43rd Incontro di Grammatica Generativa

Book of abstracts

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Preface

This volume contains the abstracts presented at IGG 43: 43rd Incontro di Grammatica Generativa held at IUSS in Pavia.

The Incontro di Grammatica Generativa (IGG, Generative Grammar Meeting) represents the most important Italian venue for discussions on every aspect of generative grammar and formal linguistics.

We received 102 submissions. Each submission was reviewed by at least 2 (and on the average 2.9), program committee members. The committee decided to accept 24 presentations at the main conference and 4 presentations for the Workshop; 14 abstracts have been accepted as posters.

The main program includes two invited talks:
Prof. Giorgio Graffi (University of Verona)
Prof. Luigi Rizzi (University of Geneva and University of Siena)

Before the main conference, a workshop on "Order and direction of grammatical operations" has been organized by Valentina Bianchi, Cristiano Chesi and Andrea Moro: there we tackled the issue of directionality of structure building operation (e.g. merge, move and the notion of phase) and interpretive rules. The fundamental question on whether directionality yields a grammatical description that is more adequate – both descriptively and explanatorily – than a non-directional, constraint-based one has been considered a key issue for bridging the gap between formal, computational and psycholinguistic models. Two invited talks (Prof. Robert Frank, Yale University, and Prof. Colin Phillips, University of Maryland) guided this discussion.

NETS, the IUSS Center for Neurocognition, Epistemology and Theoretical Syntax
(http://www.nets.iusspavia.it/), directed by Prof. Cristiano Chesi, took care of the organization of the conference, with the precious help of the students enrolled in the Ph.D. program in Cognitive Neuroscience and Philosophy of Mind at IUSS.

The organizers
Maria Arioli, Valentina Bambini, Alberto Barbieri, Valentina Bianchi, Luca Bischetti, Martina Caccia, Cristiano Chesi, Caterina Galandra, Andrea Moro, Maria Paola Sforza Fogliani, Andrea Vitale

PS. Most of the back office work for IGG (abstract submission, review and proceedings creation) has been done with the valuable help of the EasyChair platform.

February 6, 2017 Cristiano Chesi
Pavia

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The Chomsky-Piaget debate of 1975: A retrospective evaluation and some open issues

Giorgio Graffi
University of Verona

Two scholars, M. Piattelli-Palmarini (1994) and C. Boeckx (2014), both openly "Chomskian", have given two almost opposing assessments of the outcome of the debate (Piattelli-Palmarini, ed., 1980): the former is a harsh critic of Piaget's position, whereas the latter essentially shares it. This difference is due in large part to some recent developments in biology, in particular the so-called "epigenetics". My presentation will focus on the relationship between Piagetian psychology, Chomskian linguistics and biology in the 1975 debate, and over the following decades. My conclusion is that the Chomskian framework, even in today's "minimalist" version, is still essentially incompatible with the Piagetian approach to language, in particular as regards the "specificity", both phylogenetic and cognitive, which Chomsky ascribes to language itself.

References

Boeckx C. (2014). The Roots of Current Biolinguistic Thought: Revisiting the "Chomsky-Piaget Debate" in the Context of the Revival of Biolinguistics. *Teorema: Revista Internacional de Filosofía*, 33, 1: 83-94.

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Order and Direction in Speaking, Understanding, and Grammar

Colin Phillips
University of Maryland

An obvious attraction of grammatical derivations that mimic the order of real-time linguistic processes is that they offer a straightforward link between high-level linguistic models and cognitive models at lower levels of analysis. But these links are only desirable if they are well motivated. In this talk I address a series of questions, focusing on what we currently know about real-time structure building processes in speaking, understanding, and acceptability judgments.

(1) Are real-time linguistic computations directly guided by the grammar?
(2) Do real-time linguistic computations proceed left-to-right, synchronized with speech input/output?
(3) Is there flexibility in the order of structure building, within and across tasks?

I argue that real-time computations closely track grammatical requirements, and that systematic mismatches between on-line and off-line phenomena can be captured by embedding the grammar in a noisy cognitive architecture. Real-time computations do not proceed strictly left-to-right, and they are not closely synchronized with speech input and output. But this yields a link to grammatical models that is more feasible than a stricter left-to-right ordering. As for the degree of flexibility in the order of structure building, indications are that the order of operations is inflexible, but current evidence on this point is rather limited.

Relativized Minimality in grammar and language acquisition: Conceptual and empirical issues.

Luigi Rizzi
University of Geneva – University of Siena

Movement is not uniformly difficult in language acquisition: some configurations crucially involving movement are mastered by children as early as we can test them, whereas other such configurations are acquired late. A unifying feature that underlies "difficult" movement configurations is intervention: when movement takes place across an intervener, a position which has some property in common with the target position, the configuration raises difficulties for the learner.

Broadening the picture, we can observe that intervention effects are found in at least three domains of research focusing on natural language syntax:

1. **Degraded acceptability in weak island contexts**, in which the degree of deviance varies depending on the nature of the extracted element and of the extraction environment (see Villata, Franck, Rizzi 2016 for recent discussion).
2. **Incapacity to compute intervention configurations** in object A'-dependencies for children: e.g., Friedmann, Belletti, Rizzi 2009 on certain object relatives and object questions, and much related work (and also in forms of language-related pathologies: Grillo 2008));
3. **Slower processing** in adults, manifested, e.g., in terms of reading time (Gordon et al 2001, 2002).

Are intervention effects in these domains amenable to a unified formal approach? In recent years, this question has been addressed within the Relativized Minimality (RM) tradition (Rizzi 1990) by working out a detailed version of featural RM (based on ideas in Starke 2001, Rizzi 2004), originally motivated by the acceptability effects in weak island environments, and extending and adapting it to the other domains. The key concept of the approach is that the problematic nature of an intervention configuration is related to the constitution of the target and of the intervener in terms of relevant morphosyntactic features. Different degrees of feature match between the intervener and the target give rise to different penalties, or degrees of disruption.

The unified approach must address important problems because the crucial environments in 1, 2, 3 do not fully correspond; in particular:

a. Object questions and object relatives across a lexically restricted subject are fully acceptable for adults, but raise insurmountable problems for young children.
b. Some configurations with partial featural match are fully acceptable for adults, while other such configurations are perceived as deviant.

We would like to address these questions by assuming a single locality principle which evaluates intervention configurations against a hierarchy of featural distinctness. The hierarchy is based on the set-theoretic relations between the featural specifications of the target and the intervener (disjunction, intersection, inclusion, identity), ranging from a maximum to a minimum of distinctness. This unified principle admits distinct cut-off points, or distinct degrees of tolerance to penalties, which are responsible for the different manifestations of intervention locality in children and adults.

In the final part of the presentation, we will address the issue of the featural selectivity of the effects in children (certain morphosyntactic features are apparently not taken into account in the computation of intervention), along the lines of the discussion in Belletti, Rizzi, Friedmann (2017), a selectivity which is expected under a grammar-based approach to intervention effects.

Cliticization as NP Ellipsis

Alejo Alcaraz
UPV/EHU & HiTT

Runic (2014) found out a puzzling source of variation regarding Slavic cliticization. Whereas pronominal clitics in Serbo-Croatian (SC) support Sloppy Readings (SRs) (1a), pronominal clitics in Macedonian (Mac) do not – (1b). She concludes that this difference is due to the absence of determiner articles in SC and –hence- claims that clitics may have SRs only in NP languages. The difference between SC and Mac is analyzed as an effect of Boskovic's (2008, 2012) DP parameter.

(1) a. Nikola je pozvao (svoju) djevoiku na slavu, a prozvao **ju** je i Danilo. (SC)
Nikola is invited his girlfriend on slava and invited her$_{\cdot CL.ACC}$ is too Danilo
'Nikola invited his girlfriend to the slava and Danilo invited (Danilo's/Nikola's) girlfriend too.'
b. Nikola ja povika devojka si na slava, a Daniel **ja** povika isto (Mac)
Nikola her invited girl him at slava and Daniel her invited too
'Nikola invited his girlfriend to the slava and Daniel invited Nikola's/*Daniel girlfriend too.'

Based on Runic's (2014) generalization, Boskovic (2016) analyzes sloppy clitics in SC as clitic doubling of a null NP; that is, clitic doubling + argument ellipsis. I will provide additional evidence from Spanish (SP) showing that pronominal clitics co-occur with NP Ellipsis (NPE). However, SP is not an article-less language lacking DP (cf. Longobardi 1994). This implies that SR with pronominal clitics does not depend on Boskovic's DP parameter. Finally, I bring forward an alternative analysis of SRs with pronominal clitics that does not relies on Boskovic's (2008, 2012) DP parameter.
Firstly, -as previously noticed in the literature (cf. Quer & Ximenes 2013: (40)- pronominal clitics in SP support SRs.

(2) Juan trajo a sus hijos al cole, pero María **los** dejó en casa. (SP)
J. brought.3sgS A his children to school, but M. 3pl.**ACC** left.3sgS at home
'Juan brought his children to school, but Maria decided to leave [Juan's/Maria's] children at home.

Although Spanish is a consistent Null Subject Language, there is no null counterpart of the generic pronoun *one* (Holmberg 2010: 92-4). If the pronoun *one* is dropped, it must be interpreted as a null third person referential pronoun.

(3)Siempre debe hacer *(uno) lo que diga el jefe.
Always must.3sS have one what say.3sS the boss
Lit. 'One always has to do what his boss asks to do.'

Generic *one* in SP can be bound by the impersonal pronoun *se* (Cinque 1988), but –even in this context- it cannot be dropped (4a). Binding by another impersonal pronoun does not license a null counterpart of the generic pronoun *one* in SP. Generic *one* in SP can only be deleted under identity by another instance of the generic pronoun *one (4b)*.

(4)a.Antaño **se**[1] creía que *(**uno**[1]) debía ahorrar dinero. (Lit)
Before SE believed that (one) must must save money.
In the past, people λx (x used to believe x must save money)

b. A menudo uno$_1$ hace lo que (uno$_1$) quiere. (Lit.) *One often does what one wants to*
Often one does the what (one) wants

Notice –however- that the third person accusative clitic *lo* can be bound by the generic pronoun *one*, as in (5a).

(5) a. A menudo uno$_1$ lamenta que lo$_1$ juzguen (a uno$_1$) equivocadamente. (Lit) *One often regrets to be misjudged.*
often ones regrets that 3sg.ACC judge.3plS (to one) wrongly
b. [Todo diós]^1 piensa que (*él^1) lo hizo mal. (Lit) 'Everybody$_i$ belives (*he$_i$) did wrong.'

Yet, we saw in (4a) that binding is not enough to license a null instance of the generic pronoun *one* in SP. It must be deleted under identity. Crucially, clitic doubling is optional in (5a) and does not trigger Montalbetti-type Effects. It is generally assumed that these effects arise when a covert and a null bound pronoun are in competition (5b).

It seems -then- that the third person clitic *lo* in SP can double optionally deleted material. Clitic doubling and argument ellipsis are not incompatible in Spanish, despite the fact that SP is not an article-less language like SC. Indeed, Clitic doubling of null generic *one* in Spanish fits with (6a), but not with (6b-c).

(6) **a.** lo+Agr/v …[VP … [a uno]…] **b**. lo+Agr/v … [VP… <lo>…] **c**. lo^1+Agr/v .. [VP… pro^1…]

Furthermore, Ticio (2005: 279-283) shows independently that pronominal clitics in SP can be associated with NPE. In particular, she shows that cliticization can affect different parts of the NP/DP –as shown in (7).

(7)Vendimos los libros de Física y los^1=compramos [{libros^1/*pro/*<lo>} [de Química]]
Sold-we the books of physics and 3pl.A=bought-we books of chemistry
(Lit.) 'We sold the books of Physics and we bought ones of Chemistry' [Ticio 2004: (96)]

Crucially, the remnant *de Química* in the second conjunct in (7) is a nominal modifier, but it is well known that neither clitics (Kayne 1975) nor *pro* (Cardinaletti & Starke 1999) can be modified.
Summarizing so far, the evidence relating sloppy clitics to argument ellipsis is –in fact- stronger in SP than in SC. The evidence in SC only relies on SR -see Merchant (2013:540) for the danger in assuming SR as the only test for ellipsis. Nevertheless, clitic doubling and NPE are not always compatible in SP. In particular, clitic doubling is forbidden if the DO surfaces with an overt determiner head.

(8) …y (*los) compramos los de física.
and 3plACC bought the of physics
(lit) 'and we bought ones of physics.'

Given the morphological resemblance between third person clitics and determiners in SP, it would be tempting to reduce cliticization to determiner movement (i.e. D-to-V) followed by NPE (cf. Uriagereka 1995) –as in (9).

(9) [VP Det+V [DP <Det> NP]]

Despite morphological appearances, there are good reasons to keep apart third person clitics from determiners in SP. First, clitics never trigger definiteness effects in existential sentences (10a), but determiners do (10b). Second, third person clitics never carry a uniqueness presupposition (11a), but determiners do (11b). Sentence in (11b) is deviant if there was more than one 'cake' in the relevant context, but sentence in (11a) is not.

(10) **a**. Los hay [Δ de todos los colores]
them there.was of every color
(lit) 'there were ones in every color.'

b. *hay [los Δ de todos los colores]
there.was the of every color
(lit) 'There were these in every color.'

(11) a. te la he comprado de chocolate. Todavía quedaban dos más.
2sgDat 3sgA have.I bought of chocolate. 'There were two more left'
b. te he comprado la (tarta) de chocolate. #Todavía quedaban dos más.
2sgDat have.I bought the cake of chocolate
(li.) 'I have bought the chocolate {one/cake} for you. But there were still two more [cakes] in the bakery.'

I will adopt Albreecht's (2010) extension of Merchant's (2001) analysis of ellipsis, where the [E]-feature triggering PF-Deletion must enter into an Agree relation with a verbal functional head: the licensor (12a).

(12) a. [vP $v_{\{L\}}$ [VP V [nP $n_{[E]}$ NP]]]]
b. [L, masculine, plural] ⇔ /los/
c. [L] ⇔ ∅

Firstly, If the licensor (i.e v^o) is paired with phi-features after a successful Agree relation with a nominal contained in its complement, [L+ φ] is spelt out as the corresponding clitic (12b); otherwise [L] gets a null spelt-out (12c) –cf. Halpert's (2015) analysis of the verbal conjoint/disjoint alternation on some Bantu languages.
If Determiners in SP are ellipsis licensors –see (8) and (11b)-, they are supposed to intervene between the verbal head licensing ellipsis and the nominal head carrying the [E]-feature, as in (13). This accounts for the deviant status of (8).

(13) [vP $v_{\{L\}}$ [VP V [DP $D_{\{L\}}$ [nP $n_{[E]}$ NP]]]]

Finally, generic pronoun *one* in SP is not a regular pronoun (i.e. it refrains to be pro-dropped). It is closer to what Déchaine& Wiltschko (2002) call constant or NP-pronouns: [nP n [NP one]], and –hence- it must fall under (12a).

Selected References: Boskovic (2016) On clitic doubling and argument ellipsis lingbuzz/002955. Runic (2014) A new look at clitics, clitic doubling, and argument ellipsis.

Interference effects in clitic production

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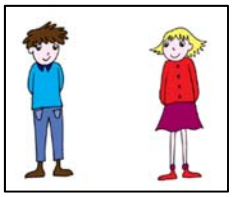
Keywords: Clitics, Interference, Intervention

Typically developing Italian speaking children optionally omit direct object clitics (clitics) until age 4 years; after age 5 years clitics are used without morphological and placement errors. (Hyams, 1983/1986; Guasti, 1993/94; Leonini,2006; Schaeffer, 2000; Caprin & Guasti 2009; Moscati & Tedeschi, 2009; Dispaldro, Caselli & Stella, 2009; Snyder, Hyams & Crisma, 1995). Their consistent omission after age 5 years is considered a clinical marker of Specific Language Impairment (Bortolini et al. 2006, Arosio et al. 2014). Recent research has shown that Italian sentences with a preverbal clitic are prone to subject verb number agreement errors (Garraffa & Di Domenico, 2016). In our study we investigated whether, in sentences containing clitics, the VP-subject is a potential intervening position when the clitic moves from the internal VP argument position to a preverbal position as in (1).

(1) ***Il gatto$_i$ lo$_j$ t$_i$*** *insegue* ***t$_j$*** (Italian)
The cat$_i$ it$_j$ t$_i$ follows t$_j$

In particular, we investigated whether a gender feature mismatch between the direct object clitic and the overt subject impacts on the production of sentences containing clitics. We elicited the production of 3rd person singular object clitics in sentences containing a singular masculine or feminine overt nominal subject in matching and mismatching conditions, in 38 Italian speaking preschoolers aged 4 to 5 yrs and in 10 adults. In addition, children were administered a number of standardized language proficiency tasks. Since 5 years is a milestone age in the acquisition of morphosyntax, we divided the participants in two group: one group of children younger than 4;11 (young group) and a group of children older that 4;11 (old group). Statistical analyses of the results show that: (1) older children perform better that younger ones in the production of clitics; (ii) the production of clitics is easier in the match condition; (iii) young children have problems in the production of clitics in the mismatch condition (overt subject and clitic have different genders). Data suggest that clitic production is particularly challenging at a young age because of interference configurations resulting from moving an object across a subject position: once direct object clitics are merged in a postverbal object position, a clitic phrase outside the VP attracts their features and during the feature copying operation, the subject in the closer spec-VP position intervenes. Additional results from the investigation of number interference and the comparison between null and over subjects will be discussed in order to distinguish interference from intervention phenomena in clitic production.

Clitic elicitation task:



In questa storia Paolo e Bianca devono toccare e poi salutare qualcuno.

In this story Paolo and Bianca want to touch and greet someone

Paolo, tocca una signora …e poi…

Paolo touches the woman … and then …

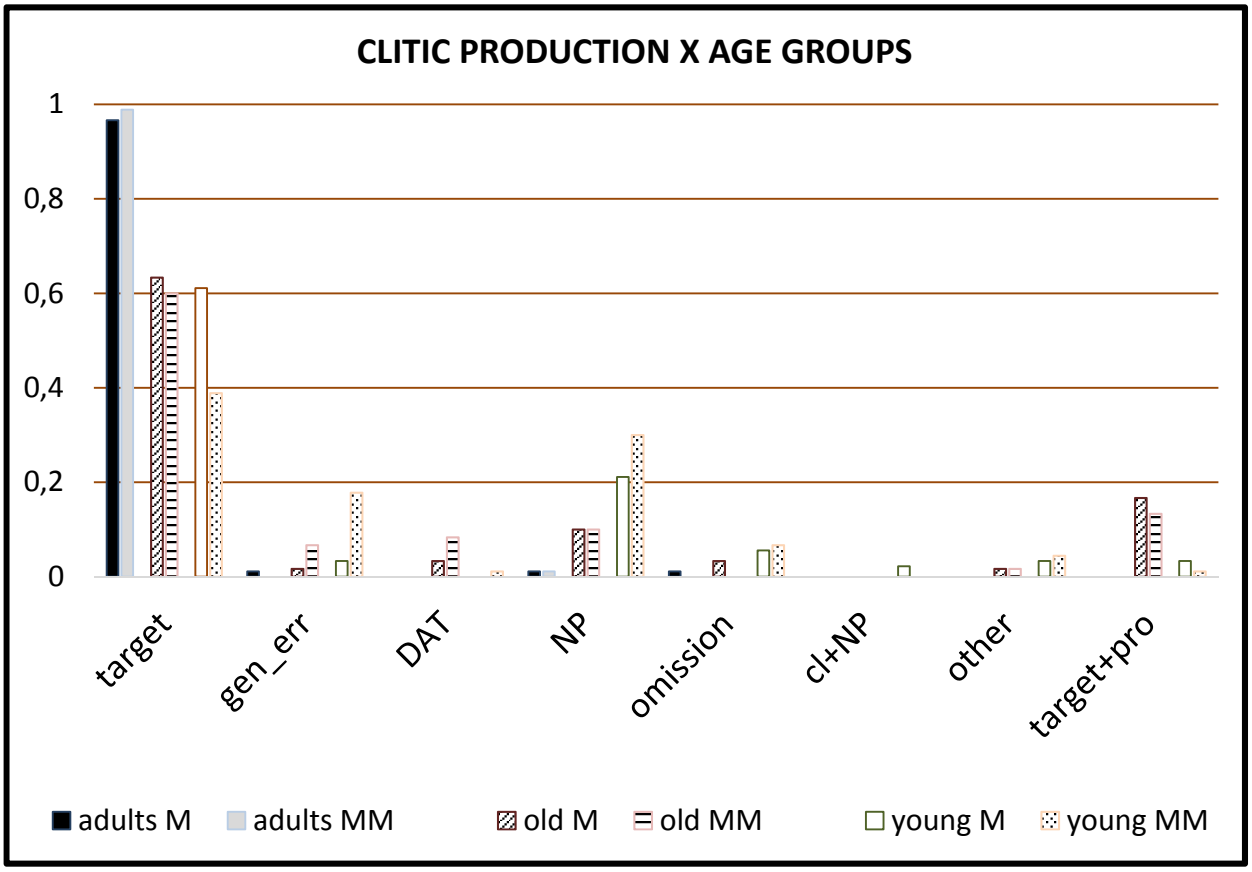
… Bianca LA saluta

Bianca her greets

Conditions:

Lead in	**Target**	
(1) *Bianca tocca una signora … e poi …* Bianca touches a woman … and then …	***Paolo la*** *saluta* Paolo her greets	MM-fem (Mismatch-feminine)
(2) *Bianca tocca un signore … e poi …* Bianca touches a man … and then …	***Paolo lo*** *saluta* Paolo him greets	M-masc (Match-masculine)
(3) *Paolo tocca una signora … e poi …* Paolo touches a woman … and then …	***Bianca la*** *saluta* Bianca her greets	M-fem (Match-feminine)
(4) *Paolo tocca un signore … e poi …* Paolo touches a man … and then …	***Bianca lo*** *saluta* Bianca him greets	MM_masc (Mismatch-masculine)

5 items for condition, 2X2 design



Controlled overt pronouns as specificational predicates

Pilar P. Barbosa
CEHUM/Universidade do Minho

1. Szabolsci (2009) shows that there are languages where control and raising infinitival complements have overt subjects. Her descriptive generalization is the following:

(1) *The overt subjects of control complements can only be pronouns. The overt subjects of raising complements can be pronouns or lexical DPs.*

This paper examines European Portuguese (EP) and shows that it complies with (1). (2a) can have the reading indicated in the gloss, with the focused DP interpreted as the subject of the embedded clause; (2b) cannot be so interpreted:

(2) a. Optou por ir **ele** ao mercado
chose for to-go he to.the market
`He chose for it to be the case that he is the one that goes to the market'
b. Optou por ir **o** **João** ao mercado
chose for to-go the João to.the market
*He$_i$ chose for it to be the case that João$_i$ is the one that goes to the market'

When the matrix verb is a raising verb, however, the focused DP may have embedded scope regardless of whether it is a pronoun or a lexical DP. Thus, (3) has the two interpretations indicated in the glosses:

(3) Acabou por [ir **ele** / **o** **João** ao mercado].
ended up by to.go he / the João to-the market
'It ended up being the case that he/João was the one who went to the market'
'He / o João was the one that ended up going to the market.'

In both the raising and control cases, more than one overt subject may occur:

(4) O João optou / acabou por [ir **ele** ao mercado].
the J. chose ended up to-go he to-the market
'John chose for it to be the case that he goes to the market himself' /
'With John it ended up being the case that he went to the market himself'

Szabolcsi's paper reveals the existence of at least three different typological patterns:

(5) i. Languages that do not admit expressed subjects either in control or in raising complements: English, German and French.
ii. Languages that allow for explicit subjects in raising and control complements: Hungarian, Spanish, Italian, Romanian, Turkish, Brazilian Portuguese.
iii. Languages that allow for expressed subjects only in raising complements: Russian, Finnish.

A closer look at the sample of languages studied shows that all of the consistent Null Subject Languages (NSL) in the sample fall under Pattern (ii). Our goal is to present an explanatory theory of (1) that captures this correlation.

2. In the case of the Romance NSLs, non-finite subjects must occupy the post-verbal position:

(6) I ragazzi risultarono [(*loro) aver (loro) riposto alla question]
the boys turned.out they to.have they answered to.the question
'The boys turned out to answer the question.'

Cardinaletti (1999) and Belletti (2004) argue that the position filled by nonfinite subjects is the post-verbal subject position found in finite clauses in so-called "free inversion". In effect, post-verbal subjects in finite clauses share the following properties with overt nonfinite subjects:

i. they are generally focused (compare (2a,b) with (7)):

(7) a. Foi ele / o João ao mercado.
went he the John to-the market
'He was the one who went to the market.' / 'John was the one who went to the market.'

ii. they may occur in clauses with apparently more than one overt subject (emphatic pronouns):

(8) A Maria foi ela ao mercado
the Maria went she to-the market
'Maria went to the market herself'

We will argue that the restriction on the position of the subject in (6) follows from the Null Suject Property. In line with Barbosa (1995), Alexiadou and Anagnostopoulou (l998), we assume that the functional head bearing subject agreement in the consistent NSLs is interpretable: it is a D head and, as such, its ϕ-feature set is interpretable. As a consequence of this, there is no EPP related movement to Spec-TP. Since, in the particular case of the Romance NSLs, there is *v*/V raising to Infl/T, when the subject is a fully specified nominal, this yields a postverbal subject construction. On this view, pre-verbal subjects are not derived by A-movement, but are rather instances of either subject left-dislocation or A-bar extraction (in a very restricted set of cases). Since left-dislocation is not readily available in infinitival clauses, preverbal subjects are rightly predicted not to be allowed in non-inflected infinitival clauses and the constrasts in (6) follow.

The novel contribution of the paper is the idea that, due to D's interpretability, when a lexical subject is merged as an argument, it must be interpreted as a property that is applied to the variable introduced by D (cf. also Manzini 2009). When the subject is an individual denoting expression — a pronoun or a definite DP — its meaning must be shifted to a property by the type-shifting operation *Ident* (Partee l987), which maps the DP denotation onto its singleton set; i.e, it maps *j* onto the property λ*x* [*x=j*]. The resulting interpretation is that of a specificational predicate. Consider the syntax of (7b) (irrelevant details omitted):

(9) [[$_T$ V [T <D_1, i:phi>]] [*v*P [*o João*]$_2$ ~~V~~ *ao mercado*]]

The DP *o João* is merged in subject position within the *v*P and bears a Case feature, thus being active as a goal. T and the subject enter an Agree relation and their φ-features match. Since the subject and T belong within the same CP Phase, both are present when the derivation is handed over to the semantics. At this point, D_i and the DP subject are both interpretable, in violation of Full Interpretation (we assume that D bears an index, thus introducing a variable). Type shifting applies to the denotation of *o João* yielding the property λ*x*. *x=João*. This property is applied to the individual variable introduced by D. Crucially, the

element that truly saturates the verbal predicate is this variable. We contend that the exhaustive focus interpretation arises whenever the semantic representation is such that the identity statement falls under the Nuclear Scope (or is asserted) and the rest of the material in the clause is pressupposed. Thus, in the case (7b), what is being identified with *o João* is the set of individuals that went to the market. This yields the interpretation 'the *x* such that *x* went to the market is João'. A similar interpretation carries over to (7a), with a subject pronoun. The occurrence of emphatic pronoun constructions such as (8) follows on the assumption that the pre-verbal "subject" in (8) is a left-dislocated topic doubled by D_i.

In infinitival contexts, T has unvalued φ-features. In this case, two configurations arise. If the matrix verb is a raising verb, the identity relation may be established between the lexical subject "in situ" (a pronoun or an R-expression) and D in T in the matrix or in the embedded clause (cf. (3)). When the selecting verb is an OC verb, a predicative Fin head (Landau 2015) is selected. In the spirit of Kratzer (2009), we propose that Fin carries a binder index represented as a lambda operator that binds a variable in the clause, turning it into a predicate. Since the relation established between an overt subject in [Spec, *v*P] and the index on D under infinitival T is one of identification, an overt subject may be present as long as it is a pronoun bound fom Fin. An R-expression is not allowed due to the ban on vacuous binding. This captures generalization (1).

3. In sum, due to the presence of D in T, the consistent NSLs display a mode of composition of the subject argument with the verbal predicate whereby a pronominal argument may be inserted as an argument and be interpreted as a property by the type-shifting operation *Ident* (Partee l987). This is why an overt subject pronoun is allowed in an Oligatory Control complement. In a language lacking D in T, this possibility will of course never arise. In this case, PRO (by assumption, [D, φ:_]) must be first merged as an argument in Spec-*v*P/VP. Since *v*/V projects, [D, φ:_]) (or its copy) must be both an X^0 and an X^{max}. Consequently, there is no room for a lexical subject no matter what.

V2 in L2 learners of English with L1 German/Norwegian/Dutch vs Italian - an analysis from Multiple Grammar Theory

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Multiple grammar theory (MG) is a concept that was first suggested in diachronic research on historical linguistics (among others: Kroch & Taylor 1997) - under the name of grammar competition - and in first language acquisition (Roeper 1999, Yang 2002). The basic idea is that optionality in a given language boils down to a competition between two (or more) potentially contradicting (sub-)rules in the grammar of this language, one of which may be productive and the other lexicalized. In English examples for such rules would be: *realize subjects overtly* and *do not realize subjects overtly in topic-drop contexts* (cf. examples in (1)):

(1) a. Where's Jack? _____ went home.
b. _____ cold today, isn't it?
c. _____ sounds all right to me.

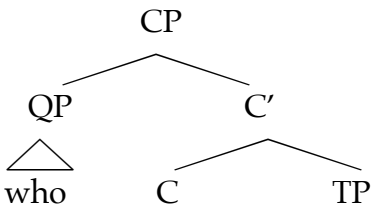
This paper investigates the implications of MG theory in second language acquisition contexts. The hypothesis is that if MG is real in monolingual diachronic and synchronic contexts, we should expect to find it in second language acquisition contexts too.

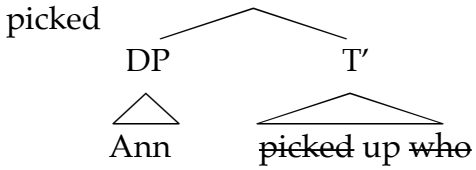
In order to test this we examined the role of L1 V2 word order in second language acquisition contexts. German, Norwegian and Dutch are robust V2 languages. English, however, is a residual V2 language (Rizzi 1990). Under the assumption that MG theory (Roeper 1999) plays a role in second language acquisition (Amaral & Roeper 2014), it is to be expected that native speakers of a generalized V2 language apply V2 also in second language residual V2 contexts. This study investigates with a free choice answer task (32 questions) in how far very advanced (university level) L2 speakers of English with a proficiency level of B2/C1 in English with L1 German/Norwegian/ Dutch use generalized V2 in English in questions of the form in (2).

(2) a. Who picked Ann up?
b. Who picked up Ann?
c. Which one picked Ann up?
d. Which one picked up Ann?

If MGs in the form of generalized V2 are observable in L2 English, it is expected that in (2a) *Ann* is interpreted as the subject, with the main verb moved across the subject position to the V2, i.e. C°, position (cf. (3)), which is a licit operation in German, Dutch and Norwegian but crucially not in English.

(3)





Our results (350 speakers tested) show that L2 speakers of English with L1 generalized V2 interpret the questions in (1) as instances of verb movement into C° and thus as an object question rather than a subject question. We compared these results against a group of L2 speakers of English with L1 Italian, i.e. speakers of a language that does not have generalized V2 (95 speakers tested). L1 Italian speakers reliably assign a subject interpretation only to these questions in (2) and thus show target like performance in their L2 English.

The effect of assigning an object interpretation to the questions in (2) by L1 German/Dutch/Norwegian speakers is highly significant in the conditions in (2a) and (2c). It is most significant in (2c), where the preference for an object interpretation for the wh-phrase is even higher because the wh-phrase cannot be disambiguated by additional overt case marking (*who*/*whom*). In (2b)/(2d) in contrast error rates decrease significantly (cf. also Rankin 2014 for similar results from studies on *wh*-questions without particles). This, we argue, can be explained by the fact that particle pied-piping is not an option in Germanic. However, we do find a significant effect between Dutch vs. German vs. Norwegian speakers, which, we argue, can be linked to small but significant cross-linguistic differences in V2 languages. Overall, particle pied-piping provides the relevant cue for the L2 grammar and a generalized V2 interpretation is dispreferred. We additionally find that generalized V2 in wh-+particle questions persists in highly proficient L2 speakers, which leads us to the conclusion that this provides additional evidence for a representational conflict in terms of grammar competition rather than a processing problem because otherwise we would expect error rates for the conditions in (2a/2c) to drop at least to the levels we see in (2b/2d) in highly advanced speakers. The target-like performance of L1 Italian speakers is explained by the absence of a MG effect between Italian and English for the constructions we tested.

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The internal structure of ontological categories

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1. Introduction. A major theme of Kayne (2005) is that certain functional categories (PLACE, THING, YEARS, MUCH, VERY, COLOR, among various others) may – depending on the language – have null pronunciation while nevertheless being (universally) present in the syntax. If we focus on nouns, it has been proposed (Cinque 2008: 18) that headless/free relative clauses involve "a silent external Head (of a restricted class: THING, AMOUNT, PLACE, TIME, PERSON, MANNER)", as in *John bought* [[*what* THING *Mary wanted*] (SUCH) THING], a construction which has overt realizations of the 'dummy' noun (often generic nouns meaning 'thing', 'person', etc.) in languages like Rapanui and Lakhota. The functional nouns mentioned by Cinque are often referred to as *ontological categories* in the typological literature (see Diessel 2003, Haspelmath 1997, a.o.).

If we take seriously the claim that there is such a *closed class of functional nouns*, then we can reason that they make up a particular functional domain of Universal Grammar. Following the general nanosyntactic approach (Caha 2009, Starke 2009), such a functional domain should be encoded as a functional sequence (fseq) of syntactico-semantic heads. Generally, syncretism and morphological containment (i.e. nesting) are tools used to uncover the nature of an fseq. Intuitively, ontological categories have a high so-called 'functional load', suggesting that they would remain distinct in form crosslinguistically (rather than showing syncretism); furthermore, they are 'basic' in some sense, suggesting that they are somehow atomic (rather than building on each other, as morphological containment would entail). However, based on a wide range of language families as diverse as Arawakan (Asheninka), Austronesian (Muna, Tukang Besi), Finno-Ugric (Hungarian), Indo-European (Germanic, Latvian, Lithuanian, Greek), Siouan (Lakhota), Tucanoan (Barasano), as well as non-Pama-Nyungan languages (Wardaman; Gooniyandi, Yawuru), we show that these intuitions are wrong: we do find both syncretism and containment in this domain in our data. Data come mostly from interrogative and/or indefinite pronouns and in some languages (even more transparent) generic nouns are available for consideration (e.g. Tukang Besi *anu* 'thingy, whatsit'). We reason that whatever it is that makes something an interrogative (*wh*-features of some kind) or an indefinite pronoun, by keeping this variable constant (e.g. comparing only interrogatives across the board) we are in fact factoring out these extraneous features and getting to the ontological categories at the core of these words.

2. Data: Syncretism and containment. In Lithuanian there is a THING/PERSON syncretism in *kàs*, which means either 'what' (THING) or 'who' (PERSON) (Mathiassen 1996: 81). The same syncretism is found in the interrogative/indefinite paradigm of Yawuru, where *yangki* means either 'someone, who' or 'something, what' (McGregor 2004: 128). See (1).

(1)	**THING**	**PERSON**	**PLACE**	**MANNER**	**AMOUNT**	**TIME**
Lithuanian	kàs	kàs	kur	kaip	kiek	kada
Yawuru	yangki	yangki	jana	janala(-kaja)	nganyja	bana

What is more, we have evidence from Muna that THING is structurally smaller than PERSON, since *hae* 'what' is overtly contained within *la**hae*** 'who', revealing the internal structure [PERSON la- [THING hae]].

Next, there is crosslinguistic evidence that the categories PERSON and PLACE are closely related, as summarized in (2). In Lakhota, for instance, the 'circumstantial stem' marking non-specificity has two forms, *to-* and *tu-*. Interestingly, the Lakhota interrogative-indefinites

***tú**-wa* ‘someone, who’ (PERSON) and ***tu**-ktel* ‘somewhere, where’ (PLACE) both make use of the less common stem *tu-*, while the rest of the forms use the more common stem *to-* (Ingham 2003: 51-53, Rood & Taylor 1996: 451, 457). In fact, a very similar phenomenon appears in Ik, where ***nd**-o* ‘who’ and ***nd**-aí* ‘where’ both show the interrogative particle *nd-* rather than the more common *nt́-* (Schrock 2014: 212).

(2)	THING	PERSON	PLACE	MANNER	AMOUNT	TIME
Lakhota	táku	**tú-**wa	**tu-**ktél	tó-kheškhe	tó-nakeča	tó-ha
Ik	isi-	**nd-**o-	**nd-**aí-	nt́-í	taná	nt́-ódo-o

Syncretism involving PLACE and MANNER is attested in Tukang Besi *‘umpa*, which is glossed as both ‘where’ and ‘how’ by Donohue (1999: 105). MANNER/AMOUNT syncretism is found in Wardaman *gungarrma* ‘how, how many’ (Merlan 1994: 89, 156). Finally, a partial AMOUNT/TIME syncretism is instantiated by German *wieviel* ‘how much, what time’. See (3).

(3)	THING	PERSON	PLACE	MANNER	AMOUNT	TIME
Tukang Besi	paira	ie’ei	‘umpa	‘umpa	sapaira	kehia, dehia
Wardaman	ngamanda	yinggiya	guda	gun.garr(-ma)	gun.garr(-ma)	nyangurlang
German	was	wer	wo	wie	wie-viel	wie-viel Uhr

Furthermore, there is overt evidence that PLACE is smaller than MANNER, since Yawuru *jana* ‘somewhere, where’ is contained within ***jana**la(-kaja)* ‘somehow, how’ (McGregor 2004: 128) and Muna *hamai* ‘where’ is contained within *peda* ***hamai*** ‘how’ (lit. ‘like where’) (Van den Berg 2013: §8.6.2). MANNER, moreover, is smaller than AMOUNT, given Gooniyandi *yiniga* ‘somehow, how’ within ***yiniga**-ngarri* ‘some number, how many’ and even English *how* within ***how** much* and German *wie* within ***wie**-viel*. German also appears to show that AMOUNT is contained within TIME: *wieviel* within ***wieviel** Uhr* (Hungarian shows similar facts)

In addition to these two-cell syncretisms, some languages show either no syncretism (e.g. Thai interrogatives/indefinites (Smyth 2002: 51)) or widespread (even bordering on total) syncretism (e.g. Barasano (Jones & Jones 1991: 31) and Asheninka (Diessel 2003: 641, citing Givón 1990)). See (4).

(4)	THING	PERSON	PLACE	MANNER	AMOUNT	TIME
Barasano	yẽ	yĩb…	dõ	dõ	dõ	dõ
Asheninka	?	tsika	tsika	tsika	tsika	tsika

Even in Modern Greek there is evidence for a PERSON/PLACE/MANNER syncretism in the locative interrogative *pú*, which can be interpreted as ‘to whom’, ‘where’, or ‘how’ (see discussion in Roussou 2016: 6).

3. Conclusion. Our empirical generalizations with regard to syncretism and containment are captured by the functional sequence (fseq) in (5), which we take to be universal.

(5) [TIME [AMOUNT [MANNER [PLACE [PERSON [THING]]]]]]

(5) captures the possible syncretisms in terms of adjacency of functional layers, while also straightforwardly capturing the containment relations (of which there are various kinds attested, but all of them consistent with the hierarchy given here).

The issue of partial syncretism (stem syncretism) will be discussed in more detail, and its use in building syncretism generalizations. We also discuss the potential place of other categories in our fseq, for example FORM (cf. Eng. *whi-ch*, Gm. *we-lch*, where *-(l)ch* derives from *līk 'body, form', Leu 2015: §6.2.1 and references there). More generally, our findings have some bearing on the hypothesis that lexical categories are decomposable (see Lundquist 2008).

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Prominence distribution in Italian *wh*-questions: from syntax to prosody

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1. Introduction. In several languages, successive-cyclic movement of a *wh*-phrase out of an embedded clause leaves a syntactic or morphological reflex in intermediate positions (see Abels 2012, Citko 2014). Phonological evidence for successive cyclic movement has been provided from tonal alternations in Kikuyu (Clements 1984, Haïk 1990) and in Asante Twi/Akan (Korsah & Murphy 2016). In this paper we argue that also prosody is sensitive to the derivational history of a *wh*-phrase: in an intonational language such as Italian, the assignment of the nuclear pitch accent (NPA) tracks the intermediate steps of *wh*-movement.

2. Nuclear pitch accent assignment in direct wh-questions. Ladd (1996) observed that in Italian direct *wh*-questions, the *wh*-element does not bear the nuclear pitch accent (NPA), even though it should qualify as focus. This observation was confirmed in the experimental studies by Marotta (2001, 2002): with bare *wh*-elements (with the exception of *perché* 'why'), NPA is assigned to the lexical verb adjacent to the *wh*-element.

In order to investigate the placement of NPA in *wh*-questions, we carried out a production experiment in which 10 native speakers of Tuscan Italian read out 12 pairs of stimuli like (1a,b), featuring short- and long-distance *wh*-movement (along with 24 fillers).

(1) a. **[$_{CP}$** A chi hai **[$_{vP}$** detto ***t*** [$_{CP}$ che ti hanno [$_{vP}$ rubato la macchina]]]]?
to who have.2SG said that you.DAT have.3PL stolen the car?
'To whom did you tell to that your car was stolen?'

b. **[$_{CP}$** A chi ti ha **[$_{vP}$** detto **[$_{CP}$** che hanno **[$_{vP}$** rubato ***t*** la macchina]]]]?
to who you.DAT have.3SG said that have.3PL stolen the car?
'From whom did s/he tell you they stole the car?'

The stimuli were preceded by a short description of the context; to control for information structure, in each pair the description was identical for both stimuli. We collected, ToBI-transcribed, and analysed a total of 478 target sentences: 10 speakers x 12 items x 2 conditions (short/long movement) x 2 disfluency-free repetitions (when available). We transcribed as NPA the rightmost fully flagged PA, after which the pitch contour is extremely compressed or totally low and flat until the final boundary tone (optionally realized as L-H% in our data). Our intonational transcription is supported by the duration analysis: the σ of the lexical verb of the embedded clause is extra-long when associated with NPA.

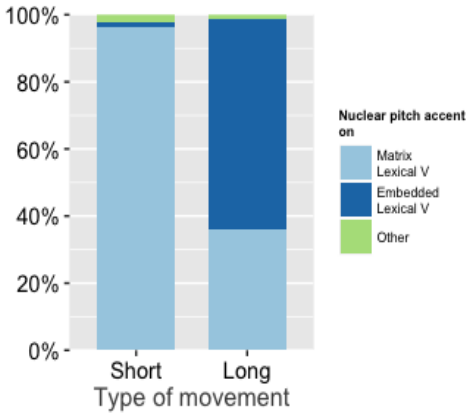

Fig. 1 Experiment 1: NPA distribution.

The NPA distribution is reported in Fig.1. A mixed model revealed that NPA is significantly more likely ($p<.001$) to occur on the embedded verb in case of long-distance movement (1b) than in short-distance movement (1a). This evidence shows that the placement of NPA is sensitive to the derivational history of the *wh*-element: NPA can (optionally) be assigned to the embedded verb only if the *wh*-element has been extracted from the embedded clause.

3. Sensitivity to the base position? The next step is to determine which element(s) of the *wh*-chain are relevant for prosody. A first possible hypothesis is the following: assuming that the *wh*-phrase is inherently focal, NPA assignment should target the *wh*-phrase in the position where it is initially merged (indicated as **t** in (1a,b)); but since the *wh*-phrase has moved away, NPA cannot be assigned to the trace (which must remain unpronounced), and it is 'passed on' to the adjacent element, i.e. the lexical verb. This line of analysis is problematic for two reasons: a) it violates the widespread assumption that traces are invisible at PF (see Nespor & Vogel 1986, a.o.); b) it cannot account for the possible assignment of NPA to the matrix verb in long *wh*-extraction (36% in our data). We carried out a second production experiment to rule out this hypothesis. The stimuli included 7 pairs of sentences like (2a-b), featuring two syntactic conditions: *wh*-movement of a noun complement (2a) and *wh*-movement of a verbal complement (2b). The two sentences in each pair were introduced by the same context description. 12 native speakers of Italian read out the stimuli.

(2) a. Di chi hai comprato [un romanzo ***t***] nella nuova libreria?
of who have.2SG bought a novel in-the new book shop
'By whom did you buy a novel in the new book shop?'

b. A chi hai comprato ***t*** [un romanzo] nella nuova libreria?
to whom have.2SG bought a novel in-the new book shop
'To whom did you buy a novel in the new book shop?'

We collected and analysed 336 target sentences (7 items x 2 conditions x 2 repetitions x 12 speakers). Our results show that in case of extraction of the noun complement (2a), NPA is never assigned to the N head, which is adjacent to the base position of the *wh*-PP. In both syntactic conditions, NPA falls on the lexical verb. This evidence leads us to discard the hypothesis that NPA is sensitive to the base position of the *wh*-phrase.

4. Movement through phase edges. Our account is based on two syntactic hypotheses: (i) assuming that phases (in the sense of Chomsky 2001) are cyclic domains, *wh*-movement must pass through the edge of every vP and CP phase in between the base (External Merge) position and the final landing site (see Abels 2012 for discussion); (ii) every time the *wh*-phrase lands in a phase edge, it shares the wh/focal feature with the local phase head (v° or C°). Crucially, this holds for *each intermediate landing site*, as manifested for vP by *wh*-agreement in Chamorro (Chung 1994, 1998) and by soft mutation in Welsh (Willis 2000), and for CP by Complementizer alternations in Irish (McCloskey 2001). At the prosodic level, we assume that (iii) NPA is assigned to an element bearing the wh/focal feature, and (iv) functional elements tend to resist NPA assignment (see Selkirk 1984, a.o.).

In case of short movement (1a), the *wh*-phrase moves through the edge of the matrix vP and lands in the edge of the matrix CP; by feature-sharing (ii), the wh/focal feature is also specified on the matrix v° and C°. By (iv), the prosodic computation looks for a lexical element bearing the wh/focal feature to assign NPA. The bare *wh*-phrase is a functional element; C°, after T-to-C raising, hosts the auxiliary, also a functional element; the only lexical element endowed with the relevant feature is the verb in the matrix v°, hence NPA targets this position. In case of long-distance extraction (1b), the wh/focal feature is present on the v° and C° heads both in the embedded and in the matrix clause. In the light of the above reasoning, NPA can be assigned to either the lexical verb in the matrix vP or the lexical verb in the embedded vP. This optionality can be captured by assuming that the wh/focal feature on intermediate landing sites may be disregarded by the prosodic computation. When the *wh*-phrase is a noun complement (2a), N°, though lexical, does not bear the wh/focal

feature since it is not a phase head: by (iii) it is not eligible for NPA assignment. In both (2a) and (2b), the only element able to bear NPA is again v°, hosting the lexical verb.

Time permitting, we will also discuss the results of a third production experiment on lexically restricted *wh*-elements and *perché* ('why'), and show how our proposal can be extended to account for their different behaviour with respect to NPA assignment.

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When the Emperor is in chains

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Keywords: Topic – Null Subjects chains – Children acquisition

Starting from Kuroda (1965) it is generally agreed (cf. a. o. Miyagawa & Saito 2008) that predicational (i.e. non-thetic) sentences must have a topic: "every proposition is necessarily composed of three elements - the subject-idea, the attribute, and the joining of these two ideas […] when the sentence is predicational, its subject is taken as the premise of the predication." (Kuroda 1965: 35-37) Later, Reinhart (1981) introduces the notion of "sentence topic", defining it as "what the sentence is about". According to Reinhart the sentence topic plays a crucial role in the discourse identifying the entry (cf. Heim's 1982 "file-card") under which the propositional content of the sentence is stored in the common ground (cf. Stalnaker 1978). The relevance of the topic role in conversational dynamics is also clearly stated in Krifka's (2007) "Structured Meaning Approach", since "topic is the entity that a speaker identifies, about which then information, the comment, is given." (Ibidem: 30).

With the introduction of the Cartographic Approach (Rizzi 1997 and subsequent works) dedicated projections have been identified for topic(s) in the C-domain: one is high, above the FocP and immediately below the projection dedicated to the interpretation of the Illocutionary Force (ForceP). Subsequently, drawing from Rizzi's analysis, Frascarelli & Hinterhölzl (2007) propose a distinction between different types of topic, which is based on a systematic relation between syntactic position, discourse role and prosodic properties. In particular, the abovementioned "aboutness" function is conferred to A-Topics, which are located in the highest topic position, have the function of proposing or shifting the topic and are associated to a raising prosodic contour (L*+H). Furthermore, based on an interface analysis of spoken corpora in Italian, Frascarelli (2007) shows that A-Topics are not only "what the sentence is about": they start and head *topic chains* which (i) allow for the interpretation of null subjects (and low toned pronouns), (ii) can extend across sentences and (iii) can only be interrupted by new A-Topics. Specifically, antecedence is realized through a local Agree relation between the A-Topic and a null subject, whereas across-sentence relations are guaranteed by the presence of continuing G(iven) Topics or silent A-Topics in each local C-domain. A Topic Criterion is thus proposed, also supported by cross-linguistic data from Russian (Bizzarri, 2015) Finnish (Frascarelli in press) and Spanish (Frascarelli & Jiménez-Fernandez in press).

The question thus arises as to when children acquire such a complex discourse-related competence, that is to say, at what age a child can properly connect a null subject to the intended antecedent. In a recent evolutionary study based on an interpretive comprehension test Frascarelli (2016) has provided significant evidence that this competence is acquired progressively in children from 3 to 8 years old. Results showed that children from 3 to 5 y. o. start to acquire this competence but still have some difficulties (ca. 65% of attended answers), while performances significantly increase from 6 to 7 y.o. (ca. 85%) and reach an adult-like competence around the age of 8.

What about production? As it is well known, at the age of two children start to explore the narrative by evoking past events and talking about them. In this phase, they do not have all the cognitive and linguistic elements to organise the narrative structure and tend to refer events to "topics" that belong to their own experience or common ground (often) without expressing them overtly: the so-called "emperor strategy".

So, when is the emperor put in (topic) chains? To answer this question, a production testing device has been designed and submitted to 208 children from 3 to 9 years old. The test is a silent video, featuring well-known Disney characters (Goofy and Mickey): children were asked to invent a story while watching the (animated) slides running in front of them. The different scenes composing the video were designed with the aim of elicitating the production

of different types of topic as well as topic chains (characters could do the same or different things, they could enter together or separately into the scene, and so on).

Results show that the productive ability to create topic chains is acquired more slowly than the capacity of recognizing them in comprehension contexts. In particular, children seem to possess a good competence in producing chains already at the age of six (almost 90% of 6 y.o. subjects produced acceptable chains), but after that improvement does not proceed with the same speed as in the case of comprehension, so that they are still in the process of refining their use and realization of the different discourse-related categories up to the age of nine.

Interestingly, different patterns seem to emerge, especially w.r.t the prosodic and intonational properties of A-Topics. Specifically, the realization of A-Topics across informants shows (i) an allotonic realization in the alignment of the main prominence (i.e., L+H* instead of L*+H), an alternation that was already noticed in Frascarelli & Hinterhölzl (2007) between Italian and German, and (ii) a "late" realization of the raising part of the complex tone, which appears as a boundary high tone (H%) closing the Topic prosodic domain. These alternations will be illustrated and analysed in detail. Furthermore, some children show the existence of an intermediate phase between the "emperor strategy" and the production of adult-like Topic chains (at around 5 y.o.), in which they tend to overextend the use of overt subjects even though no Topic shift is intended. The intonational properties of these subjects will be discussed and a comprehensive analysis will be proposed.

As for other Topic types, the realization of C(ontrastive) Topics seem to be "easier" for children and closer to adult-like production at the age of 8, while low-toned G-Topics are very rarely used. Also in this case a comprehensive explanation will be addressed.

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Linearizing F and PL in Lunigiana DP: a violation of the Mirror Principle?

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1. Geographic background Geographic variation reflects the diachronic stages of language change synchronically. An interesting area in this respect is Lunigiana (Italy), in which unstressed vowels (henceforth uV) underwent reduction. Lunigiana dialects vary in the reduction degree of uV melodic content: the closer to the southern border, the milder the effects of the reduction. Assuming Element Theory (Backley 2011), this process can be formalized as a gradual decrease in uV melodic complexity.

2. Interaction with morphosyntax When the reduction process targets word-final uVs, i.e. the ones that in Romance carry inflectional information, it appears to be conditioned by spell out constraints on morphosyntactic feature expression: while word-internal uVs are consistently deleted, word-final uVs display a higher resistance. For instance, the word-final [e], i.e. the phonological exponent of F.PL, never reaches the final stage of the complexity reduction process. As expected, a great variation can be observed in the reduction degree. This is shown in 1), where the forms for 'women' are given as occurring in three Lunigiana dialects (see also Loporcaro 1994):

1)

	a) Carrarese	b) Colonnatese	c) Ortonovese
phonetics	[ˈdɔn – e]	[ˈdɔnn – i – a]	[ˈdɔn – a]
	|	| |	|
	x	x x	x
phonology	/\	| |	|
	|<u>I</u>|$_{PL}$|A|$_{F}$	|<u>I</u>|$_{PL}$|A|$_{F}$	|<u>A</u>|$_{PL/SG.F}$
	| |	| |	/\
syntax	[N[PL[F]]]	[N[PL[F]]]	[N[PL+F]]

As shown in 1), F and PL are spelled out *autonomously* and *syncretically* in Carrarese and *autonomously* but *analytically* in Colonnatese, while in Ortonovese they are spelled out by the very same phonological form that encodes SG.F in the three dialects. This variation can be accounted for in terms of the ranking of a) a structural constraint, *(uV |STR|)$_{\mu}$, that aims at simplifying element structures in uVs belonging to a (lexical or functional) morpheme (here represented by the generic subscript '$_{\mu}$' or by the more specific '$_{PL}$/$_{F}$'), b) an 'anti-epenthetic' constraint, *V, that penalizes the incorporation in a phonological representation of a V (i.e. of a V that lacks any morphosyntactic specification and c) a Phonological Recoverability constraint, EXPRESS-|X|$_{\mu}$, that favors the expression in the phonological representation of morphosyntactic information (van Oostendorp 2005).

The element-based technology together with the GP-inspired constraints allow an analysis of the *-e*/*-ja*/*-a* alternation in terms of phonological licensing: in the *-e* case, (the floating) |<u>A</u>|$_{F}$ and |<u>I</u>|$_{PL}$ are spelled out by one and the same word-final nucleus (which is argued to be underlyingly empty; Scheer 2004). In the case of *-ja*, |<u>A</u>|$_{F}$ and |<u>I</u>|$_{PL}$ cannot be licensed by the same nucleus (because in the stage reached by this variety along the diachronic process of vowel reduction an unstressed nucleus is not allowed to license a melodically complex structure). As a consequence, |<u>I</u>|$_{PL}$ is linked to the onset preceding the |<u>A</u>|$_{F}$ nucleus. Finally, in the case of *-a*, the word-final nucleus cannot license a complex structure, but |<u>I</u>|$_{PL}$ is not allowed to land on the preceding onset either and gets deleted. Such a constraint-based analysis possibly accounts for the Mirror Principle violation. Indeed, if a) |<u>I</u>|$_{PL}$ is considered a floating element spelling out a head that is merged after n, b) it cannot be linked to the word-final nucleus already containing |<u>A</u>|$_{F}$ because of its licensing deficiency and c) no other C or V slot follows the |<u>A</u>|$_{F}$ nucleus, then |<u>I</u>|$_{PL}$ has no other chance than either failing to be linked and spelled out (Ortonovese *-a*) or landing on the preceding onset (Colonnatese *-ja*). Evidence for the onset linking of |<u>I</u>|$_{PL}$ is represented by the fact that it either palatalizes the preceding onset

(e.g. Bagnonese [ˈdɔɲa]) or it represents the second element of a complex onset cluster (e.g. Colonnatese [ˈgorpja] ‘foxes’). An argument supporting this syllabification comes from forms such as Bagnonese [ˈpe:gərja] ‘sheep.PL’, Treschiettese [ˈtsekəlja] ‘ticks’ and Lusignanese [forˈmigalja] ‘ants’, where the illicit tri-consonantal stem-final clusters (/pegr-j-/, /tsekl-j-/ and /formigl-j-/, respectively) are repaired via epenthesis (cfr. the singular forms [ˈpe:gra] ‘sheep.SG’, [ˈtsekla] ‘thick’ and [forˈmigla] ‘ant’; Loporcaro 1994).

3. Larger DPs. As soon as nouns enter larger DPs, a change in F and PL lexicalization can be observed: while F is consistently spelled out on N, A and D (Pontremolese apparently constitutes an exception), the way PL IS spelled out shows an interesting variation. Indeed, if a determiner enters the derivation, $|\underline{I}|_{PL}$ can surface in both N and D (as in Carrarese ***le done*** ‘the women’) or, as shown in 2), on D (Colonnatese, Filattierese and Pontremolese), N (Bagnonese) or even nowhere (Ortonovese).

2) FEM and PL distribution in some Lunigiana dialects ([ˈɔk-] ‘ducks’)

	Colonnatese		**Filattierese**		**Pontremolese**		**Bagnonese**		**Ortonovese**	
	Sing.	**Pl.**	**Sing.**	**Pl.**	**Sing.**	**Pl.**	**Sing.**	**Pl.**	**Sing.**	**Pl.**
N	ˈdɔnn-**a**	ˈdɔnn-**j-a**	ˈdɔn-**a**	dɔn-**a**	ˈ dɔn-**a**	ˈdɔŋ	ˈdɔn-**a**	ˈdɔn-**j-a**	ˈdɔn-**a**	ˈdɔn-**a**
D + N	l-**a** ˈdɔnn-**a**	l-**j-a** ˈdɔnn-**a**	l-**a** ˈdɔn-**a**	**i-a** ˈdɔn-**a**	l-**a** ˈdɔn-**a**	al ˈdɔŋ (al-**i** ˈɔk)	l-**a** ˈdɔn-**a**	l-**a** ˈdɔn-**j-a**	ḍ-**a** ˈdɔn-**a**	ḍ-**a** ˈdɔn-**a**
D + N + A	l-**a** ˈdɔnn-**a** bɔn-**a**	l-**j-a** ˈdɔnn-**a** bɔn-**a**	l-**a** ˈdɔn-**a** bɔn-**a**	**i-a** ˈdɔn-**a** bɔn-**a**	l-**a** ˈdɔn-**a** bun-**a**	al ˈdɔŋ buŋ (al-**i** ˈɔk buŋ)	l-**a** ˈdɔn-**a** bɔn-**a**	l-**a** ˈdɔn-**j-a** bɔn-**a**	ḍ-**a** ˈdɔn-**a** bon-**a**	ḍ-**a** ˈdɔn-**a** bon-**a**
D + A + N	l-**a** nɔstr-**a** ˈdɔnn-**a**	l-**j-a** nɔstr-**a** ˈdɔnn-**a**	l-**a** nɔstr-**a** ˈdɔn-**a**	**i-a** nɔstr-**a** ˈdɔn-**a**	l-**a** nɔstr-**a** ˈdɔn-**a**	al nɔst(a)r ˈdɔŋ	l-**a** nɔstr-**a** ˈdɔn-**a**	l-**a** nɔstr-**j-a** ˈdɔn-**a**	ḍ-**a** nɔstr-**a** ˈdɔn-**a**	ḍ-**a** nɔstr-**a** ˈdɔn-**a**

Interestingly, when other elements, such as an adjective, enter the DP, further variation in the way PL is spelled out can be observed (Cavirani in press).

Discussion The working hypothesis is to argue for an identical/universal syntactic derivation for the dialects concerned and a diatopic variation in the spell out mechanism, which could be triggered under “local redundancy” (along the lines of Barbiers 2013: “Redundant feature bundles can/must be (partially) silent at the level of phonological spell out if locally recoverable”). This effect could be obtained by the insertion in the grammar of a spell out constraint (set) such as *REDUNDANCY, which could in turn refer to (chains contained within) a set of locality domains, such as a DP or an AP. This constraint would crucially interact with EXPRESS-$|X|_{\mu}$. If this approach is able to account for the observed variation, it would be preferable with respect to an approach in which variation is relegated to the Lexicon (Taraldsen 2009) or managed by a DM Fusion rule (Manzini & Savoia 2005).

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An Evaluation-Sensitive Model for Local Context Computation

Keywords: Presupposition projection, local contexts, continuation, delayed evaluation

1. Introduction. Schlenker (2009) proposes a transparency-based analysis of presupposition projection which attempts to solve the problem of explanatory adequacy from which previous dynamic approaches (e.g., Heim 1983) suffer. Instead of hard-coding the order of context updates in the lexicon, Schlenker defines the local context of an expression *E* within S to be the smallest domain the interpreter has to consider in interpreting *E*, without jeopardizing the truth condition of *S*. By default, the interpreter traverses the string of expressions from left to right, thus upon encountering *E*, it only has access to the expressions that linearly precede *E*. Given those expressions, the interpreter calculates the strongest but innocuous restriction. Schlenker shows that the suggested model nearly replicates the prediction of Heim (1983).

2. Two problems. I point out two problems to Schlenker's analysis. First, the theory predicts that SVO and SOV languages would project presuppositions differently when given a presupposition trigger embedded under an attitude verb. The theory correctly predicts that the local context of the embedded clause of the second conjunct in (1) is confined to John's doxastic worlds. Since the interpreter sees *believes* before it traverses the embedded clause, it can successfully restrict the domain to John's doxastic worlds. However, Schlenker's theory incorrectly predicts that in (2), the literal Korean translation of (1), the local context of the embedded clause of the second conjunct contains the actual world. The matrix attitude verb *mit* 'believe' follows the embedded clause, thus the interpreter fails to further restrict the domain. Contrary to the prediction, (1) and (2) project exactly the same presupposition.

(1) John believes Mary smoked in high school, and he **believes** [that she **continues** to smoke].

(2) John-un Mary-ka kotunghakkyo ttay tampay-lul pi-ess-ess-tako
John-TOP Mary-NOM high school time cigarette-ACC smoke-PERF-PAST-COMP
mit-ko, [Mary-ka **keysokhayse** tambay-lul pi-n-tako] **mit**-nun-ta.
believe-CONJ Mary-NOM **continuously** cigarette-ACC smoke-PRES-COMP **believe**-PRES-DECL

Another issue arises from scrambling. Schlenker's theory solely relies on linear order, so it follows that any scrambled element will alter the calculation of the local context. However, the prediction is not borne out. The presupposition remains the same even if the embedded clause is scrambled to the sentence-initial position, as in the following Korean example:

(3) [Mary-ka **keysokhayse** tambay-lul pi-n-tako] John-un *e* **mit**-nun-ta.
Mary-NOM **continuously** cigarette-ACC smoke-PRES-COMP Johon-TOP **believe**-PRES-DECL
(Lit.) 'That Mary continues to smoke, John believes.'

3. Proposal. I make the following two claims: First, local context is computed in (semantic) phases, in the sense of Charlow (2014). Second, the interpreter is sensitive to evaluation order, rather than linear order; they often coincide but are not identical. The two claims receive a principled account within continuation semantics (Barker and Shan 2014, Charlow 2014).

4. Analysis. Barker and Shan propose that natural language expressions are functions on their own continuations. In Charlow's terms, they are programs that are sequentially fed into another program. In order to retrieve a value from the program, it must be evaluated. This amounts to saying that the continuation variable of the expression needs to be saturated, typically by feeding a default continuation. The evaluation obligatorily takes place upon completion of each clause. I argue that the interpreter can compute the local context of an expression *E* only when every expression it has encountered is a value, as opposed to being a program. Given that natural language expressions are evaluated upon completion of each clause, the interpreter is forced to postpone the calculation of the local context in some cases. To elaborate, the interpreter operates based on the following algorithm:

(4) a. Parse a given sentence from left to right.
b. To calculate the local context of *E* of propositional or predicative type which occurs in a context *C*, check whether the sequence *A E'* can be evaluated for any expression *E'* of the same type as *E*, where *A* is a sequence of all of the expressions that precede *E*.
c. If the sequence *A E'* can be evaluated (i.e., constitutes a clause), the local context is the strongest restriction *x* such that the following equivalence holds:
C $|=^{c' \rightarrow x}$ EVALUATE(*A* (*c'* and *E'*)) ↔ EVALUATE(*A E'*)
d. If the sequence *A E'* cannot be evaluated, continue parsing until (4c) can be executed.

A representative example of postponing the calculation of the local context is (2). When the interpreter first attempts to compute the local context of the embedded clause, it has already encountered the matrix subject *John* because it precedes the embedded clause. The interpreter cannot run the calculation routine in (4c) because *John* cannot be evaluated. Its value is yet to be known to the interpreter. Consequently, the interpreter waits until every expression it encountered has a value. For this example, it can only evaluate *John* upon the completion of the matrix clause as in (6). By this point, the interpreter has already encountered *believe*, thus the local context of the embedded clause can be restricted to John's doxastic worlds.

interpreter position
(5) John-TOP • **[**Mary-NOM now-also **continuously** smoke-PRES-COMP] **believe**
NOT EVALUATED YET! interpreter position

(6) John-TOP **[**Mary-NOM now-also **continuously** smoke-PRES-COMP] **believe** •
EVALUATED! EVALUATED!

On the other hand, there is no need to postpone the calculation in (1) because the interpreter can evaluate the matrix clause upon encountering the embedded clause. In this case, the proposed model produces the same result as Schlenker's theory.

Continuation semantics also provides a natural account of the scrambling data in (3). Barker and Shan show that *wh*-fronting in English is an instance of *delayed evaluation*. That is, evaluation of the fronted element is delayed until its following expressions are evaluated. I suggest that the scrambled embedded clause in (3) is also subject to delayed evaluation.

The primary mode of composition in continuation semantics is to sequentially feed two continuized expressions to the combinator $C =_{def} \lambda M \lambda N \lambda f.M(\lambda m.N(\lambda n.f\ (m\ n)))$, which incorporates function application (FA) and scopal composition. Delayed evaluation is a special mode of composition where the second expression is evaluated prior to being fed into *C*. Delayed evaluation in (3) proceeds as follows: the second expression is first evaluated and the resulting value combines with the first (fronted) expression via FA. Applying FA amounts to evaluating the first expression because doing so saturates its continuation variable *f'*.

(7) Delayed evaluation
a. **Evaluate 2nd 1st**: ($\lambda f'.f'$(continues-to-smoke(Mary))), **2nd**: ($\lambda f''.f''$(λp.believe(p)(John)))
b. **Feed 2nd to 1st 1st**: ($\lambda f'.f'$(continues-to-smoke(Mary))), **2nd**: (λp.believe(p)(John))
c. **Result** believe(continues-to-smoke(Mary))(John)

The evaluation of the scrambled expression takes place after the rest of the sentence. Accordingly, the interpreter also delays the calculation of its local context. By the time its local context is calculated, the interpreter has full access to all of the expressions in the matrix clause, thus the local context is correctly restricted to John's doxastic worlds.

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Perception of inflectional morphology in English L2 speakers with a rich L1

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1. Background. English inflections are realised in accordance with a specific morphophonological rule: they are voiced when applied to a stem ending in a voiced consonant and they are devoiced when following a stem with a devoiced consonant. For instance, "kill" becomes "killed", pronounced /kɪ:ld/ when inflected in the past, and "ask" becomes "asked", pronounced /ɑ:skt/ when inflected in the past. Using this rule it is possible to create non-words that contain potential bound morphemes, such as /vɛ:ld/, and non-words that end in phonemes that can have an inflectional value, but not in that specific phonological context, such as /vɛ:lt/

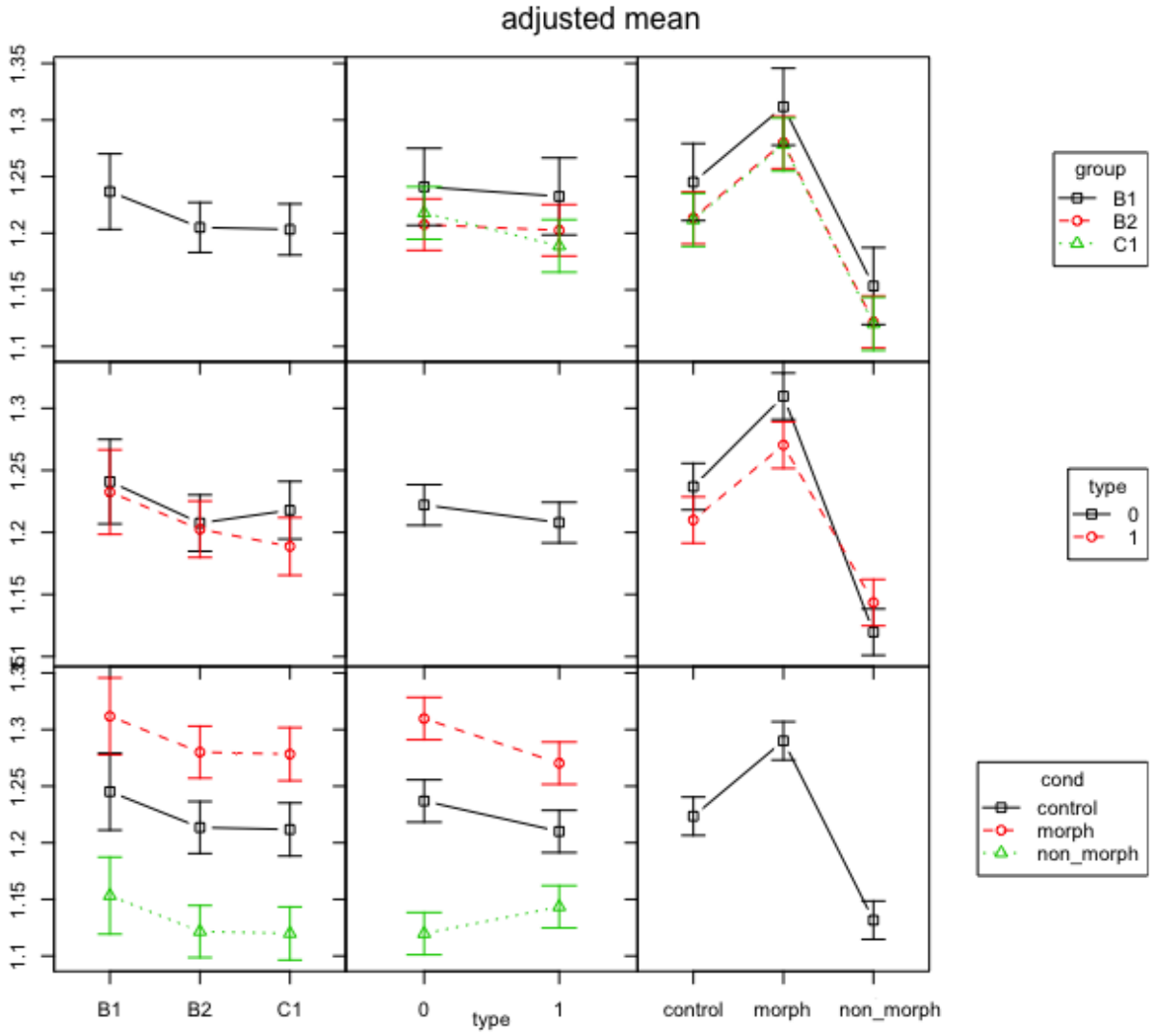
Previous work has shown that monolingual English speakers are sensible to the presence of bound morphology in non-words, which means that they are sensible to morphosyntactic properties of the words also in the absence of semantics. For instance, Post et al. (2008) showed that participants take longer to discriminate non-words that respect the morphophonological rules of regular English inflection than non-words that are based on non productive rules of English morphophonology. In previous work (Cilibrasi, 2015) we showed that non-words with potential bound morphology take longer to be discriminated than non-words that do not contain potential bound morphology. These results suggest that a form of morpheme stripping takes place (Pinker & Ullman, 2002), and also that it takes place in the absence of meaning. In other words, it suggests that speakers look for the presence of bound morphology in words endings independently of the identity of the verb. The present study used the same methodology of Cilibrasi (2015), but the subjects investigated in this occasion were bilingual speakers.

This study investigated the perception of bound morphemes in second language learners of English having Czech as L1. Being a highly inflected language, Czech is an interesting ground to investigate the acquisition of the English inflectional system, which is instead notoriously poor.

In fact, cross-linguistic analysis shows that speakers have better awareness of the morphological processes that are productive in their language (Ku & Andersson, 2003). Considering the inflectional richness of Czech, morphological decomposition may be a favourite option for them in L2 learning.

2. Methods. To investigate this hypothesis sixty participants having Czech as L1 were recruited. Participants had different levels of English proficiency, 20 had a B1, 20 had a B2 and 20 had a C1 in the European framework, assessed with a purposely created test. Participants were tested with a minimal pairs discrimination task. There were three types of minimal pairs: minimal pairs containing non-words with potentially inflectional endings (vɛ:ld/vɛ:lz), minimal pairs containing non-words with endings that can be inflectional, but not in that context (vɛ:lt/vɛ:ls) and a control condition made of minimal pairs containing non-words ending in a voiced consonant with no inflectional value (vɛ:lb/vɛ:lm). It should be stressed that subjects are not aware of the relation between this test and inflectional morphology, so any measure obtained should be considered a measure of implicit processing. Participants were also assessed with a digit span test, to independently measure their working memory.

3. Results. Data were analysed using liner mixed models in R, to account for condition, group and random effects.



Results shows that second language learners, in line with the hypothesis outlined above, performed similarly to the monolingual speakers tested in Post et al. (2008) and Cilibrasi (2015). The condition with potential morphology was the condition that required a larger amount of time, followed by the control condition. The condition with non-words that ended with phonemes that could not carry inflectional information was the quickest. Interestingly, English proficiency did not generate any interaction: Participants with a lower intermediate command of English showed a pattern of performance comparable to that of upper intermediate and advanced students. However, it should be noted that even if the pattern observed in B1 is identical to the one observed in B2 and C2 (with morphosyntactic non-words taking longer), participants with lower proficiency took a marginally larger amount of time to perform to the task overall.

4. Discussion and conclusion. This result suggests that second language learners of English having Czech as L1 behave in the same way of monolingual speakers when processing inflectional bound morphemes in English. The fact that the pattern observed in B1, B2 and C1 is the same is of crucial importance: it suggests that the strategy used is the same from early

on in the process of language learning. This may be due to the inflectional richness of Czech, and the consequent high morphological awareness of native Czech speakers. This strategy is used implicitly by all subjects, since participants were not aware of what they were being tested on, so they could not apply rules that they learned in class. Further, due to the speed of the task, it is unlikely for the effect observed to be a consequence of internal reflection, and it is more likely for this effect to be a consequence of automatic unconscious processing.

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Topic-first or Subject-first?
A study on children's interpretation of Corrective Focus in the Italian Left-Periphery.

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Key words: language acquisition, left periphery, corrective focus

Intro. In this work we investigated children's processing of structures that activate the Italian clausal Left-Periphery, and in particular constructions involving A'-bar movement to Topic and Focus projections. Previous results (see Moscati et al. 2015) investigating children and adults interpretation of sentences with Corrective-focus movement have shown that in both groups sentences like (1) are more challenging than (2):

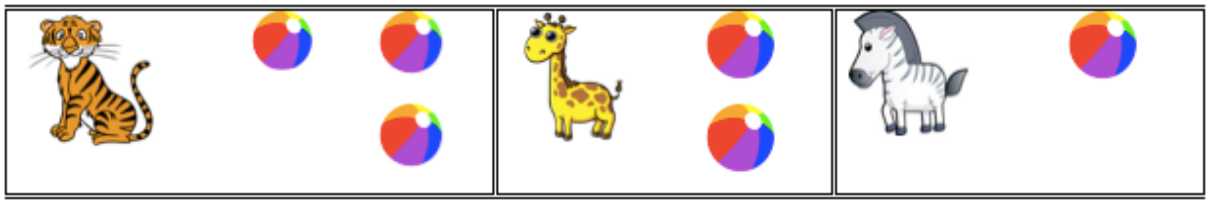
Example	**word-order**	**inf. structure**
(1) [$_{FocP}$ LA TIGRE$_b$ [$_{TopP}$ la zebra$_a$ [$_{IP}$ t$_a$ ha battuto t$_b$]]]	OSV	Foc>Top
(2) [$_{TopP}$ la tigre$_a$ [$_{FocP}$ LA ZEBRA$_b$ [$_{IP}$ t$_a$ ha battuto t$_b$]]]	SOV	Top>Foc

This pattern of results, however, is amenable to at least two interpretations: preference for (2) could be either explained by invoking a parsing-bias (e.g. "subject-first") favouring the SOV interpretation, or an information-structure (IS) bias that favours given information first ("topic-first"). Since the Object was always focal and the subject always topical, the experimental design used in Moscati et al (2015) made previous results inconclusive on this point. Therefore we designed a new experiment aimed at disentangling the role of IS from the role of word order. We did this by inverting the IS assigned to the constituents: in our experiment, we will test constructions in which the subject will be focal, while the object topical. If a preference for SOV still persists, in cases where the IS is Focus > Topic, this will add support in favour of a "subject-first" and against a "topic-first" explanation.

The experiment. We investigated corrective-focus fronting in a scenario where the relevant discourse-pragmatic and phonological conditions were satisfied (Bianchi et al. 2015). We used the same methodology in Moscati et al 2015, with the difference that we focalized the subject, while the object was a left-dislocated topic with a resumptive clitic. All test sentences were of the form DP DP cl V, potentially ambiguous between a OSclV or a SOclV interpretation. In our experiment we tested whether both sentences (5) and (6) were accepted at the same rate in a scenario that verifies them (or rejected in a scenario that falsified them) and that constitutes a correction of a previous statement (4)

Experimental trial: "*The goal of this game is to collect as many balls as possible. The giraffe challenges the tiger and the zebra. At the end of the contest, the tiger has three balls, the giraffe two and the zebra only one." The outcome then is that the tiger defeats both the giraffe and the zebra while the giraffe defeats the zebra only.*

Fig. 1. Visual scenario at the end of the story:



(4) Character A: La zebra ha battuto la giraffa.
"The zebra defeated the giraffe"

(5) Character B: No! La giraffa LA TIGRE l'ha battuta. (Condition A: True under OSclV, Top Foc V)
no the giraffe THE TIGER her has defeated
"No! the tiger defeated the giraffe."

(6) Character B: No! LA TIGRE la giraffa l'ha battuta. (Condition B: True under SOclV, Foc Top V)
no THE TIGER the giraffe her has defeated
"No! *the tiger defeated the giraffe."*

Method and Materials: There were two experimental conditions: the OSclV (5) and SOclV (6). Capital letters indicate the Corrective Focus L+H* intonation. In total, participants heard 4 sentences per condition, 6 SVO control sentences and 8 fillers. Test items were counterbalanced so that in half of the cases the correct answer was an acceptance and in the other half it was a rejection. The same held for fillers and controls, so that each participant had to judge 10 true and 10 false trials.

Partecipants: 12 adults (age >18) and 16 children (mean = 5;7) recruited at the Kindergarten Mameli in Florence.

Results: While both and adults had no general problem in understanding the experimental task and correctly judged SVO sentences (fig.2), they showed two opposite patterns in the experimental conditions (fig.3). Adults had less troubles in correctly accept (or reject) OSclV sentences, those were IS was Topic>Focus. Children instead showed the opposite pattern and they found easier SOclV, the subject-first sentences in which IS was Focus>Topic. Results were analysed in R using the *glmer* function through a Generalized Mixed Effect Model. We set Group and Condition as predictors and Item and Subject as random effects. The model confirmed a main effect of Condition ($p<.005$) and Group ($p<.001$) and a significant interaction between Condition and Group ($p<.001$).

Fig. 2. Proportion of correct answers in the two experimental conditions. Error bars = 1 S.E.

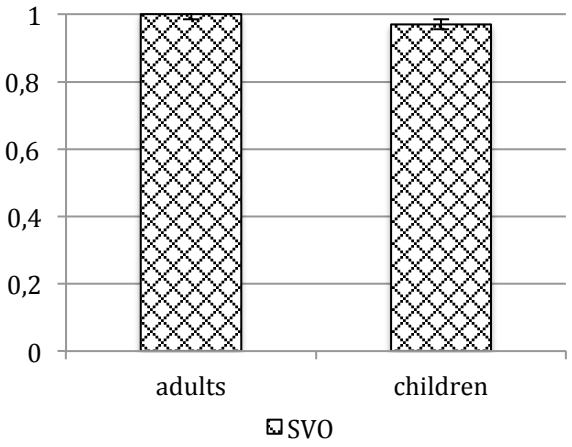
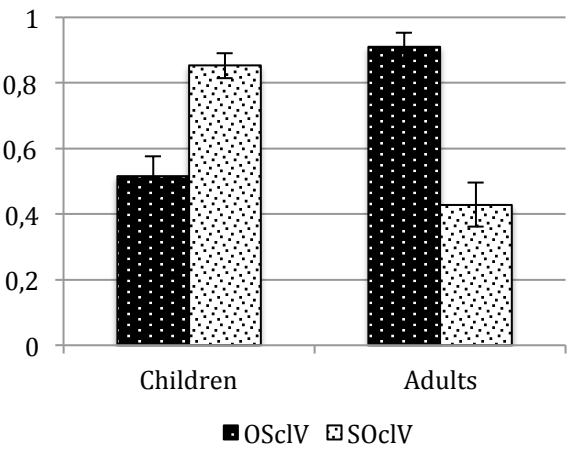


Fig. 3. Proportion of correct answerd in the two experimental conditions. Error bars = 1 S.E.



Discussion. Children's behaviour in our experiment replicated the findings in Moscati et al (2015): they had no troubles with subject-initial sentences in the SOclV condition. This result supports the conclusion that in children is operative a "subject-first" bias (Schlesewsky et al 2000), regardless of the information structure assigned to the initial constituent. Adults, on the contrary, show a greater sensitivity to IS: the preference for subject-first sentences in (1) found in Moscati et al (2015) disappears once the subject is made focal. In this case, adults prefer the OSclV constructions, that respects instead the Topic>Focus IS. This pattern of results will be discussed in relation to previous studies on children's and adults parsing preference emphasizing the role of subjecthood (a.o. Schlesewsky et al. 2000) or topichhood (Narasimhan & C. Dimroth 2008).

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On the morphosyntactic realization of Number in some Romance languages

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1. Traditional grammars of Spanish (RAE 2009:127) consider that Number is interpreted on the Noun, and the morphological (plural, singular) mark on the Determiner is the result of an agreement process, and it cannot go missing:

(1) los libros – *el libros – *los libro [Spanish]
the.PL book.PL the.SG book.PL the.PL book.SG
'the books'

The reason for this position is related to the classical theory that Number makes a clear semantic contribution to the interpretation of Nouns. However, there are other Romance languages, such as Brazilian Portuguese (BrP) and French, in which, according to the literature (Delfitto & Shroten 1991, Bouchard 2002, Dobrovie-Sorin 2012, Cyrino & Espinal 2015) Number is specified/interpreted on D. One indication that this is correct is the following paradigm, where crucially the morphological marking for Plural is not possible to occur only in the Noun in BrP:

(2) os livros – os livro – *o livros
the.PL book.PL the.PL book.SG the.SG book.PL
'the books'

In this paper, we argue that Spanish (and other Romance languages such as Catalan and Italian) contrary to what has been believed up to now, patterns with languages such as BrP and French. In other words, Spanish has Number specification and interpretation on functional categories, namely on Determiners (and on Coordinating Conjunctions, Sauerland 2003). Manifestations of (plural) Number on Nouns are the result of Agreement, and they have to be considered solely as morphophonological processes.

2. Several arguments from the literature support this proposal:
(i) As shown by Bouchard (2002) for French, certain compound nouns are a V+N unit. In this case, Number is specified on the determiner, in order to make the distinction between whether reference is made to an atom of to a plurality of atoms:

(3) *el* [abrelatas] – *los* [abrelatas] [Spanish]
the.SG open can.PL the.PL open can.PL
'the can-opener (singular and plural)'

(ii) Longobardi (1994) points out to the need of distinguishing between coordination of DPs and coordination of NPs in Italian. In the former case, the verb is plural and reference is made to two people (4a); in the latter, the determiner is singular, and reference is made to only one person, and the verb is singular (4b). Therefore, manifestation of number on the verb is dependent on the manifestation of D. The same is possible in Spanish:

(4) a. *El* propietario *y* *el* gerente de la empresa viven en Andorra.
the.SG owner.SG and the.SG manager.SG of the firm live.PL in Andorra
'The owner and the manager of the firm live in Andorra.'
b. *El* propietario *y* gerente de la empresa vive en Andorra.

the.SG owner.SG and manager.SG of the firm live.SG in Andorra
'The owner and manager of the firm lives in Andorra.'

(iii) It is possible to conjoin determiners in French and indicate number uncertainty. The same is possible in Spanish:

(5) Ve a la biblioteca y trae *el o los* diccionarios que encuentres.
go to the library and bring the.SG or the.PL dictionaries that find
'Go to the library and bring the dictionary or dictionaries that you find.'

In English, by contrast, Plural is marked on the Noun as the translation of (5) shows.
(iv) Nominal ellipsis also shows that Number is specified in the Determiner not only in French, but also in Spanish:

(6) Juan visitó a su tío y Pedro prometió visitar a *los* ø de él.
Juan visited to his uncle and Pedro promised visit to the.PL of he
'Juan visited his uncle and Pedro promised to visit his (uncles).'

3. Additional arguments also reinforce our proposal.
(v) In regular relatives (modified DPs), the complement of the D is not an NP, but a CP. However, in free relatives (7a,b), there is a silent D, and the wh-phrase of the embedded CP has been proposed to move to the Spec, DP position (Caponigro 2002).

(7) a. *Quién* llegue antes… / b. *Quienes* lleguen antes…
whoever.SG arrive.SG before whoever.PL arrive.PL before
'Whoever arrives before/ Whoever arrive before…'

In semi-free relatives (8) (de Vries 2000), the D is not silent, there is no Noun to trigger plural agreement on the verb, and Number must be specified and interpreted on the Determiner.

(8) *Los que* lleguen antes…
the.PL that arrive.PL before…
'The (ones) that arrive before…

(vi) *En*-anaphora in Catalan brings further evidence to our claim. The clitic *en* corresponds to a pro-N clitic (Déchaine & Wiltschko 2002), and it does not encode φ-features, in contrast to other 3rd person clitics that do. As such, the structure in (9) shows that Number is not interpretable on the Noun.

(9) Que porta anells d'or? $[_{NP}$ *En*$_i]$ porta $[_{NumP}$ tres $[_{NP}$ e$_i]]$
Q wears rings of gold cl wears three
'Does she wear golden rings? (She) wears three.'

(vii) Number on 1st person pronoun (10a), and on the article preceding non-Spanish words, locutions and last names (10b) further support our claim (RAE 2009:128-9).

(10) a. *Nos* el Rey (…) ordenamos y mandamos …
we the king order.PL and command.PL...
b. *los* mea culpa / *los* alto el fuego / *los* Escobar
the.PL mea culpa the.PL ceasefire the.PL Escobar

(viii) Independent data from Afro-Bolivian Spanish (Delicado-Cantero & Sessarego 2011) and Basque (Etxeberria 2014) also support the hypothesis of morphosyntactic Number on D.

4. We follow Wiltshko (2008) in that plural comes in many guises and does not universally merge with nouns (see also Déprez 2005, Dobrovie-Sorin 2012, Mathieu 2014). Plural can be either a head or a modifier. Given the properties enumerated above, we propose that in Romance # is a modifier of D, instantiating one of two values (SINGULAR, spelled out as ∅ or PLURAL, spelled out as –s, as represented in (11)).

(11) [D $\#_{[\#:PL]}$ [$_D$ el/lo [NP]]]

Additionally, the plural marker may occur inside compound determiners in Romance, such as Sp. *cualquiera*, Port. *qualquer* 'any', yielding *cualesquiera, quaisquer*. Following Wiltshko (2008)'s insight, these compound determiners must include the (plural) modification of the root √CUAL before it is merged as the argument of √QUIERA, as the simplified structure in (12) shows:

(12) [$_{√P}$ √QUIERA [$_{dP}$ *d* [$_{√CUAL}$ [#:PL] √CUAL]]]

After the incorporation (see Harley 2009) of the lower modified root √CUAL into √QUIERA and subsequent merging and incorporation into a categorizing *d*, the resulting complex head is realized as *cualesquiera* by Vocabulary Insertion.
(Plural) number marking on the Romance determiner is interpretable: it suffices to render the full phrase to be interpreted as plural. As a result, the plural marking on the N is just the consequence of morphophonological agreement, not obligatory in many instances, as seen above.

5. This proposal has consequences for the semantics of different DPs in Romance. Since # is not a head, but a modifier, (a) there exist DPs with # (those that refer to individual objects either singular or plural – atoms or sums of atoms), and DPs without # (those that refer to definite kinds in Romance) (Borik & Espinal 2015). (b) Singular collective NPs ('committee') denote pluralities but agree on singular with the verb, while plural individual NPs ('scissors') are singularity denoting but agree in plural with the verb, thus suggesting that morphosyntactic number on D has a meaning different from the characterization of collectiveness and singularity on the nominal root.

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Partitive MOST and the two-NP Hypothesis

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1 The puzzle. The contrast (1)b-c shows that MOST can combine with a collective predicate only if it occurs in a partitive construction (van der Does 1993):

(1) a. Most students in my class are blond.
b. *Most students in my class met yesterday.
c. Most of the students in my class met yesterday.

Beyond partial disagreement, this generalization has been explained (Crnič 2009, Dobrovie-Sorin 2015) by assuming that **(i)** a 'collective' quantifier Q_{coll} (i.e., a Q that has a collective predicate in its scope) must have an entity in its restrictor; **(ii)** partitive MOST has an entity-denoting restrictor (which seems straightforward, since partitive most has an (of-)DP complement and DPs denote entities). The puzzle to be addressed in the talk is the ungrammaticality of (2)c, which is built with the Romanian counterpart of English *most* ((1a),(2a)). [Note: It can be shown that the morphosyntactic complexity of *cei mai mulţi* 'the more many', meaning '(the) most' is irrelevant for the issues at hand]. Despite the partitive configuration, a collective predicate is ruled out in the nuclear scope:

(2) a. Cei mai mulţi studenţi din clasa mea sunt blonzi.
the more many students of class my are blond. 'Most students in my class are blond'
b.*Cei mai mulţi studenţi din clasa mea s-au întîlnit ieri.
the more many students of class-the my met yesterday.
c. *Cei mai mulţi din studenţii din clasa mea s-au întîlnit ieri.
the more many of students-the of class-the my met yesterday.

My solution will preserve assumption **(i)** but revise assumption **(ii)**: overt partitivity is not a sufficient condition for a Q to have an entity-denoting restrictor. The proposal will rely on a revised version of the 'two NP-hypothesis' (Jackendoff 1977, Milner 1978, Cardinaletti & Giusti 2006, Magri 2008), which will allow me to maintain the 'null hypothesis' concerning syntactic category-semantic type correspondences: NPs denote sets, DPs denote entities. The proposal will be compared to alternatives that do not assume the two-NP hypothesis but instead must resort to type-shifting operations (de Hoop 1997, Shin 2016).

2. The two NP-hypothesis. According to Jackendoff 1977, Milner 1978, Cardinaletti & Giusti 2006, partitive configurations involve a null N-head. Thus, a DP of the form (3)a has the syntax shown in (3)b :

(3) a. three of these students
b. three [[$_{N°}$Ø] [[of [these students]]]

If this analysis applied necessarily to all partitives, the examples in (1)c and (2)c would have the same underlying syntax and the contrast between them would remain unexplained. My solution will be to assume that a null N° obligatorily heads the complement of *cei mai multi*, whereas *most* can take an *of*-DP complement:

(4) a. [Most [of the students in my class]]
b. [Cei mai mulţi [$_{NP}$[$_{N°}$Ø][din [$_{DP}$studenţii din clasa mea]]]
the more many of students-the of class-the my

This syntactic assumption solves our problem: because of the presence of the null N°, the complement of *cei mai mulţi* is an NP, hence set-denoting, and a set-restrictor Q cannot be a collective Q (see assumption (i)). This solution involves an important revision of the 'two NP-hypothesis' : only some of the partitive DPs have a null N°. If we want this revision to be more than just a stipulation, we need to answer the following questions: Which partitives may/cannot/necessarily have a null N°? Does the presence of a null N° depend on the upstairs Det (cardinals vs proportionals, etc.) or on some characteristic of the *of-DP* constituent (e.g., mass vs count) ? We will first propose answers to these general questions and then we will show that the difference postulated in (4)a-b follows without stipulation from the general theory.

3. The null N° of partitives is a sortal N. In support of the two NP-hypothesis, Selkirk (1977) observed that relative clauses attached to partitives yield ambiguous readings, depending on whether the relative restricts the overall DP or just the of-DP: *In the Uffizi they saw many of the famous paintings, several of which were by Sienese artists*. Magri 2008 observed that relatives attaching to singular partitives *(some of that book*) are not ambiguous, and my own observation is that mass partitives pattern with singular partitives. The purely syntactic null N° analysis (Jackendoff 1977, Cardinaletti&Giusti 2006) does not predict the difference between mass/singular and plural partitives: in both cases, a silent copy of the lexical N would be inserted. Magri is thus led to revise the standard analysis by postulating a null N° only for plural *of-DPs*. Which means that the null N° is not a mere 'copy' of the lexical N° (in this case a mass N° would have to be postulated on a par with a count N°) but rather a 'sortal' N°, e.g., something like [$_{N°}$one] or [$_{N°}$atom] (see also Kobuchi-Philip 2007) , a proposal that I will adopt here. I nevertheless depart from Magri's theory, according to which such a sortal null N° is needed in order to be able to pick up the atoms alone (rather than both atoms and parts of atoms such as legs or arms) from the denotation of definite plurals. This theory is problematic as soon as we take into account exact proportionals, e.g., *20% of the students*. Arguably (and this will be demonstrated in the talk), exact proportionals do not have a null N° (in de Hoop's 1997 classification – which does not rely on the null N° hypothesis – exact proportionals are necessarily 'entity-partitives') and yet, we disregard parts of atoms when we compute them. A viable refinement of Magri's proposal is that the null sortal is needed in order to pick up atoms as opposed to groups : *three Ø of these students* vs *three groups of these students*. Note that proportionals are incompatible with lexical sortal Ns/classifiers, **20% groups of the students*, which supports the absence of a null sortal N°. In sum, mass *of-DPs* are incompatible with a null sortal N°, whereas plural *of-DPs* are compatible with it, but do not require it.

4. Types of Det's and the null N°. Our initial problem is not yet solved, since in both the Romanian and the English examples in (1)c-(2)c the of-DP is plural, and therefore a sortal N° could be postulated in both cases. To solve the problem we need to correlate the presence vs absence of a null N° in partitives with the type of Det. Ideally, we should be able to find correlations between the selectional properties of Det's in non-partitive configurations and the presence/absence of a null N° in partitives. The following correlations will be proposed and motivated: (i) Det's that cannot take an NP complement (e.g., exact proportionals, **20% students arrived yesterday*) => no null N° in partitives; (ii) Det's that can take both mass and plural NPs (*some*) => null N° in partitives is possible, but not compulsory; (iii) Det's that can

take only plural NPs => obligatory null N° in partitives.

5. MUCH, MANY and their Superlatives. Our initial puzzle is now solved. In the positive form, both English and Romanian distinguish between MUCH and MANY, which respectively require mass and plural NP complements. The distinction is preserved in Romanian for the superlative form, which - given the correlations in §4 above- forces the presence of a null N° in partitives, as proposed in (4)b above. The English *most*, on the other hand selects both mass and plural NPs, which allows it to take either an NP or a of-DP complement.

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From *nec* to *né*: the interaction of focus and negation

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I. In this talk we analyze the syntactic and sematic-pragmatic properties of the particle *nec / neque* 'neither, not even' in Latin, comparing it with the behavior of *né*, which continues it in Medieval Italo-Romance varieties. We will show how on the one hand this particle displays diachronic stability, as it has the same multifunctional nature both in Latin and in Old Italo-Romance, on the other hand it starts as intrinsically negative, but later develops NPI-properties. Our account supports the idea that the source of linguistic variation is lexical, whereby lexical items have a complex internal structure, which can be totally or partially subject to reanalysis. According to our proposal, in the case at hand reanalysis targets a subpart of the particle's structure, preserving the outmost layer, which is the one responsible for the diachronic stability of its function.

II. The Latin particle *nec* (the apocoped form of *ne-que* < NOT.AND) was a multifunctional item occurring in three contexts at all diachronic stages of the language: (i) it could introduce a clause as a discourse connector; (ii) it could correlate negated constituents of various sizes; (iii) it could attach to a constituent expressing, at the same time, negation and focus (the latter with additive, and later also scalar, interpretation). This behavior is largely paralleled by the situation in Old Italian, where all functions encountered in Latin are attested as well. Here we concentrate on the correlative function (ii) and on the focus-particle use (iii), shown respectively in (1) and (2) for Latin and Old Italian. These are the functions productively continued also in Modern Italian (whereas the discourse-structuring function (i) has become restricted to very formal registers and is subject to substantially different conditions).

(1) a. ***nec*** veri simile loquere ***nec*** verum
and.not true:GEN similar:ACC tell:2SG and.not true:ACC
'You aren't telling a true or a likely story' (Latin, Plaut. Most. 13)
b. ***non*** mutò aspetto, ***né*** mosse collo, ***né*** piegò sua costa
not change:3SG glance and.not move:3SG neck and.not bend:3SG his chest
'He did not look away, nor did he move his neck, nor did he bend over'
(Old Italian, Dante, Inf. X.74-75)

(2) a. ***nec*** ipse eruptionem cohortium sustinuit
and.not he.himself:NOM sortie:ACC cohort:GEN sustain:3SG
'(also / even) he did not sustain the cohorts' sortie' (Latin, Liv. 23.18.4)
b. ***Anche né*** loro non potrebe nuocere
even and.not to.them not could:3SG harm:INF
'Even they could not be harmed (by that)' (Old Italian, De Amore volg. 1.18)

According to our analysis, in all its uses, and in both Latin and Old Italian, the particle makes a double contribution: it signals the focused nature of the constituent it associates with and it marks negation. However the actual relation to the logical operator of negation is different in Latin and Old Italian, and represents the crucial innovation undergone by the particle.

III. In Latin *neque* is intrinsically negative; there is a non-mediated relation between the morpho-syntactic expression of negation and the logical operator of negation. In other words, the particle directly realizes the negative operator. In Old Italo-Romance varieties *né* cannot express sentential negation by itself, even when it is found in the pre-T space, unless it is a correlative *né* introducing a CP and licensed by a higher negation (as in 1b). In all the other cases it is combined with the preverbal negator *no(n)* or with a negative adverb like *mai* 'never' before the inflected verb, as in (3), a case of correlative *né* in subject position:

(3) in quello tempo la divina religione ***né*** umano officio ***non*** erano avuti in reverenzia
in that time the divine religion and.not human duty not were kept in regard

'At that time both religion and duties were not respected' (Old Italian, B. Latini, Rett.)

A survey of all the instances of *né* in Florentine texts of the XIII century in the OVI corpus has shown that when it is used in correlative structures combining two negative clauses, in the 70% of the cases it does not combine with another negative element. However, when it is a discourse connector (i.e. the previous clause is not negative), it is always combined with *non* or another negation. In (4) we provide two examples illustrating these patterns.

(4) a. sì che ***non*** vuole ***né*** agrada lui d'intendere le nostre parole
so that not want:3SG and.not please:3SG him of understand:INF our words
'So that he does not want nor does he like to understand our words' (B. Latini, Rett.)
b. perciò in mezzo della via l'uccise; ***né*** Catone ***non*** avea podere di difenderlo
so in middle of.the way him=kill:3SG and not C. not have:3SG power of protect=him
'Therefore he killed him during the journey; and Cato could not protect him'
(B. Latini, Rett.)

Furthermore, Old Italian and also other varieties display many cases where *né* is used as a simple disjunction in other types of non-veridical contexts (conditionals, subordinate yes/no questions, *before*-clauses). In (5) we provide some examples of this type of *né* in different varieties:

(5) a. Doma(n)dà se B(er)tuçi dis ***né*** fe' nient, dis "no"
asked if B. say:3SG *né* do:3SG nothing say:3SG no
'Asked whether Bertucci said or did anything, he said "no"'
(Old Venetian, Lio Mazor 22)
b. si nos aviam sen ***né*** rason, o poiriam ben saver e veer
if we have:1PL wits *né* reason him=can:1PL well know:INF and see:INF
'If we have wits or sense we can see and know him well' (Old Piedmontese, SermSb. 1)
c. Se vu sentì ***né*** veì che abia a far altro, mandemelo a dir
if you hear:2PL *né* see:2PL that have:1SG to do:INF other send=to.me=it to say:INF
'If you hear or see that I should do something else, let me know'
(Old Mantuan, Boccalata de Bovi, letter)

IV. We analyze data like those in (5) as evidence that *né* behaves like other n-words, that is it is a special type of NPI, and it is subject to Negative Concord. Adopting the view that n-words are only partially negative (Muller 1991; Ladusaw 1992) and that Negative Concord is a type of syntactic agreement (Zeijlstra 2004; 2008), we assume that *né* carries some uninterpretable negative feature that has to be checked against another negative element that carries an interpretable formal negative feature. Under this view we propose the analysis in (6) for the diachronic change from *neque* to *né*.

(6) a. [&P *-que* [Op¬P *ne-* [XP]]]
[i**Neg**]
b. [&P *né* [Op¬P ~~*né*~~ [XP]]]
[u**Neg**]

In Latin (a double negation language) the *ne-* morpheme in *neque/nec* is intrinsically negative and only moves over *–que* at PF for prosodic reasons (*-que* is an enclitic). In Old Italo-Romance the phonologically reduced *né* is re-analysed as the lexicalization of the higher additive/focus component of the particle (Roberts and Roussou 2003), and this also corresponds to the change from [i**Neg**] to [u**Neg**]. However, since the higher portion of the structure is preserved, the particle keeps its relation with focus. This analysis also sheds some light on the diachronic development of other n-words (like *nessuno* 'nobody', or *niente* 'nothing') which are all formed through the grammaticalization of *neque/nec* plus a restrictor, that is a focalized DP structure.

Local modeling of the gap/resumptive complementarity under top-down Case attraction

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1. Intro. Deriving the complementarity between gaps and resumptives holding in some languages presents a challenge to local derivational bottom-up approaches because the choice between the 2 strategies has to be made at a point where the relevant information (e.g., islands) is not available. Even though there are a few local solutions to this problem (e.g. Müller 2014), we will show, based on a hitherto unnoticed *matching effect*, that *all* previous approaches to the complementarity have to resort to non-local devices. We will argue that together with the novel proposal that the distribution of gaps vs. resumptives should be reanalyzed in terms of Case attraction, top-down derivation allows for the choice to be made locally.

2. Data. Languages that form relative clauses (RC) without relative pronouns (RelP) often use resumptives in the relativization of oblique relations. Swiss German for instance uses gap relatives for SU and DO but requires resumptives for IOs (van Riemsdijk 1989):

(1) a. em Bueb won i (***en**) mag_{acc} b. de Bueb won i *(**em**) hilf_{dat}
the.DAT boy C I him like the.NOM boy C I he.DAT help
'to the boy I like' (DO) 'the boy I help' (IO)

What has gone largely unnoticed is that in some of these languages, resumption is subject to a matching effect: the resumptive is omitted if the head noun (HN) bears the same Case, see Hodler (1969) (cf. Cole 1976, Joseph 1980, Gračanin-Yuksek 2013 on Hebrew, Greek, Croatian):

(2) Lüte, [won es _ / ***ene** guet geit_{dat}], darf me nid söttig Sachen uftische_{dat}.
people.**DAT** C it they.DAT good goes may one not such things confront with
'One shouldn't confront people who are doing well with such things.' *Bernese German*

Under bottom-up, the choice between gap/resumptive in (2) must be made when V merges with the relative operator (RelOP). But the information necessary to make the correct choice (Case of HN) is not yet available. Previous approaches often motivate dative resumptives by treating IOs as PPs = islands. However, the matching effect shows that *dative resumption is unrelated to islandhood*: the Case of the HN should not influence the category of IOs. Bottom-up approaches thus have to resort to global comparison to capture the complementarity.

3. Claim. The choice between gap/resumptive can be made *locally* if (i) their distribution is reanalyzed in terms of Case attraction and (ii) the derivation unfolds top-down. The matching effect will fall out automatically as a subcase of Case attraction.

4. Case attraction and resumption. We reanalyze the distribution of gaps/resumptives as Case attraction because the 2 constructions share 2 fundamental properties: (i) the form of an element inside the RC depends on the Case of the HN. In resumption, it is the choice between gap/resumptive, while in Case attraction it is the Case of RelP that depends on the Case of HN; in (3), RelP bears the matrix Case and not the RC-internal Case, viz., *gen* instead of *nom*:

(3) daz er [...] alles des verplac_{gen} [des im ze schaden mohte_{nom} komen]
that he all that.GEN abandoned which.**GEN** he.DAT to damage might come
'that he abandoned all that might cause damage to him' *M. High German*, Bianchi 2000

(ii) Both constructions are subject to a hierarchy effect: Case attraction is only possible if the matrix Case is more oblique than (or as oblique as) the RC-Case (Grosu 1994): gen $\succ$ dat $\succ$ acc $\succ$ nom. Gaps are possible in exactly the same context in a language like Swiss German. Resumptives are obligatory exactly when Case attraction is blocked, i.e. if the Case of HN is less oblique than the RC Case. *In a nutshell*, we propose that Case attraction in languages like Swiss German is obligatory: RelOP takes over the Case of the HN. Crucially, by means of top-down derivation, Case attraction happens early; RelOP then moves to its θ-position where the relevant information for the choice gap/resumptive (Case of HN) is thus *locally* available.

4.1. Assumptions. Following Richards (1999), Phillips (2003), Guilliot (2006), Bianchi and Chesi (2014), the structure unfolds incrementally from top to bottom, constituents are base-generated in their surface position; arguments move downwards to check θ-features of v/V.

AGREE: (i) We adopt a Checking approach: DPs start out with pre-specified Case-values *u*Case;

(ii) *u*Case on DP requires a c-commanding Case-probe with a corresponding [∗Case∗]-feature.
(iii) There are 2 ways of probe feature discharge: (a) Checking = Agree between a DP with an unchecked *u*Case and a probe [∗Case∗]; this requires identity of features. (b) Matching = Agree between a DP with a checked *u*Case and a probe [∗Case∗]; matching is possible if the probe has a *subset* of the features of the goal. Crucially, Matching allows the RelOP to enter Case-Agree with both the RC-internal probe and the head noun.
CASE-ATTRACTION: N bears a [∗Case∗]-probe that is checked by RelOP's pre-sp. *u*Case when N merges with RC. Since checking requires identity of features, this leads to attraction → RelOP bears the matrix Case and takes this information into the RC when moving to its θ-position.
CASE DECOMPOSITION: To implement hierarchy effects, Case features are decomposed into bundles of abstract privative features (cf. Béjar and Řezáč 2009 on person). The more oblique a Case, the more features it bears: nom=[α], acc=[α,β], dat=[α,β,γ], gen=[α,β,γ,δ] etc.
4.2. Gap-derivation. (4) is the derivation of (1a): the matrix Case-probe checks Case with D, D with N and N with RelOP. Since checking requires identical features, RelOP bears the matrix Case (=attraction). On its way to the θ-position, RelOP makes a stopover in vP. Here, the RC Case-probe on v is discharged under matching because it has a subset [α, β] of the features of the RelOP [α, β, γ] (RelOP = sister of v at this stage of the derivation). Finally, RelOP moves to its θ-position to check V's θ-feature and the derivation converges. Since RelOP = zero → gap

(4) $[_{VP}\ V_{[dat]}\ [_{DP}\ D_{[dat]}\ [_{NP}\ N_{[dat]}\ [_{CP}\ \text{RelOP}_{[dat]}\ C\ [_{TP}\ T\ [_{vP}\ \langle\text{RelOP}\rangle_{[dat]}\ [_{v'}\ v_{[acc]}\ [_{VP}\ V\ \langle\text{RelOP}_{[dat]}\rangle$
move move
check check check match
$]]]]]]]]$

4.3. *The matching effect.* The derivation of (2) is largely the same, the only difference being that the RC-Case is [∗dat∗]. Since RelOP bears *dat* as well due to attraction, the RC-probe [∗dat∗] can be discharged under matching as in (4) (feature identity also constitutes a subset). Since RelOP = zero → gap. Matching in resumption is thus just a *subcase of Case attraction.*
4.4. *Resumptive derivation.* In the derivation of (1b), the RC-probe cannot be discharged under matching because it has a superset of the features of the RelOP (which bears the less oblique matrix Case). In languages with Case attraction, this leads to a crash; such languages can usually resort to a non-attraction derivation (without a Case-probe on HN). For the resumption languages under discussion, we assume that the Case-probe on HN is obligatory. The crucial difference is that resumption functions as a repair: The resumptive discharges the RC-probe. Binding of the resumptive through RelOP ensures agreement in ϕ-features:

(5) $[_{CP}\ \text{RelOP}_{[acc]}\ C\ [_{TP}\ \text{SU}\ T\ [_{vP}\ \langle\text{SU}\rangle\ [_{v'}\ \langle\text{RelOP}\rangle_{acc]}\ [_{v'}\ \text{res}_{dat]}\ [_{v'}\ v_{dat]}\ [_{VP}\ V\ \langle\text{res}_{[dat]}\rangle\ ]]]]]]$
move move check move
✗ matching fails ✗

What we propose covertly for Swiss German is overt in Greek free relatives: The RelOP bears the matrix Case while the resumptive bears the RC-Case (Alexiadou and Varlokosta 2007: 229).
5. Last resort + extensions. Crucially, the choice between gap/resumptive can be made locally at the vP-cycle: Resumptives are not part of the numeration (Aoun et al. 2001) and thus can only be inserted as a last resort if there are unchecked features. Since RelOP can check the RC-Case in (1a), (2), insertion is blocked by inclusiveness. → No global comparison is needed. • Under bottom-up, even given our extensions in 4.1, global comparison between gap/resumptive derivations is needed to derive the matching effect because the resumptive derivation converges in the matching configuration (resumption cannot be treated as a local repair under bottom-up). • At first sight, inverse attraction, where the RC-Case is imposed on the HN (Bianchi 2000), seems to require the opposite reasoning and thus favor bottom-up. We will argue instead (following e.g. Riemsdijk 2006) that inverse attraction involves a left-dislocation/correlative construction and hence requires a different derivation. • As for resumptives inside islands: RelOP is stuck outside the island so that it can't check the RC-internal Case-/θ-features. Again, a resumptive functions as a repair. → resumption in islands doesn't involve movement. Independent evidence: There is no matching effect in islands.

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Agreement in Sign Language: the case of backwards verbs

Keywords: Syntax, Agreement, Sign Language, Backwards verbs

The puzzle. The typical agreement pattern of sign language verbs marks subject and object agreement on the verb trajectory: the verb starts in the location where the subject is located and ends in the location identified by the object (cf. (1)a). Backwards verbs are a subclass of verbs that exhibits an inverse pattern w.r.t. the usual subject → object directionality. Indeed, they show apparent object → subject directionality. In backward agreement, the verb starts from the location of the object and apparently ends at the location of the subject (cf. (1)b). Examples are from Italian sign language (LIS).

(1) a. IX-3 MARIA KILL $_{\text{IX-3} \rightarrow \text{MARIA}}$ 'He killed Maria'

b. IX-3 PICTURE COPY$_{\text{PICTURE} \rightarrow \text{IX-3}}$ 'He copied the picture.'

Beside showing an idiosyncratic directional pattern, backwards verbs violate two general principles of human language organization: i) the Mirror Principle (Baker 1985), because they display a mismatch between the syntactic hierarchy and the order of agreement morphemes; and ii) the Uniformity of Theta Assignment Hypothesis (UTAH, Baker 1988, or any other deeper explanation of that), because they display a mismatch between the hierarchy of theta roles and the direction of agreement.

Goals. i) Show that at least some backwards verbs have a forward directional pattern, despite prima facie visual appearance; ii) prove that these backwards verbs do not violate neither the Mirror Principle, or iii) the UTAH (or other similar thematic hierarchies), iv) provide a syntactic account.

Empirical findings. Data are from two Italian sign language (LIS) native signers. We focused on those backwards verbs in which the phonological movement of the verb does not start from the location of the subject/agent. Specifically, we tested verbs like: CHOOSE, INVITE and COPY (cf. (1)b above). We excluded cases of verbs like TAKE, because they include a meaningful forward grasping movement before going backward and for this reason they do not genuinely count as "backwards".

Backwards verbs do not agree with the agent/subject. To show this we used sentences in which all arguments are lexically realized in different locations. Directionality of the verb must exclude the "agent/subject" in backward verbs (cf. (2)), while it must include it in forward verbs (cf. (3)).

(2) a. MARIA BOOK TEXT COPY$_{\text{BOOK} \rightarrow \text{TEXT}}$ 'Maria copied the text from that book.'

b. * MARIA BOOK TEXT COPY$_{\text{BOOK/TEXT} \rightarrow \text{MARIA}}$

(3) a. * MARIA GIANNI TEXT GIVE$_{\text{GIANNI/TEXT} \rightarrow \text{MARIA}}$

b. MARIA GIANNI TEXT GIVE$_{\text{MARIA} \rightarrow \text{GIANNI}}$ 'Maria gave Gianni the text.'

Backwards verbs agree with two internal arguments. To show this we used sensitivity to plural marking (Benedicto and Brentari 2004, Lillo-Martin and Meier 2011) and compatibility with resultative clauses (not shown here) (Bresnan and Zaenen 1990). Benedicto and Brentari (2004) showed that ASL verbs do not show number marking on subject agreement. We replicated this finding for LIS. The examples in (4) show that both starting and end *loci* of backwards verbs can inflect for plural person, which is a marker of object (i.e. internal argument) agreement.

(4) a. VALENTINA IX-3 TEXT IX-LOC COPY$_{\text{A} \rightarrow \text{TEXT}}$ COPY$_{\text{B} \rightarrow \text{TEXT}}$ COPY$_{\text{C} \rightarrow \text{TEXT}}$

'Valentina copied the text from multiple sources'

b. VALENTINA IX-3 TEXT$_{\text{A}}$ TEXT$_{\text{B}}$ TEXT$_{\text{C}}$ ALL COPY$_{\text{SOURCE} \rightarrow \text{A}}$ COPY$_{\text{SOURCE} \rightarrow \text{B}}$ COPY$_{\text{SOURCE} \rightarrow \text{C}}$

'Valentina copied all the texts from a single source'

The agent/subject is not part of the minimal IP/VP structure. To show this we used agent-oriented adverbs and handling classifiers (not shown here) (Benedicto and Brentari 2004). Backward verbs with overt subjects are compatible with agent-oriented adverbs (cf. 5c vs. 6b), while they are unacceptable with null subjects (cf. 5a vs. 6a). Still a "middle" reading is accessible when no agent-oriented adverb is present (cf. 5a vs. 5b).

(5) a. */# TEXT COPY ON-PURPOSE Intended: 'pro$_{\text{Gianni}}$ copied the text on purpose.'

b. TEXT COPY 'The text was copied.'

c. GIANNI TEXT COPY ON-PURPOSE 'Gianni copied the text on purpose.'

(6) a. MARIA KILL (ON-PURPOSE) 'pro_{Gianni} killed Maria (on purpose).'

b. GIANNI MARIA KILL ON-PURPOSE 'pro_{Gianni} killed Maria on purpose.'

These facts show that: i) the final locus of agreement in backwards verbs is not that of the subject; ii) the agent of backward verbs is optionally encoded in the syntax.

The optional external argument is externally merged higher than spec,TP. To show this we used imperative constructions. Two functional signs encode imperatives in LIS: PALM-UP and MOVIMP (Donati et al. in press.). The imperative markers display agreement between the subject/agent and the object in forward verbs (cf. (7)). Crucially, with backwards verbs, agreement is between the second person and the source (never with the goal), cf.(8).

(7) a. $\text{MARIA KILL}_{\text{IX2} \rightarrow \text{MARIA}}$ $\text{PU}_{(2) \rightarrow \text{MARIA}}$ 'Kill Maria!'

b. $\text{MARIA KILL}_{\text{IX2} \rightarrow \text{MARIA}}$ $\text{MOVIMP}_{2 \rightarrow \text{MARIA}}$ 'Go and kill that Maria!'

(8) a. $\text{TEXT}_{\text{GOAL}}$ $\text{COPY}_{\text{SOURCE} \rightarrow \text{GOAL}}$ $\text{PU}_{(2) \rightarrow \text{SOURCE/*GOAL}}$ 'copy that text!'

b. $\text{TEXT}_{\text{GOAL}}$ $\text{COPY}_{\text{SOURCE} \rightarrow \text{GOAL}}$ $\text{MOVIMP}_{2 \rightarrow \text{SOURCE/*GOAL}}$ 'go and copy that text!'

Analysis. We explain these empirical findings by analyzing backwards verbs as middle/pseudo-passive constructions. In these constructions, the external argument is missing and one of the internal arguments is promoted to subject position as in the English examples in (9).

(9) a. A book was given to Mary

b. Mary was given a book

Under this analysis, the surface subject of backwards verbs is the source argument. The agreement pattern exhibited by these verbs is then between the two objects which bear *source* and *goal* theta roles (see also Meir 1998). Since the surface subject is an underlying object, sensitivity to plural person agreement for both *loci* as shown in (4) is also accounted for.

Turning to the Mirror Principle and the UTAH, backwards verbs are not mysterious anymore since neither is actually violated. This is so because i) the order of *loci* morphemes on the verb matches the hierarchical structure (the higher morpheme is spelt out first) and ii) the theta role hierarchy matches the syntactic hierarchy (higher theta roles are mapped onto higher syntactic positions).

To account for the pattern in (5)-(8), we assume that the agent is "late merged" in the syntactic derivation. The projection in which it is merged is the one that normally hosts imperative subjects (i.e. prototypical agents). This projection is higher than the standard projection, where subjects of forward verbs move (i.e. higher than spec,TP). A similar proposal has been made for some constructions in Ergative languages (Laka 2016). This fact explains why the agent of imperative constructions does not interfere in the agreement pattern of backward verbs (cf. (8)).

Notice that the Mirror Principle and the UTAH are respected even in imperative constructions. Once introduced in the syntax, the agent of the imperative construction determines directionality of the imperative marker (hence the higher morpheme is spelt out first), and its position in the thematic hierarchy is by default higher than any other assigned at the VP level (hence higher thematic roles are mapped onto higher syntactic positions).

Finally, while late merge of agents needs to be stipulated in most minimalism frameworks (this is true both in the case of sign language data and in the case of ergative language data), it is predicted by syntactic theories like telescopic syntax (Adger 2013). Hence, the LIS facts can be taken as evidence supporting such theories.

Conclusions. We showed that (some) backwards verbs are not exceptional after all. The prima facie inverse object → subject directionality is actually connecting the locations of two internal arguments. Potential violations of the Mirror Principle and UTAH are also explained.

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The interpretation of Focus Fronting in Romanian

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1. Types of focus fronting in Romanian. We may distinguish 4 types of focus fronting in Romanian: (i) marked by focal particles (*şi* – additive, *doar*, *numai* – exclusive, *chiar* – scalar); (ii) 'mirative', which marks the sentence as surprising in a likelihood scale provided by focal alternatives, or undesirable, in a bouletic scale provided by focal alternatives (this characterization of mirative focus in Italian, by Bianchi et al. 2015, 2016, also holds for Romanian, cf. Cruschina et al. 2015); (iii) exclamative, used as a sentence-typing device for a sub-type of scalar exclamatives (Giurgea 2015, Cruschina et al. 2015); (iv) 'plain focus fronting', treated in some studies as contrastive focus, which usually involves a contextual antecedent for the background (as opposed to the mirative focus). It is the interpretation of this fourth type that I intend to clarify in my talk. For brevity's sake, I will refer to it as FF.

2. Is FF contrastive? As for other Romance languages, FF in Romanian has been characterized as 'contrastive', as opposed to 'information focus'. This is true or false depending on the definition given to these terms. What is undisputable is that the fronted focus is not just part of the new information, but must satisfy the definition of focus as an element that introduces alternatives in the interpretation (Rooth 1992, Krifka 2008), and that FF marks scope (the sister of the fronted focus corresponds to the background). As several studies have convincingly argued that Given and Focus have separate definitions which cannot be derived from each other (Krifka 2006, Féry & Samek-Lodovici 2006, Beaver & Clark 2008, Rochemont 2013, 2016), and 'new' is not a positive feature, but just means absence of Given (Selkirk 2008), the fact that FF does not target a constituent just by virtue of its being new is not unexpected. However, most of the literature on Romance FF has proposed stronger constraints. For Romanian, it has been claimed that FF is 'contrastive' in the sense of involving a *closed* set of contextually *identifiable* alternatives (Göbbel 1998, É. Kiss 1998, Alboiu 2002) and that it is exhaustive (É. Kiss 1998). Based on various attested examples, from oral and written corpora, I will show that FF does not require a closed set of contextually identifiable alternatives, and, furthermore, it does not necessarily have a corrective import (contrary to what has been claimed for Italian by Bianchi & Bocci 2012, Bianchi 2013 and for European Portuguese by Costa & Martins 2011). In (1), there is no closed set of alternatives; the meaning is that of all the possible reasons in the world, the (only) reason was her:

(1) Atâta timp cât ştia că piesa îi aparţine, că **pentru ea** o scriu
as long as knew.3SG that play-the 3S.DAT belongs that for her it write.1SG
şi **pentru ea** o păstrez, era neglijentă până la indiferenţă
and for her it keep.1SG was.3SG neglectful until indifference
'As long as she knew that the play belonged to her, that it was for her that I was writing it and keeping it, she was neglectful up to indifference' (Sebastian, *Jurnal*, 81)

In (2), from an oral corpus, we see FF in an answer to an unbiased question:

(2) A: eram coPIL pă timpu ăla. Da mai erau ŞI fete mai mari.
'I was a child at that time. But there were older girls too.'
B: despre CÂŢI ani vorbim?
about how-many years talk.1PL 'What age are we talking about?'

A: e:: **şapte opt ani** aveam↓
eh seven eight years had.1SG 'I was seven or eight' (ROVA 70)

Regarding FF in answers, the generalization which emerges is that it occurs in answers that do not repeat the exact words of an immediately preceding question (either the answer uses a different wording, as in (2), or the question is not the immediately preceding utterance, but was uttered earlier or is just inferable from the context). This confirms Brunetti's (2004) account for the apparent infelicity of answering questions with FF: when the given part of the answer is identical to that of the question, it undergoes deletion, yielding a short answer.

3. Exhaustivity. Certain tests indicate that Romanian FF does involve exhaustivity (as claimed by É. Kiss), but not as part of the at-issue content (contrary to *only*). The exhaustivity inference resembles the one found with English clefts, for which there is no consensus in the literature on whether it is a conversational implicature or part of the denotation. Based on the fact that this inference is stronger for FF than for an in-situ narrow focus, I prefer a semantic account; following Büring & Križ (2013), I assume that exhaustivity is a presupposition with a conditional form: if the proposition at hand *p* is true, then all focal alternatives not entailed by *p* are false:

(3) a. Cu ION a vorbit. b. Cu ION a vorbit? c. Nu cu ION a vorbit
'It's Ion she talked to.' 'Is it Ion she talked to?' 'It's not Ion she talked to.'
Presupposition: If she talked to Ion, she talked to no-one else.

I will further show that the exhaustivity implication is embeddable (may take scope under an operator in the sentence), which supports its treatment as a presupposition rather than a conventional implicature (cf. Büring & Križ 2013 for English clefts).

4. Presupposition of existence. A further similarity with English clefts is that FF appears to carry a presupposition of existence, which, in polar interrogatives, induces what Bianchi & Cruschina (2016) called (for Italian) the 'double-checking reading':

(4) Pe MARIA ai chemat-o?
OBJ Maria have.2SG called-CL.ACC 'Is it Mary you called?'
Presupposition: you called somebody

The data in (5) indicate that this presupposition is also found in declaratives:

(5) A: N-a spus nimănui B: # Nu, lui GEORGE i-a spus (OK: Nu, i-a spus lui GEORGE)
'He didn't tell anybody' '#It was GEORGE he told' (OK: 'No, he told GEORGE')

However, Romanian FF allows fronting of an N-word (unlike English clefts), which is incompatible with a presupposition of existence:

(6) NIMĂNUI nu i-a spus
nobody.DAT not CL.DAT-has told'

I argue that (i) the presupposition of existence should be restated as a presupposition that *one of the focal alternatives is true* and (ii) in Romanian FF the focus part can be a generalized quantifier (this is indeed a fact that distinguishes Romanian FF from English clefts, cf.(7)). In

(4), the focus has an entity denotation, so that all focal alternatives contain individuals in the focus position. In (6), the focal alternatives are of the type {∃x.he told x; ¬∃x.he told x}.

(7) a. Pe TOŢI i-a invitat Maria
OBJ all.MPL CL.ACC-has invited Maria
b. Cu FIECARE am vorbit
with each have.1 spoken

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Grammatical knowledge predicts accuracy on an irony comprehension task.

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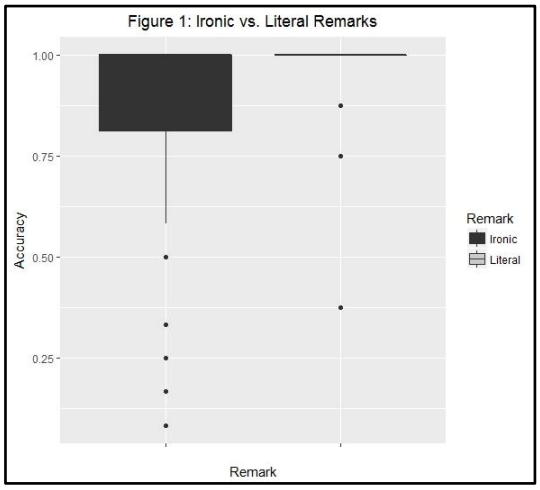
1. Introduction. Irony comprehension requires the speaker to understand that a false statement is uttered not to deceive the listener, but to joke, i.e. to be ironic. Understanding irony is thus a complex skill that emerges quite late, at about age 6 (Ackerman 1983). Firstly, children acquire the comprehension of positive remarks in negative situations (ironic criticisms), and subsequently the comprehension of negative remarks in positive situations (ironic compliments) (Harris & Pexman 2003). According to some scholars, irony comprehension is linked to 2nd order theory of mind (ToM) abilities, in atypical populations (e.g. children with autistic spectrum disorder, Happé 1993) and in typical developing (TD) populations (Sullivan et al. 1995). Specifically, the ability to conceptualize 2nd order ignorance has been proposed as a prerequisite to tell a lie from a joke, i.e. to understand irony.

The long-term project we are working on is to further explore the relation between ToM abilities and irony comprehension in several atypical developing populations and to create ad-hoc supporting materials for those who need them. In order to set up effective instruments for assessing and improving irony comprehension, it is first necessary to i) delineate the developmental trajectory in TD children and ii) highlight which factors are better predictors of this complex skill. Considering that performance on ToM tasks is highly dependent on language abilities (Happé 1995 and Astington & Jenkins 1999), it is our particular interest to test which (if any) linguistic ability is a good predictor of irony comprehension. This is the topic of the here reported study.

2. Methods. Participants were 56 TD children from the I to the III class (25 F, 31 M; Age: M=7y,10m; range= 6y,5m – 9y,4m.). All had normal IQ and passed the 1st order ToM Smarties task. To assess 2nd order ToM (both 2nd order false belief and 2nd order false ignorance) we used a revised version of the "*birthday puppy task*" (Sullivan et al. 1994). As linguistic assessment, we used lexical and grammatical comprehension tasks of the battery BVL 4-12 (Marini et al. 2015).

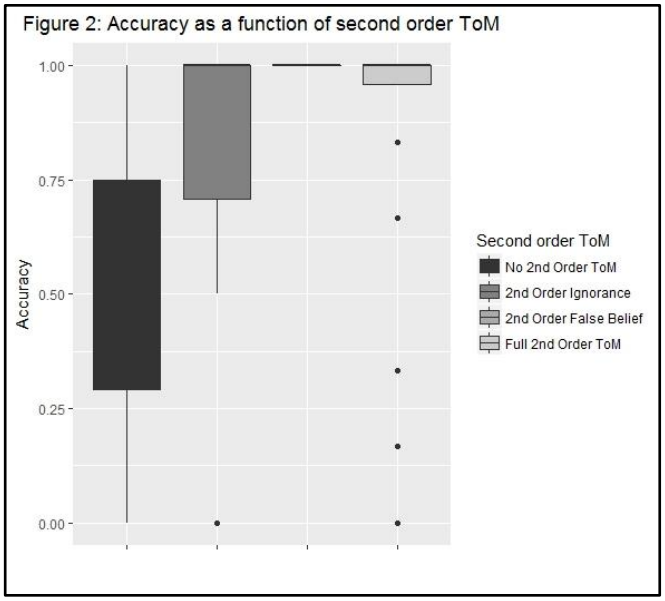
The irony task included 10 stories introducing a situation and concluding with a remark, literal (4, controls) or ironic (6). Comments could be compliments (5) or criticisms (5). Children were asked three questions about i) context (control), ii) understanding of speaker's meaning; iii) recognition of speaker's attitude. Target items were therefore three ironic criticisms and three ironic compliments.



3. Results. Accuracy on questions ii) and iii) was analyzed using mixed logit models (Jaeger 2008). In each analysis, subjects and items were added as random factors.

Participants responded correctly to 97.54% of questions on literal comments and to 83.63% of question on ironic comments (Figure 1). The difference was significant ($p<.001$).

Ironic stories were further analyzed testing the difference between ironic compliments and ironic criticism, the effects of having or not 2nd order ToM and the influence of linguistic knowledge.



As expected, performance on ironic criticisms was better than on ironic compliments (91.40% (SD= 28.11) accuracy vs. 80.64% (SD= 39.61) accuracy). Considering 2nd order ToM, participants who failed both on 2nd order false belief and 2nd order false ignorance had the lowest scores (Figure 2). Nevertheless, the best predictors of accuracy were type of irony (i.e. criticisms vs compliments: β=1.788, SE= 0.664, z= 2.695, p<.01) and BVL grammar score (β=3.698, SE= 1.881, z= 1.966, p=.04).

4. Discussion. Contrary to previous findings (Sullivan et al. 1995), we did not find a direct relationship between 2nd order ToM and irony comprehension. On the contrary, the best predictor of irony comprehension was linguistic comprehension, specifically grammatical skills. Our results are in accordance to the hypothesis that linguistic competence might constitute a better predictor for figurative language comprehension (Norbury 2005), especially considering TD children. This statement should not be astonishing, considering that the link between first order ToM development and language development is not reciprocal, and specifically it is language development that constitutes a foundation for ToM development, and not vice-versa (Astington & Jenkins 1999).
We propose that structural language skills are the strongest building block for irony acquisition (and for figurative language acquisition in general). The relation between language abilities and irony is surely mediated by ToM, but the core component for irony comprehension development should reside on linguistic skills. Further research is needed to identify the key structural features that sustain the development of irony comprehension.

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DOM under (equality) comparatives

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INTRODUCTION. It is well-known that in many languages certain classes of *structural objects* (normally including animates, specifics, etc. - Bossong 1991, Aissen 2003, Comrie 1989, a.o.) must be introduced by an obligatory adposition, under an instantiation of *differential object marking* (DOM). This paper addresses a previously ignored DOM context, namely 'unexpected' but obligatory DOM morphology in constructions that look like (equality) comparatives of the type illustrated in (1) and (2):

(1) Amava los libros como ***(a)** su vida. *Spanish*
Loved the.PL book.PL as DOM his life
LIT. 'He loved the books as his life' (as one loves his life) [*amava **a** su vida]

(2) Raj-le *aạlu-*$^{*/??}$**(laay)** bhaat jastai pakancha. *Nepali*
Raj-ERG potato-**DOM** rice like/as cook.3.M.SG
LIT. 'Raj cooks (the) potato(es) like/as the rice.'

The relevance of DOM in such contexts is at least twofold. **First**, the systematicity of DOM across distantly related languages points to a general property requiring detailed investigation. **Second**, DOM comparatives have the potential to decide between various mechanics, and provide crucial insights into the very nature of DOM.

DOM COMPARATIVES UNDER VARIOUS IMPLEMENTATIONS OF DM.

(I) The 'puzzling' requirement of DOM on *inanimates* is problematic for implementations in terms of *scales* (Aissen 2003, Lambrecht 1994, Bossong 1991, Comrie 1989, Næss 2004, 2006, etc.). Adding the 'comparative' to the scale would equal to a simple stipulation.

(II) The same problem is patent in functionalist approaches where DOM is formalized as *secondary topic/givenness* (Darlymple & Nikolaeva 2011, a.o.). Yet, assimilating the comparative standard to a secondary topic cannot explain why some comparatives do not allow DOM on the standard.

(III) DOM comparatives are also problematic for (current) formal syntactic theories of DOM which avoid the problem with inanimates. One issue that remains is that many theories (e.g. López 2012) predict the impossibility for DOM morphology to mark both DOs and EAs. Such a prediction is clearly falsified empirically; across Romance, and elsewhere, morphology that is systematically *identical* to DOM is *required* even on EAs under comparatives (see Sicilian in 3). The patterns rather resemble the discussion in Chung and Ladusaw (2003) where differential marking encompasses both DOs and EAs.

(3) Lucìa kucìna i patàti **kòmu** ***(a)** Maria **<~~VP~~>**. *Sicilian*
Lucia cooks the.M.PL potatoes how DM Mary

TOWARDS AN ANALYSIS. We have applied a battery of diagnostics (see the table) in order to determine the phrasal or clausal status of DOM comparatives. The tests indicate that they **fail several phrasal diagnostics** (e.g. lack of inherent case and pied-piping). However, at the same, time they show a mixed behaviour (they don't pass all the clausal diagnostics either).

	PHRASAL (*Napoli 1983, Hankamer 1973, Bhatt & Takahashi 2011, etc.)*	REDUCED CLAUSAL (*Merchant 2009, Lechner 2001, etc.)*	SMALL CLAUSE (*Pancheva 2005, etc.)*	DM
Only one pivot	YES	NO	YES	**YES**
Only DP pivot	YES	NO	YES	**YES**
Inherent Case	YES	NO	YES	**NO**
Pied-piping	YES	NO	YES	**NO**
Reflexive binding	YES	NO	YES	**??NO**
Negative concord	YES	NO	YES	**??NO**
Adjective head	NO	NO	YES	**?NO**

We propose that the behaviour of DOM comparatives is the result of a *small clause structure* (projecting at most up to *v*P, cf. Wurmbrand 2015, etc.) in the comparative, as in (4):

(4) ....[as [Op [$_{vP}$ EA [$_{Top}$ Top [v [V Obj]]]]]]

More than one type of small clause comparatives. DOM comparatives are, however, different from the *small clause* types discussed by Pancheva (2005). Under the latter account, we would need in this case a *predicative partitive/similitive*, which is of type <dt, dt>, and hence requires a complement of type <dt> (<et> standard, 5).

(5) a. *as* [$_{sc}$ life Δ]; b. LF: [$_{IP}$ he d_1-loves life] [$_{DEGP}$ - *equality*$_1$ [$_{PP}$ *as* [$_{SC}$ life d-loved]]]]

But this would be problematic in at least two crucial respects. First, according to the vast literature on DOM, such objects cannot be of type <et>; they are instead of type <e> (Farkas 1978; Dobrovie-Sorin 1994, 1997; Dobrovie Sorin et al. 2006; López 2012; de Hoop 1996; de Swart and de Hoop 2008, a.o.). Moreover, Pancheva's (2005) account also predicts that the standard can only exhibit true *inherent Case*, a property that the literature on DOM unanimously rejects due to robust diagnostics strongly supporting a *structural* nature.

What we are proposing instead is that: (i) these structures instantiate another type of small clause, namely one nominalized by the presence of a maximality operator (von Stechow 1984; Partee 1987; Jacobson 1995; Heim 2000, a.o.; see also Bhatt and Takahashi 2011 for similar, preliminary remarks in this direction), and (ii) the latter component has a crucial contribution to DOM (as further discussed in the next subsection).

Additionally, we assume the postulation of a reduced structure up to *vP* can reconcile apparently conflicting features: (i) temporal/aspectual information which is at most underspecified (cf. 1, see also Heim 1985 for similar examples like *He loved him more than a brother*, whose natural reading is *He loved him more than <u>one</u> <u>loves</u> a brother*), and EA 'generic' readings; (ii) structural Case on the object.

WHY DOM? In many languages DOM comparatives are only possible when *obligatory ellipsis* is also required. For ellipsis to be implemented, two conditions have been deemed necessary (in structures similar to the comparatives under discussion here) in order to link the relevant categories to the discourse (see also López 2000, a.o.): (i) *VP topicalization* ('for a VP to elide, it must first topicalize', Johnson 2001, a.o.); (ii) object *topicalization* (Prince 1990; Pancheva 2012; Bhatt and Takahashi 2011, a.o.) or *focus* (Reglero 2007; Brucart 2003; a.o.).

Adapting Aelbrecht and Haegeman (2012), we assume that V raising to a lower Topic position below *v*P (4) satisfies the first condition. However, as the structure in (4) does not contain a high Topic position above *v*P (following recent discussions in Moulton 2012, and Sportiche 2005 which have shown that small clauses lack quantificational/functional layers above *vP/aP* – against Basilico 2003), object topicalization cannot take place. As a last resort operation of a recruitment of a licenser (Levin and Massam 1985; Bobaljik 1993; Laka 1993, 2000; Rezac 2011, a.o.), the Object (exceptionally) adjoins the (maximality) operator (Op) via an UnderMerge process (Sportiche 2005, Pesetsky 2014, a.o.). We assume that such an operation permits 'linking to the discourse', and possibly also introduces a K layer (Sportiche 2005) above the (object) DP, thus creating two conditions for *differential marking* (which has generally been shown to affect KPs).

CONCLUSION. The analysis supports the conclusion that the licensing of ellipsis in DOM comparatives does *not* involve object topicalization/focus movement to the high periphery (against Reglero 2007, Brucart 2003). The problems seem to be more complex:

(A) Understanding what type of case licensing is involved in DOM;
(B) Determining what type of discourse linking *requires* DOM.

Reconstruction in sharing constructions: a dynamic perspective

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Keywords: reconstruction, connectivity, sharing constructions (RNR, ATB), dynamic syntax

Reconstruction or Connectivity, a phenomenon through which a displaced constituent can be interpreted as if it were reconstructed in the gap position(s) in order to comply with some structural constraints on interpretation, is certainly one of the linguistic phenomena that call for a more dynamic approach to grammar. For example, reconstruction data as an argument for successive-cyclic movement can rather be seen as another argument for the Active Filler Hypothesis (Clifton & Frazier 1989). Although many current analyses of reconstruction rely on a representational tool (e.g. copy theory of movement (Sauerland (1998)) and can account for most reconstruction data, we argue that reconstruction data in sharing constructions (one constituent related to two syntactic positions, one in each conjunct[1]) such as Right-Node-Raising (RNR), Across-The Board (ATB), or Parasitic Gaps (PG) give more credit to an incremental, top-down, and left-to-right approach to syntax. As shown in Larson (2013) and further developed in our study, constraints on the syntax and interpretation of such constructions clearly argue against previous static and representational analyses based on multidominance, ellipsis, or ATB movement. We further argue that all previous analyses of reconstruction data in sharing constructions are problematic because they don't take into account the dynamic and linear perspective of natural language.

1. Introducing the data Using reconstruction in sharing constructions is clearly one good way to evaluate the nature of syntactic dependencies in such constructions. As shown in examples from (1) to (3) below, reconstruction data with condition C suggest that RNR, ATB and PG constructions could all obviate condition C, but not in the same way:

(1) *a. He$_1$ hopes that Susan won't _, but the secretary knows that she will _ fire John$_1$.*
*b. *The secretary hopes that Susan won't _, but he$_1$ knows that she will _ fire John$_1$. [Lar13]*
(2) *Which picture of John$_1$ does [Mary/*he$_1$] like _ and [he$_1$/Mary] dislike _? [Cit05]*
(3) *Which picture of John$_1$ did [Mary/*he$_1$] file _ before [he$_1$/Mary] saw _?*

RNR obviates condition C in the first conjunct only, whereas ATB and PG obviate condition C in the second conjunct only. As for reconstruction with condition A and Variable Binding (VB), a reverse asymmetry appears, as shown in (4) to (6) from English or French:

(4) *a. The organizers ignore _, but every guest$_1$ knows when he$_1$ arrives.*
*b. *Every guest$_1$ knows _, but the organizers ignore when he$_1$ arrives.*
c. Chaque homme$_1$ adore _, et chaque femme$_2$ déteste sa$_{sloppy}$ propre belle-mère. (Fr)
"Every man loves, and every woman hates his/her own mother-in-law."
(5) *a. Which pictures of [himself$_1$/*herself$_2$] did John$_1$ buy _ and Mary paint _? [Mun94]*
b. Which pictures of himself$_{sloppy}$ did John$_1$ keep _ but Bill$_2$ get rid off _? Pictures of his weeding.
(6) *I wonder which picture of himself$_{1/*2/*sloppy}$ John$_1$ looked at _ before Bob$_2$ destroyed _. [Haï90]*

[1] We simplify the discussion by extending the term "conjunct" to PG. See Munn (1994) for a relation between PG and coordination.

RNR allows the structural constraint (Condition A or VB) to be satisfied in the second conjunct only (strict reading in (4)a), whereas it is in the first conjunct for ATB and PG ((5) and (6)); furthermore, a sloppy reading (structural constraint satisfied simultaneously in both conjuncts) is available with RNR ((4)c) and ATB ((5)b), but not with PG ((6)). Combined with other morphosyntactic asymmetries (some of them discussed in Cann *et al* (2005), reconstruction confirms that sharing constructions are asymmetrical: they exhibit a contrast between a regular pattern (2nd conjunct of RNR and 1st conjunct of ATB and PG) and an 'odd' pattern (1st conjunct of RNR and 2nd conjunct of ATB and PG).

2. From static accounts to a dynamic one Several analyses or tools have been proposed to account for sharing structures. Among them are multidominance and sideward movement (see Bachrach & Katzir (2009), Hornstein & Nunes (2002)), by which a constituent can be syntactically shared between several positions. The analysis and the problem are schematized in (7) for RNR[2]:

(7) *[$_{\&P}$ [$_{I'}$ *Every guest$_1$ knows* __] [$_{\&'}$ *but* [$_{I'}$ *the organizers ignore* __]]
when he$_1$ arrives

The resulting structure is completely symmetrical, and the asymmetries discussed above can hardly be explained (for example, how to block VB in (7)). As we will show, the only option would be to argue for specific LF linearization constraints with respect to multidominated/sideward-moved constituents. But as defended in our study, linear order is crucial to account for these asymmetries and it is not clear how such constraints on LF linearization could be sensitive to linear order, i.e. to PF linearization. Another bunch of analyses relies on an ellipsis process on the 'odd' gap (building on Salzmann (2012)), the great advantage being that ellipsis is well-known for two properties: condition C obviation and sloppy identity. However, such approach does not explain why ellipsis would target the first conjunct in RNR (backward ellipsis) and the second conjunct in ATB and PG (forward ellipsis). And, as stated in Larson (2013) among others, accounts based on ellipsis are also problematic in some cases (for example, relational modifiers such as *similar*). Larson (2013)'s solution to the asymmetrical effects in these structures is thus to argue that the 'odd' gap does not correspond to a syntactic dependency at all, hence giving up the idea that connectivity effects are due to syntactic constraints (c-command/syntactic scope). Contra Larson (2013), we rather argue that the 'odd' gap does correspond to a syntactic dependency (structure matters!), but with specific properties related to timing of occurrence (linear order matters too!). One very simple argument showing that linear order counts as much as structure comes from PG structures in embedded subjects: as shown in (8), reconstruction now occurs in the parasitic gap, but not in the regular gap (as opposed to (6))[3]. In other words, the regular gap becomes the 'odd' gap, as far as reconstruction is concerned:

(8) *Which picture of [himself$_1$/*herself$_2$] did every boy$_1$ who saw _ say Mary$_2$ liked _? [Mun94]*

3. More on the dynamic account More specifically, we argue for a dynamic and linear account in the spirit of Dynamic Syntax (see Cann *et al* (2005)), in which reconstruction corresponds to delayed evaluation (see Phillips (1996), Barker (2009) or Bianchi & Chesi (2014) for similar approaches), and more precisely to update of structural underspecification

[2] Under these accounts, ATB and PG structures just require a further instance of Internal Merge (movement). See Larson (2013).
[3] Other examples will be provided showing that PG structures behave like RNR when associated to rightward extraposition (Postal (1994)).

(filler-gap dependencies) and lexical underspecification (anaphora resolution). Under such view, the contrast between ATB and RNR just follows from the way underspecification is introduced and updated. In ATB, the shared phrase (the filler) is integrated early as a case of structural underspecification: when parsing the coordinator *and* in (2), the *wh-* phrase's strong requirement for a syntactic position (active filling) has been fulfilled in the object gap of *admire*, but coordination induces another requirement for further presence/activation of the *wh-* phrase in the second conjunct (formalizing Wagers & Philips (2009), who show that coordination extends active dependency formation). In RNR, coordination induces a similar requirement, except that what should be present in the second conjunct is itself lexically underspecified (similar to a case of ellipsis) as it is not introduced yet: when the RNRed constituent *when he arrives* is considered in (4)b, it is first integrated locally as the object of *ignore* where structural constraints such as VB or Condition C are checked. Only then can the dependency be extended, and lexical underspecification on the object of *knows* be updated. In sum, sloppy readings and Condition C obviation follow from the way the shared constituent can fill the syntactic gaps. The absence of sloppy readings in PG is also expected, as an adjunct clause (contrary to coordination) will not necessarily induce any requirement for further presence/activation of the *wh-* phrase in an example like (6).

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The empirical significance of derivational operations

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The empirical adequacy of any grammatical system's derivational component can only be assessed by considering the particular scientific use to which that system's derivational component is put by the relevant researchers. One cannot ask about the empirical pros and cons of, say, the claim that DP is a phase without considering what is taken to follow from being a phase (which version of the PIC one assumes, etc.); similarly, in order to assess the particular derivational operations of a given grammatical theory one must consider *what is taken to follow from* positing a particular derivation as the means by which some representation is constructed, i.e. what explanatory work is being done by that posited derivation, or what empirical predictions rest on it. I will make two main claims:

(A) There is a meaningful role for derivational operations to play in determining the empirical predictions of modern computational psycholinguistic models.

(B) The assumptions that Claim (A) relies on about the mental status of derivational operations, while unfamiliar-seeming in the context of contemporary theories, are in fact in line with other ways in which derivations have been relied on to bear a meaningful empirical burden in the generative syntax literature.

In support of Claim (A), I present two models of minimalist syntax that differ only in the derivational mechanisms by which phrase markers are constructed: one involves merge and move as distinct primitive operations (Stabler, 1997) and the other unifies these into a single structure-building operation (Stabler, 2006; Hunter, 2011), but they are equivalent in the range of structures that they build. I show that depending on which of these two derivational systems we plug into certain simple probabilistic models, we derive differing predictions about sentence comprehension difficulty and about the grammatical generalizations that a learner will make.

In support of Claim (B), I identify a number of proposals from the syntax literature that make crucial reference to the history of derivational steps by which a representation was constructed, in order to derive empirical predictions regarding well-formedness or the availability of certain interpretations. What is important here is not the particular *order* in which the relevant derivational operations were assumed to apply, but rather the additional representations that these derivational operations are taken to be working with.

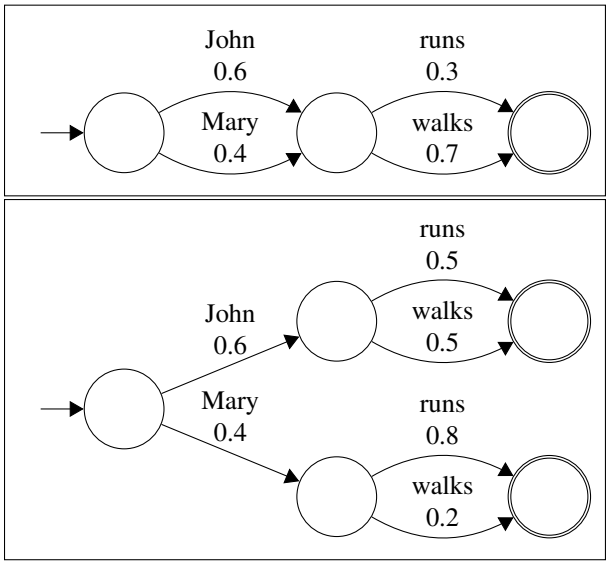
Relation to existing debate: The question of what empirical work a posited derivation (or a posited sequence of derivationally related representations) is called upon to do is essentially the question raised by Phillips and Lewis (2013) when they consider the choice between *extensional*, *formalist* and *literalist* conceptions of derivations. At one extreme, on the extensionalist view, the derivation does no empirical work and no linking hypothesis connects it to observables; at the other extreme, on the literalist view, the derivation connects to observables via the relatively straightforward linking hypothesis that derivational operations occur as real time mental operations. Since my position is that the derivation does connect to empirical observables but via a different hypothesis than the straightforward literalist one, it can be seen as an attempt to flesh out what Phillips and Lewis call the formalist view of derivations.

Claim (A): Derivations in psycholinguistic models: Embedding a grammar in a psycholinguistic model very often involves supplementing its specification of categorical well-formedness with probabilities. The probability distributions that can arise from this supplementation step, however, are sensitive to the way the underlying grammar chooses to decompose the generative work into interlocking pieces. To illustrate, consider the two finite state automata (FSAs) shown here. Note that the two FSAs generate exactly the same set of expressions, but they differ in how this generative work is parceled out into primitive operations. This has a consequence for the range of probability distributions over the common set of expressions that

the two machines can define (by the standard method of specifying a probability for each transition): however we adjust the probabilities shown in the diagrams, the stronger grammatical independence assumption made by the top FSA has the consequence that all distributions it can support will have the property that

(1) $$\frac{\Pr(\text{`John runs'})}{\Pr(\text{`John walks'})} = \frac{\Pr(\text{`Mary runs'})}{\Pr(\text{`Mary walks'})}$$

whereas the bottom FSA can define distributions outside this range.



The point being illustrated is a very general one: in particular, it is independent of whether the expressions being generated have linear or tree-shaped representations, and it is independent of what the primitive computational components look like: FSA transitions, or CFG rewrite rules, or merge and move operations (Hunter and Dyer, 2013).

In a concrete "toy example", we derive surprisal predictions for the sentence 'who will shave themselves' with and without the unification of merge and move into a single derivational primitive and show that they differ — all while holding fixed the range of expressions generated and the training corpus frequencies.

	surprisal at 'who'	surprisal at 'themselves'
merge and move distinct primitives	2.4	2.2
merge and move unified	2.3	1.0

Since this hinges entirely on the differing probability distributions and not the specifics of surprisal, other probabilistic models, e.g. learning models, show similar derivational sensitivity.

Claim (B): Derivations in historical context: While the result just mentioned establishes that one *can* use the derivational component of a theory as a locus of explanation, the assumptions that go into making it happen may seem remote from the way derivations are usually discussed. I will argue that this impression arises only because of certain specifics of modern minimalist theory, and that in the broader historical picture the relevant assumptions are unremarkable. Specifically, there is significant precedent for taking a derivation "as a whole" to be the object that, for example, a comprehender attempts to construct during parsing. Miller and Chomsky (1963, p.479) are explicit about this assumption regarding "T-markers". In the famous 'John is eager/easy to please' contrast from Chomsky (1965), retrieving the *surface structure representation alone* would provide a comprehender with no basis for the crucial interpretive distinction between 'eager' and 'easy', because the surface structures were identical. Since adopting the idea that a final LF representation (rather than a deep structure) is the basis for semantic interpretation, analogous cases have become rarer. But I will argue that the situation is logically the same, with well-formedness facts in place of interpretive facts, in more recent proposals involving late adjunction (e.g. Lebeaux, 1988) and movement that either leaves no traces or leaves traces that can be deleted (e.g. Lasnik, 1999). The important point is not about *order* per se but rather about relations between multiple phrase markers (e.g. both pre- and post-movement), each encoding information on which predictions depend.

Hunter 2011: "Insertion Minimalist Grammars", Math. of Lang. **Hunter & Dyer 2013**: "Probability Distributions on Minimalist Grammar Derivations", Math. of Lang. **Lasnik 1999**: "Chains of Arguments", *Working Minimalism*. **Miller & Chomsky 1963**: "Finitary Models of Language Users", in Luce et. al. **Phillips & Lewis 2013**: "Derivational Order in Syntax", *Studies in Linguistics*. **Stabler 1997**: "Derivational Minimalism", LACL.

"Superadditivity effects" in the distribution of *čto*-clause complements in Russian: a grammatical constraint obscured by intermediate acceptability

Introduction There has been an ongoing debate in the experimental literature (Sprouse et al. 2012, Kush et al. 2015) about whether island effects can be reduced to processing, prompted by the observed variation in the acceptability judgments. According to a simplistic reductionist account, island effects arise not as a result of a grammatical constraint but rather due to the additive cost of the processing difficulty of two independent factors, namely (i) the presence of an island structure; and (ii) wh-movement from the embedded clause. The crucial finding reported in this literature is that island violations show a "superadditive" profile and their degree of acceptability (whether it is weak or strong unacceptability) is lower than if it were merely the result of the addition of the two aforementioned factors. These effects are often interpreted as evidence for a real grammatical constraint albeit not always visible on the surface (cf. *subliminal islands* in Almeida 2014) due to external factors (one possibility is that the processing of ungrammatical structures somehow conspires to increase their global acceptability, as in Fanselow and Frisch 2006). Assuming this interpretation is correct, these effects can be regarded as an instance of *grammaticality illusions*, whereby speakers fail to judge ungrammatical structures unacceptable (Phillips et al. 2011). Given that superadditivity effects are important for the understanding of grammaticality illusions, it is interesting to see whether these effects are observed in other areas of grammar. In this contribution I focus on the data from Russian *čto*-clause complements and show that they display the same superadditivity profile, thus reinforcing the assumption that ungrammaticality does not always surface as unacceptability.

Background Declarative complement clauses in Russian can generally be realized either by a clause introduced by the complementizer *čto* 'that' (henceforth *čto*-clauses) or by the construction involving a *čto*-clause preceded by the morpheme *to*, homophonous with the singular neuter form of the determiner 'that' and inflected for case assigned by the verb/P (henceforth *to,čto*-clauses) (see also Khomitsevich 2008, Hartman 2012). Whereas often *čto*-clauses and *to,čto*-clauses alternate, as in (1), there are a number of environments such as (2) where *to,čto*-clauses are preferred, as noted in descriptive grammars of Russian (e.g., Švedova 1980).

(1) On nadeetsja (na **to**), čto ona pridet.
he hopes for it.ACC that she comes
'He hopes (for the fact) that she comes.'

(2) On poražen ?(**tem**), čto ona zdes'.
he struck it.INS that she here
'He is struck (by the fact) that she is here.'

Hypothesis In a study of the distributional restrictions on *čto*-clauses, leading to the preference of *to,čto*-clauses, Knyazev (2016) puts forth the hypothesis in (2).

(3) *The* čto*-clause licensing hypothesis*
   a. *Čto*-clauses are underlyingly nominal expressions headed by the silent counterpart TO of the morpheme *to* of *to,čto*-clauses.
   b. *Čto*-clauses are licensed either (i) by structural case; or (ii) by an abstract preposition (null P), which has to be semantically integrated into the verbal argument structure.

The *čto*-clause licensing hypothesis is supported by the fact that *čto*-clauses are banned as complements of nouns (unable to assign structural case) unless the noun can form a complex predicate ("collocation") with the higher verb, thus yielding the presence of verbal argument structure licensing null P. To illustrate, the required configuration is achieved in (4a), where the V+N can be construed as 'to doubt' (with a verbal argument structure), resulting in the acceptability of both *čto*-clauses and *to,čto*-clauses. In contrast, in (4b) the noun does not form a collocation with the higher verb, leading to the non-licensing of null P and hence the degradedness of a *čto*-clause complement (cf. *to,čto*-clause).

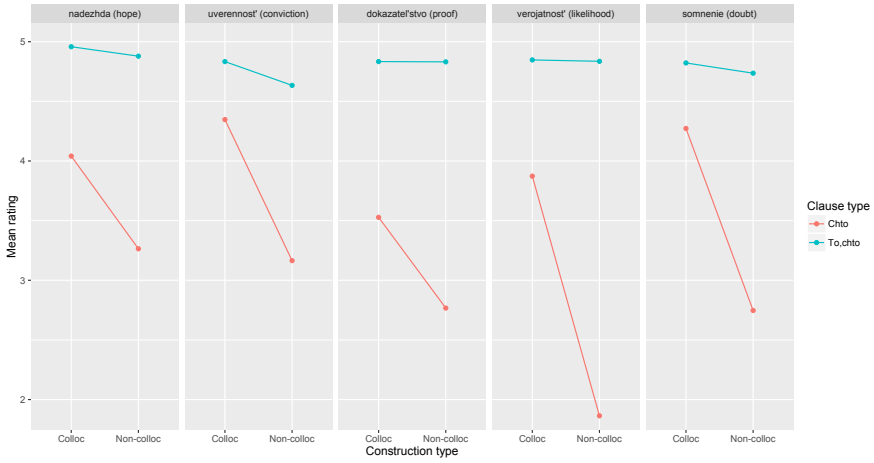
(4) a. U nego pojavilis' somnenija (v **tom**), čto den'gi okupjatsja.
at him.GEN appeared doubts.NOM in it.LOC that money.NOM will pay off
'He started having doubts (about the fact) that the investments will pay off.'

b. Èto usililo somnenija ?*(v **tom**), čto den'gi okupjatsja.
this.NOM strengthened doubts.NOM in it.LOC that money.NOM will pay off
'This strengthened the doubts (about the fact) that the investments will pay off.'

Interestingly, despite the ungrammatical status assigned to examples like (4b) (with a *čto*-clause) by the hypothesis in (2), they are reported in Knyazev 2016 as having intermediate acceptability. To investigate the discrepancy between the predictions of the theory and the reported judgments, we decided to investigate these contrasts in an experimental setting.

Experiment Following island effects studies such as Almeida 2014, we started from the null hypothesis (to be rejected) that the unacceptability of (4b) can be reduced to two independent factors. In particular, we hypothesized that (i) the general preference for *to,čto*-clauses in alternating contexts (cf. (2)); and (ii) the general preference of noun complement constructions for collocational contexts (evident from corpus data; not reported here) will be sufficient to explain the reduced acceptability of examples like (4b). Thus we used a two-way factorial design with the factors (i) Clause Type (*čto*-clause vs. *to,čto*-clauses); and (ii) Construction Type (collocation vs. non-collocation). In the experiment we tested (on a 1-5 Likert scale) the acceptability of four other complement-taking nouns, apart from *somnenie* 'doubt' in (4), namely *nadežda* 'hope' (*colloc.* 'instill hope' vs. *non-colloc.* 'strengthen hope'), *uverennost'* 'conviction' ('appeared conviction' vs. 'share conviction'), *dokazatel'stvo* 'proof' ('appeared proof' vs. 'ignore proof') and *verojatnost'* 'likelihood' ('there is likelihood' vs. 'discuss likelihood'). The experiment (n = 282) was conducted in Google Forms, the link being distributed via social media.

Results For all the five nouns, the two-way ANOVA revealed the significant main effects of both Clause Type and Construction Type, as was expected under the null hypothesis.[1] However, we also discovered the significant interaction between the two factors, comprised in a greater decrease in the mean acceptability ratings for *čto*-clauses in non-collocational constructions. The results of the experiments are summarized below in a figure.



Statistics for the Clause Type × Construction Type interaction: F_{hope} (1,278) = 17, $p < 0.001$, $F_{conviction}$ (1,278) = 9, $p = 0.002$), F_{proof} (1,278) = 9.8, $p < 0.02$), $F_{likelihood}$ (1,278) = 71.6, $p < 0.001$), F_{doubt} (1,278) = 37.2, $p < 0.001$.

Discussion and conclusion The experiment showed that the unacceptability of *čto*-clause complements of nouns is indeed affected by the syntactic environment in the direction predicted by the hypothesis in (2), despite the intermediate acceptability ratings (fluctuating around point 3 on the scale) for the ungrammatical condition (except for the case of *verojatnost'* 'likelihood'). Thus the weak unacceptability of examples like (4b) with a *čto*-clause cannot be reduced to the additive effect of Clause Type and Construction Type. Given the general conclusions about superadditivity effects reached in studies such as Sprouse et al. 2012, this both provides indirect support for the hypothesis in (2) and reinforces the assumption that real grammatical distinctions can be obscured by intermediate acceptability (pending the question, of course, about the precise mechanism by which the acceptability of examples like (4b) is increased).

[1]Statistics for Clause Type: F_{hope} (1,278) = 68.84, $p < 0.001$, $F_{conviction}$ (1,278) = 111.5, $p < 0.001$), F_{proof} (1,278) = 196, $p < 0.001$), $F_{likelihood}$ (1,278) = 274.8, $p < 0.001$), F_{doubt} (1,278) = 117.5, $p < 0.001$. Statistics for the Construction Type: F_{hope} (1,278) = 33.6, $p < 0.001$, $F_{conviction}$ (1,278) = 117, $p < 0.001$), F_{proof} (1,278) = 9.2, $p = 0.003$), $F_{likelihood}$ (1,278) = 63.3, $p < 0.001$), F_{doubt} (1,278) = 47.4, $p < 0.001$

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Low referentiality in LSF and LIS *Keywords: indefinites, impersonals, sign language*

Goals Here, we examine **low referentiality** in LSF and LIS, two historically related sign languages (Volterra & Porcari 1995). We describe the meaning and use of several lexical signs and the null pronoun, as well as the contribution of non-manual markers. First, we show that in both languages, slightly raised eyebrows and mouth-corner-down introduces the inference that the referent is unknown. Second, eye-gaze introduces an inference that the referent is specific. Semantically, these can be analyzed as the addition of a constraint (e.g., a presupposition) on the referent. Finally, we show that no items are used as impersonal pronouns; the null pronoun, despite passing several diagnostics, is analyzed as a case of ambiguity.

Methodology Target sentences were recorded and repeatedly judged on a 7-point scale by native signers, using low-referentiality contexts from Barberà and Cabredo Hofherr (2016). A wide range of indefinites and pronouns were tested, with various non-manuals. Since many lexical signs behaved identically, here we illustrate the range of patterns with the lexical items SOMEONE, CL-PERSON, the null pronoun $\emptyset$, and (as a control) the demonstrative PI. The general pattern of results held for both LSF and LIS, so only LSF judgments are reported here.

Specificity vs. known-ness (LSF) In spoken language, indefinites can be lexically specified to communicate a range of referentiality (Haspelmath 1997). For example, the Russian prefix *toe-* marks indefinites whose referent is both specific and known to the speaker; English '*someone or other*' is used for unknown referents. Sign languages display a similar variation in the lexical meanings of indefinites. Additionally, previous literature on LSC (Barberà 2012) and ASL (Davidson and Gagne 2013) has shown that some of these shades of meaning are associated with facial expressions and the use of space (high vs. neutral). The transparency of these phonological parameters suggests that the constructions can be morphologically decomposed.

In LSF, both SOMEONE and CL-PERSON act as indefinites ('someone'); SOMEONE additionally introduces the inference that the signer does not have a particular person in mind. The sign PI is a demonstrative that must refer to a specific individual from discourse or context. Two groups of non-manuals were investigated. First, we investigated a collection of non-manuals (glossed 'frown' below) consisting of slightly raised eyebrows, a downward-turned edge of the mouth, and a body lean away from the manual sign; in all sentences, these non-manual markers generated the inference that the signer did not know the identity of the person being talked about. Second, we investigated eye-gaze directed towards the manual sign; this marker systematically generated the inference that the signer had a particular person in mind. Of note, these two non-manuals can appear concurrently without contradiction; for example, the combination of the two on the demonstrative pronoun PI in (1d) generate the inference that the signer has a particular person in mind, but doesn't know who that person is. This supports Haspelmath's typology in which 'specificity' is divorced from whether a referent is known or unknown (and 'specific unknown' reference is possible); in LSF and LIS, eye-gaze presupposes specificity; ignorance non-manuals presuppose unknown-ness. Though all the sentences in (1) are acceptable ($\geq$5/7), judgements are slightly degraded for SOMEONE with eye-gaze, due to the contradiction between the lexical meaning ('non-specific') and the non-manual meaning ('specific').

(1) a. {SOMEONE/CL-PERSON/PI} ENTER.
b. $\overset{\text{frown}}{\overline{\{\text{SOMEONE/CL-PERSON/PI}\}}}$ ENTER.
c. $\overset{\text{gaze}}{\overline{\{\text{SOMEONE/CL-PERSON/PI}\}}}$ ENTER.
d. $\overset{\text{frown + gaze}}{\overline{\{\text{SOMEONE/CL-PERSON/PI}\}}}$ ENTER.

'{Someone/a person/that guy} entered.'

Attempting to replicate results from LSC, these signs were also tested at a high locus, but this had no effect on referentiality; the only available interpretation was of literal high altitude.

Impersonal constructions (LSF) The typology of indefinites overlaps with that of so-called impersonal constructions, that generate generic interpretations; for example, French *on* can be used as an indefinite (*On a volé mon vélo* = 'Someone has stolen my bicycle'), but also as a generic that contributes a universal-like force (*On doit faire attention* = 'One must be careful'). Cross-linguistically, Cabredo Hofherr (2008) identifies several properties of the indefinite use of impersonals: first, multiple occurrences of an impersonal allow joint reference; second, they take obligatory low scope with respect to temporal adverbials. In sign language, Barberà & Cabredo Hofherr (2016) show that no lexical signs in LSC pass the diagnostics of impersonal reference. Here, we report analogous results for lexical signs in LSF and LIS, and show that the mixed behavior of the null pronoun is better explained as ambiguity.

With respect to the availability of both generic readings (in (2)) and joint reference (in (3)), the null pronoun behaves similarly to impersonals like French *on*.

(2) a. ∅ SEE PERSON CLEAR DRUNK. ✓generic reading
'One clearly saw that the guy was drunk.'

b. {SOMEONE/CL-PERSON} SEE CLEAR PERSON DRUNK. *generic reading
'Someone clearly saw that the guy was drunk.'

(3) a. IF ∅ DRAW IX PICTURE SNAKE, ∅ LOSE. ✓same person ✓different person
'If one draws the snake, (some)one loses.'

b. IF {SOMEONE/CL-PERSON} DRAW IX SWORD, {SOMEONE/CL-PERSON} LOSE.
'If someone draws the sword, someone loses.' *same person ✓different person

However, this parallel comes apart when we consider scopal facts; unlike what has been reported for French *on* and German *man*, ∅ may take scope over temporal adverbials. This becomes truth-conditionally apparent in downward entailing environments, as in (4b).

(4) a. On a souvent essayé de tuer le président. *$\exists >$ often; ✓often $> \exists$
'Somone has often tried to killed the president.'

b. IF TWICE {∅/SOMEONE} ENTER, IX-1 INFORM POLICE. ✓$\exists >$ twice; ✓twice $> \exists$
'If someone enters twice, I inform the police.'

These results can be accounted for in light of another difference between French *on* and LSF ∅: namely, ∅, unlike *on*, can serve as an ordinary bound pronoun (JEAN THINK ∅ WILL WIN, 'Jean thinks that he will win'). We thus propose that the null pronoun is multiply ambiguous, including an indefinite use and an ordinary pronominal use. The scopal facts in (4) arise from the indefinite use. The licit joint reference in (3) can be explained if the first instance is an indefinite and the second instance is a pronoun. The generic reading in (2) can be explained as a free pronoun that picks up a salient discourse referent: 'we' or 'they.'

Summary Layers of non-manuals allow decomposition of indefinites with respect to two different epistemic properties, previously implicated in typological literature. Confirming previous results for LSC, no lexical items allow impersonal reference, including the null pronoun.

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Predicative superlatives and definiteness in Romance Degree Phrases

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Introduction I argue that superlative APs like (1) can also function as predicates across languages (*pace* Matushansky 2008) in addition to being able to be attributive modifiers. In this cases, the definite article does not pick a unique individual (as in (2a)) but a unique maximal degree, as in (2b).

(1) (the) tallest

(2) a. ... is [$_{DP}$ **D** [[$_{AP}$ ...] N]] *Attributive*
b. ... is [$_{AP}$ [$_{Deg P}$ **D** -est DEGREE] A]] *Predicative*

I will show that (i) relative interpretations of predicative superlatives exist (see (3)) and correlate with the absence of a nominal projection and that (ii) there is a subset of adjectival superlatives (i.e. the ones that I consider to be predicates) which pattern with other non-argumental superlatives (adverbs, quantity superlatives) w.r.t. how definiteness of DegPs is marked in Romance.

(3) Mary was (the) prettiest *(one) yesterday
✓REL ≈ Mary was prettier yesterday than any other relevant day

Romance Facts I will show that in languages like Italian and Spanish, overt agreeing determiners cannot head DegPs, but only DPs. Purely predicative superlatives with null D as in (4) can be licensed when embedded inside a definite DP. The same holds true for other amount-based superlatives (see (5)).

(4) L' anno in cui Maria fu più felice [ITA]
the year (in) which Maria was more happy
x ABS ≈ the year when M. was happier than any other (relevant) female person
✓ REL ≈ the year where Maria was happier than any other year

(5) la ballerina che ha più amici
the dancer who has more friends
'the dancer who has the most friends'

Adding a second overt determiner to (4) would result in an attributive structure, only compatible with an absolute interpretation (see (6)). Overt definiteness at the AMOUNT-level in quantity superlatives results in ungrammaticality as shown in (7).

(6) L' anno in cui Maria fu la più felice
the year (in) which Maria was the.F.SG more happy

✓ABS, **x** COMP

(7)*Maria ha i più amici
Maria has the more friend
Int. 'Maria has the most friends'

Findings so far are generalized in (8):

(8) [ITA/SPA] In non-argumental superlatives, only the definiteness of the host DP can and must be overtly expressed, not the one of the DegrP

$$[_{\text{DP}}\ \mathbf{D}\ \ldots\ [_{\text{D}eg\text{P}}\ \emptyset\ \text{-est DEGREE}\ ]\ \ldots\ ]$$

French is systematically different, requiring the definiteness of the DegP to be overtly expressed (as stated in (9)):

(9) [FRE] (In non-argumental superlatives,) the definiteness of the DegrP must always be expressed.

$$*[_{\text{D}eg\text{P}}\ \emptyset\ \text{-est DEGREE}\ ]$$

Thus, Italian (4) and (6) are collapsed into ambiguous (10); the French counterpart of (7) is fully grammatical and the translation of (5) requires a second overt determiner.

(10) l' année où Marie fût *(la) plus heureuse
the year where Marie was the more happy ✓ABS, ✓ COMP

If postnominal superlatives are reduced relative clauses (i.e. predicates), then the well-known difference between Italian (11a) and French (11b) postnominal superlatives (discussed by Kayne 2008 a.o.) can be easily accounted for: 'la più bella' is only compatible with an attributive structure, as opposed to French 'la plus belle', which can have a purely predicative structure (see (12) vs. (13)).

(11) a. la ragazza (*la) più bella
b. la fille *(la) plus belle
the.F.SG. girl the.F.SG. more beautiful.F.SG.
'the most beautiful girl'

(12) la più bella
a. [DP la [AP più bella] N]
b.*[AP [DegP la più DEGREE] bella]

(13) la plus belle
a. [DP la [AP plus belle] N]
b. [AP [DegP la plus DEGREE] belle]

Additional evidence comes from Spanish copular alternation. The copula *estar*, which has been claimed not to be able to take nominals (see Roy 2006 a.o. for discussion), is excluded with attributive superlatives of the (2a)-type but it is compatible with purely predicative superlatives of the type I am arguing for here (i.e. (2b))

(14) a. María está (*la más) enojada
Maria is the.F.SG. more annoyed.F.SG.
b. la que está (*la) más enojada
the.F.SG. that is the.F.SG. more annoyed.F.SG.
'the one who is the most annoyed' adapted from Matushansky 2008

Further support for the parametric difference between Italian (8) and French (9) comes from XVI century French, which obeys (8), contrary to modern French.

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Blindness and Hirschberg's contextually ordered alternatives

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■ **Background.** Magri (2009) submits that the existentially quantified sentence *#Only some Italians come from a warm country* is odd because *only* negates the universally quantified alternative *All Italians come from a warm country*, thus contradicting the piece of common knowledge that all Italians come from the same country. The account extends to the oddness of the sentence without *only* under the assumption that it features a covert *exh* akin to overt *only* (Fox 2007). This intuitive account runs into the following problem. If *only*/*exh* were sensitive to common knowledge, the $\exists$-quantified prejacent could not trigger the negation of the $\forall$-quantified alternative because the two alternatives are equivalent relative to common knowledge. Magri thus concludes that the proper semantics of *only*/*exh* is blind to common knowledge and instead only sensitive to purely logical notions of entailment and contradictoriness (*Blindness hypothesis*; BH).

■ **Challenge.** Sentences (1) behave asymmetrically: φ triggers the negation of ψ (indeed, φ says that Mary did not get beyond high school); ψ instead does not trigger the negation of φ (indeed, ψ does not say that Mary skipped high school on her way to college).

(1) φ = Mary (only) has a high school degree. ψ = Mary (only) has a college degree.

The BH incorrectly predicts φ and ψ to behave symmetrically because they are *logically* independent. Without the BH instead, the asymmetric behavior of φ, ψ follows straightforwardly from the fact that ψ *contextually* asymmetrically entails φ (a college degree requires a high school degree). The pair $\langle \varphi, \psi \rangle$ in (1) is an instance of *Hirschberg*'s (1991) *pairs* (HPs) defined by properties P1-P3.

(2) P1: φ and ψ are logically unrelated: neither of the two entails the other;
P2: ψ asymmetrically entails φ relative to common knowledge;
P3: the sentence *'(only) φ'* entails $\neg\psi$ but the sentence *'(only) ψ'* does not entail $\neg\varphi$.

Schlenker (2012) submits that HPs challenge the BH: the asymmetric scalar behavior (P3) of HPs mirrors their contextual asymmetry (P2) not their logical independence (P1), contrary to the BH. This paper questions this conclusion with two arguments against HPs, thus rescuing the BH.

■ **First argument.** HPs defy the BH only under the assumption that the asymmetric behavior (P3) is driven by the contextual asymmetry (P2). This assumption predicts that the asymmetric behavior should disappears if common knowledge is tampered with to the effect or removing the contextual asymmetry. If instead the asymmetry in scalar behavior persists, it ought to be due to something else than the contextual asymmetry and the BH is off the hook. Indeed, sentences φ, ψ in (1) retain their asymmetric scalar behavior also in the revised context (3) (from Schlenker 2012, but with a different interpretation). Yet this new context removes the asymmetric entailment between φ and ψ and makes them contextually equivalent instead. This suggests that their asymmetric behavior has nothing to do with contextual ordering both in (3) and in the out-of-the-blue case (1).

(3) Context: every employee in my company is either a janitor with no school degree or else a programmer with up to a college degree: (Schlenker 2012)
a. φ = #My colleague Mary (only) has a high school degree. $\rightsquigarrow \neg\psi$
b. ψ = My colleague Mary (only) has a college degree. $\not\rightsquigarrow \neg\varphi$

■ **Second argument: introduction.** If the BH were indeed false, HPs should be *pervasive*: any pair $\langle \varphi, \psi \rangle$ of logically unrelated scalar alternatives should qualify as a HP through proper contextual manipulations. Indeed, Hirschberg (p. 83) states: "I will propose a new characterization of these orderings [that support scalar implicatures] as partially [contextually] ordered sets and claim that *any poset can support scalar implicatures*." Instead **[A]** I provide new data to show that HPs are *restricted* rather than pervasive and **[B]** I show that what is special about the restricted cases which yield HPs is that they involve logical structure which provides a logical ordering congruent with the contextual ordering. I conclude that it is the logical ordering which drives the scalar behavior, while the contextual ordering never plays any role, and the BH is off the hook.

■ **Second argument: part [A].** Sentences φ and ψ in (4) behave asymmetrically: φ triggers the negation of ψ (φ says the train did not make it any further than C) but ψ does not trigger the negation of φ (ψ does not say the train skipping stop C on its way to D). Thus,

$\langle \varphi =$ *the train arrived at C*, $\psi =$ *the train arrived at D*$\rangle$ is a HP (see Hirschberg 1991, §5.1.8). Yet, if *arrive* is replaced with *stop*, the asymmetry is lost: (5) triggers the inference that the train skipped stop C. Thus $\langle \varphi =$ *the train stopped at C*, $\psi =$ *the train stopped at D*$\rangle$ is not a HP.

(4) Context: I go to work by train. The train route is $A \to B \to C \to D \to E$. The train always leaves from station A, and goes through one station at the time. The train sometimes breaks down before it gets to the final station E:

a. φ = Yesterday, the train (only) arrived at station C. $\rightsquigarrow \neg\psi$

b. ψ = Yesterday, the train (only) arrived at station D. $\not\rightsquigarrow \neg\varphi$

(5) #Yesterday the train (only) ~~arrived~~ stopped at station D.

Analogously, sentences φ and ψ in (6) behave asymmetrically so that $\langle \varphi =$ *M. got to intro-Calculus*, $\psi =$ *M. got to intermediate-Calculus*$\rangle$ is a HP. Yet, if *get to* is replaced with *take*, the asymmetry is lost: (7) triggers the inference that Mary violated the requirements. Thus $\langle \varphi =$ *M. took intro-Calculus*, $\psi =$ *M. took int-Calculus*$\rangle$ is not a HP. I show that these examples can be easily multiplied and that even basic cases of HPs such as sentences (1)/(3) admit simple variants which are not HPs.

(6) Context: Prof. Smith teaches introductory, intermediate, and advanced Calculus. He never allows any student to take one of his Calculus classes without having taken the preceding one(s). While in college, did Mary take any classes with him?

a. φ = Mary (only) got to introductory Calculus. $\rightsquigarrow \neg\psi$

b. ψ = Mary (only) got to intermediate Calculus. $\not\rightsquigarrow \neg\varphi$

(7) #Mary (only) ~~got to~~ took intermediate Calculus.

Why should the difference between *arrive* and *stop* or between *get to* and *take* matter if the BH were wring and scalar behavior were indeed driven by contextual asymmetric entailment?

■ **Second argument: part [B].** Consider (4)-(5) for concreteness. In the actual world, the event e_B^{stop} of the train *stopping* at B and the event e_C^{stop} of the train stopping at C are disjoint, as in (8a). The event e_B^{arrive} of the train *arriving* at B is instead a subset of the event e_C^{arrive} of the train arriving at C, as in (8b). What is special about *arriving* is that the contextual ordering of the alternatives is matched by the mereological ordering of the corresponding events. This matching makes it look as if *only*/*exh* are sensitive to the contextual ordering, although they aren't by BH.

(8) a. $\boxed{e_B^{stop}}$ $\boxed{e_C^{stop}}$ b. $\boxed{\boxed{e_B^{arrive}}\ e_C^{arrive}}$

Indeed, assume that sentences (4)/(5) mean that: (i) there is an event of the train stopping/arriving at C/D (*prejacent*) and (ii) that event is the largest event of the train stopping/arriving (*strengthening*). This meaning is consistent with the BH because it is blind to whether the sentence contains *stop* or *arrive* and it is blind to the ordering of the stops in the actual world. The facts now follow. Consider the case of *stop*: suppose there exists an event e_B of the train stopping at B; the mereology (8a) of stopping events in the actual world yields $\boxed{e_B \oplus e_C \supsetneq e_C}$; by *Lexical Cumulatively* (Kratzer in prog.), $e_B \oplus e_C$ is also a stopping event; the existence of e_B thus entails that the strengthened meaning component (ii) is false. Consider next the case of *arrive*: suppose there exists an event e_B of the train arriving at B; the mereology (8b) of arriving events in the actual world yields $\boxed{e_B \oplus e_C = e_C}$; the existence of e_B thus does not contradict (ii). Finally note that sentences (5) and (7) are rescued by adding *up to* (e.g., *The train only stopped up to C*). This follows under the plausible assumption that the mereological structure of events of *stopping-up-to* is (8b), not (8a).

■ **Conclusions.** Three types of alternatives have been considered in the literature on scalar implicatures and overt *only*. Type I consists of logically ordered alternatives which behave asymmetrically, such as φ=*Mary (only) met Adam or Bill* and ψ=*Mary (only) met Adam and Bill*. Type II consists of logically unordered alternatives which behave symmetrically, such as φ=*Mary (only) met Adam* and ψ =*Mary (only) met Bill*. Finally, Type III consists of logically unordered alternatives which nonetheless behave asymmetrically, namely the HPs considered above. This paper shows that only alternatives of types I and II are attested in Natural Language, while Hirschberg's alternatives of type III are not attested, in compliance with the BH.

Determining telicity in denominal and deadjectival verbs: Lexical roots and much more.

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Lexical roots [√] have been long argued to play a central role in the determination of verbal aspect. Inspired by semantic studies (e.g. Hay *et al.* 1999), a growing body of evidence mounts that the scalar specification of the root is central to the Aktionsart properties of denominal [DN] and deadjectival [DV] verbs. Constructionist works (e.g. Harley 2005) build on the assumption that √s are inherently ±bounded [±b] to show that variable telicity of DNs/DVs can be reliably predicted from a systematic root-to-event relation. Assuming that the event is modeled based on the scalar structure supplied by the root, the relation noted amounts to an event-to-x homomorphic relation (cf. Wechsler 2005); in this case, an Event-Root Homomorphism [ERH].

1. Backdrop. Harley (2005) notes that DNs produced by incorporation of bounded N roots (e.g. count nouns) are telic, whereas verbs produced by unbounded (mass) N roots are atelic (1). The analysis builds on Hale & Keyser [HK] (2002) to argue that, since these √s all originate in the object position of the (null) verb, they must measure out the event in the same long-noted way that themes yield verbal telicity in comparable non-incorporated forms (incremental themes (Verkuyl 1972, Declerck 1979, Dowty 1979, Krifka 1998, Jackendoff 1991), measure-out (Tenny 1987), event-object homomorphism (Krifka 1998)). The relation at work is argued to extend to other DNs, including a type that figures prominently in HK's original analysis: location and locatum DNs (2), which are, curiously enough, presented as a subtype of DVs (3). Given the structural contrast between (2)-(3) and (1), the relevant homomorphism is more broadly defined as a relation between V and the element in *sister-to-v position* ("the SC itself" in (3) (Harley 2005:54). This allows for a unified analysis in which telicity follows from the [±b] specification of the root. Consequently, telicity is presented as a non-configurational result. To the extent that similar patterns appear in other languages like Romance, ERH can be used to predict telicity in DN/DVs crosslinguistically. Nonetheless, contrasting aspectual patterns seen in both English and Romance DNs and DVs present two empirical problems suggesting that the generality of ERH needs to be properly constrained to make correct predictions.

(1)a. {The mare foaled/The dog whelped/The cow calved} (#for two hours/in two hours)
b. {The baby drooled/The athlete sweated/The wound bled} (for two hours/#in two hours)
(2)a. Bill {saddled the horse/boxed the computer} (#for two hours/in two hours)
b. Bill {buttered the bread/greased the chain} (for two hours/#in two hours)
(3)a. Bill {cleared/flattened/dried} the screen (#for two hours/in two hours)
b. Bill {lengthened/widened/darkened} the screen (for two hours/#in two hours)

2. Two empirical problems. (A) DNs. Crucially, the examples in ((2)b) (i.e., where [-b]√ yields atelic verbs) only include verbs of the locatum type. Location verbs from the original set (HK 2002:18) featuring unbounded roots are, unexpectedly for ERH, telic (4), just like their Romance equivalents (cf. Italian *affondare, atterrare, ammarare*). **Analysis.** While there may be good reasons to analyze the locatum/location cut as an external (conceptual/encyclopedic) issue (cf. Harley 2005), an alternative building on grammatical factors would offer a natural explanation. If we analyze locatum/location as the result of an alternative in the type of P recruited, taking up HK's original claim, it could be argued that ERH is sensitive to the 'fundamental semantic properties of the P involved' (2002:19). Thus, different abstract Ps, seen as distinct syntactic heads constraining argument interpretation, would readily account for the contrast between (2) and (4). If the specific properties of P (e.g., Terminal P [p_T]) determines that √ is interpreted as *terminal ground* [TG], telicity follows as an automatic, *inevitable* result, regardless of [±b]√. If √ instead names the entity that coincides with the external argument in a

possessive relation—the standard definition of locatum given by a Central Coincidence P [p_C] (HK 2002:187)—different outcomes are possible as (a)telicity concurs with ERH (with object measuring-out remaining active as secondary variable). Nonetheless, this also bears out under the assumption that the different non-eventive relations are determined structurally; i.e. if Terminal/Central coincidence arise from double and single P projections, respectively (cf. HK 2002:207). To the extent that telicity is invariable in location DNs, even with [-b]√ (mass roots) as in (4), verbal telicity would not be determined by √. **Moreover,** the idea that a grammatical/ lexical distinction between location/locatum is superfluous (Harley 2005:58) is empirically challenged by the unsystematic distribution of locatum/location. Notably, few verbs allow both types, while most cases are unpredictably constrained to either locatum (e.g. *soil*) or location (e.g. *air*). Importantly, the distribution and the gaps in productivity vary substantially across languages: e.g. while English *air* yields a location verb (*put in the air, broadcast*), Italian *areare* is locatum; in turn, *calzare* produces a locatum in Italian, unavailable in English (e.g. **shoe*).

(4) Bill {landed the plane/beached the ship/floored the pedal/skied a rocket} (#for/in two hours)

(B) DAs. In previous work we showed that the patterns in (3) carry over to Romance. The distribution of partiality/totality adjuncts (Hay *et al.* 1999 *i.a.*) is consistent with further tests indicating that the scalar specification associated with the lexical source ([±b]√) yields ±telicity, but also ±resultativity and ±homogeneity. Thus, inasmuch as √ serves as primary telicity determiner in DVs, while object measure-out remains as a secondary variable, ERH bears out. Yet, a less-visited type of Romance DV shows contrasting results. Crucially, this alternative type, produced by the particle *-eggiare*—most productive in Italian, Portuguese and Catalan (Oltra & Castroviejo 2013)—is consistently atelic, even if involving the same bounded roots that yield telic DVs in (3). Notably, roots naming properties standardly analyzed as associated with bounded scalar structures, like *pian-* 'flat', *rotond-* 'round', *bianc-* 'white' produce telic DVs of the type represented in ((5)a), but atelic verbs in ((5)b). Syntactic patterns (*ne-* cliticization, auxiliary distribution, causative alternation) provide evidence that the alternative DV type involves a significantly different event/argument structuring: *-eggiare* verbs behave as unergative/stative, in contrast to the unaccusative /transitive change-of-state verb in ((5)a). I take this to indicate that the role of √ (hence, of ERH) in the determination of verbal telicity is relative to the relevant properties of the verbal configuration in which it is hosted. Crucially, if we extend the analysis to *-eggiare* DNs, we see that these verbs show the same argument/event type seen in DVs for which ERH does not hold (unergative/stative), remaining atelic even with bounded roots. Even if commonly paraphrased by activity verbs (e.g., behave/act as √), *-eggiare* verbs consistently test out as stative. They do not involve change of state/location as in (6)a. Further, √ is not interpreted as incremental theme, as in unergative DNs in (1), nor as TG, as in (6)a (i.e., Romance DNs supporting the relevant relation between location and telicity in (4)).
Analysis: if we agree to see *-eggiare* as a distinct v head placing relevant semantic and syntactic conditions (e.g. consistently producing unergative atelic verbs), we can safely conclude that verbal telicity is again constrained by closed-class elements (v^o in ((5)b-(6)b) and p^o in (6)a).

(5) a. {#$_{[-b]}$scald are/$_{[+b]}$appian are/#$_{[-b]}$am moll ire/$_{[+b]}$ar rotond are/$_{[+b]}$s bianc are} (in un'ora)
heat [up] flatten soften round [up] whiten in an hour
b. {$_{[-b]}$cald eggiare/$_{[+b]}$pian areggiare/$_{[-b]}$moll eggiare/$_{[+b]}$rotond eggiare/$_{[+b]}$bianc heggiare} (#in un'ora)
be white(ish) be flat(ish) be tender(ish) be round(ish) be white(ish) (in an hour)

(6) a. {$_{[-b]}$accampare/$_{[+b]}$ab bordare/$_{[+b]}$im barc are/$_{[-b]}$af fond are /$_{[-b]}$am mar are/lustrare} (#per ore)
(en)camp board embark sink land at sea polish for hours
b. {$_{[-b]}$camp eggiare/$_{[+b]}$bord eggiare/$_{[+b]}$barc heggiare/$_{[-b]}$fond eggiare/$_{[-b]}$mar eggiare} (per ore)
stay in camp (remain by)border/boat [around]/stay on seabottom/move as the sea for hours

Counterexamples. Few *-eggiare* DNs yield nonstative DNs; notably, location verbs, as in (7). Crucially, telicity is yielded on [-b]√s (cf. *parcheggio* 'parking area', *ormeggio* 'docking area'), suggesting that *-eggiare* may combine with a null P_T to reflect the pattern in (4). The apparent existence of a set of complex (nonstative) *-eggiare* verbs with overt P (see (8)) serves as a precedent for this idea, while the extra DP licensed is compatible with the dyadic nature of P.

(7)a. Bill ha parcheggiato (la macchina) in un minuto. 'Bill parked the car in a minute'
b. Bill ha ormeggiato (la barca) in un minuto. 'Bill docked the boat in a minute'
(8)*accaneggiare* 'attack with dogs' (a(d) 'to', cane 'dog'; cf. *caneggiare* 'behave as a dog');
indietreggiare 'pull back' (in 'in', dietro 'back'; cf. *dietreggiare* 'stay behind');
dispareggiare 'make uneven' (*dis* 'de-', *pareggio* 'even'; cf. *pareggiare* 'be even', 'equal').

3. Extensions. The contrast drawn by *-eggiare* DNs and DVs with respect to the better-known DN/DV type is consistent with major event-argument generalizations (ergativity/ atelicity vs. unaccusativity/atelicity) going back to Dowty (1991). Further, this major divergence supports a significant correlation between eventivity and telicity, inasmuch as *-eggiare* verbs indicate that ERH is limited to eventive (dynamic) types. In turn, the observation that P adds a relevant locus of variation/determination which seems to prevail over other VP-internal loci available (√) is compatible with recent research in Latin indicating that complex DNs (prefixed location and locatum verbs) yield telicity independently of the (un)bounded nature of the lexical source (see Mateu 2016). Finally, the proposed analysis leaves open the option to develop a wider account of telicity across DN types that crucially differentiates verbs where the root originates in VP-internal positions—in which telicity is predicted by clearly established principles—from DNs produced by external (manner) incorporation (the *hammer*-type), which are known to cause non-trivial problems to structural (lexical/syntactic) approaches to lexical aspect.

4. Conclusions. The premise that telicity in these verbs correlates with the (un)bounded specification of the lexical root (ERH) is consonant with conclusions reached independently in previous works and explains major empirical patterns. Insofar as the root (√) serves as a relevant locus of variation, telicity can be estimated as a non-configurational, lexical result. However, a bigger empirical picture presents two important problems for the generalization: **(A)** the DN (location) verbs at issue are invariably telic; **(B)** Romance -eggiare DNs and DVs are invariably atelic**.** The analysis shows that ERH in both cases is constrained by closed-class components combined: by p^o in location/locatum DNs, and by the VP configuration in general in both DNs and DVs when alternative verbal types are available. In sum, if correct, these facts show that lexical roots are an important but not the sole determiner of telicity in the verbs discussed.

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What Orders the Romance Clitic String? Dominance vs precedence

We aim to contribute to the discussion on ordering relations in grammar with a purely empirical study. We argue that clitics can be sequenced without resort to stipulated hierarchies – adopting the view that linear order of terminals, belong not to the core computational component (Kayne 1994, 2010) but to the externalization procedure for syntax (Chomsky 2001, 2005, 2013).

1. The basic analysis: Acc and Dat. In many Romance languages, the order of clitics is the mirror image of the order of complements; Italian (1a) illustrates the Acc>Dat order of complements and (1b) the Dat>Acc order of clitics.

(1) a. Do il libro a Paolo
I.give the book to Paul

b. Glielo do
him-it I.give

We impute the order of non-clitic constituents in (1a) to the combination of two factors. In core syntax, the verb Merges first with the internal argument, and then with the oblique argument, yielding {{*do, il libro*}, *a Paolo*}, where the set notation corresponds to the presence of simple sisterhood relations (Chomsky 1995). An externalization parameter chooses the head-initial order, whereby the head (i.e. the labelling item) and the constituents including the head are ordered before complements. The order of clitics in (1b) is reversed with respect to that of phrasal complements in (1a) – but so is the order of the verb. While the predicative domain of Romance sentences has the verb initial order, the inflectional area of the sentence ordinarily presents argumental elements before the verbal head supporting them. It is tempting therefore to recognize in the order of clitics in (1b) the application of a different externalization parameter, i.e. a head final one, to the same fundamental order of merger (sisterhood) already postulated for the predicative domain. Thus the merger structure in (2a) yields the linearized structure (2b), corresponding to sentence (1b).

(2) **a. {{do, lo}, gli}** cf. (1b)
b. [gli [lo do]]

2. Completing the string. Italian is endowed with at least two obliques, namely a partitive and a locative – besides 3P Acc and Dat, 1/2P forms, the *si* middle-passive (MP) and finally subject clitics (in Northern Italian dialects). The question we need to ask is: can the simple hypothesis in (2) account for this observed complexity? Consider the MP clitic *si*. When *si* reflexivizes/passivizes an indirect object, it precedes the accusative clitic, as in (3a) – which is what we expect on the basis of *si*=Dat. When *si* reflexivizes/passivizes. the direct object, we further expect the order Dat>*si*=Acc, as in (3b). Yet in more complex strings, like (3c), *si* has a string-medial position, which a mere equation with Dat or Acc does not explain. In the right-hand column schema we have suggested that the Partitive is connected to the Internal Argument (IA) slot (Burzio (1986).

(3) a. **Se lo** compra **Dat>Acc**
M-P it he.buys ‘He buys it to himself’

b. **Gli si** compra **Dat>MP**
him M-P buys ‘It is bought to him’

c. **Gli se ne** compra **Dat>MP>Part(I**A)
him M-P of.it buys ‘Some of it is bought to him’

In Italian dialects, for instance *Agliano* (Tuscany) in (4), the order *si*>Dat may also hold, both in strings consisting of two clitics like (4a) and in more complex strings (4b), defining a first parameter of clitic order (Manzini and Savoia 2005, ch. 4).

(4) a. **si ɟi** ða kweʃtə **MP>Dat**
M-P him gives this ‘This is given to him’

b. **sə ɟə nə** da trɔppə **MP>Dat>Part**
M-P him of.it gives too.much ‘Too much of it is given to him’

If we compile together the right hand columns in (3)-(4), we deduce the order of the clitic string in (5a). The interesting point is that this directly translates into the normally assumed order of

merger of constituents with V, as in (5b) – at least by adopting the idea that *si* connects to the EA (External Argument) or in any event to transitivity. As expected the IA (Part, Acc) merges before the EA (MP); furthermore we know that obliques can occur at different points of the syntactic tree, for instance as low and high Appls in the sense of Pylkkänen (2008). Crucially, the sequence of clitics in (5a) simply replicates the sequence of functional projections of the verb to which non-clitic arguments are attached, as in (5c).

(5) a. **(Dat$_{Agliano}$) > MP > (Dat$_{Italian}$) > Part/Acc**
b. **[Appl [EA/Trans [Appl [IA**
b. [ApplP [vP [ApplP [VP

In short, the clitic hierarchy in (5a) reproduces the order of merger of arguments within the extended projection of the verb in (5b-c). The other crucial ingredient of the present proposal is that phrasal constituents are ordered to the right of the verb in a head-initial structure. Clitics however are ordered before the verb, realized in T, yielding a head-final structure. In other words, the Dat/1/2P>Acc>V order, characteristic of Italian, implies the same set {{V, Acc} Dat} as the [[V DP] PP] linearization of full complements; only externalization procedures differ. In historical terms, clitic order preserves the OV linearization characteristic of Latin complementation, while phrasal complemental changes it to VO.

3. The Acc>Dat parameter. In French, Corsican, (Provencal-like) West Ligurian, and many medieval Romance varieties the Dat>Acc order predicted by the schema in (5) does not hold, but rather Acc>Dat does (as time allows we will argue that there is no general reorganization of the string in (5)). The order of Merge required by (59a) is {Acc {Dat, V}} with Dat closer to the verb than Acc. The question we need to ask, is whether this order can be independently justified in the phrasal domain. So far we have assumed that the structure for, say, French (6a) is as in (6b), where Acc is merged with the verb first and Dat is merged with the resulting predicate. Yet Kayne's original treatment involves a structure like (6c) where Acc is the subject of Dat in a predicative small clause (cf. *le livre est à Paul* lit: 'the book is to Paul'). Structure (6c) is compatible with the surface order in (6a) if we consider that subjects (here the subject of the small clause) are ordered to the left.

(6) a. Je donne le livre à Paul
I give the book to Paul
b. [[donne le livre] à Paul]
c. donne [le livre [$_{PP}$ à Paul]]

When the structure of merger in (6c) is linearized leftward, the complement of the verb, i.e. the small clause predication as a whole is linearized to its left and within the small clause the lowest merged argument, i.e. Dat is linearized closest to the verb, as in (7) (or rather the abstract P preposition is) – corresponding to the observed surface order of clitics in French.

(7) [le [lui P]] donne

In a nutshell, ad hoc parameters specialized for clitic order should be considered as a last resort. The main order parameter in Romance is very local, involving only Acc and Dat. We have interpreted this parameter as a reflex within the clitic string of the richness of structuring available to Dat arguments in phrasal syntax as well.

4. Theoretical conclusions. The present argument that precompiling the clitic string is neither necessary nor desirable cannot be run if linear order (head-initial for Kayne 1994) is part of the core syntax. If so, the order of clitics is predicted to replicate (not mirror) the order of arguments. The same is true if clitics are moved, under the conservativity of order imposed by crossing/no nesting dependencies (e.g. the chain Relativized Minimality of Bianchi 2005). This represents a potential argument that Chomsky (2013) is correct, namely that linear order is a way of pronouncing dominance relations, where quite simply pronunciation yields two possible externalizations for the same underlying relation. In fact, the discussion so far does not derive the fact that it is full arguments that are rightward oriented and clitics/inflections that are leftward oriented. We note that other combinations should also be available as both a prediction and a potential problem.

‘Suffixaufnahme’, oblique case and Romance possessives

Suffixaufnahme. In typological work (Plank 1995) the Suffixaufnahme label unifies case stacking (e.g. Lardil, Richards 2013) and linkers (e.g. Albanian, Franco et al. 2015). In Lardil (1), the word *marun-ngan-ku* ‘boy-gen-inst’ is inflected both for genitive and instrumental cases, reflecting its status as the (genitive) possessor of the instrumental *maarnku* ‘spear-instr’. In Albanian (2) the pre-genitival linker similarly agrees in case, as well as in phi-features, with its head N.

(1) Ngada latha karnjin-i marun-**ngan-ku** maarn-**ku**
I spear wallaby-acc boy-**gen-instr** spear-**instr**
‘I speared the wallaby with the boy’s spear.’ *Lardil*

(2) a. mur-**i** **i** shtëpi-së b. dhom-**a** **e** shtëpi-së
wall-ms.nom ms.nom house-fs.obl room-fs.nom fs.nom house-fs.obl
‘the wall of the house’ ‘the room of the house’
c. mur-**it** **të** shtëpi-së d. dhom-**ës** **së** shtëpi-së
wall-ms.obl ms.obl house-fs.obl room-fs.obl fs.obl house-fs.obl
‘to the wall of the house’ ‘to the room of the house’ *Albanian*

Purely structural criteria identify the two phenomena no less than functional-typological ones. First, not only genitives, as in (1)-(2) but also adjectival modification and relative clauses are core environments for both stacking and linkers (Campos 2008, Manzini & Savoia 2011 on Albanian). Second, the linker (while agreeing with the head noun N) forms an immediate constituent with its modifier (genitive, adjective, relative clause), despite the fact that the linker can be phonologically enclitic on N (e.g. Larson and Yamakido 2008 on the Persian ezafe). In essence both case-stacking and linkers embed the oblique DP (OblP) under an agreement layer (AgrP).

(1’) [$_{AgrP}$ [$_{OblP}$ marun-**ngan]-ku]**
(2a’) **[$_{AgrP}$ i** [$_{OblP}$ shtëpi-**së**]]

Indo-Aryan languages provide an intermediate link between (1) and (2). Suffixal material in Lardil is restricted to case (the language having no phi-features agreement). However Punjabi, which has a residual direct/oblique case inflection in the masculine (unlike Hindi) as well as phi-features inflections, suffixes a case and phi-features agreement on the postpositional genitive.

(3) a. munɖ-ea-**d-a** darwaddʒ-**a** b. munɖ-e-**d-i** kita:b
boy-mp.obl-**of-ms** door-**ms** boy-ms.obl-**of-fs** book.**fs**
‘The door of the boys’ ‘The book of the boy’
c. munɖ-e-**d-e** pra-d-i kita:b
boy-ms.obl-**of-ms.obl** brother.**ms-gen**-fsg book.fsg
‘The book of brother of the boy’ *Punjabi*

(3b’) [$_{AgrP}$ [$_{OblP}$ munɖ-ea-**d**]**-i]**

Aims. The data and the structures in (1)-(3) allow us to understand the phenomenon of possessive pronouns in the familiar Romance and Germanic languages as a residue of Suffixaufnahme holding only in the pronominal system and sometimes only in the 1/2P(erson). We center our discussion on Romance, with particular reference to Romanian (Dobrovie-Sorin & Giurgea 2011, Giurgea 2011) and Aromanian – though we restrict this abstract to standardized Romanian data.

Oblique case. We assume the standard minimalist approach to case, namely that case is parasitic on agreement as formulated by Chomsky (2001) for direct cases, i.e. nominative and accusative. An Agree approach could be made to work by postulating Appl heads (Pylkannen 2008) – yet we are not aware of this approach being pursued at all DP-internally, for genitives. Therefore we take a different direction. Following Manzini and Franco (2016), we assume that oblique case inflections and Ps (prepositions/postpositions), have a relational content, namely an ‘inclusion’ one, notated as (⊆), to suggest that a part/whole interpretation is involved. Oblique case, specifically the genitive, is therefore an elementary predicate, connecting two arguments (possessor and possessum) via a part/whole relation. For instance in (3a), a (⊆) relation, lexicalized by the postposition *d-*, holds between the argument to which the genitive morphology attaches, i.e. *munɖea* ‘the boys’ (the whole

or possessor), and the head DP *darwaddʒa* 'the door' (the part or possessum).

(2a") [$_{AgrP}$ **i** [$_{(\subseteq)P}$ [$_{DP}$ shtëpi-] **së**]

(3b") [$_{AgrP}$ [$_{PP(\subseteq)}$ [$_{DP}$ mundẹa] **d**] **-i]**

If oblique is an elementary relator, then the Aufnahme (i.e. linkers/stacking) phenomenon reflects the syntactic restriction in (4). The gist of it is that the Obl relator (perhaps $\subseteq$, as proposed here), requires a lexicalization of both its arguments within its maximal projection (in the languages where the relevant parameter is active). The internal argument is its complement, the external argument is introduced as a linker or a stacked affix. More technically, we may identify the relevant domain as the DP phase on whose edge the linker/stacked affix sits.

(4) **Syntactic Aufnahme (Obl)**. The external argument of the K(ase) predicate is instantiated within the predicate's maximal projection/the KP phase.

Romanian/Aromanian possessives. In the picture of variation just outlined the possessive pronouns of Indo-European languages, agreeing with the head N, are naturally understood as a residual Suffixaufnahme. The evidence that this is the correct line of analysis is particularly strong in Romanian/Aromanian. In Romanian, genitives are introduced by a Lkr agreeing with the head noun, *al, ale* etc. are forms of the definite article (Lat. *ille*). Several restrictions apply to the construction, which are unimportant here.

(5) a. un pahar **al** băiat-**ul-ui**
a glass Lkr.msg boy-the-obl
'a glass of the boy'

b. două kămăş-i **ale** băiat-**ul-ui**
two shirts-fpl Lkr.fpl boy-the-obl
'two shirts of the boy' *Romanian*

In many languages, 1/2P pronouns differ from 3P pronouns in their case declension (Loporcaro 2008, Manzini and Savoia 2014 on Italian dialects). The Romanian pronominal system is a case in point. The 3P case system reflects the two-case organization direct/oblique of lexical Ns—however 1/2P singular have a distinct accusative case. More to the point, 3P oblique forms are embeddable in genitive contexts; with 1/2P forms, genitive contexts are given over to possessives, whose inflectional endings agree with the head N. 1/2P possessive pronouns, no less than the oblique pronouns in the 3P, must be preceded by linkers, as in (6).

(6) cas-a de vacanţa **a** professor-**ului**/ **a** me-**a**
the house for vacation Lkr.fsg the professor/Lkr.fsg my-fsg
'the vacation home of the professor/of mine'

Giurgea (2011) suggests that in Romanian "the agreement morpheme does not attach directly to the root, but the root is first extended by an element … that can be analyzed as a possessive suffix […] Given this decomposition, the agreement morpheme of agreeing possessors does not attach to DP, but rather to a Case projection". Thus the morphemic structure suggested for Romanian is *m-e-u/a/i/le, t-ă-u/a/i/le, no-str-u/a/i/le, vo-str-u/a/i/le*. In present terms, the genitive case is the relator ($\subseteq$), taking as its internal argument the 1/2P pronoun 'me' in (6) and as its external argument ultimately the head N 'house'. What the *–a* ending on *me-a* does is provide a representation internal to the possessive modifier of the external argument of the possessive predicate, doubling in this instance the *a* Lkr.

(6') [$_{AgrP}$ **a** [$_{AgrP}$ [$_{(\subseteq)}$ m-e] **a**]]

In short, we conclude that agreement-suffixed possessive pronouns structurally fall under the generalization **Syntactic Aufnahme (Obl)**.

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Object attraction in Persian: The role of syntactic structure

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Introduction: Research on subject-verb agreement production in SVO languages has shown that objects moved preverbally trigger attraction, i.e., erroneous agreement of the verb with the object. Moreover, objects c-commanding one of the agreement positions in the hierarchical structure were found to generate stronger attraction than those linearly preceding them. Evidence for the role of c-command comes from the observation that the accusative clitic in French (in the construction S clitic-V) triggers stronger attraction than the preverbal dative pronoun and the PP modifier (Franck et al. 2006). The French accusative clitic is base generated post-verbally but targets a c-commanding position in the spec of AgrOP (Kayne 1989), whereas the dative pronoun and the modifier both occupy a non-c-commanding position inside a PP. In line with this finding, stronger attraction was reported with the c-commanding head of a complex object phrase than with the prepositional phrase modifying it, intervening by precedence (Franck et al. 2015). Attraction has been argued to arise from the incorrect identification of the agreement controller, relying on a process of cue-based retrieval of the subject from memory (Badecker & Kuminiak 2007). We posit that nominative case, semantic features matching the requirements of the verb (Slioussar & Malko 2016), and C-command (Alcocer & Phillip 2012) are all possible targets of search. Similarity-based interference arises when noun phrases other than the subject share some of these features. We report two experiments in Persian, an SOV language, to explore the role of c-command as well as of another syntactic feature typical of subjects: topicality. Object attraction in subject–verb agreement was elicited by presenting sentences in Rapid Serial Visual Presentation procedure and asking participants to choose among the two verb forms (Staub 2009). Unlike French, the accusative object in Persian SOV does not c-command the verb (Karimi 2005) and thus arguably has the same hierarchical status as the dative. However, in OSV, the accusative targets a c-commanding position by moving to the spec of a functional projection in the left periphery. Thus, if attraction is due to the erroneous retrieval of the object as agreement controller, stronger attraction is expected with accusative OSV than with dative OSV and with both types of objects in SOV, which all intervene by precedence. This is explored in Experiment 1. Moreover, the accusative in OSV is associated with the addition of a suffix (-ra), absent on the dative, which has d(iscourse)-linking interpretation and has been argued to be a topic (Ghomeshi 1997). Even though –ra can appear on O in SOV, O in its base position cannot be a topic, even in the presence of –ra (Ganjavi 2007). Since topicality is a typical feature of subjects, cue-based retrieval predicts that –ra, as a formal realization of [+Top], should increase attraction in O-raSV but not in SO-raV in which the object is not a topic. Experiment 2 tests this prediction.

Experiment 1: This experiment compared attraction from accusative and dative objects in SOV and OSV orders (Table 1). Results showed that attraction was stronger in accusative O-raSV than in the three other conditions which were not statistically different (Figure 1).

Experiment 2: The accusative object in OSV in Experiment 1 was suffixed with –ra, absent in the other conditions. It may therefore be the case that the high error rate found in that condition is due to the presence of the suffix –ra, making the object more salient. If this is the case, more attraction is also expected with –ra marked SO-raV than non-ra marked SOV.

Results showed no significant difference between the attraction in SOV than in SO-raV (Figure 2).

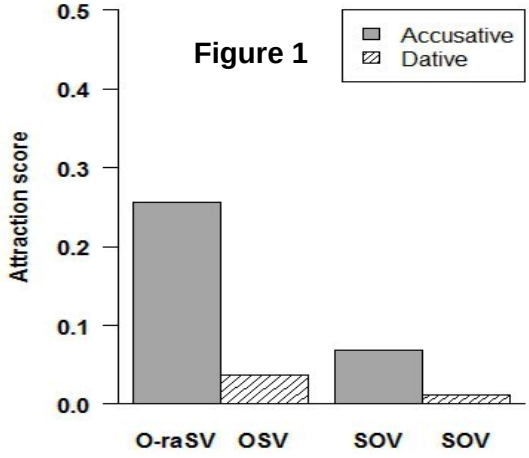
Discussion: Results from the two experiments converge in showing that objects with typical subject-like features, c-command and topic, are stronger attractors, in line with the hypothesis that attraction is due to the erroneous retrieval of the agreement controller. Importantly, the effect of –ra appears to be due to its formal property as topic, and not to its general role as the object marker. The error rates observed in the various conditions involving objects intervening by precedence (dative in SOV and in OSV, accusative in SOV in both experiments), around 5%, is comparable to error rates from PP modifiers and dative objects typically reported in the literature. The relatively high error rate in O-raSV (25%) compared to French moved objects (c. 15%) may be due to the additional Topicality feature present in Persian, and not in French.

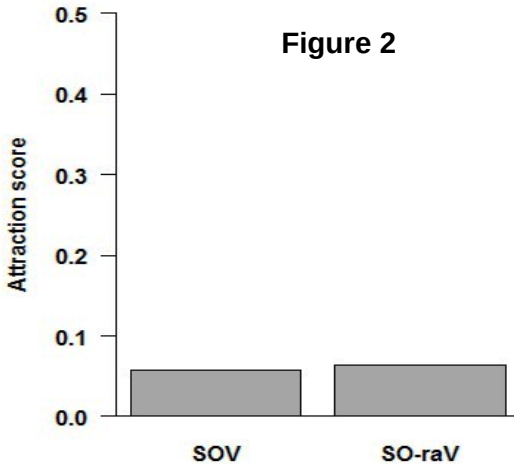
Table 1: Example of stimuli in the 8 experimental conditions of Experiment 1**.**

	Accusative	**Dative**
SOV	Ranande chanta/ye mosafer Driver several/a passenger savar kard/kardand ride did.3sg/did.3pl 'The driver gave ride to several/a passenger(s)'	Ranande ba chanta/ye mosafer Driver with several/a passenger harf zad/zadand word hit.3sg/hit.3pl 'The driver talked with several/a passenger(s)'
OSV	Chanta/ye mosafer-RA ranande Several/a passenger-RA driver savar kard/kardand ride did.3sg/did.3pl	Ba chanta/ye mosafer ranande With several/a passenger driver harf zad/zadand word hit.3sg/hit.3pl

Table 2: Example of stimuli in the 4 experimental conditions of Experiment 2**.**

	-RA	**Non-RA**
SOV	Ranande chanta/ye mosafer-RA Driver several/a passenger-RA savar kard/kardand ride did.3sg/did.3pl	Ranande chanta/ye mosafer Driver several/a passenger savar kard/kardand ride did.3sg/did.3pl





Note: The attraction score was calculated by subtracting error rates when the subject and the object were singular (match) to error rates when the subject was singular and the object was plural (mismatch). Accuracy proportions were analyzed using generalized linear mixed-effects models with random intercepts for participants and items.

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On the syntactic encoding of interjections:
evidence from Emilian dialects and standard Italian

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Building on previous studies on the syntactization of features pertaining to the syntax-discourse interface (cf. Speas & Tenny (2003), Sigurđsson (2004), Bianchi (2006), Baker (2008), Giorgi (2010), Miyagawa (2012), Haegeman & Hill (2013), Haegeman (2014)), in this work I will sketch a formal account of the syntactic and interpretive properties of interjections based on evidence from Emilian dialects and standard Italian. Adopting a cartographic approach to the functional layout of the highest portion of the left periphery, I will basically argue that interjections can be split into three categories according to whether they must, they can or they cannot be integrated with the associated clause; the degree of prosodic integration of the interjection is strictly connected to its discourse linking properties and depends ultimately on its (first or second) merge position.

The first class includes interjections that must be integrated with the associated clause and are intrinsically discourse-linked, in the sense that they can only be used to reply to a previous utterance in the discourse situation and to express emphatically the speaker's personal stance. They are exemplified in (1) with *mo vaca* and *mo deg* in the Emilian dialects of Modena and Reggio and in (2) with *eccome*/*altroché* in standard Italian:

(1) a. *Mo vaca* s'l'è èlt! b. *Mo deg* c'l'è èlt!
Interjection if-cl-is tall Interjection that-cl-is tall

(2) *Eccome*/*Altroché* *(se) Gianni ha passato l'esame!
Interjection if John has passed the exam!

In (1)/(2) the clause initial interjection is obligatorily followed by the complementizer *se/che* and is clearly prosodically integrated with the associated clause. As discussed by Alessandrini (2012), no lexical element can intervene between *mo* and *vaca/deg*; moreover, a topicalized constituent must follow the complementizer, which suggests that *se/che* occupy the head Force° - rather than a lower head of the CP layer - if, as proposed by Rizzi (1997), Topic projections are lower than Force. As to the discourse particle *mo*, Poletto & Zanuttini (2003)/(2010) argue that it contains an evaluative component which is clearly present in (1), where *mo* is intrinsically related to the speaker's perspective and to his commitment with respect to the relevant propositional content. Following Hinterhölzl & Munaro (2015)'s proposal that the particle *mo* is linked to (the head EvalS° of) an Eval(uative)S(peaker) projection immediately dominating ForceP, I will suggest that *mo* in (1) is first merged as the head EvalS° of the projection EvalSP, while the items *vaca/deg* occupy spec,ForceP (which captures in terms of spec-head agreement the selectional link between the element filling spec,ForceP and the type of complementizer lexicalizing the head Force°):

(3) [EvalSP [EvalS° Mo] [ForceP vaca/deg [Force° se/che] [FinP l'è èlt!]]]

Concerning *eccome* and *altroché*, which diachronically result from *e+come* and *altro+che*, on the basis of their compositional nature I will assume that they were originally maximal projections, occupying spec,EvalSP, and are being reanalyzed as filling the head EvalS° as a consequence of a well attested process of specifier to head reanalysis (cf. van Gelderen (2004), Willis (2007)):

(4) [EvalSP Eccome/Altroché [ForceP [Force° se] [FinP Gianni ha passato l'esame!]]]

The second category of interjections, the ones that can (but need not) be integrated with the associated clause, is exemplified by items like *sorbla/madosca* in the Emilian dialects and by *caspita/accidenti* in standard Italian; the interjection can either be followed by *se* or be prosodically and syntactically independent, in which case it can either precede or follow the associated clause:

(5) a. *Caspita*/*Accidenti* se Gianni ha passato l'esame!
Interjection if John has passed the exam!
b. [*Caspita*!/*Accidenti*!] Gianni ha passato l'esame! [*Caspita*!/*Accidenti*!]
Interjection John has passed the exam! Interjection

These interjections are structurally ambiguous as they can be analyzed by the speakers either as the head EvalS°, like in (6a), or as the head of a contiguous SpeechAct projection (cf. Haegeman & Hill (2013), Haegeman (2014)), like in (6b), where the interjection occupies the adjacent SpeechAct° licensing an exclamative clause typing feature in Force (which in this case is not lexicalized by *se*); the clause final position of the interjection can be derived by fronting the associated clause FinP to spec,SpeechActP in order to satisfy a criterial constraint à la Rizzi, like in (6c):

(6) a. [EvalSP [EvalS°Caspita/Accidenti] [ForceP [Force° se] [FinP Gianni ha passato l'esame!]]]
b. [SpeechActP [SA°Caspita/Accidenti!$_x$] [EvalSP [EvalS° t_x] [ForceP [FinP Gianni ha passato l'esame!]]]]
c. [SpeechActP [FinP Gianni ha passato l'esame!]$_x$ [SA°Caspita/Accidenti!] [EvalSP [ForceP t_x]]]

The third type of interjections, exemplified in (7) with the Italian interjection *però*, represent independent illocutionary acts, as they cannot be integrated with the associated clause and do not need any linguistic antecedent in the speech situation; I surmise that these interjections are always first merged as heads of SpeechActP, giving rise to the word order with clause initial interjection; as for the reverse order, the clause final position of the interjection can be derived again by fronting the associated clause FinP to spec,SpeechActP, like in (8):

(7) [*Però*!] Gianni ha passato l'esame! [*Però*!]
Interjection John has passed the exam! Interjection
(8) [SpeechActP [FinP Gianni ha passato l'esame!]$_x$ [SA° Però!] [ForceP t_x]]

Interjections express an emotional reaction to a linguistic or extra-linguistic event which is manifest in the speech situation and have an intrinsically deictic nature in the sense that they can only be uttered in the presence of the mental state they give vent to. Interestingly, only the interjections belonging to the second and third class can be uttered in isolation in out of the blue contexts; this property can be derived by the hypothesis that only interjections occupying the head SpeechAct° - and attracting the associated cause to the corresponding specifier - can reach the head of the adjacent Speaker projection where, according to Giorgi (2010), the speaker's spatio-temporal coordinates are codified:

(9) [SpeakerP [Sp° Sorbla!/Caspita!/Però!$_x$] [SpeechActP Ø [SA° t_x] [ForceP [FinP]]]]

Only after the interjection has raised to the next higher head Speaker° can be provided the appropriate contextual anchoring of the utterance, which allows for the non-realization of the

associated clause; in other words, only in that case can take place the deictic reference to the event of the external world that is the source of the speaker's mental state.

Long distance agreement and information structure

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1. Summary: In this talk, I discuss a specific subtype of long distance agreement (LDA), namely agreement across a finite (CP) clause boundary. I will show that most, if not all, instances of LDA depend on information structural (IS) properties of the agreement target in the embedded clause, be it for cross clausal object agreement or case assignment. After discussing LDA in unrelated language families, I will argue that languages differ with respect to which information structural feature can be employed to escape the CP phase.

2. Background: LDA presents a challenge to a fundamental syntactic locality constraint, namely the phase impenetrability condition (PIC) of Chomsky (2000, 2001), which states that only phasal heads and their edges are accessible to operations outside the phase. Long distance agreement, especially LDA into finite CP complements (excluding cases of restructuring, Wurmbrand, 2001), calls the validity of the PIC into question. In (1) (Tsez, Polinsky and Potsdam, 2001), the matrix verb agrees in noun class with the absolutive argument of the embedded clause. Importantly, the possibility of LDA depends on the agreement target being the topic of the embedded clause. If this is not the case, the matrix verb shows (default) agreement with the embedded CP (2).

(1) *Enir [užā magalu b-āc'ruɬi]* ***b****-iyxo*
mother [boy bread.**III**.ABS ate] **III**.know
'The mother knows that, as for the bread, the boy ate it.'

(2) *Enir [užā magalu b-āc'ruɬi]* ***r****-iyxo*
mother [boy bread.**III**.ABS ate] **IV**.know
'The mother knows that the boy ate the bread.'

A different long distance dependency can be observed in (3) (Uyghur, Asarina and Hartman, 2011). In this language, certain finite relative and noun complement clauses host subjects in genitive case that, according to the authors, is assigned by the clause external nominal D head which also shows agreement with the genitive subject. Again, this is possible only if the embedded subject has a specific IS status; without it, the subject is unmarked. However, in contrast to Tsez, it can be a topicalized element (3), or a focus (4).

(3) *[men-****ɨŋ*** *ji-gen] tamaq-****im*** *jaχʃi*
I-**GEN** eat-RAN food-**1SG.POSS** good
'The food that I ate is good.'

(4) *[Ötkür-****nɨŋ****-la kel-gen-liq] χever-****i*** *muhim*
Ötkür-**GEN**-only come-RAN-LIQ news-**3.POSS** important
'The news that only Ötkür came is important.'

Very similar patterns can be observed in several languages, as shown in table 1. Importantly, in all languages, the agreement target in the embedded clause needs to receive a special information structural interpretation to be available as a goal. Furthermore, in all cases, the authors conclusively show that it is indeed agreement into a finite CP.

3. Analysis: Several analyses have been proposed to deal with LDA's apparent violation of the PIC (cf. Bhatt and Keine, ta and Polinsky, 2003 for discussion). Similar to Legate (2005), I argue for a cyclical agreement analysis, comparable to Bjorkman and Zeijlstra (2014), in which there is never a direct AGREE relation between the matrix probe and the embedded goal. In contrast, the embedded goal first agrees with an element in the left periphery of the embedded

	Dependency	
IS property	**ϕ-features**	**case**
focus	Blackfoot (Bliss, 2009)	
topic	Tsez (Polinsky and Potsdam, 2001)	Turkish (Sener, 2008)
	Innu-aimûn	
	(Branigan and MacKenzie, 2002)	
both	Hinuq (Forker, 2012)	Uyghur (Asarina and Hartman, 2011)
	Khwarshi(Khalilova, 2009)	
	Passamaquoddy (Bruening, 2001)	

Table 1: LDA and IS property of goal

clause, which in turn then serves as a goal for the matrix probe. Since this intermediate element is at the edge of the CP phase, LDA, similar to successive cyclic wh-movement, does not violate the PIC. Crucially, the intermediate element needs to be an information structural head in the left periphery of the embedded clause for LDA to be possible.

(5) $[\ \ldots \underset{\text{AGREE}}{\text{V}} \ldots [\ \ldots \overset{\text{AGREE}}{\text{Top/Foc}} \ldots \text{XP}_{\text{Top}}/\text{XP}_{\text{Foc}}\ ]\ ]$

I assume that the relevant information structural head in the left periphery carries ϕ and IS features (Miyagawa, 2010) and that by feature sharing (Pesetsky and Torrego, 2007), the IS head can then serve as agreement target for a higher probe, for example V or D, extending the analysis to cover the Uyghur data. This also explains why overt complementizers block LDA in certain languages like Tsez: under the assumption that the complementizers also carry ϕ-features, they simply provide a closer agreement target for the higher probe. Assuming that LDA involves an agreement step based on information structural features can serve to explain the variation found in table 1. Following Rizzi (1997)'s proposed structure of the left periphery in (6), languages seem to differ with respect to which projection in the left periphery is considered part of the phase edge.

(6) $[_{\text{ForceP}}$ Force $[_{\text{TopP*}}$ Top $[_{\text{FocP}}$ Foc $[_{\text{TopP*}}$ Top $[_{\text{FinP}}$ Fin $]\ ]\ ]\ ]\ ]$

Languages allowing LDA based on topics like Tsez only consider the higher topic phrase as part of the phase edge (cf. Bobaljik, 2008), while languages allowing LDA for topics and foci also take the focus phrase to be part of the phase edge.

4. Consequences: The analysis crucially relies on the presence of active information structural features like topic and focus in narrow syntax (*pace* Chomsky, 1995, a.o.). Given that I propose that IS features are syntactically present, cases in which they play more than a mediating role should exist. This prediction is borne out in Lavukaleve (7) (Terrill, 2003) and in Bilua (Obata, 2003) where focus markers transparently agree in ϕ-features with their associated foci.

(7) *Aira* *la* ***fo'sal*** *na* *o-u-m* ***fin***
woman(F) SG.F.Art **fish(M)** SG.M.Art 3SG.S-eat-SG.M **3SG.M.FOC**
'The woman ate the fish.' (as answer to 'What did the woman do?')

Furthermore, other strategies to make the embedded element accessible at the edge of its phase should be available. Trivially, long distance *wh*-dependencies achieve the same based on interrogative features, but relative clauses have also been argued to involve LDA by Heck and Cuartero (2012). They claim that the relative pronoun serves as an intermediate agreement step between head noun and embedded verb to allow agreement into the phasal relative clause.

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Losing events, losing morphology.
An analysis of the diachronic evolution of Latin denominal deponents.

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1. Introduction. Deponents are characterized by the mandatory presence of the Middle morphology and, usually, by the presence of an Agent. Denominal deponents (DDs) are formed on the basis of a nominal element and are always agentive: *blandior* 'I soften', *recordor* 'I remember', *piscor* 'I fish'.

(1) Cauda teneris blanditur alumnis (Ov. *Fast*. 2, 417)
tail.ABL soft.ABL soften.3RDS.PRS.MID pupils.ABL
It caresses the sweet pupils with the tail

DDs are productive in Latin. Their number increases between the III c. bC and the V c. AD (Xu, Anshen and Aronoff 2007, Pinzin 2015). Many DDs, in their diachronic evolution, lose the Middle morphology.

(2) Ut animos audientium blandiat (Isid. Hisp. *Etym.* 3, 20, 14)
so.that spirit.ACC.PL hearer.GEN.PL soften.3RDS.SUBJ.PRS.ACT
In order to soften the spirit of the people who were listening to him

The target of this presentation is to show that there is a general syntactic process behind this loss: the reanalysis of a bi-eventive structure as a mono-eventive one caused by the reanalysis of the nominal formative of the verb as a verbal root.

2. Framework. A Constructivist syntactic approach: argument structure is the byproduct of the sequential merge of syntactic eventive heads, e.g. [v-do°], [v-go°], [v-be°] (Cuervo 2014), which introduce specific arguments: DOER, UNDERGOER, HOLDER, POSSESSOR, BENEFACTIVE.

3. Background on DDs. There are two ways of creating a verb: Conflation of a root into an eventive head; Incorporation of a lower XP argument (Acedo-Matellán and Mateu 2013).

(3) Incorporation: [v-doP [DP DOER] [v-do' [v-do° + nominal element] [v-beP [DP HOLDER] [v-be' [v-be°] [~~nominal element~~]]]]]
(4) Conflation: [v-doP [DP DOER] [v-do' [v-do° + √]]]

The mechanism that creates DDs is Incorporation: the nominal is merged into a lower stative phrase and incorporates into the higher dynamic head (v-do°), forming the verb. The second characteristic of DDs is reflexivity: the argument has a double thematic role, it is both the subject of the lower stative phrase (HOLDER/POSSESSOR) and the subject of the higher v-do° event (DOER). The identification between the lower argument and the higher DOER is reached by means of the Middle morphology. The Middle morphology signals that an argument is existentially bound and not syntactically projected (∃ROLE). In the case of DDs, the DOER position is signaled as existentially bound (∃DOER). The existentially bound DOER is contextually identified with the argument of the lower stative phrase (for a similar analysis of the Middle morphology in Modern Greek, see Alexiadou, Spathas & Schäfer 2015).There are three different kinds of DDs, depending on the stative event(s) involved:

(5) *blandior* 'I make myself pleasant (*blandus*)':
[v-doP [DP ∃DOER] [v-do' [v-do° + [nP bland-]] [v-beP [DP HOLDER] [v-be' [v-be°] [~~nP bland-~~]]]]]
(6) *piscor* 'I act in order to get fish (*piscis*)':

[v-doP [DP ∃DOER] [v-do' [v-do° + [nP pisc-]] [applP [DP POSSESSOR] [appl' [appl°] [~~nP pisc-~~]]]]]

(7) *(re)cordor* 'I act in order to have something back into my heart (*cor*)':
[v-doP [DP ∃DOER] [v-do' [v-do° + [nP cor-]] [applP [DP POSSESSOR] [appl' [appl°] [v-beP [DP HOLDER] [v-be' [v-be°] [~~nP cor-~~]]]]]

In (5) and (6) there is only one argument, marked by Nominative case. In (7) there is a second argument, the HOLDER, marked by the dependent case (Accusative).

4. Research questions. Can we identify a syntactic process behind the loss of the Middle morphology? Do the three kinds of DDs behave differently with respect to this process?

5. Database. The data are taken from the LLT (A and B series) and from the ALIM. I followed the occurrences of a large group of relevant DDs from the III-II c bC to the VIII-IX c. AD.

6. Analysis. The loss of Middle morphology is related to the reanalysis of the nominal element as a verbal root. The nominal element gets reanalyzed as a verbal root conflated into the eventive head.

(8) [v-doP [DP ∃DOER] [v-do' [v-do°] [v-beP [DP HOLDER] [v-be' [v-be° √bland-]]]]]

Once a verbal √ has been created, the reanalysis of the bi-evental structure as a mono-evental one is a concrete possibility. The consequence of this reanalysis is the loss of the reflexive structure and of the Middle morphology:

(9) [v-doP [DP DOER] [v-do' [v-do° + √bland]]]

One of the tests is support of this analysis is the availability of a direct Accusative argument. When the DD is in the first stage, in (5), the stative phrase occupies the complement position of the v-do°. The target of the activity, then, cannot be merged in that position and has to be merged as an adjunct. This is signaled by the fact that *teneris alumnis* in Errore: sorgente del riferimento non trovata is marked by Oblique case. Given this, the presence of a direct Accusative argument is a good diagnosis for the reanalysis of the nominal as a verbal √ conflated into v-do°. E.g., in the VIc. AD the verb *blandior* 'I soften' starts occurring with a direct Accusative argument. The expected consequence is the loss of the Middle morphology. The sentence in (2) confirms this expectation. Other verbs, e.g. *insidior* 'I ambush', *piscor* 'I fish', follow the same behavior. In *piscor* the process is eased by the fact that, phonologically, the noun and the verb diverge: the [sc] cluster gets palatalized [ʃ] in the noun while it is preserved in the verb.
Finally, I have noticed differences wrt the three kind of DDs. The third kind of DDs, in (7), shows stronger resistance to the process. E.g., the Italian verb *ricordarsi* 'to remember', from Lat. *recordor* 'I remember', still maintains the reflexive marking (the clitic *si* 'self').

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An overlooked causative variant? Revisiting the causative alternation in Romance.

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Transitivity alternations are a fundamental issue in the study of the lexicon/syntax interface. If we standardly assume that the dyadic frame in (1) corresponds to a complex event structure, in contrast to the simpler event associated with the monoargumental variant (see (2)), an important fact about the causative-inchoative alternation is that the structural contrast (and variable complexity) in argument realization coincides with a contrast (and relative complexity) bearing on event structure.

(1)a. John closed the door [$_{\text{CAUSE}}$X[$_{\text{BECOME}}$[Y<closed>]]]
b. The door closed [$_{\text{BECOME}}$[Y<closed>]]
(2) $V_{\text{TRANSITIVE}}$ = CAUSE to $V_{\text{INTRANSITIVE}}$ (Levin 1993:27)

Given that lexical overgeneration is not a desirable upshot, a relevant question becomes whether these variants derivationally related; and, if so, which structure is the 'original' and which one is derived. While a wide spread of accounts analyze the relative complexity of the transitive variant as a composition combining the causative structure with a basic (inchoative) structure (e.g., Dowty 1979, Parsons 1990, Hale & Keyser 1993, Rappaport & Levin 2011); others propose instead that the transitive variant is basic and the inchoative is derived (Levin & Rappaport 1995, Reinhart 2002, Chierchia 2004 *i.a.*). More recently, non-derivational approaches (Rosen 1996, Doron 2003, Mateu 2000, Harley 2008) argue that different argument structure configurations can be produced from the same root. In any case, a major theoretical discussion holds between works placing the burden of the explanation in the lexicon (Levin & Rappaport 1995, Jackendoff 1990, Reinhart 2002) and works proposing that it should rather be placed in the syntax (Borer 2005, Travis 2000, Kratzer 1996, Marantz 1997, Ritter & Rosen 1998, Harley 1995, among others), which is taken to include the composition of 'lexical' argument structure configurations (Hale & Keyser 1993, 2002, 2005).

1.Problem. A fact which is not commonly discussed from the perspective of transitivity alternations is that the variability in the syntactic frame arguably extends to a third alternative in Romance, also related through the notion of "cause". This less-visited variant features a single argument, which is defaultly interpreted, not as the undergoer (i.e. as in (b)), but rather as the entity with the relevant properties to cause the change (i.e., the *initiator)* ((3)c)—i.e., the DP_2 in the transitive form. Interestingly, even if this monoargumental (*initiator*-only) alternative is acceptable in English in some contexts, it seems to be quite free in Romance (encyclopedic restrictions aside) (cf. (3)-(4)).

(3)a. El cloro blanquea los huesos.
'Bleach whitens the bones'
b. Los huesos (se) blanquean.
'[the] Bones whiten'
c. El cloro blanquea.
?'Bleach whitens'
(4)a. La comida chatarra engorda a los niños.
'Junk food fattens the kids'
b. Los niños engordan.
'Kids fatten [up]'
c. La comida chatarra engorda.
*'Junk food fattens'

The construction in question, called here *stative-causative* [SCC] to reflect its semantic and eventive status (see also Rothmayr 2009:47), creates a problem for the structural characterization of change-of-state and deadjectival verbs in at least three respects. First, SCCs raise the question as to whether the internal argument—which in fact appears as the only apparent constant in change-of-state verbs

when the analysis is limited to (1) or to (a/b) cases in (3)—is indeed a default constituent in the argument structure configuration of these verbs, as commonly assumed in both lexicalist and constructional approaches (cf. Ramchand 2008 for summary). Second, by suggesting that the causative component may be realized independently, SCCs challenge a basic rule of event composition that figures in lexicalist and constructionalist approaches, whereby the event structure of change-of-state verbs combines two basic components in a hierarchical relation, cause and process, and that the former, when present, causally implicates the latter (Hale & Keyser 1993:69, Rappaport Hovav & Levin 1998:108). Third, the consistent unergative behavior of SCCs suggests that verbs which are commonly classified as bona fide unaccusatives (cf. Ramchand 2008:35, Levin & Rappaport 1995:80) or as basic transitives (e.g. Levin 1993, Levin & Rappaport 1995:25) may yield unergative frames or at least have unergative uses in Romance.

2.Proposal We will treat this particular kind of flexibility on structural alternations by proposing that it depends on the type of verbal head (v^o) combined in the formation of the verb, rather than of the properties of a particular lexical entry, with three potential configurations resulting from a common (perhaps category-neutral) root. We argue that the possibility to derive ((3)/(4)c) can be explained by a (null) causative v^o which is freely available in Romance for derivation, producing a simpler event and argument structure than the one seen in ((3)/(4)a), but at the same time, one which is crucially (semantically and syntactically) different from the simple structure seen in ((3)/(4)b). Importantly, the transparent correlation between argument and event structure is preserved: based on specific tests and independent data collected via corpus search and experimental surveys, we will show that in SCCs the absence of the internal argument correlates with the absence of the process (sub)event, producing a stative predicate with unergative behavior. Notably, SCCs do not tolerate progressive/perfect tenses or endpoint adverbials; further, if *in-X-time* adverbials, degree modifiers, and locative PPs occur at all with SCCs, they deliver the interpretation expected for statives (e.g., measure the extent of the initiational capacity (property)). A different but nonetheless interesting problem is that the stativity of SCCs contrasts with stative predicates analyzed as a result of a causative v^o ($v_{CAUS/INIT}$) in previous accounts (e.g. English *Katherine fears nightmares*, Ramchand 2008) in two crucial ways. First, in SCCs the subject is interpreted by default as a *causer* or *trigger* rather than as *holder* of a *result state*. Second, the potential unergativity of the construction—which follows straightforwardly from the structural properties of the causative v^o, which characteristically licenses external arguments—is not predicted by the standard analysis, and contrasts with the argument structure realization patterns displayed by English (e.g. X *fears/annoys* Y). To solve this, we propose that a non-derivational (constructional) approach, using distinct and meaningful v heads to constrain interpretation and argument selection, provides a principled explanation for the problem. Although a specific type of (l-syntactic) account will be implemented in the argumentation (v *flavors*, Folli & Harley 2007), direct composition with v^o_{INIT} (Ramchand 2008, McIntyre 2004), we will work under the more general assumption that the semantic properties of the different verbal heads combined are responsible for event interpretation and argument structure realization, in line with earlier works (cf. Hale & Keyser 1993, Borer 2005:30).

3. Advantages. •The absence of a process component in initiator-only frames supports a transparent correlation between the simpler event structure of SCCs (state) and the simpler (unergative) syntactic frame, thus reinforcing the idea of an internal-argument-licensing process component (e.g. v_{BECOME}) not included in the representation by default. This in contrast to an explanation building on implicit arguments and/or unrealized projections which is not favored by empirical data—unlike null object constructions, SCCs do not allow bare quantifiers (5), reflexive morphology (6), secondary predication (7), *ne*-cliticization (Italian)—and is consistent with similar observations concerning atransitivity (cf. McIntyre 2004(59)). • The stativity of SCCs would be consonant with the stative nature of the causative v^o suggested in recent constructional approaches (Ramchand 2008 *i.a.*), while its atelicity agrees with the general principle (going back to Dowty 1979) that relates unergativity/atelicity on the one hand, and unaccusativity/telicity on the other hand. • The

constructional status of the process event, together with the corresponding verbal projection, fits well with the well-known empirical observation that unaccusative frames are morphologically complex in Romance—a powerful argument commonly adduced by proponents of a causative-to-inchoative derivation (see Ramchand 2008 and Rappaport & Levin 2011 for summary). • The analysis of SCCs as the result of free compounding with a causative v^o ($v^o_{CAUS, \sqrt{}}$) is consistent with the significantly fewer cases of change-of-state/deadjectival verbs resisting a causative form. • The fact that the addition of the causative component is apparently only constrained by external semantic conditions agrees with arguments from more recent constructional (e.g. Harley & Noyer 2000, Hale & Keyser 2005) and lexicalist (e.g. Rappaport & Levin 2011) views on this topic.

(5) Esto {enfurece/empobrece/indigna}*(muchos). ›cf. Esto ha dejado muchos indignados/pobres.
'This infuriates/impoverishes/outrages many' 'This has left many infuriated/poor'

(6) La injusticia {entristece/enoja} (*con sí mismo). ›cf. (se/lo) enoja/entristece (con símismo).
'Injustice saddens/maddens *with oneself' '(It) saddens/maddens one with oneself'

(7) El horno calienta (*congelado/*abundante/*crocante). ›cf. El chef cocina congelado/rico.
'The oven heats packed/compact/crispy' 'The chef cooks frozen/tasty [meals]'

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Diagnosing phase boundaries in participial relative clauses

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1. Phasehood. Most approaches to phasehood aim at an *intrinsic* definition of phases and provide a static list of categories that qualify as phasal heads (Chomsky 2008). We argue instead for a *derivational* definition, by which the phase status of a given configuration depends on how it is syntactically derived. Minimalist syntax has mainly focused on finite clauses. We extend the empirical domain by studying participial relative clauses (PRCs).

2. Reduced relatives. Participles are hybrid lexical categories with verbal and nominal inflectional features as reflected by their morphology and syntactic distribution. PRCs display considerable diversity crosslinguistically, with different participial forms and construction types corresponding to different syntactic derivations (Doron and Reintges 2007). The best-known type is that of past participial relatives, which exhibits typical unaccusative/passive diagnostics in only allowing object relatives without an overt subject; see (1a). Past participial relatives are structurally minimal, whence their analysis as reduced relatives. In refuting Kayne's (1994) silent CP analysis, we argue that these participle constructions are simply VPs. Yet, they are strong islands and hence impenetrable phases, as seen in (1b).

(1) a. The philosopher admired *(by) everybody
b. *By whom did you meet the philosopher admired ~~by whom~~?

In principle, the phasehood could come either from the complex NP itself or from the participial structurealone. To tease apart these two options, we study more complex PRCs with a full argument structure including an overt subject. In allowing the relativization of objects, adjuncts and possessors, such PRCs instantiate a full-fledged relativization paradigm.

3. The Double Agreement Pattern in MSA. In entertaining two agreement relations, PRCs with overt subjects in Modern Standard Arabic (MSA) shed light on the complex relation between phasehood, non/movement and labelling. In (2), the participle *l–jālis–u* 'the sitting' agrees, on the one hand, with the subject *zawj–u=hā* 'her husband' in singular number and masculine gender, and, on the other hand, with the relative head *ʔal–marʔat–u* 'the woman' in definiteness and nominative case. The double agreement pattern may produce agreement mismatches: in the case at hand, the relative head has feminine and the modifying participle masculine gender. The participle must surface in the immediate postnominal position, thereby excluding Subject–Verb order within the participial relative clause.

(2) Adjectival agreement Subject–Verb Agreement (MSA)

a. ʔal–marʔat–u$_i$ [**l–jālis–u** zawj–u=hā$_i$]
DEF–woman.FS–NOM DEF–sitting.PTCP.M.SG–NOM husband.M.SG-NOM=POSS.3F.SG
'The woman whose husband is sitting (lit. the woman the-sitting her husband)'

b. *ʔal–marʔat–u$_i$ [zawj–u=hā$_i$ **l–jālis–u**]

The double agreement pattern provides evidence for two domains for feature valuation—one pertaining to subject–verb agreement with the participial clause, and the other one pertaining to adjectival agreement with the modified DP. The situation is quite paradoxical in phase-theoretic terms. PRCs behave like phases, which define agreement domains (e.g. Bobaljik &

Wurmbrand 2005, van Koppen 2005). On the other hand, PRCs don't behave like phases in remaining accessible to agreement with the external DP.

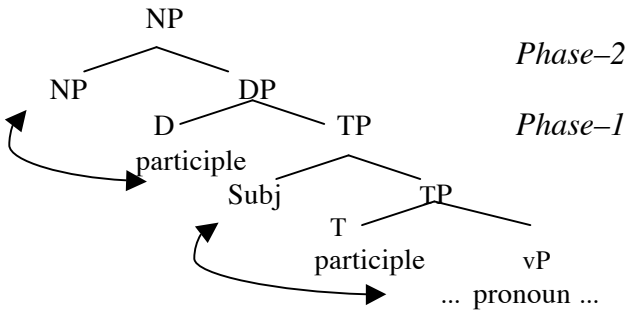
4. Obligatory Pronominalization. The double agreement pattern correlates with another peculiarity of MSA PRCs, to wit, the obligatory presence of a pronoun at the relativisation site, with a gap producing ungrammatical result; see (3a). The situation in PRCs contrasts with the one found in full direct object relative clauses (introduced by the inflecting relative complementizer *(ʔa)llaḏī* 'that'), where gaps and pronouns vary; see (3b).

(3) a. ʔas−sayyārat−u$_i$ [**s−sāriq−u**=hā$_i$ / * __$_i$ ʔaħmad−u] (MSA)
DEF−car.FS−NOM DEF−stealing.PTCP.M.SG−NOM=CLITIC.3.F.SG Ahmad-NOM
'The car that Ahmad stole (lit. the car the-stealing it Ahmad)'

b. ʔar−rajul−u$_i$ [**llaḏī** raʔay−tu ___$_i$ / =hu $_i$]
DEF−man.M.SG−NOM REL.COMP.M.SG.NOM see.PERF−1SG =CLITIC.3.M.SG
'The man that I saw'

We argue for a non-movement analysis of MSA PRCs with overt subjects, in which the obligatory pronoun represents the internal relative head. Participle movement to T, and subject raising to the specifier of TP of the internally headed relative clause creates the relevant Spec-Head relation for subject–verb agreement to take place. This agreement domain defines a lower Phase–1. The nominalization that goes together with relativization (Cecchetto & Donati 2015) is then brought about by the relabeling movement of the participle itself. Thanks to the nominal features of the participle, this operation creates an additional D label on the top of TP, thereby labelling the entire structure and turning it into a phase. The higher Phase–2 is the domain for agreement with the DP, as the structure in (4) illustrates.

(4)



5. Obligatory Gapping. Early Egyptian (EEG) (2600–2000 BCE), a neighboring Afroasiatic language, has a minimally different PRC, in which the presence of a direct object gap is mandatory. There are no attested examples of the kind in (5a–b) with a corresponding direct object pronoun. The participle, unlike its MSA counterpart, agrees in number and gender with the relative head only, while there is no overt manifestation of subject–verb agreement.

(5) a. fʔw$_i$ pw [**j−jr−Ø−n** nt^{ʃ}r−w ___$_i$ /*sw $_i$ jr=k] (EEG)
curse.M.SG DEM.M.SG AUG−make−PTCP.M.SG−PERF god−M.PL CL.3M.SG against=2M.SG
'This curse that the gods made against you' (Pyramid Texts 957b/P)

b. mw$_i$ jpn rnp−w [**rd^{3}j−w−n=j** n=k ___$_i$ /*sw $_i$]
water.M.PL DEM.M.SG fresh−M.PL give−PTCP.M.PL−PERF=1SG to=2M.SG CL.3.M.SG
'These fresh waters that I have given to you' (Pyramid Texts 1002c/M)

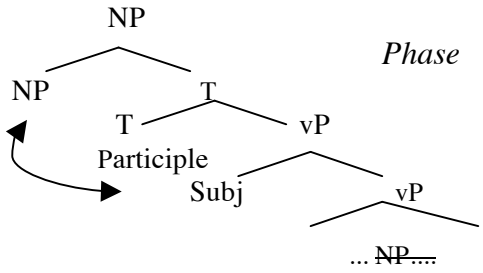
The gapping pattern attested with EEG PRCS contrasts with the obligatory pronoun pattern in MSA PRCs, which we have identified as the clause-internal relative head. In full relative clauses, however, both Afroasiatic languages pattern alike in that gaps vary with pronouns.

(6) a. nt$\underline{\int r}_i$ pw [**ntj** n(j) rx=k ___$_i$] (EEG)
god.M.SG DEM.M.SG COMP.REL.M.SG NEG learn=2M.SG
'This god whom you do not know' (Coffin Texts V 111d/T1C)

b. nt$\underline{\int r}_i$ pw [**ntj**=k rx–t(j) sw$_i$]
god.M.SG DEM.M.SG COMP.REL=CL.2M.SG learn–STAT.2SG CL.3.M.SG
'This god whom you do not know' (Coffin Texts V 111d/T1C)

Since there is no subject–verb agreement, there can be no lower Phase 1—a salient feature of this PRC that correlates with the obligatory direct object gap. For the PRC to be labelled, the relative head must raise into the specifier of the TP. In this position it can relabel the structure and turns it into a proper phase. The resulting Spec–Head relation triggers adjectival agreement between the raised relative head and the participle, but blocks subject agreement.

(7)



6. Conclusion. The two types of PRCs instantiate two possible sources for the phasehood triggered by relativization. If the PRC is internally headed by means of a pronominal element, the participal clause is a phase per se, as in the case of MSA. If, on the other hand, the PRC is externally headed involving head raising, only the entire complex NP constitutes a phase, as in the case of EEG. The phasality of PRCs is thus established by their derivational histories.

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Licensing Adverbial Nominals

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Case Theory has long treated the distribution and morphological form of argument nominals (ArgNs) as related, though the earliest formalizations did not encode a restriction on its application to ArgNs: Chomsky 1980:25 states that "lexical NPs must have Case [...] *N, where N has no Case." Chomsky's 1981 Visibility Condition reinforced a focus on ArgNs. Lasnik 2008 (inter al.), however, argues against deriving Case Theory from Visibility, citing non-nominal arguments that don't need Case, pleonastic nominals that do, etc, and "continue[s] to assume some version of the classic Case Filter." We share this assumption, and focus on extending Case beyond ArgNs, maintaining the original lack of restriction and its minimalist spirit. We also follow Legate 2008:91, rejecting "the untenable claim that case morphology is unrelated to the syntactic licenser," again like early Case Theory but contra Marantz 1992 and subsequent works.

Our argument focuses on a contrast between two language types (1–2) involving adverbial nominals (AdvNs). In the better known first type, AdvNs have a fixed case form, sometimes called semantic case. For example, in German (1), a change in voice shifts the thematic object from Acc to Nom, but the AdvN remains Acc. Work on Finnish and Korean (Kim & Maling 1993, Antilla and Kim 2011), however, shows significant differences: AdvNs, like ArgNs, show a shift in case due to a change in structure (a hallmark of structural case), as seen in the Acc/Nom alternation in the Korean data in (2).

(1) a. Sie backen den Kuchen den ganzen Tag
they bake the.Acc cake the.Acc whole day
"They bake the cake the whole day."

b. Der Kuchen wird den ganzen Tag gebacken
the.Nom cake Aux the.Acc whole day baked
"They bake the cake the whole day."

(2) a. Chelsoo-ka i chayk-ul sey pen-ul/*i ilk-ess-ta
Chelsoo-Nom this book-Acc three time-Acc/*Nom read-Pst-Ind
"Chelsoo read this book three times."

b. I chayk-i sey pen-i/*ul ilk-hieci-ess-ta
this book-Nom three time-Nom/*Acc read-Pass-Pst-Ind
"This book was read three times." Kim & Maling 1993

In languages like (1), fixed case forms on AdvNs are often treated similarly to quirky/lexical case. Larson 1985 had AdvNs mark themselves in this fashion, while many others follow Emonds 1987, assuming a null P which could assign the (possibly θ-related) case. For such non-alternating AdvNs, it might be justified to think that the case is non-structural. Alternating case on AdvNs as in (2), however, seems to be structural in the same sense as that on ArgNs, and shows that a quirky/lexical case approach cannot be generalized. If there were an element very local to the AdvN responsible for its case (itself or a P) then its case could not depend on (slightly) more distant aspects of structure, as in the voice alternation in (2) (or partitive of negation on AdvNs in Finnish, Antilla and Kim 2011). Moreover, approaches using a disjunctive system of case determination (Marantz 1992, Bobaljik 2008, Preminger 2014, etc.) fail to correctly predict data such as (2): with only one relevant domain, the structural case of the AdvN should be the dependent one in both examples, and not just in (a). Treating the case in (2) as non-structural leads to significant undesirable results for any theory, e.g. quirky case that varies by structure.

Distinct accounts for (1–2) would be less preferable than a unified one: we propose one unified by standard approaches to Case Theory and structural case linked to it. We adopt Chomsky 2008, schematized in (3a), and the notion that probes "value the structural Case feature of the goal (in a manner determined by the probe) [pg.208]." (See also Legate 2008:89.) We make the standard assumptions that it is not only ϕ that can be a probe, and that heads may contain more than one probe.

Given these assumptions, we propose that, in languages like (1), to which we return below, AdvNs are licensed by a particular functional head which is fixed for that language, while in those like (2), AdvNs can be licensed by varying functional heads. This latter is already a standard assumption for the active/passive alternation of ArgNs: an internal θ-role bearing ArgN is alternately licensed by v or T (3a). Indeed, given the data in (2), we propose that the AdvN is licensed by (an unvalued feature on) the same head as the internal ArgN in each example, v in (2a) and T in (2b), thus explaining the identities of form in the two, and providing the same standard explanation for the shift of both nominals. We propose, given intervention, etc, that v or T is not the probe for the AdvN's Case because of $u\phi$, as it is for the ArgN's Case, but another feature. For this, we adopt Rubin's 2003 *(Mod)ifier*, proposed (originally as an independent functional head) as the element that generally marks phrases as modifiers (see Chomsky's 1993 "legitimate syntactic object types" and Larson's 1985 F) and signals the syntax to apply pair-merge. *Mod* is interpretable on the AdvN, just as ϕ is on any nominal, and the uninterpretable version *uMod* occurs on the probing head, along with $u\phi$ (3b). For such languages as (2), then, *uMod*'s location may vary as does $u\phi$'s.

(3) Probe-Goal Configurations for Case, with Effects of EPP, if any, Ignored

a. Valuation/Licensing by T/v with $u\phi$:
[... T/$\underbrace{v_{u\phi}$ [... DP$_{i\phi,Case}}$ ...]]

b. Valuation/Licensing by T/v with $u\phi$ and *uMod*:
[... T/$\underbrace{v_{u\phi,uMod}$ [... $\underbrace{\text{DP}_{i\phi,Case}}$ ... $\underbrace{\text{DP}_{iMod,i\phi,Case}}$ ...]]

c. Valuation/Licensing by Other Heads with *uMod*:
[... H$\underbrace{_{uMod}$ [... DP$_{iMod,i\phi,Case}}$ ...]]

For data like (1) with non-alternating AdvNs, licensing holds as in (3c), essentially identically to the standard in (3a). The specific head that probes is fixed, however, for a particular adverbial type in a language, and could even be T, in principle (an easily acquirable state). Its contribution to determining case is therefore constant, unlike in (2). Based on data from such languages that have assorted AdvNs each with different cases (e.g. Russian *utrom* night-Instr 'at night' vs. *vsjo utro* whole night-Acc 'the whole night'), we suggest that the heads developed in Cinque 1999 can serve as probes for particular AdvNs, thus determining the particular case of each AdvN, following Chomsky's 2008 quote above, via morphological mechanisms like those in Legate 2008, just as T or v does for ArgNs and for the AdvNs in (2). The semantics of "semantic case" would then also be due to their association with those heads, present from the origin of the derivation. This correlation of case and interpretation, via standard Case Theory, replaces (often implicit) non-minimalist conceptions in which the PF entity of case causally determines the LF property of interpretation.

In conclusion, the typical presumption is that Case Theory applies only to ArgNs, but this paper, with the minimalist goal of defending the original lack of restriction, has shown that modern assumptions, developed entirely independently for ArgNs, apply equally to

AdvNs. This results in an empirically broader and theoretically simpler treatment of Licensing and its relationship to case and interpretation than standardly presupposed.

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A discourse-dependent D: Evidence from Korean imposters

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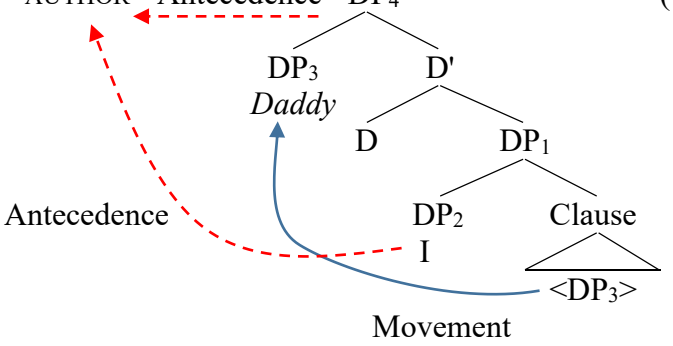
1. Issue. R-expressions can have a non-[3] reading under specific contexts as in (1): *Jerome* has a [2] meaning and *Daddy* has a [1] meaning. They are referred to as an *imposter* by Collins & Postal (2012, C&P), and the definition is cited from C&P (2012: 5) in (2). According to C&P, imposters are derived from an appositive construction containing a notional pronoun, as presented in (3). Their analysis has been extended to various languages (refer to Collins (2014, ed.)), and some apply a similar approach to Korean data (Kim 2015, Choi 2016). That is, in (4), *Appa* 'Daddy' has a complex nominal structure with a [1] notional pronoun and is anteceded by AUTHOR on a higher functional domain in those analyses. In result, it gets the [1] reading. Under this system, *Appa* is predicted to denote a speaker freely, insofar as the speaker is someone's daddy, due to the presence of the [1] pronoun, but it is not always true.

(1) Jerome and Daddy are enjoying *ourselves*/themselves on the beach. (C&P: 108)

(2) An imposter is a notionally X person DP that is grammatically Y person, X≠Y.

(3) (C&P: 66, adapted)

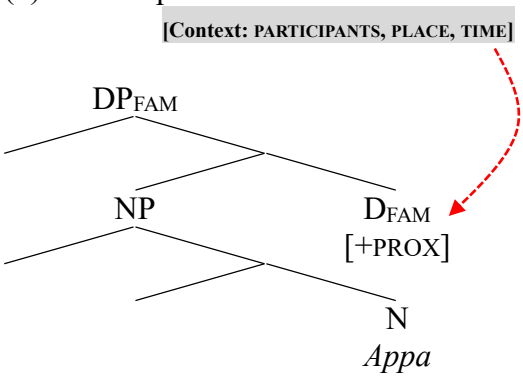


(4) Appa-ka onul nay/*kuuy elin sicel pomwul-ul palkyenhaysse. (Kor.)
Daddy-nom today my/his childhood days treasure-acc discovered
'Daddy (=I) discovered my childhood treasure today.'

2. Observation. An imposter usage of R-expressions requires an additional condition in Korean. In (4), *Appa* can get the [1] meaning only if it expresses the relation of conversational participants': i.e., the first person imposter *Appa* has to be the hearer's daddy. Suppose that the hearer is the speaker's friend, and knows that the speaker has a child. Even in that case, the *Appa* cannot function as a genuine [1] to bind a co-indexed pronominal. The same goes true for the [2] imposter: the hearer cannot be referred to as *Appa* when the speaker is not the hearer's child. Thus, the imposter candidate in Korean does not seem to have a covert [1]/[2] pronoun à la C&P, rather it seems to be interpreted as if it contains the [2]/[1] possessor such as *ney appa* 'your daddy (=I)' or *nay appa* 'my daddy (=you)'. This shows that Korean imposters have a familiarity condition such that an entity referred to by an imposter has to be familiar to both conversational participants.

3. Proposal. [I] Korean D specifies familiarity which is bound by discourse. This is referred to as a familiar D (D_{FAM}), and depicted in (5). Imposters are necessarily definite since it refers to a speaker/hearer, so usually accompany a definite expression (*the undersigned*, *this reporter*, *your faithful servant* (C&P: 53-54)). According to Vázquez Rojas (2014), the definiteness of imposters arises from a minimal situation condition, in fact, and the easiest way to satisfy the requirement is to use a definite article. However, Korean D_{FAM} does not encode definiteness directly. Instead, it depends entirely on an utterance context, as arrowed in (5). The definiteness

(5) Imposter structure in Korean



is presupposed, and the minimal situation condition can be satisfied. **[II]** In addition, the null D_{FAM} has to be licensed by an immediate context to have a definite reading due to the presence of the proximal feature ([+PROX]) which is a situation argument in line with Vázquez Rojas (2014). When an R-expression is read as one of the participants, another participant is involved with the imposter as well since the D_{FAM} is bound by both participants. In result, the covert possessor of the imposter is anchored to a speaker or hearer.

4. Prediction. [English case] This analysis predicts that, in a language which has a full D specifying [DEF], imposters will not necessarily express conversational participants' relation. This is borne out in English (1)/(6): the speaker can call himself *Daddy* in front of *his wife* without his kids. However, it is true that the familiarity condition affects the imposter use in English, too, in that the speaker cannot refer to himself as *Daddy* when he talks to his friend. This means that the condition is relatively loose in English imposters, and it is enough that a third party is close to both a speaker and a hearer in English. Thus, the familiarity condition seems to work in a pragmatic level in English, but not in a syntactic level as in Korean. This study attributes such a cross-linguistic contrast to the different types of Ds. The *full* D in English specifies definiteness directly, so it can denote a unique individual by itself, whereas the Korean D is defective, and reliant on a context. **[Non-bare case in Kor.]** Even Korean can disobey the familiarity condition when the definiteness does not solely lean on the null D_{FAM} head. To be specific, an imposter can express a relation with a 3rd person when it accompanies a demonstrative: *I appa* 'this daddy' can refer to the speaker himself and bind the [1] pronominal in (7) even when the hearer is not his child, but his friend. This implies that the Korean demonstratives can serve the similar function to the English determiner regarding definiteness.

(6) Daddy discovered his/*my childhood treasure today. (C&P: 2)

(7) [I appa-ka] onul nay/*kuuy elin sicel pomwul-ul palkyenhaysse. (Kor.)
this daddy-nom today my/his childhood days treasure-acc discovered
'This daddy (=I) discovered my childhood treasure today.'

5. Implication. The D_{FAM} is a kind of defective D in that it only has an immediate situation use in Hawkins' (1978) term. Also, it corresponds to Schwarz's (2013) weak article, which divides definite articles into two types: strong (anaphoric) and weak (situationally unique) one. According to Schwarz, English *the* is ambiguous, but some languages (Fering/German) employ distinct articles for them. The proposed D_{FAM} is context-dependent, and this is a property of weak articles. In contrast, a demonstrative is dependent on a context like D_{FAM}, but it is not reliant on a conversational participant, but on a place/time: a 'here/there' and 'now' meaning. In result, it does not necessarily encode a speaker and hearer's relation when it occurs in an imposter DP.

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Vocatives: bringing up the Russian data

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For the past fifteen years vocative has become the interest of various authors working under different linguistic frameworks.

This presentation shows the initial stage of our recent research on the internal syntax of the Vocative Phrase (VocP). Moro (2003) noticed that "a Vocative Phrase may display anomalous behavior both syntactically (absence of the article, presence of an interjection which immediately precedes the noun phrase, selective referential capacities) and phonologically (truncation and stress retraction)". Such anomalies have been thoroughly studied basing on data from Italian (Moro 2003), Catalan (Espinal 2013), Romanian (Hill 2014), Greek (Stavrou 2014), English (Slocum 2016), however, there has not been much research on the topic based on data from Russian and other Slavic languages. We find Russian data particularly interesting, as Russian is a language with overt case morphology, no overt articles and a rather flexible word order.

We aim to analyze the internal syntax of the Russian VocPs in order to explain the difference between the structures of various vocative constructions and develop the ground for further study of their positions within the sentence.

In Russian, nominal expressions in vocative receive no special case marking and are equal to nominative forms. The Slavic vocative case present in some "frozen" forms is not productive.

Following the previous researchers, we agree that VocP is a full noun phrase whose head is Voc°. VocP may be specified with a particle. Another question on internal syntax is whether a vocative head selects a DP or an NP.

1. *Ej*, podojdi-ka sjuda! [A standalone vocative particle]
   Hey come here
   Hey, come here!
   $[_{VocP}$ Ej]

While in some languages the possibility of using a definite article along with vocatives had been an argument for the DP-selection, the absence of articles in Russian makes this problem more complicated.

2. $[_{VocP}$ Particle $[_{Voc^o}]$ [DP/NP]]

Considering the internal structure of nominals in languages without articles, the two major theories are Parametrized DP Hypothesis (Chierchia 1998, Bošković 2003 et al.) that says that languages without articles lack DPs as functional projections and Universal DP Hypothesis (Longobardi 1994, Pereltsvaig 2007 et al.) according to which DPs as functional projections are present in languages like Russians.

On the basis of the Russian data like in (3) it might have been easier to admit that the D° position is not necessary:

3. Brat, ja tebja ne uznal.
   brother I you not recognize
   Brother, I haven't recognized you.
   $[_{VocP}$ $[_{Voc^o}$ $Brat_i]$ $[_{NP}$ $[_{N^o}t_i]]]$

Pereltsvaig (2013) and Liutikova (2010) argue that Russian nominals in non-argument position such as vocatives are "smaller than DPs". We would disagree with this claim. First, Liutikova (2010) argues that vocatives are not DPs because they cannot be modified by demonstratives:

4. *[$_{DP}$ Eti dorogie druzja], (...)
   these dear friends

We argue that nominals in vocative phrases cannot be modified by demonstratives due to the fact that vocative behave 2P pronouns: they are specified by [+II, -I] person grammatical features and are marked with the formal [+DX] feature (Espinal 2013). Vocatives refer to the addressee and therefore are definite (or ostensive). They cannot be small nominals, since small nominals cannot have individuated nor specific interpretation (Pereltsvaig 2006). We conclude that nominals in vocative constructions might be full DPs. Another piece of evidence is, as Moro (2003) notices, the fact that pronouns, which arguably occupy a D° position, can occur as VocPs:

5. *Ty*, ne slyšiš, čto li?!
   You not hear what
   You, don't you hear?!
   [$_{VocP}$ [$_{Voc°}$ ty$_i$] [$_{DP}$ [$_{D°}$ t$_i$]]]

Assuming that nominals in vocative can be DPs, we can argue that Longobardi's N°-to-D° movement extended by Espinal to N°-to-D°-to-Voc° movement is applicable in such structures:

6. Brat, ja tebja ne uznal.
   brother I you not recognize
   Brother, I haven't recognized you.
   [$_{VocP}$ [$_{Voc°}$ Brat$_i$] [$_{DP}$ [$_{D°}$t$_i$] [$_{NP}$ [$_{N°}$t$_i$]]]

Complex nominal expressions in vocative constructions in Russian show interesting variations in word order. See (7) - (9):

7. noun + posessive pronoun
   Drug moj, vzgljani!
   friend my look
   My friend, look!
8. nominalized adjective + possessive pronoun
   Milyj moj, ne smotri na menja tak!
   sweet my not look at me so
   My sweet, don't look at me like that!
9. adjective + possessive pronoun + noun
   Milaja moja mamočka, razreši mne zavesti schenočka malenkogo!
   sweet my mommy let me get puppy small
   My sweet mommy let me get a small puppy!

For structures like in (7) the canonical word order in argument position would be: adjective + possessive pronoun + noun. In order to explain the non-canonical word order, we claim after Hill (2014) that in these cases N°-to-D° movement within the DP and further phrasal movement DP-to [Spec VocP] are present. We claim that for complex vocatives in Russian and other languages various types of inner syntactic movements should be postulated. The analysis presented here may have implications for the further studies on the topic of the syntax of vocatives and may raise further questions such as similarities and differences between vocatives and copular

sentences (Espinal 2013), parentheticals (Ashdowne 2002) and “exclamations” (Hill 2014).

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Prosodic and syntactic properties of French interrogative sentences

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Keywords: French interrogatives, prosody, corpus analysis.

1.Theoretical Issues: French is well known for having several strategies for the formation of questions. An important property of French is that it is a language that exhibits optional *wh*-fronting, as shown by the examples in (1).

(1) a. Tu as invité qui? (French)
you have invited who
b. Qui tu as invité?
who you have invited

Several researchers have tried to understand what licenses the optionality of French *in situ* construction (such as (1a)) in the grammar (Bošković 2000, Cheng & Rooryck 2000, a.o.). One common idea in these proposals is that the optionality of *wh*-movement is only apparent, and that *wh-in-situ* and *wh-ex-situ* questions do not contain the same morphosyntactic elements (overt or covert). Among them, Cheng & Rooryck (2000) (CR) proposed that it is the prosody that differs between these two types of interrogative sentences. Hence, the goal of this work is twofold:

(i) To understand if prosody plays a role in the licensing of French *wh-in-situ.*
(ii) To experimentally test CR's theoretical hypothesis.

CR's proposal is the following: yes-no and *wh-in-situ* questions are licensed by the insertion of an intonational Q-morpheme in the syntax. The Q-morpheme is phonologically realized as a final rising contour. In *wh-ex-situ* questions the Q-morpheme is not inserted, hence the licensing is done by the movement of the *wh*-element to the [Spec,CP]. This theoretical attempt to understand the properties of French interrogative sentences is easily testable experimentally since it makes the following predictions:

(**a**) wh-in-situ and yes-no questions should show a final rise, hence high pitch on the last vowel of the utterance (V0);
(**b**) declaratives and wh-ex-situ questions do not exhibit this final rise, hence low pitch on V0;

These predictions have been tested in a controlled production study by Déprez et al. (2013), involving 12 native speakers of French. In their results Déprez et al. show that their experimental study at least partially validates the theoretical hypothesis proposed by CR. They found that *wh-ex-situ* and declarative sentences were never associated with a final rising contour, whereas it was always the case for yes-no questions. Concerning *wh-in-situ* interrogative sentences, Déprez et al. had to consider that the speakers belong to two groups: one that assigned a final rising contour to *in situ* sentences almost all the time, while the other speakers realized a prominent pitch accent on the *wh*-word but no final rising contour for *in situ* sentences. The researchers claim that this is due to the underspecification of the intonational Q-morpheme, and that these results are along the lines of the proposal by CR.

We set up a different kind of study to test CR's hypothesis, with a different type of data.

2.Annotation procedure and methodology: In this study, we aimed at confronting CR's hypothesis to natural speech, and not experimentally controlled stimuli pronounced by speakers as it is the case in Déprez et al.'s research. We thus tested the hypothesis on sentences extracted from a French spoken corpus (ESLO2, Eshkol-Taravella et al. 2011). The first step of the study was a morphosyntactic PoS annotation where the main goal was to categorize sentences as declaratives, yes-no questions, *wh-in-situ* and *wh-ex-situ*. A second

step was the generation of intonational contours of the extracted sentences by Praat (Boersma and Weenink, 2016), that were then corrected manually.

The phonetic study's goal is to analyse the prosodic properties of the final vowels of 1009 sentences which included:

- 443 declarative sentences (39% of the total)
- 267 bare yes-no questions (30%)
- 189 wh-in-situ questions (17%)
- 110 wh-ex-situ questions (14%)

We calculated the difference of the value of the fundamental frequency (F0) on the last vowel, and the value of F0 on the penultimate vowel (F0 on V0 – F0 on V1), for each type of sentences.

3.Results and discussion: Our results can be seen in Figure 1 and are also summarized here.

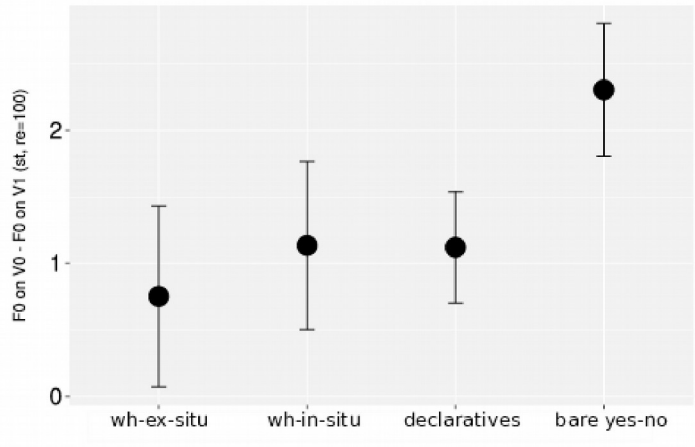

Figure 1: Mean differences between V0 and V1 across sentence types

They seem to go in another direction than those of Déprez et al., and are not *prima facie* compatible with the hypothesis of CR.

We do not find any significant difference between F0 values on the last vowels of *wh-in-situ* and *wh-ex-situ* questions ($p>0.05$), which is not expected. There is no difference either between the same values on *wh*-questions and declarative sentences ($p>0.05$).

However, there is a significant difference between F0 values on the last vowels of yes-no questions and all the other types of sentences ($p<0.001$), which is not expected according to CR's hypothesis.

Concerning declarative sentence, the fact that their final contours are similar to those of *in situ* and *ex situ* sentences can be due to the presence of a continuation intonation. The most interesting finding of our study is that the final contours of yes-no questions did not pattern with those of *wh-in-situ* questions, as predicted by CR and observed by Déprez et al. On the contrary, *wh-in-situ* and *wh-ex-situ* questions pattern together considering their final intonation.

These results provide novel data for interrogative sentences in French, and a detailed transcription of the contours can help us understand the relation between syntax and prosody, especially when it comes to the properties of *in situ* and *ex situ* interrogative sentences.

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The left periphery of participial relative clauses

Keywords: participial relative clauses, left periphery, structural Case.

Background: It is generally assumed that the syntactic structure of participial relative clauses (participial RCs) is impoverished, "reduced" in comparison to that of regular RCs (Burzio 1981, Chomsky 1981, Hazout 2001, Siloni 1995, Stowell 1981, a. o.). Participial RCs are often analyzed as VP-like structures (for some, embedded under a nominalizing node, Doron & Reintges 2005, Hazout 2001, Siloni 1995, a. o., but see Kayne 1994 who argues that participial clauses have a C, but crucially not a T). The participial RCs typically (i) don't license usual CP-material (*wh*-phrases, complementizers); (ii) don't have an independent temporal reference; (iii) don't have subjects. In this talk I will argue against generalizations (ii) and (iii) on the basis of data from Meadow Mari (Uralic). I will first present the data and their analysis, and then discuss their consequences for the general theory of participial RCs.

Data: Meadow Mari employs four participial forms: an active participle derived with the suffix *-še*, which relativizes the subject; a participle derived with *–me*, which relativizes all the positions from direct object (DO) to possessor (GEN) on the Accessibility Hierarchy (AH): SU > DO > IO > OBL > GEN > OCOMP (Keenan & Comrie 1977); a future participle derived with *-šaš*, and a negative participle *-dəme*: both of them relativize all the positions on the hierarchy from SU to GEN. I will focus on the *–me* and *-dəme* participles (2): both of them can have subjects in Nom and thus can project a Spec,VP and potentially a T layer.

The puzzle: The subject of the *–me* and *-dəme* pRCs can be encoded with a possessive marker (only for personal pronouns), with Genitive (available for all argument types) or with Nominative (only the lower part of the animacy hierarchy (1)). In case of +human nouns, both Genitive and Nominative marking is possible (2).

(1) 1&2 person > other pronoun > proper name > human > non-human > inanimate

(2) Jəvan [buxgalter(-ən {pu-əmo /pu-ədə-mo}] pašadar nergen šon-a.
Ivan bookkeeper(-GEN) give-NZR /give-NEG.CONV-NZR wages about think-PRS.3SG
Ivan is thinking about the wages that the bookkeeper {gave / did not give} to him.

Analysis: All participles in Meadow Mari can be combined with time adverbs. The time adverb *teŋgeč'e* 'yesterday' can both precede and follow the Genitive subject (3), while it can only precede, but not follow the Nominative subject (4).

(3) Jəvan [(teŋgeč'e) buxgalter-ən (teŋgeč'e) pu-əmo] pašadar-ž-əm šotl-a.
Ivan (yesterday) bookkeeper-GEN (yesterday) give-NZR wages-P.3SG-ACC count-3SG
Ivan is counting the wages that the bookkeeper gave (to him) yesterday.

(4) Jəvan [(teŋgeč'e) buxgalter (??teŋgeč'e) pu-əmo] pašadar-ž-əm šotl-a.
Ivan (yesterday) bookkeeper (yesterday) give-NZR wages-P.3SG-ACC count-3SG
Ivan is counting the wages that the bookkeeper gave (to him) yesterday.

From that I conclude that Genitive subject is assigned Case within the embedded clause and that Nominative is assigned lower in the structure than Genitive. Further, I propose that Meadow Mari pRCs have a more complex syntactic structure than is generally assumed which involves a T-layer. One argument in favour of this is that the participle form *-dəme* is historically derived from a negative converb *-de* and the participle form *-me* and serves as sentential negation form for *-še* and *-me* participles (see Zanuttini 1996 who argues that sentential negation is a head that selects the tense phrase as its complement).

I use reflexivization as a test for subject properties, as well as the structure of the left periphery. Meadow Mari employs two nominal reflexive strategies, one of which – a simpler reflexive *škenže* – is subject-oriented and must be bound within the first finite clause. It can be long-distance bound as an argument of an embedded infinitival clause (5), but, crucially for our discussion, not as an argument of a participial RC (6). As (6) shows, only genitive-marked subjects can bind the reflexive *škenže*, while the nominative cannot.

(5) Üdər$_i$ rveze$_j$ deč' [∅$_j$ ška-lan-že$_{i/j}$ pört-əm əšt-aš] jod-ən.
girl boy from PRO self-DAT-P.3SG house-ACC make-INF ask-PRT
The girl asked the boy to build her / himself a house.

(6) Jəvan$_i$ [buxgalter*(-ən)$_j$ ška-lan-že$_{j/*i}$ pu-əmo] pašadar-ž-əm šotl-a.
Ivan bookkeeper-GEN self-DAT-P.3SG give-NZR wages-P.3SG-ACC count-PRS.3SG
Ivan is counting the wages that the bookkeeper gave to himself.

Discussion: Meadow Mari *škenže* has the structure of a possessive NP: it consists of a nominal stem *šken-* and a possessive suffix, a bound morpheme agreeing in number and person with the antecedent. At the same time *škenže* cannot project a full PossP, cf. (7). Although *šken-* categorically behaves as a noun in a PossP, it lacks the interpretation of an independent argument.

(7) *Jəvan Maša-n (poro) šken-ž-əm jörat-a. (Volkova, in press)
Ivan Masha-GEN kind self-P.3SG-ACC love-PRS.3SG
Int.: Ivan loves Masha's (kind) self.

Volkova (in press) argues that due to the relational nature and the lexical deficiency of the *šken-* part, the structure of the Meadow Mari reflexive *škenže* contains an open argument, which is valued by a SpecTP via an Agree operation. This happens as a result of chain formation between the SpecTP and *šken* through a sequence of feature-sharing dependencies (Reuland 2011), hence the subject orientation and the constraints on the binding domain. Namely, the long-distance binding of *škenže* in the infinitival clauses also results from chain formation between *šken* and a higher subject via the left periphery of the infinitival clause, where the interplay between C^{-Fin} (representing the feature –finite) and C^{-T} (representing –Tense) serves as a switch providing the optionality in interpretation of *škenže* as in (5). Building on this account, I draw two conclusions: (i) The contrast between the participial and the infinitival embedded clauses in Meadow Mari comes from the absence of C-layer in participial RCs (against Kayne 1994 and in line with Doron & Reintges 2005). (ii) Based on the ability of the Genitive subject to bind *škenže* I assume that Genitive serves as a structural case in pRCs in Meadow Mari. The non-finite T node assigns Genitive case to its SpecTP (see for a similar treatment of Finnish non-finite clauses Vainikka 2016). What appears to be Nominative is actually a Case-less form of an NP inside a vP.

Conclusion: I argue on the basis of Meadow Mari data that the syntactic structure of participial RCs is more complex that usually assumed. As Meadow Mari pRCs can have subjects and allow sentential negation, it follows that they have a T-layer. Based on the evidence from time adverb placement and binding I conclude that non-finite T in Meadow Mari assigns structural Genitive case. The fact that participial RCs are non-transparent for anaphoric binding unlike infinitival clauses indicates that participials have an impoverished left periphery, most importantly missing a C layer (contra Kayne 1994). By taking into account differences in functional structure as realized in Meadow Mari we arrive at a more finely grained typology of participial RCs than previously assumed.

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Medieval Romance and its place in the Verb Second Typology

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BACKGROUND: Claims that the Romance languages went through a period in which they showed a multitude of 'Germanic-like' properties are widespread (Adams 1987; Vance 1988, 1995, 1997; Roberts 1993; Mathieu 2006, 2009; Benincà 2013; Salvesen 2013; Poletto 2014) and have at their heart a proposal that some or all of the Romance languages went through a Verb Second stage (cf. in particular Benincà 1983-4 et seq.). Despite the fact that a number of scholars have highlighted significant differences between the instantiation of the V2 property in Medieval Romance and (Modern) Germanic (Sitaridou 2012) and differences between the Medieval Romance languages (Wolfe 2016, 2016b), there is to date no account to formally capture these differences and integrate the data into a pan-Romance and Germanic typology of the V2 property.

METHODOLOGY AND ASSUMPTIONS: The present paper outlines a first attempt at such an account, by drawing on a new corpus of fourteen Medieval Romance texts representing seven different varieties from the 10th-14th centuries (sample size between 1000-2000 clauses per text). We assume an articulated set of left-peripheral projections in line with Rizzi (1997, 2004 et seq) and draw on this intuition to suggest that the features responsible for the V2 property, namely a Probe triggering finite verb movement and an Edge Feature requiring merger of a phrasal constituent in a CP-Specifier can have different loci between V2 languages. This facilitates a novel account of intra-Romance V2 variation both synchronically and diachronically, along with that observed between the Romance and Germanic language families.

VERB MOVEMENT: We present a range of qualitative and quantitative arguments that suggest, contrary to the situation in the modern (non-Raeto-) Romance languages that finite verb movement reaches a target higher than the T-layer in the Medieval languages, as in most early and modern Germanic varieties (cf. Vikner 1995; Holmberg 2012; Walkden 2014). The key arguments for this parallelism between Germanic and Medieval Romance come from **(i)** the attestation of Germanic inversion constructions, which differ from Modern Romance 'free inversion', in that the postverbal subject is unambiguously in Spec-TP (1a), **(ii)** Matrix clauses with direct object fronting with no clitic resumption, which are shown not to be marginal in frequency but to account for 12-31% of V2 clauses (1b), **(iii)** the position of the finite verb which precedes high temporal deictic adverbials lexicalising the leftmost projections of the T-layer (Cinque 1999; Ledgeway in press) (1c) and (**iv**) quantitatively significant matrix/ embedded asymmetries, with embedded clauses showing absence of Germanic-inversion and large reductions in $XP_{Non\text{-}Subject}$—V-S orders, yielding a dominant SVO order in all varieties bar Old Sardinian where embedded VSO dominates (1d):

(1) a. Ja vos=**avoit** il si longuement servi
already you=have.3SG.PST he so long serve.PTCP
'He has already served you such a long time' (French, *Quête* 119)

b.(E) co **dis**=el plusor fiade
and this say.3SG.PST=he often
'And he said this often' (Venetian, *Lio Mazor*, 19)
c. Lo abbate **vene** ora 'n derieto
the abbot come.3SG.PST now in behind
'The abbot now came back' (Sicilian, *DSG* 15, 15)
d. c'**avia** ego binkidu per rasone
because-have.1SG.PST I win.PTCP for reason
'…because I had justly won' (Sardinian, *S.Maria di Bonarcado* 2)

STRUCTURE OF THE LEFT PERIPHERY: Although we argue that V-to-C movement and a locus of 'EPP-effects' in the C-domain are properties common to all Medieval Romance languages considered, the structure of the left periphery shows notable diachronic and synchronic variation (as may well be the case in Early and Modern Germanic (Petrova & Solf 2008; Walkden 2014; Holmberg in press). In particular, we argue that in all Early (11th-12th century) Medieval Romance languages and 13th century Sicilian, Occitan and Neapolitan the locus of the V Probe and Edge Feature responsible for V2 is Fin, the lowest head in an articulated left periphery. In common with the Early Germanic varieties discussed by Axel (2004, 2005, 2007) and Walkden (2014, 2015) this Fin-V2 syntax manifests itself most clearly in the ability for multiple left-peripheral constituents to precede the finite verb, yielding V>4 orders across the corpora (2a). By contrast, in approximately 1200 a reanalysis towards an innovative stricter V2 syntax takes place in western Spanish varieties, Venetian and French where verb movement targets Force and the preverbal field is impoverished to only consist of the Hanging Topic-Frame-Force fields. V>4* orders are no longer licensed in the Force-V2 texts, with a restricted set of left-peripheral speaker-oriented adverbials, Hanging Topics and Frame-Setting clauses acting as the sole triggers for V3 (2b). We argue that this situation receives clear parallels in the Later Old and Middle High German data discussed by Axel (2004) and the contemporary West Flemish data in Haegeman & Greco (in press), where Frame-Setters readily permit V3 orders whilst other left-peripheral constituents do not:

(2) a. tamen poy di la morti loru, li ossa loru] pir virtuti divina **operannu** miraculi
then after of the death their the bones their by virtue divine perform.3PL miracles
'Then after their death, their bones perform miracles through divine virtue' (Sicilian *Gregoriu* 262)
b. Et luego que llego a la puerta el diablo **abrioge**=la
And soon that arrive.3SG.PST at the door the devil open.3SG.PSt=it
'And as soon as he arrived at the door, the devil opened it' (Spanish, *Lucanor* 204)

Our proposal is that Modern German and Dutch occupy a distinct sub-type of the Force-V2 typology where Hanging Topics can trigger V3, whilst Frame-Setters cannot. We analyse this as result of partial syncretism in the C-system between the functional heads Frame and Force (Force V2 B). These data together yield the tentative V2 typology in (3), where the presence of a V-movement trigger and an Edge Feature in the C-domain are the commonalities, whilst the precise makeup of the left-peripheral sequence of heads yields the variation between systems:

(3) a. **Fin-V2** > [$_{HT}$ [$_{Frame}$ [$_{Force}$ [$_{Topic}$ [$_{Focus}$ [$_{Fin}$ **V2-XP** [$_{Fin^0}$ **V**] [$_{T}$… $_{v}$…$_{V}$…]]]]]]

b. **Force-V2 A** > [$_{HT}$ [$_{Frame}$ [$_{Force}$ **V2-XP** [$_{Force^0}$ **V**] [$_{Topic}$ [$_{Focus}$ [$_{Fin}$ ~~V2-XP~~ [$_{Fin^0}$ ~~V~~] [$_{T}$… $_{v}$… $_{V}$…]]]]]]

c. **Force-V2 B** > [$_{HT}$ [$_{Frame/Force}$ **V2-XP** [$_{Frame/Force^0}$ **V**] [$_{Topic}$ [$_{Focus}$ [$_{Fin}$ ~~V2-XP~~ [$_{Fin^0}$ ~~V~~] [$_{T}$… $_{v}$… $_{V}$…]]]]]

LICENSING OF NULL ELEMENTS: Although the implications of this approach with variation in the functional structure between V2 systems have been explored for overt left-peripheral constituents (cf. Poletto 2002 and Walkden 2015), we suggest the typology can fruitfully account for the distribution of null elements. Drawing on the wide literature on V1 in Germanic and extending this to Romance, we propose that V1 is licensed **(i)** in the presence of a null discourse operator in Spec-ForceP in Narrative Inversion contexts, **(ii)** in contexts of discourse continuity or rhematicity with a null pronoun in Spec-TopP and **(iii)** in contexts where a null topic associated with a discourse participant occupies Spec-FrameP, typically in spoken but not written language. We propose that whilst **(i-iii)** are all attested in Romance and Germanic Fin-V2 systems, option (ii) which leads to widespread verb-initial structures is not found in Force-V2 systems with heavy restrictions on V>4. This is linked to the licensing condition for a special variant of *pro*, *pro*$_{Top}$, whose licensing we propose is contingent upon TopP forming part of the verbal prefield. We suggest this yields both heavy restrictions on the conditions permitting V1 clauses in Force-V2 systems and the fact that Null Subjects and Topics in Later Old French, Later Western Old Spanish and Later Old High German (Axel 2005) are only licensed post-verbally.

PATHWAYS OF DIACHRONIC CHANGE: Taken together our data shed new light in the pathways of change attested in both Germanic and Romance which show a remarkable degree of similarity. In particular, we suggest that the putative Germanic 'incipient' VSO stage hypothesised by Hinterhölzl & Petrova (2010) finds a cognate in the syntax of 10th century Sardinian. This we argue is a 'relic' of a precursor to the Fin-V2 syntax found across Early Romance and Germanic, which in certain varieties is reanalysed as a Force-V2 system. We analyse the SOV > VSO > Fin-V2 > Force V2 pathway as being analogically conditioned by the spread of a featural [+EF, +V] makeup of a growing class of functional heads 'upwards' within the clausal spine and suggest that the changes concerning the functional structure in the left-periphery yield a cascade of similar changes in the null argument system and syntax-pragmatics interface of both Germanic and Romance.

Countability in Italian explored with a rating study and a self-paced reading test.

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1. Introduction. Traditionally, grammar descriptions trace a clear-cut division between mass nouns (*burro,* 'butter'), that would refer to substances, and count nouns (*tazza,* 'mug'), that would refer to objects. Some constraints rule the possibility for the two types of nouns to occur in some syntactic contexts, for example count nouns cannot occur in the singular after a quantifier (**tanta tazza*, 'much mug'), while mass nouns cannot occur with numerals or the indeterminate article (**un burro*, 'a butter').
As far as formal semantics is concerned, accounts like Jackendoff's (1991) and Chierchia's (2010) state that every noun is lexically marked as either countable or uncountable on the basis of the physical properties of the referent. Syntax-based approaches like Borer's (2005) assume that this distinction is syntactically derived, instead: once a root enters syntactic computation, it merges with the syntactic head Div° (Dividing Head) and yields a count reading. If Div° is not present in the syntactic computation, it yields a mass reading. In other words, a mass i is the default. Other theoretical accounts (Allan , 1980; Pelletier, 2012) agree with the idea of unspecified lexical roots and point to the role of the syntactic context of occurrence in denoting the countability or uncountability of any nominal expression.
Few empirical studies have actually measured the occurrences of nouns in mass and in count contexts within the use of language. Quantitative data collected on language corpora and by means of rating studies point unanimously to the fact that nouns do not massively gather towards two poles with respect to their morpho-syntactic distribution, namely of nouns 'used in mass contexts' and nouns 'used in count contexts' (Katz & Zamparelli, 2012; Kulkarni et al., 2013; Franzon et al., 2016). The uneven distribution of frequency of use of nouns has possibly driven to some inconsistency in the results reported in psycholinguistic studies: some reported longer RTs for mass nouns (Gillon et al., 1999; Mondini et al., 2009), other did not report significant differences (El Yagoubi et al., 2006; Semenza et al., 2012).
In order to overcome this possible bias, in the present study we relied on the actual occurrence of nouns in the different syntactic contexts in assigning them to the "mass" or to the "count" experimental list. Each experimental noun was presented in two identical sentences except for the syntactic context: in one the noun was presented in a congruent context with respect to its frequency of occurrence (mass nouns in mass context and count nouns in count context), in the other the noun was presented in an incongruent context (mass nouns in count context and count nouns in mass context). The aim of the present study is to understand the costs of integration of information respect to the countability of nouns in the syntactic contexts.

2. Materials and methods. A self-paced reading test was designed. We chose 64 experimental items: 16 mass, 16 count and 32 dual nouns (equally frequent in both contexts). The choice was based on the results of a subjective frequency rating (Franzon et al., 2016) and of corpus queries performed on ItWaC (Baroni et al., 2009) to measure the occurrence of a noun in mass and count contexts. Nouns were matched for frequency and always presented in the singular. For each item two sentences were created, one for each syntactic context (mass or count). The experimental material was made up of 128 sentences and 128 filler sentences.

Table 1: Experimental conditions.

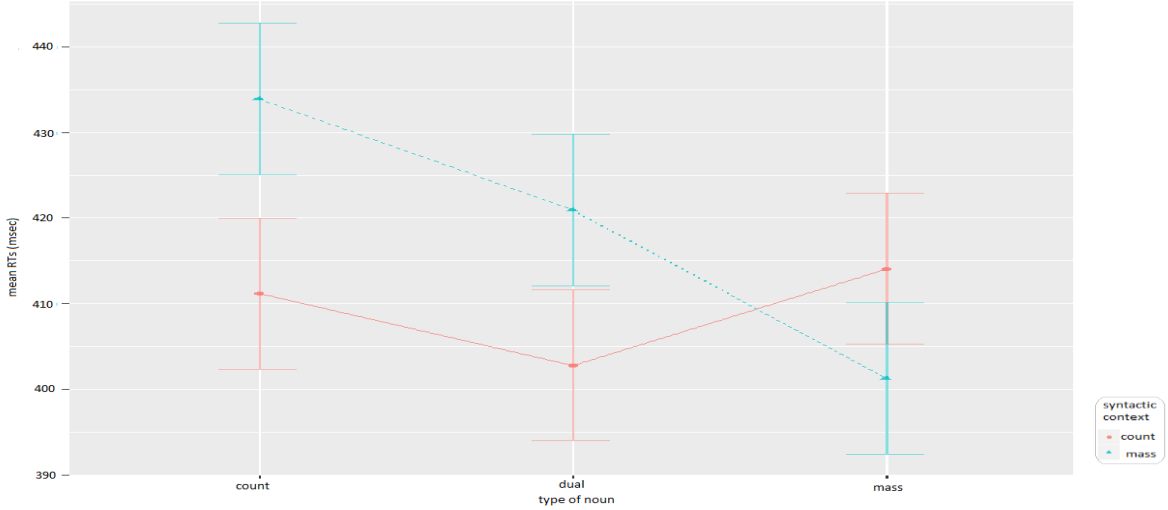
	Mass Context	Count Context
Mass	**congruent** *Nel frigorifero c'è un po' di burro.* 'There is a few butter in the fridge.'	**incongruent** *Nel frigorifero c'è un burro.* 'There is a butter in the fridge.'
Count	**incongruent** *Il cameriere ha rotto una tazza.* 'The waiter broke a mug.'	**congruent** *Il cameriere ha rotto tanta tazza.* 'The waiter broke a lot of mug.'
Neutral	**congruent** *La bambina beve molta aranciata.* 'The girl drinks a lot of orange soda.'	**congruent** *La bambina beve un'aranciata.* 'The girl drinks an orange soda.'

45 native speakers of Italian, (age range: 19-32) participated to the study. The sentences were presented one word at a time, as in *il/cameriere/ha/rotto/una/tazza*. Words appeared in the centre of the screen. Once the participants had finished reading a word, they had to press a key: the previous chunk disappeared and the following one was displayed. After having read the last chunk, participants had to give a grammaticality judgment about the whole sentence on a Likert scale ranging from 1 to 4 (1= absolutely not acceptable; 4= completely acceptable). Participants saw each noun in both conditions, in two different testing sessions.

3. Results. Grammaticality judgments in the self-paced reading test were consistent with the categorization of stimuli collected on ItWaC: mass (1.66) and count (1.51) nouns in incongruent conditions were less accepted than mass (3.67) and count (3.80) nouns in congruent conditions; neutral nouns were judged grammatical in both conditions (mass context: 3.42; count context: 3.48).

We measured the reading times (RTs) with respect to the chunk displaying the critical noun. Repeated ANOVAs revealed a main effect of *syntactic context* (by item: F= 5.561; p< .05; by subject: F= 4.212; p< .05): nouns in mass syntax (M= 420.176 msec) are read significantly slower than nouns in count syntax (M= 408.338 msec; t= 2.297, p< .05). An interaction of type of *noun x syntactic context* was found (by item: F= 4.216; p< .01; by subject: F= 5.754; p< .01): count nouns in count syntax (M= 411.083 msec) were read faster than count nouns in mass syntax (M= 436.197 msec; t= 2.148, p< .05); also neutral nouns were read faster in count syntax (M= 404.092 msec) than in mass syntax (M= 421.636 msec; t= 2.5495, p< .01); no significant difference was found with respect to RT of mass nouns in the two contexts. No effect of *type of noun* (mass, count, neutral) was found.

Figure 1: RTs to the critical items (msec).



4. Discussion and conclusion. Having categorized experimental nouns as mass or count relying on quantitative methods, our results are more economically explained in terms of syntactic context (mass syntax *vs.* count syntax) rather than of category (mass *vs.* count nouns), at least for what concerns reading tasks. Thus, countability seems to be contextually modulated and better described by syntax-based approaches (see also Zanini et al., 2016). The reported longer RTs with respect to mass syntax are not *per se* inconsistent with the view of a formally simpler mass syntax. Since many extra-linguistic facts may come into play during language processing, we will discuss a possible integration of formal analyses with behavioural data.

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The structure of presentatives

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PRESENTATIVES are utterances that bring a new entity or a new proposition to someone's attention. Though attested in many languages (Rosén 1998; Julia 2016; Petit 2010, a.o.), they have received very little attention in the syntactic literature (Bouchard 1988; Morin 1985, 1988; Casalicchio 2013). Some examples are given in (1); they are felicitous when the entity denoted by the noun phrase, whose existence has been previously evoked or can be inferred, becomes accessible to the speaker (through one of the senses, or in the space of mental possibilities):

(1) Ecco Maria. / Ecco il caffé. / Ecco una possibile soluzione. (Italian)
'Here's Maria.' / 'Here's the coffee.' / 'Here's a possible solution.'

I propose an analysis of Italian presentatives that aims to capture their unique distribution, interpretation and discourse function, and begins to shed light on the structure of presentatives more generally.

1. Nominal or clausal structures? Like 'locative *ci*-sentences', exemplified in (2), presentatives assert that an entity is present in a certain location. However, the characteristic interpretation of presentatives is that the entity is present "here and now":

(2) Ci sono le tue mele. (locative)
'Your apples are there.'

(3) Ecco le tue mele. (presentative)
'Here are your apples.'

Though there is no obvious verbal predicate, I argue that presentatives have clausal structure. They can be resumed with *ciò* (4), a pro-form that can only resume propositions (Cinque 1995). They make an assertion, which can be challenged (5):

(4) Ecco Cristina. *Ciò* vuol dire che possiamo cominciare la riunione.
'Here is Cristina. This means that we can start the meeting.'

(5) a. Speaker A: Ecco le mie chiavi. ('Here are my keys.')
b. Speaker B: No, le tue chiavi sono nel cassetto. ('No, your keys are in the drawer.')

Given these properties, I take presentatives to contain minimally a subject (the noun phrase), a locative predicate, and a T head that expresses tense and can be a host to pronominal clitics.

2. Restricted interpretation. In locative *ci*-sentences, the location can be interpreted as one previously mentioned (e.g, in (6b), the location is home). This is not possible in presentatives:

(6) a. A: Ho sentito che hai ospiti a casa. ('I heard that you have guests at home.')
b. B: Ci sono i miei genitori. (locative ci-sentence)
there are the my parents ('My parents are there')
c. B: #Ecco i miei genitori. ('#Here are my parents.')

(6c) can only mean that Speaker B's parents are in the location where the speaker is, at the time when the speaker is speaking. I propose that the locative predicate in presentatives is restricted to referring to the location of the speaker because it is bound by a higher functional head that provides the location of the speaker. Similarly, the tense of presentatives is restricted by T being bound by a higher functional head that provides the time when the speaker is speaking. Building on Giorgi (2010) and Sigurðsson (2014), I take this to be a functional head in the left periphery of the clause that encodes the time and place of the speaker: $c_{L,T}$.

3. Information structure. In my analysis, both locative *ci*-sentences and presentatives contain a subject and a locative predicate. Yet they constitute appropriate answers to different questions:

(7) a. Chi c'è (in cucina)? ('Who's there (in the kitchen))?'
b. C'è Maria. (There's Mary.) / *Ecco Maria. (*Here's Mary.)

(8) a. Dov'è Maria? ('Where is Mary?')
b. Eccola! ('There she is!') / *C'è (qui). (*There is (Maria) (here).)

Why? Cruschina (2012) argues that, in locative *ci*-sentences, the subject of the small clause raises to a Focus projection lower than T (Belletti 2004; Moro 2009). I propose that, in presentatives, it is the locative predicate that moves to a FocusP lower than T, as shown in (11). Having the predicate in focus and the subject in a topic position accounts for why presentatives are appropriate answers to where-questions, as in (8), and why elements that cannot be topics (like *someone, something, few people*) cannot occur in presentatives, as in (9):

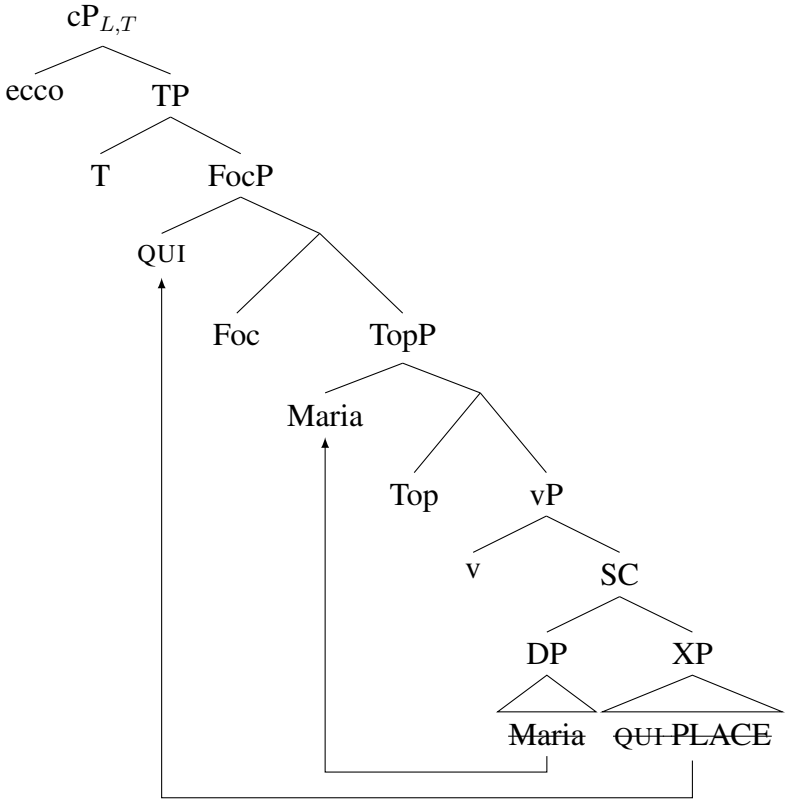
(9) # Ecco poche persone.
ecco few people.

The locative can optionally be realized as *qui* or *lì*, indicating proximity to or distance from the speaker, as in (10). I take these elements to be reinforcers of a null locative predicate (following Kayne 2005): (qui/here) PLACE. The relative position of the overt locative reinforcers and the subject, shown in (10), supports the proposal that the locative raises past the subject:

(10) Ecco qui Maria. ('Here is Mary.')

In this view, *ecco* is a deficient verb that takes a range of complements (here we've focused on small clause complements, but it can also take full CPs, as in *Ecco che si mette a piovere.* 'Here and now it starts to rain.') and raises to the functional head that expresses time and location:

(11)



In addition to capturing their word order and discourse function, this way of looking at presentatives can also explain why they cannot be embedded, if we follow the various authors who have suggested that the functional structure that encodes in the syntax information about the context is restricted to root clauses.

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Gapping in Catalan Sign Language (LSC): like VP-ellipsis?

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1. Introduction. Johnson (2014) defines gapping as being such only if the gap appears in the second conjunct of a coordination. Moreover, in English and in other spoken languages, gapping is considered a particular structure comparing it to other types of ellipsis. The main distinction is due to the restriction of gapping in appearing only in coordination (Johnson, 2014). Gapping in Catalan Sign Language (LSC), instead, presents different properties than English, showing similarity to VP-ellipsis (VPE). In this paper I consider the necessity of including gapping in the same class of other elliptical structures, contrary to English. I adopt large coordination (Gengel, 2006) and PF deletion (Merchant, 2001) to analyze it.

2. Gapping in LSC vs English. LSC, differently from English, does not respect the *no embedding constraint* (1), stated by Hankamer (1979), according to which the gapped verb cannot be embedded. Being an exclusive property of gapping in English, since it does not hold for VPE (2a), Johnson (2014) uses it as a diagnostic. LSC, though, shows the same behavior in both gapping and VPE (1b, 2b), having the gapped verb embedded under THINK.

(1) a. *Alfonse stole the emeralds, and I think that Mugsy ~~stole~~ the pearls. *Gapping*
b. JORDI DOUGHNUT EAT MARINA SAY IX-3_j $MARC_j$ CROISSANT (LSC)
"Jordi ate a doughnut and Marina said that Marc ~~ate~~ a croissant."

(2) a. Mary ate a sandwich and I think that Mike did, too" *VPE*
b. JORDI DOUGHNUT EAT CAN MARINA SAY IX-3_j $MARC_j$ CAN ALSO. (LSC)
"Jordi can eat a doughnut and Marina said that Marc can, too."

As for the fact that gapping can only appear in coordination in English (3), this is not the case for LSC. In LSC, gapping, as also VP-ellipsis, can appear also in clausal adjuncts (4). Again, gapping in LSC shows similarities to other types of ellipsis.

(3) a. *John will have caviar, although others beans. *Gapping*
b. John will have caviar, although others won't. *VPE*

(4) a. MARINA FRUIT EAT BECAUSE JORDI CAKE PALM-UP. *Gapping* (LSC)
"Marina ate fruits because Jordi ~~ate~~ some cake."
b. MARINA FRUIT EAT CAN BECAUSE JORDI CAN ALSO. *VPE*
"Marina can eat fruits because Jordi can, too".

Another property of gapping that distinguishes English and LSC is wide scope negation (¬(A&B)). Johnson (2009) considers this an argument for defending low coordination in the representation of gapping in English, since the negation needs to scope over both conjuncts (5a). Repp (2009), though, specifies that wide scope negation in gapping can appear only in specific contexts, expressing for example denial, while the default interpretation of the scope of negation is the distributed one (¬A&¬B). In denial in LSC, though, the only possible reading is the distributed one due to the obligatory use of a polarity element in the 2nd conjunct.

(5) a. Kim didn't play bingo and Sandy ~~didn't~~ sit at home. ¬(A&B) (Oehrle, 1987)
b. A: YESTERDAY MARINA JORDI SEE. MARINA T-SHIRT BUY JORDI SHOES.
B: IMPOSSIBLE! IX-1 SEE MARINA JORDI. IX-3_j $MARINA_j$ T-SHIRT BUY NOT JORDI SHOES *(NEITHER)! (¬A&¬B) (LSC)
A: "Yesterday I saw Marina and Jordi. Marina bought a t-shirt and Jordi a pair of shoes."
B: "It's impossible! I saw Marina and Jordi. Marina didn't buy a t-shirt and Jordi a pair of shoes (either)."

Despite the syntactic differences, English and LSC show the same discourse properties: they both express contrast which is marked by specific intonation over the remnants, and it is realized as contrastive topic over the external argument and contrastive focus over the internal one, in each conjunct (Winkler 2005). A question that can be answered by gapping involves a wh-question over each argument of the verb (i.e., "Who bought what?"), which generates a set of alternatives for each argument in each conjunct. The external argument in the 1st conjunct is in contrast with the one in the 2nd one (contrastive topic) and the same holds for the internal argument (contrastive focus). In spoken languages, both arguments in each conjunct are stressed. In LSC (6), body shift or head lean (hl) towards opposite directions in the space is present on each argument (cf. Crasborn & Van der Kooij (2013) for Sign Language of the Netherlands as well). Each constituent in the 1st conjunct is signed towards the right side of the space and the ones in the 2nd are produced towards the left one. Breaks between the remnants (.) mark intonational phrases. Moreover, each subject is topicalized using raised eyebrows.

	contralateral (right)	ipsil.	ipsilateral (left)
	hl	hl	hl
	t	t	
(6)	MARINA COFFEE PAY,	JORDI	CROISSANT.
	"Marina payed for a coffee and Jordi for a croissant."		

3. Analysis. On the basis of the data presented for gapping in LSC, I suggest the need of having a large coordination structure (CP) that can account for distributed scope negation and also for contrastive topic and focus. This excludes then the option of considering Johnson's (2009) analysis involving ATB movement of the verb out of vP. I will follow the general lines of Gengel's (2006) account, which underlines the importance of representing contrast in the derivation of gapping through the movement of both arguments of the 2nd conjunct to the left periphery of the sentence, adopting Rizzi (1997). Moreover, I assume that the gapped material is deleted at PF. Applying Coppock's (2001) analysis of gapping, based on Merchant (2001), it is possible to justify deletion. The focus condition on ellipsis (Merchant, 2001) states that a constituent α can be deleted only if α is e-GIVEN: an elided expression E has a salient antecedent A whose focus-marked parts are replaced by $\exists$-bound variables of the appropriate type through F(ocus)-closure, A entails F-clo(E), and E entails F-clo(A). E is then in mutual entailment with A since the VP of both E and A, in the case of gapping, has an open variable corresponding to the subject and one corresponding to the object to which $\exists$-type shifting applies. Looking at (6) and applying Coppock (2001), the F-marked elements in the 1st conjunct are *Marina* and *coffee* (F-clo(A)= $\exists x \exists y$[x pay y]) and in the 2nd conjunct *Jordi* and *croissant* (F-clo(E)= $\exists x \exists y$[x pay y]). Being the F-closure identical in A and E, this means that they entail each other satisfying e-GIVENESS and therefore licensing deletion. Syntactically, the [E] feature that indicates the material that will be deleted at PF is placed on the head of FocP since both arguments move up to the left periphery: the subject goes to TopP passing through SpecTP and the object moves to FocP. All the material in TP can, then, get deleted. On the basis of the fact that VPE is also characterized by contrast between subjects, I propose to move the subject to the left periphery, keeping the semantic and the rest of the syntactic analysis as proposed by Merchant (2001).

4. Conclusion. Gapping in LSC, differently from English, shows similarities with VP-ellipsis especially because gapping in LSC can appear also in subordination. Moreover, the presence of only distributed scope negation ($\neg A \& \neg B$) and the use of contrastive topic and contrastive focus require a large coordination structure, meaning CP. In order to represent gapping, I assume the need of moving the arguments to TopP and FocP followed by the deletion of TP at PF having [E] feature in the head of FocP.

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Eliminating external merge

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1. Chomsky has repeatedly argued that when comparing external and internal merge, we should think of internal merge (movement) as representing the unmarked case. In this paper, I would like to take this one step further and argue that internal merge is the *only* type of merge we need, explaining the preference over external merge trivially. However, the system that makes this step possible, while remaining squarely within the minimalist program, differs in many ways from the standard generative procedure. These differences have to do with the relations between the numeration, syntactic structure, and the interfaces on the one hand, and with what I would like to call the "energy" of the system, i.e. the trigger overcoming inertia.

2. We take merge to be an operation joining two elements α, δ in a set. As in standard minimalism, we take one of these two elements, say δ, to be the object under construction (OUC), i.e. the syntactic structure being derived (that is, we observe the Extension Condition). The difference between internal and external merge, then, has to do with the origin of α, either being already in the OUC (internal merge), or not (external merge). Eliminating external merge implies that the latter never occurs, i.e.

(1) *merge*
For $\alpha \in \delta$, merge creates $\{ \alpha, \delta \}$

3. If (1) is all there is, there can be no separation between the numeration (a one-time selection of elements to be merged) and the OUC, in other words, the numeration *is* the OUC. External merge requires separating the numeration and the OUC, and defining an operation that 'transfers' elements from the numeration to the OUC (a notion rejected as early as Bobaljik 1995). As Bobaljik pointed out, this conception of external merge as 'transfer' results from a common visualization of the syntactic derivation as involving spatio-temporal organization (with the numeration on one side, the derivation on the other, and structure growing as we move elements from one side over to the other), which should not be reified. All a syntactic derivation should do is establish relations among elements in the numeration, which creates a record of dependencies which the interfaces can interpret. I argue that (1) suffices for the creation of such a record of dependencies, making external merge redundant.

4. I follow Chomsky (1995) in assuming that syntactic operations are driven by interface requirements, more particularly the need to derive a fully interpretable structure. In standard minimalism, interpretability is defined in terms of features, but I follow Kayne (1994), Moro (2000) and Fortuny (2008) in assuming that Full Interpretation requires the elements in a syntactic structure to be ordered (cf. Zwart 2011). If the numeration is a set, a way should be found to turn that set into an ordered pair (or an ordered n-tuple), i.e. to create asymmetry. Syntactic relations that are structural (i.e. involving c-command) and concomitant features I take to be interpretations of this asymmetry. Ideally, the ordering should fall out from the operation merge (1) itself (as a matter of optimal design).

5. As is well-known since Kuratowski (1921), the ordered pair $\langle \alpha, \beta \rangle$ can be defined in set-theoretical terms as (2) (cf. Langendoen 2003).

(2) $\{ \alpha, \{ \alpha, \beta \}\}$

If $\delta = \{ \alpha, \beta \}$, (2) is the output of the operation merge (1). In other words, internal merge, defined as (1), does exactly what it is supposed to do: it turns an unordered set δ (= {α,β}) into the ordered pair $\langle \alpha, \beta \rangle$. Full Interpretation, then, is satisfied by internal merge alone, without any features entering the conversation.

6. To illustrate with a trivial example, if the numeration is (3a), merge derives (3b), which creates an asymmetry between *John* and *left*, such that *left* is a dependent of *John* (3c). At the interfaces, the asymmetry is interpreted as a sequence (if externalization requires pronunciation) and as a subject-predicate relation (with concomitant c-command dependency effects such as subject agreement).

(3) a. numeration = { John, left }
b. { John, { John, left }}
c. ⟨ John, left ⟩

7. If the numeration contains more than two elements, as it typically will, merge as defined in (1) will with subsequent steps 'tuck in'. That is, if the numeration is as in (4a), and merge creates (4b), we end up with an ordered pair in which the dependent element is a set (4c). That is, *John* is ordered with respect to *left* and *Mary*, but the set { left, Mary } is unordered and subject to (1), yielding (4d).

(4) a. numeration = { John, left, Mary }
b. { John, { John, left, Mary }}
c. ⟨ John, { left, Mary } ⟩
d. ⟨ John, { left, { left, Mary } } ⟩ = ⟨ John, ⟨ left, Mary ⟩⟩ = ⟨ John, left, Mary ⟩

This boils down to a top-down derivation à la Zwart (2009), but that analysis faces a problem in that A'-movement is predicted not to exist. In the analysis contemplated here, A'-movement can be defined as a subsequent operation, not triggered by the need to create order, but by other factors (and hence subject to variation).

8. The proposal, while facing many problems of execution, immediately solves a number of major problems. First, there is no question of the pronunciation of 'traces' or 'copies': the interfaces care only about the ordered n-tuples, in which multiple representations simply do not occur. Second, the proposal allows for a simple definition of the notion 'subject', not confounded by thematic roles or discourse functions, namely that the subject is the first element merged; this derives the Extended Projection Principle (every clause has a subject) trivially, as well as basic typological generalizations about subject placement. Third, the proposal solves Brody's Problem (formulated in response to Epstein 1999), that the terms of a subject/specifier are never c-commanded by the sister of the subject/ specifier; this follows since the subject is not a dependent of its sister, but the other way around, given that merge gives rise to an ordered pair.

9. To recapitulate, if we assume (i) simplest merge (i.e. joining two elements in a set), (ii) the extension condition, and (iii) Full Interpretation as a driving force overcoming inertia, a syntactic derivation can be defined as a process turning the numeration, which is a set, into an ordered pair (ordered n-tuple). We can maintain a unified definition of merge (1), without postulating a dichotomy between internal and external merge, and deriving Chomsky's conjecture that internal merge is the unmarked operation trivially.

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Keyword Index

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