

Appendix 3: Overview of L2 studies on DOM

languages		age	Study	main results
L1	**L2**			
Romanian	Persian	20-30	Ciovârnache & Avram (2013) Avram & al. (2016) Avram & Ciovârnache (2017)	- DOM is gradually learned; advanced learners almost target-like; - marking observes the animacy and the specificity scales; - no transfer wrt animacy, but weak L1 transfer wrt to DP marking in syntactically optional contexts; - the presence of DOM in the L1 and the L2 might play a role - formal instruction might help
Balochi	Persian	8-11	Bohnacker & Mohammadi (2012)	- gradually learnt: vulnerable for beginners, less so for more proficient learners, but both different from native speakers; - surprising lack of marking of direct objects, which may be due to differences between Balochi and Persian.
Persian	Romanian	20-30	Avram & al. (2016)	- the acquisition order seems to be the same, irrespective of the properties of L2 - L2 learner distinguish only between definite and indefinite DPs during early stages - no L1 transfer
English	Spanish	20-48 (mean 26.7) 23-64 (mean 42.7) 23-65 (mean 37.3)	several studies: Guijarro-Fuentes & Marinis (2007, 2009), Guijarro-Fuentes (2012), Nediger et al. (2016a, 2016b, 2017)	- L2 learners: high omission rates at earlier stages of development; - selective vulnerability: some features are acquired earlier (animacy, definiteness) but others are difficult even with advanced L2 learners - the contexts of use which involve several features: vulnerable - no difference between contexts where L1 has/does not have overt DOM - formal instruction might help
Catalan	Spanish	20-48 (mean 26.2)	Guijarro-Fuentes & Marinis (2009)	possible weak L1 transfer effects
Turkish	Spanish	mean age 21.7	Montrul & Gürel (2015)	- early transfer; - the presence of DOM in the L1 and the L2 might play a role
Brazilian Portuguese	Spanish	no age given	Nediger et al. (2017)	- the presence of DOM in the L1 and the L2 plays no role - selective vulnerability: animacy is acquired earlier

In: Teresa Parodi (ed.), *Proceedings of the VIII Nereus International Workshop "*Referential properties of the Romance DP in the context of multilingualism*".* Arbeitspapier 129. Fachbereich Sprachwissenschaft, Universität Konstanz 2018, 87-102.

Clitic Doubling and Language Contact[1]

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1. Introduction

As its name suggests, clitic doubling involves the doubling of a verbal argument by a clitic pronoun inside the same propositional structure.[2] In Standard Spanish and Standard Catalan the clitic obligatorily doubles the full pronoun (1), whereas it optionally doubles the indirect object (2).

(1) **El** vam veure a ell — Cat
him saw to him
'We saw him.'

(2) (**Le**) doy el libro a Pedro — Sp
him give the book to Pedro
'I give the book to Pedro.'

As is well-known, clitic doubling (CLD) is a highly variable phenomenon within the Romance languages, we find enormous differences within one language and across the different Romance languages which cannot only be explained by the different paradigmatic stages the Romance languages are in. Clitic doubling has always been a challenge for linguistic theorizing: on the one hand, it is hard to account for the variability and on the other hand, it seems as if the clitic shares one semantic role, one case and one syntactic function with the full nominal object.

Over the years, many factors have been discussed and held responsible for the occurrence and distribution of clitic doubling. We find grammatical factors such as e.g. pronominal vs. non-pronominal, accusative vs. dative, and the occurrence vs. non-occurrence of DOM (Differential Object Marking), semantic factors such as animacy, and pragmatic factors such as accessibility, definiteness and specificity. The interaction of factors immediately suggests that an explanation for CLD needs to refer to several modules of grammar, i.e. CLD is clearly an interface phenomenon.

This paper aims at contributing to the question of why and under what conditions clitic doubling appears in a language. Special attention is given to the grammatical factors that constrain clitic doubling. We want to identify the semantic and pragmatic causes and their interaction with the grammatical ones at different diachronic and paradigmatic stages of Catalan and Spanish varieties.

We will present new diachronic and synchronic data showing that the diachronic development and synchronic distribution can be analysed as a cyclic change (cf. Jespersen 1917, Sapir 1921, van Gelderen 2011). We will argue that the existence of clitics in a

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[2] We assume that clitic doubling is different from clitic left and right dislocation. Left and right dislocation necessarily involves prosodic cues (cf. Jaeggli 1993) whereas this need not be the case in clitic doubling structures. For a different view see Aoun (1981). Furthermore, clitic left and right dislocation allows wide and narrow scope (cf. Torregrossa 2012) whereas CLD only allows wide scope.

language is, of course, a necessary precondition for the emergence of CLD, however, our data allows the assumption that the emergence of CLD is correlated to the clitic's categorial status and the specification of the verb-movement parameter. Additionally we propose that language contact plays an important role for CLD to be extended to non-animate and indefinite DPs, at least in the Spanish varieties.

In chapter two we will present the historical dimension and synchronic distribution of CLD in Romance. In chapter three we will argue that CLD is best analyzed as a cycle. In chapter four we will present data showing that there seems to be a correlation between verb movement and clitic doubling. Chapter five will comment on language change and language acquisition and in chapter six we will present CLD data from multilingual contexts.

2. The historical dimension and synchronic distribution of CLD in Romance

2.1 From Latin to Peninsular Modern Spanish/Modern Catalan

It is a well-known fact that the Romance languages differ with respect to the existence of CLD. Starting at the beginning, we see that Latin did not show any object clitics and as a trivial effect of this, it neither used clitic doubling. In (3), (4), and (5) full pronouns or demonstratives are used instead of clitic pronouns.

(3) Caesar videt eum Latin
(4) credo ego vos
(5) quid illum putas

Proto-Romance neither showed clitic doubling, even though from the very first Old Romance texts clitics are attested. However, it might very well be that these clitics are simple clitics or even weak pronouns (cf. Vincent 1996).

In Old Spanish (OSp) and Old Catalan (OCat) up to the 15th century[3] we find object clitics, i.e. syntactic special clitics in the sense of Zwicky (1977), and also clitic doubling with full pronouns is attested (6b) and (7b). However, doubling during this period is still optional.

(6) (a) pusieron a ellos a vna part OSp
put to them to one side
'They put them to one side.'
(b) yo **les** fiz saber a ellos
I them made know to them
'I let them know.' CDAR_HH [*Fazienda de ultramar*_1210]

[3] The data we use in this paper, if not indicated otherwise, are part of the corpus CDAR, which has/is been collected for the DFG research project "FI 875/3-1" and "FI 875/3-2" at the University of Hamburg (CDAR_HH). It covers Spanish and Catalan texts from the 13th century until 19th century. For each century, two to four different texts were chosen. So far, a total of 3000 sentences for Spanish (with at least one object) and a total of 2200 sentences for Catalan (with at least one object) have been extracted and coded for different grammatical, semantic and pragmatic features (+/-def, +/-anim, +/-specific, +/-dat, +/-acc, person, number, quantifier, full pronoun) known to be relevant for the occurrence of clitic doubling. The corpus is currently being blind coded. However, since the phenomenon is very rare in written texts, the corpus is still being expanded. Thus, the data we present are selected examples. We would like to thank our student assistants Lisa Figura, Laura Golla, Svenja Gottschick, Sarah Jobus, Clemens Kirsten, and Christina Maruhn for their help in extracting and coding the data. We would also like to thank the audience at the NEREUS workshop in Cambridge for the discussion and the two anonymous reviewers for their suggestions in improving the paper. All remaining errors are of course ours.

(7) (a) ... e tan amarg és a mi que ... OCat
and so bitter is to me that
'... and it is so bitter for me that ...'
(b) Prec-vos que **m**'ojats tots ami un poc.
ask-you that me-listen all to.me a little
'I ask you all to listen to me for a while.' (Fischer 2002: 43,44)

The next change with respect to clitic doubling can be perceived during the 16th up to the 20th century. In Early Modern Spanish (EMSp) and Decadència Catalan (DCat) we see obligatory clitic doubling with full pronouns (8a, 9a) and the first instances of doubling with indirect nominal objects start to appear (8b, 9b). Since indirect objects are doubled all instances of doubling are [+animate].

(8) (a) y por amor de mi agüela **me** llamaron a mí Aldonza EMSp
& for love of my grandmother me called to me Aldonza
'and for the love of my grandmother they called me Aldonza'
CDAR_HH [*La Lozana Andaluza*_1528]
(b) y a media noche **les** dije a las camaradas EMSp
& to half night them said to the mates
'and at midnight I told my companions'
CDAR_HH [*Vida del capitán Alonso Contreras*_1638]

(9) (a) tinga per bé de pagar-**me** a mi lo que m'és degut DCat
have for good to pay me to me what me'is owed
'would you please pay me what corresponds to me.'
CDAR_HH [*Epistolaris d'Hipòlita*_1524]
(b) que **li** pesa a vostra senyora DCat
what her feeling bad to your lady
'what your lady regrets'
CDAR_HH [*Epistolaris d'Hipòlita*_1549]

From the 18th century onwards CLD with indirect objects in Standard Spanish seems to be the preferred option (10b), whereas it is obligatory with psychological verbs (10c, 11c).

(10) (a) Pedro *(**lo**) vio a él Sp
Pedro him saw to him
'Pedro saw him.'
(b) (**Le**) devolví el coche a Pedro
him gave.back the car to Pedro
'I gave back the car to Pedro.'
(c) *(**Le**) gusta la música clásica a María
her like the music classical to María
'María likes classical music.'

(11) (a) Ahir no *(**el**) vaig veure a ell (sinó només a ella). Cat
yesterday not him saw to him (but only to her)
'Yesterday I saw only him (not her).' CDAR_HH_GJT_Cat

(b) A la inauguració **(li)** van regalar flors a l'Ada Colau
at the inauguration her gave flowers to Ada Colau
'At the inauguration, they gave flowers to A.C.' CDAR_HH_GJT_Cat[4]

(c) A en Jordi ***(li)** agrada la música clàssica
to the Jordi him like the music classical
'Jordi likes classical music.'

Usually three types of datives are distinguished: indirect objects in ditransitive constructions, with the thematic role of [recipient], [goal], or [source/location]; the [experiencer] argument in unaccusative transitives (e.g. psych verbs); and [possessive], [benefactor], and [ethical] datives (Franco & Huidobro 2008). It is commonly assumed that ditransitive constructions allow optional doubling, however, what can be seen w.r.t. the data is that thematic roles that are marked with the features [+animate/+def/+spec] are more readily doubled than others. This fact cannot be derived by the definiteness scale proposed by Leonetti (2008) only. Consequently, experiencer objects in psych verb constructions, usually [+animate/+def/ +spec], are obligatorily doubled which during the medieval period were not doubled yet.

2.2 Spanish varieties outside Spain

When looking at some of the Spanish varieties outside Spain, we see e.g. with respect to Buenos Aires Spanish that full pronouns and indirect objects are obligatorily doubled, and that accusative animate nominal objects (12) are optionally doubled (vgl. Zdrojewski & Sánchez 2014).

(12) **Las** saludé a las maestras del jardín Buenos Aires Sp
them greeted to the teachers from.the garden
'I greeted the teachers from the kindergarten'. (Zdrojewski & Sánchez 2014:164)

We also find clitic doubling in the Judeo-Spanish (JSp) variety spoken in Bulgaria. In our data speakers even use CLD with animate definite full accusative object DPs (13) which are not doubled in Standard Spanish. Since the data we gathered in Bulgaria is quite scarce we verified our data with articles written in Judeo-Spanish, that were available on-line, which confirmed our findings. In both examples in (14) a [+animate/+definite/+specific] accusative object is doubled.

(13) **La** vimos a Maria[5]. JSp
her see to Mary
'We saw Mary' CDAR_HH_JSP

[4] The data for Modern Catalan indirect constructions were gathered with an Acceptability Judgment Task (AJT) taken by 320 participants. The AJT consists of 26 items in different constructions, distractors and control items. Of these 320 participants 29 could not be included since they were not mother tongue speakers of Catalan. Of the 291 remaining participants, 251 participants accepted sentence (11b) of which 176 rated it as *acceptable* and 75 as *més aviat acceptable*. 40 participants corrected the sentence by either including a comma to indicate right dislocation (21 participants = *més aviat inacceptable*) or by deleting the clitic (19 participants = *inacceptable*). So, we see there is optionality, concerning clitic doubling in ditransitive structures in Modern Catalan, however, the optionality has to be further investigated.

[5] The data for Judeo-Spanish spoken in Bulgaria were gathered in Sofia with an Acceptability Judgment Task. However, since there are not many speakers of Judeo-Spanish in Bulgaria anymore (most of them are between 75 – 80) (see also Studemun-Halévy & Fischer 2013), only 6 speakers, all female, took the test. Additionally, we collected data from eSefarad.com, the web journal of the *Noticias del mundo Sefaradí*.

(14) a. Yildiz disho ademas ke mi tiya Beki **la** ayudo
Yildiz said additionally that my aunt Beki her helped
a parir a su madre
to give birth to her mother
'Yildiz said that my aunt Beki helped her mother to give birth.'
[eSefarad 1.09.2015]

b. La hija hazina **la** yamó a la madre, después di kuarenta días.
the daughter sick her called to the mother after of 40 days
'The sick daughter called her mother after forty days.' [eSefarad 20.11.2015]

In other varieties, e.g. in Lima Spanish and Andean Spanish doubled indefinite full accusative DPs (15) and even doubled inanimate accusative DPs (16) are attested.

(15) **Lo** saludé a un estudiante que conozco. Lima Sp
him greeted to a student that know
'I greeted a student that I know.'
(Zdrojewski & Sánchez 2014:166)

(16) (a) **Lo** vendo toditos los carros Andean Sp
him sell all.dim.masc.pl the car.masc.pl
'I sell all the cars.

(b) Eso también **lo** mata las plantas.
that too him kill the plant.fem.pl
'That too kills the plants.' (Zdrojewski & Sánchez 2014:165)

In (16a) the clitic does not agree in number with the nominal object it doubles, in (16b) the clitic agrees neither in gender nor in number.

3. Clitic Doubling as a cyclic process

The data collected from the different periods of Spanish and Catalan and from the different Spanish varieties outside Spain allows to suggest that the development of CLD in the Romance languages follows a cyclic process. We propose a cycle which considering the data in Section 2 seems to consists of five stages.

Fig. 1 *The Clitic Doubling Cycle*

Stage I	→ no CLD	Latin/ProtoRom
Stage II	→ optional CLD with full pronouns	OSp/OCat[6]
Stage III	→ obligatory CLD with full pronouns, → optionally with indirect nominal objects [+anim/+def/+spec]	EMSp/DCat/Sp/Cat
Stage IV	→ obligatory CLD with full pronouns, → obligatory CLD with indirect nominal objects → spread of CLD to direct nominal objects [+anim/+def/+spec]	(Buenos Aires Sp/JSp)
Stage V	→ generalized CLD (with all objects even inanimates)	(Lima, Andean Sp)

[6] It seems that Portuguese is in this stage where doubling of full pronouns is still optional. Portuguese data to confirm this have been provided by Gonçalves, Duarte & Hagemeijer (2016).

We assume that the next step would be the complete loss of the category 'clitic' altogether, which is the starting point of the whole cycle (see also Navarro, Fischer & Vega Vilanova 2017).

4. The emergence of Clitic Doubling

One of the most prominent approaches in order to explain the emergence of Clitic Doubling has connected it to the grammaticalization path of the clitic itself. Fontana (1993) suggests that the rise of CLD is connected to the reanalysis of clitics from being X^{max} to X^{min} (Fontana 1993: 224ff), i.e. from DPs to D-head categories. Combining all proposals concerning the categorial status of Romance clitics over the years we can identify the following grammaticalization path (18) (vgl. Fischer & Rinke 2013: 467):

(18) **Grammaticalisation path of the clitic**

Clitic	>	Clitic	>	Clitic
DPs		D-heads		*φ*-features

However, it seems that the connection is not that simple. At least, in OCat sentences are attested with and without CLD (recall example (7)) even though the OCat clitics have to be analysed as heads, i.e. they never appear left of negation, they are never separated from the verb (Fischer 2003). We agree that part of the variability can be explained by the fact that not all clitics in a specific period of a language are in the same stage of the path, e.g. for Modern Spanish clitics it has been assumed that accusative clitics are D-heads whereas dative clitics are already agreement markers (phi-features) (Bleam 1999). But when correlating the five stages of clitic doubling (Fig. 1) with the categorial status of the clitic and the accessibility hierarchy of objects (Leonetti 2008, Fischer & Rinke 2013), it becomes obvious that something else is of importance as well. Thus, reviewing the syntax of the languages at the different stages (Old Spanish/Catalan; Early Modern Spanish/Decadència Catalan; different varieties of Spanish) and correlating this with the grammaticalization path of the clitics, it looks as if clitic doubling is connected to the possibility for the verb to move to the front of the sentence, and by that providing a position for A'-movement.

4.1 From Latin to the modern Catalan/Spanish varieties

In order to bring to light the interrelation of clitic doubling and verb movement, we will correlate the five stages of clitic doubling with the grammaticalisation path of the clitic and the possibility for the verb to move.

As we have shown in section 2 in stage I, represented by Latin and Proto-Romance no special clitics or clitic doubling are available. Latin and Proto-Romance are discourse oriented languages, where anything can appear in front of the verb (cf. Menge 2000 for Classical Latin, Devine & Stephens 2006 for Vulgar Latin/Proto-Romance). In this kind of languages, where word-order is clearly dependent on information structure, the position in front of the verb needs to be analyzed as an A'-position. We thus assume that the verb at least moves up to C°.

In stage II, represented by Old Spanish and Old Catalan, special clitics (cf. Fischer 2002) and optional clitic doubling of full pronouns (6-7) is attested. Concerning Old Spanish, we assume that the clitics should be analyzed as DPs since interpolation is attested (19). However, in Old Catalan clitics are clearly heads, D°, since they never appear left of negation (Kayne 1975), i.e. no interpolation is attested (Fischer 2002) and nevertheless they appear in front and after the finite verb in main (20a) and embedded clauses (20b), and the order of the clitic is not yet fixed (21a-b).

(19) (a) assi como **les** dios auie prometido OSp
so how **them** God had promised
'like God had promised them' (Fischer 2002: 40)

(b) como a ty cierto es que **lo** non hamas.
as to you true is that him not loves
'As you know that you do not love him.' CDAR_HH [*Corbacho*_1438]

(20) (a) e la emperadriu ha-**li** perdonat francament per ço OCat
& the empress has-him/her forgiven frankly for that
cor Déus e vós **li** avets feyta tant d'onhor.
because God & you her have done so much of honour
'And the empress has frankly forgiven him, since God and you have done him such honour'. CDAR_HH [*Crònica de Bernat Desclot*_1299]

(b) e les gens sabien lo rey tan just que desperaven-**se** de ell
& the people knew.3pl the king so just that despaired.3pl-**ref** of him
quant lo havien offès.
when him had.3pl. offended
'... and the people knew the king to be so just that they despaired of him when they had offended him...' (Fischer 2002: 39)

(21) (a) car lo pare **lo li** havie tolt OCat
because the father it him had removed
'because his father had removed it from him.'

(b) e el pages **li lo** atorga
and the peasant him it concede.3sg
'and the peasant admits it to him' (Fischer 2011: 13)

In both languages we find classic V2 structures (22a, 23a) next to V3 structures (22b, 23b) and V1 orders, as well as stylistic fronting (24), which has been taken as evidence that the verb can move as high as C° in V2 and as high as Σ° in V3 structures (Fischer 2003, 2010, Martins 1994).

(22) (a) e entonces le dixo Muget … OSp
and then him said Muget
'and then Muget said him…'

(b) E entretanto el hermano de Mahomad llego al rrey
and meanwhile the brother of M. arrived to.the king
'and meanwhile the brother of Mahomad came to the king'
(Fontana 1993: 53)

(23) (a) Tantost e sens triga vengueren Jacob e Curial OCat
soon and without haste came.pl Jacob and Curial
'Jacob and Curial came soon without haste'

(b) E d'aquí avant lo rey féu-li donar tot ...
and from there onwards the king made.3sg-him give all
'And from there onwards the king made him give all ...' (Fischer 2010: 44)

(24) que feita aviets la corona del Emperi,
who made had.2.pl the crown of.the emperor
'who had made the crown of the emperor,' (Fischer 2010: 116)

Stage III shows clitic doubling with full pronouns, which becomes obligatory be the end of the 17th century, and optional clitic doubling with dative nominals. Neither in Spanish nor in Catalan is interpolation attested during this period, thus the clitics can be analyzed as D°, and

in some cases perhaps even as phi-features (s. Bleam 1999). Word-order still has some discourse function. We still find postverbal subjects (25b) and postverbal clitics in matrix sentences (25a, b, c), however, for the first time we also find sentence-initial clitics in Catalan (25d) (Fischer 2002).

(25) (a) Moríran-**hi** uns quans capitans d'Espanya. Cat
died.3pl-there some few captains of Spain
'Some captains of Spain died there.'

(b) ... entraren dintra la ciutat lo dit bisbe de Malta e lo duch de Gandia, ...
enter.3pl in the city the said bishop of Malta and the duke of Gandia
e lo bisbe e lo duc meteren-**lo's** al mig.
and the bishop and the duke place.3pl-**him'ref** into middle
'and the aforementioned bishop of Malta and the Duke of Gandia came into the city and the bishop and the duke placed him into their middle' (Fischer 2002: 56)

(c) Anem, pues, de Lucrècia a veure la bellesa; mostram-**li** mon
go.1pl, well, from Lucrècia to see the beauty; show.1pl-her my
ardor, ma flama, ma tendresa.
heat, my flame, my tenderness
'Well, we go to Lucrècia to see the beauty; we show her my heat, my flame, my tenderness' (Fischer 2002: 54)

(d) **Se** contà que en esta nit passada, del 21 de juny de 1777, alguns morors ...
ref told.3sg that in that night passed, of.the 21 of June of 1777, some Arabs
'It was told that last night, June 21, 1777, some Arabs ...' (Fischer 2002: 55)

Additionally, during this period from the 16th to the 19th century, we find oblique subjects (so-called quirky subjects) in preverbal position that still pass the syntactic tests to identify them as subjects (Keenan 1976, Fischer 2010, Vega Vilanova 2013). From the 19th to the 20th century postverbal subjects are attested in many contexts in Standard Spanish (Zagona 2002), and standard Catalan (Vallduví 2002). Oblique subjects only pass a few of the syntactic tests (26), for instance, oblique subjects are still able to raise to the subject position of control verbs such as *parecer*/*semblar* 'to seem'. The fact that quirky subjects still pass a few of these tests has been taken as evidence for the verb being in T° and the dual character of SpecTP as an A-/A'-position (e.g. Masullo 1993), whereas others explain the specific properties by an additional position within TP (e.g. Gutiérrez-Bravo 2006, Tubino 2008).

(26) (a) A l'autora sembla agradar-li especialment la història de Roma Cat
to the'author seems to like-her especially the history of Rome
'The author seems to especially like the history of Rome'

(b) A Marcos parece gustarle la música coral Sp
to Marcos seems to like.him the music choral
'Marco seems to like choral music' (Masullo 1993: 310)

In Stage IV we find obligatory clitic doubling with full pronouns, obligatory doubling with dative nominal objects (see Di Tullio & Zdrojewski 2006, Schroten 2010 for dative clitic doubling in Buenos Aires Spanish),[7] and optional clitic doubling with accusative nominal objects (recall example (12)) for Buenos Aires Spanish and Judeo-Spanish in Bulgaria (recall example (13-14)).[8] Dative clitics are analysed as phi-features (Anagnostopoulou 2016, Bleam

[7] See also Dufter & Stark (2008), who provide data from C-ORAL-ROM showing that dative clitic doubling is almost obligatory with *decir* and *dar* in Modern Peninsular Spanish, and Nishida (2012), who shows very low rates of dative clitic doubling in formal Mexican varieties.

[8] We take Romanian to also belong to this stage, even though clitic doubling is not yet obligatory with dative

1999), and accusative clitics as D°s. It has been shown that Argentinean Spanish has a strong preference for SVO (around 90% of the attested data) in contexts where other Spanish varieties such as Peninsular Spanish would require a non-canonical word-order (e.g. VOS) (Gabriel 2010). The same has been shown for Judeo-Spanish (27) (cf. Fischer, Gabriel & Kireva 2014: 84). In those varieties where word-order is rather strict and does not convey information-structural meaning, we suggest that the verb still moves up to T°, however A'-movement of the object might only be up to vP. See the examples from the Judeo-Spanish version of "*Le petit prince*".

(27) (a) El rey no respondio nada
the king not answered nothing
'The king did not answer anything.' (El Princhipiko 2010: 21)

(b) Entonses, vos podesh imajinar mi sorpreza
then, you can imagine my surprise
'Thus, you can imagine/picture my surprise.' (El Princhipiko 2010: 8)

Stage V of the cycle is exemplified by Lima and Andean Spanish, which shows clitic doubling in all contexts (full pronoun, dative objects, and even inanimate and indefinite objects). As the data in section 2 showed, clitics in Andean Spanish are 'bleached' in so far that they no longer agree in number and gender with the doubled nominal, and word-order is even stricter. We suggest that these clitics are mere agreement markers, i.e. phi-features, no longer clitics. Word-order does not convey discourse information. Null-subjects are less frequent than in other varieties (cf. Pešková 2015 and references therein), and the verb might even stay lower than T° (Alexiadou & Anagnostopoulou 1998, Ordóñez 2000).

4.2 The interrelation of grammaticalization and verb movement

When correlating the five stages of clitic doubling with the grammaticalization path, i.e. the categorial status of the clitic and the accessibility hierarchy of objects (Leonetti 2008, Fischer & Rinke 2013), it became obvious that something additional plays a role. Thus, reviewing the syntax of the languages at the different stages (Old Spanish/Catalan, Early Modern Spanish/ Decadència Catalan, Modern Spanish/Catalan, different varieties of Spanish) and correlating this with verb movement, it looks as if clitic doubling steps in when verb-movement to the left periphery gets lost and by this the possibility of A'-movement in front of the verb by which the information structure of the sentence is influenced. In other words, the categorial status of the clitic and the specification of the verb-movement parameter give rise to the emergence of clitic doubling and thus explain the distribution of clitic doubling across the Romance languages (Fig. 2). Thus, clitic doubling substitutes in part the information-structural meaning expressed by word-order. We do not want to claim that CLD takes over everything that verb-movement, i.e. word-order, expressed in the diachronic stages, there might well be more, but we see a strong correlation which of course needs to be further investigated.

nominals (Diaconescu & Rivero 2007, Cornilescu 2015), nevertheless, Romanian also allows doubling with accusative nominals that are animate (Dobrovie-Sorin 1990, Hill & Tasmowski 2008, Fischer & Rinke 2013, Tigau 2015).

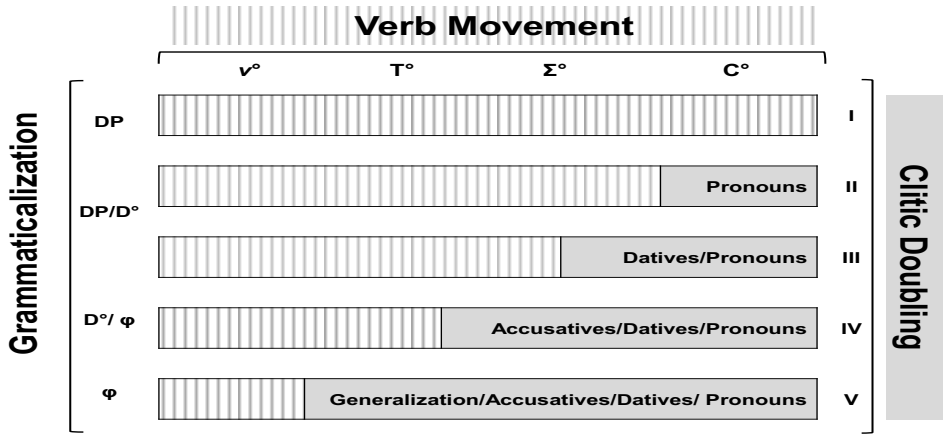


Fig. 2: *The interaction of verb movement and grammaticalization*

5. Some notes on language acquisition and language change

During Government-Binding times, typological diversity across languages was explained by different parameters which are set according to the positive evidence, i.e. the primary linguistic data (PLD), during language acquisition, and language change was thus explained by the reanalysis of the available PLD by the language learner (Lightfoot 1991, Kroch 2002, Roberts & Roussou 2003). However, to see parameters as predefined options which are connected to the principles of universal grammar (UG) implies an overspecification of UG. This overspecification consequently increases the structural complexity of UG itself and has been subject to severe criticism during the last years (Newmeyer 2004, Baker 2008 Boeckx 2011, 2014).

Baker (2001, 2008) and Roberts (2012) among others, have shown that parameters are hierarchically organized. Especially Roberts (2012), Holmberg & Roberts (2014) building on Chomsky (2005) propose to see parameters as epiphenomena arising as a consequence of the interaction of the three factors of language design: Factor I – the expression of our genetic endowment (UG); Factor II – the linguistic experience (PLD); and Factor III – the general properties not specific to language, (i.e. feature economy, input generalization etc). These factors together consequently determine the emergence of the parameter hierarchy from macro- to microparameters in a top-down hierarchical relation (Fig. 3).

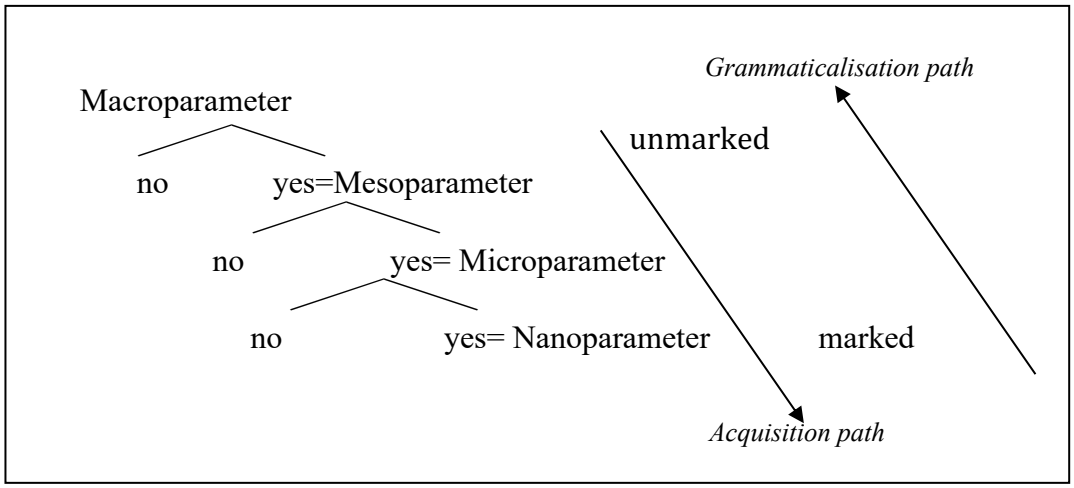


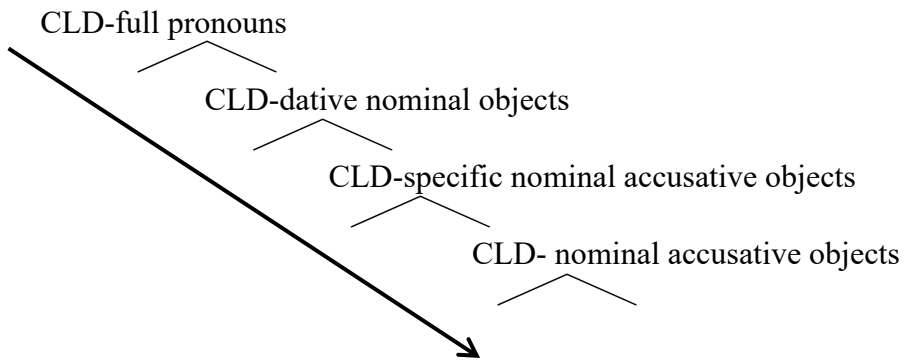
Fig. 3 *Parametric hierarchies* (adapted from Roberts 2012)

Language acquisition goes down the hierarchy, i.e. a markedness interpretation of the hierarchy. The learner starts out with the unmarked pattern and only subsequently acquires the more marked patterns. In Robert's view language change – in contrast to language acquisition – always goes up the hierarchy, i.e. in language change markedness is subject to loss. We do agree, however, what seems to be true as well, is the fact that at a certain point, markedness seems to give over to unmarkedness, especially in cyclic processes.

In accordance with the data presented in section four, we suggest that the distribution of CLD across languages can be explained by the CLD parameter, discussed in Fischer & Rinke (2013), where one macroparameter gives way to several microparameters. Fischer & Rinke (2013: 467) suggested that diachronically the emergence of clitic pronouns is the prerequisite for the occurrence of doubling and saw this as the macroparameter of clitic doubling.

It seems correct that while special clitics need to be available in a language in order for CLD to occur, it does not seem correct to assume that this is due to a parametric setting, since the change from a weak pronoun, simple clitic to a special clitic is a gradual process and not categorical. Furthermore, the existence of clitics in a language is, of course a necessary precondition for the emergence of clitic doubling, but we suggest that it is not part of the parameter hierarchy since it is not only the status that a clitic reaches during its grammaticalization path that triggers clitic doubling.

(28) The Clitic Doubling parameter (adapted from Fischer & Rinke 2013)



Our data show that verb movement seems to interact with clitic doubling at the same time. Thus, as mentioned before, we suggest that the categorial status of the clitic and the specification of the verb-movement parameter (whether the verbs moves to C°, Σ°, T°, v° or remains in V°) jointly give rise to the emergence of clitic doubling (Fig. 4).

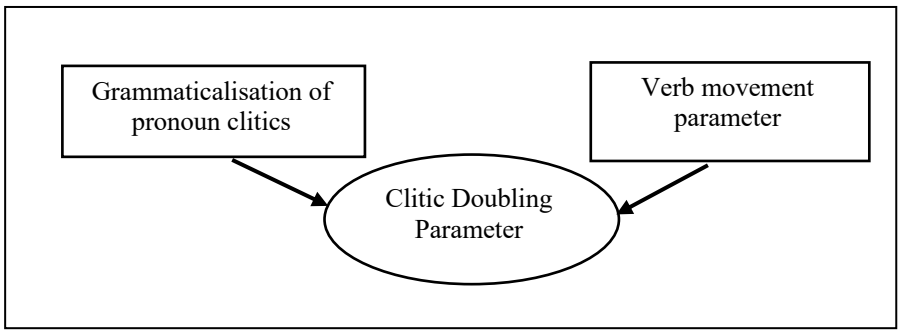


Fig. 4 *Clitic doubling as an epiphenomenon*

The question that still awaits answering is why some varieties freeze at some point in the hierarchy and others change rather rapidly.

6. Clitic Doubling in multilingual contexts

When looking at the data which represents stage V of our CLD cycle, i.e. Lima Spanish and Andean Spanish, it becomes obvious that CLD in this stage is no longer dependent on grammatical (number), semantic (e.g. animacy) or pragmatic (e.g. definiteness) properties of the object. The assembled data of Urrutia Cárdena (2003), Lipski (2013), Zdrojewski & Sánchez (2014) as well as the Judeo-Spanish data from our questionnaire allow the assumption that the pattern of clitic doubling, especially in stage V, is a consequence of language contact[9]. It is not trivial to notice that the Romance languages that have extended clitic doubling to nominal accusatives are varieties that have been or were in intensive contact situations (in the sense of Thomason & Kaufman 1988), e.g. River Plate Spanish, Lima Spanish, Andean Spanish, Basque Spanish, Judeo-Spanish and Romanian. The question that remains to be answered, however, is in what way language contact is important.

Two views are relevant in this respect: On the one hand, it has been argued that the varieties that double nominal accusatives borrow a pattern of a contact language (Urrutia Cárdena 2003, Lipski 2013). On the other hand, one could consider clitic doubling as an interface phenomenon (cf. in the sense of Sorace 2011) which it clearly is, and thus predict that clitic doubling is vulnerable in first and especially in second language acquisition. Under this view, the typology of the languages in contact would not play a prominent role, thus the speakers would not borrow a pattern. Instead the speakers would have problems acquiring the correct semantic and pragmatic distribution of dative clitic doubling and would extend it to accusative specific doubling and afterwards to doubling in all contexts.

6.1 Borrowing a pattern

A review of the data of Zdrojewski & Sánchez (2014) clearly shows that in stage V (Lima Spanish and Andean Spanish) the grammatical and semantic features of neither the datives nor the accusatives seem to play a role with respect to clitic doubling, i.e. the clitic in Andean Spanish no longer agrees in gender nor in number with the nominal object it doubles (examples in (16) repeated below for convenience (29)). See the two examples (30) of Lima Spanish were the clitic only agrees in (30b) but clearly does not agree with the object in (30a).

(29) (a) **Lo** vendo toditos los carros
him sell all.DIM.MASC.PL the car.MASC.PL
'I sell all the cars.'
(b) Eso también **lo** mata las plantas.
that too him kill the plant.FEM.PL
'That too kills the plants.' (Zdrojewski & Sánchez 2014: 165)

(30) (a) **Lo** frío a la cebolla
it fry a the onion
'I fry the onion'
(b) (A) esa silla hay que poner**la** en otro sitio
(to) this chair has that put.her in other place
'This chair needs to be put in another place.' (Meyer 2006:12)

Doubling of accusatives is also attested in the variety of Spanish spoken in the Basque country (31).

[9] One of the reviewers asked whether language contact only plays a role in stage V. We think that as soon as strong language contact takes place CLD extends to direct objects. Thus, we assume that between stage III and stage IV we need some kind of language contact taking place, otherwise the language remains in stage III. But of couse this has to be further investigated.

(31) **Lo** hice el paquete
it made the parcel
'I made/packed the parcel.' (Urrutia Cárdenas 2003: 524)

Rinke & Wieprecht (2016) collected data in the Basque country (cf. Urrutia Cárdenas 2003, Urrutia & Fernández 1995, 1997) showing that bilingual Basque Spanish speakers use more CLD of accusative objects than monolingual speakers. Urrutia Cárdenas (2003) sees doubling in Basque Spanish clearly as an effect of Basque being an agglutinative language where the verb agrees with the direct and the indirect object. For Urrutia Cárdenas, the bilingual speakers of Basque and Spanish borrow a pattern from one of their languages into the other language (cf. Heine & Kuteva 2003). The same could be said for Lima and Andean Spanish, in contact with Quechua that is also agglutinative. It is true that the investigated varieties of Andean Spanish and Basque Spanish are in contact with languages that exhibit extensive agreement morphology, where the verb agrees with the subject and the object, and that these varieties also make use of clitic doubling. However, we also find clitic doubling in varieties whose contact languages do not show rich agreement patterns.

6.2 Interface phenomena are vulnerable in contact settings

As discussed in the sections before, many factors have been held responsible for clitic doubling to appear in a language. Besides grammatical factors (pronominal vs. non-pronominal, accusative vs. dative), semantic factors (e.g. animacy) and pragmatic factors (e.g. definiteness) have been discussed. When revising the data from section 4.1 we see that none of these factors seem to be important, since indefinite, inanimate accusative objects have been doubled. CLD in these varieties has been explained by the extensive agreement morphology of the languages in contact. However, we also find extensive clitic doubling in varieties whose contact languages do not show rich agreement patterns, e.g. Judeo-Spanish in Bulgaria (32), or the Spanish varieties spoken in Buenos Aires (33) and Patagonia (34).

(32) **La** vimos a Maria. JSp
her see to Mary
'We saw Mary' CDAR_HH_JSP

(33) **La** toqué a la sonata Buenos Aires Sp
her touched to the sonata
'I played the sonata.' (Bleam 1999: 135)

(34) (a) **Lo** tomé el colectivo Patagonian Sp
it took the bus
'I took the bus'

(b) **Lo** agarré el mate
it took the mate
'I grabbed the mate-tea'

(c) **La** pinté la casa
her painted the house
'I painted the house.' CDAR_HH_PaSp

It seems reasonable to suggest that widespread clitic doubling (to indefinite, inanimate etc. accusatives) is a consequence of intensive language contact. However, in contrast to the general assumption that contact Spanish is changed under the direct influence of the contact languages (Quechua → Spanish, Nahuatl → Spanish, Basque → Spanish etc.), we propose that the external interfaces syntax-pragmatics/discourse and syntax-prosody are more vulnerable to language variation in language change (Sorace 2011, Kupisch & Rothman

2016) than language internal interfaces. One of the reasons Sorace (2011: 14) gives is that "the attested pattern of optionality at the syntax-pragmatics interface" is acquired late in first language acquisition and is vulnerable to variation in bilingual, heritage or L2 speakers. Dative clitic doubling has often been claimed to be optional, but we do know that the accessibility hierarchy of objects as well as their theta-roles influence whether a dative object is doubled or not (Leonetti 2008, Dufter & Stark 2008). Furthermore grammatical (pronominal vs. non-pronominal, the occurrence vs. non-occurrence of DOM) and semantic factors (animacy) play a role, which clearly suggests that an explanation has to refer to several modules and interfaces. CLD applies at several interfaces, the internal interface (e.g. syntax-semantics) as well as at the external interface (syntax-pragmatics/discourse). We propose that this is the reason why it is particularly vulnerable and at risk of change in multilingual contexts. Therefore, it seems reasonable to suggest that bilinguals or second language learners have problems in knowing when doubling is acceptable and when it isn't. Thus, we would like to suggest that what happens in multilingual contexts should rather be considered an overgeneralization or extension of an existing pattern to other contexts in the sense of Weinreich (1953).

Under this view clitic doubling would be the overgeneralization of an already existing pattern in the source language (namely dative clitic doubling) due to the difficulty of acquiring information structure. As seems to be the case, the same semantic and pragmatic features are involved in both accusative and dative clitic doubling, i.e. animacy, definiteness etc. The expansion of accusative clitic doubling replicates in the beginning in some way the patterns found for dative clitic doubling. It first refers to animate, definite and specific objects. After some time, it is extended to all accusative objects. Moreover, this would explain why in some varieties clitic doubling of nominal datives becomes obligatory, independent of any semantic or pragmatic properties.

7. Summary

We suggested that a cyclic change can be identified w.r.t. the evolution of CLD. The proposed cycle of five stages does not only explain the attested diachronic data at the different stages but also the synchronic variation of Catalan, Spanish and some of their varieties.

In addition, we have shown that the emergence of the CLD constructions cannot be adequately explained by focusing only on a unique factor. Instead, we proposed that the emergence of the CLD-parameter depends on the interaction between the parameter of verb movement and the grammaticalization path of object clitics. Furthermore, we suggest that wide-spread clitic doubling across the board is an effect of the vulnerable external interface in language contact settings, more precisely, the vulnerability of the syntax-discourse interface in these settings. The exact correlations between the intensity of language contact, the impact on the vulnerability of the interfaces and the consequences for CLD in a community need – of course – to be further investigated.

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Null objects in Brazilian Portuguese and DOM in Spanish: similarities and differences[1]

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Introduction

Differential object marking (DOM) is a phenomenon in which certain accusative objects are marked (either morphologically or by a preposition) in some languages when the object is [+animate] (and/or specific in some cases, see below). Spanish is such a language: DOM is marked by the preposition *a* 'to' (which also marks datives):

(1) a. *He visto* ****(a) tu padre***.
have seen to your father
'I saw your father.'
b. *He visto* ***(*a) tu coche***.
have seen to your car
'I saw your car.'

Brazilian Portuguese (BP) allows null objects with specific properties that differentiate them from the various types of null objects allowed in other languages (Cyrino & Lopes 2016). It has long been noted (Omena 1978, Pereira 1981, Duarte 1986, among others) that the antecedent of the null object is [-animate]. However, since BP lost 3rd person clitics (Tarallo 1983, Cyrino 1993, among others), besides the null object, a full pronoun is also possible when the antecedent is an inanimate DP, and the only possibility when it is an animate DP. See the contrasts in (2):

(2) a. *A estudante levou o livro$_i$ para a biblioteca depois que ela leu* ___$_i$ / *ele$_i$*.
the student took the book to the library after that she read it
'The student took the book to the library after she read (it).'
b. *A estudante levou o menino$_i$ para o cinema depois que ela beijou* *___$_i$ / *ele$_i$*.
the student took the boy to the cinema after that she kissed it
'The student took the boy to the cinema after she kissed him.'

Considering that animacy influences the surface realization of the direct object in BP, we may speculate about the similarities between null objects and DOM-objects in Spanish. In this paper, we will show that in both cases these effects are due to the different syntax of animates. The differences between the languages are accounted for by the lack of 3rd person clitics in BP.

The paper is organized as follows. In Section 1, we describe the facts and analysis of null objects in BP, as well as its diachronic development. In Section 2, we discuss whether null objects in BP

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and DOM in Spanish are related phenomena. Next, Section 3, we discuss parameters that could be proposed for the similarities and differences between BP and Spanish and, in Section 4, we analyse 3rd person clitics in Spanish and their properties with respect to null objects in BP. Finally, we conclude that there are similarities between BP and Spanish and that animacy effects are the result of syntactic processes.

1. Null objects in Brazilian Portuguese

The null object that is characteristic of BP has a cluster of properties that other null objects described in the literature on other languages do not have (see Cyrino & Lopes 2016). As shown above, null objects are sensitive to the animcy features of the antecedent.

Additionally, as shown in (3), anaphoric null objects in BP may occur in islands for movement, unlike in European Portuguese (Raposo 1986, Cyrino & Matos 2016) or Chinese (Huang 1984):

(3) *Eu fazia [sushis]$_i$ depois que voltamos do Japão,*
I made sushis after that returned from-the Japan
porque todos queriam continuar comendo ___$_i$.
because all wanted continue eating
'I used to make sushis after we came back from Japan, because everybody wanted to keep on eating (them).'

Moreover, and differently from what we find in Japanese or Turkish, the null object in BP is not allowed when its antecedent is the matrix subject, (see also Cyrino & Lopes 2016):

(4) **O governador$_i$ disse que o presidente viu ___$_i$ na festa.*
the governor said that the president saw at-the party
'The governor said that the presidente saw (him) at the party.'

It is importante to mention, however, that animate null objects are also possible in BP when their antecedent is non-specific, as a bare plural, shown in (5) below:[2]

(5) a. *Os tiras insultavam [presos]$_i$ e depois prendiam* ___$_i$ */ *eles$_i$.*
the cops insulted prisoners and afterwards locked up them
'The cops insulted prisoners and afterwards locked (them) up.'
b. *Os tiras insultavam [aqueles presos]$_i$ e depois prendiam *___$_i$ / eles$_i$.*
the cops insulted those prisoners and afterwards locked up them
'The cops insulted those prisoners and afterwards locked them up.'

Finally, null objects in BP allow strict and sloppy readings, a property related to the possibility of ellipsis (Ross 1967, 1969; Fiengo & May 1984, a.o.).[3] Sentence (6) is ambiguous: in the strict

[2] Animate null objects are also possible in sentences as (i). But in such cases, we have a vP ellipsis (V-stranding ellipsis) structure, where the whole vP is ellided:
(i) Lina disse que a Maria beijou o Pedro$_i$ na festa, e o Paulo também disse que ela beijou ____.
Lina said that the Maria kissed the Pedro at-the party and the Paulo too said that she kissed
'Lina said that Maria kissed Pedro at the party, and Paulo said that she also did it.'

[3] The strict parallelism requirement seen in (5)-(6) is also a requirement for VP ellipsis (Fiengo & May 1984). This fact reinforces the proposal that null objects in BP are instances of ellipsis, see below.

reading Pedro's friend spent Pedro's money; in the sloppy reading, however, Pedro's friend spent his (own) money: [4]

(6) *Pedro escondeu [seu dinheiro]$_i$ no armário, mas seu amigo gastou ___$_i$ na feira.*
Pedro hid his money in.the closet but his friend spent in.the fair
'Pedro hid his money in the closet, but his friend spent (it) in the farmer's market.'

Interestingly, this property is also seen in null objects in Japanese (7), Chinese (8) and Korean (9) (examples from Otani & Whitman (1991: 343)[5]. However, these languages do not present the animacy requirement found in BP.

(7) a. *John-wa [zibun-notegami-o]$_I$ sute-ta.* [Japanese]
John-NOM self-of letter-ACC discard-PERF
'John$_i$ threw out self$_i$'s letters.'
b. *Mary-mo ___$_I$ sute-ta.*
Mary-also discard-PERF
= 'Mary$_j$ also threw out self$_j$'s letters.' (sloppy reading)
= 'Mary also threw out John's letters.' (strict reading)

(8) a. *Zhangsan bu xihuan [guanyü ziji de yaoyan]$_i$.* [Chinese]
Zhangsan not like about self GEN rumor
'Zhangsan$_i$ doesn't like rumors about self$_i$.'
b. *Mali ye bu xihuan ___$_i$.*
Mali also not like
= 'Mali$_j$ doesn't like rumors about self$_j$ either.' (sloppy reading)
= 'Mali doesn't like rumors about Zhangsan either.' (strict reading)

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[4] BP is a language that allows vP (V-stranding) ellipsis, in which case the verb is the same in both clauses (i) (see Matos 1992 for a thorough discussion of VP ellipsis and Cyrino & Matos 2002 for a distinction between vP ellipsis and null objects in Portuguese):
(i) Pedro escondeu [seu dinheiro no armário], e sua mãe também escondeu ___.
Pedro hid his money in.the closet and his mother too hid
'Pedro hid his money in the closet and his mother did too.'
In order to exclude the possibility for a vP ellipsis analysis of this sentence, a different verb (*escondeu* 'hid', *gastou* 'spent') is used in each clause in (8), and a PP is present to show that only the object, and not the whole vP, is elided.

[5] Otani & Whitman (1991) consider there is V-raising in these languages, in contrast to other null object analysis proposed by Xu (1986), Huang (1987).

(9) a. *Chelswu-ka [caki-uy phyenci-ul]$_I$ peli-ess-ta.* [Korean]
Chelswu-NOM self-of letter-ACC discard-PAST-DECL
'Chelswu$_i$ threw out self$_i$'s letters.'
b. *Yengmi-to* ___ $_I$ *peli-ess-ta*.
Yengmi-also discard-PAST-DECL
= 'Yengmi$_j$ also threw out self$_j$'s letters.'
= 'Yengm$_i$ also threw out Chelswu's letters.'

In order to account for the possibility of BP null objects to occur in islands and to allow stric/sloppy readings, Cyrino (1994, 1997) proposed that they are instances of DP ellipsis in BP, ie, they are inaudible DPs that have identical antecedents. Evidence for this conclusion came from a diachronic study where the author shows that BP lost third person clitics and these anaphoric elements were replaced by DP ellipsis, beginning with "propositional ellipsis", as described below.

European Portuguese (henceforth, EP), a language to which BP is diachronically related, has always allowed a construction dubbed as "propositional ellipsis" (10a), which could be replaced by a neuter clitic *o* 'it', as in (10b):

(10) a. *[O Pedro vai casar amanhã]$_i$ mas a Maria não sabe* ___ $_i$. [BP, EP]
the Pedro goes marry tomorrow but the Maria not know
'Pedro is going to get married tomorrow but Mary doesn't know (it).'
b. *[O Pedro vai casar amanhã]$_i$ mas a Maria não* ***o$_i$*** *sabe.* [EP]
the Pedro goes marry tomorrow but the Maria not it know
'Pedro is going to get married tomorrow but Mary doesn't know it.'

As (10) shows, EP allows both options: propositional ellipsis and the neuter clitic. However, BP does not have the neuter clitic anymore.

If using propositional ellipsis or the neuter clitic *o* in its place is just a matter of choice by the speaker, we would expect no changes through time. In fact, diachronic data reported in Cyrino (1994, 1997) shows that is the exact case for EP.

But diachronic data on BP collected in Cyrino (1994, 1997) is different as it shows that there is a change in the occurrence of these constructions. There is an increase for the ellipsis option, and the demise of the neuter clitic. In view of this fact, Cyrino (1997) proposes that there was an extension of the ellipsis alternative to other inanimate objects. The null object in BP has appeared with a property that is characteristic of ellipsis, namely insensitivity to islands and the strict/sloppy ambiguity seen above.

It is well known that ellipsis must be licensed by a functional head; in English, VP ellipsis is licensed by V in T (Lobeck 1995). Building on Cyrino & Matos (2002, 2005), Cyrino (2013) shows that BP has lost "long" verb movement. A sentence as in (11) only has the interpretation of vP ellipsis in BP, licensed by the verb that has moved to AspPerf. In EP, on the other hand, the same sentence conveys the interpretation in which the verb *ler* 'to read' is intransitive.

(11) vP Ellipsis:
a. *Ela tem lido o livro para as crianças e ele tem também lido* ___.
she has read the book to the children and he has too read
'She has read the book to the children and he has too.'

b. [CP … *o livro para as crianças*…] … *ele* [T *tem*] [VPaux *tem* [AdvP [Adv *também*] [**Asp PerfP** ***lido*** [*v*P ~~*o livro para as crianças*~~]]]

Cyrino & Matos (2002) conclude that the difference indicates that the verb moves to a higher position (ie, to T) in EP as compared to BP. Therefore, both vP ellipsis and null objects (DP ellipsis) can be licensed by the verb in an aspectual (i.e., lower than T) projection (Cyrino 1997, Cyrino & Lopes 2012).

In a later study, Cyrino (2016) further proposes that the null object in BP is licensed by the V in AspectInner (AspInn), an aspectual head between vP and VP (MacDonald 2008):

(12) Null object:

a. *Ela tem lido [o livro]$_I$ para as crianças e ele tem também lido* ___$_i$ *para*
she has read the book to the children and he has too read to
as mães.
the mothers
'She has read the book to the children and he has also read it to the mothers.'

b. [CP … *o livro para as crianças*…] … *ele* [T *tem*] [VPaux *tem* [AdvP [Adv *também*] [**Asp PerfP** *lido* [*v*P [AspInn [AspInn+V <***lido***> [VP <V> [DP ~~*o livro*~~] *para as mães*]]]

But this cannot be the whole story: what about the animacy requirement? If null objects are DP ellipsis licensed by the lexical V in AspInn, and null objects are only possible when the antecedent is [-animate] or a bare plural, the impossibility of certain null objects have to be linked to the fact that DP ellipsis is not licensed. Cyrino (2016) proposes that animate DPs moves out of VP, whereas inanimate DPs (and bare plurals)[6] stay in situ (see below).

Cyrino (2016, to appear) assumes, additionally, the proposal in Carnie (2005), whereby a more relativized definition for phases (in the sense of Chomsky 2001) is proposed. Phases should contain: (i) one only argument; (ii) one predicative element (V or *v*P) introducing the argument; (iii) a temporal operator (a functional category) which locates the predicate and the argument in space and time (that is, Asp ou T).[7] In Cyrino's proposal the licensing of DP ellipsis in BP occurs inside the phase which contains the internal argument, the verb and the temporal operator Asp. In other words, the lexical verb moves up to AspInn, and there it is able to license the ellipsis of the DP that it c-commands and that stays in situ, since this complex will constitute a phase, and the complement may be sent to Spell Out.[8,9]

Therefore, the author assumes that little *v* in AspInn is the head responsible of DP ellipsis

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[6] Following Richards (2008), Cyrino (2016) proposes that DPs that stay in situ do not have [+person] features – inanimate (3rd person) DPs are [-person] and bare plurals are personless.

[7] For Carnie (2005), phases would be related to theta roles in the argumental structure:
(i) Theme Phase [AspP [Asp' Asp [VP *tema* V]]]
(ii) Goal Phase [EndP [End' End [v *meta* [v' v…]]]
(iii) Agent Phase [TP [T' T [vp *agente* [v' v…]]]
Each phase has it own domain for *Existential Closure* (*v*P ou VP) and its own *Nuclear Scope*. Each DP is independently interpreted.

[8] The verb, being at the phase edge, will be able to move to other functional categories in BP. Therefore, *v*P ellipsis verbo is licensed by the verb in AspectOuter. See Cyrino & Matos (2016) for *v*P ellipsis, and MacDonald (2008) for arguments in favor of the presence of both AspectOuter and AspectInner.

[9] For another proposal for ellipsis and phases, see Lopes (2015).

licensing in BP. Inanimate DPs stay in situ and animate DPs hmoved out of the VP to a functional projection F, a movement similar to those proposed to account for Differential Object Marking (DOM) in languages like Spanish (see Section 2).[10]

On the other hand, since animate DPs move to a position outside the scope of ellipsis licensing, no ellipsis is possible in general with them. See the structure in (13b) for (13a) for inanimate vs. (14b) for (14a) for animate DPs:

(13) a. *Pedro escondeu [seu dinheiro]$_i$ no armário, mas seu amigo gastou* ___$_i$ *na feira.*
Pedro hid his money in.the closet but his friend spent in.the fair
'Pedro hid his money in the closet, but his friend spent (it) in the farmer's market.'

b. … *mas seu amigo* [$_{\text{AspInnP}}$ [$_{\text{V+ AspInn}}$ *gastou* [$_{\text{VP}}$ <V> ~~*seu dinheiro*~~]]] *na feira*
|_____|
ellipsis licensing

(14) a. *Pedro escondeu [o amigo]$_i$ no armário assim que a Maria trouxe* ****___$_i$/ele$_i$.***
Pedro hid the friend in-the closet as that the Maria brought him
'Pedro hid his friend in the closet as soon as Maria brought him.'

b. [$_{\text{FP}}$ ***ele*** F [$_v$ [$_{\text{AspInnP}}$ [$_{\text{V+ AspInn}}$ *trouxe* [<V> <*ele*>]]]

Taking into consideration that BP has verb movement (although to a lower aspectual position, see Cyrino & Matos 2016), after the verb escapes the lower phase (see footnote 7) it moves up to Aspect Outer (AspOut, see footnote 8), and the final word order for (13)-(14) is accounted for:

(15) a. [$_{\text{AspOut}}$ *gastou* [$_{v\text{P}}$ [$_{\text{AspInnP}}$ [$_{\text{V+ AspInn}}$ <*gastou*> [$_{\text{VP}}$ <V> ~~*seu dinheiro*~~]]] *na feira*
|_____|
ellipsis licensing

b. [$_{\text{AspOut}}$ *trouxe* [$_{\text{FP}}$ ***ele*** F [$_{v\text{P}}$ [$_{\text{AspInnP}}$ [$_{\text{V+ AspInn}}$ <*trouxe*> [<V> <*ele*>]]]

Thus, the animacy restriction of null objects in BP can be captured with the proposal that animate DPs are able to move up above the *v*P and be outside the scope of the ellipsis licenser. Inanimate DPs, however, stay in situ and may be elided.

2. Are null objects in BP related to DOM in Spanish?

Within a functionalist framework, Schwenter & Silva (2002) and Schwenter (2006) claim that the null object pattern found in BP is reminiscent of DOM in Spanish, since direct objects which are marked by *a* share the same features as the anaphoric direct objects which are overt in BP. Schwenter (2006) suggests that DOM objects in Spanish are comparable to full pronouns (ie, to overt anaphoric objects) in BP since both are likely to be [+animate, +specific], whereas non-DOM

[10] The exact nature of this functional projection and its optionality must still be determined. Some authors assume that animate DPs move up to a functional category related to Case (Rodriguez-Mondoñedo 2007, López 2012, Zdrojeswki 2013, Ordoñez & Roca 2018, a.o.), since in languages that show DOM, a preposition *a* must be inserted exactly in these contexts. We leave the investigation on the nature of this functional projection responsible for hosting moved animate DPs for future work.

and null objects are likely to be [-animate, -specific]. The author focus on the specificity/definiteness features as responsible for these effects.

Yet, there is a problem of relating Spanish DOM to BP in terms of specificity because BP null objects (ie, the non-DOM counterpart) may be specific, as seen in the above examples (2a). On the other hand, since the animacy requirement for null objects in BP is reminiscent of DOM in Spanish, the natural question to ask is whether these phenomena are somehow related.

Recent analyses have proposed that DOM objects, must be moved out of the VP (Torrego 1998, Lopez 2012, Ordóñez & Roca 2018, Zdrojewski 2013). Ordoñez & Roca (2018) propose that DOM involves an extra projection; *a* is a preposition present in the numeration, because *v* is unable to license Case for objects of certain kind (animate, specific) in Spanish. The authors assume prepositions work as probes (Kayne 2005).

(16) *Vimos a María.*
saw to María
'We saw Mary.'

(17) a. …[$_{vP}$ *v* [$_{VP}$ *vimos* [$_{DP}$ *María*]]] DP [+anim, +spec]
b. Merge of *a*
… *a* [$_{vP}$ *v* [$_{VP}$ *vimos* [$_{DP}$ *María*]]]
c. Movement of *Maria* to Spec, *a*
… [$_{aP}$ [*María*]$_i$ *a* [$_{vP}$ *v* [$_{VP}$ *vimos* [t]$_i$]]]
d. Merge of W
… W [$_{àP}$ [María]$_i$ *à* [$_{vP}$ *v* [$_{VP}$ *vimos* [t]$_i$]]]
e. Head raising
… [*à*$_j$+W] [$_{àP}$ [*María*]$_i$ t$_j$ [$_{vP}$ *v* [$_{VP}$ *vimos* [t]$_i$]]]
f. Remnant movement
… [$_{WP}$ [$_{vP}$ *v* [$_{VP}$ *vimos* [t]$_i$]]]$_k$ [*a*$_j$+W] [$_{àP}$ [*María*]$_i$ t$_j$ t$_k$

This suggests that maybe both phenomena, the distribution of null objects in BP and DOM in Spanish, could be related. In both languages animate DPs are moved out of the vP. However we are dealing with languages with important differences: (a)BP allows null objects, contrary to most varieties of Spanish; (b) BP does not have 3rd person clitics, contrary to Spanish, and (c) BP does not normally introduce a preposition in front of animate, specific DPs or full pronouns, contrary to Spanish.

3. Cyrino & Ordoñez (2016): Parameters with DOM and null objects

In light of the discussions above Cyrino & Ordoñez (2016) explore properties that might correlate with the ability of having DOM.

3.1 DOM and null objects

The first observation concerns the co-relation of languages that present both DOM and null objects. Turkish is such a language: as shown by von Heusinger & Kornfilt (2005), the language has DOM as accusative marking on some (specific) direct objects, as in (18). Turkish has also been argued to have null objects, as (19). Notice that the null object is possible with animate antecedents (Özturk 2008), and it allows strict and sloppy readings (Şener & Takahashi 2010):

(18) a. *(Ben) kitap oku-du-m* [incorporated] (von Heusinger & Kornfilt 2005:3)
I book read-PAST-1SG
'I was book-reading.'
b. *(Ben) kitab-ı oku-du-m* [definite]
I book-ACC read-PAST-1SG
'I read the book.'
c. *(Ben) bir kitab oku-du-m* [non-specific indefinite]
I a book read-PAST-1SG
'I read a book.'
d. *(Ben) bir kitab-ı oku-du-m* [specific indefinite]
I a book-ACC read-PAST-1SG
'I read a certain book.'

(19) *[Ahmed]$_i$ Hasan ___$_i$ vur-unca, ağla-ma-ya başladi* (Öztürk 2008)
Ahmet Hasan hit-when cry-INF-DAT began
'Ahmet began to cry when Hasan hit (him)'

However, there are also languages, such as Spanish, that have DOM but not null objects, see (20)-(21):

(20) *Ayer vi a Juan.*
yesterday saw to Juan
'Yesterday I saw Juan.'

(21) *Cuando compraste [el libro]$_i$? *Compré ___$_i$ ayer.*
when bought the book bought yesterday
'When did you buy the book? I bought (it) yesterday.'

We conclude that there are no correlations between DOM and Null objects. You can have all possibilities: Languages with both DOM and null objects like Turkish, languages with neither like English, and languages with one and not the other like European Portuguese; These two properties are not associated.

3.2 DOM and clitics

We can also examine whether there is a correlation between DOM and the presence of clitics. Spanish is a language that has both:

(22) *Ayer vi a Juan.*
yesterday saw to Juan
'Yesterday I saw Juan.'

(23) *Lo vi.*
he-CL saw
'I saw him.'

On the other hand, Turkish has DOM (as seen above) but no clitics (Lazzarini-Cyrino, p.c.):

(24) *Dün Zeynep-ı gör-dü-m.*
yesterday Zeynep-ACC saw
'Yesterday I saw Zeynep.'

(25) *Dün on-u gör-dü-m.* (*o* = full pronoun, *n* = epethetic consonant)
yesterday he-ACC saw
'Yesterday I saw him.'

Finally, we have languages like European Portuguese, that has clitics, but no DOM:

(26) *Ontem vi (*a) João.*
yesterday saw to João
'Yesterday I saw João.'

(27) *Ontem vi-o.*
yesterday saw-CL
'Yesterday I saw him.'

Therefore, there is no correlation between the availability of clitics and DOM. These properties are not associated.

What seems to correlate, nevertheless, is the lack of clitics and null objects. If the languages fails to have a clitic for an animate, specific DP , then a null object for animate, specific DP is available. Cyrino & Ordóñez (2016) explore the idea that null objects of the BP type are possible when there is no clitic counterpart with the same features in that language.

3.3 Correlation: +null objects and - 3 person clitics

Sentences such as (28) in BP and (29) in Spanish, show that there is a clitic for animate, specific referents, then the null object is not available:

(28) *E [o livro]$_i$? *O João* ***o$_i$*** *comprou ontem / O João comprou* ___$_i$ *ontem*. [BP]
and the book the João it bought yesterday the João bought yesterday
'What about the book? João bought it yesterday.'

(29) *Y [el libro]$_i$? Ayer Juan* ***lo$_i$*** *compró / *Ayer Juan compró* ___$_i$. [Spanish]
and the book yesterday Juan it.CL bought yesterday Juan bought
'What about the book? João bought it yesterday.'

The question we want to explore is: why should that correlation exist?

We propose that clitics in Spanish license the equivalent of a null object, i.e: as null objects are licensed by *v* in BP, as seen above, the equivalent of a null object counterpart is also licensed in Spanish by the clitic. We admit, then, the following licensers of ellipsis: (a) V in Inner Aspect (Cyrino 2016); (b) the clitic itself. The difference between BP and Spanish is that licensers of the ellipsis counterpart in BP is Inner Aspect (Cyrino 2016), whereas the ellipsis counterpart in Spanish is licensed by the clitic:

(30) *Eu comprei [o livro]$_i$ hoje, e ele comprou ~~o livro$_i$~~ ontem.*
I bought the book today and he bought the book yesterday
'I bought the book today and he bought (it) yesterday.'

(31) *Yo compré [el libro]$_i$, y ella también* ***lo$_i$*** *compró ~~el libro~~.*
I bought the book and she also it.CL bought the book
'I bought the book and she also bought it.'

This proposal implies that all clitics in Spanish have an elliptical complement we do not hear[11]. In some cases the elliptical part might be phonetically realized by a doubled DP that shows DOM.

(32) *Lo$_i$ vi a Juan$_i$.* [Río Plata Spanish]
he.CL saw to Juan
'I saw Juan.'

(33) *Lo$_i$ vi a él$_i$.* [all varieties of Spanish]
he.CL saw to he
'I saw him.'

In the next section we refine our analysis for 3rd person clitics.

4. On 3rd person clitics

4.1 Sloppy readings

An interesting observation made by Quer & Roselló (2013) is that 3rd person clitics license sloppy reading in Catalan and Spanish:

(34) *En Pere estima [la seva mare]$_i$ i en Joan també l'$_i$ estima.* [Catalan]
the Pere loves the his mother and the Joan also she.CL loves
'Pere loves his mother, and Joan loves Pere's mother too.'
'Pere loves his mother, and Joan loves Joan's mother too.'

In (34), the 3rd person clitic in the second conjunct may be interpreted as referring either to Pere's mother (strict reading) or to Joan's mother (sloppy reading). As we saw above, we take sloppy readings as the hallmark of ellipsis (Ross 1967, Lobeck 1995); therefore, we are led to think that these clitics heads license a doubled elliptical XP.

We follow Uriagereka (1996) and Roca (1992) in that we consider that 3rd person clitics are Ds and project a DP. Uriagereka (1996) assumes that the D head projects a specifier with a doubled DP and a *pro* complement. Thus the determiner phrase has the clitic as its head and an NP in its specifier. We will modify Uriagereka´s version and assume that the D clitic head has as its

[11] For a similar apporach see Alcaraz (2018). Alcaraz, however, proposes two different kinds of empty counterparts depending for clitic depending on the use of the clitic *le* versus *lo*. One clitic *lo* would have an elliptical copied part as we are proposing, the other clitic *le* would have an empty e-type pronoun counterpart. The difference is that for us what really determines the impossibility of sloppy readings is whether the clitic refers to a DOM object. We leave for further experimental research whether morphological form (Alcaraz) or the encoding of animacy is what really limits sloppy readings in these examples.

complement a DP[12]. This DP might be deleted as in 36b or might be pronounced in which case DP would double the clitic. Fundamentally, we do not think of it is a pro, but just a DP that has been deleted and we indicate it with the strikethrough. This allows us to explain how the sloppy readings arise:

(35) a. [Double DP [Clitic D *pro*]] Classical proposal (Uriagereka 1996)
b. [$_{DP}$ Clitic D^0 [$_{DP}$ su tarea]]. (Spell out doubled)
c. [$_{DP}$ Clitic D^0 [$_{DP}$ ~~su tarea~~]]. (Elided doubled)

In this way, the sloppy and the strict readings for the 3rd person clitic are explained since the elided possessive pronoun in the DP in (36b) can be interpreted as a variable or not. As we can see in (36) to (39) in all the (a) examples, besides the strict reading, the sloppy reading is also available. Compare with cases of TP ellipsis in (b), where the same is true:

(36) a. *María recibió [su cheque]$_i$ y Pedro también* ***lo***$_i$ *recibió.*
María received her check and Pedro too it.CL received
'Maria received her check and Pedro received it too.'
lo = Pedro's check (*sloppy reading*).
b. *María [recibió su cheque] y Pedro también* ___.
María received her check and Pedro too
'Maria received her check and Pedro too.'
OK Pedro's check (*sloppy reading*).

(37) a. *María entregó [su tarea]$_i$, y Juan también* ***la***$_i$ *entrego.*
María handed in her homework and Juan too it.CL handed in
'María handed in her homework and Juan handed it in too.'
la= Juan's homework (*sloppy reading*).
b. *Maria [entregó su tarea], y Juan también* ___.
María handed in her homework and Juan too
'María handed in her homework and Juan too.'
OK Juan's homework (*sloppy reading*).

(38) a. *Pedro limpió [su casa]$_i$, y María también* ***la***$_i$ *limpió.*
Pedro cleaned his house and María too it.CL cleaned
'Pedro cleaned his house and María cleaned it too.'
la= María´s house. (*sloppy reading*).
b. *Pedro limpió su casa, y María también.*
Pedro [cleaned his house] and María too
'Pedro cleaned his house and María too.'
OK María's house (*sloppy reading*).

[12] We asume the double is a DP since a double can be a DP itself.
(i) La vi a la niña (Río Plata Spanish).
CL saw a the girl
'I saw the girl.'

(39) a. *Pedro envió [su regalo]$_i$ y María también* ***lo***$_i$ *envió.*
Pedro sent his present and María too it.CL sent
'Pedro sent his presente and María sent it too.'
lo= María´s present. (*sloppy reading*).
b. *Pedro [envió su regalo] y María también.*
Pedro sent his present and María too
'Pedro sent his present and María too.'
OK María's present (*sloppy reading*).

Interestingly, for Spanish speakers from Catalonia there is a contrast[13]. The sloppy reading becomes harder with DOM objects; Encoding of animacy plays a role in not allowing the sloppy/ellipsis reading of the clitic[14]:

(40) a. *Juan vio [a su madre]$_i$ y Pedro también* ***la***$_i$ *vio.*
Juan saw to his mother and Pedro too her.CL saw
'Juan saw his mother and Pedro saw her too.'
la = ?? Pedro's mother (*sloppy reading*).
b. *Juan vio a su madre y Pedro también.*
Juan saw to his mother and Pedro too
'Juan saw his mother and Pedro too.'
OK Pedro's mother (*sloppy reading*).

(41) a. *Juan recomendó [a su alumna]$_i$ y Pedro también* ***la***$_i$ *recomendo.*
Juan recommended to his student and Pedro too her.CL recommended
'Juan recommended his student and Pedro recommended her too.'
lo= ?? Pedro's student (*sloppy reading*).
b. *Juan recomendó a su alumna y Pedro también.*
Juan recommended to his student and Pedro too
'Juan recommended his student and Pedro too.'
OK Pedro's student (*sloppy reading*).

(42) a. *Juan abrazó [a su amiga]$_i$ y Pedro también* ***la***$_i$ *abrazó.*
Juan hugged to his friend and Pedro too her.CL hugged
'Juan hugged his friend and Pedro hugged him too.'
lo = ?? Pedro's friend (*sloppy reading*).
b. *Juan abrazó a su amiga y Pedro también.*
Juan hugged to his friend and Pedro too
'Juan hugged his friend and Pedro too.'
OK Pedro's friend (*sloppy reading*).

[13] These examples contrast with the Catalan examples we saw above in (37). The crucial difference between Catalan and Spanish is DOM. It remains for further research why the encoding of DOM in one language should make a difference.

[14] We have been using the feminine clitic in order to avoid the problema of *leísmo* in Catalonian Spanish. This phenomenon corresponds to the use of the dative clitic instead of the accusative ones in feminine singular examples.

(43) a. *El maestro castigó [a su alumna]$_i$, y la directora también* ***la***$_i$ *castigó.*
The teacher punished to his student and the director too her.CL punished
'The teacher punished his student and the director punished him too.'
lo = ?? director's student (*sloppy reading*).
b. *El maestro castigó a su alumna, y la directora también.*
The teacher punished to his student and the director too
'The teacher punished his student and the director too.'
^{OK} director's student (*sloppy reading*).

These facts show that clitics non referring to DOM objects allow the sloppy readings. This is reminiscent of the properties of BP null objects. According to Cyrino's analysis seen above, in BP animate DPs move out the vP and are not subject to ellipsis. As a consequence, a pronominal animate DP outside vP does not license sloppy reading in BP:

(44) *Pedro viu [o seu pai]$_i$/ [o seu livro]$_j$ e Maria também viu* ***ele***$_i$/ ***ele***$_j$.
Pedro saw the his father the his book and Maria too saw him it
'Pedro saw his father/ his book and Maria saw him/it too.'
ele = Pedro's father/book (*strict reading*)
ele = *Maria's father/book (*sloppy reading*)

This fact was shown above to indicate that ellipsis is permitted by the functional category AspInnP. Anything above it must be spelled out as in BP.

However, clitics not referring to DOM also allow sloppy readings in Spanish. The licensing must be radically different from BP. It is not AspInnP that is licensing ellipsis – the licenser is the clitic and the D head as we are proposing. But like BP, animacy plays a restrictive role in Spanish: only clitics which do not refer to DOM DPs can license sloppy readings.

Thus we propose that the elliptical counterpart is computed in different location depending on whether the clitic is referring to a DP DOM or not. Elided non DOM DPs are left in situ below vP; owever, deleted DOM DPs are raised with the clitic to higher projection above the vP where a variable reading is made unavailable.[15]

4.2. Sloppy readings: clitics vs. strong pronouns

In this section, we account for how clitic pronouns can allow sloppy readings in contrast to strong pronouns. We will show that the contrast is predicted because the possibility of licensing sloppy readings correlates with the clitic character of the pronoun as in Spanish.

Since 3rd person *ele, ela* are not clitics in BP, no sloppy readings are available: they cannot be doubled by an empty counterpart. Strong pronouns do not license sloppy readings in Spanish either. Compare (43) above to the Spanish (45)-(46):

[15] We leave for further research why the moving of the empty counterpart above the vP bars a sloppy interpretation. We think this must be related to the fact that DOM objects can be doubled.

(45) *Pedro vio a [su padre] y María también* lo *vio* ***a él***.
Pedro saw to his father and María too him. CL saw to he
'Pedro saw his father and María saw him too.'
él = Pedro's father (*strict reading*)
él = *Maria's father (*sloppy reading*)

(46) *Pedro pensó en [su padre] / [su libro], y María también pensó en él.*
Pedro thought in his father his book and María too thought in him/it
'Pedro thought about his father/his book and María tought about him/it too.'
él = Pedro's father/book (*strict reading*)
él = *Maria's father/ book (*sloppy reading*)

The uniformity we see between the languages can only be explained if in BP and Spanish strong pronouns do not license any empty material. In other words, strong pronouns do not license ellipsis.

Clitic pronouns, on the other hand, do license a DP empty counterpart, as we have seen. Following the DP hypothesis (Uriagereka 1996, Roca 1992) we assume that 3rd person clitics are X^0 heads and the empty counterpart is in the complement of this X^0. Strong pronouns, on the other hand, are complete XP´s and, do not have complement position available for the empty counterpart.

We assume clitics are always doubled; however, the doubled DP counterpart is not always pronounced as represented in (47b):

(47) a. Lo vi a él.
[$_{DP}$ [$_{D}{}^{0}$ lo [$_{DP}$ él]]]
b. Lo vi a ~~él~~.
[$_{DP}$ [$_{D}{}^{0}$ lo [$_{DP}$ ~~él~~]]

In (47a), the clitic, the D head, has an overt complement that is pronounced, whereas in (47b), the complement is elided, the ellipsis being licensed by the functional head D. Clitics must move for morphophonological reasons to a head that host them. We must assume that the double complement of the clitic must be a DP because the elided counterpart might contain a DP itself with a possessive as *his/her paycheck, su cheque*.

The same happens with double full DPs as (48) shows. The insertion of the *a* is only done later in the derivation (Ordóñez & Roca, 2018).

(48) Lo vi a ~~su padre~~.
[$_{DP}$ [$_{D}$ lo [$_{DP}$~~su padre~~]]]

In this way, we are led to conclude that the licensing of sloppy readings in ellipsis in both languages must be resolved inside vP equally. The difference is in licensing sloppy readings in each language. As seen above, the licenser for sloppy readings is InnerAsp in BP (49); in Spanish, however, the licenser of ellipsis is the clitic (50), but sloppy readings are only available inside the vP:

(49) a. *Pedro recebeu [seu cheque]$_i$ pelo correio antes que a Maria recebesse* ___$_i$.
Pedro received his check by-the mail before that the Maria received
'Pedro received his check by mail before Maria received (it).'
b. … *que a Maria v* [$_{AspInnP}$ [$_{V+ Asp}$ *recebesse* [$_{VP}$ <V> *seu cheque*]]]
|_____|
ellipsis licensing

(50) a. *Pedro recibió [su cheque]$_i$ en el correo antes de que María* ***lo$_i$*** *recibiese* ___$_i$.
Pedro received his check in the mail before of that Maria it received
'Pedro received his check by mail before Maria received (it).'
b. [$_{FP}$ ***lo*** F [$_v$ [$_{AspInnP}$ [$_{V+ AspInn}$ *recibiese* [<V> < *lo*> *su cheque*]]]

However, the strong pronoun must move out of the vP in both BP (51) and Spanish (52) and ellipsis is not licensed there.

(51) a. *Pedro viu ele.*
Pedro saw him
'Pedro saw him.'
b. [$_{FP}$ ***ele*** F [$_v$ [$_{AspInnP}$ [$_{V+ AspInn}$ *viu* [<V> <*ele*>]]]

(52) a. *Pedro lo vio a él.*
Pedro him.CL saw to he
'Pedro saw him.'
b. ***a*** [$_{FP}$ ***el*** F [$_v$ [$_{AspInnP}$ [$_{V+ AspInn}$ *vio* [<V> <*el*>]]]

However, we still have the question of the unavailability of sloppy readings for clitics with animate referents. We are lead to assume that the empty counterpart of the doubling clitics must also be computed outside the vP. The idea is that clitics for animate referents are not checked against the v, but checked above vP, in parallel to what happens with animate DPs in general (see Cyrino 2016, Irimia & Cyrino 2017), and in that position they license the empty counterpart.

The consequence is that, by being outside vP, animate clitics do not allow ellipsis (that is, they are not in position to license ellipsis), and thus sloppy readings are not permitted. This means that the licensing of sloppy reading are two in Spanish: (i) a clitic (D head) is necessary. (ii) the empty counterpart of the clitic must be licensed inside the vP. See (53):

(53) a. *Pedro vio a su madre antes de que María la viese* ___.
Pedro saw to his mother before of that María her.CL saw
'Pedro saw his mother before María saw her.'
la=* María´s mother (sloppy reading)
b. [$_{FP}$ *la* ~~*su madre*~~ [$_v$ [$_{AspInnP}$ [$_{V+ AspInn}$ *viese* [<V> <t>]]]

In (53) the empty counterpart is moved out of the vP with the clitic and therefore there are no sloppy readings available.

Since both animates and specific in Spanish and BP are computed external to vP, we expect therefore that insertion of the preposition be also attested in BP. But, as seen above, there is no DOM in BP:

(54) *Vi (*a)o Pedro.*
saw to-the Pedro
'I saw Pedro.'

We conjecture that there must be a parametric choice in the higher inflectional projection responsible for the insertion of *a*. In BP and Spanish, animates move out of the vP. However, Case is realized differently in BP and Spanish. In Spanish an overt preposition must inserted for Case purposes (Ordóñez & Roca 2018; Zdrojewski 2013). In BP, there was a general loss of the preposition *a* and direct objects *a*-marking is very restricted (see Ramos 1992).

We have evidence from coordinated structures that *a*-marking is still there in BP, and it may signal animacy (Cyrino 2017b): (58a) has a (gapping) ellipsis reading; (55b) has the relevant reading for coordinated object (see also Pires in prep.):

(55) a. *Eu vi o menino e o professor também.* (no relevant coordinated object reading)
I saw the boy and the teacher too
'I saw the boy and the teacher did too.'
b. *Eu vi o menino e ao professor também.*
I saw the boy and to-the teacher too
'I saw the boy and the teacher as well.'

The same pattern arises with comparatives: the non-*a* marked (56a) means Pedro loves Rita as a woman does; the *a*-marked (59b) allows the comparative direct object reading in which Pedro loves Rita in the same way as he loves a woman:

(56) a. *Pedro ama Rita como uma mulher.*
Pedro loves Rita as a woman
'Pedro loves Rita as a woman does.'

b. *Pedro ama Rita como* ***a*** *uma mulher.*
Pedro loves Rita as to a woman
'Pedro loves Rita as he does a woman.'

The exact description and analysis of this facts of BP still awaits further investigation (but see Cyrino, 2017b).

Conclusion

The so-called DOM and null objects in Spanish and BP share many properties due to the raising of animate DPs outside the vP. In both languages there is movement of animate DPs to a higher projection above VP. This translates into DOM in Spanish. It translates into the impossibility of having ellipsis of animate DP in BP. Sloppy readings with null object and with clitics in BP show that there is ellipsis of DP in both languages. The licensing of this ellipsis is different. Inner Asp is the head licensing ellipsis in BP. Clitics are the licensing head in Spanish: clitics but not strong pronouns license ellipsis.

In this paper, we take sloppy reading to be a hallmark of ellipsis, contra (Merchant 2013) and in favor of Şener & Takahashi (2010). DOM is a side effect of having certain preposition to license the moved DP. BP lacks the right preposition to license the DPs moved out of the vP.

One of the fundamental differences between Spanish and BP is the lack of overt 3rd person clitics that would license ellipsis in BP and the lack of VP ellipsis in Spanish. Thus, BP can resort to V in the functional head AspInn , whereas Spanish relies on the clitic, that is, on the clitic in the functional head D, as a licenser of ellipsis.

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Towards a derivational account of Romanian binding ditransitive constructions.

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1. Introduction*

The present paper sums up and also refines the findings and the analysis in Cornilescu, Dinu, Tigau (2017 a, b = CDT) strengthening the validity of a derivational approach to the syntax of ditransitive constructions. We interpret the results of the earlier experiment in CDT (2017a) showing that they provide decisive evidence against an Alternative Projection Account. The argument centers on binding data inasmuch as the Alternative Projection Account predicts asymmetries in the binding potential of the direct object (DO) and the indirect object (IO), while the experiment demonstrates that the DO and IO show symmetric behavior for anaphor and possessor binding.

Another relevant result of the experiment is that the presence of the dative clitic does not change or otherwise influence the scope and binding properties of the two internal arguments. Rather, as shown elsewhere Cornilescu (2015), the clitic plays a syntactic role being instrumental in checking the case of the dative constituents in certain configurations (e.g. unaccusative verbs). This result goes against an analysis which treats the clitic as the head of an Applicative Projection which introduces the indirect argument in Double Object Constructions (DOC). Such an analysis makes the wrong prediction that the IO binds the DO only in the clitic configuration. The paper presents a derivational analysis in line with the experimental results extending the proposal in CDT (2017b).

There are certain significant points of difference from the earlier analysis. We have retained the Theme-over-Goal basic configuration for ditransitives, projecting the dative as a second object PP. In the present paper we claim that there is a strict correlation between the possibility of doubling and the categorial status of datives. Datives are always PPs except when they are doubled and must be analysed as DPs. We have also clarified the role of a grammatical [Person] feature related to the animacy hierarchy and which is always checked with dative constituents. In the present analysis dative DPs are endowed with an [*u*Person] feature which they check in a PersonP at the *v*P periphery. This is why doubled dative DPs always exit the *v*P, being able to get to the Left Periphery. At the same time, while in the previous paper we focused on *Give* verbs, in this paper we closely analyse *throw* verbs which in our view raise an interesting theta-assignment problem.

The paper is structured as follows: in section 2 we discuss the basic tenets of the account proposed in Diaconescu & Rivero (D&R) (2007); in section 3 we bring forth the results of an experiment we conducted on Romanian ditransitives and discuss these results in the context of the analysis presented in D&R (2007); section 4 contains a tentative proposal regarding what we consider to be a more suitable syntactic analysis of Romanian ditransitives; section 5 contains some final considerations on the analysis proposed, while section 6 presents the conclusions.

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2. Romanian Ditransitives

2.1 Background

In Romanian ditransitive configurations, the Goal DP may surface either as an inflectional dative (1) or as a PP headed by the (functional) preposition *la* ´at, to´ (2). Both the inflectional and the prepositional dative may be doubled by clitics.

(1) Mihaela (îi) trimite o scrisoare Mariei.
Mihaela (her.CL$_{DAT}$) sends a letter Mary.DAT
'Mihaela sends a letter to Mary.'

(2) Mihaela (îi) trimite o scrisoare la Maria.
Mihaela (her.CL$_{DAT}$) sends a letter to Mary
'Mihaela sends a letter to Mary.'

The inflectional dative and the prepositional one evince identical syntactic and semantic properties, but differ stylistically inasmuch as the former pertains to standard Romanian, while the latter is said to be restricted to popular and dialectal speech. The two markers are, however, both needed in the standard language because morphologically invariable determiners (cardinals, *nişte (some), niscaiva (some)* a.o.) require the use of the preposition *la* to mark the dative.

(3) Am dat bicicleta **la trei** copii.
Have.I given bike.the to three children
'I gave the bike to three children.'

The Goal DP is sensitive to the animacy hierarchy and nouns in the upper part of the hierarchy (Humans) select the inflectional form over the prepositional form:

(4) (a) Nu mă pot înțelege cu ei, parcă vorbesc la pereți / *pereților.
Not me.REFL can get along with them, as if speak.I to walls / walls.DAT
'I cannot get along with them, it's as if I were talking to the walls.'
(b) Am dat hainele unor copii săraci/ *unor cămine.
Have.I given clothes.the some.DAT children poor/ some.DAT hostels

As already pointed out in (1) and (2) above, both the inflectional dative and the prepositional dative may be clitic doubled, which prompts Diaconescu & Rivero (2007) to correctly suggest that, at least in the clitic doubled configurations, *la* is a case marker rather than a preposition with descriptive content. Hence their suggestion that the *la* phrase is a DP rather than a PP. The present paper focuses on inflectional datives but the results can be extended to the prepositional dative as well.

2.2 An alternative projection account: Diaconescu & Rivero (2007)

Building on Pylkkanen (2002, 2008) and roughly following the analysis proposed in Cuervo (2003), Diaconescu & Rivero (2007) are the first to provide a thorough generative account of Romanian ditransitives (summed up in 5a, b), favouring like Cuervo (2003) an alternative projection account over a derivational one (Larson 1988, Harada & Larson 2009). Similarly to English, the Theme-Goal construction is associated with two configurations: in the Theme-over-Goal construction the two internal arguments are respectively the specifier and the complement of a preposition, which is null for inflectional datives and which is realised as *la* for the prepositional dative as in (5a). The Goal-over-Theme construction is a low applicative one in the sense of Pylkkanen (2002, 2008). The Goal is introduced in the specifier of an

applicative head and the ApplP is headed by the dative clitic as in Demonte (1995), Cuervo (2003) a.o. This low applicative structure is represented in (5b).

(5) (a) POC: *Theme c-commands Goal*
$[_{\text{VoiceP}}\text{DP}_{\text{Agent}}\text{Voice}[_{v\text{P}}v\ [_{\text{PP}}\text{DP}_{\text{Theme}}\text{P}\ \text{DP}_{\text{Goal}}]]]$
(b) DOC: *Goal c-commands Theme* (clitic doubling)
$[_{\text{VoiceP}}\text{DP}_{\text{Agent}}\text{Voice}[_{v\text{P}}v\ [_{\text{ApplP}}\text{DP}_{\text{Goal}}[\text{cl}_{\text{Appl}}]\ [_{\text{VP}}\text{V}\ \text{DP}_{\text{Theme}}]]]]$
(D&R 2007: 219-220)

In the first structure the dative is licensed by the preposition which then incorporates into the verb, while in the second structure the dative is licensed by Agree with the clitic head. Thus, in this analysis, DOC readings depend on CD given that the higher Goal is introduced by the clitic in the Appl head position.

2.2.1 Binding predictions of Diaconescu & Rivero's analysis

This analysis predicts asymmetric binding relations between the two internal arguments, as first shown for English by Barss & Lasnik (1986), i.e., in the cliticless ditransitive, the Theme DP c-commands and therefore may bind an anaphor/possessive pronoun inside the Goal DP. Alternatively, the DP Goal c-commands the DP theme in the DOC and binding relations are reversed, just as in English.

Building on Barss and Lasnik (1986), D&R (2007) support their claims with respect to the c-command relations within ditransitives by resorting to classical c-command tests relying on the binding of anaphors and possessives. Here are some of their data:

(6) (a) ?Ion **i**-a descris **fetei$_i$** **pe** **ea** **însăși$_i$**.
John her.DAT-has described girl.DAT *pe* her herself
'John described the girl to herself. (Lit. John described to the girl herself.)'
(b) *Ion **i**-a descris **ei** **înseși** **fata.**
John her.DAT-has described her.DAT herself girl.the
'John described herself the girl.' (D&R 2007: ex. 25, p. 27)

In agreement with the analysis in (5b), the examples in (6) show that while a clitic doubled dative DP may bind the anaphor within a direct object (6a), the reverse is not possible (6b): a direct object may not bind the anaphor within a clitic doubled indirect object.

On the other hand, as predicted by (5a), the undoubled indirect object in (7a) is unable to bind the anaphor in the direct object, while the DO may bind an anaphor in the lower IO (7b):

(7) (a) *Ion a descries **fetei$_i$** **pe** **ea** **însăși$_i$**.
John has described girl.DAT *pe* her herself
'John described the girl herself.'
(b) Ion a descris **ei** **înseși$_i$** **fata$_i$**.
John has described her.DAT herself girl.the
'John described herself the girl.' (D&R 2007: ex. 27, p. 30)

The same c-command relations are shown to hold with possessives: a clitic doubled indirect object may bind the possessor within the direct object in (8a) below corresponding to (5b), while the direct object may not bind the possessor within the clitic doubled indirect object (8b) as expected under (5a):

(8) (a) I-am dat muncitorului$_i$ cecul său$_i$.
him.DAT-have.I given worker.DAT cheque his
'I have given the worker his cheque.'
(b) ??Poliția i-a dat tatălui său$_i$ copilul$_i$ pierdut.
Police.the him.DAT-has given father.DAT his child lost
'The Police has given the father his lost child.' D&R (2007: ex. 28, p.30)

Also, D&R (2007) argue that a bare indirect object may not bind the possessor within the direct object in (9a) below, while the direct object may bind the possessor within the bare indirect object (9b):

(9) (a) *Am dat muncitorului$_i$ cecul său$_i$.
him.DAT-have.I given worker.DAT cheque his
'I have given the worker his cheque.
(b) Poliția a dat tatălui său$_i$ copilul$_i$ pierdut.
Police.the has given father.DAT his child lost
Lit.: 'The Police has given to the father his lost child.' (D&R 2007: ex. 30, p.33)

Conclusion. The data presented in D&R (2007) prove that the two internal arguments have an asymmetric binding potential as shown in the analysis in (5) above. This lends support to the alternative projection account they offer.

2.2.2 Some binding problems

Some of the examples supplied in D&R (2007) seemed problematic to us as native speakers. For instance, some sentences which they discard as ungrammatical seemed to us to only be unacceptable as a consequence of poor lexical choices, rather than to be ungrammatical. Consider (10) below similar to their (9a) as far as possessor binding is concerned. This example seemed acceptable to us under a reading where the undoubled indirect object ***fiecărui turist$_i$*** binds the possessive within the direct object ***camera lui$_i$***.:

(10) Recepționera arătă **camera lui$_i$ fiecărui turist$_i$** venit în concediu.
Receptionist.the showed room his every.DAT tourist come on holiday
'The receptionist showed his room to every tourist who had come there on holiday.'

Furthermore, as will be seen, similar empirical observations have been made for other languages (Spanish e.g., Bleam (2003) Ormazábal & Romero 2010). Such empirical problems prompted us to gather a representative sample of attested Romanian examples in order to then propose an analysis which should be faithful to the actually collected data.

CDT (2017a) tested speakers' intuitions regarding binding in ditransitive configurations in an experiment whose results will be used below. By and large, the experiment suggests: 1. that the internal arguments have symmetric binding potential; 2. that the clitic is immaterial in binding judgements. These findings agree with those of other researchers on other Romance languages (Ormazábal & Romero 2010 ff, Pineda 2012 a.o.)

3. Some relevant findings of an earlier experiment

3.1 Binding with Romanian ditransitives

The experiment in CDT (2017a) tests the binding possibilities of the two internal arguments in ditransitive constructions. They check for acceptability of sentences where they vary: a) the direction of binding; b) the presence of a clitic doubling either the IO or the DO or both; c) since Romanian is a DOM language, the DO is either bare or DOMed so both types of

examples were included in the experiment. All of the following possible eight patterns have been found to be acceptable in the experiment[1]:

(11)

A.	DO [+cl] > IO [+cl]	**E.**	IO [+cl]> DO [+cl]
B.	DO [+cl]> IO	**F.**	IO > DO [+cl]
C.	DO>IO [+cl]	**G.**	IO [+cl]> DO
D.	DO >IO	**H.**	IO > DO

We call attention to the fact that all clitic doubled DOs in Romanian are also DOMed. In contrast, undoubled direct objects may be either DOMed or not, function of how proeminent the respective direct object is[2] on the animacy and definiteness scales (Aissen 2003). As already mentioned, all types of DOs figured in the examples tested.

The following important results were obtained in the experiment:

(i) All the eight patterns in (11) are possible in Romanian.

(ii) The presence/absence of the clitic does NOT alter those properties of the construction which depend on the reciprocal c-command relations of the two internal arguments, i.e. the binding and scope properties. Similar conclusions have been arrived at for other languages which exhibit CD (Bleam (2003), Ormazábal & Romero (2017) for Spanish, or Pineda (2013), for Catalan.

Given these results, we checked to what extent the analysis in D&R (2007), can be extended to cover all the existing binding patterns. This is the object of the next sections. Mind that what we have considered are the binding possibilities rather than the relative order of the two arguments since like D &R (2007 p. 10) we assumed that word order is not a critical factor for binding possibilities.

3.2 Discussion of Diaconescu & Rivero (2007)

As shown above, D&R (2007) present two configurations which, in their view, underlie the correct Romanian binding structures. The first is a Theme-over-Goal Prepositional Dative Structure, the second is an Applicative Goal-over-Theme construction where the Goal is the specifier of an Applicative head represented by the clitic, as in (5) repeated here as (12):

(12) (a) POC: *Theme c-commands Goal*
$[_{\text{VoiceP}}\text{DP}_{\text{Agent}}\text{Voice}[_{v\text{P}}v\ [_{\text{PP}}\text{DP}_{\text{Theme}}\text{P}\ \text{DP}_{\text{Goal}}]]]$

(b) DOC: *Goal c-commands Theme* (clitic doubling)
$[_{\text{VoiceP}}\text{DP}_{\text{Agent}}\text{Voice}[_{v\text{P}}v\ [_{\text{ApplP}}\text{DP}_{\text{Goal}}[\text{cl}_{\text{Appl}}]\ [_{\text{VP}}\text{V}\ \text{DP}_{\text{Theme}}]]]]$

(D&R 2007: 219-220)

In what follows, we will consider the findings corresponding to each of the eight patterns against the predictions of the alternative projection account in D&R (2007) and we will start with the findings regarding binding of possessives in the other argument:

Of the eight patterns above, D&R give a detailed discussion only for the following two:

(13) **D**. DO > IO
G. IO +cl > DO.

[1]The arrow shows the direction of binding: thus, in pattern A to D the direct object binds into the indirect object, while in patterns E to H the indirect object binds into the direct object. Cornilescu et al. (2017a,b) also consider the variants where an accusative clitic doubles the direct object.

[2]To cut a very long story short, let us just mention the fact that direct object DPs which get DOMed are sensitive to the animacy and definiteness scales discussed in Aissen (2003) a.o.

They also explicitly discuss as ungrammatical patterns C and H in (11) now in (14).

(14) **C.** DO>IO [+cl]
H. IO > DO

They argue that a bare DO cannot bind a clitic doubled IO, as illustrated in example (15). Indeed, this pattern is not derivable in their analysis.

(15) *Ion **i**-a descries **ei** **înseși** **fata**.
John her.DAT-has described her.DAT herself girl.the
'John described herself the girl.'

Likewise, a cliticless IO cannot bind the DO, again an underivable structure in D&R:

(16) *Ion a descris **fetei$_i$** **pe** **ea** **însăși$_i$**.
Ion has described girl.DAT *pe* her herself
'John described the girl herself.'

Both predictions were disconfirmed in the experiment, which is a serious problem for the analysis. Here are experiment examples respectively illustrating DO>IO [+cl] and IO > DO, which therefore are counterarguments to the alternative projection account.

(17) Banca **i**-a retrocedat **fiecare** **casă$_i$** **proprietarului** **ei$_i$** de drept.
bank.the him.DAT-has returned every house owner.DAT its of right
'The bank returned every house to its rightful owner.'

(18) Angajatorii nu au dat încă **fiecărui** **muncitor$_i$** **toate** **drepturile** **sale$_i$**
employers.the not have given yet every.DAT worker all rights his
bănești pe luna în curs.
monetary on month current
'The employers haven't yet given every worker his monetary rights during the current month.'

The analysis in D&R is incomplete inasmuch as patterns A, B, E, F in (11) are not mentioned at all. It is immediately apparent that all these patterns involve a doubled DO. Recall that Romanian is a DOM language.

(19) **A.** DO [+cl] > IO [+cl]
B. DO [+cl]> IO
E. IO [+cl]> DO [+cl]
F. IO > DO [+cl]

Below we review and illustrate the structures in (19) and we will start with patterns **A** (DO [+cl] > IO [+cl]) and **E (**IO [+cl]> DO [+cl]).

D&R explicitly refrain from discussing clitic doubled DOs suggesting, however, that, like doubled datives, they may represent low applicative arguments. This would imply that clitic doubled DOs may reach a higher position than undoubled ones. They also mention that patterns involving accusative clitic doubled objects could be acceptable (D&R 2007: 28-29). Given this suggestion, it is likely that the alternative projection account could be extended to cover binding data where both objects are clitic doubled that is pattern A/E in (11). Indeed, the following examples illustrating patterns A and E i.e., involving clitic doubled accusatives, have been found to be fully acceptable in the experiment.

(20) **A. DO [+cl] > IO [+cl]**
În prima zi de școală, directorilor le revine sarcina de a
in first day of school principals.DAT them.DAT.CL grant task.the of to
li-i prezenta **pe toți învățătorii$_i$ elevilor lor$_i$**.
them.DAT-them.ACC present *pe* all teachers pupils.DAT their
'On the first day of school, principals have the responsibility to introduce all teachers to their pupils.'

(21) **E. IO [+cl]> DO [+cl]**
Delegații **i**-au lăudat-**o** **pe secretara lui$_i$ fiecărui șef de**
delegates.the him.DAT-have praised-her.ACC *pe* secretary his every.DAThead of
departament$_i$.
department
'The delegates praised his secretary to every head of department.'

Pattern B (DO [+cl]> IO) should also be unproblematic. Although not explicitly mentioned by D&R (2007), clitic doubled DOs should be higher than undoubled IO, given the low position of the undoubled IO in (12a).

(22) Poliția **i**-a înapoiat **pe toți copiii$_i$** pierduți pe plajă **părinților**
police.the them.ACC-has returned *pe* all children lost on beach parents.DAT
lor$_i$, care-i căutau de două zile.
their, who-them looked for two days
'The police returned all children lost on the beach to their parents who had been looking for them for two days.'

As (22) shows, the expectations in D&R are confirmed. However, it is harder to figure out how pattern **F** (IO > DO (+cl)) could be derived since it is not clear how a low IO could c-command a higher DO or an even higher clitic doubled DO. Thus, F should be out according to the alternative projection analysis. Yet speakers found this binding configuration grammatical:

(23) În prima zi de școală, directorul are misiunea de a-**l** prezenta **fiecărui**
in first day of school, manager.the has mission.the of to-him introduce every.DAT
elev$_i$ pe viitorul său$_i$ învățător.
pupil *pe* future his teacher
'On the first day of school, the principal has the mission of introducing to every pupil his future teacher.'

3.3 Interim conclusions

While the alternative projection predicts asymmetries in binding and scope, the experiment shows that the two internal arguments have symmetric binding and scope abilities. An adequate analysis of ditransitive constructions should be able to derive all the structures found grammatical by native speakers. This is the task of the second part of this paper.

4. A derivational account of Romanian ditransitives

4.1 One basic configuration

In the previous section we reached the conclusion that the alternative projection account put forth by D&R (2007) does not do justice to the entire range of data on Romanian ditransitives and that the analysis should be extended in such a way as to include all the eight grammatical structures assessed as acceptable. Moreover, the new account should capture the symmetric binding potential exhibited by the two internal arguments as well as the fact that CD does not influence it.

One important aspect which needs settling under a derivational account is the configuration(s) underlying ditransitives, so as to establish whether the basic configuration is Theme-over-Goal (12a) or undoubled Goal-over-Theme. Choosing between these two structures in particular languages should be an empirical matter, rather than an article of faith.

We argue that both the inflectional dative and the prepositional dative must sometimes be analyzed as PPs rather than DPs. As a consequence, as PPs both inflectional and prepositional datives merge in a low position so that they are second objects rather than first objects (Levin 2006).

Let us therefore turn to the categorial status of datives. CDT (2017) make a proposal with respect to *la*-Dative IOs[3] distinguishing between structures with bare *la-IOs* and structures with clitic doubled *la-IOs.* The former are analysed as PPs, while the latter, as DPs. It will be seen that the same dual status holds for inflectional datives as also proposed by D&R (2007).

One argument supporting the dual status idea for datives comes from the behaviour of *la-IOs/inflectional datives* within nominalisations of ditransitive verbs, where only the prepositional dative may be preserved. In (24a) below, both an inflectional dative and a *la* dative are available in the ditransitive configuration and both of them may be clitic doubled. In the nominalisation (24b), on the other hand, only the prepositional dative is allowed, while the inflectional dative is eliminated. Note also that CD is no longer an option. In our interpretation CD is always possible when the dative is analysable as a DP. Since CD does not occur in nominalisations, this property may be the consequence of the PP status of the dative:

(24) (a) (Le)-am prezentat cartea studenților / la studenți.
them.DAT-have.I presented book.the students.DAT / to students
'I have presented the book to the students.'
(b) Prezentarea cărții *studenților / la studenți.
presentation.the book.GEN students.DAT / to students

A similar remark has been made for English, where only the prepositional dative occurs in nominalisations (25), while the high DOC dative is impossible in the corresponding nominalisations (26) (Chomsky 1971, Kayne 1984, Pesetsky 1995, Beck & Johnson 2004 a.o.). Remember that with the Prepositional Dative Construction, the prepositional dative is merged low within the VP, in a position where it may be c-commanded by the Theme DP, in line with the binding facts in Barss & Lasnik (1986):

[3] Remember that Romanian datives exhibit *inflectional* as well as *prepositional* case marking. Prepositional marking presupposes the use of the directional preposition *la (at/to)* and is mainly resorted to with DPs headed by invariable determiners such as *niște* (some), cardinals etc. As argued in Diaconescu & Rivero (2007) and, this variant seems to be more frequently employed in the North-Western part of the country, while the inflectional form enjoys preference in educated Romanian. The *la* in dative DPs has been interpreted as a dative case marker in various accounts Diaconescu & Rivero (2007), Tigău (2014) a.o., in line with its Spanish counterpart *a* (Cuervo 2003).

(25) (a) Sue's gift of a book to Mary.
(b) Mary's presentation of a prize to John.

(26) (a) * Sue's gift of Mary (of) a book.
(b) *Mary's presentation of John (of) a prize.

Coming back to Romanian, at least in nominalizations, inflectional as well as prepositional datives must be analyzed as PPs, which means that at least in these contexts they merge low.

On the other hand, the fact that Romanian datives uniformly clitic double points to their DP status since there is consensus that Romance pronominal clitics co-occur with/replace DPs and that PPs are associated with special clitics in those languages that have them (e.g., the French PP clitics *en* and *y*).

A second argument showing that cliticless datives can be analyzed as PPs comes from ditransitives containing two datives, of which the higher must be realized as a clitic while the second cannot cliticize. Example (27a) below contains a high Possessive dative and a low prepositional Goal dative. The same holds for (27b) where the Goal DP is an inflectional dative. Importantly, neither the *la* phrase in (27a) nor the inflectional dative in (27b) may be clitic doubled in these configurations.

(27) (a) **I**-am prezentat fata **la niște prieteni buni**.
him.DAT-have.I introduced girl.the *at* some friends good.PL
'I introduced his girl to three good friends.'
(b) Faust **și**-a vândut sufletul **diavolului**.
Faust REFL-has sold soul.the devil.DAT
'Faustus sold his soul to the devil.'

In line with Pylkkanen (2002, 2008), the Possessive Dative DP is a non-core argument introduced by a (high) Appl(icative)[4] which is case and θ-licensed by Appl, in whose specifier it has been moved (Landau 1999). Given that Appl licenses the Possessive Dative, it may no longer agree with and license the Goal Dative (27a). This would not constitute a problem, however, if this Goal Dative were a PP. Indeed, given the grammaticality of (27a), the Goal may only be analysed as a PP, with *la* as a preposition case licensing the Goal DP. Since the inflectional dative is also grammatical (27b) and it is not case licensed by Appl, this dative should also be analyzed as a PP, on a par with the *la*-phrase. With inflectional datives, the preposition is null and incorporates into V after case licensing the Goal DP (as in D&R 2007). Note also that with ditransitives containing two datives, the Goal occupies a low position inside the VP, as already hinted above.

(28) [$_{\text{ApplP}}$ *le* Appl [$_{\text{VP}}$ *fata*$_{\text{DPTheme}}$ [V *la niște prieteni*$_{\text{PPGoal}}$]]]

One further argument strengthening the hypothesis of the dual categorial status of datives comes from the distribution of inflectional datives within APs subcategorizing for datives such as *util (useful)* or *necesar (necessary)*. These adjectives select both inflectional datives (29a) and PPs (29b). Given that adjectives are not case assigners, one plausible way to account for the dative would be to assume the existence of a null preposition incorporating into the lexical A° and case licensing the dative DP (Cornilescu 2017).

[4] Whereas the High ApplP proposed in Pylkkanen (2002, 2008) has gone unchallenged, the low ApplP has been objected to (see Larson 2010, Georgala 2011 a.o.)

(29) (a) un manual necesar studenților.
a manual necessary students.DAT
'a manual necessary to students'
(b) un manual necesar pentru studenți
a manual necessary for students
'a manual necessary for students'

Consider now the examples below with respect to the position of the adjective's subcategorized complement. In (30a) the complement is inside the AP. Interestingly, the dative complement may also occur within the *v*P (it is still post-verbal), in which case, it is clitic doubled (30c). Furthermore, a clitic doubled dative complement that has exited the AP can also target the sentence's left periphery as in (30d). We admit that the status of (30b) is less clear regarding the position of the dative complement. Further research is needed to clarify the syntax of predicative adjectives in Ronanian.

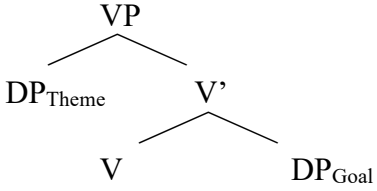
(30) (a) Manualul era necesar studenților de la Engleză.
Manual.the was necesary students.DAT from English
'The manual was necessary to the students from the English Department.'
(b) Manualul (le) era necesar studenților de la Engleză.
Manual.the them.DAT was necessary students.DAT from English
'The manual was necessary to the students from the English Department'
(c) Manualul *(le) era numai studenților de la Engleză necesar pentru
Manual.the them.DAT was only students.DAT From English necessary for
examen.
exam
'The manual was necessary only to the students from the English Department.'
(d) Studenților de la Engleză manualul le era necesar.
Students.DAT from English manual.the them.DAT was necessary
(e) *?Studenților de la Engleză manualul era necesar.
Students.DAT from English manual.the was necessary

What counts for our current purposes is the categorial status of the subcategorized dative complement. The undoubled datives get case inside the AP by means of a null P and thus have no reason to move out of the AP. Doubled Datives are DPs and have to move out of the AP and get licensed by an Appl°. After being case licensed outside the AP, these DPs become (main) clause constituents.

Summing up, Romanian offers strong evidence in favour of the dual status of dative complements whether inflectional or prepositional. Given the dual status, we'll assume that datives merge low as second objects. If the dative merges as a DP, it will be forced to move. (see below).

The basic Romanian configuration is Theme-over-Goal. As already seen, the dative is a theta-marked argument of the lexical verb (V) and, given its possible PP status, it is a second argument not the first one. Thus, we take the basic configuration to be a Theme-over-Goal one (as also concluded by Ormazábal & Romero 2017, from a cross-linguistic perspective):

(31) *Basic small clause configuration*



This is also in line with Larson (1988, 2014), Harada & Larson (2009), Boneh & Nash (2012), a.o. who also propose a low merge position within the VP for English, Japanese and French respectively.

4.2 Symmetrical binding potential

Under these assumptions, it is expected that the two objects which change their position and c-command relation during the derivation will be capable to bind into each other. The Theme-over-Goal configuration correctly predicts that the DO may bind into the IO. Movement of the IO from its merge position into the ApplP would account for the opposite binding direction. Hence the symmetric binding potential of the two internal arguments. In agreement with Georgala et al. (2008), Georgala (2011, 2012) a.o. any applicative head selects a VP complement:

DO > IO

(32) Editorii au trimis fiecare manuscris autorului lui pentru corecturile finale.
Editors have sent every manuscript author.DAT its for corrections final
'The editors have sent every manuscript to its autor for the final proofreading.'

IO>DO

(33) Poliția a înapoiat fiecărui colecționar numai o parte din tablourile lui
police.the has returned every.DAT collector only a part of paintings his
sustrase de hoți.
stolen by thieves.
'The police only returned to every collector some of the paintings which had been stolen by the thieves.'

In the next paragraph we turn to the implementation of these ideas in the current minimalist frame.

4.2 A [Person] feature

We have assumed with Larson (1988) that datives are theta-marked by the verb in ditransitive constructions. However, DP datives, even if theta marked by the verb, are also in need of checking their case feature. Therefore, in ditransitive constructions an Applicative head is required at least as a case assigner. Georgala (2011) speaks of expletive applicatives when the applicative is merely a case assigner and argues that there are also cases where the applicative is a theta assigner as well.

We propose that the applicative is always a case assigner and that it merely introduces a person feature, [*u*Person], which is the reflex of an essential property of dative arguments, namely their sensitivity to the animacy hierarchy. We also suggest that the [Person] feature is sufficient for allowing the range of theta roles associated with ditransitives and possibly other dative structures as well, since all these theta roles entail the presence of a [+Human] feature.

Sensitivity to the animacy hierarchy has been noticed long before and appears to be the essential property of dative arguments. Thus, both dative markers in Romanian (i.e., inflection and the preposition) are highly sensitive to the animacy hierarchy though in slightly different ways. Thus both allow datives which are [+Human] but only inflectional datives also accept [+*abstract*] nouns and only *la*-datives are compatible with nouns which are lower on the animacy hierarchy such as 'flowers'. Consider the sharp grammaticality contrast in (34) where the inflectional dative is only felicitous with the Goal DP denoting a human referent:

(34) (a) Am turnat vin oaspeților/la oaspeți.
have.I poured wine guests.DAT/to guests
'I have poured wine to the guests.'
(b) Am supus atenției comisiei /*la atenția comisiei
have.I subjected attention.DAT commission.GEN/ at attention commission.GEN
proiectul nostru pentru anul în curs.
project ours for year current
'I subjected our project for the current year to the attention of the commission.'
(c) Am turnat apă *florilor / la flori.
have.I poured water flowers.DAT/ to flowers
'I have poured wine to the flowers.'

One theoretical problem is how to incorporate scalar concepts like the animacy hierarchy into the discrete binary system of a minimalist grammar. Richards (2008) proposes that these hierarchies are semantic and pragmatic in nature and should be viewed as syntax-semantics interface phenomena. Moreover, nouns which are sensitive to the hierarchies should be lexically specified for *a binary grammatical [person] feature*. It is this feature which triggers an interpretation of the NP along the hierarchy, checking the position of the given NP along the animacy scale. As already shown, different languages and different markers within the same languages have different cut off points regarding which nouns may be lexically marked [+person] and which nouns may not. We will adopt this account and assume that nouns may come from the lexicon with an unvalued [person] feature.

In line with Richards's proposal, the applicative comes from the lexicon with an uninterpretable, unvalued [Person] feature. The suggestion that Appl merely introduces a [Person] feature is compatible with all the theta roles associated with the dative in ditransitive constructions and elsewhere since all the dative theta roles entail the feature [+Human] i.e., in our system [+Person]. Consider the following examples and examine the range of lexical prepositions that may correspond to prepositional or inflectional datives:

(35) (a) Bunica (le)-a dat prăjituri copiilor.
grandmother.the they.CL.DAT-has given cakes children.the.DAT
'Grandmother gave cakes to the children.'
(b) Bunica (le)-a dat prăjituri la copii. **(Possessor-Goal)**
grandmother.the they.CL.DAT-has given cakes to children
'Grandmother gave cakes to the children.'

(36) (a) Bunica (le)-a copt prăjituri nepoților.
grandmother.the they.CL.DAT-has baked cakes grandchildren.the.DAT
'Grandmother baked some cakes for her grandchildren.'
(b) Bunica (le)-a copt prăjituri la nepoți.
grandmother.the they.CL.DAT-has baked cakes at grandchildren
'Grandmother baked some cakes for her grandchildren.'
(c) Bunica a copt prăjituri pentru nepoți. **(Beneficiary)**
grandmother.the has baked cakes for the grandchildren
'Grandmother baked some cakes for her grandchildren.'

(37) (a) Nişte vagabonzi le-au furat copiilor nişte mere din
some tramps they.CL.DAT-have stolen children.the.DAT some apples from
livadă.
the orchard
'Some tramps stole the children some apples from the orchard.'

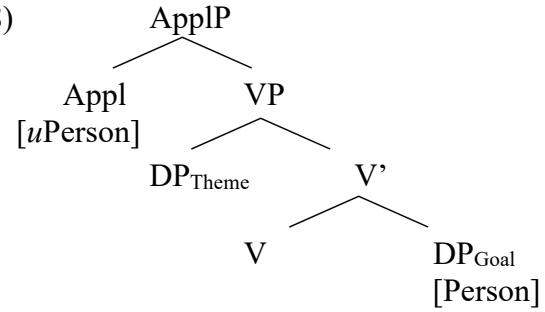
(b) Nişte vagabonzi le-au furat **la** copii nişte mere din livadă.
some tramps they.CL.DAT-have stolen at children some apples from orchard
'Some tramps stole the children some apples from the orchard.'

(c) Nişte vagabonzi au furat nişte mere **de la** copii din livadă
some tramps have stolen some apples from the children from the orchard.
(Source/Maleficiary)
'Some tramps stole the children some apples from the orchard.'

Generalizing over this list of θ-roles, it appears that they standardly denote human individuals (DP marked [+Person] in our analysis). Thus, when it is a dative marker, the semantic role of *la* is simply to signal that its complement is [+person].

As to the position of the ApplP within the *v*P, following Georgala et al. (2008) and Larson (2010) among many, and departing from Pylkkanen (2002, 2008), we will assume that an applicative head always takes a VP complement as in (38) below (thus giving up the category of low applicative heads). As already specified, we also assume that Appl introduces an unvalued [*u*Person] feature checked by agree with a dative DP the latter also being marked for [Person]. The structure of the verb phrase after merging the applicative is the one below:

(38)



4.3. Dative verbs and event structure

As is well known, in the alternative approach studies the patterns in (12), the PDC and the DOC, correlate with notable semantic differences described as the *caused movement* interpretation, typical of the PDC, and the *caused possession* interpretation, typical of the DOC. In an important study Rappaport Hovav & Levin (2008) convincingly show that not all dative verbs may have both interpretations (see also Krifka 2004). They subdivide the domain of the dative into *give* verbs and *send/throw* verbs and prove that *give* verbs evince only one event structure (representing *caused possession*), while *send/throw* verbs show two event structures, as predicted by the alternative approach. The two event structures are represented in (39) from Krifka (2004):

(39) ***Caused possession***

(a) ∃e∃s [Agent (e, Mary)∧Theme (e, book)∧Cause (e, s)∧ s: **Have** (Peter, book)

Caused movement

(b) ∃e∃e'[Agent (e, Mary)∧Theme(e, book)∧Cause (e, e')∧**Move** (e') ∧Theme (e',book) ∧ Goal (e, Peter)

In CDT (2017b) we showed that the distinction between *give* verbs and *send/throw* verbs carries over to Romanian where just as in English *give* verbs show no evidence of a path component which would relate to the *caused movement* structure.

The analysis of *give* verbs is unproblematic under the derivational approach since these verbs exhibit only one interpretation corresponding to the underlying structure of the construction. The derivational account is more problematic for *send/throw* verbs which are

associated with the two event structures in (39) Krifka (2004). Expectedly, the presence or absence of the clitic does not differentiate between the two event structures. Rather, what counts is whether at the end of the event the Theme is at the Goal (*caused possession*) or the Theme is not at the Goal, it has merely moved towards the Goal (*caused movement*). The following examples illustrate these points:

(40) (a) Am aruncat mingea de pe balcon unui băiețel de pe stradă,
have.I thrown the ball from balcony a.DAT little boy on street,
'I threw the ball on my balcony to a little boy in the street,
(b) dar n-a prins-o. (Goal)
'but he didn't catch it.'
(b') şi a fugit cu ea. (Possessor/Goal)
'and he ran away with it.'

(41) (a) I-am aruncat mingea unui băiețel de pe stradă,
he.CL.DAT-have thrown ball.the a.DAT little boy on the street
(b) dar n-a prins-o. (Goal)
'but he didn't catch it.'
(b') şi a fugit cu ea. (Possessor/Goal)
s'and he ran away with it.

Both the clitic-less and the clitic doubled variant of the verb *a arunca* 'throw' allow both the caused movement and the caused possession interpretation.

The two event structures correspond to different thematic interpretations of the dative constituent. In the *caused movement* interpretation, the dative is a genuine Goal, while in the *caused possession* interpretation the dative is a Possessor. It is not immediately clear in the derivational approach how to accommodate this change of θ-roles for *send/throw* verbs that have a *caused possession* interpretation. One possibility, recently suggested for English in MacDonald (2015), is to simply give up the θ-Criterion and allow the same DP to bear more than one θ-role (see also, Ramchand 2008). In MacDonald's words "These facts can be easily accounted for by dropping the θ-Criterion, a fairly standard minimalist move. If we do this, we allow the IO to get a θ-role as the complement of P and in Spec, ApplP both. [2015:280]."

A second possibility is to capitalize on the fact that θ-roles are interpreted at LF, at the end of the derivation, as well as on the fact that θ-roles are *bundles of semantic features*, rather than atomic concepts, as shown in Reinhart (2000). Under these assumptions, it is entirely plausible to assume that some functional head may introduce a semantic feature, enriching the θ-interpretation of the DP that it Agrees with. This enrichment may lead to the concomitant loss of some of the features of the basic role, which may be incompatible with the newly introduced feature. The latter is an obligatory feature, since it is made explicit by the functional head. Thus, initially assigned θ-roles may be derivationally "sharpened", some of the initial potential entailments may be cancelled, while others are explicitly introduced through the agreement relation. This "constructional" view of θ-interpretation explains why there are constraints on which roles can be derivationally acquired, since there must be compatibility between the role assigned at merge and the one which is derivationally acquired. One does not, for instance, find a Source derivationally turning into a Goal.

Consider the change from an initially assigned Goal to a derivationally assigned Possessor. The assignment of Goal is motivated by the lexical semantics of verbs like *throw* (their θ-grid). Let us assume that Goal introduces the features [Location, Path], where Path signals a movement component. There is no specification for [Person] in this description of Goal, hence Goals may or may not be persons. Let us assume that the Appl head above the small clause, which case-licenses the Dative, also introduces an uninterpretable [*u*Person] feature. In this case, only a Dative which is inherently marked as [*i*Person] may agree with Appl.

After Agreement of Appl with the Dative, the [Person] feature becomes an obligatory part of the Dative's θ features, i.e. [Location, Path, Person]. The features [Location, Person] are sufficient to define the Possessor role, since possession amounts to "placement, (or location) at some person" (Lyons, 1968, Freeze 1992). Thus, the Goal and the Possessor share a [Location] feature, but differ in terms of the [Person] feature, which is unnecessary, and perhaps also "unnatural" for Goals. Remember that from a cognitive perspective, in a "trajectory-landmark" configuration, the landmark is a fixed reference object, a property that persons certainly do not have. Hence, the introduction of the obligatory [Person] feature triggers the loss of the Path feature. The θ-interpretation of the constituent that agrees with Appl is [Location, Person], i.e. a Possessor role. There is one more consequence. The loss of [Path] allows **the interpretation of the small clause as a state**, rather than an event, whence the caused possession interpretation. This compositional view on how the second role is acquired is in line with Pesetsky's (1995) remark that "the IO in DOC is compatible with a subset of the interpretations of the IO in Prepositional Dative Constructions" (Pesetsky 1995:141). If this analysis is correct, one may claim that with ditransitive *throw*-verbs, Appl is partly a *thematic* rather than purely expletive head.

5. Back to the derivation of the eight patterns

In the beginning of the paper, we claimed that one of the assets of the derivational account is its flexibility, the fact that it can accommodate all of the experimentally attested binding patterns in Romanian ditransitives.

(42)

A.	DO [+cl] > IO [+cl]	**E.**	IO [+cl]> DO [+cl]
B.	DO [+cl]> IO	**F.**	IO > DO [+cl]
C.	DO>IO [+cl]	**G.**	IO [+cl]> DO
D.	DO >IO	**H.**	IO > DO

In section (4.1.2) above, we have shown how our analysis accounts for the symmetric binding abilities of the cliticless internal arguments, apparent in patterns **D** and **H** repeated below with examples:

(43) (a) **D. DO >IO**
Editorii au trimis **fiecare carte$_i$ autorului ei$_i$** pentru corecturile finale
editors.the have sent every book author.DAT its for corrections final
'The editors send each book to its author for the final corrections.'

(b) **H. IO > DO**
Poliția a înapoiat **tablourile sale$_i$** furate **fiecărui posesor$_i$**, după
police has returned paintings his stolen every.DAT owner after
îndelungi căutări.
extensive investigations
'The police returned his stolen paintings to every possessor after a long inquiry.'

Quite unproblematic are patterns **B** and **G**, where the binder moves to a higher position through cliticisation.

(44) (a) **B. DO [+cl]> IO**
Delegații au lăudat-o pe fiecare secretară șefului ei direct.
delegates.the have praised-her.ACC *pe* every secretary superior her direct
'The delegates praised every secretary to her direct superior.'

(b) **G. IO [+cl]> DO**
Banca îi remite deținătorului său fiecare bun imobilar oferit drept
bank him.DAT give owner its every asset real estate offered as
garanție, numai după stingerea datoriei.
guarantee only after extinguishment debt.GEN
'The bank gives to its owner every real estate asset offered as a guarantee only after debt extinguishment.'

Despite appearances, patterns where a clitic doubled argument is bound by a cliticless one are also predicted to be grammatical, through reconstruction. Consider the following example, uncontroversially assuming (as in Ciucivara 2009, Dobrovie-Sorin 1994) that CDed arguments exit the *v*P passing through a *v*P periphery position (=XP below) which allows them to bind the subject[5]. Thus, in (b), the IO raises to SpecApplP and then to SpecXP launching the clitic in T. The DO can bind the IO since it c-commands it in the basic small clause configuration.

(45) **C. DO>IO [+cl]**
(a) Dacă la primirea unui colet se observă defecte, clienții îi pot
if on receiving a package REFL notice flaws clients him.DAT can
returna fabricantului lui orice produs cu defecte.
return maker.DAT his any product with flaws
'If on receiving a package the clients notice any flaws, they can return any flawed package to its maker.'
(b) [$_{TP}$Clienții [$_{T}$îi returnează]$_{T}$[$_{XP}$fabricantului lui [$_{vP}$ ~~clienții~~ t_{v} [$_{ApplP}$~~fabricantului lui~~ Appl' [$_{VP}$ orice produs cu defecte t_{V}~~fabricantului lui~~]]]]]

The same analysis holds when an IO binds a clitic doubled DO:

[5]Evidence that the clitic doubled DPs pass through a vP external position on the way to the T-field is compelling in Romanian. In earlier work (CDT 2017b: 184) we proposed that the landing position of internal arguments that exit the *v*P is a PersonP located at the periphery of the *v*P just above the subject in Spec,*v*P (see also Belletti 2005, Stegovec 2015). This periphery position allows the internal arguments to c-command and scope over the subject even when the latter ends up in preverbal position. Here are examples that show that only a doubled IO can bind into the subject:

(i) *Nici filmele lui $_{i/j}$ nu-i mai plac lui Ion$_{i}$.*
nor films.the his not-he.DAT.CL anymore please to Ion
'Ion doesn't like his movies any more.'
(ii) *Nici filmele lui$_{*i/j}$ nu mai plac lui Ion$_{i}$.*
nor films.the his not-he.DAT.CL anymore please to Ion
(iii) *Religia* ***lor$_{i}$*** ***le*** *ajută* ***multora$_{i}$.***
religion.the their they. DAT.CL helps many.DAT
'Many people are helped by their religion.'
(iv) **Religia lor$_{i}$ ajută multora$_{i}$.*
religion.the they.DAT.CL helps many.DAT
(v) *Câte doi studenți i-au ajutat fiecărui profesor.*
some two students he.DAT.CL-have helped each.DAT professor
'Each professor was helped by two students.'

In conclusion, before going to the Person field above T, the clitic phrase reaches a *PersonP*, above the Subject constituent.

(46) **F. IO > DO [+cl]**
Poliția i-a înapoiat tuturor părinților implicați pe copiii lor pierduți
police them.DAT-has returned all.DAT parents involved *pe* children their lost
pe plajă.
on beach
'The police returned their children lost on th e beach to all involved parents.'

Needless to say, symmetric binding is also possible when both arguments are doubled. Reconstruction is again required.

(47) **A. DO [+cl] > IO [+cl]**
Delegații i-au lăudat-o pe fiecare secretară șefului ei direct.
delegates.the him.DAT-have praised-her.ACC *pe* every secretary superior her direct
'The delegates praised every secretary to her direct superior.'

(48) **E. IO [+cl]> DO [+cl]**
Poliția li i-a înapoiat tuturor părinților implicați pe copiii
police them.DAT them.ACC-has returned all.DAT parents involved *pe* children
lor pierduți pe plajă.
their lost on beach
'The police returned their children lost on th e beach to all involved parents.'

Thus, it is indeed the case that the derivational approach predicts the existence of all the binding patterns in (12).

6. Conclusions

Romanian ditransitive constructions are 'rich' in the sense that all the possible word orders and clitic combinations are attested yielding the eight patterns in (12). The two internal arguments have symmetric binding and scope abilities.

The alternative projection account current in the Romance literature predicts asymmetric properties for the two internal arguments contrary to the Romanian data. Therefore the alternative projection account cannot accommodate the eight attested patterns of Romanian ditransitives and makes wrong predictions regarding binding and scope. We have proposed a derivational account, in line with older and more recent proposals (Larson 1988, 2014, Ormazabal & Romero 2017), which accounts for the symmetric binding and scope abilities of the internal arguments and is able to accommodate the eight attested patterns.

In our analysis the main property of the dative argument is its sensitivity to the animacy hierarchy. The [Person] feature of the dative must be checked against an applicative head equally endowed with a [Person] feature.

Romanian offers a genuine dative alternative, that is an alternation between a Prepositional Dative Construction and a DP Dative construction since, as shown above, the categorial status of inflectional and prepositional datives varies between PP and DP.

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