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“Clitic Doubling and other issues of the
syntax/semantic interface in Romance DPs”

Susann Fischer & Mario Navarro (eds.)



Fachbereich Sprachwissenschaft der Universität Konstanz

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CLITIC DOUBLING AND OTHER ISSUES OF THE SYNTAX/SEMANTIC INTERFACE
IN ROMANCE DPS**

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Preface

The phenomenon of clitic doubling is known to be especially interesting with respect to the Romance languages. As its name suggest, clitic doubling involves the doubling of a verbal argument by a clitic pronoun inside the same propositional structure. From a generative perspective it was initially investigated focusing on its properties as exhibited in those Romance languages where it is attested. Thus Jaeggli (1982) who was the first to notice its theoretical importance, describes it for River Plate Spanish (spoken in Argentina, Uruguay, and Paraguay). Over the years, different factors that make clitic doubling possible, likely or even obligatory have been studied. Grammatical factors such as e.g. pronominal vs. non-pronominal, accusative vs. dative, the occurrence vs. non-occurrence of different object marking together with semantic and pragmatic factors such as e.g. animacy, specificity or definiteness have been held responsible for the occurrence and distribution.

This volume is a collection of papers given at the workshop “Clitic Doubling and other issues of the syntax/semantic interface in Romance DPs” held at the University of Hamburg in November 2014.

<https://www.slm.uni-hamburg.de/romanistik/personen/fischer/downloads/clitic-doubling.pdf>

The workshop was a joint event organized by NEREUS (Research Network for Referential Categories in Spanish and other Romance languages” and the DFG-project “Clitic Doubling across Romance”. The papers of this volume deal with different aspects of the clitic doubling construction and related issues, such as its semantic, pragmatic and morphosyntactic properties across the Romance languages and beyond, thereby contributing to the understanding of the nature of the cross-linguistic variation, as well as the micro-variation observed within.

We would like to thank all contributors and participants of the workshop for their interest and committed engagement. The quality of the papers and the passionate discussions made the workshop a very inspiring event. We would like to acknowledge DFG grant (FI 875/3-1) and the University of Hamburg for financial support of this workshop. Special thanks go to Sarah Jobus for preparing the manuscript and to Georg Kaiser for his generous help with all editorial and technical matters.

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DP internal (clitic) Doubling Artemis Alexiadou

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1. Introduction*

While (clitic) doubling phenomena are relatively well described and (perhaps) well understood in the clausal domain, they remain rather understudied in the nominal domain. In this short paper, I focus on the properties of possessor (clitic) doubling from a comparative perspective by looking at French, Greek, Mauritian Creole (MC), and German. The types of possessor doubling I am interested in here are illustrated in the examples (1-4). In French, (1), as well as in Greek, (2), a postnominal possessive strong pronoun can be doubled:

(1) *son amie à lui* *French*
his friend to him (Cardinaletti 1998)

(2) *To vivlio mu emena den pulithike katholu.* *Greek*
the book CL.1SG me.GEN.STR not sold at all
'My book was not sold at all.' (Giusti & Stavrou 2008)

Neither Standard French nor Greek allows for clitic doubling of full possessor DPs in the nominal domain. As we will see in the next sections, the languages differ as far as their verbal doubling patterns are concerned: Greek, but not French, allows clitic doubling of full DPs.

By contrast, Mauritian Creole (henceforth MC) (3a) and dialects of German (4) allow possessor doubling with a prenominal DP possessor. This is not possible in French, the lexifier language for MC, as we see in (3b):

(3) (a) *Za so liv*
John his book
'John's book' (Syea 2007)
(b) **Jean son livre*
Jean his book

(4) *dem Hans sein Haus*
the Hans.DAT his house

As in the case of doubling in the verbal domain, the first question is how one can distinguish between true doubling and instances of dislocation. As we will see, all the above are instances of true doubling. The next question concerns the difference between Greek and French. While clitic doubling in the French DP has identical properties to clitic doubling in the French verbal domain, this is not the case in Greek. Specifically, full DP possessor doubling is excluded. Nevertheless, the pronominal doubling illustrated above has identical properties to its verbal counterpart. The final question relates to the cross-linguistic distribution of doubling: what are the properties that characterize its distribution and how can we account for the cross-linguistic differences observed?

As can be seen from the data in (1)-(4), the doubling patterns differ: we have full DP

* I would like to thank Elena Anagnostopoulou, Susann Fischer, Terje Lohndal, Mario Navarro, and the participants of the Nereus workshop on clitic doubling in Hamburg in November 2014 for their comments.

possessors in MC and German preceding the possessor-clitic, while we have post-nominal possessors following the clitic in French and Greek. I will argue that two ingredients seem to be relevant to understand doubling patterns: (i) a clitic possessor should be able to realize D° , and (ii) a full possessor DP should be able to occupy Spec,DP which has A-properties. When both conditions are met as in e.g. German or MC the two co-occur in the DP layer. Moreover, in languages such as French, MC or German the possessor clitic realizes D° , but this is not the case in Greek where the possessor clitic is an en-clitic to an XP. Furthermore, Greek Spec, DP is an A'-position, making thus the Greek DP parallel to CP, and the MC/German DP parallel to TP.

The paper is structured as follows: in sections 2 to 4, I will show that the examples in (1-4) are indeed instances of doubling. In section 5, I will turn to an analysis of properties that regulate the crosslinguistic of doubling. These relate to the properties of Spec,DP across languages and the types of possessor clitics available in a language.

2. Possessor doubling in French

Cardinaletti (1998) discusses in detail the properties of the French pattern in (1). On the basis of several criteria, she convincingly concludes that French does indeed have possessor doubling involving strong possessive pronouns, that is the same type of doubling observed in the verbal domain. Let me briefly summarize her arguments here. All French data here are from Cardinaletti's (op.cit.) paper.

A first piece of evidence comes from the observation that the restrictions on possessive doubling are the same as those on personal pronouns: the doubled element can only be a pronoun, exactly as in the verbal domain, which disallows doubling of DPs. This is shown in the data in (5) and (6):

- (5) (a) son livre à lui
 (b) *son livre à Jean
 his book to him / Jean
- (6) (a) Il m'a vu moi.
 he me has seen me
 (b) *Il l'a vu Jean.
 he him has seen Jean

Second, on a par with clitic pronouns, French possessives license floating quantifiers. For Cardinaletti, this is a crucial test as it distinguishes between clitic and weak elements, as shown by the Italian contrast in (9).¹ As Cardinaletti demonstrates, *loro* is a weak pronoun, and it crucially differs from clitic elements in not licensing floating quantifiers. Thus (7) and (8) suggest that similarly to clitics in the verbal domain, possessive clitics license floating quantifiers in the nominal domain:

- (7) Elle a tué notre chef à tous.
 she has killed our boss to all
- (8) Il nous en offrira à tous.
 he to-us of-it will-offer to all
- (9) (a) Gliel'ho detto a tutti.
 [I] to-him it have said to all

¹ Cardinaletti (1998) main concern is to show that the deficient/strong opposition that has been identified for the pronominal system also characterizes the possessive system. Specifically, next to strong and weak modifiers, there are also clitic possessors. The three show distinct semantic, syntactic, and morphological properties.

- (b) *L'ho detto loro a tutti.
 I] it have said to-them to all

Finally, as can be seen in the following set of examples, possessive elements in the nominal domain, similar to clitics in the verbal domain, do not show any gender distinctions in the plural, unlike strong forms of personal pronouns:

- (10) mon, ma, mes ‘my-MASC’, ‘my-FEM’, ‘my-PL’
 (11) le, la, les ‘him’, ‘her’, ‘them’
 (12) lui, elle, eux, elles ‘he’, ‘her’, ‘them-MASC’, ‘them-FEM’

Thus we can safely conclude that French has DP internal doubling of possessive pronouns. In this, the nominal domain behaves parallel to the verbal domain. On the basis of the French paradigm, one could then hypothesize that a language should exhibit the same doubling patterns across domains. In other words, if clitic-doubling with full DPs is allowed in the verbal domain, then in principle it should be allowed in the nominal domain as well. If it is disallowed in the one domain, it should also be out in the other. To phrase it somehow differently, if nominal and verbal clauses are strictly parallel, then whatever doubling pattern is found in the verbal domain should also be detectable in the nominal domain. As we will see in the next section, Greek shows an unexpected behavior in this respect.

3. Possessor doubling in Greek

As the data in (13) show, doubling with possessive pronouns is obligatory, while it is completely out with full DPs (14), data from Giusti & Stavrou (2008):

- (13) (a) *To vivlio emena den pulithike katholu.
 the book me.GEN.STR not sold at all
 (b) To vivlio *mu emena* den pulithike katholu.
 the book CL.1SG me.GEN.STR not sold at all
 ‘My book was not sold at all.’
- (14) (a) Petaxa to vivlio-(*tu) tu fititi
 threw-1SG the book-(*his) the student.GEN
 (b) *Petaxa tu fititi to vivlio-(tu)
 threw-1SG the student.GEN the book-(*his)
 ‘I threw (away) the student’s book.’

As is well-known, in Greek Clitic Doubling (as well as Clitic Left Dislocation) of full DPs is possible in the clausal domain, data from Giusti & Stavrou (2008):

- (15) (a) (Xtes) to aghorasa to vivlio.
 (yesterday) CL.3SG.ACC bought.1SG the book
 (b) To vivlio to aghorasa (xtes)
 the book CL.3SG.ACC bought.1SG (yesterday)
 ‘Yesterday I bought the book.’

Similar to (13), clitic doubling with pronouns is also possible, in fact obligatory, in the clausal domain:

- (16) I mathites mu ?*(me) kalalavenun emena
 The students my me understand me
 ‘My students understand me.’ (Anagnostopoulou 1994: 34)

Thus we can observe a difference between French and Greek: while French seems to exhibit the same type of doubling within the DP as in the clausal domain, Greek shows an asymmetry. It only allows doubling of strong possessive pronouns but not of DPs. However, in this type of doubling, nominal and verbal clauses are strictly parallel: this type of DP internal doubling is obligatory, and, as we will see, it has properties similar to doubling in the clausal domain, see Giusti & Stavrou (2008), and see also Anagnostopoulou (1994: 34).

The question that arises is what is special about pronouns in general that leads to obligatory doubling in Greek across domains. Tsakali (2003) argues that there is a morphological constraint involved, as stated in (17):

- (17) *Morphological Constraint on Clitic Doubling*
 Clitic Doubling is obligatory when a full pronoun of the 1st and 2nd person is the direct object of a verb that assigns genitive case.

Tsakali attributes this restriction to the morphology of personal pronouns:

Greek Strong (Tonic) Pronouns

	Sg			Pl		
	NOM	GEN	ACC	NOM	GEN	ACC
1	ego	emena	emena	emis	emas	emas
2	esi	esena	esena	esis	emas	esas
3	M aftos	aftu	afton	afti	afton	aftus
	F afti	aftis	aftin	aftes	afton	aftes
	N afto	aftu	afto	afta	afton	afta

Greek Clitic Pronouns

	NOM			GEN			ACC		
	NOM	GEN	ACC	NOM	GEN	ACC	NOM	GEN	ACC
1	-	mu	me	-	mas	mas	-	mas	mas
2	-	su	se	-	sas	sas	-	sas	sas
3	M tos	tu	ton	ti	tus	tus	ti	tus	tus
	F ti	tis	tin	tes	tus	tis/tes	tes	tus	tis/tes
	N to	tu	to	ta	tus	ta	ta	tus	ta

Consider table 1 and table 2 in some detail. As Tsakali notes, there is a genitive-accusative syncretism, i.e. the forms *emena*, *esena*, *emas*, *esas* appear both in the genitive and the accusative form. Note that earlier Greek had distinct forms for the genitive and the accusative, but the genitive form got lost. Thus the accusative form is also used in genitive contexts as well (Mertyris 2014). Genitive case is missing from the paradigm of these pronouns, but as can be seen it is present in the paradigm of clitic pronouns. Giusti & Stavrou (2008) note that the occurrence of the strong pronoun without the clitic is more general and not restricted to the object position of verbs assigning genitive. It is also observed in the complement domain of prepositions and in comparatives:

Prepositions:

- (18) (a) *Oli ine enantion emena. (enantion ‘against’ → Gen.)
 all are against me.ACC

- (b) Oli ine enantion su (esena).
all are against CL.2SG.GEN (you- full pronoun)

Comparatives:

- (19) (a) *Ine megaliteros emena (comparative adjective → Gen.)
is older me.ACC
(b) Ine megaliteros-mu (emena)
is older CL.1SG.GEN (me-full pronoun)
He is older than me.

Note also that strong pronouns cannot appear in isolation, pointing to a difference between this form and Cardinaletti's (1998) strong possessors:

- (20) A. -Tinos ine to vivlio? B. - *emena / diko mu / tu Jani
Whose is the book? me.STR / mine / John.GEN

However, the data in (21), discussed in Giusti & Stavrou (2008) suggest that the clitic is obligatory irrespectively of the genitive/accusative distinction. The pronoun cannot occur on its own, even if it appears in an accusative case position, as in e.g. (21a). Giusti & Stavrou thus conclude that the pronominal forms are morphologically vague and this is why a clitic is obligatory.

- (21) (a) ??O Janis idhe esena.
John saw.3SG you.STR
(b) O Janis *se* idhe *esena*
John CL.2SG saw.3SG you.STR
(c) *O Janis telefonise emena
John phoned.3SG me.STR
(d) O Janis *mu* telefonise *emena*
John CL.1SG phoned.3SG me.STR

In view of the syncretism between genitive and accusative, I believe that these authors draw the correct generalization. A way to formalize their intuition is to make use of the notion of underspecification of the pronominal forms. I thus propose that the Vocabulary Items *emena/esena* are underspecified with respect to the feature bundles to which they apply, here genitive vs. accusative case. Following Alexiadou & Müller's (2008) decomposition of cases in Greek, these are normally distinguished from one another by the feature \pm oblique. In the pronominal system, however, this is left underspecified:

- (22) [+1 -gov, -pl] ↔ ego
[+1, +gov, -pl] ↔ emena

The pronominal system thus has only a \pm nominative distinction, a pattern established since the 10th century, and found in some dialects of Greek with full DPs as well (Mertyris 2014). From this perspective then, the clitic introduces the distinctive feature \pm oblique, and marks the pronoun as accusative or genitive respectively. Thus its presence is obligatory as without the clitic the pronoun is not transparently case marked. Since in the DP, the possessor must bear genitive case, the pronominal possessor must be clitic doubled. This is not the case with the full DP possessor which surfaces with genitive, or depending on the dialect, in a PP.

The obligatoriness of clitic doubling in the Greek DP can thus be offered an explanation that also captures the obligatoriness of clitic doubling in the verbal domain. Naturally, this does not immediately explain why in the verbal domain Greek allows full DP doubling, while French does not. The reader is referred to Anagnostopoulou (2005) for an overview and an explanation.

4. Possessor doubling in MC and German

Let me now turn to MC and German patterns. Recall the relevant contrast between MC and French, and the apparent similarity between MC and German:

- (23) *MC* *French*
 (a) Za so liv (b) *Jean son livre
 John his book John his book
 'John's book' (Syea 2007)

- (24) dem Vater seine Katze
 the father.DAT his cat

In fact, the similarities between MC and German are really striking and not simply apparent. In both languages, it can be convincingly shown that these patterns do not involve clitic left dislocation. They are real cases of possessor doubling.

Evidence for this comes from the observation and that indefinite and generic DPs are also possible. This is illustrated for MC in (25), from Syea (2007):

- (25) (a) en garso so liv lor latab
 a boy his book on table
 'A boy's book is on the table.'
 (b) person so kamarad pa ti vini
 no one his friend not T come
 'Nobody's friend came.'
 (c) lelefa so lake long
 elephant its tail long
 'An elephant's tail is long.'

Moreover, the possessor and the DP must agree in number.

- (26) (a) tifi la so mama ti al bazar
 girl D her mother T go market
 'The girl's mother went to the market.'
 (b) ban tifi la *so/zot mama ti al bazar
 PL girl D her/their mother T go market
 'The girls' mother went to the market.'

This is exactly what we find in possessor doubling in German. As Georgi & Salzmann (2011) argue, in German the doubled possessor can be a negative quantifier (27) and the possessor must agree with the DP in number (28). Moreover, the doubling pattern can appear in predicative position (29), which would be unexpected if we were dealing with a dislocation pattern:

- (27) Das ist niemandem sein Koffer
 that is nobody his suitcase
- (28) den Männern ihr Haus
 the men.DAT their house
- (29) Das ist sicher einem Mann sein Auto
 That is certainly a.DAT man his car

As in both German and MC doubling is possible with negative quantifiers, this doubling construction cannot be analyzed as a case of CLLD, which is impossible with negative quantifiers, as shown by the French example in (30):

- (30) *Personne je ne l'ai vu. *French*
 No one I neg him have seen.

In German, as in French, and MC, the pronoun is a D° head, not an adjective. Corver (1990) actually made this point for the Germanic languages, and Georgi & Salzmann (2011) offer a more recent analysis of this pattern. Specifically, these authors make this claim on the basis of the following observations: the pronoun inflects like a determiner and not like an adjective, the possessive pronoun determines the inflection of a following adjective, and the possessive pronoun is in complementary distribution with other determiners.

The properties of this pattern are found in other Germanic languages (31) and older stages of French as well, though note the post-nominal position of the possessor in earlier French (33) as well as earlier English (32).

- (31) Peter z'n kat *Dutch*
 Peter his cat
- (32) the Man of Lawe his Tale *Middle English*
- (33) li serf sum pedre *Old French*
 the serf his father

(Alexiadou, Haegeman & Stavrou 2007)

For German and other Germanic languages, Corver (1990) argued that the possessor is in Spec,DP. Arguably this is the case in MC as well. As Alexiadou, Haegeman & Stavrou (2007) note, this would lead us to expect that in these languages doubling possessors cannot extract. In fact, this is borne out. In the next section, I will attribute this to the status of Spec,DP in the doubling possessor languages, though see Gavruseva (2000) for an alternative analysis.

To conclude, there are two types of possessor doubling across languages, doubling of full DP possessors, and doubling of pronominal possessors. Moreover, languages differ as to whether or not the doubled possessor can appear in Spec,DP or follow the possessed noun. In MC and German the possessor appears in Spec,DP. Two questions arise: what is the syntactic analysis of these two patterns, and what explains their cross-linguistic distribution? I turn to that in the next section.

5. On the syntax of possessor doubling

Let me begin with the syntax of pronominal possessive doubling. A possible representation of this type could be in terms of a big DP, see Uriagereka (1995). From this perspective, the clitic realizes a D° head inside a big DP. Possessor DPs are generated in Spec,nP. An important difference between French and Greek would be that in French the clitic will surface in D°, in Greek it will be enclitic to the head noun.

(34) [DP son [FP ~~son~~ livre [NP [DP à lui ~~son~~]]]] *French*

(35) [DP to [FP vivlio_mu [NP [DP emena ~~mu~~]]]] *Greek*

The question then is why is there an asymmetry between DPs and verbal clauses? In other words, why is there no full DP doubling in the Greek DP? Note that examples such as the ones in (36) are clearly not instances of possessor doubling:

(36) *Tu Jani* to vivlio *(tu) den pulithike katholu.
 the John.GEN the book CL.3SG not sold at all

Giusti & Stavrou (2008) analyze this pattern as an instance of clitic-left dislocation (CLLD). The clitic possessor that resumes a Topic in Greek can only be merged in the sentence, not in the DP; Spec, DP is a focus position in Greek, as argued in detail by Horrocks & Stavrou (1987):

(37) *tu Jani to vivlio tu
 the John the book his

(38) is a further apparent instance of possessor doubling:

(38) to vivlio tu, tu Jani
 the book his the John

In principle, (38) is possible, but requires comma intonation and feels like an after-thought. Such phenomena are best treated as cases of right dislocation. Still, the above excludes CLLD, and not clitic-doubling per se.

In section 3, I mentioned that doubling of pronouns is obligatory, as without the clitic the pronouns are not transparently marked for case. Again this does not immediately explain why doubling of full possessors is out. Anagnostopoulou (1994) has argued in detail that doubling of full DPs in Greek is subject to familiarity, that is only familiar DPs can be doubled. But even if we manage to construct cases where the possessor is interpreted as familiar, doubling is still out. Thus there must be a different explanation for this blocking.

If we examine possessor doubling cases across languages, they seem to require two things, which Greek lacks: (i) Spec,DP as A-position (ii) and/or a possessor clitic that realizes D°. Alexiadou, Haegeman & Stavrou (2007) observed that there is a correlation between the availability of possessor doubling and the status of Spec,DP. Languages such as Greek lack possessor doubling, and in these languages Spec,DP is an A'-position. In other words, in languages with possessor doubling of the German type, Spec,DP is an A-position. In addition, the clitic involved in clitic-doubling surfaces in D°. In German and MC the possessor moves from Spec,NP to Spec, DP, and the clitic realizes D°, a kind of generalized EPP phenomenon.

(40) [DP za [D so [NP liv]]]

The evidence in favor of an A'-position for the Greek Spec, DP has been discussed in Horrocks & Stavrou (1987). These authors point out the following. There is a parallelism between interrogative clauses and interrogative DPs in Greek, which supports the view that DP is to NP what CP is to VP. (41a) is an echo question: the *wh*-constituent *ti* ('what') does not move to the sentence-initial position. In (41b) the *wh*-constituent is fronted (all examples from Horrocks & Stavrou 1987).

- (41) (a) Ekane ti?
 did-3SG what
 ‘He did what?’
 (b) Ti ekane?
 What did-3SG
 ‘What did he do?’

The same pattern is again found DP-internally (42):

- (42) (a) to vivlio tinos
 the book who-GEN
 ‘whose book’
 (b) tinos to vivlio?
 who-GEN the book
 ‘whose book’

Importantly (43), from Horrocks & Stavrou (1987:89, their (14)), shows that *wh*-movement at the clausal level and DP-internal *wh*-movement are connected, and crucially DP-internal movement feeds *wh*-movement at the clausal level. Starting from the base word order in (43a), in (43b) the interrogative genitive *tinós* ('whose') is first fronted DP-internally. In (43c) and in (43d) the whole object DP has been *wh*-moved to the matrix CP, as we can see both orders, possessor-possessum and possessum-possessor are possible. Presumably this movement takes place through the lower CP. The interesting case is (43e), where, as we see, the interrogative pronoun *tinós* has fronted DP-internally and precedes the definite article *to* and the head noun *vivlio*. In this example, the *wh*-element is fronted on its own to the matrix Spec,CP.

- (43) (a) Mu ipes [_{CP} pos dhjavases [_{DP} to vivlio tinós]]?
 me-GEN said-2SG that read-2SG the book who-GEN
 ‘You told me you read whose book?’
 (b) Mu ipes [_{CP} pos dhjavases [tinós to vivlio t]]?
 (c) [_{CP} [To vivlio tinós] mu ipes [_{CP} t pos dhjavases t]]?
 (d) [_{CP} [Tinós to vivlio t] mu ipes [_{CP} t pos dhjavases [t]] ?
 (e) [_{CP} [Tinós] mu ipes [_{CP} t pos dhjavases [t to vivlio t]] ?

In Greek, the pre-determiner possessor receives the focal stress typically associated with an operator position. Moreover, moved *wh*-constituents also move to the same position. In the Germanic (and MC) possessor-doubling construction, on the other hand, the prenominal possessor has been argued in the literature cited in the previous section to occupy an argument position, as it receives no particular focal or contrastive stress, see also Alexiadou, Haegeman & Stavrou 2007).

The second ingredient is whether or not the clitic realizes D° . As we saw, this is impossible in Greek, the possessive clitic is enclitic to the head noun (and in certain cases to an adjective modifying the head noun, see Alexiadou & Stavrou 2000 for discussion). It never realizes D° .

The question that arises is why we do not have patterns similar to MC and German in French. Though there are dialects of French where this is possible, see (44), it is certainly not the standard pattern, and it could be a case of CLLD. To this end, it is important to note that it has been argued in the literature by e.g., Tellier (1991) that Spec,DP is an A'-position in French. If this is indeed the case, then French lacks the first ingredient which would allow the language to show full possessor doubling of the German/MC type:

(44) A Pierre sa balle
to Peter his ball

Alsace French

(Alexiadou, Haegeman & Stavrou 2007)

6. Conclusion

The availability of DP internal clitic doubling is related to the properties of Spec, DP and the properties of possessive clitics across languages. Two ingredients seem to be relevant: (i) a clitic possessor should be able to realize D° and (ii) a full possessor DP should be able to occupy Spec,DP which has A-properties. When both conditions are met as in e.g. German or MC the two co-occur in the DP layer. This in turn means that DP is parallel to TP in some languages, while it is parallel to CP in others. As clitics in the verbal domain in the languages under discussion cliticize on T° , DP internal clitics should cliticize on D° . This is possible in languages such as French, MC or German where the possessor clitic realizes D° , but not in Greek where the possessor clitic is an en-clitic to an XP, and DP is the parallel to CP.

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Clitic Doubling and Object Agreement¹

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1. Introduction

The relationship between clitic doubling and object agreement has always been a matter of debate. In early work there was a trend to analyze clitic doubling as object agreement (Suñer 1988 and in a sense also Borer 1984 and Sportiche 1993/1996 and literature building on them). In current literature, we see the opposite trend: many object agreement phenomena have been argued to represent instances of clitic doubling (Preminger 2009, Nevins 2011, Kramer 2014, Baker & Kramer 2015; see Anagnostopoulou 2006, 2014 for an overview). In this paper, I compare clitic doubling in Romance/Balkan to object agreement, focusing on optional object agreement in Bantu, mainly in Smbaa drawing on Riedel's (2009) description, but in a number of other languages as well. On the basis of comparative evidence, I first argue that optional object agreement has a crucial movement component in it, like clitic doubling. Then I identify one criterion which may serve as a diagnostic for deciding whether object markers qualify as doubling clitics or as reflexes of valuation of uninterpretable phi-features on *v*, namely prefix ordering, and I argue that Bantu object markers qualify as clitics with respect to this. Finally, I address some apparent and true differences between Bantu object markers and special clitics as far as the availability of clusters is concerned as well as their placement with respect to the verb.

2. Clitic doubling and object agreement

In the typological literature, we find the following characterization of agreement:

- (1) The term *agreement* commonly refers to some systematic covariance between asemantic or formal property of one element and a formal property of another.
(Steele 1978: 610; cited in Corbett 2006: 4).

Corbett (2006, ch. 1) formulates what he calls the "Principles of canonical agreement". Relevant for present purposes is his principle III:

- (2) Corbett's Principle III
The closer the expression is to canonical (i.e. affixal), the more canonical it is as agreement.
inflectional marking (affix) > clitic > free word
obligatory > optional where > = more canonical than

Turning to the generative literature, consider (3) and (4) featuring what has been called 'object agreement' and 'clitic doubling', respectively:

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- (3) a. Ø-quim-itta in cihuātl in calli *Nahuatl*
 3sS-3sO-see DET woman DET house
 ‘The woman saw the house’ (Baker 2008:201)
- b. Mc’vrtnel-ma lom-s s-cem-a *Georgian*
 trainer.ERG lion.DAT 3sO-hit-3sS
 ‘The trainer hit the lion’ (Baker 2008: 204)
- (4) a. I gineka to-idhe to spiti na gremizete *Greek*
 the woman.NOM CL.ACC-saw-3SG the house.ACC SUBJ collapse-3SG
 ‘The woman saw the house collapse’
- b. Lo-vimos a Juan *Rioplatense Spanish*
 CL.ACC-saw-1PL a Juan
 ‘We saw Juan’ (Jaeggli 1986)

Both patterns involve the relationship in (5):

- (5) a. host + [*agreement morpheme*]_{φ1}.....(other material).....[*full noun phrase*]_{φ1}

As discussed in Preminger (2009: 619), there are two ways in which such a relationship can come about in principle:

- (6) a. [*agreement morpheme*]_{φ1} = a reflex of an agreement relationship between [*full noun phrase*]_{φ1} and the host, similar to subject agreement.
 b. [*agreement morpheme*]_{φ1} = a clitic “doubling” the features of [*full noun phrase*]_{φ1} on the host.

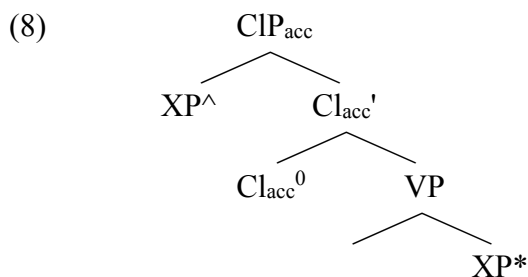
A variant of (6b) might be pronominal argument incorporation, in which case the [*full noun phrase*]_{φ1} would qualify as an adjunct (Jelinek 1984, Baker 1996 and many others).

In terms of Chomsky’s (2000, 2001) theory of Agree, (6a) is the result of valuation of the uninterpretable [*uφ*] features of the probe by the interpretable [*iφ*] features of the goal, similarly to subject agreement in e.g. (7):

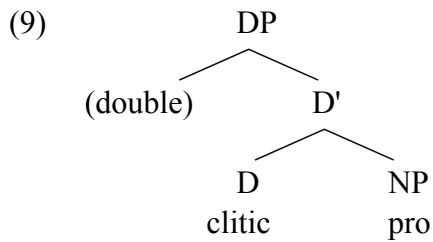
- (7) a. John sing-*s* English
 b. Hans sing-*t* German

On the other hand, depending on one’s favorite theory of clitic doubling, the clitic in (6b) is one of the following:

- a) A clitic Voice head in the T domain, as in (8), as proposed by Sportiche (1993, 1996, and literature building on him, with XP* moving to XP^:

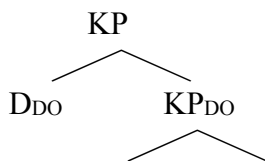


- b) A determiner head, as in (9) (Torrego 1988, Uriagereka 1995 and the literature building on them), with D moving to the host:



A variant of this proposal is that D is adjoined to the DP/KP (similarly to floated quantifiers) and moves to the host stranding the DP/KP (Nevins 2011):

(10) Clitics as adjoined to KP



c) A third proposal is that the clitic spells out D/ ϕ -features of the DP moving to the host (Anagnostopoulou 2003 based on Chomsky 1995; cf. Roberts 2010 for subject clitic doubling).

d) A final analytic option is that the clitic is a copy of a DP moving to the host, which spelled out as a pronoun (the reverse of a resumptive pronoun chain). This is a possibility suggested in Anagnostopoulou (2003) and adopted and further explored by Harizanov (2014) and Kramer (2014).

In view of the above, in the ideal case, we would expect the properties of object agreement and clitic doubling to be distinct in three respects:

1) *Clitic vs. agreement morphology*. In clitic doubling, the agreement morpheme on the host should be identified as a clitic, i.e. a dependent element undergoing special clitic placement rules. On the other hand, in object agreement, the agreement morpheme should be identified as an object agreement marker, i.e. as something similar to the subject agreement markers in (7), spelling out features of *v*.

2) *Optionality vs. obligatoriness*. Clitic doubling is known to be an optional phenomenon (except for pronouns). Object agreement should be obligatory, similarly to subject agreement.

3) *Movement vs. Agree relationship*. If clitic doubling is a movement dependency, as all approaches to doubling claim, then we expect it to provide evidence for movement. On the other hand, if object agreement is a reflex of an Agree relationship between the host and the agreeing DP, then it should show properties similar to other Agree relationships, prototypically T-Nominative Agree.

But, as will be seen below, the clitic doubling vs. object agreement distinction is not that clear-cut.

3. The properties of clitic doubling

Clitic doubling has the following properties:

a) It has been identified and described mainly for Indo-European and Semitic. It takes place in *Romance* (Romanian, Spanish to different extents in different dialects, Catalan to a less extent, perhaps French to an even less extent, Italian dialects) and in the *Balkan languages*

(e.g. Greek, Bulgarian, Albanian). See Borer (1984) that clitic doubling also obtains in Hebrew DPs, Aoun (1999) on Lebanese Arabic, Shlonsky (1997) on Hebrew and Arabic, suggesting that it is also found in *Semitic*.

b) It takes place with what have been called “*special clitics*” (Zwicky 1977), i.e. phonologically weak elements undergoing special clitic placement rules. For example, doubling clitics in Greek precede inflected verbs (in indicatives and subjunctives) while they are enclitic in imperatives and gerunds, just like their non-doubling counterparts:

- (11) a. Tu to edosa (tu Petru) (to vivlio)
 CL.GEN CL.ACC gave-1SG the Peter.GEN the book.ACC
 ‘I gave him it/ I gave Peter the book’
 b. Dos tu to (tu Petru) (to vivlio)
 give CL.GEN CL.ACC the Peter.GEN the book.ACC
 ‘Give him it/ Give Peter the book’

Doubling clitics attach to inflected auxiliaries, like their non-doubling counterparts:

- (12) a. Tu to exo dosi (tu Petru) (to vivlio)
 CL.GEN CL.ACC have given the Peter. GEN the book. ACC
 b. Exe tu to dosi (tu Petru) (to vivlio)
 have CL.GEN CL.ACC given the Peter. GEN the book. ACC

c) It is *optional* subject to complex variation and complex restrictions within and across languages (Anagnostopoulou 2006, 2014). In Romanian and most dialects of Spanish, direct object (DO) clitic doubling is subject to Kayne’s Generalization (Jaeggli 1982):

(13) *Kayne’s Generalization*

An object NP may be doubled only if it is preceded by a special preposition.

The prepositions ‘a’ in Spanish and ‘pe’ in Romanian are employed to mark animacy and specificity on direct objects (DOs), i.e. these languages have what has been called Differential Object Marking (DOM; Aissen 2003, Baker 2015). Doubling is possible only with *a*-marked and *pe*-marked DOs. Informally speaking, *a* and *pe* are ways to (differentially) mark by special morphology objects that are less likely to be in the object of transitive clause function according to the nominal hierarchy in (14):

(14)

				Common Nouns		
1 st person pronouns	2 nd person pronouns	3 rd person pronouns, demonstratives	proper names	human	animate	inanimate
←----- more likely to be in Subject than Object function						

We can assume, following Diesing & Jelinek (1995), that doubling is a mechanism of “re-distributing arguments” within the clause, mapping them VP-externally via Movement, according to the animacy hierarchy in (14) and the referentiality hierarchy in (15):

(15)

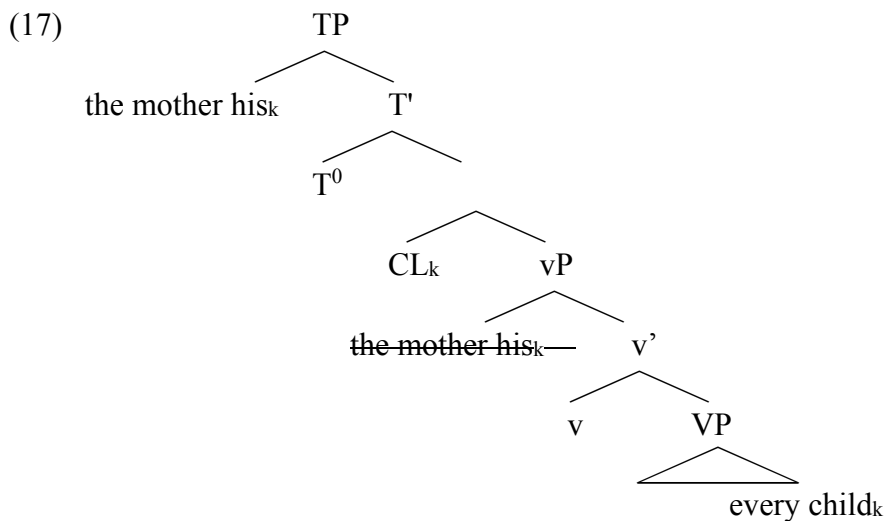
personal pronouns, demonstratives	proper names	definites	novel, weak definites	partitives	referential indefinites	weak indefinites
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On this view, VP-external movement is possible only with arguments preceded by special prepositions in languages with DOM.

d) There is independent evidence that clitic doubling is a *movement dependency*. In Greek, it affects binding relationships (Anagnostopoulou 1994, Alexiadou & Anagnostopoulou 1997). Consider the examples in (16). (16a) is a typical instance of a Weak Crossover (WCO) effect where a universally quantified object cannot bind a pronominal variable within the subject. This effect is obviated in (16b) where the QP object undergoes clitic doubling.

- (16) a. ?*I mitera tu_k sinodepse to kathe pedhi_k WCO
 the mother his accompanied the every child
 ‘?*His mother_k accompanied every child_k’
- b. I mitera tu_k to sinodepse to kathe pedhi_k no WCO
 the mother his CL.ACC accompanied the every child

A way to analyze (16b) is in terms of (17), where the doubled object c-commands the subject if the object is interpreted in the clitic position and the subject in its reconstructed vP-internal position:²

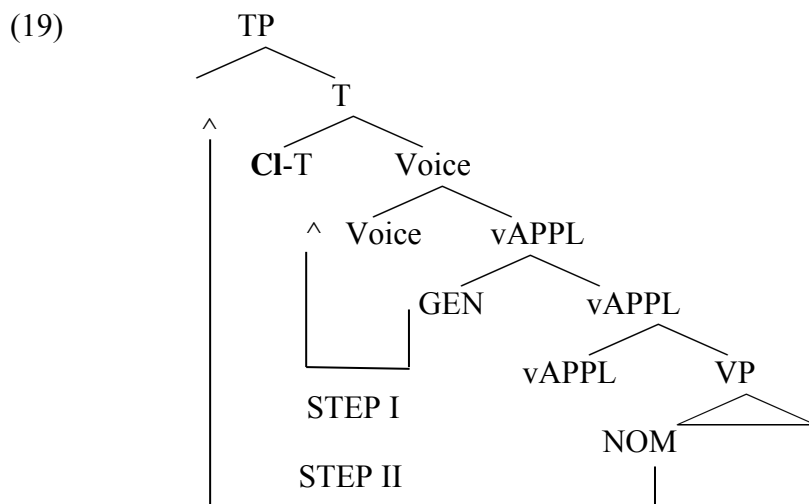


The second piece of evidence that clitic doubling is movement comes from the observation that it obviates intervention effects. In Greek, clitic doubling of a morphologically genitive goal or experiencer is obligatory in passives, unaccusatives and raising constructions (Anagnostopoulou 2003):

- (18) To vivlio ?* (tis) xaristike tis Marias apo ton Petro
 the book.NOM CL.GEN award-NACT the Maria.GEN from the Petros
 ‘The book was awarded Mary by Peter’

² Note that this analysis is most straightforward if clitic doubling is seen as DP-movement leaving a high pronominal copy.

Anagnostopoulou (2003) argues that genitive goals and experiencers are introduced by an applicative *v* blocking NP movement of the lower direct object to T, i.e. causing a defective intervention effect. It is furthermore argued that in clitic constructions, the intervening (features of the) genitive move to T before the nominative, leading to an obviation of the defective intervention effect:



4. Clitic doubling: patterns of variation and the nature of the Parameter

Kayne's Generalization is not a necessary condition for clitic doubling across languages. It holds in a subset of clitic doubling languages, those that employ DOM. In this section, I summarize the basic patterns across languages, as discussed in Anagnostopoulou (2006, 2014). It should be kept in mind, though, that things are much more complex; see e.g. the rich literature on the different dialects of Spanish in Suñer (1988), Uriagereka (1995), Schmitt (1996), Blears (1999), Torrego (1998) and Ormazabal & Romero (2007), among others. I will start from Direct Object doubling and then I will discuss Indirect Object doubling.

4.1 Direct object (DO) doubling

We find three main patterns of DO doubling depending on animacy and referentiality restrictions.

The Romanian pattern. Among the languages that have DO clitic doubling of DPs, Romanian is the most restrictive one as far as animacy is concerned and the least restrictive one as far as referentiality is concerned. In Romanian, DO clitic doubling is possible only with humans. Non-human animates do not permit *pe*, as shown in (20), and doubling of animate non-humans is impossible.

(20) [+specific,+definite,-human,-pronominal]

- a. Am văzut câinele lui Popescu
have-I seen dog-the of Popescu
'I have seen the dog of Popescu'
- b. *am văzut pe câinele lui Popescu
- c. *I-am văzut pe câinele lui Popescu

As shown in (21), DO doubling is possible with specific indefinites, and everything more referential than that.

- (21) a. *O* *caut* *pe o secreteră*
 CL.ACC look-1SG for *pe* a secretary
 ‘I look for a certain secretary’
 b. *L-* *am păcălit* *pe mulți copii* *dar* *pe tine* *n-am* *reușit*
 CL.ACC have fooled *pe* many children but *pe* you not-have I succeeded
 ‘I have fooled many children but I have not succeeded to fool you.’

The Spanish pattern. As far as animacy is concerned, Latin American Spanish is less restrictive than Romanian. DO doubling is possible with animates (allowing for *a*-marking), as shown in (22), and, according to Suñer (1988), is also sometimes possible with inanimates not preceded by *a*:

- (22) [+anim,+spec,+def] (Rioplatense Spanish)
La oían *a Paca/ A la niña/ a la gata*
 her listened.3PL to Paca to the girl/ to the cat
 ‘They listened to Paca/the girl/the cat.’

With respect to referentiality, though, Spanish is more restrictive than Romanian in that DO doubling is mainly restricted to partitives (Suñer 1988):

- (23) a. **Los* *entrevistaron* *a muchos/ varios candidatas* por media hora
 CL.ACC interviewed-3PL *a* many / several candidates for half hour
 ‘They interviewed many/several candidates for half an hour.’
 b. *El medico los* *examinó* *a muchos/ varios de los* *pacientes*
 the doctor CL.ACC examined *a* many/ several of the patients
 ‘The doctor examined several of the patients.’

The Greek pattern. Finally, Greek and other Balkan languages lack DOM and show the least restrictive pattern, as far as animacy is concerned. DO-doubling is possible with humans, animates and inanimates, as shown in (24):

- (24) a. *Tis Elenis* *i Maria* *ton* *gnorise* *ton filo*
 the Eleni.GEN the Mary.NOM CL.ACC met the friend.ACC
 ‘Mary met the friend of Eleni.’
 b. *Tu Jani* *ta* *xrisimopiisa* *ta organa*
 the Jani.GEN CL.ACC I-used the instruments.ACC
 ‘I used Janis’s instruments.’

On the other hand, it represents the most restrictive pattern as far as referentiality is concerned. DO doubling is for many speakers limited to definites and is disallowed with specific indefinites or partitives:³

- (25) **Tin* *psaxno* *mia gramatea*
 CL.ACC look-I *a* secretary
 ‘I look for a (certain) secretary.’

³ There are also some well-formed examples with apparent doubling of non-specific indefinites in modal contexts; see Anagnostopoulou (1994) for discussion and references.

- (26) *?O jiatros *tus* eksetase *dio apo tusasthenis* simera to proi
 the doctor CL.ACC examined two of the patients today the morning
 ‘The doctor examined two of the patients this morning.’

As discussed in Anagnostopoulou (1994, 1999), Greek DO doubling is obligatory with definite DPs functioning quasi-pronominally (‘epithets’; Lasnik & Stowell 1991):

- (27) Prospathisa na episkefto *ton Jani* tin perasmeni edvomada ala den
 tried-I to visit the Jani the last week but not
 boresa na ?*(*ton*) piso ton vlaka na me dhi
 could-I to CL.ACC persuade the stupid-one to me see
 ‘I tried to visit John last week, but I wasn’t able to persuade the jerk to see me.’

Moreover, DO doubling is impossible with novel, non-opaque, weak definites:

- (28) *?Kathe pedhi *tin psahni tin kaliteri fotografia tu eafu tu* gia na
 every child CL.ACC is looking for *the best picture the self his* to
 tin kremasi s-ton tiho
 CL.ACC hang on the wall
 ‘Every child is looking for the best picture of himself to put it on the wall.’

On the basis of this variation we can conclude that different languages behave differently in how freely they re-distribute arguments within the clause, in the spirit of Diesing and Jelinek (1995).

4.2 Further dimensions of variation (IO vs. DO and pronoun vs. DP)

We furthermore need to distinguish (see Fischer & Rinke 2013: 266 that these patterns are universal developed diachronically): a) between indirect object (IO) doubling and direct object (DO) doubling and b) between doubling of DO pronouns and doubling of DO DPs. Crosslinguistically, IO doubling is more widespread than DO doubling and doubling of DO pronouns is more widespread than doubling of DO DPs. For example, Catalan and Peninsular Spanish permit IO but not DO doubling of DPs and French, Catalan and Peninsular Spanish have clitic doubling of pronouns but not of DPs. As pointed out by Anagnostopoulou (2003: 163-4, 2014), the crosslinguistic variation in clitic doubling is strongly reminiscent of the crosslinguistic variation in object shift (OS) and scrambling:

French / Danish. *French has clitic doubling only of pronouns and not of DPs (Kayne 2000: 164-5), as shown in (29) and (30):*

- (29) a. Jean me connaît moi
 Jean CL.1SG knows me.ACC
 ‘Jean knows me.’
 b. Jean la connaît elle
 Jean CL.ACC knows her.ACC
 ‘Jean knows her.’
 c. Jean me parle à moi
 Jean CL.1SG speaks to me
 ‘Jean speaks to me.’

- d. Jean lui parle à elle
 Jean CL.DAT speaks to her
 ‘Jean speaks to her.’
- (30) a. *Jean lui parle à Marie
 b. *Jean la connaît Marie

In a similar manner, Danish has OS of pronouns but not of DPs (Holmberg & Platzack 1995):

- (31) a. Peter viste hende jo den
 Peter showed her indeed it
 ‘Peter indeed showed it to her.’
 b. *Jeg gav Peter ikke bogen
 I gave Peter not the book
 ‘I didn’t give Peter the book.’

Peninsular Spanish, Catalan / Swedish, Norwegian. Peninsular Spanish and Catalan have clitic doubling of pronouns and indirect object (IO) DPs but not of direct object (DO) DPs:

- (32) a. Lo vimos a él
 CL.ACC saw-we a him
 ‘We saw him.’
 b. Andrea le envió un diccionario a Gabi
 Andrea CL.DAT sent a dictionary to Gabi
 ‘Andrea sent Gabi a dictionary.’
 c. *Lo vimos a Guille
 CL.ACC saw-we a Guille
 ‘We saw Guille.’

These Romance languages resemble Mainland Scandinavian Swedish and Norwegian which have OS of pronouns and IO DPs but not of DO DPs (Holmberg & Platzack 1995):

- (33) a. Jag kysste henne inte
 I kissed her not
 b. Jag gav Elsa inte den
 I gave Elsa not it
 c. *Jag kysste Elsa inte
 I kissed her not

Rioplátense Spanish, Romanian, Greek, Bulgarian /Icelandic, German, Dutch. Finally, we saw that Rioplátense Spanish, Romanian, Greek and Bulgarian show the most permissive pattern and have clitic doubling of pronouns, IO DPs and DO DPs:

- (34) a. Lo vimos a él
 CL.ACC saw-we a him
 ‘We saw him.’
 b. Andrea le envió un diccionario a Gabi
 Andrea CL.DAT sent a dictionary to Gabi
 ‘Andrea sent Gabi a dictionary.’
 c. Lo vimos a Guille
 CL-ACC saw-we a Guille
 ‘We saw Guille.’

They resemble Icelandic which has OS of pronouns, IO DPs, DO DPs, as shown in (35):

- (35) a. að ég sá hana ekki
 that I saw her not
 ‘that I didn’t see her’ (Holmberg & Platzack 1995:166)
- b. Ég lána Maríu ekki bækurnar
 I lend Mary.DAT not the books.ACC
 ‘I do not lend Mary the books.’ (Collins and Thráinsson 1996)
- c. að þeir lásu bókina ekki allir
 that they read the-book not all
 ‘that they didn’t all read the book’ (Holmberg & Platzack 1995: 161)

Like Icelandic, German and Dutch have scrambling of all three categories, namely pronouns, IO DPs and DO DPs, as is well known.

A common analysis of Clitic Doubling, OS and scrambling in terms of movement straightforwardly captures the patterns described above in terms of the hypothesis that different languages differ in how freely objects move VP-externally according to the hierarchy in (36):

- (36) Pronouns > IOs > DOs (definites>partitives>specific indefinites)

Animacy is relevant only in languages where Kayne’s Generalization holds, i.e. in languages with DOM. I assume that in such languages only DPs preceded by special case markers undergo movement to a VP-external site, following Baker (2015).

5. What is object agreement?

5.1 Object agreement, subject agreement and the Moravcisk hierarchy

Object agreement is said to be a very common phenomenon. Baker (2008) studies agreement in the 100 language sample in the *World Atlas of Language Structures* (WALS Haspelmath et al. 2005) and finds that object agreement (agreement with v) is the second most common⁴ agreement after subject agreement (agreement with T): it is found in roughly 50% in the languages of his sample (Baker 2008: 196). The same is reported in Gilligan’s (1987) survey in (37), which is based in hundred languages and, in addition, confirms the Moravcisk Hierarchy (1974) in (38) (from Bobaljik 2008):

- (37) No Agreement: 23
 S only 20
 S-DO 31
 S-IO-DO 25
 IO only 0
 DO only 0
 IO, DO only 0
 S-IO, not DO (1)

⁴ As compared to preposition agreement, complementizer agreement etc.

- (38) The Moravcisk Hierarchy⁵
 Subject > Object > Indirect Object > Adverb

Compare the above findings to the hierarchy discussed in Corbett (2006: 58-59):⁶

- (39) a. *The Agreement Law* (Johnson 1977: 157)
 Only terms can trigger verbal agreement
 (where *term* covers the first three items in the hierarchy in (b))
 b. subject > direct object > indirect object > other object

Note that in surveys like the ones mentioned here, Indoeuropean languages with object clitic doubling are treated as languages that only have subject agreement (Jonathan Bobaljik personal communication), even though there is an implicational relationship between clitic doubling and subject agreement. If a language has clitics and clitic doubling, then it also has subject agreement, similarly to the implicational relationship in (37) - (39) between object and subject agreement.

5.2 ‘Object agreement’ is not a uniform phenomenon

Recall the Principle of canonical agreement (2) repeated here from section 2 (Corbett 2006, ch. 1):

- (2) Corbett’s Principle III
The closer the expression is to canonical (i.e. affixal), the more canonical it is as agreement.
inflectional marking (affix) > clitic > free word
obligatory > optional where > = more canonical than

We called ‘clitic doubling’ the ‘non-canonical agreement’ phenomenon in which the agreeing element on the host is a clitic and is optional. The phenomena that have been subsumed in the surveys mentioned above under the term ‘object agreement’ usually involve an affix (prefix or suffix) as the agreeing element. This affix is seen as an agreeing morpheme. But there are many differences in the behavior of object agreement across languages. More specifically, there is obligatory vs. optional object agreement and, if optional, agreement is subject to structural conditions (word order) and interpretational restrictions (definiteness, specificity, animacy) which are strikingly similarly to clitic doubling phenomena. In addition, it has been argued (Baker 2008 and see below) that optional object agreement has a crucial movement component in it, just like clitic doubling. Finally, ditransitives in object agreement languages show variation in that both the IO and the DO are allowed to agree or only the IO does (see e.g. Baker 2008, 2012 and Kramer 2014 for recent discussion on the basis of Amharic). As will be discussed in the next sections, we find a similar kind of variation in clitic languages as well.

⁵ Bobaljik (2008) argues that the Moravcisk Hierarchy should be restated in terms of case:

- (i) The Revised Moravcisk Hierarchy
 Unmarked Case > Dependent Case > Lexical/Oblique Case
 Unmarked Case = Nominative, Absolutive
 Dependent Case = Accusative, Ergative

The implicational hierarchy leads us to expect that if a language has verbal agreement with the accusative/ergative it will also have with the nominative/absolutive.

⁶ Note that with clitic doubling discussed above we found IO doubling to be more common than DO doubling, i.e. we identified the hierarchy IO > DO, while with agreement the hierarchy is said to be DO > IO. This looks like suggestive evidence that object doubling and object agreement are distinct phenomena.

5.3 The main patterns of agreement discussed in Baker (2008)

The main agreement patterns identified in Baker (2008) on the basis of the WALS sample of 100 languages he studies are the following:

1) There are languages which show no agreement with subjects or objects: Sango, Yoruba, Supyire, Grebo, Krongo, Koyra Chiini, Harar, Oromo, Khalka, Japanese, Korean, Lezgian, Mandarin, Burmese..... (n=29); see Baker (2008: 221 for a full list).

2) There are languages that have Agreement with subjects but not with objects. According to Baker, Indoeuropean (IE) languages belong to this group (“...*object agreement happens to be rare or nonexistent in the IE languages*.....” Baker 2008: 196). But note that there are IE languages with clitics and clitic doubling, phenomena bearing many similarities with optional object agreement, as discussed here (and see the discussion below (39) above).

3) Finally, Baker (2008: 201) identifies a number of languages that “...*clearly have object agreement*....”, apparently according to the criterion that the element cross-referencing the object is an affix. Three groups of object agreement languages are further discussed.

A) Languages where object agreement with 3rd person objects is always phonologically null: a few languages of the Americas (Mapudugun, Maricopa, Choctaw, Acoma, Halkomelem, Wichí, Quechua, Guaraní, Ika) and some languages of Australia (e.g. Gooniyandi) fall in this group. In these languages, 3rd person object agreement is homophonous with the absence of agreement: therefore, we cannot be sure whether the presence of agreement is sensitive to properties like definiteness, animacy etc.

B) Languages that can have overt 3rd person agreement. According to Baker, these are Nahuatl, Basque, Chukchi, Abkhaz, Georgian, Burushaski, Tauya, Amele, Alamlak, Yimas, Mangarayi, Wari, Ojibwa, Maung, Tiwi, Dani, Warlpiri, Lavukaleve, Mohawk, Wichita, Hixkaryana, Lakota, Kiowa, Makah. In this group, 3rd person object agreement is overt, and we therefore know that object agreement is possible with definites and indefinites, as in the examples in (40) from Nahuatl (Baker 2008: 201, ex. (73)):

- (40) a. Ø-quim-itta cōcōhua in pilli
 3sS-3pO-see snakes DET child
 ‘The child saw (some) snakes.’
 b. Ø-qu-itta in cihuātl in calli
 3sS-3sO-see DET woman DET house
 ‘The woman saw the house.’

C) Finally, there are languages in which object agreement varies with the word order and/or the interpretation of the object, e.g. Canela-Krahô (40; Popjes and Popjes 1986), Slave (Athapaskan, Rice 1989: 1197), Fijian (Massam 2001), Apurinã (Facundes 2000: 547).

- (41) a. Hūmre te po curan
 man PAST deer kill
 ‘The man killed a deer.’
 b. Po wa i-te ih-curan
 deer I 1sS- PAST 3O-kill
 ‘It was a deer that I killed.’

We will be looking here at languages of type C because object agreement has very similar properties with clitic doubling. Bantu languages fall under this type.

5.4 Optional object agreement: the case of Bantu

I will start with an overview of some core properties of Bantu languages, as they are summarized in Riedel (2009). Bantu languages lack case morphology. Nouns express a large

number of gender distinctions and are divided into noun classes. Verbal forms agree with their subjects and objects in noun-class or person (for 1st and 2nd person). Class 1/2 morphemes are prototypically used for humans (or animals showing human behavior). Languages differ in whether they treat animals as 1/2 or not. Object marking for IOs and DOs and Subject marking are identical, except for 2nd person and for class 1/2 (Riedel 2009: 117). In terms of object agreement, Bantu languages qualify as type C, i.e. object agreement is sensitive to word order and the interpretive properties of the object. There are clear *morphosyntactic differences* between subject marking and object marking. Subject marking is obligatory in most Bantu languages. Object marking is more restricted and much less uniform across Bantu. In a lot of the literature it is assumed that Bantu languages split into two types (Riedel 2009: 42): a) *Object agreement languages* (Bresnan & Mchombo 1987 on Swahili; Baker 2008 on Sambia). b) *Pronoun incorporation languages* (Bearth 2003; Duranti & Byarushengo 1977 on Haya, Bresnan & Mchombo 1987, Mchombo 2004 on Chichewa; van der Spuy 1993 on Zulu; Demuth & Johnson 1990 and Zerbian 2006 on Northern Sotho). In the former, DPs co-occurring with agreement markers occupy a VP-internal position; in the latter, they qualify as adjuncts.

There is a lot of morphosyntactic variation in object marking in Bantu.⁷ Marten & Kula (2012, their (4)) summarize the relevant parameters as follows:

- (42) 1. Can the object marker and the lexical object NP co-occur?
 2. Is an object marker obligatory with particular object NPs?
 3. Are there locative object markers?
 4. Is object marking restricted to one object per verb?
 5. Can either benefactive or theme objects be expressed by an object marker in double object constructions?
 6. Is an object marker required/ optional/ disallowed in object relatives?

Here we are mainly interested in questions 1,2 and 4. Some of the answers to these questions for particular languages are apparently controversial. For example, Bresnan and Mchombo (1987), Mchombo (2004) and Baker (2008) claim that there is no object prefix when the object remains VP-internal in Chichewa, but there is an object prefix when the object is left or right dislocated (data from Mchombo 2004: 80-1 cited in Baker 2008: 196, ex. (65); throughout the text I am keeping the examples and glosses as the authors cited have them). This is taken to mean that the object marker has a ‘purely anaphoric function’ (Creissels 2006), i.e. it cannot co-occur in the same TP/IP with an overt co-referential object DP:

- (43) a. Alenje [a-ku-phík-íl-á anyaní zi-túmbûwa] Chichewa
 2.hunters 2S-PRES-cook-APPL-FV 2.baboons 8-pancakes
 ‘The hunters are cooking the baboons pancakes.’
 b. Alenje [a-ku-wá-phík-íl-á zi-túmbûwa] anyaní
 2.hunters 2S-PRES-2O-cook-APPL-FV 8-pancakes 2.baboons
 ‘The hunters are cooking the baboons pancakes.’

However, Downing (2014) argues that the distribution of object markers in Chichewa fails to satisfy Bresnan & Mchombo’s criteria for ‘anaphoric status’ in Creissels’s sense and proposes instead that Chichewa shows DOM, i.e. animate (especially human) overt object DPs are commonly marked with an object marker, whether they are dislocated or not.

According to Marten & Kula (2012), the object marker and the overt NP object are allowed to co-occur in the same prosodic and syntactic domain (the VP or the clause) in Bemba, Ha,

⁷ I am grateful to Jenneke van der Wal for referring me to the relevant literature presented in this section and for highlighting the controversies mentioned in the text.

Lozi, Smbaa, Swahili, while this is not possible in Otjiherero, Kivunjo-Chaga, siSwati, Chaga, Chewa, Tswana where object DPs must be left- or right-dislocated if an object marker is present. For example, in siSwati, the object marker is only possible if the object follows the adverb ‘well’ (44), while in Swahili this adverb must follow the object and cannot occur between the verb and the object (45):

- (44) Ng-a-yi-bon-a kahle inja (*kahle) siSwati
 SM1SG-PAST-OM10-see-FV well 10-dog well
 ‘I saw the dog well.’
- (45) Ni-li-mw-on-a (*vizuri) Juma vizuri Swahili
 SM1SG-PAST-OM1-see-FV well Juma well

There is further variation with respect to the conditions of co-occurrence of object markers and object NPs in languages where the two are allowed to co-occur. For example, in Swahili, an object marker is obligatory with animate objects while in Bemba it is optional. In Swahili, object markers are optional with non-animate NPs and its presence is related to definiteness or specificity. In Smbaa, object markers are generally optional, but they are obligatory with proper names, some kinship terms and the question word *ndayi* ‘who’. In Kivunjo-Chaga an object marker is obligatory with pronominal objects. Riedel (2009: ch. 3) argues that variation in Bantu can be described in terms of Croft’s (2003) hierarchy in (46), and Aissen’s (2003) hierarchies in (47):

- (46) first/second person pronouns > third person pronoun > proper names > human common noun > non-human animate common noun > inanimate common noun (Croft 2003: 130)
- (47) a. Animacy scale: Human > Animate > Inanimate
 b. Definiteness Hierarchy: Proper name > Pronoun > Definite NP > Indefinite specific NP > Non-specific NP

Obligatory vs. optional object marking in some Bantu languages is summarized in (48), where ‘no’ means ‘optional’:

(48) *Conditions on obligatory object agreement in Bantu* (Riedel 2009: 53):

Property	Smbaa	Swahili	Nyaturu	Ruwund	Mahkuwa	Haya
1,2 PERS. pron.	Yes	Yes	Yes	Yes	Yes	No
proper names	Yes	Yes	Yes	Yes	Yes	No
def. humans	No	Yes	Yes	Yes	No	No
spec. humans	No	Yes	Yes	No	No	No
Humans	No	Yes	No	No	No	No
Animates	No	Yes	No	No	No	No
Class 1/ 2	No	(no)	No	No	Yes	No

As mentioned, there is also variation in how many object markers are allowed, and this is stated in questions 4 and 5 in (42) above (see also question 3 concerning locatives). See the discussion in Riedel (2009: 60-63) and Baker (2008), among others. In Smbaa, the language investigated by Riedel (2009), DOs, IOs and locatives are all associated with object markers:

- (49) N- za- ha- chi- m- nka Stella kitabu haja Sambia
 SM1S PERF.DJ OM16 OM7 OM1 give 1Stella 7book 16DEM
 ‘I gave Stella a book there.’

Multiple objects are, in principle, also possible in the Musumban dialect of Ruwund (Nash 1992, Woolford 2001):

- (50) ku-ka-ji ku- sendang- aañ- ku Musumban dialect
 INF-go-OM10 OM2S carry.from.regularly 2PLURAL OM17
 ‘to regularly go and carry them off from you there’

In applicative constructions, the object marker for the DO is only possible if there is an object marker for the IO, as in Sambia:

- (51) a. ku-landin cikumbu ulààl Sambia
 INF-buy-APPL 7house 14bed
 ‘to buy the bed for the house’
 b. ku- ci- landin cikumbu ulààl
 INF OM7 buy- APPL 7house 14bed
 c. *ku- wu- landin cikumbu
 INF OM14 buy-APPL 7house
 ‘Int: to buy it for the house’
 d. ku- wu- ci- landin cikumbu
 INF- OM14- OM-7 buy-APPL 7house

Riedel also mentions Haya (p. 2, p. 76), Nyaturu and Bemba (in very restricted environments and only with two markers; p. 75; see below), Kinyarwanda (p. 75, ex. (69) from Beaudoin-Lietz et al. 2004:183, p. 77 ex. (75) citing Kimenyi 1980), Kwanyama (p. 76, ex. ; citing Marten and Kula 2012), Chaga (p. 76; citing Marten and Kula 2012), Tswana (p. 77; citing Marten and Kula 2012),

On the other hand, there are languages with only one object marker marking agreement with the IO obligatorily in ditransitives. Chichewa only permits a single object marker, with the IO (Baker 2008: 99). A minimal pair between Sambia and Chichewa is provided below:

- (52) a. *Alenje a-ku-zí-wá-phik-il-a (zítumbûwa anyâni) Chichewa
 2.hunters 2S-PRES-8O-2O-cook-APPL.FV 8 pancakes 2 baboons
 ‘The hunters are cooking them for them’ (Mchombo 2004: 82)
 b. A-ya-i-dik-i-a Sambia
 she-them-it-cook-APPL.FV
 ‘She cooks them for it’ (Duranti 1979: 37)

Swahili behaves like Chichewa (Riedel 2009: 62-63, ex. (43)). Marten and Kula (2012: 13, (33) – (35)) mention Bemba as an intermediate case where in general only one marker is allowed. However, under certain conditions, more than one object markers are possible, for example, if both are animate or if the first object marker (closest to the verb) is the 1st person singular object marker *N*.

6. Comparing optional agreement in Bantu to clitic doubling

The conditions governing object agreement in Bantu described in section 5.4 are strikingly similar to the conditions governing clitic doubling in Indo-European described in section 4.1:

- a) Both phenomena are optional, in the sense that they are not required with invariably all object DPs.
- b) The left/ right dislocation vs. no dislocation distinction (vs. Bemba, Ha, Lozi, Sambia, Swahili vs. Otjiherero, Kinvunjo-Chaga, siSwati, Chaga, Chewa, Tswana) in Bantu parallels the distinction between clitic languages only permitting left and right dislocation vs. the clitic doubling languages (Italian and, with the possible exception of pronouns, French vs. Romanian/ Spanish/ Greek).
- c) The sensitivity to animacy and definiteness in Bantu parallels the sensitivity to animacy and/or definiteness in Romance, Balkan doubling.
- d) The variation in the distribution of class 1/2 (recall from the beginning of section 5.4. that class 1/2 morphemes are prototypically used for humans, and languages differ in whether they treat animals as 1/2 or not) is parallel to the distribution of *pe* in Romanian, which is limited to humans, and *a* in Spanish, which also marks non-human animates.
- e) The type of variation sensitive to the properties summarized in table (48) is parallel to the variation in doubling described in section 4.1. (the Romanian pattern, the Spanish pattern, the Greek pattern). For example, the fact that animacy is relevant for Bantu object agreement and there is variation on the conditions governing the distribution of object marking depending on whether the DPs they co-occur with are animates or inanimates (see the discussion of Swahili vs. Bemba in section 5.4) is reminiscent of the variation we find between Romance languages with DOM vs. Balkan languages without DOM w.r.t. doubling, i.e. the fact that in the former doubling is limited to animates while in the latter it is also possible with inanimates.⁸

Finally consider f): At first sight, the variation concerning object marking in Bantu multiple object constructions (only a single object marker for the IO in Chichewa/Swahili vs. more than one markers in Sambia/ Haya/ Kinyarwanda, Tswana, Ruwund- the Musumban dialect) is reminiscent of the difference between languages permitting clitic doubling only with IOs (Catalan/ Peninsular Spanish) and DO pronouns vs. languages permitting clitic doubling with both IOs and DOs (Romanian/ Rioplatense Spanish/Greek). However, on closer inspection, the IO/ DO asymmetry in Romance is not a restriction on clitic clusters, only on doubling. On the other hand, the IO/DO asymmetry in Bantu is a restriction on agreement markers *per se*. Thus, the IO/DO asymmetry in Romance seems to reflect a constraint on which arguments are allowed to undergo vP-external movement, similarly to OS/scrambling in Germanic, while the IO/DO asymmetry in Bantu seems to reflect a constraint on agreement (i.e. how many arguments *v* is allowed to agree with). So this is not a true similarity. I will come back to this issue in section 7.4.

⁸ Note that the type of variation is not exactly identical, at least in the way it is described in the literature. The literature on doubling generally describes what is possible or not, while the literature on object marking generally describes what is obligatory or not. More specifically, in the literature on clitic doubling, what is discussed is whether doubling is permitted or not with inanimates. With animates doubling is generally considered to be optional with the exception of pronouns which must be doubled by a clitic obligatorily. With DPs what is obligatory is the presence vs. absence of a special preposition with animates, i.e. the presence vs. absence of DOM in the languages that have DOM. In the literature on Bantu, there is discussion on whether the object marker is obligatory or optional with animates, proper names, pronouns. Marten and Kula (2012) say explicitly that object marking is optional with inanimates in Swahili, but they do not say whether object marking is possible or impossible with inanimates in Bemba.

7. Analytic options for object agreement in Bantu: a crucial movement component

7.1 Agreement or doubling?

Recall the two options for analyzing agreement/doubling, repeated here:

- (6) a. [*agreement morpheme*]_{φ1} = a reflex of an agreement relationship between [*full noun phrase*]_{φ1} and the host, similar to subject agreement.
 b. [*agreement morpheme*]_{φ1} = a clitic “doubling” the features of [*full noun phrase*]_{φ1} on the host.

Both analyses can work, in principle, for Bantu but, crucially, there must be a movement component to an analysis along the lines of (6a).

More specifically, the doubling analysis in (6b) straightforwardly captures similarities (a)-(e) between clitic doubling and object agreement marking: they instantiate the same phenomenon. If we adopt this option for Bantu object agreement, then the prefix would not be a special clitic targeting T, but an element landing to a lower position than clitics, i.e. lower than T (v or an Asp-position; cf. Cardinaletti 2008 who calls it “a low clitic position”, see section 7.5.). Different versions of the clitic analysis have been proposed by Julien (2002), Cardinaletti (2008), Zeller (2012), van der Wal (2015) and others.

Analysis (6a) has been argued to be correct for at least some of the Bantu languages by Riedel (2009), Baker (2008) and Zeller (2012), among others. Baker points out that when something other than the subject moves to T (e.g. locatives in locative inversion) T agrees with the fronted locative in Bantu but not in IE languages, where T agrees with the nominative argument lower down. The same is seen in the subject-object reversal construction in Bantu, where the verb agrees with the inverted object and not with the subject (Baker 2008: 160). This construction is found in Kinyarwanda (Kimenyi 1980) and Kirundi (Ndayiragije 1999), in Swahili and to a limited extent in Kilega (Kinyalolo 1991) and Kinande (Baker 2003):

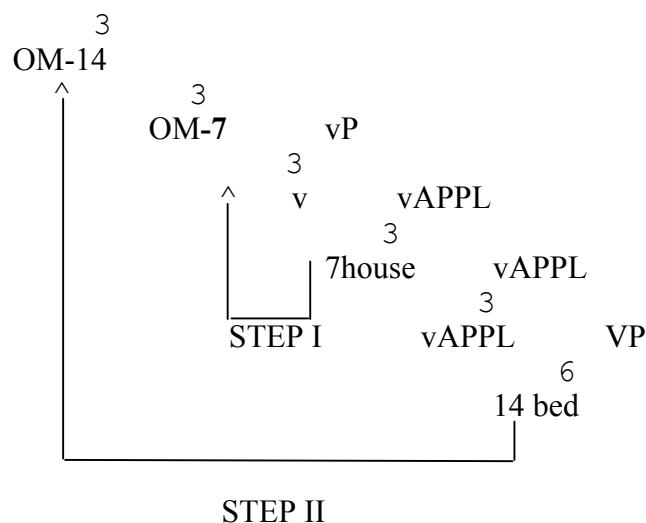
- (53) a. *Abâna ba-â-ra-nyôye amatá* (Kirundi)
 children 2S-PAST-FOC-drink.PERF milk
 ‘Children drank milk?’
 b. *Amatá y-â-nyôye abâna.*
 milk 3S-PAST-drink.PERF children
 ‘Children (not parents) drank milk.’ (Ndayiragije 1999)

Baker (2008: 215) proposes to capture this difference between Bantu and IE languages through the Parameters in (54) and (55):

- (54) *The Direction of Agreement Parameter*
 (i) F agrees with DP/NP only if DP/NP asymmetrically c-commands F, or
 (ii) F agrees with DP/NP only if F asymmetrically c-commands DP/NP, or
 (iii) F agrees with DP/NP only if F asymmetrically c-commands DP/NP or vice versa
- (55) *The Case-Dependency of Agreement Parameter*
 F agrees with DP/NP only if F values the case feature of DP/NP or vice versa

In a nutshell, agreement in Bantu is sensitive to c-command (54i) but not case. On the other hand, agreement in IE is sensitive to case and subject to (54ii). Baker furthermore proposes to extend this analysis to object agreement in Bantu. Following Diesing’s (1992) Mapping Hypothesis, he suggests that only certain types of objects may move VP-externally. Since

(57)



In Sambia we find exactly the same effect as in Greek, not when T is targeted by the lower argument but when v is targeted by the lower argument.

If object agreement in languages like Sambia was just a reflex of downward Agree, we would not expect these facts, for two reasons. First, if (51c) was ruled out as an intervention effect on Agree, it would not be clear why the IO would cease to be an intervener for the v-DO relationship by itself entering Agree with v. Second, and more importantly, there is evidence that within the same local domain, an intervener does not block (downward) Agree between a higher probe and a lower goal. Anagnostopoulou (2003) argues for this on the basis of evidence from Dutch. Consider the following contrast observed by den Dikken (1995: 207-208):

- (58) a. ?*dat het boek waarschijnlijk Marie gegeven wordt
 that the book.NOM probably Mary.DAT given is
 b. dat het boek Marie waarschijnlijk gegeven wordt
 that the book.NOM Mary.DAT probably given is
 ‘that the book is probably given to Mary’

In (58), theme movement leads to deviance if the DP goal occurs to the right of the adverb *waarschijnlijk*, as in (58a), and results in a well-formed output when it occurs to its left, as in (58b). The same contrast is found in (non-alternating) unaccusatives:

- (59) a. ?*dat het boek waarschijnlijk Marie bevallen zal
 that the book.NOM probably Mary.DAT please will
 b. dat het boek Marie waarschijnlijk bevallen zal
 that the book.NOM Mary.DAT probably please will
 ‘that the book will probably appeal to Mary’
- (60) a. ??dat de teugels waarschijnlijk de jongen ontglipten
 that the reins.NOM probably the boys.DAT slipped
 b. dat de teugels de jongen waarschijnlijk ontglipten
 that the reins.NOM the boys.DAT probably slipped
 ‘that the reins probably slipped out of the boys’ hands’

If argument placement to the left of VP-external adverbs signifies scrambling, then these facts suggest that in Dutch, passivization in the presence of a DP goal is licit only when the goal

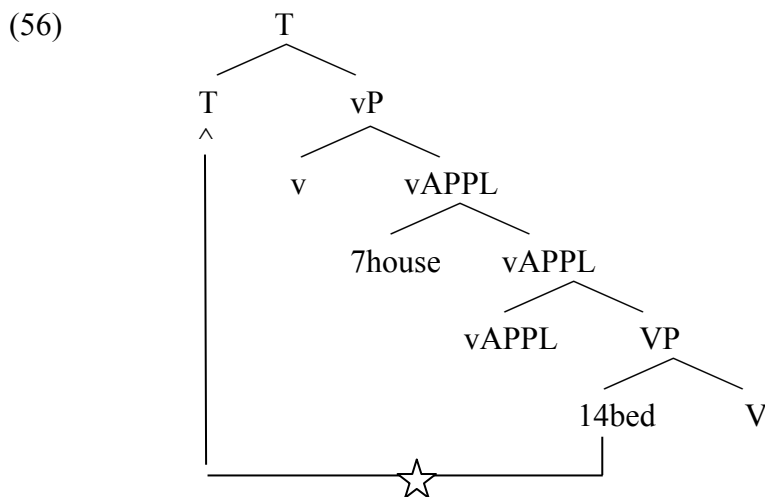
Bantu languages are subject to (54i), only certain arguments may trigger object agreement, the ones that are allowed to move to a VP-external site. By contrast, languages with obligatory object agreement like the ones mentioned in section 5.3. are subject to (54ii), and subject agreement is also argued to be subject to (54ii). Crucially, then, there is a movement component to Baker’s analysis, which can account for the properties optional object agreement of the type discussed in section 5 has in common with clitic doubling and object shift discussed in section 4.

7.2 Further evidence for movement: intervention effects

Recall pattern (51) from Sambiaa which shows that the object marker for the IO alone is grammatical (51b) while the object marker for the DO alone is not (51c), unless the object marker for the IO is also present (51d):

- (51) a. ku- landin cikùmbu ulààl Sambiaa
 INF- buy-APPL 7house 14bed
 ‘to buy the bed for the house’
 b. ku- ci- landin cikùmbuulààl
 INF OM7 buy-APPL 7 house 14bed
 c. *ku- wu- landin cikùmbu
 INF OM14 buy-APPL 7house
 ‘Int: to buy it for the house’
 d. ku- wu- ci- landin cikùmbu
 INF- OM14- OM-7 buy- APPL 7house

This paradigm strongly suggests that there is movement involved in this type of agreement. More specifically, I propose that (51c) is a locality violation along the lines of (56) below. Assuming that there is some type of movement involved in Bantu object marking (either clitic-type movement of the object marker itself, i.e. analysis (6b) discussed in the previous section, or movement of the DO to a vP-external site leading to agreement, as Baker suggests, i.e. analysis (6a)), the ungrammaticality of (51c) is due to an intervention effect caused by the IO.



On this analysis, (51d) is well-formed because the IO moves to v before the DO does, cf. tree (19) proposed by Anagnostopoulou (2003) for Greek above.

undergoes scrambling. On this view, *DP* scrambling in Dutch, very much like cliticization / doubling in Greek, is a licensing mechanism for DP datives which would otherwise be banned due to an intervention effect.

Crucially for present purposes, if Dutch passives and unaccusatives are construed with an *in situ* subject, as in (60), the dative DP may also remain in an unscrambled position (den Dikken 1995: 208, fn 26):

- (61) a. dat waarschijnlijk Marie het boek gegeven wordt
 that probably Mary.DAT the book.NOM given is
 b. dat waarschijnlijk Marie het boek bevallen zal
 that probably Mary.DAT the book.NOM please will
 c. dat waarschijnlijk de jongen de teugels ontglipten
 that probably the boys.DAT the reins.NOM slipped

This provides evidence that T can enter a downward Agree relation with an *in situ* nominative across a dative, i.e. that the dative does not cause an intervention effect for Agree between T and the nominative. On the other hand, the dative does cause an intervention effect blocking movement of the nominative to T, and therefore scrambling must take place, as was shown in (58)-(60).⁹

The conclusion that downward agree is not sensitive to intervention effects in monoclausal configurations is reinforced by data from Icelandic discussed in Bobaljik in connection to the issue of defective intervention (2008; and see Bobaljik 2008: 320-322 for more references). Bobaljik points out that agreement between the inflected verb and a lower nominative argument across an intervening dative is always possible, and generally obligatory in Icelandic monoclausal configurations, as shown by the data in (61) (from Jónsson 1996 and Zaenen, Maling and Thráinsson 1985; Bobaljik 2008: 298, 321):

- (62) a. Það líkuðu einhverjum þessir sokkar
 EXPL liked.PL someone.DAT these socks.NOM
 ‘Someone liked these socks.’
 b. Um veturinn voru konunginum gefnar ambáttir
 in the winter were.PL the king.DAT given slaves.NOM
 ‘In the winter the king was given (female) slaves.’
 c. Það voru konungi gefnar ambáttir í vettur
 EXPL were.PL king.DAT given slaves.NOM in winter
 ‘There was a king given maidservants this winter.’
 d. Það voru einhverjum gefnir þessir sokkar
 EXPL were.PL someone.DAT given these socks.NOM
 ‘Someone was given these socks.’

Bobaljik concludes that defective intervention in downward Agree does not arise in monoclausal configurations.¹⁰

⁹ In order to account for this difference between Move and Agree, Anagnostopoulou (2003: 222) proposes that the indirect object in Dutch bears features which block Move, but do not interfere in Agree relations. More concretely, that the feature turning Dutch datives into interveners is their EPP-feature, and not their Case feature. On this view, Dutch datives bear an EPP feature blocking Move but not Agree, and movement of the direct object across the indirect object is accordingly prohibited unless the indirect object scrambles. However, as discussed in Bobaljik (2008; see immediately below), the Agree vs. Move asymmetry seems to be more general in monoclausal domains.

¹⁰ As is widely discussed in recent years, defective intervention effects do arise in biclausal constructions. In Icelandic, a matrix raising predicate cannot enter agree with an embedded nominative argument across an intervening dative experiencer subject, as in (ia), while agreement is possible if the intervener moves to the

On the basis of the Dutch examples in (61) and the Icelandic examples in (62), I conclude that downward Agree between a functional head, T or *v*, and a lower DP argument in the same clausal domain is not sensitive to intervention effects, while movement is, as shown in (58)-(60) for Dutch. But then the ungrammaticality of (51c) in Sambia cannot be attributed to an intervention effect on downward Agree between *v* and the DO caused by the IO; rather, it must be analyzed as an intervention effect on Move. And the grammaticality of (51d) suggests that the DO can move to *v* in Sambia if the IO moves to *v* as well.

7.3 Movement and valuation or movement and doubling? evidence for the latter

We have seen so far that there is a crucial movement component in optional object agreement of the type found in Bantu. The question I want to address in this section is whether Bantu object markers are reflexes of valuation of the features of *v* by the moved objects or whether it is a clitic-like element ‘doubling’ the object (see van der Wal 2015 for a version of this analysis in the system of Roberts 2010 which, however, collapses doubling and Agree, an incorrect move, as argued for in section 7.2). Drawing on Anagnostopoulou (2015a, 2016), I argue that for languages with multiple object markers like Sambia the correct answer is that object markers should be analysed as clitics and not as reflexes of valuation of the features of *v* by the object. Evidence for this comes from the order of agreement markers which systematically show nesting, i.e. they reverse the underlying order of arguments. Consider again multiple agreement in Sambia (and many other Bantu languages, see Cardinaletti 2008, see section 7.5 below):

- (63) N- za- ha- chi- m- nka Stella kitabu haja Sambia
 SM1S PERF.DJ OM16 OM7 OM1 give 1Stella 7book 16DEM
 ‘I gave Stella a book there’

In (63), the highest object corresponds to the prefix closest to the verb-stem, the lowest argument to the prefix that is most remote from the verb stem and the intermediate argument to the intermediate prefix, i.e. we have a configuration where the underlying order of arguments is reversed in the order of prefixes. Following Richards (1997), Anagnostopoulou (2015a, 2016) argues that IO>DO orders in clusters of weak pronouns and clitics involve movement of the two objects to a single probe which results in crossing, as in (64a) while DO>IO orders result from targeting two probes and nesting as in (64b):

- (64) a. [IO DO H^0 [~~IO~~ ~~DO~~]]
 b. [DO Z^0 [IO Y^0 [~~IO~~ ~~DO~~]]]

Anagnostopoulou (2015a, 2016) argues that independent evidence for (64a) and (64b) comes from the following correlation: Romance languages with IO>DO clusters have case syncretic 3rd person clitics, while in DO>IO languages, 3rd person clitics are asyncretic. The IO>DO

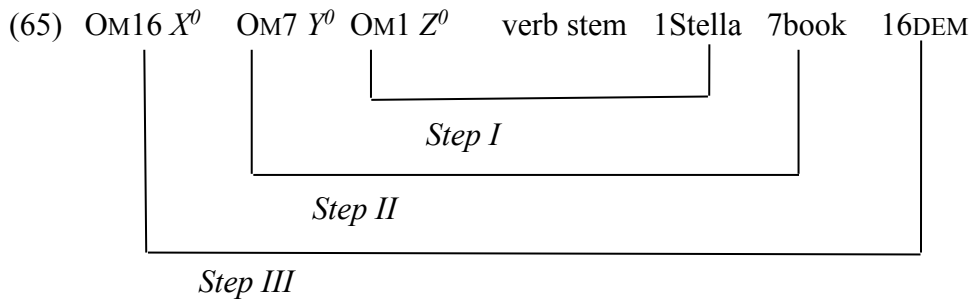
higher clause, as in (ib) (Watanabe 1993, Schütze 1997):

- (i) a. Mér ?*virðast/virðist [Jóni vera taldir t líka hestarnir]
 Me.DAT seemed.PL/SG Jon.DAT be believed.PL t like horses.NOM
 ‘I perceive John to be believed to like horses.’
 b. Jóni virðast/?*virðist [t vera taldir t líka hestarnir]
 Jon.DAT seemed.PL/SG t be believed.PL t like horses.NOM
 ‘John seems to be believed to like horses.’

Bobaljik (2008) views the contrast between biclausal and monoclausal constructions as an argument for a domain-based characterization of intervention effects according to which, the position of the dative is indicative of the presence of a domain boundary in (iia) but not in (iib); cf. Nomura (2005).

order is associated with productive syncretic allomorphs in the plural, the same form for singular dative and plural accusative, etc. By contrast, the conservative DO>IO group has asyncretic clitics or employs asyncretic allomorphs in clitic combinations. See Nicol (2005) for extensive discussion of ‘the Case Syncretism Property (CSP)’ in Romance, which is shown to be further supported from Greek and German. The CSP can be accounted for if the mechanisms deriving the relevant types of syncretism (e.g. the rule of Impoverishment; Bonet 1991; 1995) operate in local domains, and attachment to a single head in (64a) counts as local, while attachment to two different heads in (64b) is non-local.

Extending this analysis to Bantu, leads to the following analysis of sentences like (63):



In a movement-clitic analysis, the order of prefixes is naturally linked to comparable combinations attested in clitic/weak pronoun languages, and, moreover, the syntax in (65) offers the basis for capturing a correlation between the order of Bantu prefixes and their agglutinative nature. Assuming that each prefix attaches to a different functional head, as in (65), leads us to expect that the features of the prefixes in question will tend not to interact with one another leading to fusion of their features and the emergence of portmanteau forms. This would be more likely if they all attached to a single head as in (64a). On the other hand, in a non-movement analysis the order of prefixes would have to be stipulated and, moreover, there would be no principled way of attempting to express the correlation between prefixal order and agglutination.

I conclude that word order and its potential correlation with agglutination provides a reason for treating Bantu object markers as clitics and not as the phi-features of *v* after valuation. For an analysis of the differences between special clitics and Bantu prefixes, see section 7.5. below.

7.4 One vs. more object markers: a parallel case from clitics in Greek

We saw that many Bantu languages only allow for a single object marker per clause, unlike Sambia. This restriction can be seen as an argument for the agreement status of object markers in the languages in question since clitics are notorious for being able to form clusters. For example, Baker (2012: 260-261) argued that the fact that only one object marker is possible on the verb in Amharic constitutes evidence for an agreement and not a clitic analysis of the object marker in this language. The clitic analysis would need to resort to a simplification process in order to account for this restriction, while on the agreement analysis this fact is expected: just as there is one T head in the clause that licenses subjects, there is one F head licensing objects and it agrees only once.

Kramer (2014: 624-625), however, points out that an Agree-based analysis of clitic doubling can also capture the relevant restriction in Amharic. In such an analysis, the *v* head will enter Agree with the highest argument in its c-command domain, resulting in a configuration where only the goal can be doubled. In turn, this explains why only one object marker/clitic is possible. Thus, there are two types of languages: (i) those that have multiple Agree or, alternatively, they have multiple probes triggering multiple object markers/clitics

and (ii) those that have single Agree or only one probe allowing for only one object marker/clitic. According to Kramer (2014), Amharic belongs to the latter type of language. She furthermore draws attention to the fact that there are a number of languages that have been argued to have clitic doubling and show the single clitic restriction, e.g. Hungarian (den Dikken 2006), Arabic (Shlonsky 1997: 192), Kaqchikel (Preminger 2011), Caha (Ethiosemitic: Banksira 2000: 256). Kramer concludes that the ban on multiple object markers in Amharic is neutral between an agreement and a doubling analysis. Baker and Kramer (2015) argue convincingly in favor of a clitic analysis of the Amharic object marker.

Here I will present evidence (discussed in detail in Anagnostopoulou 2001 and 2015b, respectively) that an uncontroversial case of a clitic and a clitic doubling language, namely Greek, also shows the single clitic restriction under certain conditions, providing evidence for Kramer (2014) and Baker and Kramer (2015). But before doing this, I would like to remind the reader that, as discussed in section 5.4., there are also intermediate languages like Bemba (Marten and Kula 2012: 13, (33) – (35)) where the requirement for a single object marker is relaxed under certain conditions, for example, if both objects are animate or if the first object marker (closest to the verb) is the 1st person singular object marker *N*. For these languages, it will be necessary to appeal to something like multiple probes (Kramer 2014) or Multiple Agree (Hiraiwa 2004, Anagnostopoulou 2005) or Cyclic Agree (Bejar and Rezac 2009) or Contiguous Agree (Nevins 2007) for the cases where clusters are exceptionally licensed, e.g. when both arguments are animate or when the highest one is specified for 1st person, and to rely on some additional condition in order to exclude the combinations that are impossible. Let us now look at two varieties of Greek, one that shows an absolute prohibition against two clitics with a certain verb class and one that shows a prohibition against two clitics only when both clitics are 3rd person.

Greek has morphological nominative (NOM), accusative (ACC) and genitive (GEN) case. Nominative occurs on subjects, accusative on direct objects (DOs) and most prepositional complements and genitive is the case assigned DP internally. Moreover, Ancient Greek datives (DATs) were lost in Medieval Greek and have been replaced in ditransitives and two-place unaccusatives by either GENs or ACCs, depending on the dialect (see Anagnostopoulou & Sevdali 2015 for discussion and references). Standard Modern Greek and many southern dialects have GEN-ACC/NOM constructions (Anagnostopoulou 2003 and references cited there), while Northern Greek dialects have ACC-ACC/NOM constructions (Dimitriadis 1999 and references cited there). The IO is not allowed to alternate with NOM in passives, regardless of whether it bears GEN (in Standard Greek) or ACC (in Northern Greek) in actives:

- (66) a. Edosa tu Petru ena pagoto.
gave.1SG the Peter.GEN an icecream.ACC
'I gave Peter an ice-cream.'
- b. *O Petros dothike ena pagoto.
the Peter.NOM gave.NACT an ice-cream.ACC
'Peter was given an ice-cream'
- (67) a. Edosa ton Petro ena pagoto.
gave.1SG the Peter.ACC an ice-cream.ACC
'I gave Peter an ice-cream.'
- b. *O Petros dothike ena pagoto.
the Peter.NOM gave.NACT an ice-cream.ACC
'Peter was given an ice-cream.'

In Standard Modern Greek, both the genitive IO and the accusative DO may undergo cliticization and clitic doubling, provided that the Strong Person Case Constraint (PCC) is

respected, i.e. that the DO is not 1st and 2nd person (Anagnostopoulou 2003, 2005):

- (68) Tu to edosa (tu Petru) (to pagoto)
 CL.GEN CL.ACC gave.1SG the Peter.GEN the ice-cream.ACC
 ‘I gave Peter the ice-cream.’

In Northern Greek only the IO is allowed to undergo cliticization and doubling, as shown in (69) (Anagnostopoulou 2015b):

- (69) a. Ton edosa ton Petro (to pagoto)
 CL.ACC.MASC gave.ACT.1SG the Peter.ACC the icecream.ACC
 ‘I gave Peter the ice-cream.’
 b. *To edosa ton Petro (to pagoto)
 CL.ACC.NEUT gave.ACT.1SG the Peter.ACC the icecream.ACC
 ‘I gave Peter the ice-cream.’
 c. *Ton to edosa (ton Petro) (to pagoto)
 CL.ACC.MASC CL.ACC.NEUT gave.ACT.1SG the Peter.ACC the icecream.ACC
 ‘I gave Peter the ice-cream.’

Northern Greek speakers have to resort to their Standard Greek grammar, i.e. to sentences like (68), in order to produce clusters.

As far as clitic placement is concerned, Northern Greek clitics behave identically to their Southern Greek counterparts clearly qualifying as special clitics in the sense of Zwicky (1977). For example, they are proclitics on fully inflected verbs and enclitic with imperatives and uninflected gerundival forms. And yet, in Northern Greek ditransitives only one clitic for the IO is possible, similarly to e.g. Chichewa, Swahili and Amharic, providing further evidence that the restriction against multiple object markers also applies to clitic languages. The comparison between Northern and Standard Greek points to the conclusion that morphological case is relevant to the availability of one vs. two clitics. Two clitics are possible in the variety that has morphological genitive in addition to accusative while the variety with one morphological case has a single clitic associated with the higher argument in ditransitives. Note that whatever excludes the formation of clusters must be more abstract than identity in form. Standard Greek permits the formation of clusters with identical clitics in cases of syncretism, i.e. with genitive plural clitics that are case syncretic with masculine accusative plural clitics, as shown in (70):

- (70) Tus tus edosa.
 CL.GEN.PL CL.ACC.PL.MASC gave.ACT.1SG
 ‘I gave them to them.’

Crucially, the ban against the formation of clusters is relaxed when the IO is 1st or 2nd person, as shown in (71), pointing to the conclusion that Northern Greek qualifies as an intermediate language along with Bemba rather than a strict language along with Chichewa and Swahili:

- (71) Me/se to edose (to pagoto).
 CL.1/2.ACC CL.3.ACC gave.ACT.3SG the icecream.ACC
 ‘He/she gave me/you the ice-cream’

The contrast between (71) and (69c) suggests there is a problem when two 3rd person arguments bearing accusative case enter Agree with the same head and is reminiscent of the

conditions triggering the spurious *se* rule in Spanish (Bonet 1991).

Standard Modern Greek has a comparable, though not identical, restriction. As discussed in Anagnostopoulou (2001), with a limited set of verbs both the IO and the DO may surface with morphological accusative case when used without a preposition.¹¹ These verbs include *didasko* 'teach', *plirono* 'pay', *serviro* 'serve', i.e. exactly the ones that may form adjectival passives with goal externalization in English (Levin & Rappaport 1986):

teach

- (72) a. John taught manual skills to children
b. John taught children manual skills

- (73) a. untaught skills *theme externalization*
b. untaught children *goal externalization*

serve

- (74) a. Bill served food to the customer
b. Bill served the customer food

- (75) a. sloppily served food *theme externalization*
b. unserved customers *goal externalization*

pay

- (76) a. Max paid the money to the agent
b. Max paid the agent the money

- (77) a. unpaid money *theme externalization*
b. a badly paid agent *goal externalization*

In Standard Greek, they may form a double accusative construction, as shown in the (b) examples below, which looks identical to the double accusative construction of Northern Greek:

- (78) a. Didaksa [NPTin grammatiki ton Arxeon] [ppsta pedhia] *teach*
taught-1SG [the grammar.ACC the Ancient] [to-the children]
'I taught the grammar of Ancient Greek to the children.'
b. Didaksa [NP ta pedhia] [NP tin grammatiki ton Arxeon] *Accusative Goal*
taught-1SG [the children.ACC][the grammar. ACC the Ancient]
'I taught the children the grammar of Ancient Greek.'
- (79) a. Plirosa ton ipallilo ta xrimata pu tu ofila *pay*
paid-1SG the employee.ACC the money.ACC that him.GEN owed-1SG
'I paid the employee the money I owed him.'
b. Servira ton pelati enan kafe *serve*
served-1SG the customer.ACC a coffee. ACC
'I paid the customer a coffee'

However, this construction is not identical to the Northern Greek one. In Northern Greek there is no restriction on the kind of theme DP that is allowed to surface along with a goal DP, while in the double accusative construction found in Standard Greek the theme must either be heavy, as in (78b), (78a) or indefinite as in (79b):

- (80) a. Didaksa ta pedhia ena mathima/mathimatika/??to mathima
taught-I the children.ACC a lesson.ACC/mathematics.ACC/the lesson.ACC
'I taught the children a lesson /mathematics /the lesson.'

¹¹ These verbs can also form a double object construction in which the goal has Genitive case morphology. In this case, they behave syntactically similarly to verbs forming the Genitive construction. The fact that these verbs also form the Genitive construction suggests that they are compatible with two different structures.

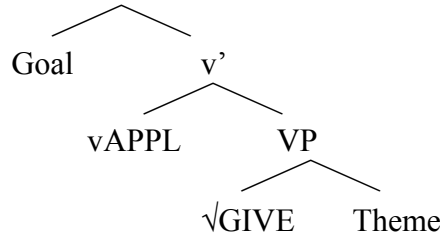
- b. Servira ton pelati ??ton kafe / ton kafe pu zitise
 served-I the customer.ACC the coffee.ACC / the coffee.ACC he asked for
 ‘I served the customer the coffee/the coffee he asked for.’

This restriction correlates with the fact that the goal can surface as a single complement of the verb with verbs of this class, as shown in (81) and that the goal can undergo subject externalization with these verbs, as shown in (82) (just as in English):

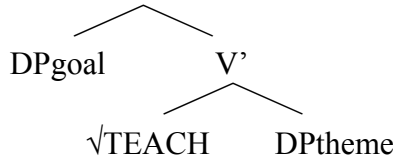
- (81) didhasko ta pedhia, serviro ton pelati, plirono ton ipallilo
 I teach the children, I serve the client, I pay the employee
 (82) a. I profata diadagmeni ili / ?mia profata didagmeni taksi
 The recently taught course material/ a recently taught class
 b. O profata servirismenos kafes/ o profata servirismenos pelatis
 The recently served coffee/ the recently served customer
 c. O aplirotos logarisamos/ o aplirotos ipalilos
 The unpaid bill / the unpaid employee

On the basis of these properties, in Anagnostopoulou (2001) I argued that the double accusative construction does not have an applicative syntax, unlike the genitive construction in Standard Greek and, I propose here, the double accusative construction in Northern Greek, which have the structure in (83). The accusative goal is an argument of the verbal root along with the theme, as shown in (84):

- (83) *vAPPLP Genitives in Standard, Accusatives in Northern Greek*



- (84) *VP Accusatives in Standard Greek with ‘teach’*



Whenever a vAPPL is present in Standard Greek the morphological case of the IO is genitive while in its absence the morphological case of the IO is accusative.

As we have seen on the basis of the comparison between Northern and Standard Greek, the presence of morphological accusative on the goal blocks the formation of clitic clusters and the concomitant availability of clitic doubling for both arguments. The same can be seen now internally to Standard Greek where cliticization and clitic doubling of the accusative theme in the presence of an accusative goal with teach-type verbs is absolutely impossible (Anagnostopoulou 2001):

- (85) *Tin didaksa ta pedhia (tin grammatiki ton arxeon ellinikon)
 CL.ACC,SG taught-I the children.ACC,PL the grammar.ACC,SG the ancient Greek.GEN
 ‘I taught-it the children the grammar of ancient greek.’

Equally impossible is the formation of clusters, just as in Northern Greek:

- (86) *Ta tin didaksa
 CL.ACC.PL CL.ACC.SG taught-I
 ‘I taught it to them.’

With one crucial difference, though, namely that such sentences do not improve if the IO is 1st or 2nd person, unlike Northern Greek:

- (87) *Me/se tin didakse
 CL.ACC.PL.1/2 CL.ACC.SG taught-he/she
 ‘He/she taught it to me/you.’

Sentences like (87) feel to Standard Greek speakers like Northern Greek ones. This means that the double accusative frame with verbs like teach never has the resources for whatever allows clusters, e.g. a double probe, Multiple Agree, Cyclic Agree or Contiguous Agree. And this absolute prohibition with teach-verbs in Standard Greek, as opposed to the absolute or relative freedom of forming clusters in Standard and Northern Greek (with genitive goals and accusative goals, respectively), correlates with the absence of an applicative head in (84) and its presence in (83). Suppose now that Kramer (2014) is right that the formation of clusters or not depends on the availability of two probes in languages with clusters and the availability of a single probe in languages without clusters. And suppose, furthermore, that vAPPL in (83) may contribute such a second probe, while when vAPPL is absent, as in (84), this is impossible. It is then expected that the ban against clusters will be absolute with teach-type verbs, while structures like (83) will allow them. And since the formation of clusters is completely unproblematic in Standard Greek where the IO bears genitive and the DO accusative and is only possible in Northern Greek when the IO is 1st and 2nd person and the DO is 3rd, I tentatively propose that something like a ‘distinctness’ condition is at play (see e.g. Richards 2010 for discussion and references; cf. Nevins 2007 for an alternative aiming to account for the spurious *se* rule in Spanish; cf. Baker’s 2012 simplification proposal mentioned above), which prevents forming clusters with clitics that are too similar.

7.5 A final note on the morphological differences between Bantu object markers and special clitics

In the preceding sections I argued that the phenomenon of object agreement in Bantu has a crucial movement component in it which is absent from typical downward Agree configurations, being comparable to object shift and clitic doubling and, moreover, that their relative ordering in languages that permit multiple object markers suggests that they are clitics and not ϕ -features on *v*.¹² This naturally raises the question of why they do not behave like special clitics with respect to clitic placement rules, why they always occur in the same position as prefixes to the verb and, more generally, why they look like agreement markers and not like clitics.

I will not address this question in full detail here. I believe that Cardinaletti (2008) offers the key ingredients for a complete answer which requires an understanding of clitics placement rules and the issue of proclisis vs. enclisis in languages with special clitics. Following Cardinaletti I will assume that there are two positions targeted by clitics, a high and a low position. Bantu clitics target the low position while the ultimate landing site of special clitics is the high clitic position. Evidence that Bantu clitics occupy a low position comes from the observation that while Romance clitics (and special clitics more generally) appear

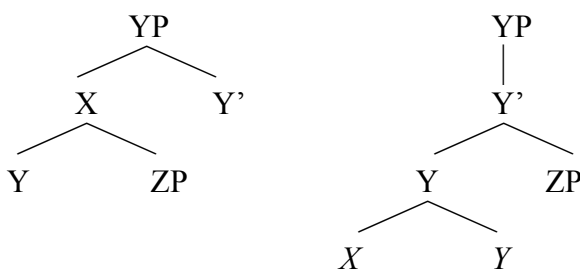
¹² Recall that these are two independent issues since object agreement in Bantu could show movement properties even if object markers were not clitics if Baker (2008) is right that Bantu agreement is always assigned in a spec, head configurations.

higher than tensed inflected verb, Bantu object clitics follow tense markers (Barrett-Keach 1986; Krifka 1995: 1412-4; cited in Cardinaletti 2008: 69):

- (88) Yohaâni y-a-yi-mw-oher-er-eje. Kinyarwanda
 John he-PAST-it-her-send-BEN-ASP
 ‘John sent it to her.’ (Dryer 1983: 130)

I propose that this low position is a specifier to the little *v* head, the same position targeted by object shift. Following Nevins (2011) I furthermore assume that clitics undergo syntactic rebracketing after object shift, the Merger operation of Matushanksy (2006) which rebrackets two heads that are in a specifier head configuration as a complex head:

- (89) Rebracketing Merger:



In Bantu, Rebracketing Merger happens in *v* while it happens in the high clitic site in Romance and Greek, which I take to be T. Cardinaletti furthermore argues that enclisis is only possible when clitics form a morphophonological unit, while proclisis can also occur when clitics attach to two different heads. I do not believe that this generalization is fully correct since Wackernagel pronouns and clitics can be shown to attach to two different heads (Anagnostopoulou 2015a, 2016) and yet they systematically occur as enclitics. But, crucially, Wackernagel clitics appear in the C-domain, thus occupying a third clitic position which is even higher than T, falling outside the scope of Cardinaletti's (2008) discussion. For the purposes of comparing Bantu clitics to their Romance (and Greek) non-Wackernagel counterparts, I take Cardinaletti's generalization to be correct. Translating her proposal in present terms, this means that enclisis is impossible when clitics attach to two different heads, as in Bantu (see the discussion in section 7.3, structures 64b and 65), while it is possible when clitics attach to a single head, as in Italian and Greek, which generally have order preserving IO>DO clusters and are thus analysed as in (64a).

In a nutshell, this would be my line of explanation for the differences between Bantu prefixes and Romance and Greek special clitics. Bantu prefixes always attach to the verb stem because they target the low clitic position, while special clitics in Romance and Greek undergo a second movement step targeting T and undergoing PF rebracketing with whatever is found there: either the main verb or the auxiliary. Moreover, due to the fact that they attach to different heads, Bantu clitics cannot be enclitic. By contrast, Romance and Greek clitics can be enclitics because they attach to a single head forming a morphophonological unit. Many details need to be further worked out, of course. This is done in Anagnostopoulou (in progress).

8. Summary

In this paper, I compared clitic doubling to object agreement in Bantu languages and I argued that they instantiate the same phenomenon. I first summarized the evidence discussed in the literature which shows that they are subject to similar interpretive restrictions and similar

variation w.r.t. to the classes of elements that are allowed to undergo these processes, a fact in part reducible to the conditions regulating object shift across languages and in part reducible to the conditions regulating DOM. As far as I can tell, we do not fully understand these conditions and how they fit together, but they both seem to fall under Diesing & Jelinek's (1995) proposal concerning the vP-external mapping of objects that are high in animacy and definiteness hierarchies. In turn, this means that Bantu object agreement qualifies as a movement dependency (as argued for in Baker 2008), just like clitic doubling. I presented further evidence for a movement approach based on intervention effects in languages with multiple agreement markers like Sambia, as opposed to downward Agree languages like Icelandic and Dutch. Next I addressed the question of whether the object markers are best seen as clitics or as reflexes of an Agree relationship between the moved object and v leading to valuation of v's $\text{u}\phi$ features. I argued for the first option on the basis of a particular analysis of nesting as opposed to crossing in clusters, which also accommodates the agglutinative nature of Bantu object markers (as opposed to the portmanteau forms one would expect in languages with crossing configurations). The next issue concerns the three way distinction observed in the literature between (i) languages that permit a single object marker like Chichewa and Swahili, (ii) languages that permit multiple object markers like Sambia and Haya and (iii) intermediate languages like Bemba which generally disallow multiple object markers but permit them under certain conditions, namely when both object markers are animate or when the first one is 1st person singular. Drawing on evidence from Greek I argued that the same type of variation also exists in uncontroversial special clitic languages with clitic doubling. Standard Greek behaves like Sambia, freely allowing two object clitics. Northern Greek behaves like Bemba generally preventing two object markers, unless the IO is 1st or 2nd person and the DO is 3rd person. Finally, there is a special class of verbs in Standard Greek which behaves like Swahili in never allowing more than one object clitic, always the IO in ditransitives. For Greek, the generalization is that multiple clusters are allowed when there is a second probe on v for the lower object to Agree with, provided by an applicative head vAPPL. In addition, there is a kind of distinctness condition filtering out combinations of clitics that are too similar in morphological case and/or in person. I do not know whether this type of explanation can carry over to Bantu, but the mere fact that clitic languages also show the single clitic restriction suggests that this restriction is neutral between an agreement and a clitic analysis of object markers, confirming Kramer (2014). Finally, I addressed the question of why Bantu object markers do not behave like special clitics as far as relative freedom of attachment (e.g. to the auxiliary or the main verb), proclisis and enclisis are concerned. I argued that this can be explained along the lines of Cardinaletti's (2008) proposal that there are two clitic positions, a low and a high one, combined with her generalization that enclisis in Italian is possible only with clitics that form a morphophonological unit. In present terms, this means that Bantu clitics target v while special clitics undergo further movement to T. As a result, Bantu prefixes always occur on the verb while Romance and Greek clitics either attach to auxiliaries or main verbs. Moreover, enclisis could not obtain in Bantu due to the fact that object markers attach to distinct heads in the v-domain, while it is possible with special clitics attaching to a single head in the T-domain, as in Italian or Greek.

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Differential Object Marking in Spanish ditransitive constructions. An empirical approach

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1. Introduction*

In Spanish, a human definite direct object in a transitive construction must generally be marked by the differential object marker (DOM) *a*, as illustrated in (1). The DOM-marked definite direct object can cooccur with a prepositional object marked by *a*, as in (2). However, Spanish DOM-marking may be blocked or disfavored by the occurrence of an indirect object marked with *a* in a ditransitive construction, as in (3a), and it is still controversial whether DOM-marking is better or even obligatory if the indirect object is doubled by a dative clitic pronoun (i.e. *les* in (3b)).

- (1) (a) Busco al médico.
seek-1SG DOM-the doctor
(b) *Busco el médico.
seek.1SG the doctor
'I am seeking the doctor.'
- (2) Envié a mi hermana a Caracas.
sent-1SG DOM my sister to Caracas
'I sent my sister to Caracas.'
- (3) (a) El maestro presentó (a)*a su mujer a los alumnos.
the teacher presented-3SG DOM his wife to the students
(b) El maestro les presentó ^{ok/??/*}(a) su mujer a los alumnos.
the teacher CLIT.DAT.3PL presented-3SG DOM his wife to the students
'The teacher presented his wife to the students.'

These observations raise the following two main questions: 1. Is DOM-dropping a stylistic or a categorical variation? and 2. if it is categorical, what are the underlying parameters? In the literature there are different suggestions for relevant parameters, including the following: a) animacy and referentiality, which are the essential DOM parameters in transitive constructions; b) word order, c) clitic doubling of the indirect object and d) the extent to which the direct object is modified (no modification, short or long modification). The article is structured as follows: Section 2 provides a short overview on DOM in transitive sentences. Section 3 discusses the conditions for DOM in ditransitive sentences. Here we focus on two conditions discussed in the literature: (i) clitic doubling of the indirect object and (ii) word order. Section 4 describes different ditransitive verb classes that we used for our experiment. Section 5 describes the design of a grammaticality judgment in a 2x2 design (clitic doubling x word order) in 16 different contexts. Section 6 presents and discusses the results of the

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questionnaire and provides a short summary.

2. DOM in transitive constructions

Differential Object Marking (DOM) in Spanish is expressed by the marker *a*, which is a homophone of the preposition *a* ‘to’ and of the dative marker *a* of the indirect object. We will confine the investigation to European Spanish throughout this paper, but see Company Company (2002), von Heusinger & Kaiser (2005) and Montrul (2013) for American Spanish. DOM-marking in Spanish transitive clauses is determined by two main parameters: (i) properties of the direct object, and (ii) transitivity properties of the verb, including the lexical semantics of the verb. It is commonly assumed that the main factors for DOM in the languages of the world is the referential status of the direct object, i.e. the combination of semantic and (discourse) pragmatic features such as animacy, referentiality (definiteness and specificity), and topicality (see Comrie 1975, Bossong 1985, Aissen 2003, Butt 2006, de Swart 2007). In Spanish, a direct object is DOM-marked if it is human on the Animacy Scale (4) and at least indefinite non-specific on the Referentiality Scale (5). The definite human direct object in (6) must be marked, while the non-specific human direct object in (7) is optionally marked. Note that the non-specificity of the direct object is determined by the subjunctive mood of the predicate *sepa* (‘might know’) in the relative clause that is headed by the direct object *un ayudante* (‘an assistant’).

- (4) Animacy Scale:
human > animate > inanimate
- (5) Referentiality Scale:
personal pronoun > proper noun > definite NP > indefinite specific NP
> indefinite non-specific NP > non-argumental
- (6) Vi *(*a*) la mujer.
saw-1SG DOM the woman
‘I saw the woman.’
- (7) Necesitan (*a*) un ayudante que sepa inglés.
need-3PL DOM an assistant that know-SUBJ.3SG English
‘They need an assistant who knows English.’

DOM in transitive constructions also depends on word order or topicalization of the direct object. Leonetti (2004: 86) illustrates this by clitic left dislocation, as in (8a) where DOM is obligatory, while the non-topicalized counterpart optionally takes DOM (8b):

- (8) (a) *(A) muchos estudiantes, ya los conocía.
 DOM many students, already CLIT.ACC.3PL knew-1SG
 ‘Many students I already knew.’
 (b) Ya conocía (a) muchos estudiantes.
 already knew-1SG DOM many students
 ‘I already knew many students.’

A second trigger for DOM is a long modification of the direct object. While (9a) is well-formed without DOM, the modified direct object in (9b) must take DOM (see Leonetti 2004: 87 for a similar argument with bare nouns in direct object position):

- (9) (a) Necesitan un trabajador.
Need-3PL one worker
'They need a worker.'
- (b) Necesitan *(a) un trabajador cualificado para el puesto.
Need-3PL DOM one worker qualified for the job
'They need a qualified worker for the job.'

3. DOM in ditransitive constructions

In ditransitive constructions, the situation for DOM-marking is much more complex. In general, Spanish grammarians emphasize the fact that there is a blocking effect for DOM when an *a*-marked indirect object is present. It is assumed that in this case DOM can or even has to be omitted in order to disambiguate the direct object from the indirect one (Bello 1847: §900, Real Academia Española 1973: 3.4.6, see also Campos 1999: 1554), see (3a), repeated here as (10):

- (10) El maestro presentó (a)/*a su mujer a los alumnos.
the teacher presented-3SG DOM his wife to the students
'The teacher presented his wife to the students.'

This assumption is supported by the observation that DOM-omission is not allowed when the indirect object is a clitic pronoun and hence not *a*-marked (Rodríguez-Mondoñedo 2007: 212, Fábregas 2013: 31):

- (11) El maestro les presentó *(a) su mujer.
the teacher CLIT.ACC.3PL presented-3SG DOM his wife
'The teacher presented them his wife.'

Note, furthermore, that the presence of other *a*-marked elements does not necessarily evoke the omission of DOM. As already illustrated in (2), repeated here as (12), in clauses with a prepositional phrase marked by *a* 'to', the direct object is generally marked with DOM (Comrie 2013: 42):

- (12) Envié a mi hermana a Caracas.
sent-1SG DOM my sister to Caracas
'I am sending my sister to Caracas.'

Yet, there is a number of controversial issues with respect to DOM marking in ditransitive constructions. In what follows, we will focus on two issues. The first is the question of whether or not clitic doubling of the indirect object has an impact on DOM marking, the second concerns the claim that the omission of DOM is linked to the position of the direct object with respect to the indirect object.

3.1 DOM and clitic doubling of indirect objects

Company Company (1998, 2003) predicts a correlation between the co-occurrence of DOM and dative case marking with clitic doubling. According to her observations, DOM marking "improves noticeably when the I[ndirect] O[bject] is duplicated with a coreferential clitic" (Company Company 2003: 235f), as shown in (13):

- (13) (a) ^{??}/*El maestro presentó a su mujer a los alumnos.
 the teacher presented-3SG DOM his wife to the students
 (b) El maestro les_i presentó a su mujer a los alumnos_i.
 the teacher CLIT.DAT.3PL presented-3SG DOM his wife to the students
 ‘The teacher presented his wife to the students.’

Other researchers, however, do not agree with these judgements. Campos (1999: 1554, fn.79), for instances, notes that many speakers do not accept utterances like (13b) by reporting the following examples:

- (14) (a) *Les_i presentaron a la hija a los invitados_i.
 CLIT.DAT.3PL presented-3PL DOM the daughter to the invited
 ‘They presented her daughter to the invited people.’
 (b) *Le_i dieron a la niña a una madre adoptiva_i.
 CLIT.DAT.3SG gave-3PL DOM the girl to a mother adoptive
 ‘They gave the girl to an adoptive mother.’

Fábregas (2013: 31) reports that “some speakers consider [(15a)] more acceptable than [(15b)], and this is the case with sequences where the direct object is a pronoun, a proper name or is headed by a universal quantifier.”

- (15) (a) Enviaron a todos los heridos a la doctora.
 sent-3PL DOM all the injured people to the doctor
 (b) *Le_i enviaron a todos los heridos a la doctora_i.
 CLIT.DAT.3SG sent-3PL DOM all the injured people to the doctor.
 ‘They sent all the injured people to the doctor.’

A similar observation is provided by Rodríguez-Mondoñedo (2007: 16) who claims that “[...] clitic-doubled I[ndirect] O[bject]s seem to allow the dropping more easily than their non-doubled counterparts, at least for some speakers.” (See also Demonte 1994: 460-461, Torrego 1999: 131-147).

The contrast between a ditransitive construction with clitic doubling and one without clitic doubling in Spanish is also discussed under the heading of “dative alternation” in English (Demonte 1995, Bleam 2003). Demonte (1995: 12) argues that in “Spanish ditransitive sentences alternating a [NP PP] and a [Cl *a* + NP NP] structure for the double complement, the dative – when present – is interpreted as *affected*, in the sense that it is taken to be either the possessor or an intrinsic part of the Theme argument”. She argues that the examples with clitics in (16) are marginal or ungrammatical when the Goal or Location cannot be classified as a possessor.

- (16) (a) Le puse el mantel a la mesa.
 CLIT.3SG put-1SG the tablecloth to the table
 ‘I put the tablecloth on the table.’
- (a’) *Le puse los platos a la mesa.
 CLIT.3SG put-1SG the dishes to the table
 ‘I put the dishes on the table.’
- (b) Le regalé un libro a cada uno de los asistentes.
 CLIT.3SG gave-away-1SG a book to each one of the attendants
 ‘I gave a book away to each one of the attendants.’
- (b’) (^{??}Le) regalé/doné un libro a la biblioteca.
 CLIT.3SG gave-away-/donated-1SG a book to the library
 ‘I gave a book away to the library / I donated a book to the library.’

The main question here is whether these sentences have one or two underlying structures. In the case of English, Krifka (2004: 1) summarizes the discussion by concluding that the English dative alternation relates to two constructions: The direct object (DO) construction and the prepositional object (PO) construction as in (17):

- (17) (a) DO construction: Ann gave Beth the car
 NP₀ V NP₁ NP₂
- (b) PO construction: Ann gave the car to Beth
 NP₀ V NP₁ to NP₂

In both constructions, NP₀ denotes the agent of an action or event, NP₁ is the theme or patient of the action, i.e. the object that is moved, and NP₂ is the recipient or goal of an action. German has only one constructions and consistently uses the dative for NP₁, i.e. for the recipient or goal role.

- (18) Der Mann gab der Frau das Auto.
 the-NOM man gave-3SG the-DAT woman the-ACC car
 ‘The man gave the woman the car / The man gave the car to the woman.’

The question is whether Spanish is more like English in that it expresses the goal role with a prepositional phrase and the recipient with an indirect object, though both marked with the same marker *a* but differing in the use of the clitic, assigning both roles to the indirect object. We cannot do justice to this extensive discussion, but see Demonte (1995) or Bleam (2003) for a view that aligns the clitic doubling in Spanish to the dative alternation in English. Furthermore, for the contrast we are interested in we examine a very specialized subclass of ditransitive construction, namely a construction with a human direct object, that is, a construction which is rarely used and rarely discussed.

3.2 DOM and word order

Rodríguez-Mondoñedo (2007: 215) observes that if the DOM-marker is omitted, the direct object must precede the indirect object, or it must be adjacent to the verb:

- (19) (a) El jefe le presentó [DO el empleado] [IO a Pedro].
 the boss CLIT-DAT-3SG introduced-3SG the employee a Peter
- (b) *El jefe le presentó [DO al empleado] [IO a Pedro].
 the boss CLIT-DAT-3SG introduced-3SG DOM-the employee a Peter
 ‘The boss introduced Peter to the employee.’

Campos (1999: 1554) makes a related observation. He argues that the order of constituents is generally direct object before indirect object as in (20a), while the reverse order is not very good, as in (20b). However, if the indirect object is doubled with a clitic, both orders are well-formed (20c-d):

- (20) (a) Juan dio el libro de inglés a María.
 Juan gave-3SG the book of English to Mary
- (b) ^{??}Juan dio a María el libro de inglés.
 Juan gave-3SG to Mary the book of English
- (c) Juan le dio el libro de inglés a María.
 Juan CLIT-DAT-3SG gave-3SG the book of English to Mary
- (d) Juan le dio a María el libro de inglés.
 Juan CLIT-DAT-3SG gave-3SG to Mary the book of English
 ‘John gave the English book to Mary / John gave Mary the English book.’

3.3 Further conditions

There are additional factors that influence DOM in ditransitive constructions. Campos (1999: 1554; fn 77) observes that in some cases the use of DOM is obligatory in such constructions. He mentions the two examples without providing additional discussion:

- (21) (a) Presentaron ^{*(a)} Juan al director.
 Presented-3PL DOM John to-the director
 ‘They present John to the director.’
- (b) Recomendé ^{*(a)} tu amigo a mi jefe.
 recommended-1SG DOM your friend to my chief
 ‘I recommended your friend to my chief.’

We interpret these examples as showing that the position of the referentiality scale (see (5)) also influences DOM. In other words, a proper name as direct object is obligatorily marked even if the full indirect object has the *a*-marker. Hence, the blocking effect of DOM does not apply to proper names (nor to possessives). There are probably similar effects of long modification of the direct object: the more the DO is modified the more probably it is marked, cf. (9) above.

3.4 Intermediate summary and relevant parameters

In summary, we have identified two main parameters discussed in the literature that might affect DOM in ditransitive constructions: clitic doubling and word order. With respect to clitic doubling there are two positions: (i) the enhancing position that assumes that clitic doubling triggers or enhances DOM (see Company Company 1998, 2003); (ii) the blocking position that assumes DOM is inhibited or blocked if the indirect object exhibits clitic doubling (see Campos 1999, Fábregas 2013, Rodríguez-Mondoñedo 2007). With respect to word order, Rodríguez-Mondoñedo (2007: 215) argues that if the DOM-marker is omitted, the DO must precede the IO, or in other words it must be adjacent to the verb. In our experiment described in section 5 we will focus on the effect of clitic doubling and word order such that we have 2x2 design.

4. Ditransitive constructions in Spanish

Ditransitive constructions generally contain an agent in subject position, an experiencer in the indirect object position and a theme or patient in the direct object position (see Haspelmath 2004 and Kittillä 2006 for a typological overview). Agent and experiencer are generally human, but patient or theme inanimate. Additionally, Spanish has a strong preference not to realize simultaneously the direct and indirect object by full descriptive noun phrases. Both conditions result in a very low rate of direct object constructions with both objects realized as full descriptive noun phrases. García-Miguel (2015: 237) observes that “in those rare cases where both T [= theme] and R [= recipient or experiencer] are animate [...], it is even rarer for both to be instantiated by NPs” and that in most of these cases, “R is instantiated only as a personal clitic index”. Ortiz Ciscomani (2011, 162) also notes that languages resist a construction with such characteristics, i.e. human direct and human indirect object.

Both conditions – the very rare human direct objects and the preference not to have both objects realized as human full noun phrases – lead to ‘scarce data’. In her diachronic corpus study from the 13th to the 20th century, Ortiz Ciscomani (2005) observes that (i) the percentage of this construction (with two full human noun phrases) with respect to all constructions decreases by approximately 10–35 % in the 13th and 14th century to about 2 % in the 19th and 20th century. In a diachronic corpus study of more than 12.000 sentences with ditransitive verbs, von Heusinger (to appear) found constructions with two human full noun phrases in only less than 1% of all sentences. Similarly, García-Miguel (2015: 237) reports from a search in ADESSE that provides less than 1% ditransitive constructions with two *a*-marked human full noun phrases. Therefore, a questionnaire is central for our understanding of the parameters that control DOM in ditransitive constructions.

We decided to use three classes of verbs for the questionnaire: (i) verbs of caused perception, where the indirect object realizes a secondary experiencer (*presentar* ‘to present’); (ii) verbs of caused possession, where the indirect object realizes a secondary possessor (*vender* ‘to sell’); (iii) verbs of caused motion, where the indirect object realizes the recipient or the goal (*mandar* ‘to send’). In a fourth group we used two verbs each from (i) and (ii) with a *para que* (‘so that’) final clause.

4.1 Group A: Verbs of caused perception

We have 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. After a comprehensive context the sentence was presented in four versions manipulating the order of objects and clitic doubling. In the final questionnaires (see section 5) we presented the particular sentences in such a way that participants had to choose between DOM (*a*-marker) or the lack of it. We will indicate that in the examples by “a/Ø”, but we provide just the gloss “DOM”. We further highlight the direct object and the clitic pronoun for the indirect object in bold.

- (22) 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 in the police station was awaiting the arrival of the new policeman. When he arrived, he went to the superintendent department. Afterwards, the superintendent ordered to call agent López. Then ...’

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

4.2 Group B: Verbs of caused possession

We have used four verbs of caused perception: *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 in 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.

- (23) 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 **al/Ø el niño** a su hermana.
 Manuel has trusted.3SG DOM-the child to his sister
- (b) Manuel ha encomendado a su hermana **al/Ø el niño**.
 Manuel has trusted. 3SG to his sister DOM-the child
- (c) Manuel **le** ha encomendado **al/Ø el niño** a su hermana.
 Manuel CLIT.DAT.3SG has trusted.3PL DOM-the child to his sister
- (d) Manuel **le** ha encomendado a su hermana **al/Ø el niño**.
 Manuel CLIT.DAT.3SG has trusted.3PL to his sister DOM-the child
 ‘Manuel has trusted his child to his sister.’

4.3 Group D: Verbs of caused motion

Group D covers verbs of caused motions such as, *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. The agent does not accompany that theme and the recipient does not become the possessor of the theme. Clitic doubling with these verbs were often quite marginal, but became much better, even full acceptable when we added a final clause with *para que* (‘so that’), with the subject of that clause being the recipient. We speculate that by making the indirect object to the subject of the final clause we force more agentive recipient reading, rather than just a goal reading (which need not be agentive). Often, such examples – without the continuation – can be read as having a goal as second argument (the use of the clitic is often not very good without the continuation).

- (24) 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 candies. He bought chocolate or sweets whenever he could. From eating so many sweets he got teeth decay, and when his mother noticed it, ...’

- (a) su madre llevó **al/Ø** el **niño** al dentista
 his mother took-3SG DOM-the child to-the dentist
 para que le hiciese una revisión.
 for that him make-3SG an examination
- (b) su madre llevó al dentista **al/Ø** el **niño** .
 his mother took-3SG to-the dentist DOM-the child
 para que le hiciese una revisión.
 for that him make-3SG an examination
- (c) su madre **le** llevó **al/Ø** el **niño** al dentista.
 his mother CLIT.DAT.3SG took-3SG DOM-the child to-the dentist
 para que le hiciese una revisión.
 for that him make-3SG an examination
- (d) su madre **le** llevó al dentista **al/Ø** el **niño**.
 his mother CLIT.DAT.3SG took-3SG to-the dentist DOM-the child
 para que le hiciese una revisión.
 for that him make-3SG an examination
 ‘his mother took the child to the dentist to make an examination.’

4.4 Group C: Verbs from A and B with *para que* final clauses

Since we used the final *para que* clauses in Group D, we created an additional Group C with two verbs from Group A (*mostrar* ‘to show’, *proponer* ‘to propose’) and two from Group B (*vender* ‘to sell’, *devolver* ‘to return’) in order to test whether the *para que* clause influences DOM. Again we speculate that the *para que* clause makes the second argument *al director* more agentive and therefore more likely to be a recipient.

- (25) Todo estaba ya preparado para el comienzo del rodaje de la película. Los productores habían conseguido reunir todo el equipo necesario, los escenarios estaban terminados y el casting había finalizado.

‘Everything was ready for beginning of the shooting of the film. Producers had collected all the necessary equipment, scenography was completed and the casting had finished.’

- (a) El jefe de casting finalmente mostró **al/Ø** el **candidato** al
 The chief of casting finally showed-3SG DOM-the candidate to-the
 director para que le diese el visto bueno.
 director for that him give the approval
- (b) El jefe de casting finalmente mostró al director **al/Ø** el
 The chief of casting finally showed-3SG to-the director DOM-the
candidato para que le diese el visto bueno.
 candidate for that him give the approval

- (c) El jefe de casting finalmente **le** mostró **al/Ø** el
 The chief of casting finally CLIT.DAT.3SG showed-3SG DOM-the
candidato al director para que le diese el visto bueno.
 candidate to-the director for that him give the approval
- (d) El jefe de casting finalmente **le** mostró **al**
 The chief of casting finally CLIT.DAT.3SG showed-3SG to-the
 director **al/Ø** el **candidato** para que le diese el visto bueno.
 director DOM-the candidate for that him give the approval
 ‘Finally, the casting chief showed the candidate to the director to give him the approval.’

5. Questionnaire

We designed a questionnaire in order to test the dependence of DOM in ditransitive sentences from (i) word order, (ii) clitic doubling and (iii) verb class. We wanted to test four Hypotheses. Note that H2a and H2b contradict each other – only one can be correct.

H1: non-*a*-marked DO must precede IO (Rodríguez-Mondoñedo 2007: 215)

H2a: Clitic doubling triggers or enhances DOM (Company Company 1998, 2003)

H2b: Clitic doubling inhibits or blocks DOM (see Campos 1999, Fábregas 2013, Rodríguez-Mondoñedo 2007)

H3: Verb class is an additional parameter for DOM (von Heusinger 2008, von Heusinger & Kaiser 2011)

5.1 Design

Forty students of the University of Alcalá in Spain (situated in Alcalá de Henares, near Madrid) volunteered to fill in a questionnaire (for no money). All participants were monolingual speakers of Spanish and university students. We constructed 16 critical items with four conditions each and added 36 filler items. We distributed the critical items according to a Latin Square on four questionnaires 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. We pseudo randomized critical and filler items and produced printed versions. Participants had to decide (‘forced choice’) whether the direct object is *a*-marked or unmarked. The order of *a* > Ø vs. Ø > *a* were randomized.

Each questionnaire came with an introductory page that asked for age, sex, level of education, place of origin, mother language and further languages. We then provided a short introduction and three examples of how to answer the question (see the Appendix 1 for the introductory page and the first of last examples of one of the questionnaires. Appendix 2 provides all critical items). All items were constructed with an extensive context of two to three sentences introducing all the relevant characters. For the critical items, the critical sentence had a subject, direct object and indirect objects, all human definite male full noun phrases. We collected the answers of 10 participants for each of the four questionnaires. In total we had 640 judgments to the 4x2x2 design, i.e. for each condition 40 judgments, 10 for each context / verb.

The 16 test items consisted of four verbs of each of the groups discussed above - see Table 1. Note that Group C consists of two verbs from Group A and two from Group B with a *para que* clause.

Table 1: Four verb classes with four verbs each

No	Type	verb type	<i>para que</i>	verb
1	A	verb of caused perception	–	<i>presentar</i> ‘to introduce’
2	A	verb of caused perception	–	<i>mostrar</i> ‘to show’
3	A	verb of caused perception	–	<i>proponer</i> ‘to propose’
4	A	verb of caused perception	–	<i>enseñar</i> ‘to show’
5	B	verb of caused possession	–	<i>encomendar</i> ‘to entrust sth to sb’
6	B	verb of caused possession	–	<i>incorporar</i> ‘to incorporate’
7	B	verb of caused possession	–	<i>vender</i> ‘to sell’
8	B	verb of caused possession	–	<i>devolver</i> ‘to return’
9	C = A	verb of caused perception	+	<i>mostrar</i> ‘to show’
10	C = A	verb of caused perception	+	<i>proponer</i> ‘to propose’
11	C = B	verb of caused possession	+	<i>vender</i> ‘to sell’
12	C = B	verb of caused possession	+	<i>devolver</i> ‘to return’
13	D	verb of caused motion	+	<i>llevar</i> ‘to carry’
14	D	verb of caused motion	+	<i>mandar</i> ‘to send’
15	D	verb of caused motion	+	<i>enviar</i> ‘to send’
16	D	verb of caused motion	+	<i>acercar</i> ‘to come close’

Each of the critical items was manipulated according to (i) word order (DO > IO vs. IO > DO) and (ii) clitic doubling (non clitic vs. clitic), yielding four conditions:

Table 2: Four conditions for each context

a:	SUBJECT > Ø VERB > DO > IO
b:	SUBJECT > Ø VERB > IO > DO
c:	SUBJECT > CL VERB > DO > IO
d:	SUBJECT > CL VERB > IO > DO

5.2 Results

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

Table 3: Overall result of DOM vs. Ø

	DOM	Ø	total
sum absolut	369	271	640
percentage	58%	42%	100%

Table 4 lists the results for each participants and each questionnaire. There is a high variation between participants and even for the questionnaire we find a certain amount of variation. Detailed studies of the place of origin of the participants did not reveal any further insight.

Table 4: Participants and questionnaires

participant	DOM	Ø	total
Q1	72	88	160
1	4	12	16
2	11	5	16
3	3	13	16
4	7	9	16
5	3	13	16
6	10	6	16
7	6	10	16
8	9	7	16
9	7	9	16
10	12	4	16
Q2	95	65	160
11	13	3	16
12	5	11	16
13	7	9	16
14	10	6	16
15	12	4	16
16	11	5	16
17	7	9	16
18	8	8	16
19	12	4	16
20	10	6	16
Q3	96	64	160
21	10	6	16
22	12	4	16
23	14	2	16
24	9	7	16
25	9	7	16
26	10	6	16
27	8	8	16
28	8	8	16
29	8	8	16
30	8	8	16
Q4	106	54	160
31	7	9	16
32	10	6	16
33	7	9	16
34	16		16
35	13	3	16
36	13	3	16
37	8	8	16
38	12	4	16
39	9	7	16
40	11	5	16
total	369	271	640

We could not find any evidence for H1 *non-a-marked DO must precede IO*: We see as many cases for DOM-realization in DO > IO as in IO > DO sentences.

Table 5: Word order

word order	DOM	Ø	sum
DO > IO	180	140	320
IO > DO	189	131	320
total	369	271	640

We find evidence for H2b *Clitic doubling inhibits or blocks DOM* and against H2a *Clitic doubling triggers or enhances DOM*. If the indirect object exhibits clitic doubling, we find as many marked direct objects as unmarked (50% / 50%). However, if the indirect object does not exhibit clitic doubling we find 65% marked direct objects and 35 unmarked ones. This result clearly supports H2b that says that clitic doubling inhibits DOM. There is only a very slight interaction for word order X clitic doubling for items that exhibit clitic doubling, see Table 7.

Table 6: Clitic doubling

clitic doubling	DOM	Ø	sum
cl	161	159	320
no	208	112	320
sum	369	271	640
cl	50%	50%	100%
no	65%	35%	100%

Table 7: Interaction of word order and clitic

word order x clitic	DOM	Ø	sum
cl	50,31%	49,69%	100,00%
DO > IO	46,88%	53,13%	100,00%
IO > DO	53,75%	46,25%	100,00%
no	65,00%	35,00%	100,00%
DO > IO	65,63%	34,38%	100,00%
IO > DO	64,38%	35,63%	100,00%
total	57,66%	42,34%	100,00%

Interestingly, we do find furthermore a highly significant effect of modification – a parameter that we had not controlled for. Prenominal adjective modification (*nuevo trabajador* ‘new worker’) and postnominal adjective modification (*jugador suplente* ‘additional player’) behaves very similar to the case of no modification (*el niño* ‘child’). However, a modification by a possessive adjective (*su nuevo compañero* ‘his new colleague’) clearly enhances DOM from an average of about 45% to 87%. This observation can be accounted by the assumption that possessive noun phrases are higher on the referentiality scales – see discussion above in section 3.5, where it was noted that proper names and possessive noun phrases are obligatorily marked.

Table 8: Modification of the direct object

modification	DOM	Ø	sum
Adj	42,50%	57,50%	100,00%
no	43,44%	56,56%	100,00%
poss Adj	86,88%	13,13%	100,00%
poss Adj Adj	70,00%	30,00%	100,00%
postN Adj	57,50%	42,50%	100,00%
total	57,66%	42,34%	100,00%

Verb classes are also relevant for DOM marking, as we can in the following table:

Table 9: Verb group and modification

verb class, modification, verb	DOM	Ø	sum
A	50,63%	49,38%	100,00%
Adj	42,50%	57,50%	100,00%
<i>proponer</i>	42,50%	57,50%	100,00%
no	12,50%	87,50%	100,00%
<i>mostrar</i>	12,50%	87,50%	100,00%
poss Adj	77,50%	22,50%	100,00%
<i>enseñar</i>	77,50%	22,50%	100,00%
poss Adj Adj	70,00%	30,00%	100,00%
<i>presentar</i>	70,00%	30,00%	100,00%
B	53,75%	46,25%	100,00%
no	27,50%	72,50%	100,00%
<i>devolver</i>	32,50%	67,50%	100,00%
<i>encomendar</i>	22,50%	77,50%	100,00%
poss Adj	85,00%	15,00%	100,00%
<i>vender</i>	85,00%	15,00%	100,00%
postN Adj	75,00%	25,00%	100,00%
<i>incorporar</i>	75,00%	25,00%	100,00%
C	46,88%	53,13%	100,00%
no	30,00%	70,00%	100,00%
<i>devolver</i>	40,00%	60,00%	100,00%
<i>mostrar</i>	20,00%	80,00%	100,00%
poss Adj	87,50%	12,50%	100,00%
<i>vender</i>	87,50%	12,50%	100,00%
postN Adj	40,00%	60,00%	100,00%
<i>proponer</i>	40,00%	60,00%	100,00%
D	79,38%	20,63%	100,00%
no	73,33%	26,67%	100,00%
<i>enviar</i>	75,00%	25,00%	100,00%
<i>llevar</i>	80,00%	20,00%	100,00%
<i>mandar</i>	65,00%	35,00%	100,00%
poss Adj	97,50%	2,50%	100,00%
<i>acercar</i>	97,50%	2,50%	100,00%
total	57,66%	42,34%	100,00%

There is a contrast between Group A and Group D: For Group A *verbs of caused perception*, marked and unmarked direct objects are balanced, while for Group D *verbs of caused motion* there are about 80% marked direct objects. Note that modification clearly influences this result. As we can see from Table 9, the possessive modification yields the highest results for

DOM in each group. However, it seems that the effect between Group A and Group D would be even larger if we had controlled for modification. Group A has two possessive NPs and Group D has only one. Still Group D has a much higher rate of DOM

There is an overall effect of the *para que* final clause, as shown in Table 10. However, this effect is mainly driven by the fact that most *para que* contexts are in Group D, which is much more likely to have DOM than not. If we compare the verbs in Group C with their versions without a *para que* clause in Group A and B, we see that there is only a minor advantage.

Table 10: *para que* final clause

<i>para que</i>	DOM	Ø	sum
no	167	153	320
<i>para que</i>	202	118	320
total	369	271	640

5.3 Discussion

The questionnaire has provided new evidence for the parameters that influence DOM in ditransitive constructions. We started with four hypotheses H1 to H3:

- H1: Unmarked DO must precede IO (Rodríguez-Mondoñedo 2007: 215)
- H2a: Clitic doubling triggers or enhances DOM (Company Company 1998, 2003)
- H2b: Clitic doubling inhibits or blocks DOM (see Campos 1999, Fábregas 2013, Rodríguez-Mondoñedo 2007)
- H3: Verb class is an additional parameter for DOM (von Heusinger 2008, von Heusinger & Kaiser 2011)

The data does not confirm H1: We found as many DOM instances for DO > IO as in IO > DO. The data clearly support H2b and thus contradicts H2a. DOM occurs less if an indirect object exhibits clitic doubling, than when it does not. H3 is also supported: Here we find that verbs of caused motion trigger more DOM than verbs of caused perception. We find, however, a very high variation in the participants' judgments (see Table 4) and we have the strongest effect for possessive noun phrases (see Table 8). As we did not control for modification in our test items, we cannot clearly say how this parameter also influences the results of the other parameters. However, in a follow up we did control for modification and found very similar results (see von Heusinger submitted).

6. Conclusion

DOM for definite human direct objects in ditransitive constructions can be blocked if the indirect object is a full noun phrase and therefore *a*-marked. This is surprising given that DOM in transitive sentences is obligatory for definite human direct objects. This observation is discussed in the literature, but there are only very few studies on the parameters that can influence the blocking of DOM. Our questionnaire tested (i) word order, (ii) clitic doubling, and (iii) verb class. On the one hand, we could show (against Rodríguez-Mondoñedo 2007) that there is no effect by word order. On the other hand, our data provide evidence that there is a blocking effect of clitic doubling (against Company Company 1998, 2003 and supporting Campos 1999, Fábregas 2013, Rodríguez-Mondoñedo 2007) and of verb class (supporting von Heusinger 2008, von Heusinger & Kaiser 2011). If we take a closer look at the interaction of clitic doubling and verb class (and leaving the interference for the possessive noun phrase out) we can describe the following scenario, summarized in Table 12.

Table 11: Verb class and clitic doubling

verb class and CD	DOM	Ø	sum
A	50,63%	49,38%	100,00%
cl	42,50%	57,50%	100,00%
no	58,75%	41,25%	100,00%
B	53,75%	46,25%	100,00%
cl	51,25%	48,75%	100,00%
no	56,25%	43,75%	100,00%
C	46,88%	53,13%	100,00%
cl	41,25%	58,75%	100,00%
no	52,50%	47,50%	100,00%
D	79,38%	20,63%	100,00%
cl	66,25%	33,75%	100,00%
no	92,50%	7,50%	100,00%
total	57,66%	42,34%	100,00%

For Group A *verbs of caused perception* and Group B *verbs of caused possession* DOM is distributed closely to chance and there is no effect of clitic doubling. However, for Group D *verbs of caused motion* we see two effects: First, the whole group clearly favors DOM with and without clitic doubling (80% DOM and 20% Ø). Second, clitic doubling has a very strong effect: with clitic doubling we find 66% DOM vs. 34% Ø, which is 2:1. But without clitic doubling we have 92% DOM vs. 8% Ø, which is a relation of 11:1. 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 it shows us that we have two different constructions. In one construction with the 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 provide two very different argument structures, and that these argument structure are providing the relevant properties to enhance or block DOM. Needless to say that more research is necessary.

Appendix 1 - Questionnaire

In the following we present the first page of one questionnaire and the first and last items.

DATOS PERSONALES

Edad:

Sexo:

Nivel de estudios:

En caso de estudios universitarios, titulación:

Lugar de procedencia (país, provincia):

Lengua(s) materna(s):

Segunda(s) lengua(s):

INTRODUCCIÓN

Este cuestionario busca aportar algunas ideas acerca de cómo las personas utilizamos nuestra lengua normalmente, no sobre la gramática que se aprende en la escuela. Es importante señalar entonces que no se trata de un examen de nuestros conocimientos gramaticales y, por tanto, **no hay respuestas correctas ni incorrectas**.

El cuestionario consta de un total de 52 preguntas que usted habrá de responder en un tiempo aproximado de 20-25 minutos. Dichas preguntas no tienen ningún tipo de relación entre ellas. Su cometido será leerlas y contestar lo más rápido posible, sin detenerse a reflexionar mucho sobre las respuestas.

Cada pregunta incluye un breve fragmento de texto que, en algún momento, presenta dos opciones. Usted simplemente **tendrá que decidir cuál de ellas le resulta más familiar o considera que suena mejor y marcar la casilla correspondiente con un tic**, tal y como se muestra en los ejemplos. Es importante seleccionar solamente una opción, en ningún caso se pueden marcar ambas.

1. *María regaló a su hermano pequeño un perro por su cumpleaños, pero él no se ocupaba nunca de su mascota. Por ello, María tenía sacar de paseo el / al perro a la calle cada mañana.*

2. *Mañana es el aniversario de Andrés y Ana, y él sabe que debería regalarle algo a su novia, pues llevan cinco años juntos. Por ello, Andrés le comprará _____ / a un gato para sorprenderla.*

En caso de haber señalado una casilla por error y querer desecharla, por favor, hágalo utilizando la doble barra (/ /) junto a la opción que no es válida y marque nuevamente con un tic bajo la casilla de la opción que considere más adecuada, tal y como se muestra en el ejemplo. Las respuestas se pueden cambiar únicamente una vez.

3. *Juanma y Aitor son hermanos y siempre estudian juntos en casa. A Juanma se le ha olvidado un libro en clase y lo necesita para hacer sus deberes. Aitor deja al / el libro a su hermano para que pueda hacerlos.* //
✓

¡GRACIAS DE ANTEMANO POR SU TIEMPO Y SU COLABORACIÓN!

1. El investigador estaba entusiasmado con su nuevo descubrimiento. Por ello, no tardó mucho en anotar los resultados y llevar al / la cura al hospital para que el

 resto de médicos comprobase si estaba en lo cierto.
2. 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 a al agente López. Entonces el comisario presentó _ / a su nuevo compañero al agente.
3. Juan estaba de vacaciones y María estuvo, mientras tanto, cuidando de su mascota. Cuando Juan volvió, María entregó el / al perro a su amigo.
4. La niña no dejaba de llorar. Había salido corriendo de casa con sus muñecas en la mano y una de ellas se le cayó en por la calle. Su madre, al verla, le cogió _ / a la muñeca al pensar que quizá se le hubiese roto.

[...]

51. La profesora trataba de dar clase a sus alumnos, pero ellos no prestaban atención. Aquella mañana estaban muy distraídos y no dejaban de hablar. De repente, uno se levantó y empezó a hacer tonterías. Entonces la profesora le envió al / el chico al director del centro para que lo castigase.
52. Lucía tiene una hermana pequeña y, puesto que su madre hoy no está, es ella la encargada de prepararla para llevarla al colegio. La niña se viste y desayuna sola, pero Lucía cepilla el / al pelo a su hermana antes de salir hacia el colegio.

Finalmente, nos gustaría que respondiese a la siguiente pregunta y nos ayudase realizando más abajo todos los comentarios que considere oportunos acerca del test en conjunto o de cualquiera de los ejemplos:

- *Según su opinión, ¿qué considera que se persigue con el test que ha realizado?*
- Comentarios:

Appendix 2 - critical test items

In the following we list all the critical test items in their *a* version, i.e. with DO > IO and without clitic doubling. The *b-d* versions are only provided for the first example as illustration. Please note that the order of Ø and DOM was in the final questionnaires randomized.

1. 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,
 - a) el comisario presentó _ / **a su nuevo compañero** al agente.
 - b) el comisario presentó al agente _ / **a su nuevo compañero**.
 - c) el comisario **le** presentó _ / **a su nuevo compañero** al agente.
 - d) el comisario **le** presentó al agente _ / **a su nuevo compañero**.
2. Ha llegado el día del partido. Los jugadores han entrenado mucho y salen al campo a calentar. A última hora al delantero titular le ha dado un tirón y ha tenido que abandonar lesionado el campo. Por ello, el entrenador ha tenido que incorporar **al** / **el jugador suplente** al equipo.
3. El profesor había salido de clase un momento y Juan aprovechó para ponerle una chincheta en la silla. Cuando este entró y vio lo que los alumnos habían preparado, advirtió que a no ser que dijese quién había sido, nadie saldría al recreo. Andrea vendió **a** / _ **su compañero** al profesor para que este no los castigase.
4. Carmen y Luis están casados desde hace muchos años. Luis nunca había estado enfermo, pero hace una semana salió de casa sin abrigo y cogió una gripe terrible. Preocupada, Carmen acercó **a** / _ **su marido** al médico para que le recetase algún medicamento.
5. Ana acaba de tener un bebé. Su amigo Pablo, al enterarse, decide ir a verlo. Pero cuando él llega, Ana no está en casa. Antonia, su madre, lo recibe en la puerta. Ambos charlan un rato y después Antonia muestra **el** / **al bebé** de Ana al chico.
6. Ayer por la mañana dos hombres llevaron a cabo un gran asalto al mayor banco de la ciudad. Después del robo, los ladrones no se ponían de acuerdo a la hora de repartir el botín. Eduardo, por ser el más joven, recibió menos dinero y no estaba conforme. Y, por ello, este vendió _ / **a su compañero** al comisario de policía.
7. Hace unas semanas se produjo el secuestro de un periodista de guerra. Dicho periodista era hermano de un gran empresario. Pero en el periódico de ayer salió publicada la noticia de que los secuestradores devolvieron **el** / **al rehén** a su hermano para que este les pagase el rescate que habían pedido.
8. Carlos se pasaba el día comiendo chucherías. Siempre que podía compraba chokolatinas o caramelos. De tanto comer dulces se le acabaron picando los dientes y, cuando se dio cuenta, su madre llevó **al** / **el niño** al dentista para que le hiciese una revisión.
9. El presidente de la empresa había muerto hace unos días. El Consejo se reunía aquella tarde para valorar las propuestas de sus miembros y nombrar a un nuevo presidente. Justo antes de terminar la reunión, el secretario propuso **el** / **al nuevo trabajador** al Consejo.

10. Los niños estaban jugando en el patio de la guardería, pero ya era casi la hora de comer y, por ello, la hora de volver a casa. Entonces, llegó el padre de Iván a recogerlo y la profesora devolvió **el / al niño** a su padre.
11. Todo estaba ya preparado para el comienzo del rodaje de la película. Los productores habían conseguido reunir todo el equipo necesario, los escenarios estaban terminados y el casting había finalizado. El jefe de casting finalmente mostró **el / al candidato** al director para que le diese el visto bueno.
12. Ignacio trabajaba descargando camiones en un supermercado. Llevaba varios días con un dolor muy fuerte en la espalda y decidió acudir a su médico de cabecera. Al no estar muy seguro de qué se trataba, el médico mandó **el / al paciente** al traumatólogo para que este le hiciera las pruebas necesarias.
13. Marcos ganó la semana pasada el premio al mejor investigador del año. Su foto ha salido en una de las revistas de divulgación científica más importantes. Su mujer, muy orgullosa, ha comprado la revista de camino al trabajo y, nada más llegar, ella ha enseñado **a / _ su marido** a su compañero de oficina.
14. Manuel y Elena salen de viaje mañana hacia Estados Unidos. Tienen un niño de apenas un año aún y es muy pequeño para llevarlo de viaje con ellos. Por ello, mientras ellos están fuera, Manuel ha encomendado **al / el niño** a su hermana.
15. Se acercan las elecciones. Los partidos están configurando sus equipos de gobierno, pero estas decisiones han de ser aprobadas por el secretario general de cada partido. Por ello, el delegado del partido ha propuesto **al / el candidato** más idóneo al secretario general para que él dé su consentimiento.
16. La profesora trataba de dar clase a sus alumnos, pero ellos no prestaban atención. Aquella mañana estaban muy distraídos y no dejaban de hablar. De repente, uno se levantó y empezó a hacer tonterías. Entonces la profesora envió **al / el chico** al director del centro para que lo castigase.

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On locality effects in Romance: the role of clitic doubling

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1. Introduction

This paper discusses two non-local syntactic phenomena that trigger different locality effects across the Romance languages, namely long distance relations such as Hyper-raising and Long Distance Agree, on one hand, and clitic doubling and its role in defective intervention with dative experiencers on the other.

Brazilian Portuguese (BP), Romanian (Ro) and Spanish (Sp) have long distance relations. The sentences in (1) potentially qualify as hyper-raising for Brazilian Portuguese and Romanian (cf. *John_i seems that t_i is sick*) (Ura 1994, 1996) and raising for Spanish.

- | | | | |
|-----|----|--|----|
| (1) | a. | <i>Os meninos parecem que estão doentes.</i> | BP |
| | | The children seem-3PL that are-3PL sick-3PL | |
| | | ‘The students seem to be sick.’ | |
| | b. | <i>Copiii par să fie bolnavi.</i> | Ro |
| | | children-the seem-3PL subj _{PTC} be-3PL sick-3PL.MASC | |
| | | ‘The children seem to be sick.’ | |
| | c. | <i>Los niños parecen dormir tranquilos.</i> | Sp |
| | | the children seem-3PL sleep quiet-3PL.MASC | |
| | | ‘The children seem to be sleep quiet.’ | |

Besides long distance movement, Spanish and Romanian also show obligatory Long Distance Agree (LDA) (cf. (Alexiadou et al 2012)), in contrast to Brazilian Portuguese:

- | | | | |
|-----|----|--|----|
| (2) | a. | <i>Parece (*m) que os meninos estão doentes.</i> | BP |
| | | seem-3SG (3PL) that the children be-3PL sick | |
| | | ‘The children seem to be sick.’ | |
| | b. | <i>Par/ *pare să fie (copiii) bolnavi (copiii).</i> | Ro |
| | | seem-3PL/ seem-3SG subj _{PTC} be-3PL (children-the) sick (children-the) | |
| | | ‘The children seem to be sick.’ | |
| | c. | <i>Parecen/ *Parece dormir (los niños) tranquilos (los niños).</i> | Sp |
| | | seem-3PL/ seem-3SG be-INF (the children) quiet (the children) | |
| | | ‘The children seem to sleep quiet.’ | |

These long distance relations raise a crucial question that we attempt to answer in this paper: Is there a Spec-TP/AgrP available for subjects in (Hyper)-raising in all these languages (cf. (1)) or not?

Much work has been done on hyper-raising in Brazilian Portuguese, (Ferreira 2000, Martins & Nunes 2005, 2009), not so much so on Romanian and Spanish. We will show that Brazilian Portuguese has a subject position available for hyper-raised DPs while Romanian and Spanish do not have the same subject position. Furthermore, Alboiu (2007) and Alexiadou et al (2012) show that Romanian and Spanish have LDA. We will argue that Romanian and Spanish always display LDA and not (hyper)-raising, while Brazilian Portuguese only displays the latter.

We also investigate another type of long distance relation in this paper¹, namely clitic doubling and its role in repairing defective interventions of experiencers in raising constructions. In Brazilian Portuguese, a dative experiencer poses minimality on the movement of the embedded subject to the matrix Spec-TP in hyper-raising structures (3a). The same intervention effects are found in Romanian and Spanish seemingly (hyper-)raising unless the experiencer is a clitic or a DP doubled by a clitic (cf. (3b),(3c)).

- (3) a. **Os alunos parecem pro professor que estudaram para* BP
 the students seem-3PL [to the teacher]_{EXPRC} that studied-3PL for
a prova.
 the exam
 ‘The students seem to the teacher to have studied for the exam.’
- b. *Copiii *(ii) par profesorului să studieze pentru* Ro
 children CL-DAT seem-3PL professor-DAT subj_{PTC} study-3PL for
examen.
 exam
 ‘The children seem to the teacher to study for the exam.’
- c. *Los niños *(le) parecen al profesor estudiar para el examen.* Sp
 children CL-DAT seem-3PL to-the professor study-INF for the exam
 ‘The children seem to the teacher to study for the exam.’

In Brazilian Portuguese, hyper-raising of the embedded subject over a Wh-experiencer (trace) is unacceptable (4a). The same intervention effects are found in Romanian and Spanish unless the experiencer is a clitic or a DP doubled by a clitic (cf. (4b), (4c)).

- (4) a. **Pra quem os alunos parecem que estudaram para a prova?* BP
 [to whom]_{EXPRC} the students seem-3PL that studied-3PL for the exam
 ‘To whom do the students seem to have studied for the exam?’
- b. *Cui *(ii) par studenții să studieze pentru examen?* Ro
 whom CL-DAT seem-3PL students subj_{PTC} study-3PL for examen
 ‘To whom do the students seem to study for the exam?’
- c. *¿A quién *(le) parecen los estudiantes estudiar para el examen?* Sp
 whom CL-DAT seem-3PL the students study-INF for the examen?
 ‘To whom do the students seem to study for the exam?’

We will show how these patterns can be accounted for by understanding the parametric differences between these languages and the theory of minimality. Specifically, we argue that these differences are due to the availability of matrix subject position, clitic doubling and the role they play on agreement/movement intervention.

This paper is organized as follows. In section 2 we study the availability of pre-verbal subject positions in Brazilian Portuguese, Romanian and Spanish in (Hyper)-raising structures. Section 3 explains how minimality effects might be obtained in (Hyper)-raising with experiencers. Moreover, we present Bruening’s (2014) counter-argument to defective

¹ Note that Romanian and Spanish native speakers (10 Romanian and 10 Spanish speakers) showed variable preferences for such constructions. They were considered by some native speakers as only marginally acceptable or incorrect. Crucially, this is not due to minimality reasons, it has to do with the fact that both Romanian and Spanish have an impersonal *seem* with an expletive *pro* in Spanish and the expletive SE in Romanian, and those forms are more frequently used than the raised subject ones even if there is no experiencer intervening in the matrix clause:

i) *Parece que ese taxista está cansado.*
 seems that taxi-driver is tired
 ‘It seems that the taxi-driver is tired.’

intervention and we provide an explanation for her data based on linear order. Section 4 briefly concludes the paper.

2. Pre-verbal DPs: subjects or left dislocation?

2.1 Brazilian Portuguese

Much work has been done investigating null arguments in the subject position of indicative clauses in Brazilian Portuguese (henceforth BP). The accepted story goes as follows. The verbal paradigm in modern Brazilian Portuguese is considerably simplified when compared to the verbal paradigm in earlier stages. These changes have significantly restricted the possibility of null subjects in finite clauses (see Duarte 1995, and Nunes 2011 for a recent approach). As a result Brazilian Portuguese is different from both its Romance siblings (like Spanish and Italian, which are prototypical *pro*-drop languages) and non *pro*-drop languages, like English.

The behavior of the null subject in BP mimics that of obligatorily controlled PRO. Ferreira (2000, 2009) and Rodrigues (2004) argue that Brazilian Portuguese cannot license referential *pro* in subject position and that the null subject in Brazilian Portuguese, like controlled PRO, is a trace of A-movement (following Hornstein 2001).

From this perspective, a sentence such as (5) is to be derived along the lines of (6), where the embedded T is ϕ -incomplete and the matrix T is ϕ -complete. Note that the DP *João* is merged in vP and enters into a thematic relation with that predicate², later on moving to [Spec,TP] of the matrix clause where it receives Case.

Brazilian Portuguese comes to license not only finite control (cf. (5) and its derivation in (6)), but also Hyper-raising constructions (cf. (7)) (in the sentence of Ura 1994).

(5) *João disse que vai viajar.*

(6) [TP [João]_i T ϕ -complete [vP *t_i* disse [CP que [TP *t_i* T ϕ -incomplete [vP *t_i* vai viajar]]]]]
 João said that will travel
 ‘John said he was going to travel.’

(7) *Os alunos parecem que estão cansados.*
 the students seem-3PL that are tired
 ‘The students seem to be tired.’

The fact that the DP in (5) and (7) is really in a [Spec, TP] position is extensively shown by Martins and Nunes (2005, 2009). First, the DP in question triggers agreement with the matrix

² It is crucial for their analysis that a DP can have more than one thematic role associated with it in a derivation, following standard assumptions of the Movement Theory of Control (Hornstein 2001, Boeckx, Hornstein and Nunes 2010). Also, it should be noted that Brazilian Portuguese has a strong EPP feature for T agreement/Case. At least in those cases, the embedded subject DP must move to matrix Spec-T. Evidence for that is given below: in infinitive complements, the subject cannot stay in the embedded TP (ia), there’s no long distance agreement between matrix verb and embedded subject. If the embedded subject is Case marked in the embedded domain, the matrix clause verb must bear 3p singular default agreement (cf. (ib)); once the embedded subject cannot be Case-marked by embedded T, it must raise to matrix T (cannot stop at vP) (cf. (ic)).

- (i) a. **Parecem [os alunos estar cansados]*
 seem-PL the students be-INF tired
 b. **Parecem [que os alunos estão cansados]*
 seem-PL that the students are-IND tired
 c. **Parecem os alunos [que estão cansados]*
 seem-3PL that the students are-IND tired

predicate, as shown in (5) above (Ferreira 2000, 2009). Martins and Nunes (2005, 2009) point out that weak pronouns, idiom chunks and quantifiers cannot be topicalized in Brazilian Portuguese, but can be hyper-raised, as we show respectively below. Preverbal DPs in Hyper-raising constructions behave as actual subjects in an A-position. The sentence in (8b) is perfectly acceptable with a weak pronoun DP subject *cê* ('you') and (9b) preserves the idiomatic reading of the idiom chunk, and in (10b) *ninguém* ('none') can be hyper-raised.

- (8) a. **Cês_i*, *Pedro disse que vão sentar na primeira fila.*
 you-PL_{weak pronoun}, Pedro said that go-3PL sit in-the first row
 'Peter said that you will sit in the first row.'
- b. *Cês_i* *parecem que t_i estão muito estressados.*
 you-PL_{weak pronoun} seem-3PL that be-3PL too stressed
 'It seems that you are too stressed out.'
- (9) a. *A vaca, Pedro disse que foi pro brejo.*
 the cow, Pedro said-3SG that went-3SG to-the swamp
 Idiomatic reading blocked: # 'Pedro said that things went bad.'
- b. [*A vaca*]_i *parece que t_i foi pro brejo.*
 the cow seem-3SG that went-3SG to-the swamp
 Idiomatic reading: 'It seems that things went bad.'
- (10) a. **Ninguém, Maria disse que vai alugar o apartamento esse mês.*
 nobody, Maria said-3SG that go-3SG rent the apartment this month
 'Maria said that no one will rent the apartment this month.'
- b. *Ninguém_i parece que t_i vai alugar o apartamento esse mês.*
 nobody seem-3SG that go-3SG rent the apartment this month
 'It seems that nobody will rent the apartment this month.'

The short conclusion is that Brazilian Portuguese hyper-raised subjects are in an A-position (Ferreira 2000, 2009; Martins and Nunes 2005, 2009). This is because the embedded T allows A-movement of its DP subject much like a simple raising sentence (cf. *John seems to be tired*).

2.2 Romanian and Spanish

It has been shown that pre-verbal DPs in Romanian are always left-dislocated (topics or contrastive focus) (cf. Alboiu 2007). Also, Barbosa (1994), Alexiadou & Anagnostopoulou (1998), Fischer (2013) analyze SVO orders in Greek, Romanian and Spanish in terms of Clitic Left Dislocation, i.e., the subject is left-dislocated to a preverbal Topic position in a parallel manner to the left displacement of objects when they are clitic-doubled.

However, there is another approach to pre-verbal DPs in null subject languages that considers these as actual subjects (Hulk & Pollock 2001, Holmberg 2005, Sheehan 2006). Nevertheless, none of these theories are free of problems. The former theories have the advantages of explaining scope reconstruction, free inversion, extraction and the binding properties of postverbal subjects but cannot account for why preverbal subjects in null subject languages in some cases seem to occupy an A-position. The latter analyses cannot explain the extraction, free inversion and binding tests and cannot predict why only "some" preverbal subjects are in an A-position. Since the disagreement in the literature is extensive, we will settle with the view in Rizzi (2001) that pre-verbal subjects in Spanish and Romanian move to a left dislocated position to the left periphery³ for the sake of this paper, and review some of

³ Accordingly, Rizzi (2001) shows that the skeleton of left periphery in Romance has an A-position available which might explain the dichotomous data regarding the behavior of preverbal subjects.

the points argued in the literature⁴. We test for (Hyper)-raising DPs in Romanian and Spanish to see whether they behave similarly.

2.2.1 QP Interpretation & Scope Reconstruction

Preverbal and postverbal subjects in raising constructions have different scope readings Alexiadou & Anagnostopoulou (1998) and AAIM (2012):

Preverbal subjects

- (11) a. *Un bărbat frumos o iubește pe fiecare colegă de-a mea.* **Ro**
 a man handsome CL-ACC loves PE-ACC every colleague of mine (A > Every)
 ‘One and the same man seems to love every colleague of mine.’ (*Every>A)
- b. *Un hombre guapo ama a cada amiga mía.* **Sp**
 A handsome man loves every friend of mine. (A > Every)
 ‘One and the same man loves every friend of mine.’ (*Every>A)

Postverbal subjects:

- (12) a. *O iubește un bărbat frumos pe fiecare colegă de-a mea* **Ro**
 CL-ACC loves a man handsome PE every colleague of mine (A > Every)
 ‘Every colleague of mine is loved by a handsome man.’ (Every>A)
- b. *Ama un hombre guapo a cada amiga mía.* **Sp**
 loves a man handsome to every colleague of mine (A > Every)
 ‘Every colleague of mine is loved by a handsome man.’ (Every>A)

We see the same variation in raising. Matrix DP can only take wide scope:

- (13) a. *Un bărbat frumos pare să o iubească pe fiecare colegă de-a mea.* **Ro**
 a man handsome seem subj_{PTC} love PE.acc every colleague of mine
 (A > Every)
 ‘One and the same man seems to love every colleague of mine.’ (*Every>A)
- b. *Un hombre guapo parece amar a cada amiga mía.* **Sp**
 a man handsome seem love every friend of mine (A > Every)
 ‘One and the same man seems to love every friend of mine.’ (*Every>A)

The in situ subject DP can have both wide and narrow scopes.

- (14) a. *Pare să o iubească un bărbat frumos pe fiecare colegă de-a mea.* **Ro**
 seems subj_{PTC} CL love a man handsome PE every colleague of mine
 (A > Every)
 ‘It seems that every colleague of mine is loved by a handsome man’ (Every>A)
- b. *Parece amar un hombre guapo a cada amiga mía.* **Sp**
 seems love a man handsome to every colleague of mine (A > Every)
 ‘It seems that every colleague of mine is loved by a handsome man’ (Every>A)

2.2.2 Information structure

Note that a subject can be in the preverbal position only if it is a Topic or contrastive focus⁵:

⁴ Notice that our goal in this paper is not to but rather to compare the nature of pre-verbal DPs in simple clauses to those that are hyper-raised in both Spanish and Romanian.

⁵ Nava and Zubizarreta (2010) show that there are different patterns of focus among dialects of Spanish. Preverbal subjects might have narrow focus, cf. Nava and Zubizarreta (2010) a. o. for more on the prosody of dislocated elements in Spanish. For more information about Romanian informational structure, see Alboiu (2007) and references therein. We show that Focus can be realized either in the preverbal or in the postverbal

- (15) a. *Ce s-a întâmplat?* Ro
 What has happened?
 b. *A vărsat **Maria** laptele.*
 has spilt Mary milk-the
 b'. #***MARIA** vărsat laptele!*
 Mary has spilt milk-the.
 'Mary has spilt the milk.'
 c. *Pare să fi vărsat **Maria** laptele.*
 seems subj_{PTC} be spilt Mary milk-the
 'It seems that Maria has spilt the milk.'
 c'. #***MARIA** pare să fi vărsat laptele.*
 Mary seems subj_{PTC} has spilt milk-the
 'Maria seems to have spilt the milk.'
- (16) a. Q: *Cine a vărsat laptele?* Ro
 Who has spilt the milk?
 b. ***MARIA** l-a vărsat!*
 Mary CL-ACC-has spilt
 b'. *L-a vărsat #**Maria**/**MARIA***
 CL.ACC-has spilt Mary/ MARY
 'Mary has spilt it.'
 c. ***MARIA** pare să-l fi vărsat.*
 Mary seems subj_{PTC}-CL-ACC be spilt
 'Maria seems to have spilt it.'
 c'. *Pare să-l fi vărsat #**Maria**/**MARIA***
 seem-3SG subj_{PTC}-CL-ACC be spilt Mary/MARY
 'It seems that Mary has spilt it.'
- (17) a. Q: *¿Qué pasó?* Sp
 'What happened?'
 b. *Botó **María** la leche.*
 spilt-3SG Maria the milk
 'Mary has spilt the milk.'
 b'. #***MARIA** botó la leche!*
 Mary spilt the milk
 'Mary has spilt the milk.'
 c. *Parece haber botado **María** la leche.*
 seems-3SG have-INF spilt Maria the milk
 'It seems that Maria has spilt the milk.'
 c'. #***MARIA** parece haber botado la leche.*
 Mary seems-#SG have-INF spilt the milk
 'Maria seems to have spilt the milk.'
- (18) a. Q: *¿Quién botó la leche?* Sp
 'Who has spilt the milk?'
 b. ***MARÍA** la botó!*
 Mary CL-ACC-has spilt.

- b'. *La botó #María/ MARÍA*
CL.ACC spilt-3SG Mary.
'Mary has spilt it.'
- c. *MARÍA parece haberla botado.*
Mary seems-3SG have-CL-ACC spilt
'Mary seems to have spilt it.'
- c'. *Parece haberla botado #María/ MARÍA.*
seem-3SG have-INF-CL-ACC spilt Mary/MARY
'It seems that Mary has spilt the milk.'

The variation in the position of subjects in different contexts has been proven also in the empirical work of Gabriel (2010) for Buenos Aires:

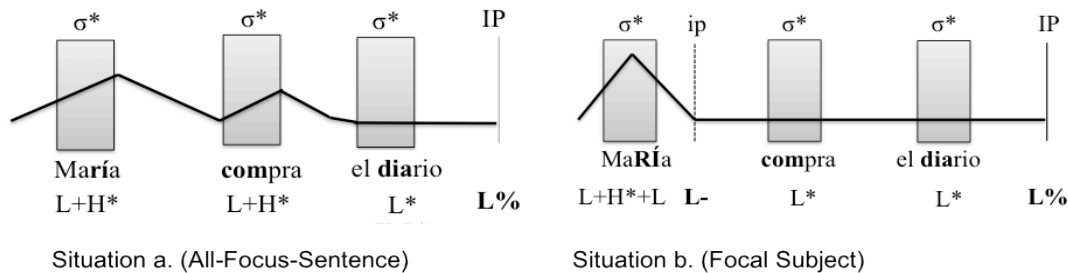
Table 1: Word Order and Information Structure

Information Structure:	All-Focus-Sentence	Focal Subject	Other (e.g. Focal Object)
	a. <i>¿Qué pasó?</i> 'What happened?'	b. <i>¿Quién compró el diario?</i> 'Who bought the newspaper?'	c. <i>¿Qué compró María?</i> 'What did Mary buy?'
<i>María compró el diario.</i>	OK	*	OK
<i>MARÍA compró el diario.</i> ¹	*	OK	*
<i>Compró María el diario.</i>	(OK) ²	*	?
<i>Compró MARÍA el diario.</i>	*	?	*
<i>Compró el DIARIO, María.</i>	*	*	OK
<i>Compró el diario MARÍA.</i>	*	OK	*

(S) *María* = Mary, (V) *compró* = bought-3sg, (O) *el diario* = the newspaper
1 = the capitals indicate that the element is prosodically marked
2 = in some varieties, but not in Buenos Aires Spanish

How the intonation may play a role is illustrated schematically in Figure 1, taking Situation a. vs. Situation b. (Table 1) as examples (from Pešková 2014)

Figure 1: Different intonation contours of the sentence *María / MARÍA compra el diario.*



In contrast, Brazilian Portuguese allows pre-verbal neutral DPs to be raised. Neither focus nor contrast is needed in (19a) or (19c), although focus can be added by using stress.

- (19) a. *O que aconteceu? / Quem derramou o leite?* BP
'What happened?' / 'Who spilt the milk?'
- b. *María/MARIA derramou o leite.*
Mary spilt the milk
- b' **Derramou María o leite.* *VSO in BP
spilt Mary the milk
'Mary spilt the milk.'
- c. *María/MARIA parece que derramou o leite.*
Mary seem-3SG that spilt the milk
'It seems that Mary spilt the milk.'

- c'. *Parece que Maria/MARIA derramou o leite.*
 seem-3SG that Mary spilt the milk
 'It seems that Mary has spilt the milk.'

We have seen above that in contrast to Romanian and Spanish, Brazilian Portuguese has only one position for marked and unmarked subjects; this language does not permit postverbal subjects.

2.2.3 Bare Quantifiers

If the preverbal subject is in an A-bar position, then the bare quantifiers should be ruled out in some contexts in Romanian and Spanish (cf. Alboiu 2007). Note that the preverbal bare quantifiers in these languages are licit only if they trigger a specific reading (cf. Alexiadou & Anagnostopoulou 1998):

- (20) a. *Ce e gălăgia asta?* Ro
 what is noise-the this
 'What's all this noise?'
 b. *Victor/#Cineva pare să cânte la trombon.*
 Victor/somebody seem-3SG subj_{PTC} sing-3SG at trombone
 'Victor/Someone seems to play the trombone.'
- (21) a. *¿Qué es con este ruido?* Sp
 what is with this noise
 'What's all this noise?'
 b. *Victor/#Alguien parece tocar el trombón*
 Victor/somebody seem-3SG play the trombone
 'Victor/Someone seems to play the trombone.'

The above mentioned tests seem to conclude that in Romanian and Spanish there is no subject Spec-TP, therefore, preverbal DPs are left dislocated elements. In view of this, two questions arise:

- i) How is the DP subject Case licensed if the embedded domains are defective (infinitives in Spanish and tenseless subjunctives in Romanian)?
- ii) If pre-verbal matrix DPs are left dislocated, how they obligatorily display agreement with matrix verb?

We will explain those in what follows.

2.3 Long Distance Agreement in Romanian and Spanish

We assume that in Romanian and Spanish, the agreement between the matrix verb and the embedded subject happens without raising (cf. Polinsky & Potsdam 2002, AAIM 2012).

- | | | | | | |
|------|----|-------------------------------|-----------------------|-----------|-------------------------|
| | | Agree | LDA | | |
| (22) | a. | ↓ | ↓ | ↓ | ↓ |
| | | [_{TP} Par | [_{CP/TP} să | doarmă | [_{copiii}]]] |
| | | Ro | | | |
| | | seem-3PL | subj | sleep-3PL | the children |
| | | 'The children seem to sleep.' | | | |
| | | b. | Parecen | dormir | los niños |
| | | seem-3PL | sleep | the | children' |
| | | | | | Sp |

LDA is possible because the embedded T cannot assign Case due to its tense deficient properties in raising Romanian subjunctives (Farkas 1992, Dobrovie-Sorin 1994, cf. also

Alboiu 2007, AAIM 2012) and to its φ -deficient features in Spanish infinitives (Pires 2006). Both Spanish infinitives and Romanian subjunctives lack a CP layer (Alboiu 2006, 2007) and *Agree* can occur without violating locality constraints, such as the Phase Impenetrability Condition (PIC) (Chomsky 2001).

To sum up, we find the following variation across the Romance languages under discussion: in Brazilian Portuguese ‘Raising’ is A-movement to Spec-TP (subject position) while ‘Raising’ in Romanian and Spanish that permit LDA is always an A’-movement (Left Dislocation) or a movement to an A position in the Left Periphery in line with Rizzi (2001).

3. Analysis

In this section, we will address the intervention effects that experiencers may cause in context of raising. With the above ingredients and a few more, we can explain why and how these languages differ regarding the intervention of experiencers.

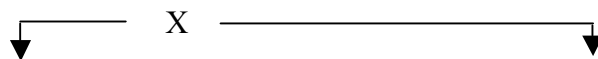
3.1 DP Intervention

In Brazilian Portuguese the A-movement of subject is not possible when there is a full experiencer DP (cf. (23a)). The sentence is fine, however, with clitic experiencers. It is well known that dative/oblique DPs/PPs block subject-to-subject movement (see McGinnis 1998 for French, Torrego 1998 2002 for Spanish, Holmberg and Hróarsdóttir 2003 for Icelandic, Rizzi 1986, Boeckx 2008 for Italian)⁶.

- (23) a. **Os alunos parecem pro professor que estudaram para a prova.* BP
 the students seem-3PL [to the teacher] _{EXPRC} studied-3PL to the test
 ‘The students seem to the professor that they studied to the exam.’
 b. *Os alunos me parecem que estudaram para a prova.*
 the students [to-me]_{CL} seem-3PL that studied-3PL to the exam
 ‘The students seem to me to have studied to the exam.’

The general explanation for these facts follows from a Minimal Link Condition (Chomsky 1995: 311) or a Relativized Minimality (RM) (Rizzi 1990) violation: an element α may enter into a relation with an element β if there is no γ that meets the requirement(s) of α and γ c-commands β . The illicit relation is sketched in (24).

- (24) a. [α ... [... γ ... [... β ...]]] (γ c-commands β and α c-commands γ)



- b. [_{TP} the students seem [_{DP} to-the teacher] [_{CP} that [_{TP} the students studied to the test]]]

If Romance [*a* DP] experiencers are not PPs but rather DPs where the preposition *a* is considered to be a morphological realization of inherent Case, then experiencer DPs should block A-movement⁷. However, if clitic heads move and adjoin to T, they do not c-command the target of the movement and the blocking effects will disappear (cf. Torrego 2002;

⁶ Crucially, the Romance experiencers function as a DP (the preposition is a realization of inherent Case, Torrego 1998, 2002).

⁷ English behaves quite exceptionally with respect to this, as it allows raising over a full PP experiencer. See Boeckx (2008) and Kitahara (1997) for detailed discussion. In a nutshell, English experiencers behave like full PPs and therefore do not cause intervention effects for they don’t c-command the embedded subjects in syntax.

(i) John seems to Mary [to be nice].

Anagnostopoulou 2003).

In contrast to Brazilian Portuguese, in Romanian (25) and Spanish (26), a dative DP experiencer does not intervene in the A'-movement of the subject DP to the matrix clause, but rather in LDA. The sentences are, however, licit once the dative experiencer is just a clitic (*b* examples) or it is double by a clitic (*a* examples).

- (25) a. *(Copiii) *(îi) par (copiii) profesorului să studieze (copiii)* Ro
 children CL-DAT seem-3PL (children) professor-DAT subj_{PTC} study-3PL
 'The children seem to the principal to study for the examen.'
 b. *(Copiii) îi par (copiii) să studieze (copiii) pentru examen.*
 children CL-DAT seem-3PL children subj_{PTC} study-3PL children for examen
 'The children seem to him/her to study for the examen.'
- (26) a. *Los niños *(le) parecen (los niños) al profesor estudiar (los niños)* Sp
 children CL-DAT seem-3PL the children to professor study-INF the children
 'The children seem to the principal to study for the exam.'
 b. *Los niños le parecen estudiar para el examen.*
 children CL-DAT seem-3PL study-INF for the exam
 'The children seem to him/her to study for the exam.'

We explain the different defective intervention effects in Brazilian Portuguese, and Romanian and Spanish by assuming that the clitic doubling of the dative experiencers renders Romanian and Spanish sentences grammatical. Specifically, the clitic is obligatory in order to remove the intervening ϕ -features of the dative (Anagnostopoulou 2003, 2005) since LDA is sensitive to defective intervention (cf. Chomsky 2000).

- (27) *_{[TopicP [Copiii]]} [TP par [profesorului] [TP să studieze [copiii]]] Ro
 children seem-3PL professor subj_{PTC} study-3PL children
 'The children seem to the professor to study.'

- (28) _{[TopicP [Copiii]]} [TP îi par-T [profesorului_i] [TP să studieze [copiii]]]
 children CL-DAT seem-3PL professor subj_{PTC} study-3PL children
 'The children seem to sleep.'

The derivation in (27) crashes because the embedded subject DP does not check Case since the features of the dative experiencer intervene (Anagnostopoulou 2003, Preminger 2008).⁸ In contrast, the derivation in (28) is saved because:

- i. The experiencer is doubled by a clitic that hosts the ϕ -features of the A-chain, rendering the ϕ -features in the DP inert for derivation (Anagnostopoulou 2003).
- ii. The clitic head Cl (Sportiche 1998) moves to T and its features are no longer in the probe domain of T (cf. Anagnostopoulou 2003, Marchis & Alexiadou 2013, Marchis 2014)

⁸ Note that the experiencer must also obligatorily occur with the dative clitic in order to have its ϕ -feature and Case valued. Hence, "seem" + experiencers seems to be similar to the quirky constructions of the type *gustar* ('like') in Romance where the dative clitics are obligatory and the experiencer has structural quirky case (Rivero 2004).

iii. T is allowed to LDA with the embedded subject DP since there are no longer features that intervene.

So we conclude that the Left Dislocation of the embedded subject to the matrix clause is irrelevant to LDA: Agree and Case checking of the DP holds between the matrix T and the embedded DP copy.

3.2 Counter-evidence: Bruening (2014)

3.2.1 The problem

Bruening (2014) argues that the experiencer PP does not act as defective intervener since adjunct phrases, which are argued not to interfere with A-movement, are ungrammatical in the same position as experiencer PPs:

- (29) a. **Jean a semblé [au cours de la réunion] avoir du talent.* French
 John has seemed during the meeting to have talent
 ‘John seemed during the meeting to have talent.’
 b. ??*Gianni sembra [in alcune occasioni] fare il suo dovere.* Italian
 Gianni seems on some occasions to.do the his duty
 ‘Gianni seems on some occasions to do his duty.’ (Bruening 2014: 714)

Bruening argues that the ungrammaticality of these examples is actually due to the linear position of adjuncts.

3.2.2 Towards an explanation

The adverbial phrase and the experiencers can potentially be attached to different parts of a raising structure: an experiencer is part of the matrix VP (either introduced by an applicative head or in a PP) and the adverbial phrase may be adjoined to the embedded clause. There is no reason to believe that the ungrammaticality of (29) above and (30) below are related: there are different constraints that can be accounted for independently, contrary to Bruening’s assumptions:

- (30) **Jean a semblé à Maria avoir du talent*
 Jean seems to Marie to.have of talent
 ‘Jean seems to Marie to have talent.’ (Bruening 2014:1)

Note that adjuncts like *in those conditions* presented in Bruening (2014) are marginal in the same position also in Romanian and Spanish.

- (31) a. ?*Maria parece en esas condiciones no ir más de vacaciones.* Sp
 Maria seems in those conditions no to.go more on vacation
 b. ?*Maria pare în aceste condiții să nu mai plece în concediu.* Ro
 Mary seems in these conditions subj not go-3PL on vacation
 ‘Mary seems in those conditions not to go anymore on vacation.’

However, not all adverbial phrases are illicit or marginal in the position between the raising verb and the infinitive/subjunctive. In contrast to the adverbial phrases provided by Bruening (2014), some modal and temporal adverbials such as *today, tomorrow, now, often, never* a.o.

in (32) and (33) are licit in the position argued by Bruening to be unacceptable, i.e. modifying the matrix VP:

- (32) a. *Pedro pareceu ontem não querer mais vir pra festa.* BP
 Peter seemed yesterday not want-3SG-INF more come to-the party
 ‘John seemed yesterday not to want to come to the party anymore.’
 b. *Os alunos pareceram inequivocamente estarem prestando atenção.* BP
 the students seem unequivocally be-3PL-INF paying attention
 ‘The students unequivocally seem to be paying attention.’
- (33) a. *Ion părea ieri să nu mai vrea să vină la petrecere.* Ro
 John seemed yesterday subj not more want-3SG subj come-3SG the party.
 ‘John seemed yesterday not to want to come to the party anymore.’
 b. *Ion părea adesea să aibă talent.* Ro⁹
 Johns seemed often subj have-3SG talent
 ‘John often seemed to have talent.’
 NOT: ‘John seemed to have talent often’

We assume that the contrast between (29) and (32)/(33) is due to several reasons: First, it is not clear that Bruening’s adverbial phrases are part of the matrix clause (they can be easily interpreted in the embedded event), while our adverb examples clearly modify the matrix verb. Therefore, the positions of these different adjuncts might play a role in the acceptability of these sentences.

Moreover, according to Cinque (1999) and Ledgeway & Lombardi (2005), adverbs like in (33) belong to “higher sentence adverbs” that have a rigid word order (cf. (34)) and they are invariably excluded from interpolation structures:

(34) (...) repetitive (event) adverbs (‘again’) > frequentative (event) adverbs (‘often’) > alethic adverbs of possibility (‘possibly’) > habitual adverbs (‘usually’) > subject oriented adverbs (e.g., ‘deliberately’) > celerative (event) adverbs (‘slowly’).

Interestingly, these higher sentence adverbs unambiguously modify the higher matrix verb and as expected, they are licit in raising constructions unlike Bruenings’ adverbs that allegedly modify the embedded event. Returning to experiencers, unlike adjuncts, they are merged in the matrix clause to the left of the verb and its clausal complement, either as an applicative head *v* or a subject of the VP. Therefore, experiencers are not in the same structural position as the adverbs. Thus, even if Bruening’s analysis of the ungrammaticality of the adverb cases (cf. (29)) based on linearity is correct, this same analysis cannot be extended to the experiencer intervention cases (cf. (30)), as they are arguments inserted above *V* and not adjuncts to the right of *V* (for a more detailed analysis see Marchis Moreno & Petersen to appear).

4. Conclusion

To conclude, we have argued in this paper that languages that permit defective intervention with dative experiencers allow clitic doubling and they might lack a Spec-TP subject position in (Hyper-)/raising-like structures. According to Alexiadou & Anagnostopoulou (1998), these properties seem to be a reflex of a single one: “the extensive availability of clitic/agreement-associate relationships in a language which permit DPs to remain *in situ*”.

Moreover, we have shown that Bruening’s data do not consider a counter-argument to our

⁹ We thank Ion Giurgea for this example and for drawing our attention to the different ad joint positions of adverbs in Romanian.

analysis of defective intervention as the ungrammatical examples with high adverbs she presents are not due to intervention but rather to linear order.

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Clitic Doubling restrictions in *Leísta* Spanish*

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Abstract: The aim of this paper is to highlight the relation between Clitic Doubling constructions (CLD) and *leísmo* in Spanish. In order to do this, we show that whether a language allows CLD or not does not depend on whether a dialect allows *leísmo* or not, but on the kind of features encoded in the clitic itself. More specifically, CLD of object DPs depends on the number and internal organization of the features that the dative clitic encodes. Thus, we will argue that there is a strong correlation between the markedness of the clitic pronoun and the restrictions clitic doubling underlies. In this paper, we will propose a Feature Geometry (cf. Harley & Ritter 1998 and Heap 2005) representing the hierarchical organization of the features which is able to account for the restrictions that are attested concerning the occurrence of CLD in these varieties.

1. Introduction

1.1 The *Leísmo* phenomenon

In Spanish, the paradigm of clitic pronouns presents a clear distinction between the set of the first and second person *me, te, se, nos, os* and the one of the third person *lo/s, la/s, le/s*. Whereas third person clitics morphologically mark the accusative and dative distinction this is not the case for first and second person clitic pronouns. For this reason, third person clitics have traditionally been described as the “etymological” system.¹ Thus, the accusative clitic forms *lo/s, la/s* refer to the direct object and the dative forms *le/s* refer to the indirect object.

However, since in Spanish the 1st and 2nd person of the dative is form have been extended to the accusative forms by a regulatory process, it has been argued that the “etymological” paradigm is subject to this process, too; i.e. third person datives can be used to refer to third person accusative object.²

The normative grammar (see for example RAE 2010) allows *leísmo* as the systematic use of the dative clitic form *le* instead of the accusative form *lo*, in those cases where the object is masculine and animate (1b):

- | | | | | | |
|-----|-----|-------------------------------|------------------------|-------------|--------------|
| (1) | (a) | [Mi hermano] _i ... | Lo _i | <i>vi</i> . | Standard Sp. |
| | | [My brother] | CL.3SG.ACC | saw.1SG | |
| | | ‘I saw him.’ | | | |
| | (b) | [Mi hermano] _i ... | Le _i | <i>vi</i> . | Leísta Sp. |
| | | [My brother] | CL.3SG.DAT | saw.1SG | |
| | | ‘I saw him.’ | | | |

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¹ This is due to the historical origin w.r.t. the accusative Latin *ILLŪM, ILLAM, ILLŪD* and dative *ILLĪ* (see, for example, Lapesa 1968; Marcos Marín 1978; Fernández Ramírez 1987; among others).

² The other phenomena are the so-called *loísmo* and *laísmo* (see Fernández Ordóñez 1999; Klein-Andreu 2000).

Therefore, since in *Leísta* Spanish the third person of the clitic pronouns do not maintain the Case distinction, some speakers use *le/s* in those contexts where the norm requires an accusative one. This “confusion” determines the so-called *leísta* dialects, a widespread phenomenon in many Spanish varieties.³

The literature on this subject distinguishes four basic types of *leísmo*: The most frequent and extended *leísmo* is the one that refers to a direct object singular masculine and animate as in (1b) above. The less extended is the singular *leísmo* that refers to a direct object masculine and inanimate (2):

- (2) [El libro]... *No le he encontrado.* Leísta Sp.
 [The book]... not CL.3SG.DAT have.1SG found
 ‘I have not found it [the book].’

The plural *leísmo* is less extended than the singular one. However, it is more frequent when it refers to an animate object (3a) than to an inanimate one (3b):

- (3) (a) *Vi a los hermanos de Juan y les invité*
 saw.1SG prep.ACC the brothers of Juan and CL.3PL.DAT invited.1SG
a beber algo juntos.
 to drink something together
 ‘I saw the brothers of Juan and I invited them to drink something together.’
- (b) *Cociné los chorizos que te gustan y les rocié*
 cooked.1SG the chorizos that you like and CL.3PL.DAT sprayed.1SG
con vino tinto.
 with red wine.
 ‘I cooked the chorizos you like and I sprayed them with red wine.’

The most unusual *leísmo* (singular or plural) is the one that refers to a direct object feminine:

- (4) [La hermana de Juan]... *Desde el año pasado que no le veo.*
 [the sister of Juan]... since the year last that not CL.3PL.DAT see.1SG
 ‘[John’s sister]... Since last year, I do not see her.’

It seems that *leísta* dialects display a restricted “referential” system. That is, the principles that determine the selection of a specific clitic pronoun disregard the grammatical distinctions of case, instead they seem to code the categorial and *phi* features of the antecedent (e.g. [count], [gender], [number], etc.⁴).

1.2 The connection between clitic doubling and *leísmo*

In Standard Spanish we find a difference concerning the occurrence of the doubling of direct objects with accusative clitics and indirect objects with dative clitics. That is, CLD of full-DPs seems to be less restricted with indirect objects (dative) (5a) than with direct objects (accusative) (5b) (see among others Jaeggli 1986; Suñer 1988; Fernández Soriano 1999; Anagnostopoulou 2003, 2007; Fischer & Rinke 2013):

³ For details w.r.t. the distribution of *leísta* dialects and their particularities, see Fernández-Ordóñez 1999; Klein-Andreu 2000, Flores & Melis 2004, among others.

⁴ The so called “correct” *leísmo* (i.e. accepted by the RAE) refers to human male objects with the dative pronoun *le* instead of the accusative pronoun *lo* (see (1b)).

- (5) (a) *Le di un libro a mi hermano.* Standard Sp.
 CL.3SG.DAT gave.1SG a book to my brother.
 ‘I gave a book to my brother.’
- (b) **Lo vi a mi hermano.* Standard Sp.
 CL.3SG.ACC saw.1SG prep.ACC my brother.
 ‘I saw my brother.’

Whereas the CLD constructions of dative references are common in those dialects that maintain the Case distinction, accusative doubling is avoided in most of them.⁵ This fact has not gone unnoticed in the literature related to the *leísta* dialects (see Landa 1995; Fernández-Ordóñez 1999; Bleam 1999; among others). For instance, Bleam (1999), discussing the difference between accusative and dative doubling argues that *leísmo* (6a) in a dialect depends on the similar semantic condition as the relevant for CLD (6b), namely animacy:

- (6) (a) [mi hijo]... *Le conozco.* Leísta Sp.
 [my son] CL.3SG.DAT know.1SG
 ‘I know him.’
- (b) *Le di un regalo a mi hijo.* CLD
 CL.3SG.DAT gave.1SG a present to my son.
 ‘I gave a present to my son.’

However, (Melis & Flores 2009) found a negative correlation between CLD and *leísmo* which is indirectly related to DOM (see also Flores & Melis 2004, 2007). On the one hand, they claim that the emergence of DOM had a neutralizing effect concerning the distinction between direct and indirect objects in Spanish, and that is why CLD of dative objects in Spanish dialects with DOM arises. Thus, assuming that languages are faced with forces of erosion and forces of repair, they argue that CLD arises in order “to restore” the system. That is, CLD in Spanish occurs as a consequence of a “balancing force”, to preserve the distinction between direct and indirect objects.

On the other hand, they claim that those dialects where the substitution of the dative *le* for accusative *lo* becomes the “norm”, there is not case distinction available in the pronominal paradigm of the third person clitics “and speakers have grown accustomed to the partial case confusion” (2009: 301). In other words, the “renewal” effect to restore the formal distinction through the CLD of the dative DP “does not help much in keeping the two object categories formally apart” (2009: 301).

In this sense, Melis & Flores conclude that

[...] it is possible to predict that the urgency for the renewal [the emergence of CLD, A/N.] must have been felt more intensely in the dialects where the pronouns *lo* and *le* contrast and much less so in the varieties where *leísmo* has contributed to the partial convergence of the accusative and the dative in the pronominal area (2009: 301).

Such (inverse) correlation between the frequency of CLD constructions and the extension of *leísmo* has been attested diachronically (Flores & Melis 2004). Nevertheless, Melis & Flores do not provide an explanation of why this has to be the case in some *leísta* dialects, but not in others (e.g. Basque Spanish).⁶ Assuming that *leísmo* cross-linguistically arises under similar

⁵ A well-known exception is Rioplatense Spanish, where the CLD constructions with accusative objects seem to also be systematic with the introduction of the preposition *a* (see Zdrojewski 2008, 2013).

⁶ See for example Ormazabal & Romero (2013).

conditions as DOM (Flores & Melis 2007⁷), i.e. the neutralization of the distinction between indirect (dative) and direct (accusative), why does CLD nevertheless appear in some *leísta* dialects to reinforce this formal distinction?

1.3 Proposal

Taking into account what we described above, we argue that there is an indirect relation between *leísmo* and the occurrence of CLD. Based on newly compiled data (Neuhaus 2015), we will analyse two different *leísta* dialects – Madrid and Segovia Spanish – which considerably differ from each other with regard to the features, namely gender and animacy, that trigger the use of *le(s)* for direct objects:

- (7) (a) [mi hijo]... *Le* conozco. [+animate] [-feminine] [-plural] *Leísta* Madrid
 [my son] CL.3SG.DAT know.1SG
 ‘[My son]... I know him.’
- (b) [este libro]... *Le* conozco. [-animate] [-feminine] [-plural] *Leísta* Segovia
 [this book] CL.3SG.DAT know.1SG
 ‘[This book]... I know it.’

In Madrid Spanish (7a) we find *leísmo* triggered by [animacy] and [gender], but in Segovia Spanish (7b), *leísmo* seems to be triggered by [gender]. It seems correct to suggest that some *leísta* varieties have lost some morphosyntactic and/or semantic features, i.e. in these dialects the pronoun *le* encodes only one (morphosyntactic or) semantic feature (7b). Additionally, the following tendency can be observed: if the dative clitics are specified for more than one feature, as is the case in Madrid Spanish, the frequency of the doubling constructions is lower than in Segovia where only one feature is encoded. Therefore, we argue that doubling of full-DPs depends on the number and the hierarchical organization of the features that the dative clitic encodes.

In order to show this, we will propose for each clitic a feature geometry (see Harley & Ritter 1998 and Heap 2002, 2005) which represents the internal structure of the clitics that restricts the occurrence of CLD constructions in these varieties.

2. *Leísmo*-Varieties (Madrid and Segovia).

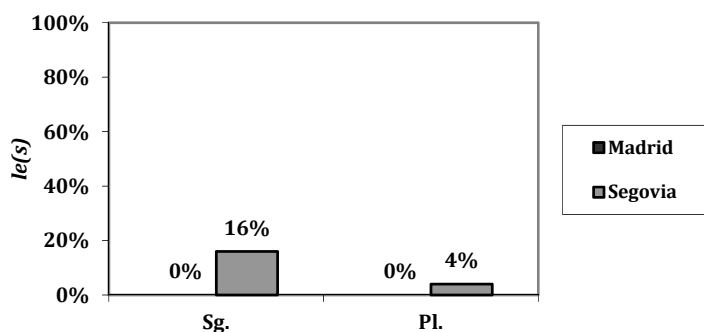
In this section, we explore the conditions under which the *leísmo* is found in Madrid and Segovia. To be examined are the direct objects and its feature values for number, gender and animacy. Based on newly compiled data, Neuhaus (2015) shows that Madrid and Segovia considerably differ from each other with respect to the factors that trigger the use of the *leísta* forms. The data were collected by the use of an elicited production and an acceptability judgment task with 13 speakers from Madrid and 15 speakers from Segovia at the age of 20 - 30. In the production task the subjects were asked to answer a set of context questions pertaining to 18 visual stimuli, which were designed to elicit structures containing transitive verbs and the target object clitics *le(s)/lo(s)/la(s)*. They responded to questions such as *Qué hace el hombre con el coche?* – *Está limpiándolo/le* ‘What is the man doing with the car? – He is washing it.’ In the acceptability judgment task the participants were confronted with 55 sentences (9 sentences referring to doubling structures, 19 concerning the use of *lo/s, las/s, le/s* in connection with different types of direct objects and 27 distractors) and asked to indicate whether or not a person from their hometown (Madrid or Segovia) could have

⁷ See Bossong (1991). However, the first intuitions on this claim regarding Spanish can be found in Lapesa (1968); Marcos Marín (1978).

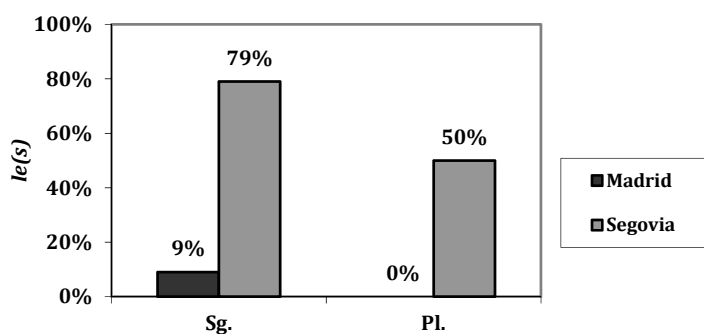
produced it in a colloquial conversation. The experiments were designed in order to collect comparable data sets for Madrid and Segovia-Spanish.

The results show, that in Madrid Spanish, *le(s)* occurs predominantly with [+animate] direct objects, whereas in Segovia Spanish *le(s)* is also used with [-animate] referents (Neuhaus 2015: 124, 132):

(8) *Leísmo* with inanimate referents (Results of the elicited production task)



(9) *Leísmo* with inanimate referents (Results of the acceptability judgment task)



Because in this study only few speakers were included, the results are not representative but interesting tendencies have still appeared: (8) shows the tendency that the clitic *le(s)* in Madrid is not used in connection with inanimate referents. In the Segovia corpus, the participants use *le(s)* for singular inanimate referents in 16 % of the cases and in 4% of the cases with plural forms. In (9) this difference between Madrid and Segovia is also illustrated. In the Madrid corpus, the *leísmo* is accepted in 9% of the cases with singular, whereas the dative clitic is not accepted with plural forms. The acceptability of *le(s)* in connection with inanimate referents in Segovia is much higher, compared to the use of *le(s)* in the production task: *le* is accepted in 79% of the cases with singular and in 50% of the cases with plural forms.

Therefore, and taking into account the microvariation scenario exposed above, we argue that the clitics encode different features in the two *leísta* dialects: The clitic *le(s)* in Madrid is specified for the feature [+animate]. In Segovia, this pronoun is semantically lesser, e.g. the feature [+animate] is more decomposed.

3. Clitic doubling in Madrid and Segovia

As we saw in 1.2., Melis & Flores (2007, 2009) found an inverse correlation between *leísmo*

and CLD, however, in this section we show that this is not the case in all *leísta* dialects. On the basis of the acceptability judgment task (Neuhaus 2015), we analyse the acceptability of CLD constructions in the *leísta* dialect of Madrid and of Segovia. In Table (1) can be seen that a difference is attested concerning the acceptability of CLD. For this test, the participants were confronted with sentences where full DPs are doubled either by the clitic *le* or by *lo*. The participants were then asked to indicate whether or not a person from Madrid or Segovia could have produced it in a colloquial conversation (see section 2) (Neuhaus 2015: 147):

Table (1): CLD in the acceptability judgment task

CLD ⁸ <i>le(s)</i> vs. <i>lo(s)</i> + full DP	Madrid	Segovia
	%	%
(a) <i>Marta dijo que Paco y José estaban enfermos,</i> M said.3SG that P and J were.3PL ill <i>pero le vi a José en el bar.</i> but CL.3SG.DAT saw.1SG prep.ACC J in the bar 'Marta said that Paco and José were ill, but I saw José in the bar'	(+): 25% (-): 75%	(+): 50% (-): 50%
(b) <i>José estaba durmiendo en la playa.</i> J was.3SG sleeping on the beach. 'José was sleeping on the beach.' <i>Paco lo vio a José.</i> P CL.3SG.ACC saw.3SG prep. ACC J 'Paco viewed José.'	(+): 0% (-): 100%	(+): 7% (-): 93%
(c) <i>Marta tiene un hijo de dos años.</i> M has.3SG a son of two years. 'Marta has a two-year-old son.' <i>Por desgracia, no le conozco a su niño.</i> Unfortunately, not CL.3SG.DAT know.1SG prep. ACC his child 'Unfortunately, I don't know her child'	(+): 8% (-): 92%	(+): 21% (-): 79%
(d) <i>Mi hermana tiene un niño de dos años.</i> My sister has.3SG a child of two years. 'My sister has a two-year-old child.' <i>Por desgracia, no lo conozco a su hijo.</i> Unfortunately, not CL.3SG.ACC know.1SG prep.ACC his child 'Unfortunately, I don't know her son'	(+): 0% (-): 100%	(+): 0% (-): 100%
(e) <i>Paco estaba jugando en el jardín.</i> P was.3SG playing in the garden 'Paco was playing in the garden.' <i>Miguel le vio a Paco.</i> M CL.3SG.DAT saw.3SG prep. ACC P 'Miguel viewed Paco.'	(+): 25% (-): 75%	(+): 50% (-): 50%

⁸ In this test CLD was distinguished from right dislocation: A dislocated DP was separated from the rest of the sentence by a comma whereas doubling structures were not (Suñer 1988: 399-400).

The table 1 shows that the acceptability of the co-occurrence of *le(s)* and a co-referential DP is twice as high in Segovia than in Madrid, e.g. (a) is accepted in 50% of the cases in Segovia and in 25% of the cases in Madrid. The doubling construction in (c) is accepted in 21% of the cases in Segovia, whereas the participants in Madrid accept it only in 8% of the cases. Sentence (e) indicates exactly the same distribution as sentence (a), i.e. the participants in Segovia accept (e) in 50% of the cases and the ones in Madrid do so in 25% of the cases.

Furthermore, Table 1 illustrates that CLD with the accusative clitic *lo* is less accepted in both varieties. The participants in Madrid accept sentence (b) in 0% of the cases and the speakers of the Segovia corpus accept it in 7% of the cases. The sentence (d) is not accepted in neither variety.

The following sentence that is from the corpus of spontaneous speech (Neuhaus 2015) and shows that in Segovia, CLD is even possible with inanimate masculine referents:

- (10) *porque yo le conozco este barrio de hace quince años.* Leísta Segovia
 Because I CL.3SG.DAT know.1SG this block since fifteen years
 ‘Because I know this block since fifteen years.’

To sum up, CLD with accusative clitics is not accepted by the speakers of Madrid and neither by the speakers of Segovia. If the direct object occurs with a co-referent dative clitic, the acceptability in Segovia was more than twice as high as the acceptability in Madrid. The results of the acceptability judgment task show that in Madrid the CLD of direct objects with *le(s)* is less frequent than the CLD in Segovia, where dative clitics do not encode the feature [+animate]. The dative clitic of Madrid is specified for the feature [+animate]. Therefore, we argue that the different frequencies of CLD in Madrid and Segovia depend on the features encoded in the clitic itself. Specifically, we argue that the more marked a clitic pronoun is, the more restricted the CLD construction will be. In this context, we propose a Feature Geometry (Heap 2005, Harley/Ritter 1998) that represents this restriction related to the hierarchical organization of the features of the clitic pronoun.

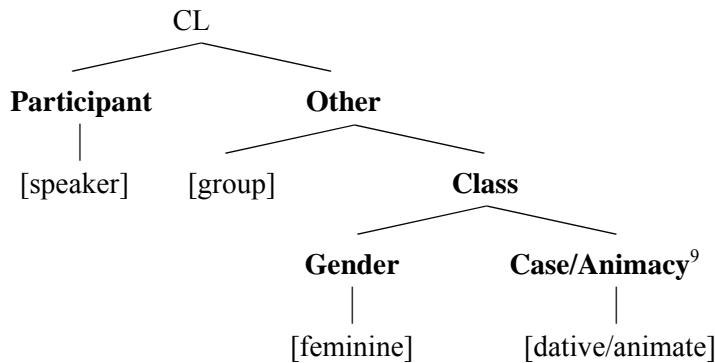
4. The feature geometry of third person clitics.

We argue that the dative clitics in the variety of Madrid are more marked than the clitics in Segovia. This structural markedness will be demonstrated by adopting a Feature Geometry (Heap 2005, Harley/Ritter 1998) for the clitics.

Heap (2002: 60) suggests that markedness correlates with structure, i.e. more complex structures are more marked whereas less complex structures are less marked. Bejar (2002: 51) argues that markedness correlates with the presence or absence of structure in the geometric representation of a formal feature: the least marked pronoun is encoded simply by the absence of structure.

Following Heap (2005) we propose the following internal structure for the clitics in Spanish:

(11) Feature geometry for the clitics in Spanish

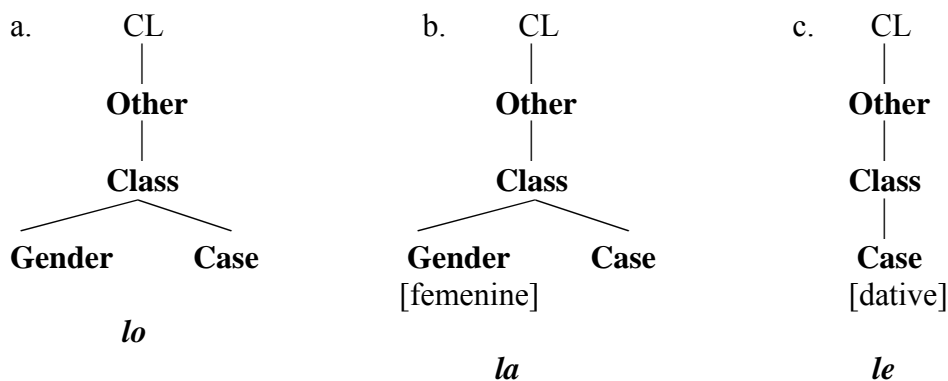


The organizing nodes are in bold and the features are the bracketed terminal nodes. The first and the second person have a **Participant** node, whereas the third person has an **Other** node and, additionally, a **Class** node. The possible value of the **Participant** node is [speaker], i.e. the first person functions as marked. The **Class** node can have the values [feminine] or [dative, animate].

Our Feature Geometry differs from Heaps proposal, in that we make a distinction between inanimate and animate referents: We propose the feature [animate] as one of the possible values of the class node (as opposed to the unmarked inanimate feature). The features [-feminine], [-dative] and [-animate] are unmarked and are not present in the internal structure. The structurally marked number feature [group] is the possible value of the node **Other** (as opposed to the unmarked singular).

Below, we propose the following internal structures for the third person clitics in Standard Spanish:

(12) Internal structure of third person object clitics (Standard Spanish):

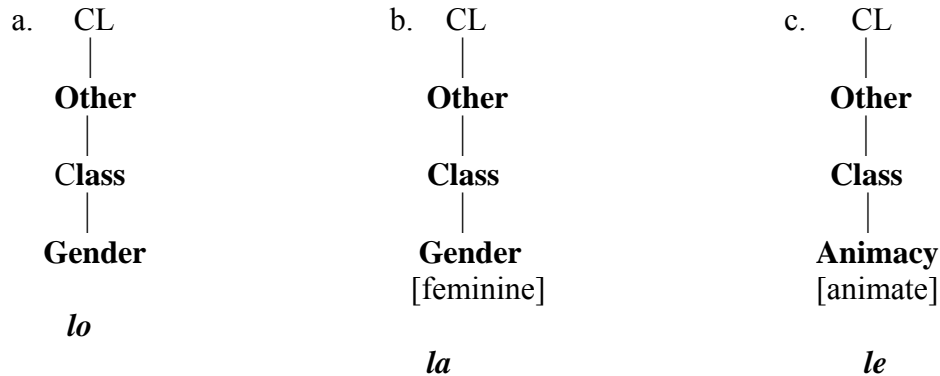


Lo has an **Other** node because it is a third person clitic. Furthermore, *lo* has a **Class** node which dominates the nodes **Gender** and **Case**. Since, the feature [accusative] encoded in the clitic is unmarked, it is absent in the structure. *Le* encodes the marked feature [dative] and has no gender feature because this clitic refers to masculine and feminine objects. *La* encodes the marked gender feature [feminine] and the unmarked case feature [accusative] which is not presented in the structure.

⁹ The structure assumed by Heap (2005) does not show an alternation between Case and Animacy.

In this paper, we argue that the clitic *le(s)* has different types of internal structures in Madrid and Segovia. (11) shows the respective internal structure of the third person clitics in Madrid:

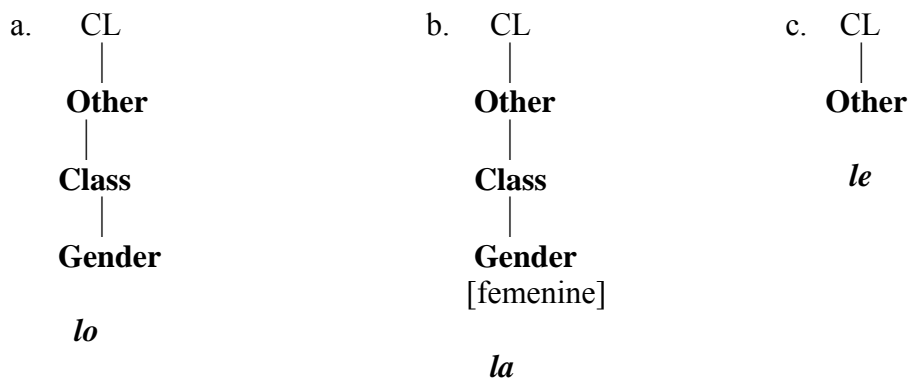
(13) Internal structure of third person clitics (Madrid):



The usage in Madrid corresponds to a compromise system (Fernández-Ordóñez 1999): The participants of Madrid use the etymological system but in connection with animate masculine direct objects they use *le*. Thus, there is no case distinction but a distinction between animate and inanimate objects. *Le* encodes the feature [animate], whereas *lo* and *la* are not specified for animacy and do not have an **Animacy** node. *Lo* and *la* are used for both inanimate and animate objects, whereas *le* is exclusively used for animate objects.

The feature geometry of the clitics in Segovia is shown in (14):

(14) Internal structure of third person clitics (Segovia):



The pronominal usage in the Segovia corpus shows the same tendencies as in the Madrid corpus, but the speakers use *le* additionally for inanimate direct objects. As a consequence, the clitic *le* does not have an **Animacy** node, i.e. animacy is not accessible for Segovia speakers (cf. Anagnostopoulou 2009). In other words, the clitic *le* in the Segovia corpus is less marked (cf. 13c and 14c).

5. Conclusion

To summarise, CLD of direct objects with the dative clitic *le* is more accepted by the speakers of Madrid and Segovia than CLD with the accusative clitic *lo*. Furthermore, the acceptability of CLD with *le* is twice as high in Segovia, where this clitic only do not encode the feature

[+animate]. CLD of direct objects in the *leísta* varieties occurs predominantly with dative clitics which are affected by a semantic loss, i.e. which do not encode the semantic feature [animacy]. If the dative clitics are specified for this semantic feature, such as in the Madrid Spanish, the frequency of CLD is lower. In other words, we argue that the more marked a clitic pronoun is, the more restrictions the doubling construction underlies. In this context, we propose a feature geometry which shows that the clitic *le* is more marked in Madrid Spanish than in Segovia Spanish. Therefore, we can claim that the apparent relation between CLD and *leísmo* is an epiphenomenon subject to the different features that the clitics encode in each variety.

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Formal features and vulnerable domains in L2 acquisition and an outlook on language contact

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Abstract: This contribution provides an overview of generative accounts of second language (L2) acquisition developed since the late 1980s that focus on formal features as instantiation of language-specific properties. It will discuss the process of reanalysis of formal features, which will entail the identification of vulnerable domains, as well as its outcome, on the basis of examples from relevant existing studies. Assuming parallels between L2 acquisition and language contact, considerations on learnability and vulnerable domains will also be relevant when addressing the question of which direction development may take in situations of language contact and the resulting language change.

1. Background

In the generative framework it is assumed that UG imposes an analysis on the input, such that children arrive at the target system. In first language (L1) acquisition development is triggered by exposure to primary linguistic data, i.e. an 'external factor', while the developmental process itself is assumed to be guided by UG. Deviations can come about by misanalysis of the input and lead then to over- and undergeneralisations, inadequate analogies, etc. In the case of L2 acquisition there is a system already in place, the L1; as in L1, change comes about by exposure to the input, but in this case the existing L1 system will exert its influence in the interpretation of the input. The learner will need to analyse the new input, which may or may not coincide with their L1 system. At this point it is of particular interest to take into account the role of formal features, seen in the generative framework as the locus of language-specific properties. Following Borer (1984) and Chomsky (1989) these language-specific properties are formulated as parametric choices that refer to functional categories, more specifically, and in a more recent formulation, to uninterpretable features of functional categories. The process of reanalysis of formal features in the acquisition of an L2 will reveal domains that are more or less vulnerable, i.e. more or less resistant to change.

There are parallels between L2 acquisition and language contact situations, inasmuch as there is in both cases an encounter of two steady-state language systems. Studies of diachronic change debate about the triggers for syntactic change and whether these triggers are internal or external to the grammatical system (see the summary in Willis 2015). Examples of internal triggers are spontaneous innovation or changes in language use, and it is disputed whether these internal factors can lead to syntactic change (Meisel 2011). On the other hand, it is clear that change may be triggered by the existence of two languages in a community, i.e. in a situation of language contact. Meisel (2011) in fact claims that syntactic change is always triggered by external factors, specifically by speakers who are not native speakers of the language.¹

With respect to situations of language contact the question that arises is whether and how these systems will influence each other and lead to some change in one or both of them. The paper will not deal with language change. However, considerations on learnability and vulnerable domains will also be relevant when addressing the question of which direction development may take in situations of language contact and the resulting language change.

¹ This is not to say that the encounter of two language systems will always lead to change: while transfer from one language into another one is well documented in non-native language acquisition, i.e. L2 acquisition, the influence of one language onto the other in bilingual L1 acquisition is far from evident.

With these observations in mind we can now turn to the overview of L2 accounts. Crucial aspects to be taken into account are the starting point and the developmental route with its hurdles, linked to the language-specific realisation of formal features.

2. Formal features in L2 acquisition

2.1 The starting point

In language acquisition, as in language contact and language change, the starting point is of utmost importance, identifying the initial state for the development or the change. Since the mid 1980s considerable attention has been devoted to the debate about whether an L2 is a real language system, a real grammar. If this is the case, then formal features should be available. So, where do they come from? Are they developed by the speakers just on the basis of exposure to the input? Are the attested formal features imported from the L1? The second crucial aspect is the development itself, its characteristics and the route it takes. Both the starting point and the developmental process will be discussed in terms of formal features: which features play a role and how.

It is useful to remember how these questions developed in the first place. A crucial question in studies of generative L2 acquisition in the late 1980s and early 1990s was whether the interlanguage has characteristics of a natural language, whether it is organised as a grammar. The Fundamental Difference Hypothesis gives a negative answer. This hypothesis was first proposed by Bley-Vroman (1989, 1990) as well as by Clahsen & Muysken (1986, 1989) and Meisel (1997, 2011). The claim is that, outside a Critical Period for language learning, L2 learners are only able to use general problem-solving strategies of non-linguistic nature. As a result, learners can become very fluent, but lack the linguistic intuitions of a native speaker about what is or is not possible in a language. On the other hand there are a range of researchers who consider the interlanguage to be UG constrained (White 1989, 2000, 2003, Epstein & al. 1996, Vainikka & Young-Scholten 1996, Eubank 1994, 1996, Schwartz & Sprouse 1994, 1996).

Among the researchers who see the L2 as UG constrained there are different views on what the starting point of the acquisition process is, and, assuming that the L1 properties play a role, on the extent to which these L1 properties can be modified. Diametrically opposite views are taken by Schwartz & Sprouse (1994, 1996) and their Full Transfer/Full Access hypothesis, on the one hand, and Epstein & al. (1996), for whom the crucial factor in L2 acquisition are Primary Linguistic Data, as in L1 acquisition.

According to Schwartz & Sprouse (1994, 1996), L2 learners entirely rely on their L1 and try to analyse the L2 input on this base (Full Transfer); when the L1 cannot account for the input data, it is UG that guides the learners in parsing and modifying their assumptions accordingly (Full Access). Transfer effects from the L1 can be persistent, which means that convergence with the L2 is not guaranteed. Full Access, thus, means that the interlanguage will be UG-conform, i.e. a possible human language, and does not hinge on convergence with the target. In Schwartz & Sprouse's words, "L2ers linguistic knowledge is comparable (in terms of knowledge type) to native-speakers' competence" (Schwartz & Sprouse 1994:319).

There is abundant evidence for transfer at the initial stage. An example is offered by Haznedar (1997, 2001), who presents a case study of a child L2 learner, Erdem, whose L1 is Turkish. Erdem was 3;11 years when the family arrived in the UK and his first exposure to English was at age 4;01. At this stage Erdem showed strong evidence of Turkish SOV word order, that switched to English SVO after 4 months of exposure, as illustrated in (1) and (2) below, respectively. The switch to SVO is accompanied by the use of finite verbs forms, mainly represented by the copula; the distribution of finite verbs is targetlike, although morphological marking on lexical verbs develop gradually. Overt subjects are attested in the expected contexts a month after the beginning of the observations.

- (1) television watching
- (2) you eating apple

Epstein et al. (1996) base their claim that L2 learners use just Primary Linguistic Data plus UG guidance to develop their L2 structure on data obtained by elicited imitation. Two groups of Japanese learners of English, one of children and one of adults, successfully imitated test items that represented TPs and CPs, and that have a structure that contrasts in head directionality in both languages.

As might be expected, while researchers agree that there is a role for the L1 and for UG at initial stages, the role assigned to each varies. Having said that, the observations just presented are sufficient to illustrate assumptions about that early stage in L2 acquisition and will constitute the background to the presentation of how the process develops from that point onwards. The next section will present different learnability scenarios that dwell on the identification of what may or may not be problematic in the process of parsing the L2 input and how to analyse L2 output.

2.2 Formal features in L2 development

Four possible scenarios of what can constitute a learnability problem with respect to formal features:

1. the overt morphological realisation,
2. realising formal features not instantiated in the L1,
3. reconfiguring features that exist both in L1 and L2,
4. inhibiting features instantiated in the L1 but not in the L2.

2.2.1 The relation between language structure and its overt realisation

It has been repeatedly observed that morphology is problematic, particularly bound morphology and particularly for adult learners. It was precisely in the observed dissociation between morphology and syntax that led to the claim of a fundamental difference between L1 and L2 acquisition. According to researchers such as Clahsen & Muysken (1986, 1989), Meisel (1997, 2011), the acquisition of morphological markers for tense and agreement correlates with the distribution of finite verb forms in the relevant slots in the sentence for children learning their L1, but not for (adults) learning an L2. That is, while German children would not place a negator following a non-finite verb, as in '*spielen nicht*' (play non-finite, not), adult L2 learners would. Particularly adult L2 (untutored) learners, so the claim, lack systematicity in the distribution of finite and non-finite verbs, as opposed to children learning their L1. Clearly, according to this view a dissociation between morphology and syntactic structure is an indication of a representational deficit.

However, other authors (e.g. Prévost & White 2000, White 2003, Lardiere 1998, 2000) claim that wrong or lacking morphology may be a superficial phenomenon, and not necessarily a symptom of a representational deficit. Taking the perspective of Distributed Morphology (Halle & Marantz 1993), they assume that there may be a dissociation between the representation and its morphological expression and warn against relying only on morphological information as an indication of the acquisition process. Accordingly, the approach has been named *Missing Surface Inflection Hypothesis* (Prévost & White 2000, White 2003).

An example is Lardiere's (1998, 2000) case study of Patty, a speaker of Chinese who had

been living in the US for nearly 20 years. Patty's production of morphology, e.g. tense markings on verbs, is very low, at 4.5% for 3sg -s and 34% for past tense marking (Lardiere 1998: 366). On the other hand, thematic verbs are not raised in finite contexts, as seen in utterances that contain a negator or a clause-internal adverbial (Lardiere 1998: 369). Consider the examples (3) and (4) below:

(3) he cannot see

(4) my mom also speak Mandarin

(Lardiere 1998: 368)

The point the approach makes is well taken: it is not wise to take the morphological realisation or lack thereof as the only piece of information about problems with the representation in the interlanguage. Notice that the studies mentioned above refer to situations in which the L2 is morphologically richer than the L1 and the learners need to add morphological exponents.

The next sections will deal with approaches that take into account syntactic facts in addition to morphology.

2.2.2 Formal features not instantiated in the L1

A different perspective is that of asking whether some formal features are more difficult to learn than others, either in themselves or in a specific language combination.

Both the Failed Functional Features Hypothesis (Hawkins & Chan 1997) and the Interpretability Hypothesis (Hawkins & Hattori 2006, Tsimpli & Dimitrakopoulou 2007, Tsimpli & Mastropavlou 2008) focus on the mismatch between formal features instantiated in the L1 and in the L2 as a source of learnability problems, specifically, those features not instantiated in the L1 are predicted to not be learnable in the L2. Differences between these hypotheses are related mainly to the moment and the theoretical frameworks they are formulated in, namely, while the older one is based on functional features, the more recent one banks on the distinction between interpretable and uninterpretable features. Both versions see a representational deficit in the interlanguage in terms of feature specification, not mainly of morphological realisation.

The claim can be illustrated by Tsimpli & Dimitrakopoulou's (2007) study on the use of resumption in English wh-questions by speakers of Greek. In Greek it is possible to have a resumptive pronoun, *ton* in the example, coindexed with the wh-phrase, which is not possible in English. Consider the example (5).

(5) *Pjon fititis ipes oti (ton) aperipsan sti sinedefksi?*
 which student said.2SG that (him) rejected.3PL at the interview
 'Which student did you say that they rejected at the interview?'

According to the authors this difference can be traced back to the specification of interpretable and uninterpretable features in these languages. The [+/-animate] feature is grammaticalised in English (i.e. *who/what*), but not in Greek. Both languages, on the other hand, grammaticalise d(iscourse)-linking on wh-phrases. D-linking picks out a referent from the universe of discourse, as opposed to a non-d-linked wh-question like *what*. The interpretation of the variable in the first case is achieved in the same way as the interpretation of a pronoun, while it is achieved by syntactic movement in the second one. (Tsimpli & Dimitrakopoulou 2007: 219). That is, both the animacy feature and d-linking fall within the set of interpretable features. The possibility of resumption in Greek, on the other hand, is claimed to stem from the status of object clitic pronouns as part of the agreement system, specifically as markers of object agreement. Tsimpli & Dimitrakopoulou (2007: 222)

postulate a parallel between 3rd person subject-verb agreement affixes and 3rd person object clitics: while the former spell-out uninterpretable phi-features on T, the latter are the spell-out of case and phi-features on light *v*. Clitics can be used resumptively in object wh-questions, reflecting the features of the extracted object and have, thus, uninterpretable status. In this sense Greek clitics differ from English pronouns.

Tsimpli & Dimitrakopoulou (2007) carried out an acceptability task with learners of two different proficiency levels and a control group of native speakers. The results show that the learners, particular those of a lower proficiency level, significantly differ from native controls in failing to reject ungrammatical test items with resumptive pronouns. An effect of animacy and d-linking can be seen: resumptives are more likely to be accepted with inanimate referents, particularly if these are d-linked. Tsimpli & Dimitrakopoulou (2007) interpret their results as an indication that the properties of the Greek agreement system are transferred to English. The interpretable features of animacy and d-linking improve the results: [+animate] and [d-linked.] pronouns are largely disallowed in wh-interrogatives. The authors claim that this is an indication that the approximation to the target L2 representation is actually an effect of filtering L1 properties through interpretable features, which, in turn, implies a substantial problem with uninterpretable ones.

A further case of a mismatch between L1 and L2 formal features is presented in Parodi & Novaković (2014) on the acquisition of second position (P2) clitics in Serbo-Croatian (SC)² when the L1 is French. As both languages have clitics, at first sight the task for the French learners seems to involve a minor revision. A closer look, however, shows that the clitics in both languages are of a substantially different nature.

French clitics, namely, are verb-hosted and occupy a special slot in the sentence structure. Following Sportiche (1996) clitics are considered heads of their own projection, called Clitic Voice, whose function is the licensing of a specificity feature (Sportiche 1996: 268). SC clitics, on the other hand, are P2 clitics, licensed by both syntax and prosody, according to Franks & King 2000 and Bošković 2004. They are the pronominal realisation of an argument and move to a higher position in the structure. This movement seems to target the highest functional position in the extended projection of the verb, labelled FP by Franks & King, immediately below CP. If, at the end of the derivation, clitics end up ‘stranded’, i.e., without prosodic support to their left, a lower copy is pronounced so that they can be prosodically licensed as well. Consider the examples (6) and (7), illustrating the clitic cluster following an overt subject and an adverb. Notice that the cluster can include an auxiliary in addition to the pronominal clitics.

(6) ja sam *mu ga* očigledno dala
I aux it to him obviously give
‘I have obviously given it to him.’

(7) očigledno *sam mu ga* ja dala
obviously aux it to him I give

Turning to the L2 acquisition scenario, French learners of SC will have to learn the sentence patterns illustrated in Table 1. Only one of them, ScIV, parallels a possible French structure. The occurrence of lexical material between the clitic cluster and the verb, e.g. an adverb, shows that SC clitics are not verb-hosted. The P2 property is most clearly seen in embedded

² The language that used to be known as Serbo-Croatian is now considered to be four different languages, namely Bosnian, Croatian, Montenegrin and Serbian. These languages have grown apart in the last 25 years, mainly in the lexical domain. This development does not affect the domain of clitics, where the languages still function as one.

clauses and in the past tense. This is because the past tense is formed with an auxiliary clitic that becomes part of the cluster. In an embedded clause, furthermore, the clitic cluster immediately follows the complementiser, preceding an overt (topicalised) subject, if there is one. Consider also the examples (8) and (9), that contrast French and SC. In theoretical terms, when learning P2 clitics the French learners' task involves learning a new uninterpretable feature and abandoning the [+/- specific] of VoiceP for [uF] in the SC syntax.

	-adv	+adv
matrix	S clitic V	S clitic adv V
embedded	C clitic S V	C clitic S adv V

Table (1): Clitic placement patterns in matrix and embedded clauses.

- (8) French C S clitics V adv
 parce que je le lui donnerai demain
 because I it to him give.fut tomorrow
 'Because I will give it to him tomorrow.'
- (9) SC C clitics S adv V
 jer sam mu ga ja očigledno dala
 because aux im it I obviously give
 'Because I obviously gave it to him.'

Parodi & Novaković (2014) tested these structures taking the claims of the Interpretability Hypothesis as the starting point. The participants were 35 French learners of Serbian or Croatian at French universities, and 9 who had completed their studies and had spent at least 18 months living in a Serbian (Belgrade) or Croatian (Zagreb) language community. They were assigned to 5 proficiency groups on the basis of a placement test. Those learners living in an immersion context, and only those, formed the Very Advanced group. The test consisted in production tasks that tested the structures in question in matrix and embedded sentences in the present and in the past tense. The figure 1 below displays the results for embedded sentences in the past tense, which are the most telling as the surface clitic placement patterns diverge more from French. The results are given as percentages of the total production.

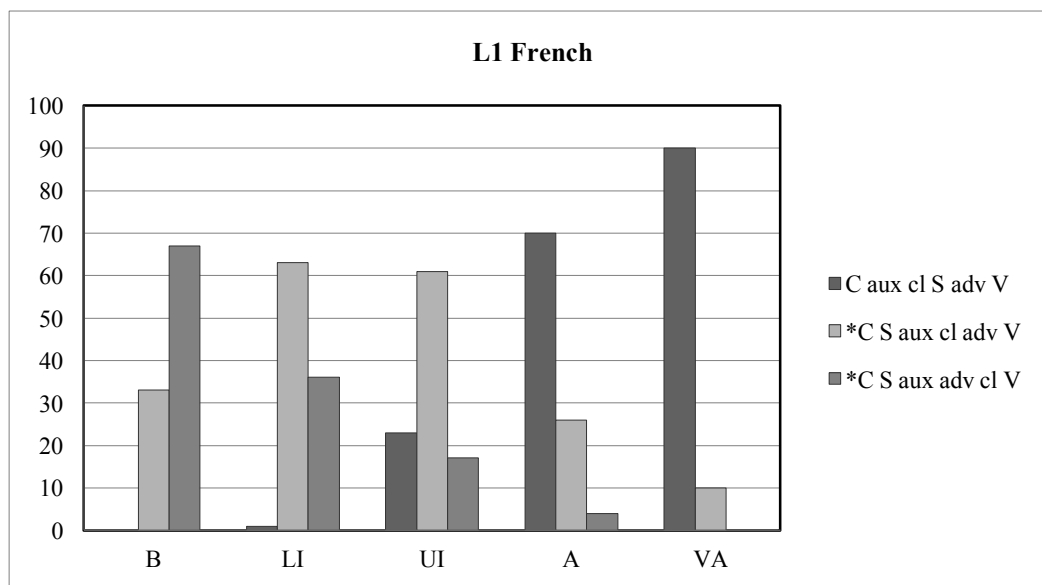


Figure (1): Clitic placement in embedded clauses: Past tense.

The figure (1) indicates that the clitic cluster is separated from the verb in slightly more than 60% of the contexts already at Lower Intermediate level and non-target like placement of clitics adjacent to the verb occurs in less than 20% of the contexts at Upper Intermediate level. On the other hand, placing the clitic cluster in the P2 position emerges at Upper Intermediate level, but is used only in slightly more than 20% of the contexts. There is a rapid increase to 70% at Advanced level. It is, however, only at Very Advanced level that the production of the target like pattern reaches 90%. What this tells us is that learning the P2 property, which involves an uninterpretable feature, is a very difficult step: it is achieved at a late developmental stage and it appears to need 'real' exposure, in addition to exposure in an instructed setting. Without that, the representation appears to remain in a state of indeterminacy, i.e. the relevant uninterpretable feature has not been learnt.

The results provide support for the Interpretability Hypothesis in that they show a persistent difficulty in a purely syntactic domain, where morphology plays a minimal role. This domain offers, thus, a window into a syntactic issue once morphology "subtracted", as it were; that is, the picture is complementary to that of Lardiere's (1998, 2000) studies, where morphology is lacking, but the relevant syntax is attested.

2.2.3 Dealing with features that exist both in L1 and L2

Difficulties arise even in cases in which both L1 and L2 are similar, e.g. they both mark tense and they both use bound morphemes; acquisition is not guaranteed, as (i) the learners have to find out that L1 and L2 work in the same way, and (ii) the learners have to learn the specific morphological exponents and how this is reflected in the syntax.

In this scenario the learners may well leave out inflectional morphology. But they may also resort to an *alternative realisation* of tense. An example is presented in Parodi's (1998, 2000) studies of speakers of Romance languages learning German in an untutored setting. These learners are shown to use non-thematic verbs as tense markers, i.e. as free morphemes, rather than using bound morphology on thematic verbs. The evidence is based on two observations: one morphological and the other one syntactic. Non-thematic verbs, as opposed to thematic ones, are target like in the morphological realisation of agreement, i.e. they are clearly morphologically finite. At the same time the distribution of negation with respect to finite verbs is systematic and target like: verbs not marked for agreement, i.e. thematic verbs, are not raised to T.

Another example is the use of "dummy auxiliaries", as reported, for example by van de Craats (2009) for L2 Dutch and Haberzettl (2003) for L2 German. Both authors present data from untutored learners, who add a finite auxiliary to a non-finite thematic verb (examples 10a, 11a) and even to a finite one (10b, 11b).³

- (10) a. basic *is*-pattern
 hij is lopen (target: hij loopt)
 he is walk-non-finite
 'he walks'
- b. inflected *is*-pattern
 hij is liegt (target: hij liegt)
 he is lie-3SG-PRES
 'he lies' (van de Craats 2009: 60)
- (11) a. basic *ist*-pattern
 eine Junge ist die Fussball spielen (target: ein Junge spielt Fussball)
 a boy is the football play
 'A boy is playing football.'
- b. inflected *ist*-pattern
 Quack ist nicht Geld kommt [= bekommt] (target: Quack bekommt kein Geld)
 Quack is not money gets
 'Quack does not get money.' (Haberzettl 2003:6 61-62)

These results are comparable to those in Lardiere (1998, 2000), Prévost & White (2000) and White (2003), who also point, for example, to the correct distribution of *do* and the negator in negative utterances. According to these authors, the learners' syntactic representation is not affected. In the case of Parodi (1998, 2000), van de Craats (2009) and Haberzettl (2003), although the representation appears to be target like, including a Tense component, Tense is realised in an alternative way, not necessarily ungrammatical but not target like.⁴

Lardiere (2008) also considers cases in which the L1 and the L2 instantiate the same set of features and postulates the Feature Reassembly Hypothesis, according to which the successful acquisition of the L2 depends not only on which specific features are activated in L1 and L2, but, crucially, on how these features are configured. Lardiere claims that feature clusters are perceived with the learners' L1 value. If this configuration differs from the L2 one, the learners will need to reassemble features in the L2 configuration.

Lardiere (2008) exemplifies with the features of number and definiteness in L2 English when the L1 is Chinese. English marks definiteness by means of an article and plural through morphology. There are no articles in Chinese. There is, however, a plural marker, –*men*, that assigns definite interpretation to the noun it attaches to. It is used only for human referents. That is, there are cases in which these two languages mark the same features, but they do it through different means and in a different configuration. See example (12).

³ See also the papers in Blom et al (2014).

⁴ Comparable results are observed in studies on the D-category as encoded on articles by speakers of languages that lack them, such as Serbo-Croatian and Chinese. Trenkic (2008) reports that speakers of Serbo-Croatian produce articles in their L2 English, but appear to categorise them as adjectives, which can be interpreted as ignoring the D feature. Robertson (2000), in turn, shows that Chinese learners of L2 English use articles but treat them as topic markers, realising them only when a new topic is introduced (Robertson 2000), i.e. these articles appear to encode an interpretable feature.

- (12) wo qu zhao haizi-*men*
 I go find child-PL
 ‘I will go find the children (*some children).’

The fact that the features of definiteness and plural are configured in different ways may lead to problems in L2 acquisition. An *English learner of Chinese* may assume that *-men* corresponds to the English plural and fail to grasp the definite feature. This may result, for example, in overgeneralisation of this markers to common nouns with non-human referent, which is not possible in Chinese. A *Chinese learner of English*, on the other hand, may undersupply the plural marker in English, e.g. avoiding to use it with non-human referents.

The approach has the merit to focus not only on what can or cannot be transferred from the L1 but also on L2 features, how they are configured and how they can be analysed by a learner. Chondrogianni (2008) bases her analysis of L2 Greek on this approach, to explain why some uninterpretable features are more difficult to acquire than others. Specifically, the L2 learners are less successful in the acquisition of clitics than of determiners, which are assumed to be elements of the same type in Greek. The Feature Reassembly Hypothesis has, however, the drawback of its unclear predictive power.

2.2.4 Inhibiting L1 features that don't exist in the L2

There is one scenario all these approaches do not consider, namely, the case in which the L1 instantiates features that are not instantiated in the L2. It has recently been discussed by Yuan (2014) and Hsieh (2015).

Yuan (2014) addresses an issue that is lexical at first sight, but involves a range of syntactic features. He studies the acquisition of the expression ‘*what/who on earth*’, as in (13)-(15), in the L2 English of speakers of Chinese. In English this expression is a rhetorical question with negative interpretation; it functions as a polarity item licensed by the features [wh_Q], [Q] and [neg] and by a non-veridical verb such as ‘wonder’, but not by a veridical verb such as ‘know’, as in (16).

- (13) what on earth will Kim buy?
 (14) who on earth would buy that car?
 (15) I wonder who on earth would buy that car.
 (16) *I know who on earth would buy that car.

There is a Chinese equivalent of this expression, formed with ‘*daodi...wh*’, as in (17), which, as opposed to English, is not a rhetorical question with a negative interpretation, but an information-seeking question. As in English, it has to occur in a wh-question, but it can be licensed both by a veridical and a non-veridical verb (i.e. by ‘know’ as well as ‘wonder’), and it does not function as a polarity item.

- (17) ta daodi yao mai shenme?
 he daodi will buy what
 ‘What on earth will he buy?’

Using an acceptability judgment, a discourse-completion and an interpretation tasks, Yuan (2014) found that not all the features associated with this expression are acquired with the English values. Clear results are found that show that the licenser of ‘wh-on earth’ has the features [wh_Q], [Q], [neg] and [V_{non-veri}]. The learners, however, are at random in their acceptance or rejection of ‘wh-on earth’ with [V_{veri}] verbs, such as ‘know’ and, in the case of learners at intermediate proficiency level, with the negative rhetorical interpretation of the expression. The L2 input does not offer evidence to confirm or disconfirm these features.

According to Yuan, in this case, the L1 features are not eliminated but remain dormant, which is reflected in random behaviour in the empirical tasks.

A similar point is made by Hsieh (2015), who studies the acquisition of relative clauses in L2 English and L2 Chinese. English relatives have a [*uwh*] feature in C and *wh*-movement brings the extracted element to the C domain; Chinese relatives don't have this feature and they are not created by movement either. Evidence of the lack of [*uwh*] in Chinese is obviously not to be found, which, in turn, makes it difficult to inhibit this feature in their L2.

3. Where are the vulnerable points when learning formal features?

The preceding sections have presented learnability problems in four different scenarios, based on whether a formal feature is realised in both L1 and L2 or only on one of them, and on the type of realisation, i.e. morphological, syntactic, as part of a feature cluster, etc. One of the questions that arises is what predictions can be made on the basis of the different scenarios, in other words, where the vulnerable domains are.

It becomes clear that mismatches in feature configuration between L1 and L2 lead to learnability problems, either because new features have to be learnt, or inhibited, or reconfigured. It is apparent that not all mismatched features are a problem, but a subset of them, uninterpretable features, whose role it is to contribute to the computation, rather than to convey semantic content (Tsimplici & Dimitrakopoulou 2007, Parodi & Novaković 2014, Yuan 2014, Hsieh 2015). On the other hand, even if both the L1 and the L2 instantiate the same feature, for example, tense in Arabic and Dutch, the realisation may deviate from both L1 and L2. It remains to be seen in the specific cases whether the divergent realisation also entails a representation that diverges from the L2.

Furthermore, it is clear that morphology, particularly bound morphology, is a source of learnability problems, either the realisation of the relevant exponents (Lardiere 1998, 2000, Prévost & White 2000, White 2003) or the interpretation of the information they encode, as in the case of the Chinese marker *-men* (Lardiere 2008). In the overview presented we have seen cases (Lardiere 1998, 2000, Prévost & White 2000, White 2003, Parodi 1998, 2000) in which the morphological analysis and the ensuing realisation fail. In that case the targetlike forms are replaced by an underspecified form or by an alternative.

In the case of the difference between clitics and pronouns addressed by Tsimplici & Dimitrakopoulou (2007), the problem lies in the morphology-syntax interface. In this case the issue is not the morphological realisation, but the identification of the features encoded by clitics and pronouns in Greek and English respectively. In this case the learners have difficulty in identifying and making use of the uninterpretable features involved and rely instead on interpretable features. The uninterpretable features have disappeared as such, although at least part of the information encoded has been reanalysed as interpretable.

Misanalysis in a purely syntactic domain is seen in the example of the SC and French clinics in Parodi & Novaković (2014). Another example is Yuan's (2014) study, where lexical and semantic features related also to discourse structure. In both cases the learners' system appear indeterminate at a point when other domains have reached an advanced proficiency level. This is as close as it comes to the loss of a formal feature, as in this case the learners have failed to identify the features in question.

This leads to the question of the evidence for the learners. The chances of evaluating the input for the conditions on null or overt subject, or on the realisation of tense will be more frequent than those instantiating the set of morphological, syntactic and semantic features attached to the expression 'wh-on earth'. The expression 'wh-on earth', additionally, illustrates a classical learnability problem in that it is the absence of a set of features what is informative: [*wh*_{Prop}] vs [*wh*_Q], [*V*_{+/-veri}]. Still, although the type and amount of exposure to

the input are important factors in acquisition, although necessary, in themselves they are not sufficient to define / determine the acquisition process.

A second question with respect to the learnability problems concerns the fate of formal features if they don't converge with the target. Do they disappear? Are they realised in an alternative way? As has been made clear, lack of morphological realisation does not necessarily entail absence of the feature, as it is possible to see its syntactic effects in the cases described by Lardiere (1998, 2000) and Prévost & White (2000). In some case an alternative realisation can be seen, as in the use of "dummy auxiliaries" observed by Haberzettl (2003) and van de Craats (2009) or that of non-thematic verbs as free morphemes marking tense (Parodi 1998, 2000). In two cases one could speak of loss of formal features. The first one is described by Tsimpli & Dimitrakopoulou (2007), when uninterpretable features fail to be analysed as such; the reanalysis, then, relies or is based on interpretable features that match in L1 and L2. The feature is, thus, still available but its status as uninterpretable is not. The second case is seen in Yuan (2015), Hsieh (2015) and Parodi & Novaković (2014), when the uninterpretable features in question remain in a state of indeterminacy. In these three studies it is observed that the input doesn't offer enough evidence for a successful analysis, particularly in the case of Yuan (2015) and Hsieh (2015) when the learners need to eliminate the feature.

4. Summary and conclusion

The learnability scenarios discussed display clear parallels between L2 acquisition and situations of language contact. In both cases two steady-state language systems meet, there is a clear starting point in time when the encounter takes place, and there is a development from then on. The situation is particularly similar to that of untutored L2 learners, who are not influenced by explicit teaching. Given these parallels, we may expect that vulnerable domains identified in decades of research on L2 acquisition may well prove to be equally vulnerable in language contact. Studies of L2 acquisition may, thus, contribute to hypotheses and questions on language contact.

To sum up, this contribution has focused on formal features as the locus of language specific properties in Principles & Parameters and Minimalist accounts. This is the basis for an overview of how accounts of L2 acquisition have dealt with the developmental process, identifying in the first place the starting point and the set of features instantiated at this point, and analysing in a further step the developmental route, with the acquisition, modification, inhibition and potential loss of formal features.

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On the clitic status of the plural marker in phonic French

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1. Introduction

Many Romance languages and varieties show different patterns of partial or complete lack of plural agreement within the determiner phrase (DP) (cf. Pomino 2012 for an overview). This phenomenon has scarcely been addressed in the literature and poses problems for any kind of analysis proposed so far, regardless of the theoretical background. This paper presents and classifies several cases of lack of plural agreement or plural marking within the Romance DP, with a special focus on (phonic) French. The main focus of the discussion is placed on the status of the corresponding plural exponent. It is argued that in some Romance varieties the exponent of Div° (or Num°) is a clitic-like element that doesn't care about its host, but about its position. Similar to clitics, it does not select its host, it rather attaches to whichever element happens to be in the right place (cf. Zwicky & Pullum 1983). In order to establish the triggering factors behind plural marking in the Romance varieties under discussion, some examples from non-Romance languages (e.g. Hungarian and Basque) will be taken into account.

In this paper, I show that French, especially, is difficult to classify with respect to plural marking, because it does not fit into the proposed parameters for classification. In section 2.1 I sketch the typological classification proposed by Rijkhoff (2002a,b) followed by the semantico-syntactic analysis of Borer (2005) with respect to plural marking in 2.2. The non-applicability of these proposals to some Romance varieties is discussed in section 2.3 and more in depth for French in section 3. In the following section (section 4), I propose an alternative analysis to account for the restriction of plural marking within the DP, which is based on the leading idea that the plural exponents at issue have a clitic-like behavior.

2. General observations on plural marking within the DP

2.1 Typological considerations based on Rijkhoff (2002a,b)

In his typological study based on more than fifty languages, Rijkhoff (2002a) claims that one has to distinguish between six different noun types. Beside *mass nouns* and *collective nouns*, which I will not treat here in detail, Rijkhoff argues that languages differ with respect to whether their respective "count nouns" (or first order nouns) are *singular object nouns*, *set nouns*, *sort nouns* or *general nouns*. The decisive characteristic for this subdivision is the behavior of the respective nouns in numeral-noun-combinations, i.e. in a quantified DP. More precisely, "one main parameter that determines cross-linguistic variation with respect to plural marking within the DP is whether or not plural morphology is realized in contexts where the concept of plurality is already expressed by numerals or quantifiers" (Ortmann 2004: 231).

As shown in (1), languages vary on the one side with respect to whether a noun can be combined directly with a numeral (greater than one) or whether the noun must be combined with a classifier in order to be counted, and on the other side with respect to whether or not the noun appears in its plural (or non-singular) form (cf. also Wiese 1997a,b, Acquaviva 2005, Ortmann 2004). The first three types are attested in several languages, whereas for the last one there are "very few (possibly no) languages", according to Rijkhoff (2002b: 29). This observation is in line with other studies of nominal classifiers where it is stated that nominal classifiers and plural morphemes are in complementary distribution in two ways: (i) languages have either classifiers or plural markers and (ii) if a language has both elements, they are in complementary distribution within the language system at issue (cf. Tsou 1976: 1216 and

Sanches & Slobin 1973: 4 both cited in Borer 2005: 93).

- (1) Numeral-noun-combinations: Four logical possibilities (cf. Rijkhoff 2002)
- (a) numeral +noun +plural marker (*single object nouns*)
 - (b) numeral +noun (*set nouns*)
 - (c) numeral +classifier +noun (*sort nouns and general nouns*)
 - (d) numeral +classifier +nouns +plural marker

The types (1)a-c are not mutually exclusive, i.e. languages may allow only one, two or even all of the first three possibilities. Armenian is, for example, a language which allows these three possibilities, while the combination of a classifier with a plural marker is ungrammatical.

- (2) Armenian (Borer 2005: 94-95)
- (a) Yergu hovanoc-ner uni-m. (cf. (1)a)
two umbrella-PL have-1SG
'I have two umbrellas.'
 - (b) Yergu hovanoc uni-m. (cf. (1)b)
two umbrella have-1SG
'I have two umbrellas.'
 - (c) Yergu had hovanoc uni-m. (cf. (1)c)
two CL umbrella have-1SG
'I have two umbrellas.'
 - (d) *Yergu had hovanoc-ner uni-m. (cf. (1)d)
two CL umbrella-PL have-1SG

In what follows I will briefly discuss those aspects of the language types in (1) which will be of interest for the argumentation in the next chapters.

2.1.1 Single object noun languages

English, as well as Standard Spanish, Standard Italian and many other (but not all) Romance languages, belongs to the type schematized in (1)a. That is, when combined with a numeral greater than one (cf. (3)), the noun has to be obligatorily marked for plural. This is due to the fact that in these languages the absence of an overt plural marker will automatically be interpreted as singular number, i.e. singular corresponds to the morphologically unmarked form. The type of 'count nouns' showing this kind of morphosyntactic and semantic properties is classified as *singular object nouns* by Rijkhoff (2002b).

- (3) (a) three cats / *cat
(b) tres gatos / *gato
three cat(M).PL cat(M).SG
(c) tre gatti / *gatto
three cat(M).PL cat(M).SG

Another characteristic of *singular object nouns* is that they cannot be used as "bare nouns" (i.e. without determiner and/or without a plural marker) within the DP. Instead, in case of singular reference, the DP must contain an indefinite determiner as in (4) or, if the DP denotes plural entities, the noun has to be overtly marked for plural as in (5). This stands in contrast to *mass nouns*, which can appear bare, at least in English and Spanish, cf. (6).

- (4) (a) This is a/* \emptyset car.
 (b) Esto es un/* \emptyset coche.
 dem.sg be.3SG a car(M).SG
 ‘This is a/* \emptyset car.’
 (c) Questo e una/* \emptyset macchina.
 dem.SG be.3SG a car(F).SG
 ‘This is a/* \emptyset car.’
- (5) (a) Children were playing.
 (b) Jugaban niños en la calle.
 play.3PL child(M).PL in the street
 ‘Children were playing on the street.’
 (c) In ogni strada del paese giocavano bambini.
 in every street of.the village play.3PL child(M).PL
 ‘On every street of the village children were playing.’
- (6) (a) I am looking for milk.
 (b) Busco leche.¹
 Search.3sg milk
 ‘This is milk’

The above discussion emphasizes an interesting interplay of semantics, syntax and morphology that can be summarized as given in (7). Leaving aside *collective nouns* for the moment, we have nouns that are used with a count denotation on the one hand and nouns that are used with a mass denotation on the other hand. Furthermore, in the count denotation we can have singular or plural reference. On semantic grounds we have thus a threefold distinction: (i) count (or individuated) and singular, (ii) count (or individuated) and plural and (iii) mass or non-individuated. The morphological inventory of the languages at issue in this section permits to exclusively mark individuated, plural nouns. Individuated, singular nouns are in contrast marked by syntactic means, in the sense that the presence of a determiner is made obligatory. And finally, mass nouns or rather non-individuated nouns are marked *ex negativo*, i.e. it is the absence of a plural suffix and the absence of a determiner that “marks” non-individuated nouns.

(7) Outline for *singular object nouns*

	individuated (count denotation)		non-individuated (mass denotation)
	sg	pl	
Morphology	---	suffix	---
Syntax	<i>a/one</i> ↓	--- ↓	--- ↓
	bare singulars not possible	bare plurals possible	mass nouns appear bare

As will be shown in section 2.3 and section 3, some Romance languages and varieties are losing or already have completely lost the morphological plural marker on the noun. If the generalisation above is correct, this language change has outstanding morphosyntactic consequences.

¹ The indefinite article, which unambiguously expresses individuation and singularity, can combine with nouns like *leche* ‘milk’, *vino* ‘wine’, *cerveza* ‘beer’ etc., e.g. *Voy a beber una cerveza* ‘I am having a beer’. However, in this case the use of the indefinite article indicates that the DP refers to a certain unit (e.g. a glass) of beer.

2.1.2 Set noun languages

In what follows, let us consider *set noun* languages: Hungarian, for example, is a language of the type represented in (1)b.² That is, there is no need for a classifier in order to combine a count noun with a numeral. But, in contrast to *singular object noun languages*, plural marking is “variable” in these languages. That is, these languages have a “plural” marker in their morphological inventory and its presence is (generally) obligatory when the noun refers to pluralities (without a numeral) (cf. (8)a). But, when combined with a numeral or certain quantifiers that already express plurality, the noun appears in its unmarked form, not in its plural form (cf. (8)b). Nouns showing these properties are called *set nouns* by Rijkhoff (2002).

(8) Hungarian (*set nouns*, cf. Rijkhoff 2002) (examples from Ortmann 2000: 251-252)

- | | | | |
|-----|--------------|-----|--------------|
| (a) | hajó | vs. | hajó-k |
| | ship.SG | | ship-PL |
| | ‘ship’ | | ‘ships’ |
| (b) | öt hajó | vs. | *öt hajó-k |
| | five ship | | five ship-PL |
| | ‘five ships’ | | |

In contrast to the *singular object nouns* where the absence of plural marking, according to Rijkhoff (2002) (cf. in contrast the assumption of Borer 2005 below), clearly leads to a singular interpretation, *set nouns* are “number-neutral” in the sense that in absence of a plural marker they are neither associated with singularity nor with plurality (cf. also Acquaviva 2005). More precisely, the unmarked form of these nouns may be used to refer to a set that may contain any number of entities (or individuals), i.e. a singleton set (containing only one entity or a singular individual) or a collective set (containing more than one entity or plural individuals).³ Thus, Hungarian *hajó*, the morphologically unmarked form, can be combined with the indefinite determiner *egy* or the numeral *egy* ‘one’ if the speaker refers to a singleton set as in *egy/egygy hajó* ‘a/one ship’ or it may be combined with a numeral greater than one as in (8)b. In this case, the set consists of more individuals – it is a multiple or collective set. In contrast, the marked form *hajók* is exclusively associated with a collective set. Thus, the marker *-k* in *hajók* is not a plural marker, but rather a collective marker (cf. Rijkhoff 2002).

This type of number marking system has a direct impact on number agreement within the DP: Due to the fact that the unmarked noun form is “ambiguous” in the sense that it may express a singleton set or a collective set, the plural or collective marker *-k* does not appear in those contexts where plural or plurality is expressed by other means, e.g. by the presence of a numeral greater than one or certain quantifiers. This is also the conclusion of Ortmann who states that “[...] the typology predicts that a language will not leave the head noun in the singular when combined with a numeral but otherwise displays plural agreement between the noun and its modifiers” (Ortmann 2004: 243). In (9)a the noun as well as the predicative adjective are both marked for plural, i.e. the adjective agrees, in principle, with the noun in number. Yet, in (9)b, where the adjective occupies a DP-internal position, it is not marked for number. Furthermore, plural is, as a general rule, not marked on the determiner in Hungarian (demonstratives seem to be an exception, cf. fn. 4).

² Rijkhoff (2002b) discusses this language type with reference to Oromo, an Afro-Asiatic language.

³ As will be shown below, Rijkhoff assumes that singular object nouns and set nouns differ with respect to the feature [homogeneity].

- (9) No multiple plural marking inside the DP (Hungarian) (Ortmann 2000:251-252)⁴
- (a) A hajó-k gyors-ak. [predicative adjective with a “silent” copula]
 det ship-PL fast-PL
 ‘The ships are fast.’
- (b) gyors hajó-k (not *gyors-ak hajó-k)
 fast ship-PL fast-PL ship-PL
 ‘fast ships’
- (c) a hajó vs. a hajó-k [no plural marking on the definite article]
 det ship det ship-PL
 ‘the ship’ ‘the ships’

Another important characteristic of *set noun languages* that will be important for the discussion in chapter 3 is that these languages allow bare nouns in constructions where *singular object noun languages* (e.g. English) either require a plural marker on the noun or an indefinite determiner, cf. (10).

- (10) Hungarian (set nouns) (de Groot 2009)
- | | |
|--|---------------------------------|
| Hungarian | English |
| (a) Van alma?
cop.3SG apple
‘Are there apples?’ | (a’) Are there apples/*apple? |
| (b) Mari könyv-et olvas.
Mary book-ACC read.3SG
‘Mary is reading a book’ | (b’) Mary is reading *(a) book. |

2.1.3 Sort noun and general noun languages

Languages showing the pattern illustrated in (1)c have either *sort nouns* (beside *mass nouns*) or only *general nouns* (without distinguishing between *sort nouns* and *mass nouns*). Both, *sort nouns* and *general nouns* are also known as transnumeral or number-neutral nouns in literature. The main difference to the nouns mentioned above is that these kinds of nouns cannot be immediately combined with numerals, they have to be individualized by a nominal classifier in order to be countable while the noun itself is not marked for number (cf. Greenberg 1974, Lyons 1977: 462, Bisang 1999: 115). The Thai nouns *thian* ‘candle’ and *pèt* ‘duck’ in (11), for example, require the presence of the sort classifier *lêm* (for long, pointed objects) or *tua* (for bodies) respectively in numeral-noun-combinations.

- (11) Thai (*sort nouns*) (Gandour et al. 1984: 466, 455, cited in Rijkhoff 2002b: 133)
- (a) thian sì lêm
 candle two CLF:long, pointed object
 ‘two candles’
- (b) pèt hâa tua
 duck five CLF:body
 ‘five ducks’

According to Rijkhoff (2002), the fact that these nouns cannot be quantified directly has to do with their semantics: Based on Hundius & Kölver (1983) he assumes that *sort nouns* have the semantics of *conceptual labels* (i.e. they purely denote concepts). The noun does not include in its lexical meaning the notion of spatial discreteness, boundedness or shape (Hundius & Kölver

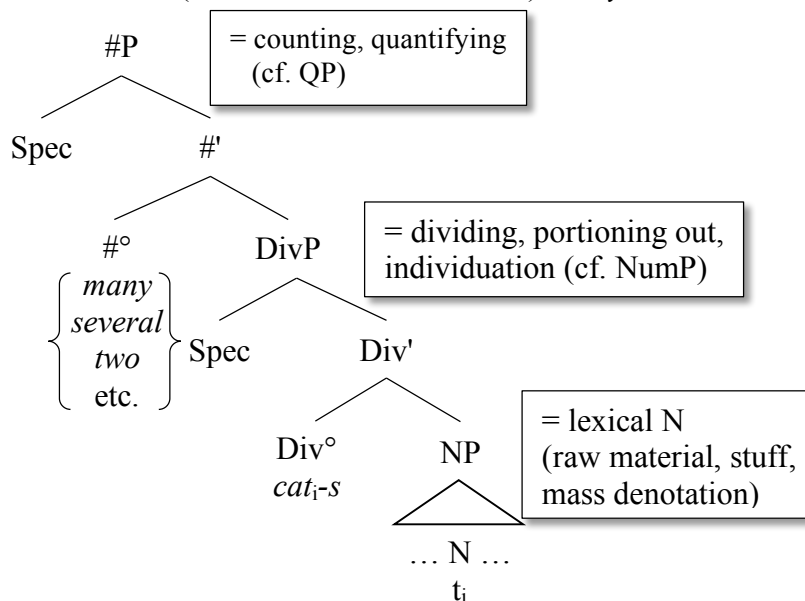
⁴ Demonstratives, however, show plural marking in combination with a plural marked noun. According to Ortmann (2004), the demonstrative actually is an adjunct to the DP (rather than a DP-constituent).

1983: 166). Yet, only spatially bounded entities can be counted directly and thus a classifier or rather an *individualizer* (Lyons 1977: 462) is needed before such nouns can be modified by a numeral. Borer agrees essentially with this observation, but, according to her, all nouns, in all languages, are, in absence of any (grammatical) specification, “tantamount to raw material, ‘stuff’” (Borer 2005: 108), i.e. they all need to be “individualized” or “portioned out”. That is, individuation is not part of the lexical semantics of nouns, languages employ rather different morphosyntactic means to distinguish between individuated and non-individuated nouns. Borer’s analysis is briefly summarized in the following section.

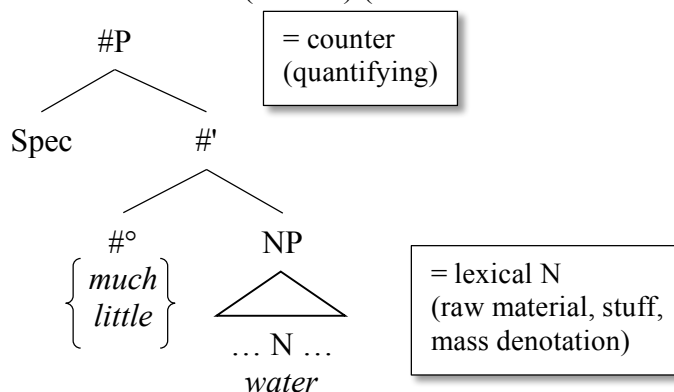
2.2 Borer’s semantic-syntactic interpretation of the typology in 2.1

The most important point of Borer’s (2005) analysis is, as stated above, that all noun denotations are mass and that languages employ different morphosyntactic means to distinguish between individuated and non-individuated (or mass) nouns. In other words, the syntactic structure gives us the necessary information. Thus, as exemplified in (12)a, in order to be counted, a noun is first individualized by selecting the functional category Div^o (= divider). Once this portioning out took place, the corresponding noun can be counted or quantified by the functional category which Borer symbolizes as rhombus. This is the structure for *many cats*, *several cats*, *two cats* etc. However, the counter phrase (#P) or quantifier phrase can also select a NP as complement (cf. (12)b). But, in this case, where DivP is missing, the structure leads to a mass interpretation (e.g. *many water*).

(12) (a) Individuated (modified from Borer 2005): *many/several/two cats* etc.

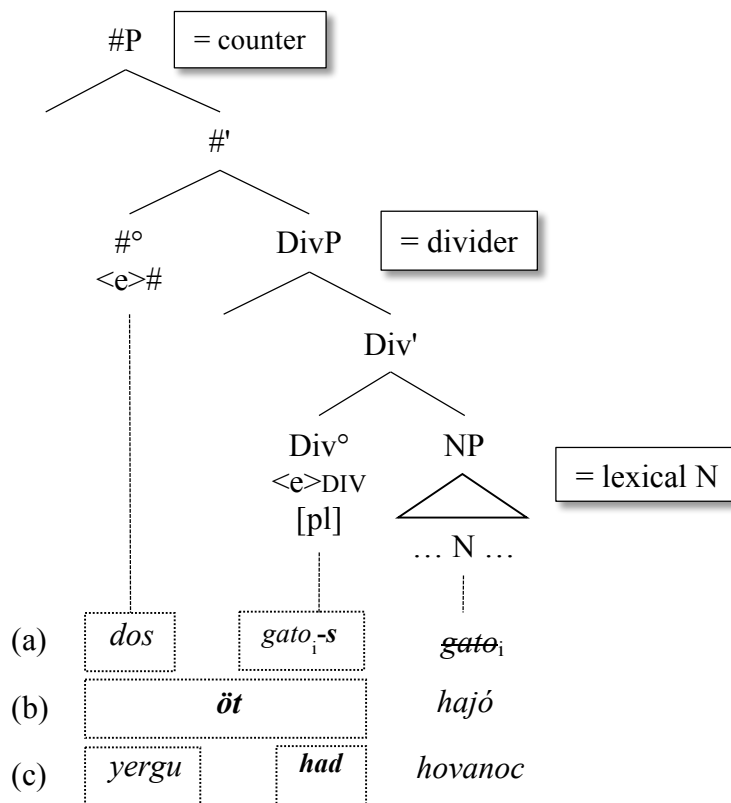


(b) Non-individuated (= mass) (modified from Borer 2005): *much water*



Let us come back to the different language types exemplified in (1). For Borer (2005), these types differ with respect to how the syntactic structure in (12)a is realized. More precisely, the languages employ different means for individuation, i.e. they have different ways for realizing the dividing and counting function. In Standard Spanish (cf. (13)a; *dos gatos* ‘two cats’), the exponent of the divider-head (Div°) is the plural suffix *-s*; since this element is a bound form, we can assume that the noun moves to Div° in order to bind the suffix. Furthermore, $\#^\circ$ (= the counter-head) is realized, for example, by the numeral *dos*. In contrast, in Hungarian (cf. (13)b), the numeral *öt* ‘five’ is not only a counter but also a divider. That is, according to Borer, *öt* fulfills the dividing- or individuation-function as well as the counting function; it is a portmanteau morpheme or a cumulative exponent. Crucially, the noun remains in situ in this construction and is thus not combined with a plural (or collective) affix, even though Hungarian has a plural suffix in its morphological inventory. And finally, cf. the Armenian example in (13)c, Div° can be realized by a classifier which, being a free form in the sense of Bloomfield, must not be bound by the noun through N-movement. In sum, the individuation function or portioning out function can be fulfilled either by an affix, by a numeral and/or by a classifier.

(13) Numeral-noun-combinations



2.3 How do the Romance languages fit into the typological classification?

As mentioned before, there are Romance languages and varieties which cannot be classified as belonging straightforwardly to the *singular object noun* languages. One crucial reason for this is that the head noun appears either facultative (cf. (14)) or as a general rule (cf. (15)) in its non-marked form in numeral-noun constructions. Thus, especially the varieties in (15) resemble, at least at first glance, the language type schematized in (1)b.

- (14) Facultative plural marking on N in numeral-noun constructions
- (a) kl-a do dɔn-j-a vs. do brav-a dɔn-a
 dem-F.SG two woman-PL-F two good-F.SG woman-F.SG
 ‘those two women’ ‘two good women’
 (Mulazzo; Manzini & Savoia 2005:622-623)
- (b) dɔ kampān-j-a vs. dɔ kampān-a
 two bell-PL-F two bell-F.SG
 ‘two bells’ ‘two bells’
 (Villafranca; Loporca 1994:37)
- (15) No plural on N in numeral-noun constructions
- (a) l-i sièis fih-o
 det-PL six girl-F.SG
 ‘the six girls’ (Maritime Provençal; Frederi Mistral, *Memòri e raconte*)
- (b) [dɔ: sɛ:z òm] (deùs cints omes)
 two hundred man.M.SG
 ‘two hundred men’ (Walloon; Remacle 1952:272)
- (c) un-o-s quince mul-a
 det-M-PL fifteen mule-F.SG
 ‘some fifteen mules’ (Afro-Yugueño; Lipski 2006:193)
- (d) do brav-a dɔn-a
 two good-F.SG woman-F.SG
 ‘two good women’ (Filattiera; Manzini & Savoia 2005:619)

Another fact that rather reminds us of *set noun* languages, like Hungarian, instead of *single object noun* languages is that the Romance languages and varieties mentioned above do not show the canonical number agreement within the DP. Instead, plural is either marked only once within the DP (cf. (16)) or several times, but only in the prenominal domain (cf. (17)) (cf. Pomino 2012 for other varieties and other plural marking systems not mentioned here).

- (16) Single plural marking on the determiner⁵
- (a) l-u-h guagua jóven
 det-M-PL children.M.SG young.M.SG
 ‘the young children’
 (Afro-Yugueño or Afro-Bolivian dialect; Lipski 2007:183)
- (b) j-a s'karp-a 'ni:v-a
 det.PL-F shoe-F.SG new-F.SG
 ‘the new shoes’ (restricted to feminine DPs)
 (Filattiera, Manzini & Savoia 2005:619)
- (17) Multiple plural marking with a prenominal-postnominal-asymmetry (e.g. Maritime Provençal, cf. Blanchet 1999:89)
- (a) Prenominal A: l-ei bèll-ei fih-o
 the-PL beautiful-PL girl-F.SG
 ‘the beautiful girls’

⁵ The difference between (16)a and (16)b is that in the latter case lack of plural agreement is restricted exclusively to feminine DPs (cf. Pomino 2012 for an interpretation of this fact). Note further that, in contrast to the variety in (17), the position of the adnominal adjective does not impinge on plural marking in (16), i.e. there is always single plural marking on the determiner even if the adjective is in prenominal position.

- (b) Postnominal A: l-ei fih-o bell-o
 the-PL girl-F.SG beautiful-F.SG
 ‘the beautiful girls’

Do these examples really show that the varieties at issue belong to the Hungarian-type of languages? No. One main characteristic of the Hungarian-type of languages is that they do have a plural (or collective) marker for the noun in their morphological inventory (cf. (8)a), although the noun remains unmarked for plural in numeral-noun constructions. In contrast, this is not generally true for the Romance varieties in (15)–(17) above: They simply do not have a plural morpheme to mark the respective noun. Thus, the reason why the noun appears unmarked for plural in numeral-noun constructions is due to a reduced inventory of morphological markers. Nevertheless, the loss of a plural marker on the noun may impinge on the morpho-syntax of the corresponding variety (cf. e.g. Stark 2008, 2013 for the relation between absence of plural marking and presence of a partitive structure).

Things are different for substandard spoken Brazilian Portuguese, for example. The data from Brazilian Portuguese with respect to plural marking within the DP is especially intriguing because several possibilities are attested. There are nevertheless certain tendencies and preferences: All elements in the prenominal DP domain show a very high rate of plural marking, while all postnominal elements disfavor it. For the head noun itself, it favors overt plural marking only if it is the leftmost element of the DP/NP, otherwise it is not marked for plural (cf. Naro & Scherre 2000, Scherre 2001, Carvalho 2006; cf. Poplack 1980 for Puerto Rican Spanish). This means, Brazilian Portuguese has in its morphological inventory a plural marker for the noun, but, as shown in (18), the noun remains usually unmarked in more complex DPs. Especially, the example in (18)c resembles the Hungarian examples given above, i.e. a *set noun* language. Although the examples in (18) are not exclusive, they illustrate the preferred pattern of plural marking within the DP in substandard spoken Brazilian Portuguese.

(18) Português Popular (Brazilian Portuguese) (Naro & Scherre 2000 and Scherre 2001)

- (a) prenominal A: a-s nov-a-s alun-a
 the.F-PL new-F-PL pupil-F.SG
 ‘the new (female) pupil’ (plural)
- (b) postnominal A: a-s alun-a nov-a
 the.F-PL pupil-F.SG new-F.SG
 ‘the new (female) pupil’ (plural)
- (c) numeral-noun construction
 tenho cinquenta ê um an-o (not an-o-s)
 have.1SG fifty and one year-M.SG year-M-PL
 ‘I am fifty one years old’

In this context, it is important to mention that Brazilian Portuguese – apart from showing lack of plural agreement within the DP and non-marking of the noun in numeral-noun constructions – is one (or maybe the only) Romance language that has productive bare singulars (cf. e.g. Schmitt & Munn 1999): e.g. *comprei livro* ‘I have bought a book’ vs. Sp. *compré un/*Ø libro*. Note that, according to the generalization made in (7), bare singulars are excluded or at least uncommon in *single object noun* languages. It is thus very likely that Brazilian Portuguese is or is becoming a language of the Hungarian-type, a *set noun* language.

3. An attempt to classify phonic French

3.1 The non-marking of plural on the French noun

In French, there are clear cases where the noun alternates between a singular and a plural form. These cases include the well-known [al]-[o]- or [aj]-[o]-alternation, cf. *cheval* [ʃ(ə)val] ‘horse’ vs. *chevaux* [ʃəvo] ‘horses’ and *travail* [travaj] ‘work’ vs. *travaux* [travo] ‘works’, but also other instances of “lexical” plural marking (e.g. *œil* [œj] ‘eye’ vs. *yeux* [jø] ‘eyes’), *madame* [madam] vs. *mesdames* [medam]). All these alternations are however exceptions and far from being productive. Instead, if we consider the examples in (19), we see that in phonic French, neither the noun nor the adjective is marked for plural when pronounced in isolation. That is, as is well-known, Modern (phonic) French has lost the sigmatic plural (/s/-plural) completely, except in contexts of *liaison*. Thus, in order to decide if the noun is marked for plural or not, we have to look at those contexts where plural-[z] may show up. Such a possible context is the combination of a noun with a following adjective in a plural DP.

(19) French nouns and adjectives with no formal number distinction in the phonic code

(a)	femme	femme-s
	woman(F)	woman(F)-PL
	[fam]	[fam]
	woman(F)	woman(F)
	‘woman’	‘women’
(b)	grand-e	grand-e-s
	big-F	big-F-PL
	[grãd]	[grãd]
	big.F	big.F
	‘big’	‘big’

One standard assumption with respect to French *liaison* is that one has to distinguish between obligatory, facultative and forbidden *liaison* (cf. (20)) For example, between the determiner and the noun, *liaison* is obligatory (e.g. *les amis*), whereas *liaison* is forbidden, in contrast, between the singular noun and a following verb. The interesting case for our discussion, i.e. *liaison* between a plural noun and a following adjective, is assumed to be facultative in most works.

(20) The three types of *liaison*: Standard assumption (cf. Delattre 1955 among many others)

obligatory	D-N/A	<i>les amis, les éternels regrets</i>
	Dem-N/A	<i>ces amis, ces éternels regrets</i>
	Poss-N/A	<i>tes amis, leurs éternels regrets</i>
	Indef.quant.-N/A	<i>plusieurs amis, plusieurs éternels regrets</i>
	Interr-N/A	<i>quelles histoires, quelles éternelles histoires</i>
	A-N	<i>belles histoires</i>
facultative	N(PL)-A	<i>des maisons immenses</i>
	N(PL)-V	<i>les camions arrivent</i>
	N(PL)-Prep	<i>des plans à faire</i>
forbidden	N(SG)-A	<i>une maison immense</i>
	N(SG)-V	<i>le camion arrive</i>
	N(SG)-PREP	<i>un plan à faire</i>

Yet, apart from the fact that it is not at all clear what facultative means, the corpus analyses I have conducted so far with respect to French *liaison* shows that there is a clear preference for not realizing *liaison* between the noun and the postnominal adjective, if they are elements of an ordinary syntactic phrase (cf. Pomino & Stark submitted for more details). What I mean by this

is that the ordinary syntactic phrase (21)a is realized rather without *liaison* between N and A, whereas (21)b, where the NA-combination is a proper name, *liaison* between N and A seems to be even obligatory.

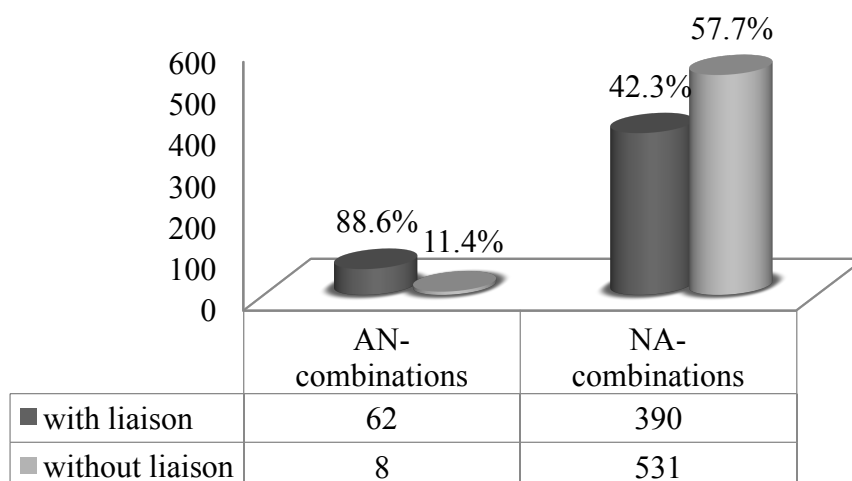
(21) Phonic French: Plural marking in the postnominal DP-domain (DNA-combinations)

- | | | | | |
|-----|-------------------------|--------------|----------------|---|
| (a) | le-s | enfant-s | adorable-s | rather without liaison between N and A |
| | def-PL | child(M)-PL | adorable[M]-PL | |
| | [l-ez | ãfã | adɔrabl] | |
| | def-PL | child(M) | adorable[M] | |
| | ‘the adorable children’ | | | |
| (b) | le-s | Nation-s | Uni-e-s | obligatorily with liaison between N and A |
| | def-PL | nation(F)-PL | united-F-PL | |
| | [l-e | nasjõ-z | yni] | |
| | def-PL | nation(F)-PL | united | |
| | ‘the United Nations’ | | | |

Before I discuss the typological classification of French with respect to plural marking, I will quickly summarize some insights of one of my corpus analyses (cf. also Pomino & Stark submitted). Inter alia, I conducted a query in the corpus *Phonologie du Français Contemporain* (PFC, <http://www.projet-pfc.net/moteur.html>) (cf. Durand/Laks/Lyche 2002 and 2009 for more information on the corpus).⁶ Using this corpus, a total of 991 items showing the combination NA/AN with potential *liaison* [z] were attested for the region of France out of which 70 (= 7%) items are with prenominal and 921 (= 93%) with postnominal adjectives. In all the obtained results, [z] can be associated with plural, i.e. we are apparently dealing with a *liaison*-consonant bearing grammatical information. As you can see from the diagram in (22), out of the 70 items with prenominal adjectives, 62 items (88.6%) show *liaison* with [z] between adjective and noun, while 8 items (11.4%) appear without realized *liaison*. So far, this is in line with what Delattre (1955, 1966) has already observed (cf. table (20)). Let us now consider the NA-combinations: 531 items (57.7%) are without realized *liaison* between the noun and the following adjective, while only 390 (42.3%) show *liaison* (cf. the table in (22)). Even though there is a slight preference for not realizing *liaison* in NA-combinations, at first glance, we could think that the diagram illustrates exactly what is meant by facultative *liaison*.

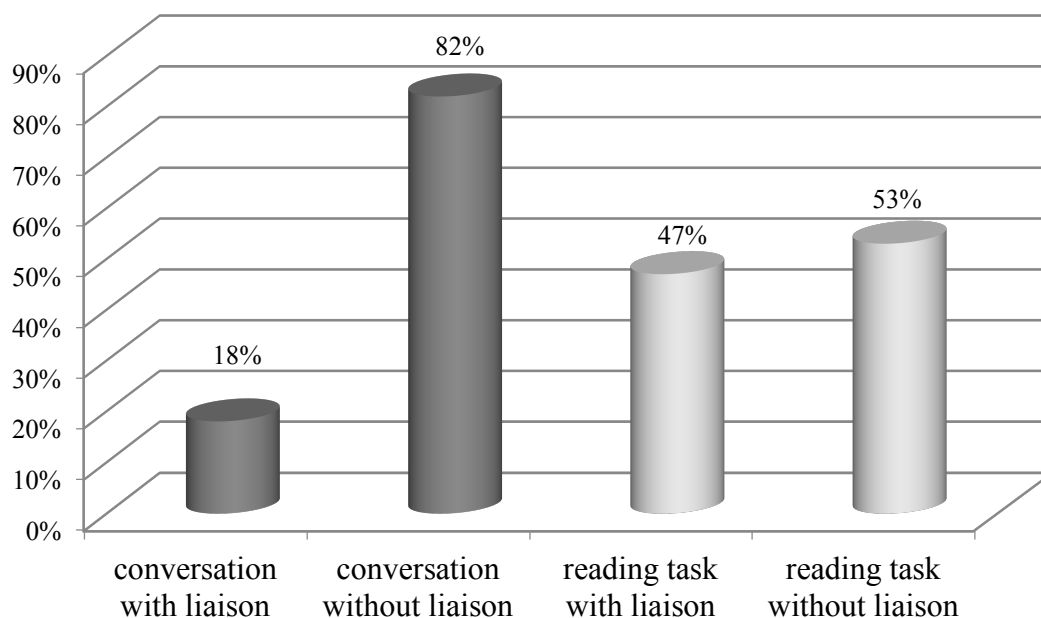
⁶ The corpus comprises a total of 53.561 potential *liaison* contexts. 25.534 items of the corpus show a realized *liaison* consonant (e.g. [z], [t], [n]) and out of these 11.811 items show the *liaison* consonant [z] (but, [z] is not always to be associated with plural).

(22) Absence vs. presence of *liaison* in AN/NA-combinations (only France) in the corpus PFC



But the picture changes if we consider that the examples stem (at least partially) from different recording situations: (free or guided) conversation vs. reading task. As you can see from (23), in NA-combinations the possibility of realized *liaison* varies considerably with respect to the respective recording situations. In free and guided conversation, we have a clear preference (82%) for not realizing *liaison* between the noun and the adjective (i.e. in NA-combinations), while presence of *liaison* augments considerably only in the reading task. In other words, facultative *liaison* can be found, if at all, only in the reading task.

(23) NA-combinations in the two types of recording situations:

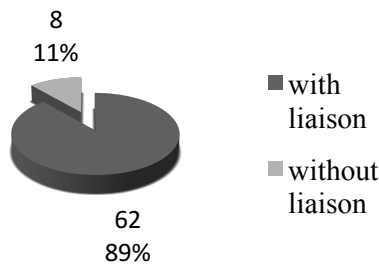


There are several reasons why the results for the reading task show a higher percentage of realized *liaison*: First, it is well-known that different recording situations are associated with different language registers and, in the case under discussion here, a higher register triggers more *liaison*. For Delattre (1955) and others, *liaison* is clearly tied to diastratic and diaphasic variation. Stylistic factors are even the most prominent factors for Delattre (1955: 44) (cf. also Malmberg 1969:142, Fouché²1959: 441-442, Klein⁶1982:171) even though the social class of

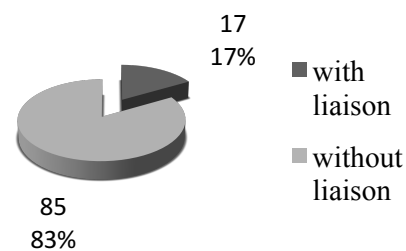
the speaker also plays a central role (cf. e.g. Booij and de Jong 1987). In very general terms, it is said that *liaison* is more frequent in formal registers than in colloquial ones and speakers of the “upper class” (cf. “la classe la plus cultivée”, Delattre 1955: 45) realize more *liaison* than less “cultivated/educated” speakers (cf. e.g. Delattre 1947, 1955, Fouché 1959, Ågren 1973: 125, Boij and de Jong 1987, Meinschäfer et al. 2015). Thus, *liaison* between a plural noun and a postnominal adjective (e.g. *des hommes illustres*) is generally omitted both “dans la conversation familière des gens cultivés” and “dans la conversation soignée” (i.e. [dezomilystr]), but it would be uncommon or rare to omit it “dans la conférence” (i.e. [dezomzilystr]) (Delattre 1955: 44-45). Second, the results of the reading task may be subject to the phenomenon of *spelling pronunciation* (i.e. a pronunciation which is based on spelling / orthography and does not reflect the standard or traditional pronunciation). That is, in the reading task, the speaker sees the plural -s and this may influence its pronunciation in a *liaison* context; whereas the potential influence of spelling is only present to a lower degree in a situation of free or guided conversation. And finally, the text of the reading task contains one NA-combination that is not an ordinary syntactic phrase (but rather a compound word used as proper name) and shows obligatorily *liaison*: *Jeux Olympiques*.

If we leave aside the results of the reading task and exclusively consider the results recorded during the guided and free conversation, we get the following picture: The preference for realizing *liaison* between a prenominal A and N (cf. (24)a) is as high as the preference for not realizing *liaison* between N and a postnominal A (cf. (24)b). That is, if we accept that *liaison* is obligatory in AN-combinations, we should accept that it is impossible in NA-combinations. Also, other corpus analyses have produced similar results (cf. the overview under (25)). We can conclude thus with Durand et al. that with respect to N(pl)+A “[o]n remarque une forte différence entre la réalisation de la liaison et sa non-réalisation. Cette dernière apparaît comme le cas par défaut” (Durand et al. 2011: 123) ‘We remark a strong difference between realization of *liaison* and its non-realization. The latter one appears as default case’.

(24) (a) AN-combination



(b) NA-combination

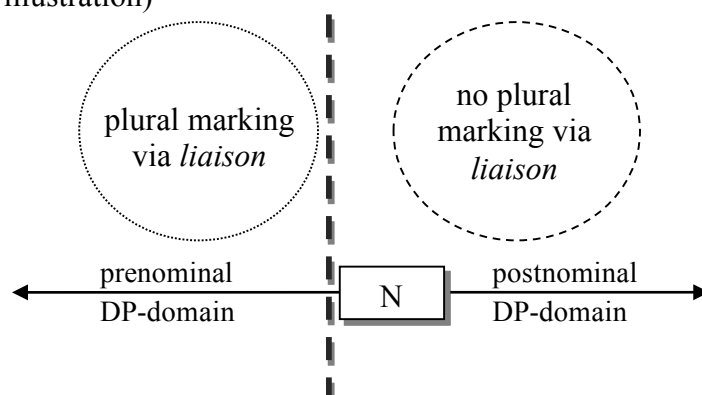
(25) Realized *liaison* between N and A in different corpus analyses (cf. Ranson 2008:1673; I have added the data from Meinschäfer et al. 2015)

Ågren (1973)	Malécot (1975)	Ashby (1981)	Smith (1996)	Ranson (2008)	Meinschäfer et al. (2015)
170/639	9/50	11/102	68/309	7/53	1/11
27%	18%	11%	22%	13%	9%

In sum, French nouns have lost the possibility to mark plural via *liaison*-[z], i.e. the noun can no longer bear the plural morpheme, cf.: “Les substantifs ont perdu leur forme de *liaison* dans le parler courant et ne présentent plus jamais par conséquent ce morphème” (Mok 1966: 36) ‘The nouns have lost their *liaison* form in courant speech and, consequently, they never bear that [plural, N.P.] morpheme’. The actual situation in French with respect to plural marking within the DP is that we have a prenominal-postnominal asymmetry in the sense that plural

marking via liaison-[z] is possible or even obligatory in the prenominal domain and impossible on the noun or, more in general, in the postnominal DP-domain.

- (26) Prenominal/postnominal-asymmetry: Plural marking via [z] in phonic French (simplified illustration)



3.2 How does phonic French fit into the typological classification?

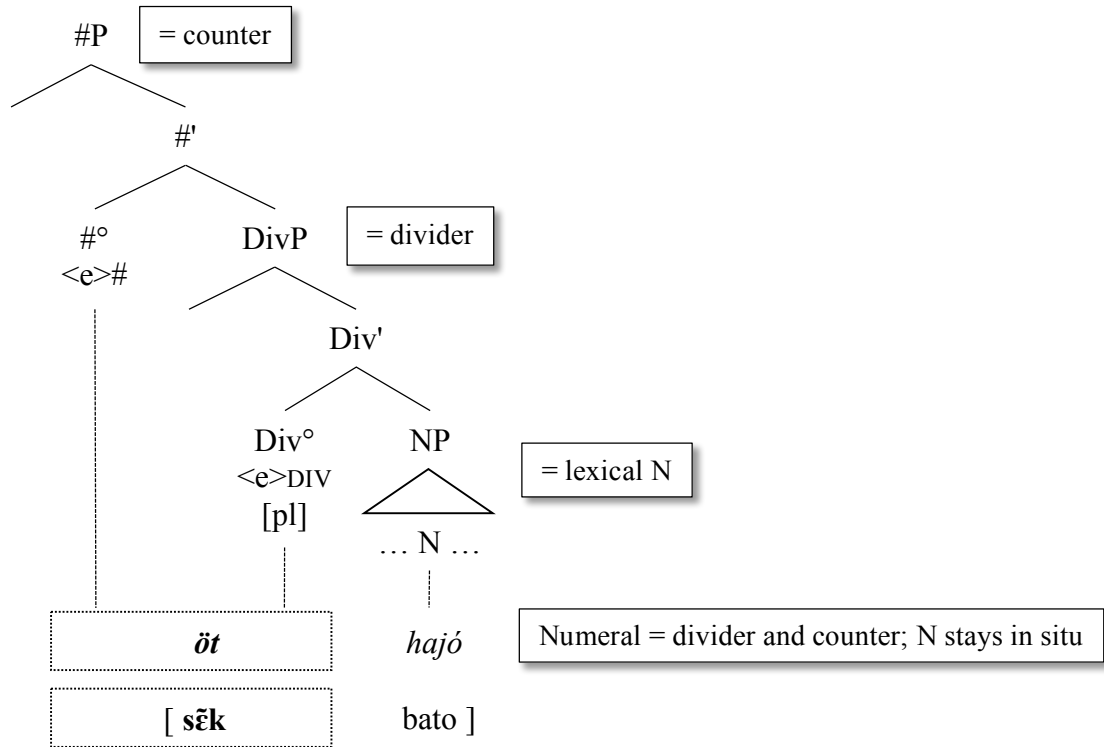
It has been said before, that “one main parameter that determines cross-linguistic variation with respect to plural marking within the DP is whether or not plural morphology is realized in contexts where the concept of plurality is already expressed by numerals or quantifiers” (Ortmann 2004: 231). In *singular object noun* languages the plural marker is obligatory, whereas in other types of languages the noun appears unmarked (= *set noun languages*) or in combination with a classifier (= *sort noun* or *general noun* languages). As shown in (27), at first glance, French seems to belong to the set noun languages, because the noun appears unmarked in numeral-noun-combinations.

- (27) Numeral-noun-combinations (cf. however (30))

(a)	quatre ami-s [katrə ami] four friend(M) ‘four friends’	compare:	un ami [œ ami] one friend(M) ‘one friend’
(b)	trois mille évêque-s [trwa mil evək] three thousand bishop(M) ‘three thousand bishops’	compare:	un évêque [œ evək] one bishop(M) ‘one bishop’
(c)	cent euro-s [sã øro] hundred euro(M) ‘hundred euros’	compare:	un euro [œ øro] one euro(M) ‘one euro’

But are French (countable) nouns really *set nouns* in the sense of Rijkhoff (2002)? That is, is French of the Hungarian type? Or, in the sense of Borer (2005), are French numerals portmanteau morphemes that fulfill the divider and the counter function in one (cf. (28))? Is that the reason why the noun has lost the possibility to mark plural on the noun?

(28) Possibility I: Are French numerals portmanteau morphemes (= dividers and counters)?



Most probably not. There are a lot of differences between Hungarian and French which indicate that they belong to different language types. First, in Hungarian there exists a marked form of the noun, whereas French nouns (with the exception mentioned before) have generally only one form (cf. (29)a). Second, as the noun cannot be marked for plural in French, plural marking on the determiner is obligatory (cf. Bouchard 2002). In contrast, in Hungarian it is the noun that receives the plural marker, not the determiner (cf. (29)b). The most important difference between the two languages is illustrated in (29)c and d: French, without any exception, disallows bare noun constructions, and especially, bare singulars. They are possible in Hungarian, however, due to the fact that the unmarked noun is “ambiguous”.

(29)	Hungarian	French
(a)	hajóvs. hajó-k	[bato] (no other form in the morphological inventory)
(b)	a hajó-k det ship-pl 'the ships'	*[læ bato] (instead: [le bato]; plural on D is obligatory) les bateaux 'the ships'
(c)	Van alma? cop.3sg apple 'Are there apples?'	*[jatilpəm] * Y a-t-il pomme(s)? (instead: Y a-t-il des pommes? with partitive articles)
(d)	Mari könyv-et olvas. Mary book-acc read.3sg 'Mary is reading a book'	*[mari et ã trɛ̃ də lir livʁ] * Marie est en train de lire livre. (instead: Marie est en train de lire un livre.)

The pronunciations of the numeral-noun-combinations in (27) correspond to the unmarked Standard French one, but there also exist other (even more extended) possibilities. French has also different cases of non-etymological liaison (liaison errors, *fausses liaisons*, *pataquès*, *velours* or *cuiers*). This kind of liaison is a quite extended phenomenon that is not linked with a specific French sub-variety. That is, it is not simply a matter of performance (cf. Desrochers 1994: 244). There might be different types and sub-types of “wrong liaison” and not all [z] are to be associated with nominal plural (cf. Pichon 1935, Morin & Kaye 1982, Klausenberger

1984, Desrochers 1994): (i) lexicalisation (e.g. *zyeuter* ‘to gape at’; denominal verb, cf. sg. *œil* ‘eye’ vs. pl. *les yeux* [lezjø] ‘the eyes’) (ii) analogy (e.g. *trop* [z] *occupé* ‘too busy’ parallel to *très occupé* ‘very busy’), (iii) *liaison* at distance (e.g. *soyez bien* [z] *à l’écoute* ‘listen carefully’) and (iv) plural marker (cf. (55)).⁷ However, the most productive and regular cases of wrong *liaison* are those between a numeral (or a quantifier) and a noun (cf. Desrochers 1994: 252), cf. (30).

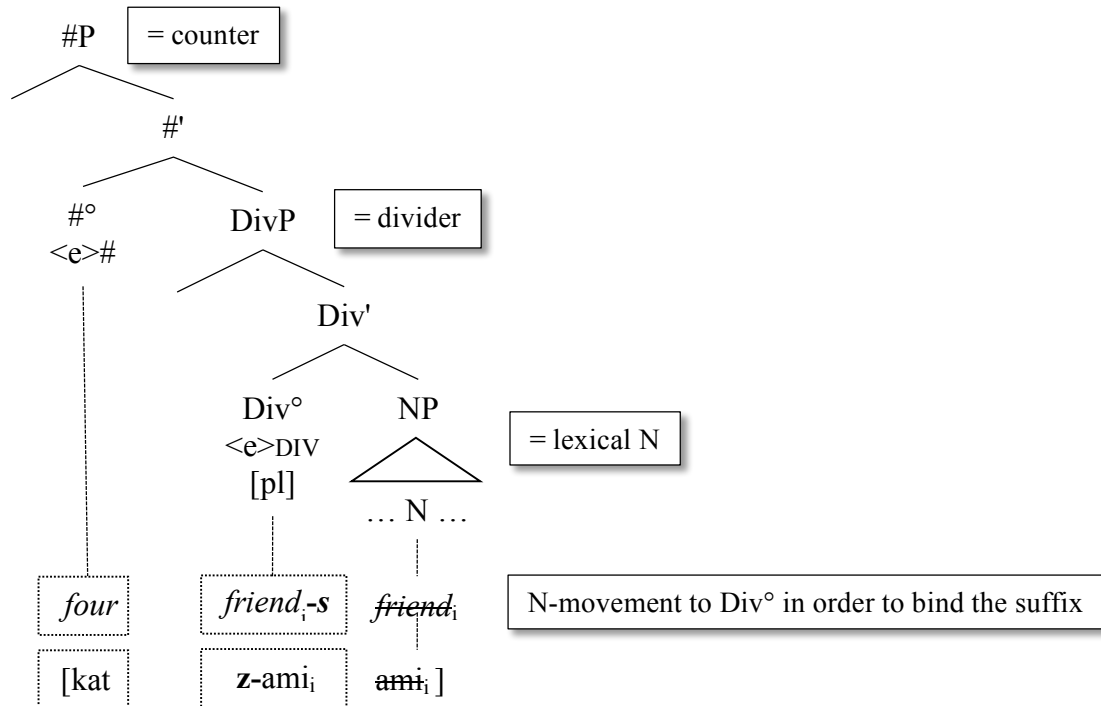
(30) Numeral-noun-combinations with prenominal [z]: “non-etymological” instances of [z] (Green & Hintze 1988: 159, Morin & Kaye 982, Desrochers 1994, Morin 2003)

- | | | | | | |
|-----|----------------|----------|--------------------------|---------------|--------|
| (a) | quatre | ami-s | compare: | un ami | |
| | [kat | z | ami] | [œ̃ | ami] |
| | four | pl | friend(m) | one friend(m) | |
| | | | ‘four friends’ | ‘one friend’ | |
| (b) | trois mille | évêque-s | compare: | un évêque | |
| | [trwa mil | z | evɛk] | [œ̃ | evɛk] |
| | three thousand | pl | bishop(m) | one bishop(m) | |
| | | | ‘three thousand bishops’ | ‘one bishop’ | |
| (c) | cent | euro-s | compare: | un euro | |
| | [sã | z | øRO] | [œ̃ | øRO] |
| | hundred | pl | euro(m) | one euro(m) | |
| | | | ‘hundred euros’ | ‘one euro’ | |

This observation opens the way for another type of analysis: Principally, it can be assumed that the nouns in (30) are morphologically marked with a plural prefix (cf. among others Morin 2003). In this line of reasoning, French, Standard Spanish, English etc. would have the same syntactic structure for numeral-noun-combinations. The difference between these languages would be that Div^o is realized as a suffix in English and Standard Spanish, for example, whereas it is realized by a prefix in phonic French (cf. (31)).

⁷ There are also examples of “non-etymological” or “wrong” *liaison* with other *liaison* consonants, cf. *Il va-t-à la foire* instead of *Il va à la foire* ‘He goes to the fair’ or *Ce n’est pas-t-à moi* instead of *Ce n’est pas à moi* ‘It’s not mine’. These *liaisons* are usually associated with the verbal domain.

(31) Possibility II: Is prenominal [z] a prefix on the noun?



Yet, if [z] is a prefix on the noun, why doesn't it appear on the isolated noun (e.g. *[zami] for *amis* 'friends')? With respect to this question, Morin (2003) argues that the plural prefix in French is a case *status inflection* (also *status construct* or *status absolutus*) (cf. Mel'čuk 1994: 260-262). In Persian, for example, the head of a noun phrase receives a suffix (= *idafa* or *izafet*) when it has a postnominal complement, cf. *ketab* 'book' vs. *ketabe xub* 'good book'. Yet, I do not see how such a rule could be formulated for French. Furthermore, French simply does not behave like a *singular object noun* language in the sense that it generally bans bare plural nouns in argument position (contra English, Standard Spanish and Standard Italian) and bare *mass nouns*. Thus, the difference between Standard Spanish and French relies not only in the morphological nature of the plural affix and requires an in-depth explanation.

- (32) a. *Enfants jouaient sur la rue.
 child(m).pl play.3pl on the street
 'Children were playing on the street'
 (cf. instead: Des enfants jouaient sur la rue.)
- b. *Là ou quelques minutes avant jouaient enfants.
 there where some minutes before play.3pl child(m).pl
 'Over there where children were playing some minutes before.'
 (cf. instead: Là ou quelques minutes avant jouaient des enfants)
- (33) a. Eng. This is milk.
 b. Sp. Esto es leche.
 dem be.3sg milk
 c. Fr. *C' est lait. (cf. instead: C'est du lait with partitive du)
 dem be.3sg milk

So far I have argued that French is neither a *set noun* language nor a *singular object noun* language. Or, in terms of Borer, the French quantifier is neither a portmanteau morpheme which realizes #° and Div° together (cf. Hungarian) nor is prenominal [z] a prefix which realizes Div°. Let us now consider the third and last possibility: Is French a *sort noun* language? Is prenominal

[z] a classifier which realizes Div^o? Most probably not. As far as we know, since Chierchia (1998), French is completely opposed to classifier languages. More precisely, Chinese (where nouns are [+argument, -predicate], according to Chierchia, cf. (34)) has generalized bare-noun arguments, whereas in French no noun (neither count nor mass, neither singular nor plural) can occur as a bare argument (cf. (34) and (35)). English is somewhere inbetween these two poles in the sense that it does allow bare mass nouns, but not singular bare nouns (e.g. **This is car.*)

(34) Chierchia's (1998) *Nominal Mapping Parameter*⁸

- (a) N: [+argument, -predicate] (e.g. Chinese)
 type e *type <e,t>
- (b) N: [+argument, +predicate] (e.g. English)
 type e type <e,t>
- (c) N: [-argument, +predicate] (e.g. French)
 *type e type <e,t>

(35) Classifier languages vs. non-classifier languages based on Chierchia (1998:354)

	classifier languages ([+arg, -pred])	non-classifier languages	
		([+arg, +pred])	([-arg, +pred])
(a)	generalized bare-noun arguments	mass nouns can occur bare as arguments; mass nouns are names of kinds, count nouns are predicates	no nouns (count or mass, singular or plural) can occur as a bare argument; every noun will be a predicate
(b)	there is no definite or indefinite articles	articles	articles
(c)	noun extension is mass (e.g. <i>cat</i> comes out of the lexicon as mass)	have a mass-count distinction, (cf. quantifier allomorphy, e.g. <i>much</i> vs. <i>many</i>);	the mass-count distinction is still attested
(d)	no plural inflection	plural inflection ([individuation, group])	plural inflection ([individuation, group])
(e)	classifiers are needed to individuate masses into individuals ([individuation])		

In this section, I have argued that neither the classification of Rijkhoff (2002) nor the analysis of Borer (2005) is straightforwardly applicable to phonic French. In the next section, I will elaborate on an alternative analysis that is suitable to capture the French data.

4. Towards an analysis

4.1 Phrasal plural marking

The weak spot of Rijkhoff's classification as well as of Borer's analysis is that they associate, to a greater or lesser extent, plural marking with the head noun of the DP or with some functional categories in the lower DP-domain.⁹ That is, they do not sufficiently consider the

⁸ For languages like Chinese, Chierchia (1998) attempts to connect the absence of overt determiners, the absence of plural morphology, and the obligatory use of classifiers with one another.

⁹ Many current studies adopt the idea that number within the DP is a functional category heading its own projection, i.e. there is a Number Phrase (NumP) situated between DP and NP (Bernstein 1991, 1993, Carstens 1991, 2000, Ritter 1991, Valois 1991, Picallo 1991 among many others). DivP corresponds to a certain extend

possibility of a single phrasal plural marking in the higher, functional DP-domain, cf. (36)a vs. (36)b.

- (36) (a) [DP D [#P # [DivP/NumP Div/Num [NP N]]]] (e.g. Spanish)¹⁰
 [pl]
 (b) [DP D [#P # [NP N]]] (e.g. Basque)¹¹
 [pl]

A language of the type represented in (36)b is, for example, Basque. Basque nouns have a transnumerical (or completely unmarked) form (e.g. *etxe* ‘house’), a definite singular form (e.g. *etxe-a* ‘the house’) and a definite plural form (e.g. *etxe-ak* ‘the houses’) (Iturrioz-Leza & Skopeteas 2004:1054-1055). The definite plural marker *-ak* does not appear in (37)a, for example, because the DP contains an indefinite quantifier denoting plurality, i.e. there would be a mismatch with respect to definiteness. Similarly, the absence of *-ak* in (37)b has nothing to do with the avoidance of multiple expression of plural(ity) in numeral-noun constructions, rather, it is due to the absence of the feature [definite]. As soon as the DP is definite and plural, *-ak* is obligatorily present (cf. (37)c).

(37) Basque (Ortmann 2000:253, 2004:245)

- (a) *etxe txiki batzuk*
 house small some
 ‘some small houses’
 (b) *hiru etxe*
 three house
 ‘three houses’
 (c) *hiru etxe-ak*
 three house-def.pl
 ‘the three houses’

Yet, in contrast to what is suggested above it is not the noun which is marked for plural, because “Basque nouns don’t inflect for number (just like English adjectives don’t either)” (Artiagoitia 2002:81). It is rather the whole DP (not the noun) which receives one single plural marking. That is, *-ak* seems to be a phrasal suffix or a phrasal clitic, which attaches phonologically to the rightmost element of the DP irrespective of the lexical category (cf. (38); Artiagoitia 2002, Ortmann 2000, 2004).

(38) No DP-internal number agreement (Basque) (cf. Ortmann 2004:245, Baker 2008:62)

- (a) *hiru etxe-ak* (attached to the noun)
 five house-def.pl
 ‘the five houses’
 (b) *etxe gorri handi ederr-ak* (attached to the adjective)
 house red huge beautiful-def.pl
 ‘the red huge beautiful houses’

to NumP.

¹⁰ In Spanish the plural feature appears also under other DP-elements due to the process of agreement; this is not the case in Basque. And, as I will argue later, it is neither the case for French.

¹¹ Note that Basque is a “head-final” language. Depending on whether or not we accept Kayne’s (2011) Antisymmetry approach, we either have the structures illustrated in (36)b or the following one:

[DP [#P [NP N] # ...] D]
 [pl]

- (c) katu lodi hori-ek (attached to the demonstrative)
 cat fat that-def.pl
 ‘those fat cats’

According to Baker (2008:63-64), the fact that number (and case) morphology is spelled out exactly once on the very last word of the DP in Basque can be explained by assuming that the noun is “defective” and thus does not bear a number feature in syntax. Instead, the number feature is encoded exclusively on D° , i.e. on the highest functional head inside the DP as in (36)b. In Basque, D° -[pl, (def)] always receives the marker *-ak*. This element is bound inside D° if D° has an overt realization (cf. (38)c), or otherwise it is bound to the next adjacent element, e.g. either by the adjective (cf. (38)b) or by the noun (cf. (38)a). The definite plural marker thus shows a clitic-like behavior: In the sense of Zwicky & Pullum (1983), we can state that it is an element that cares about its position, not about its host.¹²

4.2 Plural marking in phonic French

In a similar vein, Bouchard (2002:34) states that “French expresses Number on Det, English on N, Walloon as an independent word [...] to give a perceptual form to Number in the SM system [senso-motoric system, N.P.]”. Examples supporting this claim are given in (39). Thus, phonic French shares with Basque the property of marking number on the highest functional category within the DP leaving the noun unmarked for number.

(39) Single plural marking within the DP

- (a) les amies
 [lez ami]
 det.pl friend(f)
 ‘the (female) friends’
- (b) mes amies anglaises
 [mez ami ɑ̃glɛz]
 my.pl friend(f) English
 ‘my English (female) friends’
- (c) quelques amies
 [kɛlk(ə)z ami]
 some.pl friend(f)
 ‘some (female) friends’

However, it goes without saying that French is not of the Basque type due to several reasons: In contrast to Basque, plural marking is not (always) associated with definiteness/specificity (cf. e.g. *quelques amies* ‘some friends’ in contrast to Basque (37)a) and, furthermore, there are instances of multiple plural marking within the DP. In (40) plural is marked on the determiner via “vowel alternation” (cf. *la* [la] / *le* [lə] vs. *les* [le]) and via *liaison* between the adjective and the noun.

(40) Multiple plural marking within the DP

- les belles amies
 [le bel-z ami]
 det.pl beautiful-pl friend
 ‘the beautiful (female) friends’

¹² The appearance of *-ak* in DP-final position is due to the fact that it is the morphophonological realization of D° -[pl, (def)] and that D° is in DP-final position in Basque.

One important observation with respect to multiple plural marking in French, which will be relevant for the following discussion, is that apparently plural cannot be marked more than once via *liaison* within the DP, at least not in stylistically unmarked phonic French. Some native speakers of French accept examples like the ones in (41), but state that they clearly belong to a very high register, whereas others even judge such examples as impossible (cf. Lowenstamm, personal communication).

- (41) (a) les adorables amis (maybe only in a very high register)
 [le z adɔrablə z ami]
 det.pl pl adorable pl friend
 ‘the adorable friends’
- (b) les éternels ennuis (maybe only in a very high register)
 [le z etɛrnɛl z œnɥi]
 det.pl pl eternal pl troubles
 ‘the eternal troubles’

With this in mind, I assume that there are two loci of plural encoding within the DP in phonic French, i.e. multiple plural marking is possible (cf. (40)). However, each encoding receives a different morphophonological realization, more precisely, only one can be realized via *liaison*. Thus, I claim that phonic French does not belong to one of the types schematized in (36), but to the one in (42).¹³ The reason for this double encoding of plural can be associated with the unstable morphophonological realization of plural in the lower DP-domain: [z] is overtly realized, but only in some specific contexts.

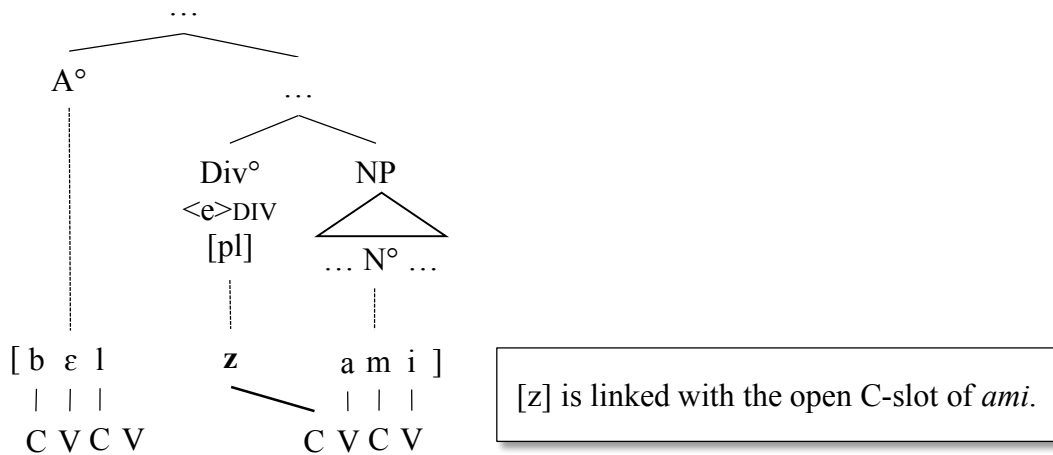
- (42) [DP D [#P # [DivP/NumP Div/Num [NP N]]]]
 ①[pl] ②[pl]
 ↓ ↓
 “vowel *liaison*
 alternation” ([z])

The functional head Div° (or Num°) is (still) realized by [z] in French, however, this exponent is neither a complete free form nor an affix, it is rather a (clitic-like) element which is context sensitive, both to its left and to its right. More precisely, prenominal [z] is context sensitive to its left in the sense that it cannot appear phrase-initially (cf. *[zami] vs. [lezami] ‘the friends’, [katzami] ‘four friends’ and [belzami] ‘beautiful friends’). This characteristic reminds us of the *Tobler-Mussafia law* for Romance clitics according to which a sentence cannot begin with an unstressed element. This clitic-like behavior is further supported by the context sensitivity to its right: Based on a nonlinear or multilinear approach to morphology (cf. e.g. Encrevé 1988, Lowenstamm 2000, 2003, 2005, 2007, 2012, Hutin 2013), we can assume that [z] is a floating or latent consonant that is not *per se* linked with a C-slot on the supra-segmental CV tier, but rather needs to be associated with a consonant slot of the following item in order to be overtly realized. Such a position is only present, if the element following [z] begins with a vowel, cf. (43)a vs. (43)b.

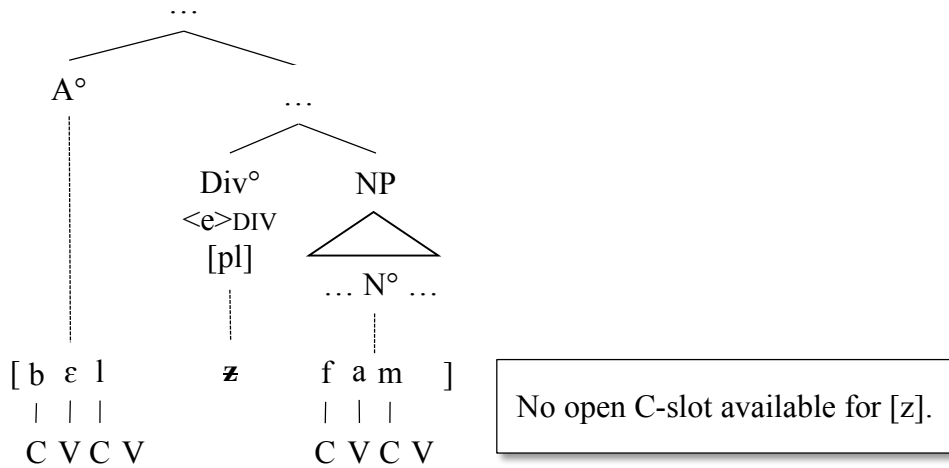
¹³ Please note that I do not assume that plural appears under D° due to agreement.

(43) AN-combinations

(a) With overt prenominal [z]: *belles amies* [belzami] ‘beautiful (female) friends’



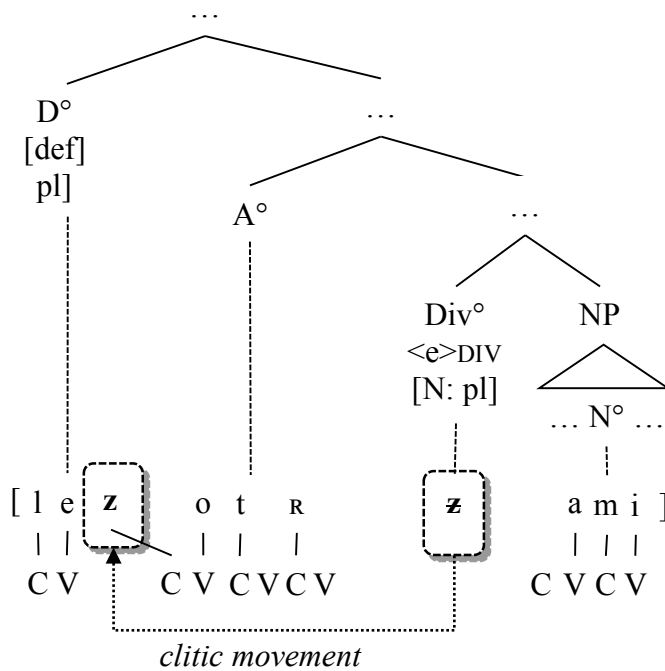
(b) Without overt prenominal [z]: *belles femmes* [belfam] ‘beautiful women’



Let us finally consider those cases where plural is expressed more than once within the French DP: e.g. *les belles amies* [lebelzami] ‘the beautiful friends’ (where we have a marking via vowel alternation on the determiner and a liaison-[z] between the adjective and the noun) and *les autres amies* [lezotrami] ‘the other friends’ (where we have a vowel alternation on the determiner and liaison-[z] between the determiner and the prenominal adjective *autres*). The first example can be explained straightforwardly: D° is realized by [le] as soon as it encodes the feature [plural] and Div° is realized by [z] as in (43)a. Things are different for *les autres amies*, because liaison-[z], even though it still realizes Div°, does not surface in its base position but higher in the DP. Thus, some kind of (non-optional) “clitic movement” to the highest position possible within the DP has to be assumed, cf. (44).¹⁴

¹⁴ As mentioned before, in a very high register of French, we can find double plural marking via *liaison*-[z]. For these cases we could assume that [z] is doubled and moved into the higher DP-domain, but not deleted in its base position (i.e. we would have a kind of “clitic reduplication”).

(44) *Les autres amis* [lezotrami] ‘the other friends’



To sum up the proposed analysis, let us again consider the loci of plural encoding within the DP in (45): For Standard Spanish we can assume that plural is encoded under Div° , whereas it is encoded under D° in Basque. French, however, is somewhere in between these two possibilities: Plural is (still) encoded under Div° , but it is realized by a highly instable exponent. Maybe due to this, plural is also encoded under D° which has become the predominant locus for plural encoding in French. This would also explain why, if possible, [z] is moved into the highest functional position within the DP. From a diachronic point of view, we can imagine that French has started with the structure in (45)a and is turning into a language of the type in (45)c. This development, however, is not or not yet fulfilled.

- (45) (a) [_{DP} D [_{#P} # [_{DivP/NumP} Div/Num [_{NP} N]]]] (e.g. Spanish)
 [pl]
- (b) [_{DP} D [_{#P} # [_{DivP/NumP} Div/Num [_{NP} N]]]] (e.g. French)
 ①[pl]
 ↓
 “vowel
 alternation”
- (c) [_{DP} D [_{#P} # [_{NP} N]]] (e.g. Basque)
 [pl]
- ②[pl]
 ↓
 liaison
 ([z])

5. Conclusion

In this paper, I have presented and classified different cases of lack of plural agreement or plural marking within the Romance DP which have scarcely been addressed in the literature and which pose problems for any kind of analysis proposed so far, regardless of the theoretical background. In order to establish the triggering factors behind plural in phonic French, some examples from non-Romance languages (e.g. Hungarian and Basque) were taken into account. I have shown that French, especially, is difficult to classify with respect to plural marking, because it does not fit into the proposed parameters for classification. In section 2, I have sketched the typological classification proposed by Rijkhoff (2002a,b) and the semantico-

syntactic analysis of Borer (2005) with respect to plural marking and in section 3, I have discussed their non-applicability to phonic French. In the following section (section 4) I have elaborated on an alternative analysis to account for the restriction of plural marking within the French DP. The hypothesis I want to advance for French is that there is no plural agreement within the DP. Rather, there are two loci of plural encoding within the French DP: D° and Div° . The exponent for Div° (or Num°) is, as I have shown, a clitic-like element that is highly context sensitive. On the one hand, it can never appear in DP-initial position (cf. *[zami]) and, on the other hand, its realization depends on an open C-slot of the right-adjacent element. Due to this very unstable nature of the exponent, plural is also marked under D° in French. The formal expression of plural in this higher DP-domain is fulfilled via vowel alternation (cf. *le* [lə] vs. *les* [le]). In those cases where the determiner has a liaison-[z], it is the exponent of Div° which has moved into the highest DP-position.

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Nominal morphology and semantics – Where's gender (and 'partitive articles') in Gallo-Romance?

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1. Introduction*

Comparing three standard Romance languages, namely French, Italian, and Spanish, as to their inventories of indefinite nominal determiners, we observe some crucial differences (see Stark 2008 a and b for the following examples and description):

- (1) a. *Has visto *(un) águila?* (Sp.)
 b. *As -tu vu *(un) aigle?* (Fr.)
 c. *Hai visto *(un') aquila?* (It.)
 have.2SG -2SG see.PTCP a.M eagle
 'Have you seen an eagle?'
- (2) a. *Compro pan.* (Sp.)
 b. *J' achète *(du) pain.* (Fr.)
 c. *Compro (del) pane.* (It.)
 1SG buy.1SG PART bread
 'I buy bread.'
- (3) a. *Me falta agua.* (Sp.)
 b. *Il me faut *(de l') eau.* (Fr.)
 c. *Mi occorre (dell') acqua.* (It.)
 (3SG) 1SG.DAT need.3SG PART water
 'I need water.'
- (4) a. *Veo (a unos) estudiantes en el edificio.* (Sp.)
 DOM¹ some
 b. *Je vois *(des) étudiants dans le bâtiment.* (Fr.)
 c. *Vedo (degli) studenti nell' edificio.* (It.)
 1SG see.1SG PART student.PL in the.M building
 'I see students in the building.'

First, we can see in examples (2) to (4) that the availability of bare nominals in postverbal argument position (direct objects in (2) and (4), internal arguments of impersonal constructions in (3)) is severely restricted in French as opposed to Italian and Spanish (impossible even with mass readings, see examples (2) and (3) and with plurals, examples in (4)). Second, in Standard French and Standard Italian exists a so-called 'partitive article', etymologically based on the Latin preposition *de* and the definite article deriving from *ILLE* (cf. Carlier/Lamiroy 2014), for mass interpretation (examples (2) and (3)), absent in Spanish

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¹ DOM (= Differential Object Marking) indicates the marker *a* for a certain subgroup of direct objects in Spanish (prototypically animate, definite, specific ones, cf. von Heusinger/Kaiser 2005).

(and Rumanian, Portuguese etc.). This indefinite mass determiner has also a plural form in Standard French and Standard Italian (see examples under (4), which will however not be taken into account in what follows, for at least two reasons:² First, it has a different distribution in some Romance varieties from the singular form (e.g. it is not present in many Northern Italian dialects cf. Garzonio/Poletto 2014, or it is only present, without the singular equivalent, e.g. in Anconetano, cf. Cardinaletti/Giusti 2014). Second, it has a completely different semantics from the singular (most probably denoting subkinds, cf. Zamparelli 2008, following Chierchia 1998, also wide-scope readings, cf. Cardinaletti/Giusti 2014 and Ihsane 2008, 2013).

The singular ‘partitive articles’ have been claimed to represent some sort of nominal classifiers in a broad sense (Herslund 1998, Stark 2008a and b), which would be typologically highly marked in Indo-European languages (cf. Chierchia 1998) and has thus to be explained. Third, overt marking of morphological categories on the noun is extremely reduced in Standard French as opposed to other Romance Standard languages and many Romance non-standard varieties: number marking on N is absent nowadays in (phonic) French (the graphic marking by the letter *-s* has almost no phonetic correlate, cf. Pomino 2012, Massot 2014 on that issue) and there are no declension classes or overt word markers in French.

- (5) *un ami/une amie* – *des ami(e)s*
 [œnami/ynami – dezami]
 ‘a friend’ (m/fem) ‘friends’

(cf. Delfitto/Schroten 1991, 177ff.)

Modern Standard Italian has three main declension classes (going back to the Latin *o-*, *a-*, and consonantial declension respectively) and overt gender and number marking on N, but this marking, as we can see under (6), is not unambiguous:

- | | | | | | |
|-----------------------------------|-------------------------------|---------------------------------|-------------------------------|---------------------------------|---------------------------------|
| (6) <i>libr-o</i> _{M.SG} | <i>libr-i</i> _{M.SG} | <i>man-o</i> _{F.SG} | <i>man-i</i> _{F.PL} | <i>bracci-o</i> _{M.SG} | <i>bracci-a</i> _{F.PL} |
| ‘book’ | ‘books’ | ‘hand’ | ‘hands’ | ‘arm’ | ‘arms’ |
| <i>cas-a</i> _{F.SG} | <i>cas-e</i> _{F.PL} | <i>(poet-a)</i> _{M.SG} | <i>poet-i</i> _{M.PL} | | |
| ‘house’ | ‘houses’ | ‘poet’ | ‘poets’ | | |
| <i>can-e</i> _{M.SG} | <i>can-i</i> _{M.PL} | <i>nott-e</i> _{F.SG} | <i>nott-i</i> _{F.PL} | | |
| ‘dog’ | ‘dogs’ | ‘night’ | ‘nights’ | | |

An ending in *-o* is unambiguously singular, but as for its gender, it can be masculine (most frequent case) or feminine. *-i* is unambiguously plural, but, again, not clear concerning its gender value. *-a* can both be singular and plural (feminine, or masculine singular, mainly in Greek loans like *poeta*), and *-e* can be singular (masculine or feminine) or feminine plural. In contrast to this quite syncretic nominal declension paradigm of Modern Standard Italian, Spanish nouns are unambiguously marked for plural in all three main declension classes, using final *-s*, almost without allomorphs (but see *-es* for nouns ending in consonant: *mujer*, ‘woman’ – *mujer-es*, ‘women; for gender marking see Harris 1992), as shown under (7):

² Of course, etymologically, indefinite *du* and *des* are unification products of prep. *de* plus def. article *le/la/les*; they also have parallel behavior as to *en*-pronominalization (Ihsane 2013: 10), contrary to quantifiers/numerals like *beaucoup*, ‘many’ or *un*, ‘one’. Still, their semantics is different, as is their geographical distribution in Romance non-standard varieties.

(7) <i>pas-o</i> _{M.SG}	<i>pas-os</i> _{M.PL}	<i>man-o</i> _{F.SG}	<i>man-os</i> _{F.PL} ;
‘step’	‘steps’	‘hand’	‘hands’
<i>pas-a</i> _{F.SG}	<i>pas-as</i> _{F.PL}	<i>map-a</i> _{M.SG}	<i>map-as</i> _{M.SG} ;
‘raisin’	‘raisins’	‘map’	‘maps’
<i>jef-e</i> _{M.SG}	<i>jef-es</i> _{M.PL}	<i>nub-e</i> _{F.SG}	<i>nub-es</i> _{F.PL} .
‘boss’	‘bosses’	‘cloud’	‘clouds’

In this contribution, we will take up the idea of an explanatory correlation between overt and unambiguous number and gender marking on nominals in different Romance languages and varieties and the inventory of indefinite determiners we find in these varieties, focusing on the (in)existence of the so-called ‘partitive article’ (singular). In section 2 we will outline the basic idea, identifying the explicit marking of “non-individuation” as the function of the ‘partitive article’. In section 3, we will sketch the syntactic analysis of Romance indefinite nominals with and without ‘partitive articles’ and formulate a strong prediction: ‘partitive articles’ are not to be expected in Romance varieties with agglutinative unambiguous plural marking, like in modern Standard Spanish. This prediction will be tested against typological and dialectological evidence for some (Gallo-)Romance varieties in a contiguous area in section 4, also briefly discussing questions of language contact. Section 5 will present a short conclusion and formulate open research questions and delineate the broad lines of a potential research program.

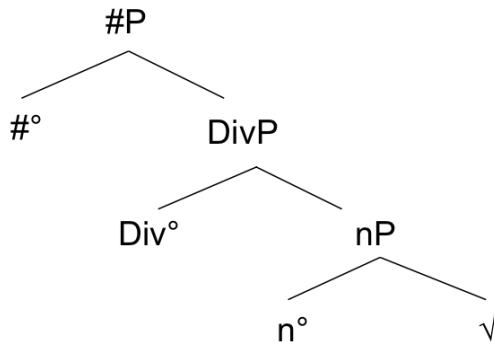
2. Idea: Different strategies of ‘non-individuation marking’ inside Romance

In what follows, we will understand *individuation* (see Stark 2009 for a very general overview) roughly as *quantization*, ‘portioning out’ of individuals or atoms (Krifka 1989; see Ghomeshi/Massam 2012 and literature therein, cf. also Cowper/Hall 2012: 29) and assume an “individuation function” (cf. Krifka 1995) present in plural NPs (*cow-s*) or singular NPs with the indefinite article (*a cow*). Their semantic representations

[...] have an *internal structure* that identifies individual elements: they involve a set ‘u’ consisting of elements ‘x’ that satisfy a certain predicate (e.g. COW). [...] [the, ES] *individuation function* [...] provides access to individual elements of the set ‘u’. (Wiese 2012:72)

Now, languages differ in what linguistic means they use to indicate this individuation function, the typical means being classifiers in languages without inflectional number marking (cf. Cowper/Hall 2012: 27). Romance languages are usually considered as plural marking languages without classifiers (cf. Chierchia 1998), and, in fact, overt plural marking is sufficient for signalling individuation, the absence of the plural feature resulting in singular or mass (= non-individuated) interpretation and the singular indefinite article signalling explicitly individuation (cf. Meisterfeld 2000 for a similar diachronic assumption for Romance, see also Stark 2009). (Romance) plural morphemes can thus be considered as *classifying plurals* in the sense of Borer’s “DivP” (2005), denoting sets of sets of atomic entities, or Mathieu (2014; see also Phan 2016, Pomino this volume), besides their counting function (“#P”):

(8)



If non-individuation is one feature of nominals with a ‘mass interpretation’ (cf. Cowper/Hall 2012 for an in depth discussion) and if individuation is signalled via plural morphology or/and determiners and quantifiers, we can assume together with Pelletier (2012: 24; see already Allan 1980, Borer 2005), that “[...] the +MASS / +COUNT distinction happens at a level of syntactic complexity that is larger than lexical nouns [...]”, or at least higher than the lexical root. Evidence for this assumption comes from very basic Romance nominals, where one and the same lexical item can be used with a mass = non-individuated (examples under a)) and count = individuated interpretation (examples under b)), the difference depending on the syntactic context:

(9) a. *J’ achète du poisson.* (Fr.)
 1SG buy.1SG PART fish
 ‘I buy fish.’

b. *J’ achète un poisson.* (Fr.)³
 1SG buy.1SG a.M/one.M fish
 ‘I buy a/one fish.’

(10) a. *Compro pan.* (Sp.)
 buy.1SG bread
 ‘I buy bread.’

b. *Compro un pan (muy rico).* (Sp.)
 buy.1SG a.M bread very tasty.M
 ‘I buy a (very tasty) bread.’

The question remains why the simple absence of the explicit ‘individualizer’, the indefinite article stemming from the Latin numeral UNUS (‘one’), is not enough in French to yield the opposite reading, i.e. non-individuation, like it is the case in Spanish and many other languages and varieties. The main differences between French and most other Romance varieties concerning especially number marking (cf. Schrotten 2001:196), we will try to show in the next section that nominal morphology is at stake here and that the ‘partitive article’ (singular at least) assumes a function expressed indirectly in other Romance languages. We

³ We are perfectly aware of the fact that due to lexical content there are more or less natural affinities between a root and a mass or a count reading of the nominal, but mass readings even of roots denoting humans like *child* can be coerced and the sentences are grammatical:

(i) *Après l’accident, il y avait beaucoup d’enfant par terre.*
 (,After the accident, there was much child lying on the ground’).
 Cf. the notion of „universal grinder“, first used in Pelletier 1975.

will additionally try to find an explanation for the apparent optionality of the Italian ‘partitive article’ (cf. Korzen 1996).

3. Number and gender inside Romance nominals – proposal of an analysis

3.1 General considerations

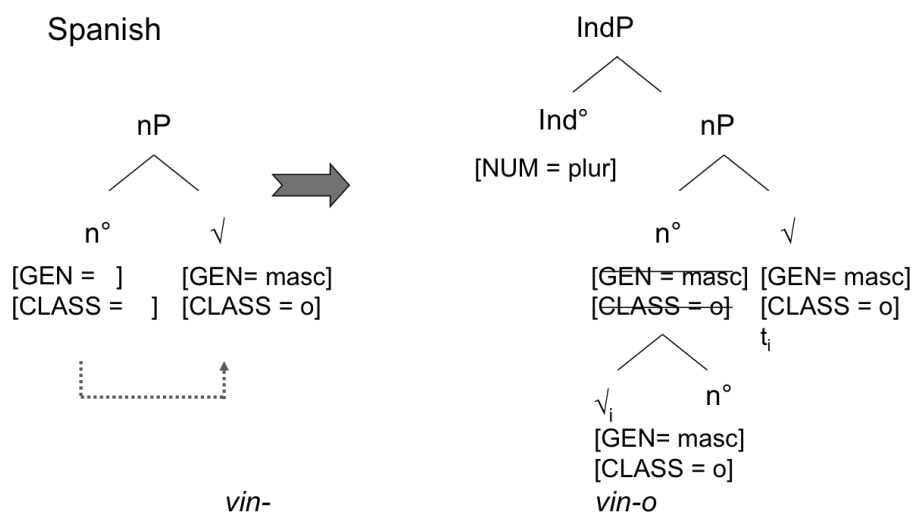
We start from some general assumptions, the first being formulated in the framework of Distributed Morphology (DM, cf. Halle/Marantz 1993). First, lexical roots are not specified for grammatical categories. They are not specified for mass or count readings, either. Rather, they combine in syntax with functional heads (n° , v° , a°) in order to form nominal, verbal, adjectival constituents. Second, these heads may contain ‘lexical’ properties like gender or animacy (cf. Kramer 2009, Ihsane/Sleeman 2014, Atkinson in press for the encoding of sex/semantic gender in nominals); in our context, the functional head n° taking a lexical root as its complement and forming something nominal is the ‘locus of gender negotiation’ (see below). Nominal expressions of the type nP combine then with a functional projection similar to Borer’s (2005) DivP in (8), which we would like to rename *IndP* = *Individuation phrase*, and which we claim to be *always* present in Romance nominals, unlike DivP, which is present only in nominals with a count reading. IndP is also the locus of the number feature NUM. Mass or count readings result from the interaction of IndP with nP, of nP with the lexical root, and of IndP with higher functional projections, e.g. #P for inserting numerals or quantifiers, which provoke a count (numerals, Eng. *many*), mass (Engl. *much*) or unmarked reading (Fr. *beaucoup*). IndP is thus the locus where (non-)individuation has to be marked, something essential for the referential use of nominals (see Farkas/de Swart 2003, de Swart/Zwarts 2009 on that point). If the NUM feature in Ind° is valued as plural and expressed through a lexical item being associated with that value (e.g. Spanish *-s*), individuation will be at stake. Morphologically unmarked forms, however, are ambiguous: they can have the value of singular as a NUM feature (i.e. lack the plural value of the NUM feature, cf. Cowper/Hall 2012: 29), or they can be unmarked for NUM, i.e. they can denote non-individuated (mass) referents. Count readings in such a case result from material higher in the structure (e.g. overt numerals in #P). This idea is compatible with the general observation that count nominals are more complex than mass nominals (cf. Borer 2005, Ihsane 2008, 2013, Krifka 2013): following our proposal, they have a morphological exponent of the plural number feature in IndP or an explicit counting element in #P or even higher in the structure.

Furthermore, gender in French is not marked by a proper morpheme (there may however exist complex phonological templates, cf. Lowenstamm 2007, 2012), whereas it is specified most often (see Alexiadou 2004) on the root in Italian and Spanish for the correct association with the corresponding word markers (see acquisitional evidence in Eichler 2012). These word markers (cf. section 1) can be considered direct morphological exponents of n° . The expression of number generally depends on the expression of gender in nominals (cf. Ritter 1993, Picallo 2005). This can be seen, for example, in patterns of defective plural agreement inside feminine, but not masculine DPs in some Ladin varieties (cf. Pomino 2012) or in the lack of plural marking for Spanish ‘neuter’ pronouns (underspecified roots for gender, cf. Pomino/Stark 2009b) as opposed to masculine or feminine pronouns. In order to understand the interaction between nominal morphology and the interpretation of nominals as (non-)individuated, we will try now to model the derivations of Romance indefinite nominals applying the probe-goal model of agreement (operation AGREE) developed in Chomsky 2001 and refined in Pesetzky/Torrego 2004, where the assumed optionality of movement of the goal will play a major role.

3.2 Spanish

Let us start with Spanish:

(11)

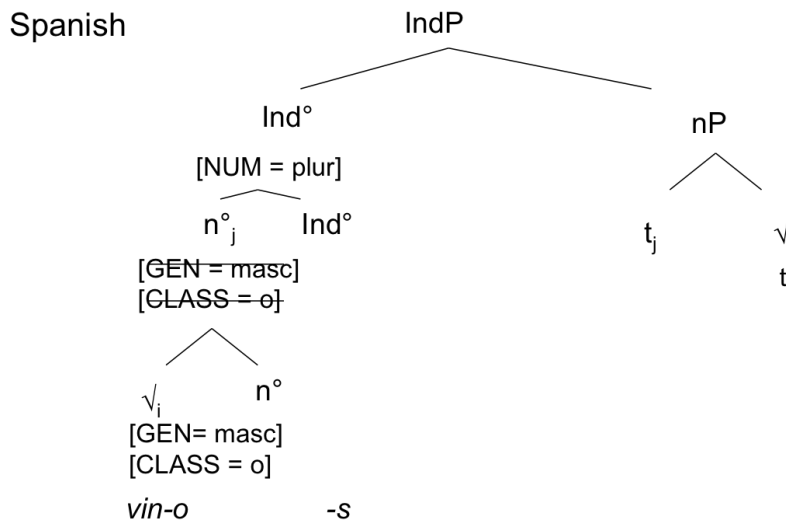


In (11), we can see that gender is assumed to be a property of the root *vin-*, the complement of a functional head n° with a probe for gender and word class, as declension class is independent from gender (cf. Harris 1992 for Spanish, Alexiadou 2004). Successful probing and valuation of features in the probe result in a (potentially) mobile goal and subsequently in incorporating the lexical root in n° . n° hosts an

[...] interpretable feature [...] This feature is the linguistic expression of non-linguistic processes of entity categorization, that is, the attribution of a class or a type to the stuff denoted by the lexical entry of common nouns. (Picallo 2005: 108)

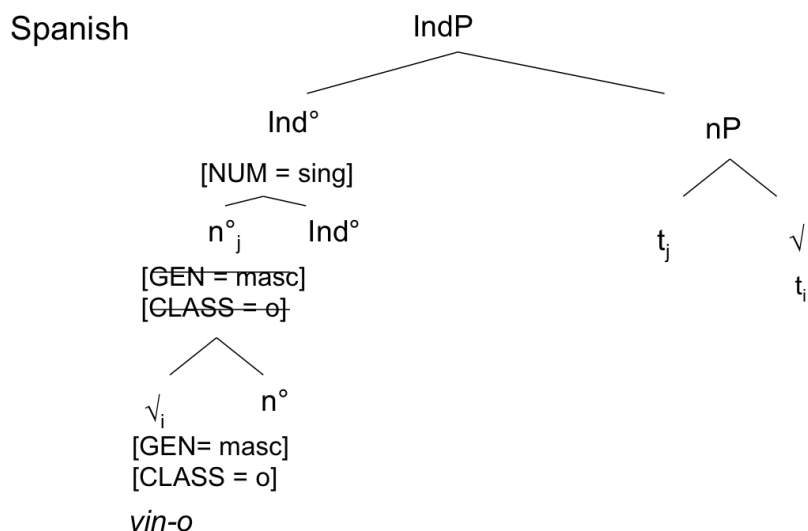
However, we consider this interpretable feature as independent – contra Picallo – from the formal exponent available in a nominal. If only gender and word class is specified (= if we have a syntactic element of the category nP), we get a kind or type reading, not a referential reading, because *vin-o* under n° is not in itself specified for number, being at the same time formally a proper constituent of the plural expression *vino-s* (for a similar argumentation see Picallo 2005:107f., 111; for a similar argumentation in favour of the kind reading of parallel nominals in Brazilian Portuguese cf. Pires de Oliveira / Rothstein 2013, for argumentation in favour of a property-denoting approach see Espinal 2013). This is the reason why we can have bare count nominals in the singular as incorporated objects in Spanish like in *tengo perro* ('I have dog' = I am a dog owner).

(12)



In (12), the result of the merge of Ind°, with a valued number feature (plural), with nP, we see that *vin-o-s* is incorporated into IndP. The expression represents a valid syntactic object, as it is now specified for number and can be taken as a complement of #°, D° or further functional heads in the nominal domain (see Ihsane 2008, 2013 for a similar proposal for French). This number value specification is not the result of a probing operation, but can be read off the transparent combination of the morphological exponent of the plural value of the number feature with *vin-o*. As we have assumed in section 3.1, the combination of an nP with a number feature plural in Ind° leads to the interpretation of the nominal's referent as individuated, whereas the absence of this value results, as a default, in a mass interpretation (see Krifka 2013):

(13)



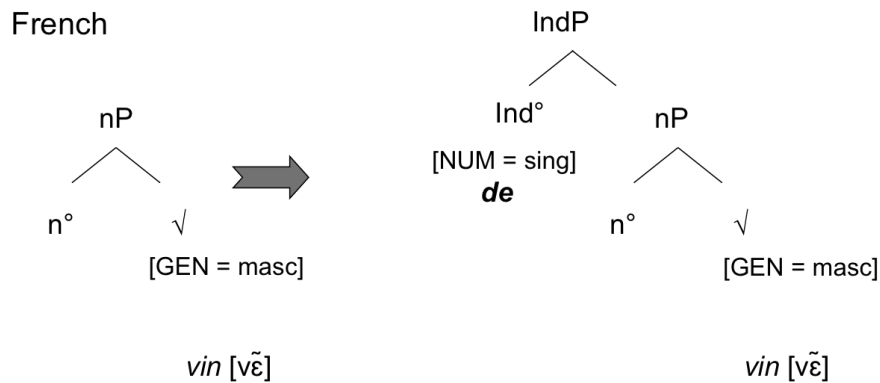
However, this mass interpretation is not available when *vin-o* is the complement of an indefinite article, an explicit 'individualizer' (see section 3.1): *un vin-o* ('one (sort of) wine'). To sum up, as *vin-o* is a proper constituent of *vin-o-s*, the latter signalling unambiguously individuation, it can be only morphologically singular, and the syntactic context decides whether its referent receives an individuated (indefinite article) or mass interpretation (bare

nominal in argument position) or whether *vin-o* has a kind-/type-reading (incorporation structures such as *tengo perro*).

3.3 French

As we have stated in section 3.1, gender is not marked on French nouns, which lack declension class markers. Gender is a lexical category important for agreement and thus assumed to be specified on the lexical root, but without any effect on morphology – subsequently, there is no probing operation parallel to the one in (10) for Spanish between n° and the root:

(14)

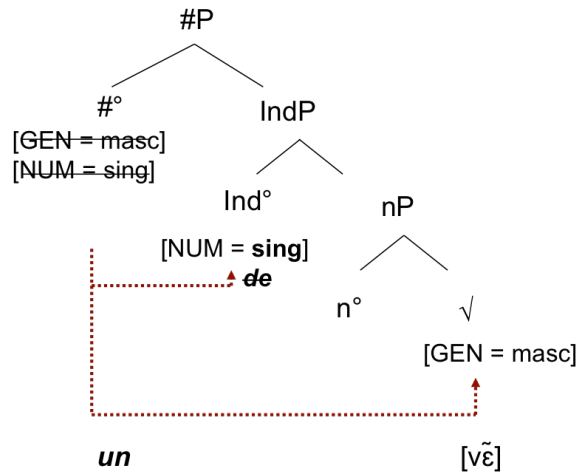


As there is no probing, there is no movement, i.e. as a result of merging the root with n° , we get a highly defective nominal, not even being recognizable as one. Merge with additional functional heads having overt morphological exponents is necessary, but Ind° with e.g. a valued plural feature in French is not enough, as there is no exponence whatsoever of the singular or plural value of the number feature on the noun itself. This is the reason why not even bare plurals are found in French, unless under the scope of negation in more or less lexicalized contexts (cf. *Elle passe sa vie sans véritables amies*, ‘She spends her life without any true friends’ or *J’ai fait cela sans grandes arrière-pensées*, ‘I did that without any hidden agenda’). Nominals are minimally introduced by *de*, even under the scope of negation: *Je ne bois pas de vin* (‘I do not drink wine’). This *de* is also found after quantifiers in $\#P$ (*Je bois beaucoup de vin*, ‘I drink much wine’), and, in some substandard varieties of French, even with numerals (*J’ai deux de bonnets*, ‘I have two caps’), cf. Ihsane 2013: 4f).⁴ We claim that this *de* is always inserted in Ind° , yielding a default classification as ‘non-individuated’, parallel to Spanish *vino* in (13) above. Merge of numerals like *un*, *deux*, *trois* (‘one, two three’) in $\#P$ results in a count reading, as does the incorporation of *de* into a higher head (maybe Ihsane’s 2008 NumP above $\#P$) containing the plural form *les* and resulting in the subkind signalling *des* (see Introduction, Zamparelli 2008). This is shown in (15):

⁴ The general presence of *de* in indefinite nominals has already been proposed by Kayne 1977 and Milner 1978 for French, with *de* however being analysed as a preposition, as assumption that cannot be correct due to the absence of extraction problems, case assignment in causative constructions etc., see the discussion in Ihsane 2013 and Carlier 2007 for a diachronic analysis of French).

(15)

French



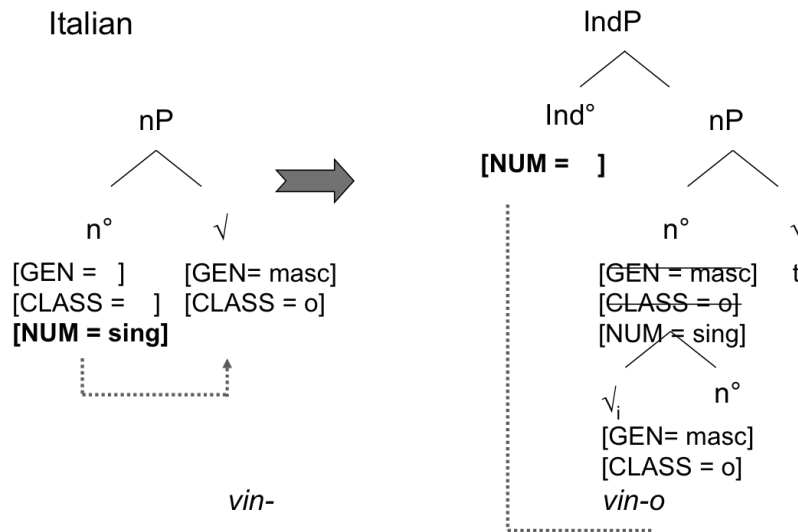
(15) illustrates merge of #P (a slot for numerals or quantifiers like *beaucoup*, see Ihsane 2008 for a proposal of the internal structure of *du/des* nominals in French) with the IndP having a number feature value (singular), like in Spanish and the minimal morphological exponent *de*. #° bears a probe for number and gender, as there is agreement for these features, e.g. in *nombreux* ('many'). In (15), we see the agreement results for the indefinite article with an AGREE operation between #° and Ind° for number and a second subsequent one between #° and the root for gender. Different from previous proposals (cf. Heycock/Zamparelli 2005, Stark 2008b) and in accordance with early distributional reflections (e.g. in Vater 1963 for German and Ihsane 2008, 2013, for French), we locate *un* in this head. If these elements and accordingly a gender probe were located together with the valued number feature on Ind°, a complete AGREE operation between Ind° and the root could take place, the result being a parallel structure to Spanish (see (11) and (13) above – which would not account for the unavailability of bare nominals in French (see section 1, examples (2), (3) and (4)).

Note that it is the different or absent gender exponent (and probe) on n° and the missing word classes that make the difference between Spanish and French, not the locus of the valued number feature (cf. similar ideas in Stark 2008 a and b). Differently from Spanish, however *only* the choice of the element in #° or an explicit plural exponent even higher in the structure (*d-es*) marks (non-)individuation in French, bare nominals like [vẽ], morphologically not marked for number, are no proper constituents of a plural form, and leave the interpretation as to their (non-)individuation or a potential kind-/type-denotation completely open.

3.4 Italian

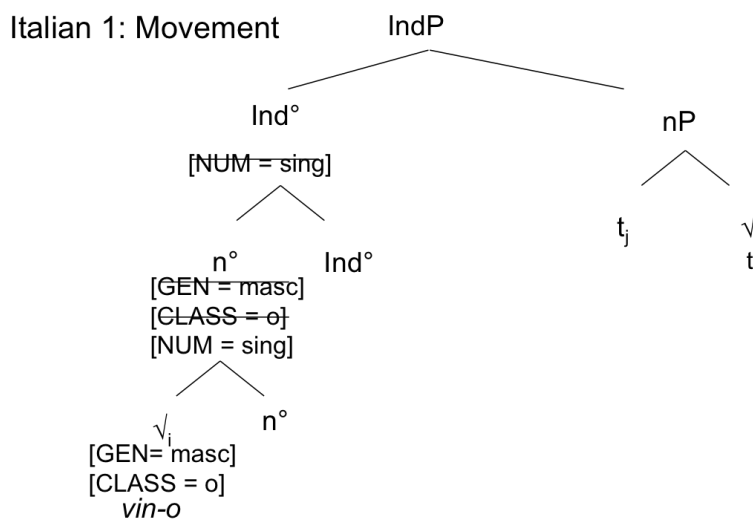
Due to the fusional character of nominal morphology in Italian (cf Alexiadou 2004: 27, who considers Italian theme vowels as *portemanteau* morphemes), we assume that Italian roots come with a specified gender and word class feature out of the lexicon and merge with n° specified for number:

(16)



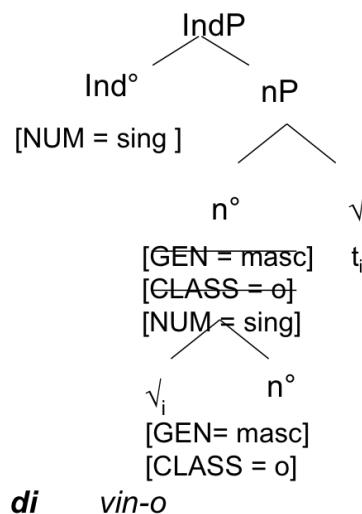
The derivation mirrors the Spanish one (cf. (11) above) with one important difference: an expression like *vino* in Italian cannot be a proper constituent of a plural IndP, it is already specified for number on the level of nP (cf. Eichler 2012: 358f.). That means that we cannot have a kind/type reading of bare count nominals like in Spanish, a prediction which is borne out (**tiene cane* in the sense of ‘he is a dog owner’ is ungrammatical in Italian). For the correct interpretation of the nominal, this structure presents a problem, however: the valued NUM feature on nP cannot trigger number agreement nor indicate individuation (Cowper/Hall 2012: 29), because, as we put it in section 3.1, the interpretation ‘more than 1 individual’ (individuation) depends on a plural value of the NUM feature in *Ind°* in our model. We therefore assume a probe for the NUM feature on *Ind°* for Italian, which after AGREE either triggers movement of nP, and the whole expression is incorporated into IndP (see (17), parallel to Spanish in (13)), or, like in French, there is no movement, and the nominal needs an overt element to express number and encode individuation in the higher structure (see (18)):

(17)



(18)

Italian 2: no movement:

di

The structure in (17) is a nominal that receives a mass interpretation like in Spanish, unless material higher in the structure encodes individuation (= *uno* in #°). The structure in (18), without movement of nP to Ind°, is, like in French, a defective nominal without any morphological expression of the NUM feature on Ind°, where it is needed for interpretation (cf. (14) for French)). And like in French, the choice of quantifiers or some higher elements in the structure *obligatorily* expresses individuation in those cases where n° does not move to Ind°. The analysis presented here claiming optional movement after AGREE (cf. Chomsky 2001) for nP accounts for the Standard Italian facts, where optionality of the ‘partitive article’ observed in production data results from two different underlying structures ((17) vs. (18)) and is – after all – no real optionality.

3.5 Generalizations and predictions

To sum up, we have seen in this section that the absence of word class markers in French can be accounted for by the absence of a probe for word class plus gender below #°, which blocks the lexical root in its original position and does not allow for any movement. The result is a defective expression, lacking even “entity categorization” (cf. Picallo 2005 for Spanish) and being unable to appear as such in a sentence. The value of the number feature is specified on Ind°, either as such or as the result of a probing relation between a probe in Ind° and nP (Italian). A valued NUM feature in Ind° is the condition for a nominal to be allowed in argument position (Romance languages being number marking languages). The assumption of a probing relation between Ind° and the valued NUM feature on n° in Italian (one way to account for the syncretic nominal morphology in Italian, cf. Alexiadou 2004) accounts for the optionality of movement and incorporation of n° in Ind° and accordingly the optionality of merge of a ‘mass marker’ *di* or indefinite article in #° in this language. The absence of markers for word class, gender and number on French nominals calls for obligatory overt elements bearing at least an information on ‘(non-)individuation’, i.e. for nominals with mass or count (individualized) readings, as nominals without overt determiners or quantifiers are simply not available as syntactic objects at the level of predication (arguments) in French.

This leads to the following predictions:

1. Overt number marking on nominals (= exponents for the plural value of the NUM feature in IndP and individuation) reduces the probability of an obligatory ‘partitive article’ in the respective Romance variety (weak correlation, unidirectional).

2. Absence of overt word class markers increases instead the probability of a (obligatory?) ‚partitive article’ (weak correlation, unidirectional).
3. ‚Agglutinative’ nominal morphology (= word class and plural markers as separate morphological exponents, not ‚fusional’: Spanish vs. Italian) is incompatible with obligatory ‚partitive articles’ in Romance (strong correlation, bidirectional).

In the interest of space, it is impossible to give a detailed Pan-Romance overview over every Romance variety with respect to the three generalizations above. But as a start, we will present a short overview in the next section focusing on established dialectological knowledge of Gallo-Romance, where an intense and long-lasting horizontal language contact is in place as well as an intense vertical contact situation with standard French being the *Dachsprache* (cf. Kloss 1978) of Occitan and many Francoprovençal varieties.

4. Number, gender, and ‚partitive articles’ in Gallo-Romance

Whereas the morphosyntax and function of ‚partitive articles’ is pretty well described and understood for Standard French (see section 2), little is known about their existence, morphology and function in non-standardized Gallo-Romance varieties of the Occitan (Southern part of France) and the Francoprovençal area (small area in the South-Eastern part of France, Western part of Switzerland and Valley of Aosta in Italy):

(19)



http://guernseydonkey.com/wp-content/uploads/2013/10/langues_france.jpg

4.1 Occitan

Generally, traditional descriptions and atlases of Occitan (cf. Bec 1971, 1973, Nauton 1959 or Séguy 1966) do not say much about indefinite determiners or quantifiers, let alone their syntax (e.g. obligatory or optional status). In a typological approach to Romance languages,

Bossong 2008 states the following:

Der Partitiv ist überall im okzitanischen Sprachraum verbreitet, aber in unterschiedlicher Form. Die dialektale Verteilung ist aufschlussreich; es liegt eine Graduierung von der Ibero-Romania bis hin zum Französischen vor. (Bossong 2008: 140)

[The partitive is found everywhere in the Occitan region, but in different shape. The dialectal distribution is telling: there is a gradual spread from the Iberoromance area to the French dialects.]

Bossong seems to insinuate language contact as the main driving force behind the distribution of the ‘partitive article’ in Occitan, independently of internal correlations like the ones identified here in sections 2 and 3.

In order to test our predictions from section 3.5, especially the hypothesis of a strong correlation between agglutinative unambiguous plural marking and the impossibility of ‘partitive articles’ like in French, we have to have a look at the - quite varying – Occitan systems of number marking on N (cf. Sauzet 2012, 2014).

In Gascon dialects,⁵ we find number marking very similar to the Spanish pattern described under (7):

- | | | |
|---------|--|---|
| (20) a. | <i>eth</i> _{M.SG} <i>òm-i</i> _{M.SG} [ed ‘ɔmi] | <i>eth-s</i> _{M.PL} <i>òm-is</i> _{M.PL} [e(d)z ‘ɔmis], also sometimes [‘ɔməs] |
| | ‘the man’ | ‘the men’ |
| b. | <i>era</i> _{F.SG} <i>bots</i> _{F.SG} | <i>era-s</i> _{F.PL} <i>bots</i> _{F.PL} |
| | ‘the voice’ | ‘the voices’ |
| c. | <i>auber-a</i> _{F.SG} | <i>auber-àss-es</i> _{F.PL} (or <i>auberas</i>) (‘surmarquage du pluriel’) |
| | ‘hazelnut’ | ‘hazelnuts’ |

We can see that there is general overt plural marking by ‘agglutinative’ –s attached to singular forms (plus some vowel changes in the singular stem). In some areas of Gascon, however, there seems to be no phonetic realisation of graphic –s (Hautes-Pyrénées et Val d’Aran, cf. Massourre 2012: 155-158), and most descriptions of Gascon state the absence of a ‘partitive article’ (see e.g. Bossong 2008:140, Sauzet 2014:2). Most interestingly, Séguy (1966) contains some maps (“de l’argent”, “des choux/soldats”) where a ‘partitive article’ is found in Gascon varieties in areas neighbouring directly French dialects (in the North) or Limousin dialects (see below) from the Occitan area. This can be a result of language contact, but detailed field studies about the morphological number marking system of these Gascon varieties and the validity of the atlas data have to be conducted, in order to exclude an internal motivation.

Languedocian is comparable to Gascon as to its quite regular overt plural marking by ‘agglutinative’ –s to singular forms (Thérond 2002: 76f, sometimes however, plural is only marked on the determiner, something which needs further investigation):

- | | | |
|---------|----------------------------|--|
| (21) a. | <i>ome</i> _M | <i>lou-s</i> _{M.PL} <i>om-es</i> _{M.PL} |
| | ‘man’ | ‘the men’ |
| b. | <i>caus-a</i> _F | <i>la-s</i> _{F.PL} <i>caus-as</i> _{F.PL} |
| | ‘thing’ | ‘the things’ |
| c. | <i>bras</i> _M | <i>lou-s</i> _{M.PL} <i>brass-es</i> _{M.PL} |
| | ‘arm’ | ‘the arms’ |

⁵ We use the term *variety* as a cover term for every linguistic system, independently of its sociological status (standard language, vernacular etc), following the tradition of Coseriu’s variational linguistics (cf. e.g. Coseriu 1981). *Dialect* is used to denote established regional varieties described in geolinguistic reference works such as atlases.

d. *pei*_M *lou-s*_{M,PL} *peiss-es*_{M,PL}
 ‘fish’ ‘the fish’

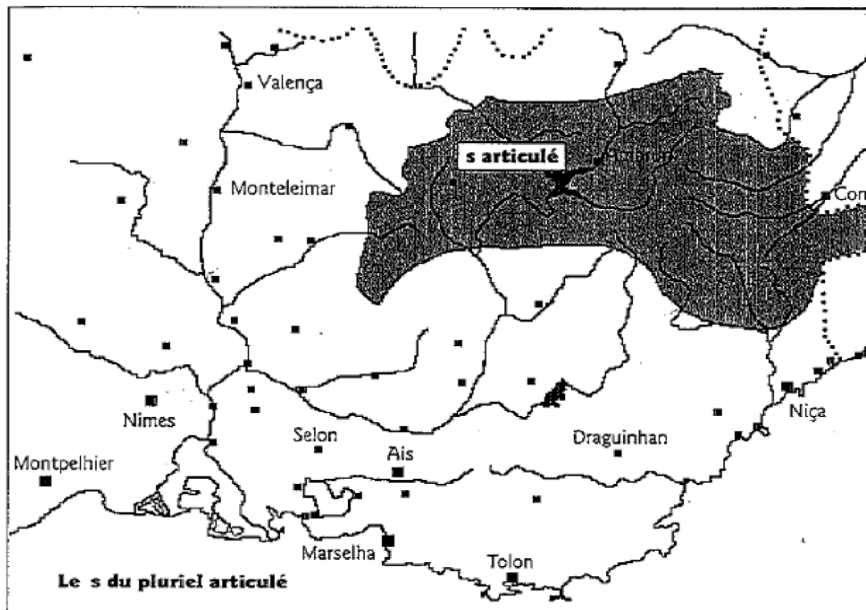
For this area, a so-called ‘partitive’ *de* with indefinite direct object DPs is reported in the literature, without however indicating its obligatory or optional status or semantics:

(22) *Dounàs-me de pan [...] d’ amellas*
 give.2SG.IMP-1SG.DAT DE bread DE almond.PL
 ‘Give me (some?) bread [...] (some?) almonds’ (Théron 2002: 86)

This *de* is not inflected for gender and number and is maybe simply the (optional?) preposition *de*, equivalent to English *of*, indicating a pseudo-partitive construction with an empty head (‘some amount of bread, some amount of almonds’, cf. Koptjevskaja-Tamm 2009).

Provençal, the most Eastern part of the three Mediterranean areas of Occitan, is different from Gascon and Languedocian in that its nominal morphology does not realize an ‘agglutinative’ plural *-s* (only graphic in nature), except for a small area in the North-East:

(23)



(Barthélemy-Vigouroux / Guy 2000: 27)

Just like in Languedocian, we find the ‘partitive’ *de* in Provençal all over the place with indefinite direct objects, singular and plural (cf. Barthélemy-Vigouroux / Guy 2000: 83), not a real ‘partitive article’, however. This seems to confirm that the absence of agglutinative number marking does not imply necessarily the presence of a real ‘partitive article’ (see section 3.5) - there might be other means of encoding ‘non-individuation’ in the nominal morphology of the respective Romance varieties (e.g. the so-called ‘neuter’, cf. Stark 2008a, Pomino/Stark 2009).

Finally, according to Bossong (2008: 142), Northern Occitan dialects have a true partitive article (spoken in Limousin and Auvergne; the empirical evidence of this statement remains, however, obscure):

- (24) *Demander del pan, de la carne e del vin*
 ask.INF PART bread PART meat and PART wine
 ‘to ask for bread, meat and wine’

And according to Sauzet 2012 (181), plural is marked in Limousin varieties by vowel lengthening on the determiner and the noun, i.e. in a fusional, non-agglutinative and non-sigmatic way, comparable more to Italian than to Spanish – which could be the cause of the existence of a fully-fledged ‘partitive article’ here. But also this is open to future empirical research.

4.2 Francoprovençal (cf. Kristol forthcoming)

There is no systematic research on ‘partitive articles’ in the Francoprovençal area, and no precise information available in traditional Francoprovençal atlases (e.g. Gardette / Durdilly 1950-1976, Martin / Tuaille 1978). What we can state is that Francoprovençal varieties in France, Switzerland and Northern Italy do not always show overt number marking on nouns and never sigmatic agglutinative number marking like in Spanish:

- (25) a. $e_{F,PL}$ *soset_F*
 ‘the stockings’
 b. $y_{M,PL}$ *k_Mu_M*
 ‘the nails’

As for determiners, we can observe an interesting bipartition in the different Francoprovençal varieties (cf. also the documentation in the *ALAVAL* project). Kristol (forthcoming) subdivides these varieties into two domains: ‘Francoprovençal A’, where we can find a gender distinction in definite plural articles (parallel to Spanish *l-o-s_{M-PL}* vs. *l-a-s_{F-PL}*) with masc. *lu(z)* – fem. *le(z)* (in the Western parts of *Suisse Romande* and in France), and ‘Francoprovençal B’ without such a gender distinction in definite plural articles: *le(z)* for both genders (in the main part of Francoprovençal in Switzerland and Valle d’Aoste). Interestingly, this subdivision coincides with the geographic distribution of the ‘partitive article’, which does not exist in ‘Francoprovençal B’, replicating the pattern of pseudopartitive *de* in front of indefinite direct objects (cf. above (22) for Languedocian in the Occitan area):

- (26) oe kɔ̃tra a t'ʊ fo fi.e **de te**
Euh contre la toux il faut faire DE thé...
 er against the cough need.3SG make.INF DE tea (Kristol forthcoming: 7)

- (27) oe pə fe lɔ buʎ'oŋ oe b'ət:ɔ **də z'ʊsə** aw'i la mi'o:la
Euh pour faire le bouillon euh je mets DE z-os avec la moëlle
 er for do.INF the.M stock er put.1SG DE bone.PL with the.F marrow
 (Kristol forthcoming: 7)

But ‘Francoprovençal A’ shows a fully-fledged partitive article:

- (28) Sg. masc. *dy* (*dɛ*) fem. *dla* (*dɛ*)
 Pl. masc. *de* fem. *dle* (*dɛ*)

We do not know whether this element is obligatory or optional, and we are not going to propose a detailed analysis taking into account the complex morphology of the determiner, if it turns out to be in fact systematically correlated with ‘partitive articles’ of the French type.

In order to understand this phenomenon, the *ALAVAL* data have to be completed by additional fieldwork and corpus studies, and the hypothesis of intense language contact with French as an explanation has to be examined carefully.

5. Conclusion and outlook

Based on comparative observations concerning Standard French, Italian and Spanish and a detailed analysis of the morphosyntax of nominals in these languages, we have developed three hypotheses. First, we have claimed that overt number marking on nominals (IndP) reduces the probability of an obligatory ‘partitive article’ (in the singular), a hypothesis which has been confirmed by the Gascon and partially Languedocian facts of Occitan. We have to admit however that for many areas, data are missing, as traditional atlases have been focusing on phonetics and lexical issues much more than on morphosyntax. Detailed data are lacking for Provençal and the Northern Occitan areas (Limousin and Auvergne), which could confirm the converse tendency to develop ‘partitive articles’ where number marking on the noun itself is not agglutinative / sigmatic, but rather syncretic, deficient or absent. For Francoprovençal, we can see a partial confirmation of our second hypothesis, according to which the absence of overt word class markers increases the probability of an (obligatory?) ‘partitive article’; here, word class markers (gender?) on determiners seem to come into play, but, surprisingly, in the opposite sense – something which has to be investigated in detail by future fieldwork. As for the strongest hypothesis, which excludes ‘partitive articles’ for varieties with ‘agglutinative’ nominal morphology, especially unambiguous number marking on the noun (word class and plural markers encoded separately, not in a ‘fusional’ way, like in Spanish), this hypothesis is confirmed by the Gascon and some Languedocian facts, but, as for the ‘Francoprovençal A’ area, language contact may lead to borrowed structures not corresponding to the morphosyntactic ‘type’ of a variety.

All in all, much more data (fieldwork based on questionnaires, but also on grammaticality judgement tasks, in order to get a grasp of the obligatory or optional nature of the elements in question) are needed to get a clearer picture of Gallo-Romance and the issue of language contact with regard to the regional distribution of the ‘partitive article’ - something to be continued at least also for Northern Italian dialects, which possess ‘partitive articles’ as well, but use them to a different extent and in different referential contexts (cf. e.g. Cardinaletti/Giusti 2014). Before and after this empirical work, we need sound theoretical analyses providing viable hypotheses to be tested, in order to understand the syntax and semantics and regional distribution of this highly marked element typical for Romance languages.

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