DiGS18
Diachronic Generative Syntax Conference
29 June – 1 July 2016

	Wednesday, 29 June 2016
8:30-9:00	Registration[1]
9:00-9:10	Welcome
9:10-10:10	Invited speaker: **Ioanna Sitaridou:** Word Order in Old Spanish: V2 or non-V2?
10:10-10:30	*Coffee break*
10:30-11:10	**Alexandra Simonenko, Benoit Crabbé and Sophie Prévost.** Taraldsen's Generalisation in Medieval French
11:10-11:50	**George Walkden.** Null subjects and null D: the evidence from diachrony
11:50-12:30	**Kari Kinn.** Bare singular nouns in Middle Norwegian
12:30-13:30	*Lunch break*
13:30-15:00	**Poster session I:** • **Aaron Ecay.** How changes change: the case of *do*-support • **Rok Žaucer and Franc Marušič.** The modal cycle vs. negation • **Matthew Maddox.** Grammaticalization of Reflexive *Se* From Latin to Spanish: An Object Agreement Cycle • **Pablo Faria and Charlotte Galves.** Annotation systems and automatic processing: a tight connection
15:00-15:40	**Jorge Vega Vilanova, Mario Navarro and Susann Fischer.** The Clitic Doubling cycle. A diachronic reconstruction
15:40-16:20	**Gabriela Alboiu and Virginia Hill.** Cliticization of AUX and the Shift from SVO to VSO in the History of Romanian
16:20-16:50	*Coffee break*
16:50-17:30	**Achim Stein, Carola Trips and Richard Ingham.** The role of French in the rise of the recipient passive in Middle English: can structural Case be borrowed?
17:30-18:10	**Eric Fuß.** Hand in hand or each on one's own? On the connection between morphological and syntactic change

[1] There is also the opportunity to register at a pre-conference reception in the evening of 28 June.

	Thursday, 30 June 2016
9:00-10:00	Invited speaker: **Elly van Gelderen:** Problems of Projection and Historical Linguistics
10:00-10:20	*Coffee break*
10:20-11:00	**Johan Brandtler and David Håkansson.** Heading North. The syntactic status of Swedish negation
11:00-11:40	**Elitzur Bar-Asher Siegal and Karen De Clercq.** The development of an external negator: the Eastern Aramaic negative polarity particle *lāw*
11:40-12:20	**Heather Burnett and Sali Tagliamonte.** Using Cross-linguistic Evidence to Ground Morpho-Syntactic Change: *No/Not...any* variation in the History of English
12:20-13:30	*Lunch break*
13:30-15:00	**Poster session II:** • **Afra Pujol I Campeny.** V1 in Old Catalan • **Anna Bartra.** De-constructing Passives from a Diachronic Perspective • **Judy Bernstein, Francisco Ordóñez and Francesc Roca.** On the emergence of personal articles in the history of Catalan • **Moreno Mitrović.** The Great Quantifier Shift
15:00-15:40	**Laura Grestenberger.** A "participle cycle"? The diachronic morphosyntax of Greek participles
15:40-16:20	**Veronika Hegedűs.** Changing copulas and the case of Hungarian prenominal PPs
16:20-16:50	*Coffee break*
16:50-17:30	**Susan Pintzuk and Aaron Ecay.** The dating of Beowulf revisited: investigating the syntax of Old English poetry
17:30-18:10	**Andreas Blümel and Marco Coniglio.** What kind of constructions yield what kind of constructions?
19:30 -	*Conference dinner*

	Friday, 1 July 2016
9:00-10:00	Invited speaker: **Cecilia Poletto:** The relative cycle: how grammaticalization (does not) work
10:00-10:20	Coffee break
10:20-11:00	**Andrea Ceolin et al.** Parametric history and population diversity
11:00-11:40	**Cristina Guardiano et al.** Probing the vertical and horizontal signal of parametric syntax
11:40-12:20	**Henri Kauhanen and George Walkden.** A production bias model of the Constant Rate Effect
12:20-13:30	Lunch break
13:30-15:00	**Poster session III:** • **Montserrat Batllori, Elisabeth Gibert and Isabel Pujol.** Changes in the event structure of psych verbs in the history of Spanish • **Kersti Börjars and John Payne.** Modifiers and definiteness marking in Old Norse: and LFG analysis • **Alison Biggs.** The Path to Directed Manner of Motion • **Karen De Clercq.** Feature Conservation: French Negation Revisited
15:00-15:40	**Melissa Farasyn.** Agreement chains in Middle Low German relative clauses.
15:40-16:20	**Metin Bagriacik and Lieven Danckaert.** On the Emergence of Prenominal and Postnominal Relative Clauses in Pharasiot Greek
16:20-16:50	Coffee break
16:50-17:30	**Jacopo Garzonio and Silvia Rossi.** Structural deficiency across phases: oblique pronouns in Old Tuscan varieties.
17:30-18:10	**Marieke Meelen.** The origin of Middle Welsh V2 orders

Gabriela Alboiu and Virginia Hill:

Cliticization of AUX and the Shift from SVO to VSO in the History of Romanian

The canonical word order has always been VSO in the attested Old and Modern Romanian (OR & MR), with alternate word orders derived through movement of mainly subjects and objects to CP. The traditional wisdom is that, unlike most of Romance, which is SVO, Romanian displays the Balkan Sprachbund setting for word order. However, a careful look at the grammar of 16th century OR reveals occasional unexpected syntactic turns, unavailable to MR and puzzling for a Balkan VSO grammar; these are: (i) subject-Aux inversion (SAI), (ii) phrasal movement/scrambling within TP and not just to CP, and (iii) subject doubling with strong pronouns (see also Pană Dindelegan 2016).The hypothesis we argue for is that these properties are not random but specific to an earlier parametric setting, with S initial order (SVO or SOV), active during the Romanization period and correlated to the non-clitic status of auxiliaries.

Data. (i) ***SAI*** is usually seen in SVO languages, where Aux-to-C leaves the preverbal subject in Spec,TP (Rizzi 1982). In OR, this inversion coincides with short *wh*-movement (1) or the presence of conditional operators (6).

(1) mergeţi la Iosif şi ce **va** **el** dzice voao aceaia faceţi
go.IMP.PL to Iosif and what will.3SG he say to.you that do.IMP.PL
'go to Joseph and do what he tells you' (PO,145)

(ii) ***Scrambling***. Constituents front within TP, between Aux and the verb. V is in the TP field as it precedes vP related adverbs and in situ subjects (for the latter see 2).

(2) aşa se-**au** **tare** puternicit [$_{vP}$*foametea* t_v în pământul Canaanului]
thus REFL=has strongly accrued hunger.the in land.the Canaan.the.GEN
'thus the hunger strongly accrued in the lands of Canaan' (PO, 166)

(iii) ***Doubled subjects***. This peculiarity shows a gradation: in 16th c. texts, the doubled subjects are wh-phrases/relative pronouns undergoing short *wh*-movement and yielding a correlative construction (3). In 18th c. texts, the correlative construction is phased out and the subject is left dislocated, but it is resumed by a strong pronoun (4). (Romanian lacks subject clitics).

(3) **Carii** rămânu în păcate de duhul svânt **ei** se rup
who.the.PL remain.3PL in sins from spirit holy they REFL=break.3PL
'Those who persist in their sins break away from the holy spirit' (FT 2 – Chivu 162)

(4) că **darurile** celealalte **eale** să numără între daruri cele mai slabe
for gifts.the other they REFL=count.3 among gifts those more weak
'for the other gifts count among the less important gifts' (SA 75 – Chivu 348)

Analysis. We assume evidence of verb movement within TP (e.g., to a Participle (Part) head as in Kayne 1989; see 2), throughout, and of non-clitic instantiations of auxiliaries in the above data. Notably, in 16th c. texts, the free and clitic treatment of auxiliaries can be seen in the same sentence, indicating variable parametric setting for the same speaker, despite clitic status as default (statistically shown in Dragomirescu 2014). We note that SAI arises in indirect interrogatives, conditionals and free relatives, indicating remnant V2 as in Rizzi (1996), but does not arise in declarative clauses, where Aux remains in T (it follows Neg). Crucially, Aux-to-C/Fin occurs to check the [modal] feature of Fin associated with [+qu] C/Force (on the identical feature content in C for conditional and interrogatives, see Kayne 1991, and conditional and free relatives, see Bhatt & Pancheva 2005). In declaratives, subjects typically precede Aux, and scrambling of other constituents may occur between Aux and V in Part. These observations amount to the configuration in (5), where two TP internal positions for constituent movement are visible: one in Spec,TP, for subjects; one in Spec,PartP for any other XP constituent.

(5) **[$_{CP}$ [$_{TP}$ Subject [$_{T}$ Aux [$_{PartP}$ XP [$_{Part}$ V [$_{vP}$…]]]]]**

We propose that, in (5), ***Spec,TP is an A-position, whereas Spec,PartP is an A'-position***. Evidence comes from data showing that interrogatives/relatives allow for the merging of subjects between Aux and Part, but not of other constituents. This is unsurprising since A-movement does not interfere with A-bar movement. Scrambling, on the other hand, is found only in declarative clauses (there are no examples where fronting to contrastive focus co-occurs with scrambling), which points to interference with other operator-variable chains (e.g. *wh*-movement) and supports the A-bar nature of this movement. Conversely, the status of Spec,TP as an A-position is confirmed by the presence of bare quantifier subjects in SAI contexts (see 6).

(6) s-**ară** **<u>neştine</u>** grăi cuvântul Zeului s-**ară** **<u>neştine</u>** sluji
if=would.3 someone speak word.the God.GEN if=would.3 someone toil
'if someone would speak God's word, if someone would toil…' (Coresi L 171)

Furthermore, scrambling is phased out to the benefit of left dislocation to CP. The doubling of subjects in (3)-(4) shows a transition in the type of subject fronting for discourse purposes (from A- to A-bar movement), whereby the Topic/operator status of the subject (versus its preverbal A-position) is recognized only if a lower copy of the same item is spelled out in Spec,TP (A-position). Once the CP related analysis of the subject stabilizes, the doubling procedure becomes superfluous and the evidence for Spec,TP as an A-position is lost. Crucially, the generalization of the clitic auxiliary coincides with the generalization of VSO. ***In fact, SAI, scrambling, and subject doubling all disappear as the clitic status of auxiliaries is fully stabilized***. Furthermore, the evidence presented here indicates a change in linearization from SVO (and *not* SOV) to VSO, with SOV order derived by scrambling to Spec,PartP and V in Part (versus V in situ).

<u>Implications and Conclusions</u>. <u>First</u>, this analysis explains why there are isolated cases of SVO in MR where Spec,TP is arguably an A-position. In derivations with bare quantifier subjects, as in (7) where the subject follows a Topic>Focus sequence, Motapanyane (1994) argues for A-status of Spect,TP as bare quantifiers cannot be doubled and analyzed as left dislocated to TopicP: (7) traces the older TP-internal SVO linearization option.

(7) [$_{TOPP}$Noaptea], [$_{FOCP}$în mod sigur] **cineva** se va împiedica de scară.
night.the in way certain someone REFL=will stumble on stair
'It is certain that during the night someone will stumble on the stairs.'

<u>Second</u>, this analysis entails that the setting for VSO does not arise from a parametric switch per se, but is an epiphenomenon of other changes in the grammar, notably, the cliticization of auxiliaries. The natural consequence of the changes discussed is that, in MR, contrastive topic or *wh*-movement precludes subjects in a preverbal A-position, indicating that the concurrent availability of an A and an A-bar preverbal position is lost. <u>Lastly</u>, perhaps the most interesting theoretical implication is that, ***on par with phrasal movement, syntactic T to C movement is equally split into A- versus A-bar movement***. In particular, Aux to C/Fin (V2) is akin to an A-movement option (from T to C/Fin in OR), while Long Head Movement (LHM), as in Rivero (1993), where a participial/infinitival V moves to C to license an operator in OR - see (8) with a null interrogative operator - is an instance A-bar movement (i.e. Part to Focus movement).

(8) **<u>Grijit</u>-*au*** bine cetatea Hotinului Vasilie-vodă?
cared-has well fort.the Hotin.the.GEN Vasilie-king
'Did king Vasilie take good care of the Hotin fort?' (Costin 124)

In the same vein, Roberts (2001, 2010) defines locality of head movement based on head type: operator versus non-operator head. Further support for this claim comes from loss of T to C head movement for operator licensing in MR more generally.

Metin Bagriacik and Lieven Danckaert:

On the Emergence of Prenominal and Postnominal Relatives in Pharasiot Greek

Introduction This talk is concerned with the diachrony of prenominal and postnominal headed relative clauses (HRCs) in Pharasiot Greek (PhG), an Asia Minor Greek (AMG) dialect spoken by ca. 25 native speakers. In PhG, HRCs are finite structures introduced by the morpheme *tu*. In a corpus of texts written between 1886-1972, HRCs are almost always prenominal (96,5%, cf. (1a)). Today, however, both prenominal and postnominal (1b) HRCs are readily accepted by native speakers, without there being any obvious semantic difference:

(1) a. ær me ðos [[tu kremázis so ɣuryúri s] *to gerdannúxi*] . . .
if me give.2s TU hang.2s on.the neck your *the necklace*. . .
'if you give me the necklace you hang on your neck. . . [T2.328.6, 1964]

b. ær me ðos [*to gerdannúxi* [tu kremázis so ɣuryúri s]] . . .
if me give.2s *the necklace* TU hang.2s on.the neck your. . .
'if you give me the necklace you hang on your neck. . . '

The structure in (1a) is often attributed to interference with Turkish (cf. Dawkins 1916), a language in which relative clauses are obligatorily prenominal (not illustrated), similar to other AMG dialects; Cappadocian (2) and Pontic (3):

(2) [to ɣórais [to basturmás]]…
the buy.2s the pastrami
'the pastrami you bought…' (Cappadocian)

(2) [to érθen so kifáli mu [to kakón]]…
the came.3s to.the head my the harm
'the harm that I suffered…' (Pontic)

We will argue that (1a) cannot be explained (only) by word-order or structure copying from Turkish, and that it also does not have the same structure as (2)-(3). Instead, we will propose that the element *tu* which introduces PhG prenominal HRCs was originally bimorphemic, and that it involves the merger of a generic complementizer *u* and the external definite determiner (*t-*). We will trace this development back to Medieval Greek structures such as (4) (Medieval Pontic, cf. Liosis & Kriki 2013:264), in which we see the generic complementizer *u*:

(4) akrivá práɣmata u u fθíronde
expensive things.NOM/ACC C NEG wear.down.3p
'expensive things that do not become worn down'

Prenominal HRCs Importantly, Cappadocian and Pontic impose a definiteness restriction on the relative head (5), whereas PhG does not (6), neither today nor in the older texts:

(5) to den kalačev (*éna)/(to) fšax
the NEG speak.3s *a/the child
'the/*a child that does not speak' (Capp.)

(6) tu čo kačef (a)/(to) čočúxi
TU NEG speak.3s a/the child
'a/the child that does not speak' (PhG)

Under our analysis, the definiteness restriction in Pontic/Cappadocian and lack thereof in PhG follow from their different structures. While in the former HRCs are introduced by a simplex determiner agreeing with the head noun in definiteness, in PhG they are introduced by *tu,* the output of the morphological merger of the external determiner *t-* and the generic complementizer *u*. We will adopt a unified account of raising and matching structures of HRCs (Cinque 2008 et seq.), which assumes HRCs to contain both an internal and an external nominal head, one of which is phonologically deleted under identity. Specifically, we propose that PhG HRCs derive from a structure involving raising of the internal head (which leads to the deletion of the external head under c-command) in a structure with the external determiner *to* and the complementizer *u*. The basic structure is shown in (7a):

(7) a. $[_{D^o}$ *to* $[_{CP}$ head$_{INT_i}$ $[_{C^o}$ *u* $[_{IP}$ …t_i…]] $[_{NP}$ <~~head$_{EXT_i}$~~>]]]

Importantly, the combination of a D-head and the complementizer *u* was also available in free relatives (8). Crucially, in this context the two elements are linearly adjacent: we propose that in this environment *to* and *u* were morphologically merged to form the relative complementizer *tu*, in which the *t*-morpheme retains its definiteness.

(8) [tu póminan so xorío] pali írtsan ta Túrči
TU remained.3p in.the village CONTR turned.3p OBJ.CL Turks
'as for who(ever) remained in the village, they Turkified them' [T3.18.34,1966]

In a next stage, *tu* became a generic relativizer used in HRCs too, but crucially not in the structure in (7a): given the amalgamation of D and C, there was no longer a landing site for the head$_{INT}$. The only available structure is one in which head$_{INT}$ stays in situ, and in which head$_{EXT}$ is spelled out (7b). As a result, HRCs are obligatorily prenominal and definite (9). We will assume that these structures are until today preserved in Cappadocian and Pontic *to*-relatives (modulo the independent fact that these two varieties are characterized by obligatory definiteness spread, cf. the two occurrences of the article in both (2) and (3)).

(7) b. $[_{D^o}\ t\text{-}+_{C^o}\ u\ [_{IP}\ \ldots\langle \sout{\text{head}_{INT_i}}\rangle\ldots]\ [_{NP}\ \text{head}_{EXT_i}]]$

(9) [tu poíe:ssás moi [ot^{h}onídia]]
TU made.2s to.me linen.clothes
'the linen clothes you made for me' (3rd cent)

What sets apart PhG from the other AMG dialects is one further development, namely the loss of the D-feature of *tu* (and hence its definite character), which became a mere complementizer. Due to this development, in PhG the definiteness specification of the entire complex noun phrase could only be realized in the extended project of head$_{EXT}$ (cf. Cinque's 2008 'dP'), without any definiteness restriction:

(7) c. $[_{D^o}\ t\text{-}+_{C^o}\ u\ [_{IP}\ \ldots\langle \sout{\text{head}_{INT_i}}\rangle\ldots]\ [_{dP}\ [\pm\text{def}]\ \langle\text{head}_{EXT_i}\rangle]]$

This analysis, if on the right track, assumes that the overt head is always external in PhG headed RCs. Facts form relativization of V+O idiom chunks, scope/binding interactions and lack of weak island sensitivity (cf. 10a) suggest that this is the case. Under this analysis, Turkish influence can only have reinforced the structure in (7c).

Postnominal HRCs On the other hand, we will argue that PhG postnominal HRCs (1b) involve structure copying from MG, coupled with reanalysis of *tu* as a monomorphemic complementizer, by analogy with the MG complementizer *pu* (Alexiadou 1998). Differences between prenominal and postnominal RCs regarding reconstruction of V+O idiom chunks, scope/binding interactions and weak island sensitivity (10b) reveal that similarly to MG HRCs, postnominal HRCs in PhG involve head raising. It follows that the two types of HRCs in present day PhG (cf. (1)) correspond to very different structural configurations.

(10) a. ení aré [$_{DP}$ tu rótsin [$_{Wh\text{-}island}$ tus xa íni <$\sout{\text{to zóri to askéri}_i}$>] to zóri to askéri$_i$]
is now TU asked.3s how would become.3s the good the soldier
'he is now the good soldier that he asked how he would become' (*prenominal*)

b. *ení aré [$_{DP}$ to zóri to askéri$_i$ tu rótsin [$_{Wh\text{-}is}$ tus xa íni t_i] <$\sout{\text{to zóri to askéri}_i}$>]
is now the good the soldier C asked.3s how would be.3s
'he is now the good soldier that he asked how he would become' (*postnominal*)

References Alexiadou, A. 1998. On the structure of Greek relative clauses. *Studies in Greek Linguistics* 18:15-29. ◆ Cinque, G. 2008. More on the indefinite character of the head of restrictive relatives. *Rivista di Grammatica Generativa* 33:3-24. ◆ Dawkins, R. 1916. *Modern Greek in Asia Minor*. Cambridge: CUP. ◆ Liosis, N. & Ei. Kriki. 2013. Towards a typology of relative clauses in Modern Greek dialects. In *Online Proceedings of MGDLT 5,* 245-71.

Elitzur Bar-Asher Siegal and Karen De Clercq:

The development of an external negator: the Eastern Aramaic negative polarity particle *lāw*

Background and main proposals: The general aim of this paper is to provide a better understanding of the syntax and the diachronic process underlying the emergence of the external negator *law* in Jewish Babylonian Aramaic (=JBA). In pursuit of this aim, this paper argues that 1) considering the history of the Late Eastern Aramaic dialects, the development of *lāw* as an external negator constitutes a unique type of historical process, 2) *lāw* ('it is not' or 'no') can be regarded as a negative polarity particle that changes the truth function of the clause and is hosted by a projection FocP in the extended CP-domain, 3) the syntactic reanalysis of *law* is triggered by a phonological process: the co-occurrence of the regular negator *lā* in clefts with a phonologically null copular verb.

1. Historical development. Bar-Asher Siegal (2015a) has shown that JBA has two negators: a standard negator *lā* (applying Miestamo's 2005 terms), and a non-standard negator *lāw*. The latter is an external negation, which reverses the truth-value of a proposition. The diachrony of the negator *lāw* in JBA can be characterised as follows:

A. In Stage I, *lāw* was a contraction of two morphemes [*lā*+*hu* > *lāw*] which constituted a complete clause, negating another clause.
B. In Stage II JBA *lāw* became a single morpheme, functioning as another type of negator.
C. There is a syntactic difference between the two negators in Stage II: *lā*, as is the case with other negators in standard negation cross-linguistically (cf. *inter alia* Miestamo 2005), is assigned a fixed position with respect to the predicate, i.e., it always precedes it. *lāw* in most cases does not appear next to the verb, and tends to appear either in the sentence-initial position or immediately after it.
D. *lā* is unmarked and *lāw* is marked for the following four functions: 1) negative rhetorical questions; 2) in the antecedent of conditional counterfactual sentences; 3) to negate a sentence that had been affirmed earlier; 4) to reject a contextual presupposition. These are environments where external negation is expected. Hence, Bar-Asher Siegal (2015a, b) claimed that after the morphological merger of two morphemes into one [*lā*+*hu* > *lāw*] the function of *lāw* remained that of an external negator.

2. The diachrony of negation. According to the typology of the diachrony of negation proposed by van der Auwera (2009), there are three types of developments:

(1) a. X → NEG
b. NEG1 X → NEG1 NEG2 → NEG2
c. NEG1 X → [NEG-X]$_{NEG2}$

The development in JBA is of type c, which illustrates a process of univerbation: a word that often co-occurs with the standard negative marker contaminates that negative marker, which leads to the emergence of a new negative marker. This process fundamentally differs from type b, the pattern found in Jespersen's Cycle (*inter alia* Jespersen 1917, Horn 1989, van der Auwera en Neuckermans 2004, van der Auwera 2009, Breitbarth and Haegeman 2010, Breitbarth, Lucas and Willis 2013) and in Croft's Cycle (Croft 1991). In contrast, the newly created marker *law* does not lead to the loss of the negator *lā*, from which it is derived. Instead, the process described here adds a new type of negator to the language. We argue that the emergence of *lāw* as an external negator is a sub-type of type c. and reminiscent of the Sicilian negator *neca* (Cruchino 2010, Garzonio and Poletto 2015).

3. *lāw*: a polarity marker. According to this proposal, *lāw* evolved from being the phonological merger of a regular low predicate negator *lā* with the agreement marking *–hu* on the elided verb to an independently negative polarity particle, which inverts the truth-value of the proposition it combines with. Evidence for the fact that in Stage I *lāw*, must be a phonological merger (as is documented in Syriac; Joosten 1992, Pat-El 2006) comes from the pair in (2), showing that only when the verb 'to be' is absent, as in (2a.), *lā* and *hu* can merge and be pronounced as *lāw*. If the verb is present, cf. (2b), the contraction cannot take place and the original negator *lāw* remains.

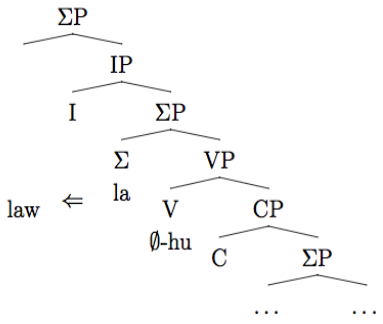
(2) a. *lā-hu* > *lāw* (phonological contraction)
NEG-he =>"It is not so"
b. *lā* *hwa*
NEG be.PST.3.M.SG =>"It was not so"

In Stage II, this conflation can no longer be phonological in nature: *lāw* usually occurs in clause-initial position and can appear with a copula (3a) or with the verb "to be" (3b). It can even be stacked on the regular negator *lā*, as in (3).

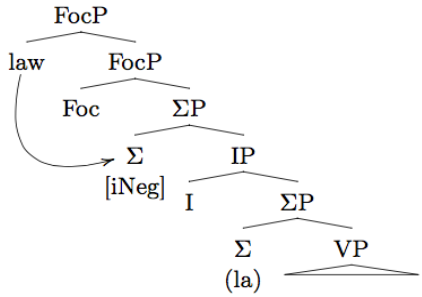
(3) a. *lāw* *gazlān-e* *ninhu*
NEG thief-PL COP.3.M.PL => "They are not thieves." (*B. Qam.* 79b)
b. *lāw* *'isurā* *hawya*
NEG prohibition be.PST.3.F.SG => "It was not a prohibition" (Yebam. 13b)
c. *lāw* *lā* *šnā*
NEG NEG different.M.SG => "Isn't it the case that it doesn't matter?!" (Šab 112b)

Based on the distribution of *lāw* in Stage II (cf. section 1,D), we argue that *lāw* is a polarity particle and that JBA has a truth based polarity system (instead of an agreement based system) (Jones 1999, Holmberg 2013a, b). Unlike languages which have high IP-negators (like English *n't*) and in which polarity particles often agree with the polarity expressed in IP (agreement based systems), JBA expresses regular sentential negation with a low scope VP negator, *lā*, and not with a high IP negator. We propose that *lāw* in Stage I was a phonological contraction of the low VP-negator *lā* in a low ∑P (cf. Laka 1994) or NegP (cf. Haegeman 1995), with the agreement marker *hu* due to the fact that the copula 'be' is phonologically null in certain clefts (cf. Belletti 2008 for the reduced CP of clefts), cf. (4). In Stage II, represented by (5), *lāw* has become a polarity marker in a left peripheral SpecFocP (cf. Haegeman 2000, Garzonio and Poletto 2015), which can value the ∑P in the IP-domain as negative and hence determine the polarity or truth condition of IP. The low VP-negator can still be present in Stage II and reflect the polarity of the previous assertion. Thus, the *lā+hu* (phonologically expressed as *lāw*) in the matrix clause of a cleft sentence in Stage I was reanalyzed as the negative polarity particle *lāw* in the left periphery of a simple clause.

(4) Stage I: cleft



(5) Stage II: polarity particle



References

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Anna Bartra:

De-constructing Passives from a Diachronic Perspective

OVERALL PROPOSAL

In this paper we provide conclusive diachronic arguments for the statement –firstly made in Chomsky 1981– that "passive sentence" is a cover term with no empirical import or explanatory power, an epiphenomenon, and we offer a neo-constructionist explanation of the basic properties of periphrastic passives. The difference between Old and current Romance passive sentences furnishes empirical evidence for our theoretical assumptions. Besides assuming the basic tenet that vP and VoiceP (Kratzer 1996; Collins 2005; Alexiadou, Agnostopoulou and Schäffer 2015 a.o.) are the functional categories which instantiate active/passive voice, we show the relevant role of the Aspectual value of the Past Participle (Gehrke and Grillo 2009) and of the T node. This strictly compositional and neo-constructionist view allows us to gain explanatory adequacy in front of former approaches based on the properties of individual predicates, unable to explain the differences in lexical and syntactic restrictions between Old Romance varieties and the contemporary ones. Our leading idea is that Romance passives are composed by participial absolute constructions to which a light verb (*ésser* or *estar*) is merged to license its temporal and discourse features. Specifically, two layers are relevant in passive sentences: a lower area headed by an Aspect projection and a higher one in the T-C system. We therefore explore a phase-based account for these facts. Addressing the topic from a diachronic perspective, further support to our view comes from the discussion of the crucial role of the perfective system and the passivizing morphology of Latin.

THE BASIC DATA AND THE QUESTION

Standard grammaticalization theory nor traditional approaches based on the lexicosemantic properties of individual predicates can account for the differences in lexical restrictions between Old and Contemporary varieties of Spanish, Catalan and Italian as for the possibility of admitting passive sentences. The examples show that in Old Romance atelic and stative predicates (1-3) could enter into passive constructions, together with (a kind of) intransitive predicates (4) and complex predicates with light verbs (5).

(1) mandamos ***seer guardadas & tenidas***. en la forma que es dita de iuso. (sic) [Fueros Aragón 1247,].
(2) la lengua del rey mucho deve ser ***mirada & guardada*** en lo que oviere de decir [Libro del Cavallero Cifar, 1300-1350].
(3) Lu nume di sanctus Benedictu ***fu saputu e canoschutu*** quasi da tucta gente ky habitavano in là appresu [Giovanni Campulu, 1302/37]
(4) per què ***fou*** aquí ***deliberat*** e conclòs en la forma següent, (Llibre de les Solemnitats de Barcelona I, 97, 19).
(5) e que ***sia fet protest*** ab scriptura (G. Eiximeno, *Crim*, XV, carta 2, a.).

As for telicity and stativity, since no changes are expected in the argument structure of predicates, (1-5) challenge classical accounts for lexical restrictions, such as

Mendikoetxea (1999) or Gehrke & Grillo (2009) that only accomplishments or achievements (involving BECOME) should be able to form passives. Besides this, impersonal passives and complex predicate passives also question traditional analyses.

A SKETCH OF THE ANALYSIS

We assume a neo-constructionist approach by which the nature of the functional categories merged determines the properties of the construction. Specifically, we assume that Internal Aspect or AspI is the projection, which hosts the internal argument, saturating the quantificational variable of the head (Borer 2005). Therefore, there is no need to restrict the lexical properties of the root. *v*P is the category responsible of the causative value (flavour) of the predicate (Alexiadou & al. 2015; Folli & Harley 2007), whereas VoiceP is the site of the external argument and passive morphology in languages which have one. Latin impersonal passives can be explained a kind of mirror image of "pro drop": synthetic passive morphology licenses its unvalued passive feature with no need of a DP to be merged in it. In Old Romance, the internal argument establishes an agreement relationship with the head. At VoiceP, all features are valued and the chunk can be send to SpellOut. The presence of the auxiliary verb BE remains to be explained. We follow Chomsky (2015) in assuming that in pro drop languages T has no EPP feature. Therefore, no DP has to be merged to it. But T has a [uT] feature to be valuated. Since the PP has valued all its features in VoiceP, it is no more available. A last resort verb is merged in T. We will also tentatively discuss the need of an external AspectP (AspE) to host the perfectivity properties of the PP and its consequences for Phase theory. A general structure with details to be further presented is the following:
[$_{T}$ [$_{T}$ BE [~~uT~~] [$_{AspE}$ [$_{AspE}$ *mirada* [~~uPerf~~] [$_{VoiceP}$ *la lengua del rey* [$_{Voice}$ [uPass] [$_{vP}$ [$_{v}$ [<CAUSE> ~~uv~~] [$_{AspIP}$ [$_{AspI}$ [~~uQ~~] [$_{√}$ [$_{√}$ *mirada*] [$_{DP}$ ~~*la lengua del rey*~~]]]]]]]]]]]]]

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Montserrat Batllori, Elisabeth Gibert and Isabel Pujol:

Changes in the event structure of psych verbs in the history of Spanish

This paper focuses on the study of the psych verbs classified by Belletti and Rizzi (1987) as 3rd group by paying attention to their aspectual behaviour from a diachronic standpoint. The most distinctive characteristic of this class of psych verbs is that they take a dative EXPERIENCER and a nominative THEME, as illustrated in (1).

(1) EXPERIENCER (*dative*) **verb** THEME (*nominative*)
a. A Pepe le gusta el café
to Pepe CL_{Dative} like the coffee
'Pepe likes coffee'
b. A Gustavo le duelen los oídos y la cabeza
to Gustavo CL_{Dative} hurt the ears and the head
'Gustavo has earache and headache'

We divide them into three different types depending on their etymological origin: a) those inherited from Latin that could be used in unaccusative configurations with a dative object (e.g. PLACEO 'to please' or DOLEO 'to feel pain', see 2); b) Latin verbs the descendants of which did not develop the unaccusative structures with datives until Golden Age Spanish (e.g. GUSTO 'to taste' or APPETO 'to strive after sth., to try to get sth.', compare 3 and 4); and c) verbs of Romance genesis (e.g. *agradar* 'to like' or *antojarse* 'to fancy, to feel like', see 5).

(2) a. *placuit* castra defendere exercitui
pleased camp defend army
'Defending the camp pleased the army'
[Pinkster (1990:23)]
b. animus mihi *dolet*
soul to-me hurts
'It hurts me deeply'
[Plautus, *Merc*. 2. 3. 54]

(3) a. para dar mayor claridad para que *todos lo* *gusten* y entiendan
to give greater clarity to that all $CL_{Accusative}$ taste and understand
'so as to shed more light for everybody to taste and understand it'
[*CORDE*: 1585. Juan de Arfe y Villafañe. *Varia Conmensuración para la Escultura y la Arquitectura*.]
b. Antes -dijo Sabino- lo procuran y *lo* *apetecen* con ardor grandísimo.
before said Sabino $CL_{Accusative}$ seek & $CL_{Accusative}$ strive-after with enthusiasm the-greatest
'Sabino said: -They want it and strive after it with the greatest enthusiasm'
[*CORDE*: 1583. Fray Luis de León. *De los nombres de Cristo*, libros I-III.]

(4) a. *No le* *gustó el mancebo*, que con mortales ansias le buscaba en sus ojos.
not CL_{Dative} liked the youth, that with mortal desire CL_{Dative} look-for in her eyes
'She did not like the youth, who was catching her eyes with burning desire'
[*CORDE*: 1612. Lope de Vega Carpio, *Pastores de Belén, prosas y versos divinos*.]
b. los que no se han criado con esta opinión, *no le* *apetecen*.
the who not CL have grown-up with this opinion, not CL_{Dative} fancy
'He does not fancy those who grew up with this view'
[*CORDE*: 1590. José de Acosta, *Historia natural y moral de las Indias*.]

(5) a. el mj fillo caro leal muyto me *agrada*
the my son dear loyal very-much CL_{Dative} like
'I like very much my dear and loyal son'
[*CORDE*: 1400 – 1425. Anónimo, *Libro del Tesoro.* Girona, Catedral 20a5]

b. cien cosas *se les antojan*.
hundred things CL CL_{Dative} feel-like
'They feel like having hundreds of things'
[*Diccionario Histórico*: *c*1480 MEXÍA (*Canc. gen*. 1511, 70*e*)]

We put forward that the different etymological origins of these three subclasses determine their syntactic and aspectual characteristics to a great extent because of the grammaticalisation path they go through.

As generally assumed, the verbs of this 3rd group are stative predicates. In addition to this, we pose that the aspectual behaviour of the verbs of this class is not homogeneous, because some behave as *individual-level* predicates and others as *stage-level* ones (Carlson 1977). From this point onwards, we consider that *individual-level* predicates could be given the analysis proposed by Acedo-Matellán and Mateu (2015: 66), who establish that these verbs have a structure as the one shown in (6). They pose that the stativity of these predicates lies in the presence of a *central coincidence* preposition (*Pcentr*; see Hale y Keyser 2002: chap. 7) that connects a FIGURE (the subject THEME/CAUSE), with a GROUND (the psychological emotion expressed by the verbal root) in a static manner. The dative EXPERIENCER is the specifier of a high Applicative functional head that conveys a benefactive meaning and acts as a quirky subject.

(6) a. A Rosa le gustan los lunares.
to Rose CL_{Dative} like the spots
'Rose likes beauty spots'
a'. [$_{AplP}$ [A Rosa] [$_{Apl'}$ le [$_{vP}$ [$_{v'}$ (= SER) [$_{PCentrP}$ [los lunares] [$_{PCentr'}$ PCentr [$_{\sqrt{}}$ GUST]]]]]]]
[Acedo-Matellán and Mateu (2015: 64, e.g.18b)]

Concerning the *stage-level* predicates of this 3rd group, we hypothesise that they should be attributed an underlying structure that parallels the one provided by Acedo-Matellán and Mateu (2015), but for the fact that they have a *terminal coincidence* preposition instead of a *central coincidence* one.

In spite of the fact that not all verbs attested diachronically accommodate to the current structures in their origins, the different configurations they display nowadays correspond to different stages of a grammaticalisation path that in our belief is the one illustrated in (7).

(7) Transitive active structure > passive structure/stative pronominal structure > *stage-level* stative unaccusative structure > *individual-level* stative unaccusative structure.

Key words: Psychological verbs, Diachronic Change, Event Structure, *Stage-Level* predicates, *Individual-Level* predicates.

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Judy Bernstein, Francisco Ordóñez and Francesc Roca:

On the emergence of personal articles in the history of Catalan

According to Longobardi (1994), proper names in some Catalan varieties are introduced by a specialized article *en* (m.) or *na* (f.), which he labels 'expletive'. Unlike the typical case of N-to-D movement of bare proper names in Romance, proper names in Catalan remain in situ when they are introduced by this article, which Longobardi takes to occupy D:

(1) [$_{DP}$ [$_{D}$ en] [$_{NP}$ Joan]] va arribar tard (Catalan)
EN Joan arrived late

Although Catalan *en-na* patterns with definite articles in certain respects, it also shares characteristics of honorific titles like Spanish *don-doña*, to which it is etymologically related. We provide evidence that *en-na* corresponds to a functional category lower in the structure, one we label Class(ifier)P:

(2) [$_{DP}$ D …… [$_{ClassP}$ CL *en-na* …… [$_{NP}$ N]]]

We also posit a series of phonological, syntactic, and semantic changes that gave rise to the Catalan personal determiner (*en-na*) from its earlier use as an honorific title, tracing its path from the Latin noun *dominus*. We characterize this evolution as an instance of grammaticalization (Roberts & Roussou 2003) internal to the DP.

Regular definite articles differ from Catalan personal articles in the following ways:

a) Personal articles cannot be pluralized but regular definite articles can:

(3) a. **ens* vs. *els* 'the' (M.PL) (Catalan)
b. **nes* vs. *les* 'the' (F.PL)

b) Prenominal adjectives (e.g., *propi* or *mateix*) cannot appear between personal article and noun, but can between regular definite article and noun:

(4) a. *en propi Pere (Catalan)
b. el propi professor
'the same professor'

c) Personal articles cannot introduce relative clauses but regular definite articles can:

(5) a. *en (Pere) que va arribar ahir (Catalan)
b. el (Pere) que va arribar ahir
the (Pere) that arrived yesterday

On the other hand, Catalan *en-na* shows parallelisms with honorific titles like Spanish *don-doña* As we saw for *en-na* in (3)-(5), *don-doña* cannot be pluralized (6a), cannot be followed by a prenominal adjective (6b), and cannot introduce a relative clause (6c).

(6) a. *dones , *doñas (Spanish)
b. *don mismo Luis
c. *Don Luis que llegó ayer

The overlapping behavior of *en-na* and *don-doña* stems from their common origin, both having descended from the Latin noun *dominus*. In its original form *dominus* functioned as an honorific noun meaning 'master':

(7) a. quamquam que modo iste *dominus* (Cicero; Classical Latin)
though by which measure this master
b. in qua etiam si non sit molestus *dominus*
in which now-too if not exist the troublesome master

Latin *dominus* could also be used as an honorific title in a manner similar to Spanish *don-doña* and Catalan *en-na*:

(8) a. domine Maxime (Apuleius; Latin)
b. domine Auguste (Sidonius Apollinaris; Latin

The path towards grammaticalization from Latin *dominus* to Catalan *en-na* and Spanish *don-doña* took effect after *dominus* was reduced phonologically. In Catalan, *dominus* lost its first phonological foot, yielding the reduced form *ne* which became *en* by epenthesis (Corominas, *Diccionari etimològic*). In Spanish, on the other hand, phonological reduction of Latin *dominus* produced *don*. At first, the honorific property was kept in both Old Catalan and Old Spanish, as well as in Old Occitan (according to Ledgeway 2012, citing Grandgent 1909). Old Catalan displays *en* as an honorific title involving noble characters:

(9) a. E del rey *En Pere* fo fill lo rey *En Jaume* (Old Catalan)
and of-the King *en* Pere was son the King *en* Jaume
b. e tengueren per bo ço que *En Guillem Ramon de Moncada* havia dit
and had for true this that *en* Guillem Ramon de Moncada had said

We propose that the progression of Latin *dominus* as a noun to its use as an honorific title in the daughter languages came about through Merger of these elements in the functional projection Class(ifier) (recall (2)). As is typical of cases of grammaticalization, Classifier is defective and lacks a number specification (see Roberts 2007), explaining why Spanish *don-doña* and Catalan *en-na* lack plural forms.

As a final step, Old Catalan *en-na* further evolved, losing its honorific value and starting to indicate familiarity. The loss of Catalan *en-na*'s honorific nature distinguishes it from Spanish *don-doña* and explains some of the distributional differences between the elements. The loss of its honorific value also coincides with *en-na* becoming more like a nominal pro-clitic. This grammaticalization of Latin *dominus* to Catalan *en-na* can be schematized in the following diagram:

(10) N (*dominus*) --> Classifier - honorific (*don-doña*) --> Classifier - familiar (*en-na*)

Finally, we claim that the emergence of the personal classifier with its familiarity feature is a step that led to the modern usage of the regular definite article *el-la* with proper names in western and central varieties of Catalan. This usage spread when the classifier lost its honorific value and started to indicate familiarity. The *el-la* definite article is derived from the Latin demonstrative *ille*. We show that definite articles and personal classifiers, elements with different etymologies, occupy two different positions in the DP structure: *el-la* occupies a more external position (corresponding to D in (2)) than personal classifier *en-na* (corresponding to Classifier in (2)).

Alison Biggs:

The Path to Directed Manner of Motion

Context Languages are known to either predominantly verbalize MANNER or predominantly verbalize PATH in Directed Manner of Motion Constructions (DMMC) (Talmy 1985 *i.a.*).

A. Verbalized MANNER: 'John walked$_{\text{Manner}}$ **into the room**$_{\text{Path}}$.'
B. Verbalized PATH: 'John **entered**$_{\text{Path}}$ the room walking$_{\text{Manner}}$.'

It has often been observed that Latin (like English) is best categorized as predominantly Type A (e.g. Acedo-Matellán 2010), but modern Romance is predominantly Type B. Sinitic instantiates the inverse diachronic pathway: Classical Chinese[1] is Type B, but modern Mandarin is Type A (Li 1993; Talmy 2000; Peyraube 2006; Xu 2008; Ma 2008 etc.).

This paper argues that the syntactic structure of Path changes in the shift from Type B > Type A (cf. Folli & Ramchand 2005, Folli & Harley 2007, Gehrke 2008; Beck 2005). Based on the syntax of DMMC, we propose Path may realize one of two structures: a pP (Svenonius 2008 i.a.) or a Small Clause. We argue that the syntax/semantics of the two structures results in the patterns in (A-B) in Sinitic, and extend this conclusion to the history of Romance.

Data Classical Chinese had a large inventory of V_{Path} (e.g. 造 zao 'arrive', 及 ji 'arrive', 即 ji 'approach, arrive') and V_{Manner} (e.g. *zǒu* 'run', *bēn* 'rush', *táo* 'escape', *dēng* 'climb') (Ma 2008). Both V_{Path} (*wang* 'go') (1a) and V_{Manner} (*you* 'swim') (1b) could take locative NP_{Ground} without a preposition/affix; V_{Manner} in non-DMMCs indicates activity but no result (1b). In DMMC, Manner precedes a verb of inherent motion (1a). We show that pre-verbal Manner is an adjunct (occupying a canonical modificational position) throughout the Classical period, and that V_{Manner} and V_{Path} form V-V coordinands no earlier than 100 BCE (cf. Peyraube 2006 on deictic V_{Motion}).

1. a. Púfú wǎng jiāng shí zhī. (匍匐往將食之) (*Mencius, Teng-weng gong*, Pt. 2)
   Crawl.crawl go.to FUT eat 3.OBJ
   '(He) crawled to (it) [a plum tree] and tried to eat [some of] it [the fruit].'
   b. Ruò yóu dà chuān. ((今在予小子旦) 若游大川) (*ShangShu, Prince Shi*)
   Be.like swim/float big river
   'It's as if I were floating on a large stream.'

Modern Mandarin expresses Path in two ways in DMMC: a preposition (2a), or a closed class of Path affixes (2b) (that can also merge as independent lexical verbs).

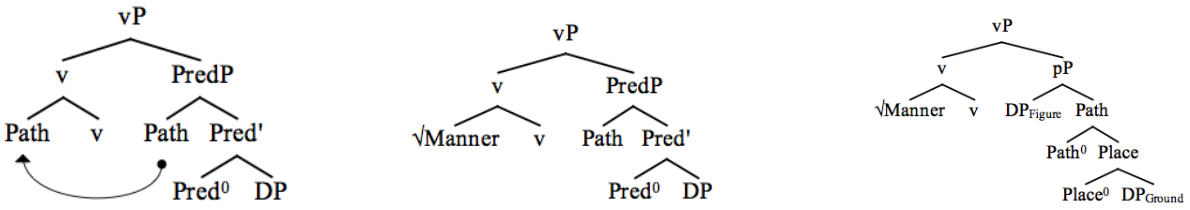
2. a. Yi-ge niao fei **dao** **hai-bianr**.
   One-CLF bird fly to sea-side$_{\text{AX.PART}}$
   'A bird flew to the seaside.'
   b. Fei-**chu**(-lai)-le yi-ge niao.
   fly-exit(-come)-ASP one-CLF bird
   'A bird flew out.'

Analysis The expression of Path in (1a,b-2a,b) correlates with distinct syntactic patterns. We propose an abstract concept PATH may merge in one of two structures: (i) as PathP in pP (3c) (Koopman 2000, Svenonius 2003 i.a.), or (ii) as the internal argument of a Small Clause (3a-b) (e.g. Irwin 2012). PathP in (3c) introduces a relation, but we propose that in (ii), Path introduces an endpoint, but must combine with v to express an event. Combination may occur according to general morphological strategies in a language, for example by via affixation. Alternatively Path may combine with the verbalizer directly; we assume this blocks Manner verbalization (following e.g. Acedo-Matellán & Mateu 2013). Both (i) and (ii) may be available in a single

[1] 'Classical Chinese' refers here to ca. 500-220 BCE; data is from the *Analects*, *Mengzi*, and a Treebank corpus of *Book of Shang*. The modern literary pronunciations (given here) disguise the derivational morphology of the language (e.g. Karlgren 1957).

language, but will be differentiable by their syntax: Path is in a transitive structure in (i)/(3c), while (ii)/(3a-b) corresponds to an unaccusative.

3. a. Classical Chinese b. Mandarin$_1$: affixal Path c. Mandarin$_2$: pP Path



Support In Classical Chinese, V_{Manner} consistently indicates activity without accomplishment (1b) (cf. Pulleyblank 1995), and unergative syntax when expressing non-directed motion (again, 1b). (1a) shows Path in DMMC is expressed as a verb; V_{Path} in (1a) is unaccusative – consistent with (3a). Spatial prepositions were restricted to locatives (e.g. *yu* 于/於 'at/in/DATIVE; *zai* 在 'at, in' (though cf. Peyraube 1994); we exclude *zi* 自 'from' and dative markers). Finally, Classical Chinese lacks Adjectival Resultatives (typical for 'Type B' languages). Given parallels between Path and Result (Beck & Snyder 2001 i.a.), we suggest (non-verbal) Result corresponds to Path in (3a) in Classical Chinese, so must merge directly with v to express an accomplishment event.

Modern Mandarin (2b) corresponds to (3b). We show (2b) derives from the emergence of v_{manner}-v_{Path} coordinands (marked '而') (ca. 100 BCE), preceding emergence of the serial verb construction (SVC), followed by a likely grammaticalized directional Path V_2 complement between 5th-8thC. CE. We compare this SVC pathway to Peyraube (2006) on the emergence of deictic directionals and the emergence of V-V Adjectival Resultatives in Middle Chinese (ca. 5thC. CE) (Mei 1991, Xu 2008); this is taken to be a result of the more general loss of complex consonantal onsets, and loss of derivational morphology. Consistent with the unaccusative structure in (3b), (2b) allows the post-verbal indefinite subject. (V_{Manner} without the affix does not permit the post-verbal subject (4a)). The impossibility of intervening aspect particles (4b) and the distribution and interpretation of direct objects (4c) show (2b) is not a SVC in the modern language (*pace* Slobin 2004). Rather, Path is affixal: it is atonal (Lamarre 2007) and requires linear adjacency to NP_{Ground}. Finally, consistent with (3b), an Adjectival Result can modify V_{Manner} but not V_{Manner}+affixal$_{Path}$ (4d).

4. a. *$^{/??}$Fei-le yi-ge niao.
fly-ASP one-CLF bird
'A bird flew.' (Li & Thompson 1981: 518-9)

b. Fei(*-le) **chu** yi-ge niao.
fly-ASP exit one-CLF bird
'A bird flew out.'

c. Pingzi piao (*dongxue) **chu**-le (dongxue)
Bottle float cave exit-ASP
'A bottle floated out the cave.'

d. Fei(-***chu**)-fan/-lei-le yi-ge niao.
Fly(-exit)-bored/tired-ASP one-CLF bird
'A bird flew (itself) bored/tired.'

The adpositional PathP in (3c) grammaticalized in Middle Chinese from verbs (i.e. later than Adjectival Resultatives). Diagnostics that P is now prepositional include its incompatibility with aspect particles (Li & Thompson 1972). (2a) is telic (bounded) and resultative (Chao 1968). Finally, (2a) demonstrates that Mandarin pP requires NP_{Ground} (which in turn requires AxPart modification) (cf. McCawley 1992); we argue this means Path in (2a) (but not (2b)) is transitive.

Implications We conclude comparing the Sinitic syntax of DMMC (Type B > Type A) with that of Romance (Type A > Type B); comparison is argued to be particularly apt given Sinitic and Romance exhibit otherwise similar morphological pathways (more synthetic>less synthetic).

Andreas Blümel and Marco Coniglio:

What kind of constructions yield what kind of constructions?

Background: The *was-für*-construction (WF, (1)) is well described and analyzed in some detail within Germanic (cf. Corver 1991, Pafel 1996, Leu 2008, 2015, Lohndal 2010) and Russian (Zimmermann 2008). Kwon (2013, 2015) analyzes Slavic variants of the WF, convincingly arguing that it emerged from internal and not contact-induced change. For German, an in-depth study of the evolution of the WF is missing so far, a lacuna we intend to fill. We present a novel analysis of the emergence of German WF, based on a pilot corpus study on Early New High German (ENHG) that we think sheds light on some of the issues surrounding WF.

The Modern German example in (1) illustrates general salient problems of the WF: i) the lack of case assignment by the preposition-like element *für* (the indefinite NP receives dative from the verb *helfen*, not the expected accusative by *für*), ii) the possibility to split the WH-part from what we refer to as the "restriction" and iii) the kind interpretation. Specific to diachrony, questions include iv) when exactly WF emerged, v) in which grammatical contexts, and vi) whether the split has always been available.

Hypotheses on the origin and development of WF: We tested the traditional view, according to which WF (2) arose during the ENHG period, no earlier than the 16^{th} c. (cf. DWB 1960:99f, Behaghel 1923:364). Behaghel observes that the *was* plus partitive genitive construction (WPG) like in (3) exhibited some contamination of the WF: thus we find examples like (4) in which WF involves a genitive, which is not assigned by the verb. The WPG became rarer and eventually extinct (at the latest in New High German), lending initial plausibility to our main claim: the WPG was the diachronic source of WF. To put the hypothesis to test, we exhaustively extracted all the tokens of the WF and WPG in the Bonner Frühneuhochdeutschkorpus, containing High German prose texts from the second half respectively of the 14^{th}-17^{th} c. In our corpus, the first WF can be found in the 16^{th} c., while the 14^{th}-15^{th} c. exclusively contain WPG, confirming the traditional view. In the two periods the WF is attested, its occurrence continuously rises at the expense of the WPG. The possibility to split seems to exist right from the start for WF (2), paralleling this option in WPG (5). Wrt grammatical function/case, our corpus does not confirm the claim in DWB that the occurrence of WF-accusatives (i.e. in object function) predates the rise of nominative (subject function). Interestingly, there is no evidence for the idea (Behaghel *ibid.*) that *für* assigned accusative, i.e. functioned as a preposition proper.

Discussion and analysis: We take these findings to mean that WPG underwent a syntactic reanalysis leading to WF as represented in (6). In effect, the binominal structure of the WPG gives rise to a small-clause-like unit. Plausibly, the partitive genitive case on NP2 in the PWG is a reflex of a null nominal head N1 (6-a), yielding a sortal reading (Stage 1). The change involved the reanalysis of this empty noun as the functional head of the small clause we call Sort. In the new construction (WF, (6-b), Stage 2), *für* functions as a copula element, realizing Sort. We share the intuition that *für* is analogous to Modern German *als* 'as' as in the run-of-the-mill small clause (7) (cf. Behaghel *ibid.* on *als* and the semantics of *für*). Notably, *als* does not assign case in (7), its subject and predicate being transparent for case assignment by the verb *erachten*. WF appears to behave similarly in the relevant respects, *für* being case inert.

The link between Stage 1 and Stage 2 might have been morphological ambiguities such as in (8), in which the form of the noun *menschen* is syncretic between nominative and genitive. These led learners to a preference of a case transparent syntactic analysis (within an overall tendency of partitive genitive loss). *Für* as in (6-b) emerged as the overt realization of the head of such case transparent analyses. It is thus not surprising to find examples without *für* like (9), in which the restriction does not bear genitive case. We speculate that in the transition between Stage 1 and Stage 2 WPG became case transparent, giving rise to the development of (6-b).

Regarding optional pied-piping/split, we adopt Cable's (2010) Q-based analysis of WH-questions: Wrt the WH-phrase, a null interrogative morpheme – Q – selects either the small clause as in (10-a) or the WH-phrase as in (10-b), entertaining a nominal-internal AGREE-relation with the WH-element. The different units Q can select lead to different derivations: By assump-

tion, WH *ex-situ* questions involve AGREE between interrogative C and QP, and are invariably instances of QP-movement. This way, pied-piping (11-a) and split (11-b) are derived respectively.

(1) Was {für einem/*einen Jungen} hast du {für einem Jungen} geholfen?
what for $a_{dat/*acc}$ boy have you for a_{dat} boy helped
'What kind of boy did you help?' *Modern German*

(2) Was ists danⁿ fúr ain hawß [...]
what is-it then for a house
'What kind of house is it then [...]' *Andreae, 1557*

(3) [...] was gezügs der cirurgicus haben sol.
which $tools_{gen}$ the surgeon have should
'regarding the tools the surgeon should have' *Brunschwig, 1497*

(4) was sonst für geschmincks vnd falschheit dahinder sein müchte
what else for $pretense_{gen}$ and falsity there-behind be might
'what other kind of pretense and falsity could be behind this' *Moscherosch, 1650*

(5) [...] waz si fundend junger edler frawen und junkfrawen [...]
what they found $young_{gen}$ $noble_{gen}$ women and unmarried-women
'whatever young noble women and unmarried women they could find' *Mair, 1392*

(6) a. $[_{DP1}$ [*was*] $[_{NP1}$ N1=∅ $[_{DP2-GEN}$ *gezügs*]]]
b. $[_{SortP}$ [*was*] $[_{Sort'}$ Sort=*fúr* $[_{DP}$ *ain hawß*]]]

(7) Fritz erachtet ihn als einen guten Schwimmer.
Fritz considers him as a_{acc} $good_{acc}$ swimmer
Modern German

(8) vnd was menschen zu[o] dir [...] kvmende sint
and what $people_{case:?}$ to you coming are
'and whoever comes to you' *Mannen, 1352*

(9) [...] so vernimbt man dan erst was eyn ding das sie [...]
this-way hear one then first-of-all what a_{nom} $thing_{nom}$ that be
Gropper, 1556

(10) a. $[_{QP}$ Q=∅ $[_{SortP}$ [*was*] $[_{Sort'}$ Sort=*für* $[_{DP}$ ...]]]]
b. $[_{SortP}$ $[_{QP}$ Q=∅ [*was*]] $[_{Sort'}$ Sort=*für* $[_{DP}$ ...]]]

(11) a. $[_{QP}$ *was für* DP] C ... $[_{QP}$ Q=∅ $[_{SortP}$ [*was*] $[_{Sort'}$ Sort=*für* DP]]]

b. $[_{QP}$ *was*] C ... $[_{SortP}$ $[_{QP}$ Q=∅ [*was*]] $[_{Sort'}$ Sort=*für* DP]]

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Kersti Börjars and John Payne:

Modifiers and definiteness marking in Old Norse: an LFG analysis

In this paper, we provide a formal analysis within which the functional element associated with the adjective in Old Norse forms a constituent with the adjective and has the crucial function of allowing the adjective to function as a modifier within the noun phrase. The analysis is formalised within Lexical-Functional Grammar (LFG).

Adjectives in Old Norse, as in other varieties of early Germanic, occurred in two forms; STRONG and WEAK. The strong form is the earlier one and the alternative weak form is an innovation. In the earliest remaining records, the strong form is mainly associated with indefinite noun phrases, but can also occur in definite contexts (see for instance Delsing 1994 and Stroh-Wollin & Simke 2014). The weak form occurs only in definite noun phrases and then almost exclusively preceded by a definiteness marker (*h*)*inn*, and (*h*)*inn* occurs only immediately preceding an adjective (in some varieties *sá* can be used instead, see Stroh-Wollin (2009:20–1)). Examples are provided in (1) (references are to IcePaHC).

(1) a. ungur maður (STURLUNGA,420.1037)
young.STR.NOM man.NOM

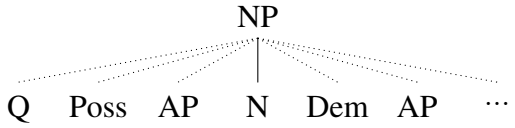
b. þessi hinn ungi maður (JOMSVIKINGAR, 1136)
DEM.NOM *hinn*.NOM young.WK.NOM man.NOM

It is generally recognised in the literature that (*h*)*inn* was associated with the adjective, rather than being an element at the highest level of the noun phrase. Stroh-Wollin (2009:7) describes (*h*)*inn* as 'just a formal element preceding adjectives with the so-called weak inflection', and Perridon & Sleeman (2011:8) describe it as 'an "adjectival" article, which in principle only has scope over an adjective' (compare Curme (1910) and Heinrichs (1954) for similar accounts for other Germanic varieties).

In spite of the recognition of the close connection between (*h*)*inn* and the following adjective, this is not captured in any of the analyses of which we are aware. Instead, (*h*)*inn* is assumed to form the functional head of the noun phrase at some level, taking the entire remaining nominal phrase as its complement (for instance Roehrs & Sapp 2004; Stroh-Wollin 2009; Lohndal 2007; Faarlund 2007). One exception is Börjars et al (2016), who propose an analysis in which (*h*)*inn* occurs inside the AP, but they do not provide further analysis of its function (compare Leu (2008), who analyses the article in both modern Scandinavian and English as forming a constituent with the adjective).

The essence of the analysis we propose in this paper is that noun phrases in Old Norse showed a degree of non-configurationality, as indicated informally in (2), where the order of the elements is not structurally determined, and where prepositional and clausal elements have been left out (compare Braumüller 1994; Börjars et al 2016).

(2)



In LFG, different dimensions of linguistic information are represented separately, with mapping functions relating them. Here we are particularly interested in the c(onstituent)-structure and the f(unctional)-structure, where grammatical relations and functional features are represented. The mapping to grammatical relations can be associated with either a particular structural position or a specific lexical element. In (2), the AP does not have a structurally unambiguous position and hence its function as a modifier — ADJ in LFG terminology — cannot be

defined structurally. The mapping must instead be associated with the lexical items contained in the adjective phrase. A strong adjective can provide the relevant functional information — it is inherently specified as a modifier — whereas a weak adjective cannot, instead the required information is provided by (*h*)*inn*. This is a development and formalisation of an idea put forward by Rießler (2011:164).

A strong adjective can function as a modifier on its own and hence the lexical entry for an adjective like *ungur* in (1a) contains the mapping to ADJ. This is illustrated in (3), where PRED captures the semantics. Since modifiers can occur recursively, the value of ADJ is a set, but in (3) we use a notational alternative, where the set membership symbol becomes the value of a feature (Dalrymple 2001:154). This lexical entry makes use of inside-out functional uncertainty (Dalrymple 2001:143–6), which means that the information defines an f-structure within which it itself is contained. The first line in (3) can then be informally restated as 'there is an f-structure which contains an ADJ feature and the f-structure associated with the node above me forms the value of that feature.' The second line assigns the PRED feature to that f-structure.

(3) *ungur*: $(\text{ADJ} \in \uparrow)$
$(\uparrow\text{PRED}) = \text{'young'}$

The lexical entry for a weak adjective, on the other hand, does not contain any information about its function, but just about other features, as in (4a). Instead, the information that ensures that *hinn ungi* in (1b) functions as an ADJ is associated with (*h*)*inn* as in (4b).

(4) a. *ungi*: $(\uparrow\text{PRED}) = \text{'young'}$
b. *hinn*: $((\text{ADJ} \in \uparrow)\ \text{DEF}) = +$

Having developed and illustrated this analysis in more detail, we show that it offers an account of the development to the modern Mainland Scandinavian languages. Over time, (*h*)*inn* becomes associated with the noun phrase as a whole, rather than with the AP. The position of the AP, which in Old Norse was flexible, becomes more rigidly prenominal and hence the determiner's position is clause initial and is still dependent on the adjective.

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Johan Brandtler and David Håkansson:

Heading North

The syntactic status of Swedish negation

This presentation is concerned with the diachronic and synchronic development of negation in Swedish. In (the standard varieties of) Modern Swedish (MS), the negative marker *inte* 'not' shows all the characteristics of a syntactic phrase, according to Zeijlstra (2008): i) negation may topicalize to [Spec,CP]; ii) negation may not syntactically cliticize to other clausal elements; iii) negation does not combine with other negative elements to yield negative concord.

The syntactic status of the predominant negative marker in Old Swedish (OS) is less clear, however. Regarding the first criterion (negative preposing), clause initial negation was, in fact, more common in OS than it is today, accounting for approx. 8% of all occurrences of negation. In MS, the corresponding figure is <1% (Westman 1974). With regards to cliticization, however, already Söderwall (1884) noted that *eigh* in its reduced forms (i.e. *eg/ey*) could attach enclitically to the finite verb: *vildeg* 'did not want', *tordey* 'would not', *hadey* 'had not', *aktadey* 'revered not'. Attested negative V3 structures, as in (1) below, serve as an additional argument to the clitic-like status of OS negation.

(1) hwat ey giordhe iak thin wilia fiurtan aar
why NEG did I your will fourteen years
'Why didn't I do your will for fourteen years?'

Based on the syntactic distribution of OS *eigh* 'not', we argue that negation in OS was a syntactic head. The frequency of clause initial negation is a consequence of this fact. Assuming that OS *eigh* combines with the finite verb in C^0 rather than targeting [Spec,CP] as in MS, we get a straightforward account of why negative preposing is rare in MS: topicalization to [Spec,CP] in MS is strictly governed by pragmatic principles, more specifically c-linking (Molnár 2003, 2006). As [C^0] is not associated with any pragmatic properties, there are no information structural restrictions on negative preposing in OS.

Thus, we argue that negation in Swedish has undergone a diachronic change from Head to Spec. The direction of this development seems to be the opposite of van Gelderen's (2008) *Negative Cycle*, according to which negatives develop from maximal projections to heads. However, we argue that the change in syntactic status is not due to a syntactic reanalysis (from Head to Spec), but instead stems from a lexical change of the negative marker: from the syntactic head *eigh* in Old Swedish to the maximal projection *icke* (< *äkke*) and *inte* (< *änkte*) in (Early) Modern Swedish.

We subsequently argue that MS *inte* 'not' has undergone syntactic reanalysis in some Finno-Swedish dialects, from maximal projection to head. The relevant dialects display three properties that distinguish them from standard MS: i) they allow negative V3 structures; ii) they display phonetic reduction and cliticization; iii) they display negative concord. Each characteristic is illustrated in (2) below.

(2) a. Ja **int** kan vara arg. (V3 structure)
I NEG can be angry
'I cannot be angry.'

b. Då'**nt** ja vet. (reduction/cliticization)
because. NEG I know
'Because I don't know.'

c. Ja ä **int** rädd för ingan (negative concord)
I am NEG afraid for nobody
'I'm not afraid of anyone.'

Although the exact correlation is not yet known, there seems to be a substantial overlap between dialects that use a reduced form of *inte* (i.e. *int* and *it*) and dialects that allow negative concord; see also Rosenkvist (2014).

In sum, we propose that the development of Swedish negation has gone through the following cyclic steps: (i) Old Swedish lost the head negation *eigh*, which was replaced by a phrasal negative element *inte*; ii) As the negative element successively underwent phonetic weakening, it could phonetically cliticize to other clausal elements (standard MS). (iii) In dialects where phonetic weakening has become especially widespread, phonetic cliticization has lead to syntactic reanalysis (from phrase to head), such that negation can syntactically cliticize to other head elements. (iv) The weakened negative element is reinforced by another negative element (a syntactic phrase), tentatively attested by the existence of negative concord in these dialects. Note that step (iv) cannot be fully corroborated, as the distribution of negative concord in Swedish dialects is, to a large extent, still unexplored.

The present study proposes a theoretically consistent account of the syntactic development of negation, from Old Swedish to the present, that manages to subsume a number of syntactic phenomena concerning the distribution of negation. The proposed analysis follows the path predicted by Jespersen's cycle, as well as the syntactic *negative cycle* as proposed by van Gelderen (2008).

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Heather Burnett and Sali Tagliamonte:

Using Cross-linguistic Evidence to Ground Morpho-Syntactic Change: *No/Not...any* variation in the History of English

1. Introduction. It is well-documented (see, for example, the discussion in Bresnan 2007) that the study of differences in grammaticality contrasts across the world's languages has implications for the **synchronic** study preferential/frequency contrasts within a single language. Our paper extends this observation, arguing that the cross-linguistic study of grammaticality/frequency contrasts can be crucial to the proper characterization of patterns of **diachronic** variation. As an illustration of this proposal, we investigate the replacement of postverbal negative quantifiers (ex. *nothing, nobody,* etc. (1a)) by negative polarity items (ex. *anything, anybody* (1b)) in the history of English, and we show how a comparison with similar patterns in Romance gives us a new perspective on this well-studied change.

(1) a. I know **nothing**.
b. I do **not** know **anything**.

2. Construction-based Characterization. Although Middle English was a predominantly negative concord language (Jack 1978), the early Modern English period saw the rise of the use of *any* indefinites within the scope of negation (Tottie 1991, Nevalainen 1998, a.o.). As shown by Tottie (1991), *any* did not appear in all linguistic contexts at the same rate at the same time: in the Helsinki corpus (1640-1710), *any* (compared to *no*) is most commonly used with lexical verbs (54%) and copular *be* (47%); however, *have* and existential *be* strongly prefer *no* negation (19% and 7% *not...any*, respectively). Tottie shows that the same pattern exists in Modern English (in studies of the LLB and LLC corpora), and these results have been replicated for other modern varieties (Varela Pérez 2014, Childs et al. 2015, a.o.). For example, we find the same overall construction/verb-type hierarchy in the Toronto English Corpus (TEC: Tagliamonte 2010-3), (Table 1, also Childs et al. 2015).

Construction	No	Not...any	Total	% No
Existential	309	25	334	93%
Be	44	11	55	80%
Have	183	89	272	67%
Lexical verbs	60	375	435	14%
PPs	7	54	61	11%
Total	603	554	1157	52%

Table 1: *No/not...any* variation in the TEC

Given this pattern, Tottie and others propose that *not...any* is gradually replacing postverbal *no* through a process of lexical diffusion, conditioned by verb/construction type. According to this analysis, non-lexical constructions are slow to accommodate *any* because their high frequency of use makes them resistant to change (Bybee & Hopper 2001).

Despite its appeal for English, we argue that the lexical diffusion+frequency analysis makes the wrong predictions when we look cross-linguistically. For example, 17th century French NPIs (*personne* `anyone′ , *rien* `anything' etc.) were replaced by homophonous NegQs *personne* `no one', *rien* `nothing' etc. in Modern European French (Labelle & Espinal 2014, a.o.).

(2) a. Je n'ai **pas** vu **personne**. `I didn't see anyone.' **NPI** (17thC French)
b. Je n'ai vu **personne**. `I saw no one.' **NegQ** (Modern Euro. French)

Canadian French has not yet lost these NPIs (Daoust-Blais 1975, a.o.), and in a study of NPI/NegQ variation in the *Montréal 84* corpus, Burnett et al. (2015) show that (like in English) the NegQ variant (2b) is favoured in existential/functional constructions, despite being the **newer** form. We therefore pursue an alternative analysis of the grammatical conditioning of *no/any* variation.

4. Structural Characterization. Inspired by Zanuttini (1997)'s work on Italo-Romance dialects where these constraints create grammaticality contrasts, Burnett et al. show (using regression analysis) that the most important factor conditioning the use of the NPI versus NegQ variant in *Montréal 84* is the structural configuration in which the NPI/NegQ appears. These authors show that sentences in which NPIs and negation appear in a **structurally adjacent** configuration, i.e. are not separated by any lexical predicate (ex. *Je vois **pas personne*** `I don't see anyone'; *Ya **pas personne** icitte* `There's no one here') are highly disfavoured (5%) compared to the corresponding structures with NegQs (*Je vois personne; Ya personne icitte.*). However, if the NPI is embedded within another verbal or prepositional predicate (ex. *Ya **pas eu personne** icitte; Je parle **pas à personne**)*, then the NPI variant is much more frequent (41%).

We propose that, instead of construction frequency, the same NPI anti-licensing constraint observed in Romance is active in English. In particular, we show that, in the TEC, NPI variants in which negation and the NPI are structurally adjacent (ex. *There is**n't anyone** here.*) are almost completely excluded in favour of NegQ variants (*There's no one here.*).

Construction	No	Not...any	Total	% No
Existential	299	19	318	94%
Be	42	9	51	82%
Have	182	1	183	99%
Lexical verbs	44	4	48	92%
PPs	2	2	4	
Total	569	35	604	94%

Table 2: *No/not...any* variation in the TEC (structurally adjacent configurations)

Additionally, although existentials still slightly favour *no* in non-structurally adjacent configurations, the use of *any* in these syntactic environments with other verbs (ex. *I do**n't want to talk to anyone***) is almost obligatory.

Construction	**No**	**Not...any**	**Total**	**% No**
Existential	10	6	16	62%
Be	2	2	4	
Have	1	88	89	1%
Lexical verbs	16	371	387	4%
PPs	5	52	57	9%
Total	34	519	553	6%

Table 3: *No/not...any* variation in the TEC (non-structurally adjacent configurations)

We therefore propose that our structure-based characterization yields a new picture of the change from *no* to *not...any:* rather than replacing *no* in all postverbal environments (as is commonly assumed), *not...any* is replacing *no* **only** in non-structurally adjacent configurations. Moreover, based on our study of the TEC, we conclude that, at least in Toronto, this change has largely reached completion.

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Paper or poster

Andrea Ceolin et al.:

Parametric history and population diversity

Goals. In this paper we argue that parametric generative syntax, combined with historical-comparative linguistics, quantitative techniques, as well as genetic anthropology, can be an effective device to study long-range trends of population history and cultural diffusion. The use of syntax, within a formal theory of grammatical variation, promises to probe the linguistic and demographic past more deeply than other modules of language.

Introduction. Molecular anthropology and its quantitative models have changed our understanding of the peopling of entire continents. However, it is unclear how demographic and cultural changes have interacted in shaping patterns of biological and linguistic diversity across wide and geographically diverse areas (Cavalli-Sforza and Feldman 1981, Boyd and Richerson 1985). To understand such processes, we address the possible parallelism between language and gene transmission on a broad scale, a question anticipated by Darwin's (1859) prediction of a global congruence of biological and linguistic variation. Most existing comparisons of linguistic and genetic diversity (Sokal 1988; Cavalli-Sforza et al. 1988; Barbujani and Pilastro 1993; Belle and Barbujani 2007; de Filippo et al. 2012) have been undermined in areal scope and quantitative resolution by their use of traditional linguistic classifications, based on lexical cognacy: the latter fail to safely establish comparison beyond relatively time-shallow language families (Nichols 1996, Ringe 1996, Heggarty et al 2005), and tend to undergo non-discrete variation and environmental selection (Levinson and Gray 2009). Therefore, a change in data-quality, as well as in statistical accuracy, is also necessary in linguistics (Atkinson 2011, Creanza 2015, Hunley 2015, Jaeger 2015). Here, to compare gene/language diversity in a sample of populations spanning from the Atlantic to the Bering Strait, we quantify linguistic relationships through the PCM (Parametric Comparison Method, Longobardi and Guardiano 2009).

Languages and populations. We built a database of 2100 parametric values (75 each for 28 languages from 9 traditionally irreducible linguistic phyla), which deductively define several thousands of syntactic phenomena. The languages of the sample belong to the following groups: Japanese (Jap); Sinitic (Mandarin: Man; Cantonese: Can); Inuit (Inuktitut: Inu)*;* Altaic (Turkish: Tur, Buryat: Bur); Semitic (Arabic: Ar; Hebrew: Heb); Indo-European [Germanic (English: E, German: D); Slavic (Russian: Rus, Polish: Po, Bulgarian: Blg, Serbo-Croat: SC); Romance (Spanish: Sp, Italian: It, French: Fr, Romanian: Rm); Greek (Grk); Indo-Iranian (Farsi: Far, Pashto: Pas, Hindi: Hi, Marathi: Ma); Finno-Ugric (Hungarian: Hu, Finnish: Fin, Estonian: Est); Basque (central Basque: cB); Niger-Congo (Wolof: Wo).

Methods. Language distances were compared with those defined through whole-genome autosomal SNP markers (~300,000 SNPs) in 1303 individuals from corresponding populations. The extent and significance of the obtained gene-language correlation (Mantel $r = 0.53$) sticks out as strong *prima facie* evidence for a non-trivial association between genomic and linguistic diversity. Moreover, the path difference distance between genetic and linguistic trees (Steel and Penny 1993) is significantly smaller ($P<0.05$) than those obtained comparing 100,000 random topologies for 28 taxa. This suggests a positive answer to Darwin's question. However, given the well-established effect of geography on human diversification (Prugnolle et al 2005, Novembre et al 2008), it is critical to control for its impact on the observed pattern of gene-language congruence. Thus, the effect of spatial relationships between populations was further modeled through 5 different types of geographical measurement: the straightforward Great Circle Distance (GCD), and four using metrics which attempt to account for the complexity of the territory and possible migration routes available (Roads Map (RM), GCD with waypoints (GCDWP), Least Cost Path (LCP), Commuting (CO). The results indicate that languages correlate with geography only as a

byproduct of their congruence with genetics, while the gene/language congruence is largely independent, regardless of the methods used to calculate geographical distances. This suggests that genes and languages spread across Eurasia not just along similar routes but mainly as a result of the same demographic processes.

Results. Our experiments revealed a high correlation between parametric variation and genetic diversity (Figure 1); furthermore, when controlled for geography, the correlation turned out 5 to 7 times higher (and statistically more significant) than those previously discovered using other linguistic variables (Creanza et al. 2015). Thus, the results largely fulfill Darwin's expectation, suggesting that, as a rule, grammars and genes have diffused together, with few constrained exceptions: in such cases language features have traveled without massive gene displacement, but never the contrary. Wide-scale language diffusion across much of the Old Word appears to have occurred through robust demic migrations, with limited cases of elite dominance (Renfrew 1992), but no major displacement of entire linguistically subdued/assimilated populations. From this purely syntactic database we reconstructed a first cross-family tree (Figure 1).

Conclusion. Diachronic syntax may complement lexical and phonemic data in historical linguistic and anthropological reconstruction. In fact, the significant connection between parameter values and genomic diversity provides evidence that parametric variation is a realistic way of modelling diachronic transmission of grammar.

Distances	Mantel Corr (r)	P-value
d_{GEN}-d_{SYN}	0.5286	0.0001
d_{GEN}-d_{GEO}	0.6882 - 0.9117	0.0001
d_{SYN}-d_{GEO}	0.4352 - 0.4751	0.0001
d_{GEN}-$d_{SYN(GEO)}$	0.2641 - 0.3508	0.0044

Figure 1. Standard and Partial Mantel correlation tests between genetic, linguistic and geographical distances

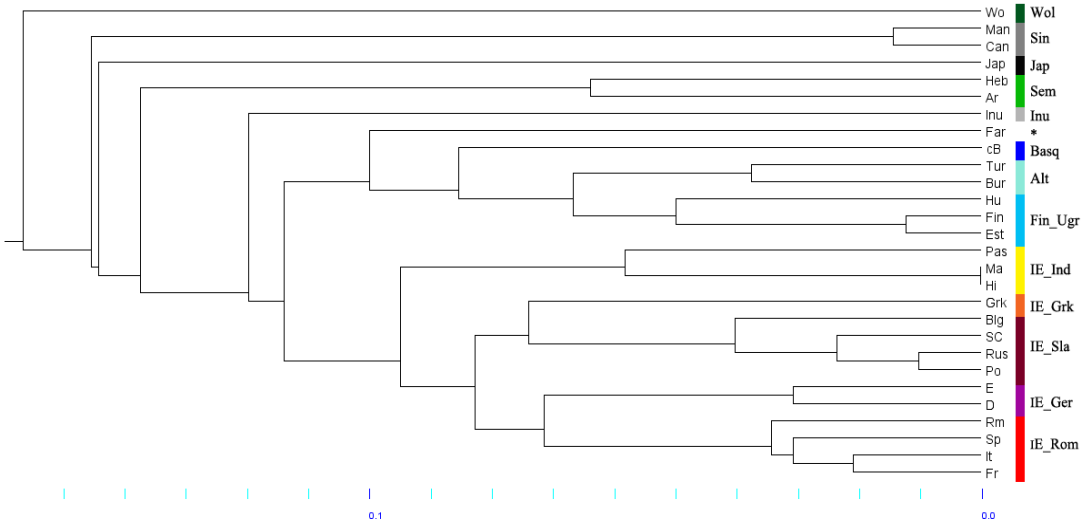


Figure 2. Phylogenetic tree of the 28 languages from 75 syntactic parameters, with families and subfamilies indicated in different colors

Karen De Clercq:

Feature conservation: French negation revisited

1. Proposal. This paper presents a nanosyntactic account for (i) the obligatory presence of *ne* and *pas* for the expression of sentence negation in *le bon usage French* (BUF; Grevisse and Goosse [1936] 1993, Rooryck 2010; see (1)), and (ii) the loss of *ne* in Colloquial French (CF, see (2)).

(1) Je n' ai pas faim.
I NEG have NEG hunger
'I'm not hungry.'

(2) J' ai pas faim.
I have NEG hunger
'I'm not hungry.'

Both BUF and CF represent two important and well-described stages in Jespersen's Cycle (Jespersen 1917, Dahl 1979). The account to be proposed also captures this diachronic change. Negative markers in natural language never spell out just a Neg feature, but they always package Neg with at least one of a set of other features (Q, Deg, Foc, T). The difference between *ne* and *pas* in BUF boils down to a structural difference: *ne* spells out only one feature (a T feature), whereas *pas* consists of four features (F, Deg, Q, and Neg). Only the combination of these five features yields sentential negation; this explains why both *ne* and *pas* are necessary in BUF. In CF the lexical item *pas* spells out all five features, thus making *ne* redundant for the expression of sentential negation. The present proposal presents a novel way of looking at diachronic change in terms of **Feature Conservation**: all features necessary for the expression of negation remain constant, but they are repackaged differently at different stages. Lexical items may be undergoing upward change and may grow in complexity (pace Roberts and Roussou 2003), whilst others (older markers) climb up further and undergo simplification.

2. Prerequisites *2.1 Typology of negative markers.* Negative markers can be classified according to four properties: 1) their scope position, 2) their ability to be stacked, 3) their semantics, and 4) their function. Based on their syntactic scope position in the clause spine I label these markers: 1) negative tense markers (T^{Neg}-markers), 2) negative focus markers (Foc^{Neg}-marker), 3) negative degree markers (Deg^{Neg}-markers), and 4) negative quantifier markers (Q^{Neg}-markers).

2.1 Syncretisms follow scope of negation. A crosslinguistic sample shows that syncretism patterns in the domain of negation follow the natural scope of negation: i.e. all syncretisms target contiguous cells in the table when negative markers from the four distinct groups are ordered from narrow to wide scope or vice versa.

	T^{Neg}-marker	Foc^{Neg}-marker	Deg^{Neg}-marker	Q^{Neg}-marker
Greek	dhen	oxi	mi	a-
English (informal)	n't	not	non	un-
French (BUF)	ne ... pas	pas	non	iN-
English (formal)	not	not	non	un-
French CF	pas	pas	non	iN-
Chinese	bù	bù	fei	fei
MS Arabic	laa	laa	ghayr-	ghayr-
Persian	na	na	qheyr-	qheyr-
Moroccan Arabic	ma (ši)	muši	muši	muši
Dutch	niet	niet	niet-	on-
Hungarian	nem	nem	nem	-tElEn
Czech	ne-	ne	ne-	ne-

2.2 Internal syntax of negative markers. I propose that negative markers be decomposed into five features (cf. Poletto (2008) for a decomposition of sentential negative markers): Neg°, which represents semantic negation, T°(tense), Foc°(focus), Deg° (Degree) and Q°(Quantity). These features form a functional sequence <T, Foc, Deg, Q, Neg>, which is replicated in the clausal spine, including the potential presence of a NegP at each successive level (cf. Starke 2001 for the optionality of NegP in the fseq):

(3) $[_{CP}[_{(Neg)}[\ T\ [_{(Neg)}[\ Foc\ [_{vP}\ [_{(Neg)}\ [_{Deg}\ [_{(Neg)}\ [_{Q}\ ]]]]]]]]$

Negative markers spell out a package of features including Neg° and at least one of the other features. The structure for the negative markers in (informal) English is given in (4).

(4) a. $[_{TP}\ [_{FocP}\ [_{DegP}\ [_{QP}\ [_{NegP}\ ]]]]] \Rightarrow$ *n't*
b. $[_{FocP}\ [_{DegP}\ [_{QP}\ [_{NegP}\ ]]]] \Rightarrow$ *not*
c. $[_{DegP}\ [_{QP}\ [_{NegP}]]] \Rightarrow$ *non*

d. $[_{QP}\ [_{NegP}]] \Rightarrow$ *un-/dis-*

The different negative markers spell out different subparts of the fseq. They are assembled in a separate workspace and inserted in the main spine. Since the projections which constitute the fseq of negation are replicated in the clausal spine, the insertion position for a negative marker is determined by the highest feature of its lexical tree: *un-*, for instance, is inserted in a NegP above QP (Corver 1997), *non* in a NegP above DegP (Corver 1997), low scope *not* above a low FocP (Belletti 2001) and sentential *n't* above TP.

3. French negation. The lexical trees for negative markers in BUF and CF are in (5) and (6), respectively.

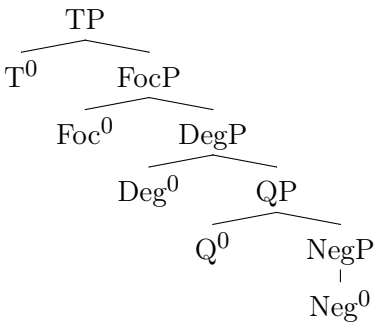
(5)
a. $[_{TP}\ ] \Rightarrow$ *ne*
b. $[_{FocP}\ [_{DegP}\ [_{QP}\ [_{NegP}\ ]]]] \Rightarrow$ *pas*
c. $[_{DegP}\ [_{QP}\ [_{NegP}]]] \Rightarrow$ *non*
d. $[_{QP}\ [_{NegP}]] \Rightarrow$ *in-*

(6)
a. $[_{TP}\ ] \Rightarrow$ *ne*
b. $[_{TP}\ [_{FocP}\ [_{DegP}\ [_{QP}\ [_{NegP}\ ]]]]] \Rightarrow$ *pas*
c. $[_{DegP}\ [_{QP}\ [_{NegP}]]] \Rightarrow$ *non*
d. $[_{QP}\ [_{NegP}]] \Rightarrow$ *in-*

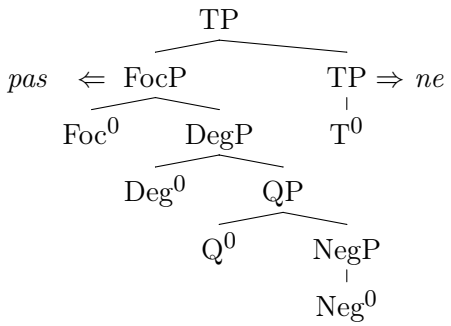
Whereas the lexical tree for *pas* in BUF needs to be complemented by *ne* to give rise to sentence negation, this is not the case in CF, where the lexical tree for *pas* has grown in size (see (6b)). This makes *ne* redundant and ready to be reanalyzed or even lost.

For sentential negation, the negative marker (7) is created in a separate workspace. At each phrasal node, cyclic phrasal spell out (Starke 2009, Caha 2009 takes place (overwriting any previous spellouts at lower nodes). When TP as in (7) has been built, it can be spelled out as *pas* in CF, since it matches the lexical item in (6b). In BUF, however, TP in (7) cannot be spelled out, since there is no lexical item in (5) that corresponds to (or is a superset of) (7). FocP therefore moves into Spec,TP, as shown in (8), allowing TP to be spelled out as *ne*.

(7)



(8)



4. French n-words. The present approach also captures the distribution of French n-words like *rien, jamais* and *personne* in BUF and CF. It will be argued that these n-words, endowed with categorial features like [n] (noun) or [adv] (adverbials) and semantic features like [person] or [thing] incorporate into the negative spine at the level of QP, i.e. they become quantificational, and then combine with the features of the negative spines in (5) and (6).

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Aaron Ecay:

How changes change: the case of *do*-support

Introduction In this paper, I will argue that the spread of *do*-support into an increasing number of syntactic contexts has been an ongoing, gradual process since late Middle English (mid- to late 1400's). Its initial spread into negative declaratives and questions has been the subject of much research for decades. The appearance of the construction in a substantial minority of affirmative declaratives during the Early Modern English period (1500–1700, roughly speaking) has also been remarked on in some studies. Ecay (2015) argued that the circumstances surrounding affirmative declarative *do* necessitate two radically different analyses of the construction: as it spreads into the affirmative declarative context it is a marker of agentivity; it is later reanalyzed as a pleonastic auxiliary verb and disappears from this context even as it becomes categorical in negative declarative, imperative, and matrix interrogative contexts.

Later changes The completion of the spread of *do*-support in negative declaratives and interrogatives is not the last development of *do*-support. In American English, *do*-support with main verb *have* becomes regular in the 19th century; this change is only propagated to British English in the latter half of the 20th. *Do*-support also comes to occur in negative imperatives with *be* and *have* (in both Br and AmE). Furthermore, in present-day English, *do*-support is marginally acceptable with copular *be* in the protasis of conditionals:

(1) ?If you don't be quiet, you'll get kicked out of the library.

I have searched the PYCCLE-TCP corpus, comprising ~900M words of English text printed before 1700, for the earliest tokens of *do*-support with *have*. Somewhat surprisingly, tokens of the construction may be found quite early, nearly 2 centuries before it begins appearing at more than marginal frequency in AmE texts. The earliest example is given below:

(2) longer time would make me to be esteemed guilty, if I **did not now have** a care for the preservation of my life (1631)

The following table summarizes further examples.

Type	Total	… of which conditional	… of which perfect
Neg Decl	11	5	1
Neg Q	1		
Neg Imp	8		1

The numbers are vanishingly small: on the order of one token per 45 million words. Within the constraints of such a small dataset, a significant proportion (approaching 50%) of the negative declarative occurrences are in conditional proteses. Further, occurrences with the perfect (where *do*-support is not possible in PDE) are attested, though relatively rare.

A similar experiment can be carried out for *do not be* constructions. Only two non-imperative examples are found, given below:

(3) if thou **doest not now be** moved by Gods mercies (1647)

(4) if we **do not be** like GOD in the Operation of His Grace (1693)

There are also roughly 130 negative imperative tokens.

Implications These facts suggest several considerations which may be relevant for the study of syntactic changes.

Firstly, work by Yang (2000, inter alia) and Johnson (2010) has suggested that grammatical changes are propagated through a population by a tipping-point mechanism. Each change has a characteristic threshold proportion, calculable from the frequencies of the context(s) involved in the change. When the population contains a proportion of innovative speakers below this threshold, the innovation cannot spread. Once the proportion surpasses the threshold, however, it can and indeed must become categorical. This view implies that successful changes have an embryonic existence before they reach the tipping point and their spread becomes detectable by conventional means (i.e. in small datasets). The data presented here are compatible with such a view, demonstrating that *do not have* exists as (in effect) an idiosyncracy of a small number of authors for centuries before it spreads in the language.

Secondly, the tendency of these "embryonic" tokens of *do*-support to appear in conditional protases suggests an account of why they occur precisely there. Modern *do*-support is a pleonastic spell-out of T (as argued by Embick and Noyer 2001). In conditional protases, past tense marking has the semantics not of tense, but of counterfactuality. These environments also conserved in EME traces of the earlier subjunctive, especially with *be* where an uninflected *be* could be used rather than an inflected form. Thus, T is both semantically and morphologically unusual in this context. This, I argue, provides learners with the opportunity to reanalyze the conditioning factors on *do*-support in this context.

Finally, the Actuation Problem (Weinreich, Labov, and Herzog 1968) is often considered by historical linguists: why does a change occur? *Do*-support is one of the most widely studied grammatical changes, and one with the largest amount of quantitative data available. It has proceeded through (at least) the following stages: 1. ME causative $\rightarrow$ semantic bleaching $\rightarrow$ 2. early EME agentive $\rightarrow$ Loss of V-to-T $\rightarrow$ 3. late EME support auxiliary (no *have* and *be*) $\rightarrow$ Weak T in conditionals $\rightarrow$ 4. PDE support auxiliary (with *have* and conditional *be*). In each of these cases, the irregular debris of earlier changes forms the input to the next stage. This sketched history of *do*-support suggests a particular kind of answer to the actuation question: what can be mistaken for a single large change (the spread of *do*-support) actually consists of several smaller parts. There is no "actuation" of the *do*-support change (going back to at least ME), because it is not a unitary change. The answer to the actuation problem consists of an account of how earlier changes feed into later ones.

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Melissa Farasyn:

Agreement chains in Middle Low German relative clauses

While agreement in relative clauses with pronominal heads has often been discussed for related West-Germanic languages (e.g. Ito & Mester, Trutkowski & Weiß for High German; Heck & Cuartero for English), little is known about the agreement patterns that can be found in Middle Low German (MLG), mainly since the syntax of this language is still an under-researched field in linguistics. This paper will specifically focus on patterns in MLG non-restrictive relative clauses with a DP antecedent. Examples (1)-(3) show that MLG offers alternating options for these kinds of patterns. The first type has a resumptive pronoun and the second type a gap in the relative clause, but both display 2nd-person agreement on the verb. For the last type it is not clear if the verb agrees with the relative pronoun or with a gap, since both elements trigger the same morphological ending on the verb in MLG.

(1) O here de **du** my geschapen hefst
O lord REL you me created have-2SG
'O lord who has created me' (*Ey(n) Jnnige clage to gode*)

(2) dat=tu mijn vader woldest wesen de **[ ]** mijn schepper bist
that=you my father would be REL [ ] my creator are-2SG
'that thou wouldst be my father, who [thou] art my creator' (*Dat myrren bundeken*)

(3) [...] vnse leue here ihesu crist de eyn schepper hemmels vnde eerden **ist** […]
our good lord Jesus Christ REL a creator heaven-GEN and earth-GEN is
'our good lord Jesus Christ who is a creator of heaven and earth'
(*Bordesholmer Marienklage*)

In this paper we will present new data for these types of structures in MLG based on an elaborate corpus study, and propose a syntactic analysis of the data. Alle types are attested throughout the whole period in which MLG was spoken (1250-1600).
In the relevant structures some kind of connection has to be achieved between antecedent, relative pronoun, gap/resumptive and the finite verb in the relative clause. We propose a base generation strategy, in which the elements are connected in chains through series of Agree relations, and which is consequently established independently of movement. Therefore we call this agreement chains (e.g. Kratzer 2009).
We argue that the two first/second person patterns in MLG are two spell-outs of one and the same pattern, and that MLG only ever has agreement with a resumptive pronoun, which can also be null in cases like (2). This can explain why relative clauses modifying first/second person antecedents never get relative pronoun agreement. The different pronouns or gaps in the chain have a different internal structure from the antecedent, although the spell-out can be identical. We suggest that the antecedent carries a D-feature and φ-features, and hence, is a strong pronoun, while the relative clause contains a weak pronoun/deficient pronoun (Cardinaletti & Starke 1999), which can also be null. It carries a full set of φ-features, but does not carry D-features of its own. This analysis is supported by recent findings concerning null subjects in MLG, revealing that MLG is a partial null subject languages with two types of null subjects: (1) null topics in SprecCP/SpecFinP and (2) genuine *pro* in Wackernagel's position following C/Fin (Farasyn & Breitbarth 2015). The latter type appears in the exact same position where also overt clitics appear in MLG, and this is exactly the position where we find (null) resumptive pronouns in the relative clauses studied here.
In order to be able to Agree, the elements in a chain have to contain common internal features. In these NRRCs, the deficient pronoun contains the person features of the head, which are

transferred to it via a chain of checking and matching connections (Georgi & Salzmann, to appear). In this chain, we claim the MLG relative pronoun *de* to be maximally underspecified for relevant features (gender/number/person). The chain is mediated by the coordinate-like structure of NRRCs (e.g. Koster 2000), which can explain the numerous examples of long distance agreement in which there is no adjacancy between matrix clause and relative clause.

Having explained the basic theory, we will take a look at some more puzzling challenges in MLG. We detected apparent mismatches in chains like (4). Here, the verb in the relative clause agrees with the subject of the main clause, while the relative clause appears to modify its predicate. We show that the proposed nulll resumptive theory can also account for these kind of examples, which (in this case) at first sight seem to be cases of RP-agreement.

(4) Jck byn leder de ghene de de su(n)de ghedaen hebbe
I-1SG am unfortunately the one-3SG who-REL [ ] the sin done have-1SG
'I am unfortunately the one who has done the sin' (*Dat myrren bundeken*)

A last peculiarity that we will address is the syntactic distribution of the MLG agreement chains. Interestingly, a different reading, viz. a more specified reading to establish a specified reading, as f.e. Malkawi suggests for Jordanian Arabic, is not possible in MLG since the different types seen in (1) and (2) seem to alternate in exactly the same syntactical positions with no change of meaning.

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Pablo Faria and Charlotte Galves:

Annotation systems and automatic processing: a tight connection

The last decades of corpus linguistics have seen the construction of large syntactic annotated (i.e., parsed) corpora, called treebanks, some of them consisting of millions of words. A particular type of treebank is one where sentences are annotated with their phrase structures (Marcus et al., 1993). The process of building such large databases is costly and time consuming, taking several years of continuous work. In general, parsed corpora are built by means of both automatic tools (i.e., taggers and parsers) and human intervention. It is inevitable that inconsistencies in the annotation arise caused by a number of factors, for instance, disagreement in interpretation, incomplete or unclear annotation guidelines, lack of experience, among others (see Blaheta, 2002). Such inconsistencies may affect the extraction of information from a corpus as well as the accuracy of parsers trained on it.

As a result, automatic methods for detecting inconsistencies play a very important role (see, for instance, Dickinson & Meurers, 2003; Kulick et al., 2012). They provide a fast way of checking the overall consistency of a corpus while providing exact information about the kind of (common) inconsistencies found. But the study of automatic inconsistency detection in syntactically annotated corpora also sheds light on aspects of the annotation schemes. In general, the annotation is often designed without deep knowledge of how its particular properties may affect different kinds of automatic processing. For example, inconsistencies built in the annotation system of syntactically annotated corpora makes it difficult for parsers to come up with good analyses and the same can be told about algorithms for automatic detection of inconsistencies. In the absence of a consistent system of annotation where all the relevant relations are consistently and explicitly marked, one can not help but treat the annotation as somewhat arbitrary bundles of strings.

This leads to lower accuracy and coverage for different kinds of automatic processing. One example of such lack of consistency is that in general the relation between a phrase and its head is not explicitly (or consistently) marked, being codified elsewhere (the annotation guidelines, for instance). Thus, one cannot explore this relation for automatic processing without an a priori knowledge of the particular set of possible relations in a given corpus. Furthermore, when these relations are inconsistent in the annotation system, the task gets even harder. In this talk, some of these issues will be exemplified and discussed in the light of results obtained in the study of inconsistency detection in treebanks, where the importance of a consistent annotation system becomes evident as soon as one starts digging into the problem. Our goal is to shed some light on questions like:

Which criteria should one have in mind when deciding which base and dash tags to include in the annotation system? Can we make consistent and effective use of the distinction between base (e.g., NP) and dash tags (e.g., -SBJ) such that parsers and other automatic tools may take advantage of it? How much must one still sacrifice theoretical adequacy to conform to circumstantial limitations (e.g., availability or suitability of

tools), when designing the annotation system (e.g., should the number of phrasal nodes be an issue)?

We will explore inconsistency detection results and parsing evaluations for the Corpus[1] in order to give concrete examples of how distinct choices related to the annotation system may affect these kinds of automatic processing. The evaluations of parsing accuracy are conducted for different versions of the Corpus, each implementing different choices of annotation such as, for instance, using a tag "PUNC" for all punctuation instead of "," (comma) for sentence-internal punctuations signs and "." (dot) for sentence-final ones. Other changes to the annotation system are also evaluated, especially towards achieving a more consistent use of base and dash tags.

The final goal of the presentation is to highlight the tight connection between annotation systems and automatic processing and to emphasize the fundamental importance of having this connection in mind when designing annotation systems. In a moment at which we put our efforts in the processing and availability of massive amounts of linguistic data and given the importance of treebanks for historical and comparative studies on language change, one cannot allow himself to waste time and resources by making certain mistakes given our current level of understanding of the issues involved.

Keywords: annotated corpora, inconsistency detection, automatic processing, annotation systems

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Eric Fuß:

Hand in hand or each on one's own?
On the connection between morphological and syntactic change

It is a long-standing idea that syntactic change may be triggered by changes affecting properties of inflectional morphology. Standard examples include the impact of the loss of verbal inflections on the availability of verb movement and pro-drop, or the relation between the loss of case marking and changes affecting basic word order. However, it has not gone unnoticed that the diachronic correlation between syntax and morphology is sometimes less tight than one might suppose. First, it is a well-known fact that a given morphological change and its supposed syntactic effects may be separated by a considerable temporal gap. Second, there are cases where a proposed causal link between morphological and syntactic change does not hold up against scrutiny (cf. e.g. Joseph 1983 vs. Anttila 1972 on the loss of nonfinite constructions in Greek). Finally, it has been pointed out that syntactic change may take place despite conflicting morphological evidence. Phenomena of this last type have led some researchers to claim that the relationship between syntactic and morphological change actually holds in the opposite direction, i.e., syntactic change may feed morphological change (cf. Anderson 1980, Cole et al. 1980, Disterheft 1987, and Fischer 2010).

In this talk, we will re-examine the relationship between morphological and syntactic change, adopting the view that language change is to be modeled in terms of grammar change (Hale 2007), i.e., a set of discrete differences between the target grammar and the grammar eventually acquired by the learner. It will be argued that from this perspective, the assumption of a strong causal link between a morphological property *M* and a syntactic property *S* (cf. e.g. Rohrbacher 1999 and more recently Koeneman & Zeijlstra 2014) necessarily leads to a conflict: At the point when the learner fails to acquire *M*, *M* will still be part of the target grammar. As a result, syntactic patterns linked to *M* will continue to be part of the input the learner receives, leading to a situation where morphological and syntactic cues for a given parameter contradict each other. While this problem can perhaps be mended by adopting a weak version of the hypothesized link between morphology and syntax such as Bobaljik's (2003) formulation of the Rich Agreement Hypothesis (after the loss of *M*, *S* can still be acquired on the basis of syntactic evidence alone), the conflict arguably becomes even more acute when the focus is shifted from the loss of *M* to the rise of *M*. This can be illustrated with the following scenario. Let's assume a situation where a learner acquires a morphological property *M* (say, rich verbal agreement via a reanalysis of subject clitics), which is absent in the target grammar. *M* is taken to be causally linked to a syntactic property *S* (say, verb movement to INFL), which is also absent in the target grammar. Arguably, this conflict cannot be rescued by adopting a weak causal link between morphology and syntax, since we face a situation where the target grammar exhibits syntactic properties (lack of verb movement) that do not match morphological properties posited by the learner (innovated rich agreement). Related problems are raised by cases where the learner innovates a syntactic property *S* that does not match a morphological property *M* present in the input. To assess the validity of these considerations, we will take a look at cases where syntactic change apparently has taken place independent of morphological change (and vice versa):

- Change in basic word order (OV >>> VO) without loss of case inflections (Lithuanian)
- Loss of verbal agreement with and without loss of pro-drop (Finnish vs. Estonian)
- Rise of verbal agreement and its consequences for pro-drop and verb placement (Bavarian, French)

We will then discuss a set of issues these considerations raise for a theory of language change and the interface between syntax and morphology. In particular, we will address whether it is possible to maintain the view that there is a causal relation between morphology and syntax. In the model presented above, this seems to boil down to the question of how

learners deal with conflicting syntactic and morphological cues in the input; possible scenarios include:

- Some part of the evidence available to the learner is ignored (possibly relating to the robustness/frequency with which individual cues are attested in the input).
- Conflicting morphological and syntactic evidence in the input leads to grammar competition and eventually the loss of one of the competing options (cf. Haeberli 2004).
- The syntactic effects of *M* are obscured by other syntactic processes in the target grammar and are therefore less visible to the learner.

As time permits, we may touch on a number of additional issues which need to be addressed if we are to gain a more complete understanding of the interaction of syntax and morphology in processes of language change:

- Do cases in which a syntactic change occurs in the face of robust morphological counter-evidence necessitate a view of morphology as "formal baggage" (Anderson 1980) that is dragged along (after a reanalysis of its function) or disposed of after syntactic change has rendered it superfluous or non-interpretable?
- How do we account for cases where morphological changes seem to depend on previous syntactic changes?
- How do we account for the time lag between morphological and syntactic change?

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Jacopo Garzonio and Silvia Rossi:

Structural deficiency across phases: oblique pronouns in Old Tuscan varieties.

KEYWORDS: nano- and microparameters; deficient pronouns; Old Italo-Romance.

1. In this paper we take into exam the syntactic microvariation in the distribution of deficient pronouns (Cardinaletti & Starke 1999, henceforth C&S) in the history of Italo-Romance, in particular in Old Tuscan varieties. Our main goal is to understand if structural deficiency is subject to a predictable parametric variation. Our analysis shows that there seems to be a diachronic cline from parameters pertaining to individual classes or categories to parameters pertaining to single lexical items. In other words, the history of Italian deficient oblique pronouns shows a clear diachronic shift from micro- to nano-parameters (Roberts 2012 and subsequent work). Moreover, we will argue that the trigger of this shift is originally dependent on the interaction of macro-parameters (in our case V2 across phases, Poletto 2014) and that the weak/clitic divide shows no fixed distinguishing properties but is a by-product of changing parameters (hence individual deficient forms will show some core properties with some slightly different distributions).

2. Starting point of our discussion is the Modern Italian (MI) oblique plural *loro*, which C&S consider a prototypical case of weak pronoun. MI oblique *loro* presents peculiar properties in that: (i) it must occur before a full-DP direct object (Dative Shift like position); (ii) it can surface between the auxiliary and the past participle; (iii) it precedes low/Voice adverbs like *bene* 'well' and *tutto* 'completely' (Cinque 1999); (iv) it cannot be coordinated, modified or topicalized/focalized. While (iv) is also true of clitics, properties (i)-(iii) are specific for *loro* and are accounted for by C&S by assuming that *loro* obligatorily occupies the specifier of an AgrP projection as a consequence of its pertaining to the universal category of mildly structurally-deficient pronouns, i. e. weak (but see Manzini 2014 for a critical discussion).

3. In Old Florentine (OFlor.), the oblique weak paradigm included forms for other persons: there are instances of 3rd singular *lui/lei* 'to.him/to.her' patterning like plural *loro* (Cardinaletti 2010: 421ff. also reports a few cases of 1st singular *me* 'to.me' and 2nd plural *vo'* 'to.you' but these are probably relics of a previous extended paradigm). These elements occurred in the same positions as MI *loro*, but they also had positional possibilities no longer available in MI: (i) they could appear before the tensed verb (1a), and (ii) they could appear after a direct object, (1b):

(1) a. … che Dio era padre de' poveri, e ***loro*** ha donato podere delli altri giudicare.
… that God was father of.the poor and to.them has given power of.the other to.judge
OFlor., 1310; Zucchero Benivenni, *Esposizione del Paternostro*, 27).

b. Allora dissi queste parole *loro*…
Then said.1sg these word to.them
(OFlor., 1293; Dante Alighieri, *Vita Nuova*, chap. 18, par. 1-9, pag. 69)

Pre-T *loro* occupies a position in the Left Periphery as we find cases of *sì loro*:

(2) Allor la donna, come ch'e' le piaccia // Udir quelle parole, ***sì lor*** dica
Then the woman, how that it to.her pleasant.is to.hear these words, *sì* to.them say
(OFlor., 1300; Dante Alighieri, *Fiore (II)*, 176, pag. 354)

Following Benincà (2006), *sì* 'then' is an adverb hosted in the Focus field; it must be concluded from (2) that pre-T *loro* is in the Left Periphery.

Whatever the parameter governing this distribution, it is clear that in OFlor it was a microparameter of a small lexically definable subclass of functional items (oblique pronominals) subsequently reduced in the passage to MI to a nanoparameter of an individual grammatical item (3rd pl oblique *loro*). Furthermore, we will argue that the distribution in (1) can be accounted for by assuming that these items satisfy the V2 property of OFlor. in both the lower and the higher phases (Poletto 2014). This entails that these elements were generated in the lower clausal portion and then moved to the Left Peripheries as XPs (as expected under C&S's tripartition).

4. On the basis of this preliminary discussion, one could conclude that OFlor *loro* is a weak with some strong-like properties. Thus, it is striking that *loro* could also display some clitic-like properties, as for instance it could also appear after negation:

(3) ed elli medesimi si piglieranno luogo e tempo di combattere, se voi non *loro* lo date.
And they themselves will.take place and time of to.fight, if you not to.them it give.2pl
(OFlor., 1350, *Deca prima di Tito Livio Volgarizzata*, L. 7, cap. 14, pag. b169)

Moreover, there is at least one case (in Old Pisan) in which *loro* looks like a resumptive pronoun of a dislocated topic (a possibility not available to MI *loro*):

(4) A tutte le creature hae Idio data ***loro*** virtù e sufficienzia di potere venire…
(OPis., 1306; Giordano da Pisa, *Quaresimale fiorentino (1305-1306),* 60, 297)

(Notice that in Giordano da Pisa's text, possessive *loro* is normally postnominal and when prenominal it very often requies a D).

5. Some Southern Old Tuscan varieties like Old Sienese (OSien) furthermore present also a clitic *lo'* derived from *loro*. Egerland (2010) determines the clitic status of *lo'* as it patterns like other clitics: (i) *lo'* appears proclitically or enclitically according to finiteness of the verb (and it is subject to the Tobler-Mussafia's Law); (ii) it forms clitic clusters, usually with the modern order dat > acc; (iii) it always follows negation; (iv) we found also cases of reduced *l'* before tensed verbs and auxiliaries beginning with a vowel. Yet again, *lo'* also displays few weak-like properties in that it does not appear to give rise to PCC effects and it could appear proclitically on non-finite verbs when preceded by negation:

(5) a. Cristo mai non ***me lo'*** parta dall'anima.
Christ never not me to.them take.away from.the soul
(OSien., 1367; Giovanni Colombini, *Lettere,* 28)
b. altri crede che gli debbia esser fatta alcuna cosa non ***lo'*** domandata
others believe that to.him has to.be done any thing not to.them asked
(1268; Andrea da Grosseto, *Trattati morali di Albertano da Brescia volgarizzati,* 2.49)

6. Thus, the empirical evidence in the above sections indicate that the clitic/weak divide is rather blurry in Old Tuscan. It seems however that there was a clear and early tendency to reaccomodate these items according to a systematic and predictable (and thus more easily learnable) strong vs. deficient partition: deficient elements have to occur in the higher phase (i. e. in the C/T domain), while strong pronouns have to occur in the lower lexical phase (i. e. the v/V domain). In a nutshell: the more deficient a pronoun, the higher it surfaces in the sentence structure. In more general terms, we will argue that this reaccomodation is a direct consequence of the resetting (loss) of a generalized V2 macro-parameter which triggers the subsequent resetting of related micro-parameters, some of which may eventually survive as nanoparameters. This is confirmed among other things, by the fact that in 15th cent. Florentine, CP V2 was marginal and pre-T oblique *loro* is never attested (Ricci 2005).

As a final remark, the present study lends support to the idea that major linguistic changes are not always the product of the sum of small steps (*pace* Kayne 1996), but rather, microvariation arises from the resetting of small parameters following a 'great leap' (Ledgeway to appear), i. e. a macro-parametric change.

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Elly van Gelderen:

Problems of Projection in Language Change

Chomsky's latest linguistic work (2013; 2015) sees labeling as unconnected to merge. The labeling algorithm (LA) operates when a syntactic derivation is transferred to the interfaces. Such an algorithm computes that a merged set is a DP or TP. When a head and a phrase merge the LA automatically determines the head to be the label. In cases of phrasal merge, the LA cannot find the head and the phrase either has to move or share features with the head. I will argue that, in addition to Chomsky's resolutions to labeling paradoxes, reanalyzing a phrase to a head also resolves the paradox. This change is very frequent as I show in nine cross-linguistically attested changes.

The nine changes from specifier to head can be grouped together as (a) subject and object pronouns to agreement, i.e. to T and v heads, (b) demonstratives to C, D, and T heads, (c) wh-pronouns and PP to C, (d) adverb phrases to ASP head, and (e) negative adverbs to Neg head. Some of these changes are very frequent, cross-linguistically, and others are not. I argue this provides some insight in some of the labeling mechanisms, e.g. is sharing features equal to search. Each of the nine cases will be exemplified and discussed in terms of labeling.

Laura Grestenberger:

A "participle cycle"? The diachronic morphosyntax of Greek participles

Introduction The diachronic behavior of participles and verbal adjectives is well studied in the context of periphrastic tense/aspect constructions. The diachrony of the morphosyntax of participles themselves, however, is less well understood. In this paper, I discuss two cases of diachronic "voice flipping" in which the syntax of a participle changes from active to passive (Ancient Greek (AG) to Modern Greek (MG)) and from passive/stative to active (Proto-Indo-European (PIE) to AG). While the first type of change is the result of a diachronic reanalysis that changes the functional make-up of the participle by deleting a functional head, the second type appears to add an active Voice head. Both changes are contingent on the ambiguity between stative and eventive readings in adjectival passives.

Evidence The MG suffix *-menos* forms exclusively passive participles which are used in periphrastic passive constructions (the fomally related suffix *-ómenos* is left out here but will be discussed in the paper):

(1) *To vivlio ine* ***gra-meno*** *apo tin Maria*
the book is written by the Maria
"The book is written by Maria"

By contrast, its AG predecessor *-menos* was a middle participle that could occur in a wider range of syntactic contexts, including transitive constructions with direct objects (syntactically active contexts), which is impossible in MG:

(2) *tòn d' heũr' amph' ómoisi* ***tithế-menon*** *éntea kalà*
him PART found around shoulders putting-PTCP.ACC.M armour.ACC beautiful.ACC
"He found him putting his beautiful armour around his shoulders" (Hom. Il. 10.34)

The opposite case is found in the development of the PIE suffix **-(o)nt-*, which forms active participles in most older Indo-European languages, e.g., Sanskrit (Skt.) *bhára-nt-* 'bringing', AG *phér-ōn* id., Lat. *ferē-ns* id. In Hittite, however, it surfaces as a adjectival passive suffix *-ant-* and is used in periphrastic passive constructions:

(3) k]uit *IŠTU* $^{\text{LÚ}}$KÚR arḫa warnuw-anza
because by enemy PRVB burned-PTCP.NOM.SG
"because he was burned [up] by the enemy" (KUB 26.84 ii 7)

Other examples: *ḫark(iy)ant-* 'perished', *appant-* 'seized', *uwant-* 'arrived', *tuḫšant-* 'cut off', etc. Recent research (e.g. Melchert to appear) has shown that the Hittite use is the older one; the function of the suffix appears to have changed from passive to active in the other IE languages.

Discussion Given that AG *-menos* can have accusative objects and is compatible with manner-, event- and agent-oriented adverbs, its functional structure must have included VoiceP below the nominalizing suffix (labelled "Adj" for simplicity):

(4) $[_{\text{ADJ}}$ *-menos* $([_{\text{ASP}})$ $[_{\textbf{VoiceP}}$ **Voice** $[_{v\text{P}}$ *v* $[_{\text{RootP}}$ Root DP_{THEME}]]]]]]

MG *-menos* on the other hand does not have direct objects does not always include VoiceP (Anagnostopoulou 2003). This suggests that a diachronic reanalysis has taken place in which VoiceP failed to be acquired in structures like (4) during L1 acquisition, causing *-menos* to develop into a "target state participle" (Anagnostopoulou 2003, Alexiadou & Anagnostopoulou 2008):

(5) $[_{\text{ADJ}}$ *-menos* $([_{\text{ASP}}])$ $[_{v\text{P}}$ *v* $[_{\text{RootP}}$ Root DP_{THEME}]]]]]]

Since active and middle are features of the Voice head in MG (Alexiadou & Doron 2012), the loss of this head leads to a structure that includes only the internal argument of the verb, resulting in a passive or "theme-oriented" reading for transitive verbs. The starting point for this development must have been the passive use of *-menos* with resultative transitive verbs (rare in AG except for the perfect middle participle in *-menos*, which is passive already in Homer). Passive *-menos* closely resembles the other MG adjectival passive participle, *-tos*, e.g., *graf-tos* 'written', *vras-tos* 'boiled', *anih-tos* 'open(ed)'. However, *-tos* never has event implications and is incompatible with oblique agents and adverbial modification, suggesting that the nominalizer attaches directly to the root (Anagnostopoulou 2003). If parameters of synchronic variation constrain diachronic change, the Greek data suggest a diachronic trajectory for participles by which functional categories of the "verbal spine" are successively lost below the nominalizing suffix (with MG *-menos* at stage 2. and *-tos* at stage 3.):

(6) 1. $[_{\text{NMLZ}}$ $([_{\text{ASP}}])$ $[_{\text{VoiceP}}$ $[_{v\text{P}}$ $[_{\text{RootP}}$]]]]] $\rightarrow$ 2. $[_{\text{NMLZ}}$ $([_{\text{ASP}}])$ $[_{v\text{P}}$ $[_{\text{RootP}}$]]]] $\rightarrow$ 3. $[_{\text{NMLZ}}$ $[_{\text{RootP}}$]]

The development of PIE *-*nt*- shows the opposite development: increase of functional verbal projections. While *-*nt*- was originally an adjectival suffix that selected for roots, like *-tos* in (6), it was ambiguous between a stative and eventive interpretation for certain verb classes, as it still is in Hittite (Frotscher 2013), e.g., *ā-nt*- 1. 'hot' (state), 2. 'being hot' (event/process), *šaš-ant*- 1. 'asleep' (state), 2. 'sleeping' (event/process). This lead to a reanalysis by which L1 learners acquired such adjectives as including *v*P and VoiceP, which was also compatible with transitive, eventive verbs, leading to the active participle of AG, Skt. and Latin.

Implications The development of *-menos* is reminiscent of the phenomena discussed as "structural simplifications" in diachronic reanalysis by Roberts & Roussou (2003), Roberts (2007). While loss of functional categories or the change of lexical into functional categories are well-attested diachronic developments, the case of PIE *-*nt*- seemingly contradicts the hypothesis that language change, especially grammaticalization, is unidirectional because it adds functional structure to the end-point of (6). However, the starting points of the two processes are different (resultative participles from transitive eventive verbs for *-menos*; stative intransitive verbs for *-*nt*-). Moreover, as emphasized by Van Gelderen 2011, language change proceeds in cycles of loss and renewal of functional features and categories. These two case studies may therefore be part of a larger cycle of change and renewal of participial formations ("participle cycle").

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Cristina Guardiano et al.:

Probing the vertical and horizontal signal of parametric syntax

Goals. In this paper we argue that the Parametric Comparison Method (PCM, Longobardi and Guardiano 2009), thanks to its capability of combining insights from formal grammar, historical/comparative linguistics, quantitative sociolinguistics (dialectometry), and computer-assisted techniques, can be successfully implemented as a powerful device to capture, distinguish and precisely assess the effect of vertical and contact-induced change in (closely) related systems. In particular, we show that with the aid of a strongly constrained theory of syntactic variation and change we become able to identify the significant diachronic signal retained by dialect syntax even in contexts of massive horizontal transmission and, at the same time, to identify paths of spread of syntactic characters.
Languages. We explore syntactic change within Romance, within Greek, and between Romance and Greek. To this end, we collected data from the nominal domain in 7 Romance dialects (of Southern Italy) and six Greek ones (two in Southern Italy, two varieties of Cappadocian Greek, Romeyka Pontic, and Cypriot), as well as the respective ancestral languages (Latin and Classical/Koine Greek). To better delineate the internal structure of the two language groups, we extended our comparative study to a set of "standard" Romance languages (Italian, French, Spanish, Portuguese and Romanian) and to Standard Modern Greek.
Methods. We analyzed the internal structure of the nominal domain using Longobardi et al's (2015) list of 75 binary parameters. Such a parameter set provided good taxonomic results on a general historical level: in spite of obvious horizontal interference, all the Greek varieties are systematically grouped together, and kept neatly separated from Romance. Nonetheless, the internal articulation of Romance is quite unsatisfactory. Moreover, under a finer-grained analysis, the 75 parameters turn out not to be able to single out various aspects of internal variation which are specific to the Romance varieties of Southern Italy.
Parametric analysis and taxonomic results. In order to capture these aspects of microvariation, i.e. to achieve higher resolution within Southern Italy Romance, we investigated 8 additional newly devised micro-parameters (in the sense of Roberts 2012), formulated in the most constrained way possible, i.e. the lowest number of characters that can cover all the unveiled (and previously unaccounted for) surface points of variation. Such parameters concern the following properties of nominal structures (Guardiano et al 2015): the position and interpretation of adjectives and their connection with noun movement; the internal syntax of demonstratives and possessives; the need for expletive articles with proper names; the syntax of kinship nouns; the availability of structural genitives (Longobardi and Silvestri 2013); the morphological representation of Number on the noun (and the availability of *bare* nouns); 1st/2nd person agreement with definite determiners. The taxonomic results provided by the updated/refined set of parameters (Guardiano et al 2015) are statistically and empirically much more reliable: the internal classification of Southern Italian Romance parallels the independently known distribution of the dialects (Pellegrini 1977) and further captures socio-historical and geographical variables, such as the "Lausberg effect" reflected in the outlier status of Northern Calabrese.
Evaluation of the results. Our results show that parametric information alone is a good predictor of the genealogical histories of Greek and Romance in the areas observed, in spite of some detectable but controllable amount of secondary convergence. The experiments also reveal that language contact did not have an impact strong enough to obscure the genealogical relations: the Romance group is systematically classified

separately from the Greek one (even when the ancient languages are included). Finally, the need for finer-grained parameters for higher resolution suggests that not all parameters have the same stability, and therefore different parametric changes can non-accidentally trace splits of different historical depth, i.e. parameters do carry a historical signal.

The diachronic perspective: conservatism and diversification. When ancient languages are added to the picture, the distribution of syntactic distances within Greek and Romance shows two partly contradictory patterns: on the one hand, the Greek varieties display more salient internal diversification; on the other hand, they give a stronger impression of closeness to their plausible direct ancestor (*koiné* Greek) than Romance with respect to Latin. Diversity and conservatism can be reconciled by noting that both diversity and innovativeness especially (or exclusively) concern the varieties most affected by interference (i.e. the Italiot dialects, Cappadocian, and Romeyka). Both these groups share not only contact with non-Greek languages (i.e. Romance and Turkish, respectively), but also isolation from "Mainland" Greek (thus not sharing its innovations).

Parameter resetting in contact situations: the 'Resistance principle'. Having established that parametric syntax can detect historical processes of diversification/continuity/(or even) convergence, it remains to be seen whether it is possible to identify selective subdomains of syntax that are more sensitive to contact-induced parameter resetting or, conversely, more impermeable to the pressure of contact. The distribution of parameter values actually shows that some subdomains are particularly sensitive to areal constraints, while others are more homogeneous diachronically (Guardiano 2014). On the whole, syntactic borrowing in this area seems to be regulated by at least two kinds of forces. On the one hand, we see "external" pressures affecting the direction of parametric contact: for instance, in Southern Italy, contact-induced change happens to be monodirectional, from Romance to Greek (Guardiano et al 2015) On the other hand, there are "internal" (I-language) factors which can be framed within a more general theory of parameter (re)setting (following Keenan's 1994 and Longobardi's 2001 *Inertia* principle); indeed, contact-induced parameter change seems to be constrained by what we may call a 'Resistance Principle' (Guardiano et al 2015): "resetting of parameter α from value X to Y in language A as triggered by interference of language B only takes place if asubset of the strings that contribute to constituting a trigger for value Y of parameter α in language B already exists in language A" (see also Sitaridou 2014: 52). For instance, the subdomain of adjectival modification in Southern Italy Greek and Southern Italy Romance has been identified as a point of lesser resistance to syntactic borrowing (Guardiano 2014, Guardiano and Stavrou 2014). Indeed, in accordance with the Resistance Principle, it can be shown that the parameter resettings which gave rise to identical parameter values in this subdomain result precisely from the availability, in both groups, of superficially postnominal adjectives, though with distinct underlying representations.

Conclusions. The PCM is actually able to sketch a reliable picture of the history of linguistic diversity in the South-Central Mediterranean up to the Black Sea. The application of the PCM to the study of syntactic microvariation can also shed light on questions about distinguishing parameters with deep genealogical value from those more susceptible to homoplasy. Therefore, the PCM has the potential of becoming an essential tool for a novel quantitative framework in the study of syntactic continuity, contact and change.

Veronika Hegedűs:

Changing copulas and the case of Hungarian prenominal PPs

It is a well-attested fact that copular verbs may change into grammatical markers or affixes, and possibly become functional heads not related to Tense (e.g. case markers). On the other hand, copulas may develop from pronominal or adpositional elements (Van Gelderen 2011). This paper brings evidence that the copula may become a functional head that is the licensor of prenominal modifiers, and, in turn, that prenominal adpositional phrases—which are ungrammatical prenominally on their own—may be licensed by a functional element in a head-final NP. I will show that the Hungarian present participial copula *val-ó* 'be-PART' grammaticalized into a general functional head licensing prenominal PPs, which led to another copular root taking its place in the present participial form (*lé-vő* 'be-PART'). This resulted in a split between prenominal non-finite copular clauses with PP-predicates and other prenominal PPs.

The data: The Old Hungarian present participial copula has the form *val-ó*, where the verbal root is one of the old Finno-Ugric copular roots, but there is another copular root *le-* 'be' (this Uralic root originally meant 'to become, to be born') that appears in complementary distribution with *val-*, for example, as the infinitival non-finite form *lenni* 'be.INF'. Old Hungarian *való* appears with adverbial or PP modifiers when they are prenominal, (1)-(3). The noun head is often a deverbal noun, which may retain the argument structure of its verbal root (with a PP complement (2) or adjunct (3)), but it can be a regular non-derived noun as well, (1).

(1) mend **paradisum-ben uol-ov** gimilc-íc-tul
all Paradise-INE be-PART fruit-PL-ABL
'from all fruits (being) in Paradise' (Funeral Sermon, c. 1195)

(2) **az-on valo** feeltem-ben
that-SUP be.PART fear.POSS1SG-INE
'in my fear of that' (Jordánszky C. 25, 1516–1519)

(3) **Mosdatlan kèz-zèl ualo** kener etel
unwashed hand-INST be.PART bread eating
'eating bread with unwashed hand(s)' (Munich C. 22ra, 1416/1466)

In 16th-century texts, we find that in those DPs where the prenominal PP originates in a predicational copular clause, *való* is replaced by *levő*, that is, the copular root *le-* appears in the present participial form, (4). The change does not concern the other prenominal PPs, those that do not originate in copular predicational structures.

(4) Az **Gondolatok kerol leuo** uetkek
the thoughts around be.PART sins
'the sins (being) around thoughts' (Thewrewk C., 1531)

Proposal: I propose that *való* was still used as a real participle in nominal constructions in Old Hungarian, although it had already grammaticalized into a functional head by then. (1) involves a non-finite clause prenominally with *való* as the participial copula (5), in the other cases, however, it does not function as a participle.

(5) $[_{NP}\ [_{CP}$ ... való] N]

The change involved a grammaticalization pattern whereby the surface position and Relator function (in the sense of den Dikken 2006) of the participial head enabled its reanalysis

into a general functional head on the nominal spine, no longer carrying any tense features and no longer restricted to predicative PPs/AdvPs which require the copula in the finite clause counterpart. I take the head of FP to be a non-verbal Relator, which is spelled out when a post-nominal complement or adjunct PP (e.g. *az-on* 'on that' in (2)) is moved into the specifier of FP, (6).

(6) $[_{PP2}$ **[**$_{DP}$ $[_{FP}$ $[_{PP1}$ az-on] $[_{F}$ valo $[_{N}$ feeltem $t_{PP1}]]]]$ **]** -ben] (ex. (2))

Való is not a case marker or a regular postposition since it appears with other Ps (e.g. (2) and (3)) which cannot be stacked in the Hungarian PP. Furthermore, in Old Hungarian, it appears with time/frequency adverbials as well, which are usually construed with a different strategy today, and which cannot be complements of Ps at all (7).

(7) ǵakorta ualo mosdas
frequently be.PART bathing
'frequent bathing' (Szekelyudvarhelyi C. 48v, 1526-1528)

Besides becoming a functional head, *való* also lexicalized as an adjective with the meanings 'real, appropriate/possible', and *van* 'be' has a lexical verb use with an ablative PP complement meaning 'to be from somewhere, to come from somewhere', where *való* is still the present participial form, as we are dealing with a lexical verb in that case. Observe the difference in the following examples, where we find the copula in the example on the left but a lexical verb on the right:

(8) a tó mellett lévő fa
the lake beside be.PART tree
'the tree next to the lake'

(9) a tó mellől való fa
the lake beside.from be.PART tree
'the tree (coming) from beside the lake'

This shows that *levő* is the present participial form of the copula but *való* still has a verbal use in Modern Hungarian, however, a very limited one. While the Old Hungarian corpus (http://omagyarkorpusz.nytud.hu) only contains 4 pieces of data with *levő* (see also Dékány 2014), it replaces *való* as the participial copula very quickly in the Middle Hungarian period. This results in a system where prenominal PPs and adverbs are licensed by functional heads (relators in the nominal domain), and one of these functional elements grammaticalized from the copula.

Theoretical implications: (i) A suppletive paradigm may emerge when a form takes up a new function, i.e., appears in a new structure, and a different root takes its place. (ii) Verbal copulas may grammaticalize into functional heads in the clausal domain (e.g. auxiliaries; Lohndal 2009) or in the nominal domain. They may still keep their relator function but lose their verbal/Tense properties. (iii) Spelling out the functional head whose specifiers prenominal PP modifiers occupy is a way to license the structure that is otherwise limited cross-linguistically, namely, PPs and adverbs as prenominal modifiers.

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Henri Kauhanen and George Walkden:

A production bias model of the Constant Rate Effect

Kroch (1989) advanced the hypothesis that when two grammatical options compete across a number of linguistic contexts and one replaces the other over time, the rate of change will be the same in all contexts. To date, this hypothesis has been studied in a number of languages and data sets and has accumulated enough support to be referred to as the Constant Rate Effect or CRE.

CREs provide a fresh perspective on causation in generative approaches to syntactic change: evidence of a CRE is evidence against the view (e.g. Bailey, 1973) that linguistic innovations adapt to linguistic contexts based on their functionality; instead, patterns of use observed in historical data are to be thought of as reflexes of more abstract, underlying grammatical changes (e.g. parametric changes). Despite the wealth of empirical studies that over the years have sought to establish CREs in historical data, this central intuition of Kroch (1989) has, however, never been explicated formally in a detailed model of change that takes both grammatical competition and contextual effects into account.

What is more, certain doubts have recently been raised concerning the standard way of detecting CREs in corpus data, which is to fit a number of independent logistic curves, one per each context of interest. Firstly, (1) Wallenberg (2015) and Willis (2015) show that, using this method, CREs can be empirically demonstrated in situations where they cannot be taken to support underlying grammatical unity: across languages and across geographical areas, respectively. On the other hand, (2) customary research practice in diachronic syntax has long acknowledged that fitting a number of independent logistic curves to a set of contexts leaves variation in the time dimension entirely unexplained: it would, in principle, be possible to establish a CRE across two contexts where the change goes to completion in one before it even takes off in another. Together, problems (1) and (2) imply that the standard operationalization of CREs is not sufficient for assuming that a single underlying change has occurred.

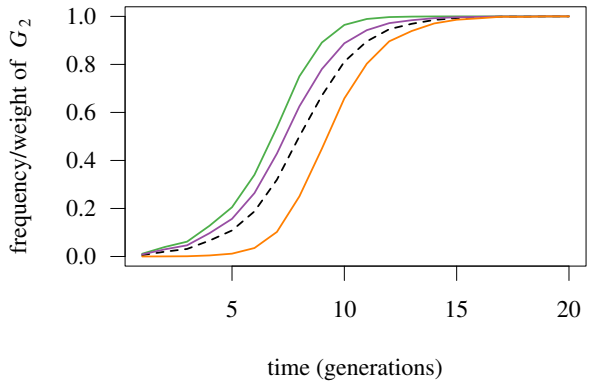

Fig. 1. CRE in a computer simulation.

In this talk, we aim to overcome these problems and to shed light on the nature of causation in language change by introducing a model of the CRE that is more tightly constrained, and therefore makes stronger (more restricted) empirical predictions than the traditional formulation. Starting with Yang's (2000) mathematical model of grammar competition, we augment the model with production biases across an arbitrary number of linguistic contexts. We show that this extension of Yang's framework naturally gives rise to the CRE in computer simulations (Fig. 1). Crucially, however, it is a theorem of the model that the time separation possible between any two contexts of one underlying grammatical change has a finite upper bound which is inversely proportional to the rate of the underlying change. This *time separation theorem* overcomes problem (2) identified above, and invites us to reconsider a number of data sets in which CREs have previously been studied using the independent logistics operationalization.

For this purpose, we introduce a novel curve-fitting algorithm based on nonlinear least squares regression. We investigate the model in the light of historical data by focussing on a number of changes for which a CRE has previously been established using the method of independent logistics, showing that the fit of our model to these data is no worse than a fit made

using the traditional method (Fig. 2). Crucially, however, our model implies a maximal time separation for each change, which we also test, finding that the empirically observed time separations fall within the range prescribed by our model.

We therefore show that a more constrained, theoretically motivated model of the CRE can fit historical data no worse than a less constrained one, and that it also generates new empirical predictions, also in line with the data, in the form of the time separation theorem. To complement these results, we investigate a number of pseudo-CREs – data sets that appear to exhibit a CRE if probed using the traditional method of independent logistics but that plausibly cannot due to unassailable *a priori* grounds (see problem (1), above). We show that here, when quantified by the residual error of the regressions, our model gives consistently worse fits than the traditional method, as desired (Fig. 2).

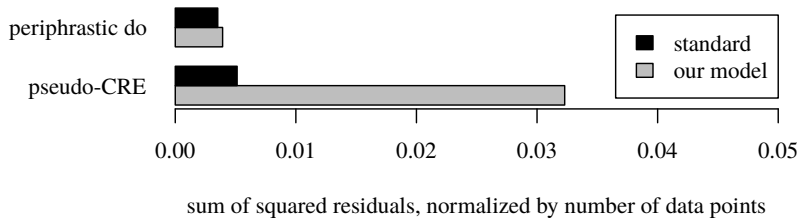

Fig. 2. Errors of fits of our model (grey) and the standard model (black) to a classical CRE, the rise of periphrastic *do* in English (Kroch, 1989), as well as to an artificially constructed pseudo-CRE.

Finally, we discuss a number of additional predictions the model makes about change in the presence of contextual biases. In brief, we show that in this extended model Yang's (2000, 239) "Fundamental Theorem of Language Change" ceases to hold, so that a difference in the weak generative capacity of two competing grammars is shown to be neither a sufficient nor a necessary condition of change on its own: the production biases induce a bifurcation in the parameter space of the model, and whether an innovatory grammatical option overtakes an older one comes to depend on a nonlinear interaction of grammar advantages (as defined in Yang, 2000) and the magnitude and direction of the production biases. Conducting a full bifurcation analysis of the two-grammar case, we work out the exact mathematical form of this dependence, and discuss its implications for the generative approach to language change (as represented by e.g. Lightfoot, 1999; Roberts, 2007) and for population-level modelling.

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Kari Kinn:

Bare singular nouns in Middle Norwegian

Old Norwegian (ON) allowed bare singular nouns (BSNs) as arguments, whereas Modern Norwegian (ModN) generally does not. Cf. the ON examples in (1), which cannot be translated into ModN without the addition of an indefinite article or a definiteness suffix:

(1) a. *Rane het* ***maðr***
Rani was.called man
'There was a man called Rani.' (The legendery saga of St. Óláfr, 218592)

b. *Dæyr nu* ***konongr***
dies now king
'Now the king dies.' (The legendery saga of St. Óláfr, 218588)

Whereas the ON and ModN facts are well established (see e.g. Dyvik 1979, Borthen 2003, Julien 2005 and Lander and Haegeman 2014), little is known about BSNs in the transitional period *between* the two language stages, i.e. Middle Norwegian (MidN) (ca. 1370–1570). The diacronic development in this understudied period may shed new light on theoretical and typological questions about BSNs and related phenomena. In this paper I will present new data from MidN, discuss some implications of the findings, and propose a syntactic analysis.[1]

I will show that BSNs are found throughout the MidN period; in other words, their loss seems to be a rather recent development. Cf. the late MidN example in (2), in which *broder son* 'nephew' refers to a particular person mentioned in the previous context:

(2) *at... Signe tager then arff allen... oc eigj broder son*
that... Signe takes that inheritance all... and not **brother son**
'that... Signe gets all of that inheritance, not the nephew.' (DN XI 708, 1562)

In terms of chronology, the diachronic development of BSNs resembles that of null arguments in Norwegian: the possibility of null arguments was also retained throughout MidN, but is lost in ModN (Kinn, 2015). This corroborates the idea of an inherent connection between the two phenomena (see e.g. Bošković 2008, Barbosa 2013 and Walkden 2014 with references).

In late MidN, the use of what appears to be a grammaticalised indefinite article (*einn*) is very common, and BSNs with indefinite interpretation seem to be restricted to certain semantic contexts,

[1]Currently, BSNs cannot be automatically searched for in any MidN corpus. I have thoroughly investigated ca. 100 charters from the *Diplomatarium Norvegicum*, available at http://www.dokpro.uio.no/dipl_norv/diplom_field_eng.html. Cited ON data are available at http://foni.uio.no:3000.

particularly when a new, named person is introduced. This situation is consitent with Crisma's (1997) proposal that no languages have free variation between presence and absence of determiners.

Interestingly, although BSNs with *definite* interpretation, like in ex. (2), are not highly frequent in late MidN, they occur in a wider range of contexts than indefinite ones. This situation is somewhat unexpected: cross-linguistically, asymmetries regarding indefinite vs. definite BSNs within individual languages tend to involve a freer distribution of the indefinite ones (Longobardi, 2001).

I will propose a syntactic analysis whereby MidN, like OldN (Lander and Haegeman, 2014), can establish definite interpretation without any (null or overt) functional category D. This accounts for the possibility of definite BSNs, and sets MidN apart from ModN, where D is obligatory (Julien, 2005).[2] Potentially, it also offers an account for the diachronic parallelism between BSNs and null arguments; the loss of both phenomena can be understood in terms of the introduction of an obligatory D-feature (see e.g. Bošković 2008 and Kinn 2015). I will adopt Julien's (2005) proposal that the indefinite article is not generated in D, but in a lower position. Therefore, the indefinite article could arise independently of the developments relating to definite BSNs and D more generally.

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[2] I assume with Julien (2005, 26ff) that the definiteness suffix in ModN is not generated in D, but obligatorily Agrees with it.

Matthew Maddox:

Grammaticalization of Reflexive *Se* From Latin to Spanish: An Object Agreement Cycle

***Se* as Verbal Morphology:** The Romance clitic *se/si* in reflexive (1), passive (2), and other related constructions has been analyzed as a functional head/verbal inflection (Cuervo 2003, Folli & Harley 2005, *a.o.*) or as a pronominal argument (Raposo & Uriagereka 1996, D'Alessandro 2007), or as both depending on the type under consideration (Kempchinsky 2006).

Spanish ➔ (1) Juan se lava.
Juan $Refl_{se}$ washes
"Juan washes himself."

(2) Se destruyeron las casas.
$Pass_{se}$ destroyed the houses
"The houses were destroyed."

In this paper I show that in Latin and Old Spanish (OS) *se* was a DP argument. In Modern Spanish (MS) *se* is a valency marker (inflection), the realization of a functional head, *v*. Following Gelderen (2011) I argue that *se*'s current status is a result of the object agreement cycle which turns objects into agreement on the verb. In MS, the reflexive object *se* has become a valency marker, which also happened in Scandinavian, as Gelderen notes. MS *se* occurs with different verbs, but it does not change the grammatical category; i.e., from verb to noun. The inability of an element to change a word's category is evidence that it is inflection (Fábregas & Scalise 2012), and thus *se* is valency inflection, the spell-out of *v* (Folli & Harley 2005). Additionally, *se* shares the properties of an inflectional affix in that only affixes may separate it from the verb. In (3a), the prefix *pre-* can intervene between *se* and the verb, but the DP *el futuro* cannot (3b.) In (4), negation may not intervene with *se*, because negation is not an affix.

(3)a. Se pre-dice el futuro.
$Pass_{se}$ predicts the future
"The future is predicted."

b. *Se el futuro pre-dice.

(4)a. Juan no se lava.
John not $Refl_{se}$ washes
"John doesn't wash himself."

b. *Juan se no lava.

The Object Agreement Cycle: Pronouns grammaticalize into agreement. Subject pronouns have become agreement in colloquial French (Lambrecht 1981), as have object pronouns in some Austronesian languages (Van den Berg 1996). The object cycle takes place in three stages (Gelderen 2011). In stage (a), the pronoun is a DP and it is the internal argument. At stage (b), the pronoun is reanalyzed from a DP to a D head via the Head Preference Principle; i.e., phrasal elements tend to be reanalyzed as heads. In stage (c), the D head is reanalyzed as a higher functional head; i.e., *v*. After this reanalysis *pro* or another DP can renew the cycle by merging as the internal argument. The change from reflexive pronoun to valency marker is a subtype of the object agreement cycle (Gelderen 2011:120). This change has also taken place in Slavic and Scandinavian languages (Cennamo 1993). My main claim in this paper is that in the case of *se*, Latin (200 BCE-500 CE) and OS (10th-15th centuries) represent stage (a), Early Modern Spanish (EMS) (16th to 17th centuries) is stage (b), and MS (18th century to present) is stage (c).

DP > D > *v* : Attrition starts in Old Latin (before 75 BCE) when *sēd* becomes Classical Latin (75 BCE to 3rd century CE) *sē* (Lindsay 1894); i.e., the final consonant dropped, vocalic quantity was retained. This is stage (a), in which *sē* is a DP in reflexives (5) and anticausatives (6).

(5) similī tālem sē vidit in aurō.
likewise such $Refl_{se}$ sees in gold
"Likewise he sees himself (to be such) in the gold."

(6) dum calor sē frangat.
while heat $AntiC_{se}$ breaks
"While the heat breaks; i.e. it cools off"

In stage (a) *sē* can be scrambled to the left, resulting in intervening material with the verb, as in (7), where it is separated from the verb *dēfenderet* by *ipse* and a PP. Since *sē* is a DP at this stage it can be modified and coordinated. In (7) it is modified by *ipse*; in (8) it is coordinated with the first-person reflexive. In MS *se* cannot be modified or coordinated because it is a head.

(7) sē ipse sine mūnītiōne dēfenderet. (8) mē et sē hīsce impedīvit!
Refl$_{se}$ very without fortification defended me and Refl$_{se}$ these shackled
"He defended his very self without fortification." "He shackled me and himself in these!"

Further attrition of *sē* occurs with loss of vocalic quantity and overt case in Late Latin (3rd to 6th centuries) and Early Romance (c. 600 - 1000) (Alkire & Rosen 2010). In OS, *se* is a DP that cliticizes to other words at PF (Rivero 1986). As with Latin *sē* in (7) above, OS *se* can be scrambled because it is still a DP. It merges as the internal argument (Fontana 1993) and may scramble to a specifier of T resulting in intervening material with the verb, as in (9) and (10).

(9) ...a que se non atreve si non...loco. (10) No hay guisa por que se esto diga.
to which Pron$_{se}$ not dares if not crazy not is fashion by which Pass$_{se}$ this say
"...which one does not risk unless crazy." "There is no way by which this is said."

OS auxiliary selection shows that *se* is an internal argument. Unaccusatives and passives, having derived subjects, select *be*. In Italian, reflexives in compound tenses also select *be*, as in (11).

(11) Mario si è accusato. (12) a tal puncto el miserable ombre es llegado
Mario Refl$_{se}$ is accused to such point the miserable man is arrived
"Mario accused himself." "The miserable man has arrived to such a point."

Thus reflexives have intransitive syntax (McGinnis 2004). In OS, unaccusatives select *be* (12), but unlike Italian, reflexives occur with *have* in compound tenses (Aranovich 2003), as in (13).

(13) pues se a descubierta esta falsedat en este engañador.
since Pass$_{se}$ has discovered this falseness in this deceiver
"...since this falseness has been discovered in this deceiver."

Thus OS *se* displays transitive syntax: the external argument is not derived and *se* is the internal argument, as is expected at stage (a). EMS is representative of stage (b), in which *se* is now a D head. Following Cardinaletti & Starke (1994) I take the inability of *se* to occur in an XP position as evidence that it is a head. In Latin (7) and OS (9) *se* can be scrambled to Spec,T (an XP position) resulting in interpolation. Crucially, interpolation does not occur after the 15th century (Chenery 1905). Thus, EMS *se* is a D head. *Se* becomes obligatory in MS, stage (c), as in (14).

(14) El hombre sabio *(se) conoce (a si mismo).
the man wise Refl$_{se}$ knows DOM self same
"The wise man knows himself."

(15) el que non conosce a si mesmo, non conoscerá a otro.
the who not knows DOM self same not will-know DOM other
"The one who does not know himself will not know another."

In (14), *se* is inflection and is not optional even with the overt DP, while in OS (15) there is no *se*, suggesting that it and the DP were previously in complementary distribution, both being arguments. The stages of the grammaticalization cycle discussed above are represented below:

(16) Stage (a), Latin/OS: [$_{TP}$ DP/pro [$_{TP}$ *se* [$_{vP}$ ~~DP/pro~~ [$_{v'}$ *quema* + *v* [$_{VP}$ ~~*se*~~ [$_{V}$ ~~*quema*~~]]; *se* = DP
Stage (b), EME: [$_{TP}$ [$_{vP}$ DP/pro [$_{v'}$ *se* + *quema* + *v* [$_{VP}$ ~~*se*~~ [$_{V}$ ~~*quema*~~]] *se* = D
Stage (c), MS: [$_{TP}$ [$_{vP}$ DP/pro [$_{v'}$ *se* [$_{VP}$ pro [$_{V}$ *quema*]] *se* = *v*

Select References: Fontana, J. M. 1993. *Phrase Structure and the Syntax of Clitics in the History of Spanish*. Diss. **Gelderen, E. 2011**. *The Linguistic Cycle*. Oxford: UP. **Rivero, M.** 1986. Parameters in the Typology of Clitics in Romance and Old Spanish. *Language* 62:774-807. **Historical Data:** (5)- Statius, *Achilleid*, 1:865; 45-96 CE. (6)-Cicero, *De Oratore* 1:265; 55 CE. (7)-Caesar, *de Bello Gallico*, 20:5; 58-49 BCE. (8)-Terence, *Phormio*, 2:4; 195-159 BCE. (9), (10), (13)-*Calila e Dimna*, Chap. 3; 1251. (12)-Enrique de Villena, *Traducción y glosas de la Eneida Libros I-III*, para. 24; 1427-1428. (15)- Anonymous, *Bocados de Oro* 66; c. 1250.

Marieke Meelen:

The origin of Middle Welsh V2 orders

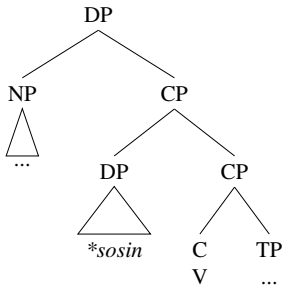
Verb-second orders are only found in the Middle Welsh period: Old and Modern Welsh mainly exhibit verb-initial patterns. In this talk I will show how the V2 orders developed by carefully reconstructing their syntactic history from earlier patterns with hanging topics and focussed cleft constructions in Old Welsh and related Celtic languages. I provide a syntactic reconstruction of the V2 structures with preverbal functional particles *a* and *y*. These C-particles played a pivotal role in relative clauses as well and can be traced back to pronominal elements in Proto-British, the predecessor of Welsh, Breton and Cornish (cf. Schrijver (1997)).

I argue that these relative particles in the C-head are the result of Spec-to-Head reanalysis of pronominal phrases and that a similar reanalysis of the adverbial phrase **ed* 'thus' yielded CVSO orders. During the next stage, the relative clauses in clefts were reanalysed as matrix clauses with V2 order and a process of rebracketing integrated hanging and dislocated topics followed by CVSO into the matrix CP with V2 order as well. These developments resulted in the extension of IS functions for the sentence-initial constituents (beyond original contrastive focus) and a generalised Edge Feature on the C-head.

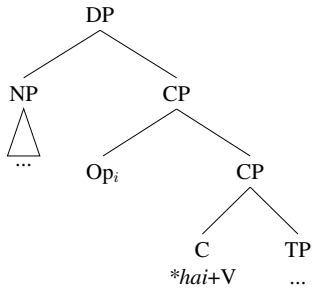
From Proto-Insular Celtic to Proto-British. The apocope leading to the loss of case endings in turn triggered the reanalysis of the pronominal XPs **sosin* 'that, which' and **ed-ed* 'it'. These phrases occupying specifiers became heads in the C-domain as shown in (1) and (2) for **sosin* > Proto-British **hai*, creating an Operator structure for relative clauses:

Stage 1 relatives ⇒ Stage 2 relatives

(1)



(2)

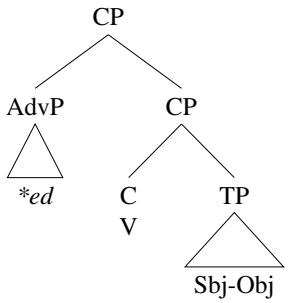


Meanwhile, Early Middle Welsh CVSO orders shown in (3) were created via Spec-to-Head reanalysis of the adverbial **ed* 'thus' > sentence-initial particle *yd*, as shown in (4) and (5).

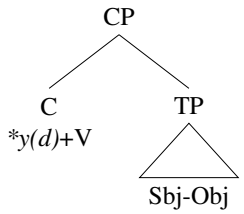
(3) *Yd af i yn agel.*
PRT go.1S I PRED angel
'I shall go as an angel.' (WM 118.27)

Stage 1 Adv VSO ⇒ Stage 2 CVSO

(4)



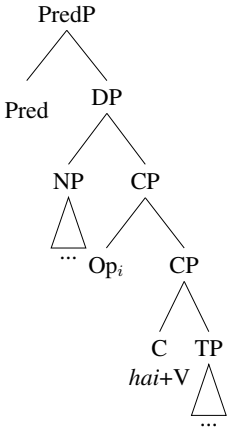
(5)



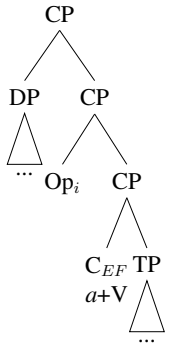
From Proto-British to Middle Welsh. During this stage the phonological erosion of the sentence-initial copula *ys* 'is' gave rise to the so-called Mixed Sentence, a V2 structure with a relative marker in the C-head carrying an Edge Feature (EF) ensuring its specifier to be occupied at all times. Eventually, the Operator was lost with the relative interpretation and the IS functions of the sentence-initial constituents were extended, yielding generalised V2 in Middle Welsh main clauses.

Cleft Sentence (relative) ⇒ Mixed Sentence (V2 matrix)

(6)



(7)



With the new EF on the C-head, clause-initial adjuncts such as hanging topics could now be reanalysed occupying the specifier position of the CP: Adj, CVSO > Adj*y*VSO (V2). Schematically, this rebracketing looked like (8) resulting in examples with sentence-initial adjuncts functioning as frame-setting topics followed by the particle *y*, as shown in (9).

(8) [$_{CP}$ PP/AdvP [$_{CP}$ *y* + V [$_{TP}$ ...]]] > [$_{CP}$ PP/AdvP *y* + V [$_{TP}$ ...]]

(9) *A thrannoeth y talwyt y ueirych idaw.*
and next.day PRT pay.IMPERS.PAST 3MS horses to.3MS
'And on the next day his horses were paid to him.' (PKM 34.23)

Finally, I will show how through careful comparison of each of the diachronic stages of the developments in Welsh, we can design a tentative feature hierarchy combining phi-probes and Edge Features rendering different types of word orders cross-linguistically. Middle Welsh shares some crucial developments in the rise of V2 with Early Romance (cf. Wolfe (2015)): most notably the reanalysis of XP-VSO to Fin-V2 via the generalisation from a wide range of information-structural features to a single phi-probe. Welsh crucially differs from for example Later Old French, however, in various aspects as well. With respect to their origin in particular, Middle Welsh V2 patterns obligatorily depend on the preverbal particles *a* < *hai* < **sosin* and *y* < **ed* that came to occupy the C-head carrying a phi-probe and an Edge Feature for generalised IS functions.

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Moreno Mitrović:

THE GREAT QUANTIFIER SHIFT

AIM & OUTLINE The paper reports a large-scale inter-genetic diachronic study of quantificational particles in Indo-European (IE) and Japonic (JP), with minor reference to Archaic Chinese (AC), thus making a case for diachronic typology of syntactic-semantic unidirectional patterns of change in the domain of quantifier particles.

THESIS IN A NUTSHELL It is demonstrated that the polarity-sensitivity in both IE and JP were not grammaticised at their earliest (respective) stages but, rather, that the polarity system was grammaticalised from a universal quantification strategy. The rise of existential polarity sensitivity from the universal quantifier is dubbed 'quantifier shift' (QS).

THEORETICAL BACKGROUND It is has been well investigated by Szabolcsi (2013), and Kratzer and Shimoyama (2002), among many others, that many languages, including the vast majority of ancient IE languages and Japonic, constructs universal ('every') and polar-sensitive ('any') terms by combining a *wh*-word and a designated quantifier particle, which we label μ.

INDO-EUROPEAN We demonstrate that a QS took place in early Indo-European (IE) with regards to the interpretation of the expression containing an indefinite *wh*-word and a conjunctive particle like **kwe*, which we take to be an incarnation of μ. There existed two interpretations for the indefinite-particle expression: polar ('any') and universal quantificational ('every'). and, consequently, two groups of IE languages: the universal group with Hittite ('kuišš-**a**$_\mu$), Celtic ('ca-**ch**$_\mu$), Tocharian ('ket-**ra**$_\mu$), Germanic ('hvaz-**uh**$_\mu$) and Latin ('quis-**que**$_\mu$), on the one hand, and the polar group with the rest of the IE families on the other (e.g., Indo-Ir. 'kaś-**ca**$_\mu$, etc.). Not only has this split not been recognised by previous literature, consequently no theorisation on the original semantic form of the expression has been made. Using comparative diachrony, we compare and time the IE quantificational split in light of the evidence from Japonic and conclude that universal form was original and that the first (universal) group of languages is thus more archaic and retentive. Using Chierchia's (2013) model of 'grammaticised implicatures', we will relegate the semantic change from the universal to polar expression to featural semantic change. A phylogenetic model of Ringe et al. (2002) will be shown to corroborate the QS in IE.

JAPONONIC In Old Japanese (OJ; c. 8th CE), the [*wh*+μ] quantificational expressions were confined to inherently scalar (σ) complements, including scalar *wh*-terms (e.g. how-many/when), as Whitman (2009) first noticed. Scalar [*wh*+μ] constructions are analysed as universals since they give rise to a scalar implicature (SI) under negation (in (1), 'not all nights' ⇝ 'few days')

(1) 相見而者 [幾 日 毛] 不経乎
apimi-te-pa [iku ka **mo**] pe-**nu**-wo
meet-CONJ-TOP [how.many day μ] pass-NEG-CONJ
'Though **few** days have passed since we met, ...'
(MYS 4.751, ll. 1–2)

(2) [以都母] 々々々 於母加] 古比 須々
[itu-**mo**] itu-**mo** omo-ga kwopi susu
when-μ when-μ mother-GEN yearning by
'[My] mother **always**, **always** longs for [me].' (MYS, 20.4386; trans. Vovin 2013)

TAB. 1 *Distribution of ±scalar μ-hosts in OJ*

	# of attestations
scalar [*wh*+μ]	total **19**
itu mo '**when** μ'	**11**
iku mo '**how much/many** μ'	**8**
non-scalar [*wh*+μ]	total **0**
ado/na/nado mo '**what/why** μ'	**0**
ika mo '**how** μ'	**0**
ta mo '**who** μ'	**0**

Given the confinement to scalar *wh*-hosts, OJ μ^0 is selectionally restricted to complements with interpretable σ-features. The restriction to scalar *wh*-complements declines in the beginning of the EMJ period and non-scalar *wh*-complements enter the structure.

(3) いまは　なにの　　心　　も　なし
ima fa **nani**-no kokoro **mo** **na**-si
now TOP **what**-GEN idea μ NEG-FIN
'I do not have **any thoughts** [but of meeting you] now' (IM XCVI: 168.9; Vovin 2003: 424)

The μ particle becomes underspecified for $[\sigma, D]$ feature complex but retains the conditions that its feature specifications cannot be $[-\sigma, -D]$ as is the case with words like *any* in English or *irgend-* in German (Chierchia 2013, *int. al.*). This lexical σ-underspecification allows for μ^0 to inherit the $[\delta]$-feature from its complement and, as the system of Chierchia (2013) predicts, polarity inferences under negation are licensed.

ANALYSIS The synchronic and diachronic analysis of $[wh{+}\mu]$ quantification in Japanese rests on Chierchia's (2013) system of grammaticised scalar implicatures, where scalar (σ) and non-scalar (δ) alternatives are lexically grounded and represented as features (σ, δ). The system also assumes a covert exhaustification operator $\mathfrak{X}$ which affirms the prejacent and negates all the alternatives that are not entailed. $\mathfrak{X}$'s domain restriction of exhaustification (σA, δA) is provided via Agree by the syntactic object carrying $[\sigma, D]$ features (*wh*-terms in (1) and (2)).

(4) a. Obligatory SIs (under negation):
$[\![[\text{NEG}\ [_{\mu P_1}\ wh\text{-stem}_{[i\sigma]}\ \mu^0_{[u\sigma]}\ ]]]\!] =$
$\mathfrak{X}_{[\sigma\mathfrak{A}]}\big[\neg[\ldots[_{\mu P}\ \ \exists_{[+\sigma]}\ \ \mu]]\big]$
$\rightsquigarrow$ SI = $\neg > \forall \vdash \neg\forall$

b. Rise of NPIs (under negation):
$[\![[\text{NEG}\ [_{\mu P_1}\ wh\text{-stem}_{[i\delta]}\ \mu^0_{[uF:\_]}\ ]]]\!] =$
$\mathfrak{X}_{[D\mathfrak{A}]}\big[\neg[\ldots[_{\mu P}\ \ \exists_{[+\delta]}\ \ \mu]]\big]$
$\rightsquigarrow$ NPI = $\forall > \neg \vdash \neg\exists$

The analysis thus provides an explanation for the rise of polarity sensitivity in EMJ that obtained by virtue of loss of restriction to scalar complementation.

PREDICTIONS & OUTLOOK Given the factuality of the QS as attested by IE and JP, the paper puts forth a conjecture that the QS is a diachronic universal pathway of change. Preliminary investigations of Archaic Chinese will be show to support this conjecture.

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Susan Pintzuk and Aaron Ecay:

The dating of *Beowulf* revisited: investigating the syntax of Old English poetry

The epic poem *Beowulf* is one of the best known extant Old English (OE) texts. Nevertheless, despite more than a century of scholarly debate, there is no absolute agreement on when it was composed. Diverse types of evidence – archaeological, anthropological, and linguistic – support various dates of composition throughout the OE period between the seventh and the early eleventh centuries (see Neidorf 2014 for an overview). There is a growing consensus among scholars (e.g. Fulk 2014, Lapidge 2000), however, that non-syntactic evidence points to an early date for the poem. Linguistic contributions to this debate have primarily focused on the poem's meter and phonology. Although some grammatical criteria have been developed for dating (Amos 1980), they are not grounded within current generative syntactic frameworks but rather based upon word order and the selection of lexical items that do not necessarily reflect syntactic distinctions. The lack of formal syntactic criteria is not surprising, for at least four reasons: first, much of the work on dating criteria was carried out before linguists started to investigate the formal syntax of OE. Second, most syntacticians do not attempt to analyse the language of poetry, since it may be influenced by poetic constraints and thus add an extra layer of difficulty to the investigation. Third, it is only within the last three decades that we have accumulated sufficient knowledge of the syntax of OE prose and the quantitative patterns of syntactic variation and change during the OE period to enable us to start to analyse the poetry. And finally, linguists working before the release of two annotated corpora – the York-Helsinki Parsed Corpus of Old English Poetry in 2002 and the York-Toronto-Helsinki Parsed Corpus of Old English Prose in 2003 – were not able to collect and quantitatively analyse OE data quickly and easily. In the research presented in this talk, we attempt to remedy the lack of syntactic dating criteria by adapting the method of dating texts developed by Zimmermann 2014. We will show that the syntactic evidence supports a date very early in the OE period for the language of *Beowulf*.

Diachronic syntactic research over the past 50 years has established that most syntactic change occurs gradually, over the course of decades or centuries (Bailey 1973, Kroch 1989, Weinreich etal. 1968, a.o.). The gradual progression of change can be tracked quantitatively and provides the basis for Zimmermann's three-step method. First, for any particular syntactic change in progress, the frequency of innovative and conservative variants is measured in texts with known dates of composition. In doing so, a steady chronological progression can be observed, with the innovative variant gradually increasing in frequency at the expense of the conservative one and eventually replacing it entirely. Second, the same variants in the undated text are measured. Third, the frequency for the undated text is located on the progression line. Statistical methodology can be used to integrate the information from several disparate observed changes into a single estimate of the text's date of composition. The fourteen criteria used by Zimmermann to date prose texts measure word order reflexes of the following seven changes: 1) the change from head-final to head-initial IP structure; 2) the change from head-final to head-initial VP structure; 3) the loss of pronominal object scrambling; 4) the emergence of the canonical subject position; 5) the loss of V to C movement; 6) the loss of post-nominal Saxon genitives; 7) the change in relative clause introducers from an inflected form of the demonstrative to an invariant particle.

In this initial study applying Zimmermann's method to the dating of *Beowulf*, we specify that each quantitative syntactic criterion must meet the following conditions: 1) The value of the criterion shows a coherent change in prose texts over the Old English period; 2) there are enough data in *Beowulf* to evaluate the criterion; 3) *Beowulf*'s value falls within a plausible interval, based on the prose texts; and 4) the criterion does not systematically differ between poetic and prose texts. Only three of Zimmermann's fourteen criteria fulfill these four conditions: those that measure the position of the finite lexical verb (a reflex of head-

initial vs. head-final IP structure), the position of genitive phrases within DPs (a reflex of the loss of post-nominal Saxon genitives) and the change in relative clause introducers. For these three criteria, the frequencies for *Beowulf* are positioned earlier than the earliest prose texts but in line with the gradual progression of innovative forms, confirming our hypothesis that the language of *Beowulf* is from the earliest stage of Old English.

One interesting result from this study was not anticipated at the outset: the criteria that violate condition 3 may also be those that violate condition 4. In other words, violation of condition 3 is due to systematic syntactic differences between OE prose and poetry and in fact can be used to predict these differences. This is most obvious for the syntax of pronouns. The five criteria that measured the behaviour of pronouns in *Beowulf* all violated condition 3, and it is obvious that the syntax of pronouns in the prose is different from the poetry. Pronouns in OE frequently move leftward from their original position adjacent to the main verb, scrambling or cliticising to a position at or near the left periphery of the clause. In prose texts, their surface position differs in main and subordinate clauses: in main clauses, they occur between the topic and the verb (1a); in subordinate clauses, they appear either immediately after the subordinator (1b), or between the subject and the verb (1c). In contrast, in OE poetry pronouns normally appear in initial position in both clause types (2a-b). Future research will demonstrate whether conditions 3 and 4 are necessarily linked in this way.

(1) a. Se halga papa Gregorius **<u>us</u>** onwreah þa digelnysse þisre rædinge
The holy pope Gregory us reveals the mystery of-this passage
'The holy pope Gregory reveals to us the mystery of this passage'
(cocathom1,+ACHom_I,_23:366.29.4556)

b. ða þa **<u>hi</u>** God gesceop (coaelive,+ALS_[Christmas]:30.22)
when them God created
'… when God created them'

c. þæt se lifigenda Godes Sunu **<u>hie</u>** hæfde gesoht
that the living God's Son them had sought
'… that the living Son of God had sought them'
(coblick,HomU_18_[BlHom_1]:11.161.140)

(2) a. **<u>hie</u>** wyrd forsweop on Grendles gryre (cobeowul,16.476.400)
them fate swept into Grendel's terror
'fate swept them into Grendel's terror'

b. ðær **<u>him</u>** foldwegas fægere þuhton cystum cuðe (cobeowul,28.864.733)
where them trails fair seemed excellence well-known
'… where the trails seemed fair to them, well-known for their excellence'

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Cecilia Poletto:

The relative cycle: how Grammaticalization (does not) work

In this work I intend to make two general points concerning linguistic change: a) the first is that not all cases of cycles have to be analyzed in terms of progressive erosion of syntactic structure (i.e. from complex elements to heads) as a consequence of economy principles (like for instance in van Gelderen (2011)) b) the second has to do with the possibility of realizing a lower projection instead of a higher one. The empirical domain I will concentrate on is the development of relativizers in restrictive and appositive relative clauses, which can be described through a grammaticalization cycle with the following steps:

(1) 1.demonstrative/indefinite pronoun --> 2.wh-item --> 3. agreeing complementizer --> 4.complementizer --> 4.demonstrative+complementizer --> 5.demonstrative/indefinite

It is well known that there are languages that use a demonstrative form for the relativizer (for instance German), while the standard Romance languages are generally at stage 3. What is more interesting is that within Romance, it is possible to find also cases of demonstratives used as relativizers. If we take into account Southern as well as Northern Italian dialects (including Rhaeto-romance) we find varieties at every step of the cycle, although the majority of them is nowadays at stage 4. On the account that dialectal and diachronic variations are two sides of the same coin, this seems to be a typical case of development which starts out like a complex element (the relative pronoun) that is then reduced to a head (the complementizer) and must then be again doubled in a way similar to the one of the famous Jespersen cycle for negation before turning back to the initial stage. However, I will show that there are good reasons to assume that (as Kayne (2010) proposes) the complementizer of relative clauses is not a complementizer at all. I will argue that there is no reason to distinguish between *quale*- 'which' type of relative clauses, generally analyzed as containing a pronoun, and *che*-'that' type of relative clauses, generally analyzed as instantiating only a C° head. The reasons why *che* cannot be analyzed as a complementizer in relative clauses is that it does not always display the typical properties standardly assumed for complementizers (i.e. no agreement, no case sensitivity and no co-occorrence with a preposition), but those of a relative pronoun. Data showing the pronominal behavior of the complementizer are provided by Old Piedmontese and Old Ligurian data where the complementizer agrees with the extracted subject in animacy (or gender depending on the variety) and case, which is the typical behavior of a pronominal element, while complementizers do not agree:

(1) *questa femena **chi** m' à spanyunto questo inguento adosso*
this:fem woman **REL** to_me has spread this unguent on_me
'This woman that spread this unguent on me.' (Passione, 28)

(2) *questa città **que** avea num Iherico*
this city **REL** had name Gericho
'This city that was named Gericho […].' (Sermoni Subalpini 9, 246, 12-13)

The opposite data, i.e. a form like *quale* typically considered to be a pronoun which however behaves like a complementizer, i.e. it is invariable, also exist in Old Neapolitan:

(3) *glora de Iesu Christo et dela Vergene matre,* ***li quale*** *illumenenno lu intellectu*
glory of Jesus Christ and of.the Virgin mother, the: PL.M **REL** bright the mind
'Glory of Jesus Christ and of the Virgin Mother, who bright the mind'
(SDM 65.14-16)

Since the dichotomy between relative pronouns and complementizers has no reason to exist, I will argue that both *qual-* and *che-* type of relativizers are merged as part of the nominal expression internal to the relative clause, just like it happens in interrogative clauses with *che N* and *quale N*. In other word, the *che* form is actually part of the internal head on the relative clause, so that the derivation of relative clauses starts out as [che N] just like interrogative clauses. The ordering [N che] is derived by subsequent movement of the N due to the specific structure of relative clauses already proposed in Kayne (1994). A strong argument to show that interrogative and relative XPs start out with the same internal structure is provided by the fact that across dialects, those varieties that have *quale N* in interrogatives also display it in relatives and vice-versa, while those that only have *che N* in relative clauses also have in interrogative clauses (and vice-versa). Basing on Cinque (2013), Poletto and Sanfelici (2014), I will show that it is possible to explain what looks like the relative cycle simply by assuming that languages can differ with respect to the type of specifier the relative head can take. This means that the relative cycle does not work according to economy principles turning specifiers into heads. The distinction between different types of relativizers simply depends on the number of agreement feature they spell out, which in turn is related to the position of the specifier in the DP structure: elements located in SpecD like demonstratives fully agree with the noun. Elements like che or quale are wh-determiners and their agreement pattern will be handled with in terms of complex specifiers.

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Afra Pujol I Campeny

V1 in Old Catalan

Overview & Goals: In this paper, I present an analysis of V1 orders in Old Catalan, focusing mainly on their occurrence with existential clauses, unaccusative predicates, and *verba dicendi*. By examining both pro-drop and non-prodrop V1 clauses, I propose that Old Catalan EPP was not only satisfied by **(i)** the movement of nominal or pronominal DPs to SpecTP or **(ii)** agreement (see Alexiadou & Anagnostopoulou (1998)), but also by **(iii)** locative-like elements (clitic or otherwise), as suggested by Sifaki (2003) for Modern Greek and Sheehan (2010, 2016) for Modern Spanish (MSp) and European Portuguese along the lines of Zubizarreta (1998) who argued that (at least some) VSO sequences can only be rendered felicitous by the presence of a preverbal XP in MSp; and **(iv)** null operators.

The data: The evidence is drawn from a 1000 main clause database, extracted from *El Llibre dels Feyts del Rey en Jaume* (henceforth *LFRJ*), a 13th century historiographic work in prose. Clauses have been analysed taking into account three aspects: (i) linear verb position, (ii) the pro-drop parameter, and in case of presence of overt subject, subject position (namely preverbal or postverbal), and (iii) predicate type. The data – see Table 1– shows that within V1 clauses in Old Catalan, there is an overwhelming prevalence of unaccusative and *verba dicendi* predicates in non-pro-drop V1 clauses – see Table 2:

V1	V2	V3
47.4% (474/1000)	43.8% (438/1000)	8.8% (88/1000)

Table 1: Verb position in main clauses from *LFRJ*

Type of Predicate	Linear order					
	V $SP_{Subject}$	VXP $SP_{Subject}$	V $DP_{Subject}$	VXP $DP_{Subject}$	VXPXP $DP_{Subject}$	Total
Unaccusative	**1**	**1**	**24**	**7**	**1**	**34**
Dicendi	**17**	**-**	**21**	**-**	**-**	**38**
Transitive	-	-	11	2	-	13
Other	3	-	11	4	1	2
Total	21	1	67	14	2	105

Table 2: Predicate Types in main V1 Clauses with Overt Subjects

Analysis: In both (1-2), we note the presence of coordinating conjunction *e* "and" and a postverbal subject. It has been suggested that the presence of *e* renders these clauses dubious cases of V1 and should rather be captured as V2 (Vance (1993), Wolfe (2015)).

1. E **dixem** nós: "Con la vila tenen éls?" OCat
*And We **said**: "What? They have taken the village?"*

2. E **fo**-hi Fferran Sànxeç de Castre e N'Artal de Luna (…). OCat
*And Ferran Sànxeç de Castre and Sir Artal de Luna **came** there*.

However, in the case of Old Catalan, the presence of *e* (i) does not necessarily trigger subject-verb inversion (3), which would be expected if V2 was at works (and crucially no argument for *e* being extra-clausal can be plausibly made); and (ii) it does not trigger proclisis either (4) (as expected with other overt preverbal constituents). Therefore, I treat *these cases as genuine V1 instances*.

3. E **En Guillem de Montpestler** hac d'aquela dona una filha de nom Maria.
And Guillem de Montpestler had a daughter called Maria from that woman.

4. (…) e portaren-**nos** en braces.
And they carried Us in their arms.

I argue that the presence of *e*, in contrast with other V1 clauses where it is absent, marks discourse topic continuity and can check the EPP. Moreover, it has been suggested by various authors that the frequency of postverbal subjects with *verba dicendi* can be

explained by postulating the presence of a null element, a "narrative operator", in the left edge triggering inversion. Similarly, for unaccusatives, their tendency to have postverbal subjects has been argued to respond to their non-agent nature. Furthermore, Petrova & Hinterhölzl (2010), propose that both *verba dicenci* and unaccusative verbs tend to appear in V1 configurations because they push the narration forward, while V2 clauses tend to elaborate on previously introduced discourse topics. However, this hypothesis leaves unexplained how EPP might be checked in such configurations. Along the lines of Sheehan (2006; 2010; 2015) for modern Romance languages, I propose that EPP in Old Catalan might be checked by a locative-like element which **(i)** is null in the case of *verba dicendi* predicates, **(ii)** may be null or overly realised by a locative in the case of unaccusatives, but **(iii)** overt in the case of existential predicates. Consider for instance, (5) and (6):

5. [$_{PP\text{-}LOC}$ D'aquí avant$_i$] no hi$_i$ hauria restaurament (…) OCat
And from here onwards there would not be no rest (…)

6. E [$_{PP\text{-}LOC}$ dins la vila] havia bé ·cl· cavalers (…) OCat
And in that village, there were at least 60 knights.

In (5), we can see the co-occurence of a PP and the clitic *hi*, while in (6), *hi* is dispensed with due to the presence of the overt locative. Furthermore, the existential predicate agrees only in person and not in number with the predicate *existed.* The crucial difference between OCat (6) and its MCat counterparts is that in (7) and (8), the clitic has been grammaticalised with the verb *haver* "to have", and thus the presence of a locative is no longer required for the sentence to converge, but it is rather facultative, since the clitic already fulfils its function: to check EPP (at least in Standard and North Western Catalan varieties).

7. I [$_{PP\text{-}LOC}$ dins del poble] [$_{CL\text{-}LOC}$ **hi**] havia almenys 60 cavallers. MCat
And in that village, there were at least 60 knights.

8. [$_{CL\text{-}LOC}$ Hi] havia almenys 60 cavallers. MCat
And in that village, there were at least 60 knights.

If that is the case and locatives can check the EPP in some Romance languages (as suggested by Pinto 1998 for Italian, Sitaridou (2003) for Old French, Sheehan (2010; 2015) for Spanish and Portuguese, and Sifaki (2003) for Greek), it can also be assumed that the EPP in *verba dicendi* can be checked by a null element at the left edge which is a discourse-anchored operator thus there is no need for the subject to raise hence the postverbal subjects. Moreover, on this analysis, it follows that linear V1 orders with "e", at least in OCat, are genuine V1, not derived by the raising of the verb to CP, followed by the movement of an XP to the Spec-CP, but rather that postverbal subjects are possible due to *e* checking EPP (among other functions).

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Alexandra Simonenko, Benoit Crabbé and Sophie Prévost:

Taraldsen's Generalisation in Medieval French

1. This paper examines quantitative and structural relations between the richness of verbal subject agreement and the availability of null subjects, known as Taraldsen's Generalisation ([17], [14], [1]), from the point of view of grammar change in Medieval French (MF) based on corpus data. The original generalisation is stated as a categorical implication, namely, that a language having rich subject agreement implies the possibility of non-expression of subjects, where richness can be taken to equal a morphologically distinct ending for each person ([15]). Structural accounts of null subjects commonly involve as a key ingredient a functional head hosting the verb and specified with person features, which, depending on the approach, either enters into a feature identification relations with a *pro* or, if no *pro* is postulated, itself serves to fill the verb's subject argument slot ([16] for an overview). Semantically, null subjects have been conceived of as minimal pronouns, in the sense of [5], which need to acquire ϕ-features from the verbal head which binds them (e.g. [2]). In this optics, the loss of rich agreement and null subjects can be naturally modelled in Kroch's (1989) fashion as a competition between an old grammar with a verbal head specified for person features and a new grammar without such head. Such a scenario (e.g. implicit in [9]), however, was questioned for MF on empirical grounds. [15] rejects a direct connection between the two phenomena because of an apparent temporal lag: he dates the total loss of the rich agreement in MF by the XII c. (based on an extrapolation from written to oral data in [4]) and the completion of the loss of null subjects by the XVI c. According to [3] and [11], however, phonological restructuring of the verbal endings was underway throughout MF.

As an empirical contribution, this paper presents the first, to our knowledge, quantitative measure of the loss of rich subject agreement in MF. Second, it compares logistic regression models of agreement syncretisation and the disappearance of null subjects and shows that the two changes proceeded at the same rate. On the Constant Rate Hypothesis of [6] which states that a grammatical change has the same rate in different contexts, our results support approaches that view rich agreement and null subjects as two manifestations of the same grammar. We associate such grammar with the presence of a verbal functional head specified with person features which identify a *pro*.

2. Descriptively, the main changes in the verbal agreement are as in the table below.[1] For the verbs of the traditional I group (-*er* infinitives) 1P and 3P syncretise in present tense indicative and subjunctive (-*e*); for the II group (other infinitival types, excluding idiosyncratic *être* "be" and *avoir* "have") 1P and 2P syncretise in present and past tense indicative (-*s*).

	I group pres. ind.	I group pres. subj.	II group pres. ind.	II group pst. ind.
1P	aim > aim**e** "love"	aim > aim**e**	voi > voi**s** "see"	vi > vi**s**
2P	aimes	ains > aimes	voi**s**	vi**s**
3P	amet > aim**e**	aint > aim**e**	voit	vit

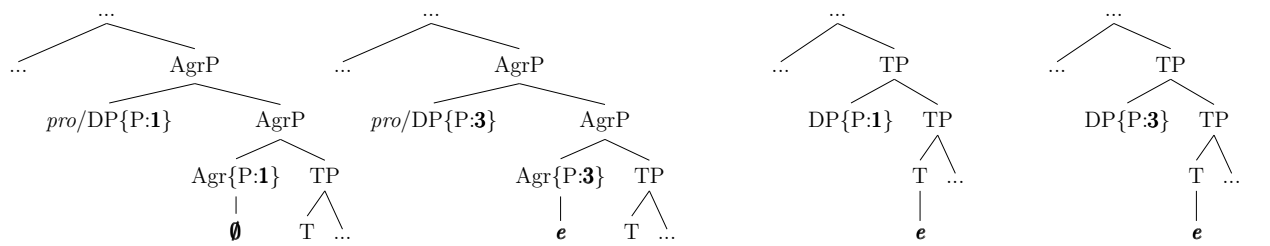
Analyses of these changes in the literature invoke some type of analogy as a driving force: either induced by other forms in the paradigm or by the verbs whose stems etymologically end in -*e* or in -*s* (see [11] for a discussion). We assume that the analogical spread of -*e* and -*s* leads to the reanalysis of the structure as not having a functional head specified with person features. Specifically, we model the change as a passage from Grammar A, which involves a person feature-specified head Agr that spells out all persons distinctly, (1a)–(1b), to grammar B without Agr, where verbal endings correspond to the spellout of head T not fully discriminating persons, (1c)–(1d).[2]

3. It is well attested that MF underwent a change from (at least a partial) pro-drop to an obligatory subject language ([18], [15], [19], [13]). In our model, only Grammar A has a person feature specified head Agr which can identify a *pro*, and therefore Grammar B "winning" over Grammar A implies that null subjects gradually become unavailable.

That is, on our analysis the two surface phenomena, syncretisation of endings and the loss of null subjects, are viewed as two contexts of the same underlying change in the abstract grammar, the disappearance of Agr. Underlyingly, therefore, the two changes can be reduced to the evolution of a binary variable A/B. We are then in a position to test our model using the Constant Rate

[1] Final -*s* and -*t* end up largely unpronounced by the end of MF, a development which cannot be directly quantified in written sources, [11].

[2] For the sake of presentation clarity we abstract away from verbal movements through functional heads. We also stay non-committal as to whether the position of *pro* should be SpecAgrP or SpecTP.



(a) Grammar A (b) Grammar A (c) Grammar B (d) Grammar B

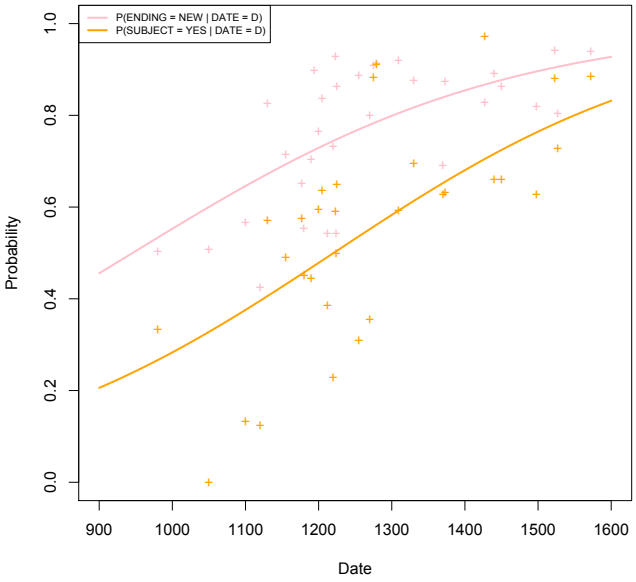
Hypothesis (CRH) of Kroch (1989) (and subsequent work) which states that the rate of replacement of one grammar by its alternative is the same across contexts, where rate corresponds to the slope parameter of the logistic regression curve. In terms of surface observations, the loss of null subjects is expected to proceed at the same rate as the loss of the "old" set of endings.

Our quantitative evaluations are based on data coming from [10] and [12] (treebanks of tagged and parsed French texts from X to XVIII cc., ≈ 1 mln words). In order to establish a temporal profile of the surface changes, we calculated the proportion of "new" endings (-*e* for 1P & 3P I group and -*s* for 1P II group) to the sum of new and "old" endings (zero and -*t* for 1P & 3P I group and zero for 1P II group) for each text in the corpus. (In order to be able to identify subject's person, we had to limit ourselves to clauses with overt nominal or pronominal subjects.) We fitted these data to a logistic regression model plotted on Fig. 1. The model $P(\textsc{Ending} = new|\textsc{Date} = d) = \frac{e^{\alpha+\beta*Date}}{1+e^{\alpha+\beta*Date}}$ has α=−5.141 and β=**0.004**.

We model the loss of null subjects using logistic regression on a sample of finite clauses with either an overt pronominal or null subject (total of 87,969), excluding relative, imperative, and wh-question clauses because of their idiosyncratic subject syntax, as well as cases of subject ellipsis under coordination, still permissible in Modern French. Our model $P(\textsc{Subject} = yes|\textsc{Date} = d) = \frac{e^{\alpha+\beta*Date}}{1+e^{\alpha+\beta*Date}}$ has α=−3.683 and β=**0.004**, where SUBJECT takes value *yes* if a clause contains an overt pronominal subject and *no* if it does not.

The slope parameters of the models turn out to be identical (0.004), which, given our assumptions and CRT, lends support to the analysis of null subject and rich agreement loss as stemming from the same grammatical change.

Figure 1. Syncretisation of endings and null subject loss



4. To conclude, we propose a model of grammar change which relates a morphologic and a syntactic phenomena as surface reflexes of the presence of person feature-specified Agr head, whose disappearance from the structure leads to the demise both of rich agreement and of null subjects. We provide quantitative support for the model building upon CRH and showing that, crucially, the two changes happen at exactly the same rate. Structurally, this proposal echoes those of [8] and [7], who attribute a range of syntactic changes in MF to the disappearance of a V-attracting functional head above T.

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Ioanna Sitaridou:
Word Order in Old Spanish: V2 or non-V2?

Recently, it has been argued that Old Ibero-Romance shows structures, which are not compatible with a verb-second (V2) grammar even of the most flexible type (see Kaiser 2002, Martins 2002, Fiéis 2003, Rinke 2007, Martins, Cardoso and Pereira 2015 for Old Portuguese; Eide 2006 for Classical Portuguese; Rinke and Sitaridou 2004, Sitaridou 2012 for Old Romance; Sitaridou 2011, 2015 for Old Spanish). In the talk, I set out to search for unambiguous micro-cues for V2 (in the sense of Westergaard 2008) in Old Spanish (see also Batllori and Sitaridou in prep.). Concluding against the V2 status of Old Spanish, the clue then to understand word order is by rethinking that previously thought V2 structures are merely linear/superficial (S)OV orders due to (a) the fact that most texts are based on Latin translations; or (b) discourse requirements. Hence, linear V2 is epiphenomenal to information structure (Sitaridou 2011, 2012, 2015, Eide and Sitaridou 2014).

Achim Stein, Carola Trips and Richard Ingham:

The role of French in the rise of the recipient passive in Middle English: can structural Case be borrowed?

This paper investigates the rise of the indirect or, following Allen (1995), the recipient passive (RP) in English which emerged in the fourteenth century. On the basis of data from the York-Helsinki Parsed Corpus of Early English Correspondence (PCEEC) we will show that it emerged first with ditransitive French verbs. The frequency of occurrence of RP with the French loan verbs *pay, promise, offer, allow, deny, serve, fine* is 11.4%, but only 0.13% with the native verbs *send, give, tell, show*.

The puzzling fact that Old French (OF) did not have the RP excludes an explanation relying on simple grammatical replication (Heine and Kuteva, 2005) and calls for a more theoretical account. Under the assumption that dative is a mixed case that cross-linguistically surfaces in the form of either lexical, inherent or structural Case (cf. e.g. Zaenen and Maling, 1990, Harley, 1995, Webelhuth, 1995, Woolford, 2006, Alexiadou et al., 2014) we will explain this hitherto unnoticed observation by suggesting that a new type of 'dative' was borrowed from French which should be analysed as structural Case. In more theoretical terms, we will claim that since this 'French loan dative' is subject to the DAT-NOM alternation, in contrast to the Old English (OE) dative(s), it is best interpreted as an instance of structural dative case, which was normally expressed by PPs with *a* governing an oblique DP in OF. This led to a system in Middle English (ME) where the residues of the OE lexical/inherent dative co-existed with the French structural 'dative'.

In the following, we provide empirical facts to support our assumptions. First, Present-Day English (PDE) has the following passives with ditransitive verbs:

(1) a. Presents were given to Mary (by Tom). — direct passive
b. Mary was given presents (by Tom). — recipient (indirect) passive

The RP shows that DAT-NOM alternation takes place in PDE, and the indirect object ('dative') qualifies as structural Case.

In OE the RP did not exist, instead there were two possibilities in ditransitives to express the passive (see the schematic representations in (2)): i) impersonal passives where morphological case marking was retained and the finite verb occurred in the third person singular (2a), ii) the direct passive where the direct (accusative) object of the active was promoted to the subject position and occurred in the nominative (2c), and the options where in these constructions the indirect (dative) object was fronted to the first position (2b/d):

(2) a. Presents (obj-ACC) was given her (obj-DAT). — impersonal
b. Her (obj-DAT) was given presents (obj-ACC). — impersonal
c. Presents (subj-NOM) were given her (obj-DAT). — direct
d. Her (obj-DAT) were given presents (subj-NOM). — direct
(see also Denison 1993: 104)

In both cases the dative argument could be fronted retaining its case marking, which is an indicator of lexical or inherent Case. In OE the *to*-dative construction already existed (cf. de Cuypere, 2014) but passivisation of active sentences with these datives never led to the DAT-NOM alternation (see also Allen, 1995) so they cannot be taken to be structural.

As is well known, in ME, a large amount of lexical items were borrowed from OF, including many verbs of actual or future change of possession and transfer of communication. Furthermore, we have shown in a pilot study that the semantic and syntactic structure of OF experiencer verbs like *plaire* (ME *please*) were borrowed into English. Concerning case, OF distinguished two morphologically marked cases: nominative and oblique. The former Latin dative was normally expressed by PPs with *a* governing an oblique DP. The datives of OF ditransitive verbs that were borrowed into English and express the RP

are instances of structural Case. This claim is strengthened by Troberg's 2008 diachronic analysis of OF dative verbs. In her study she investigates three-place and two-place predicates and claims that the relevant property of the dative arguments under scrutiny is the particular relation which holds between the direct and the indirect object. The same relation holds between the arguments of two-place change predicates expressing change of location (*go*), relation (*resemble*) or psychological states (*please*) Troberg (2008: 166-170). She considers these cases as '"structurally" licensed', and as different from reflection or interaction verbs (*remédier* 'remedy, rectify', *aider* 'help') where the indirect object is not licensed structurally and hence less stable diachronically (she directly associates these types of licensing with structural Case for the former type and inherent Case for the latter).

A further point supporting the assumption of a 'French loan dative' having properties of structural Case is the fact that Old French 'dative' *a*-PPs are pronominalised by dative clitics (e.g. OF *li* = ModF *lui*) as in (3)). This distinguishes *a* as a case marker from *a* as a locative preposition, the latter being pronominalised by *i* (see Zaring 1991 on this point in ModF). .

(3) se li donnoit on plus tere (< se donnait on plus tere a home)
so CLIT$_{DAT}$ gave one more land (so gave one more land to man)
So one gave him more land. (< So one gave more land to the man.)

clari, p.103

In the talk we contend that French contact influence on English operated thanks to a conjunction of circumstances. The reanalysis took place in the 14th c., when the influence of French was strong. By then, Middle English had lost the morphological Accusative/Dative case distinction, prompting a reanalysis of Datives in the English double object construction in terms of structural Case. Because French had only structural Case datives, the influence of French encouraged the reanalysis. Furthermore, Anglo-Norman French in particular could treat Dative arguments of clause-taking three-place verbs as Direct Objects, and thus passivise them, which may have formed a bridge context encouraging the new analysis of datives.

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Jorge Vega Vilanova, Mario Navarro and Susann Fischer:

The Clitic Doubling cycle. A diachronic reconstruction

Clitic doubling (CLD) is understood as a construction in which a clitic co-occurs with a full DP in argument position, forming a discontinuous constituent with it (e.g. Jaeggli 1986). Since the clitic pronoun and the full DP seem to share one syntactic function, one case and one semantic role, an explanation of such constructions has always constituted a challenge in linguistic theorizing.

(1) **El** vam veure a ell. Catalan
Cl3.masc.sg.ACC saw.1pl to him.
'We saw him.'

The goal of this paper is to explain the rise and spread of CLD in the Romance languages. Under the view that grammaticalisation processes are cyclic (cf. Sapir 1921, Van Gelderen 2004 etc.) and that language change consists in the phonetic realisation/attraction properties of functional heads (Roberts & Roussou 2003), it is possible to explain the emergence and distribution of CLD as a grammatical cycle. More specifically we propose that the various patterns of CLD across Romance are highly dependent on the interrelation between the availability of various object positions for DPs (i.e. object shift/scrambling) and the grammaticalisation path of the clitic (from DP to D° to phi-features) (Fontana 1993; Bleam 1999; Fischer & Rinke 2013). In other words, we will argue that CLD is an epiphenomenon that emerges as a result of word-order changes and grammaticalisation processes.

Fontana (1993) suggested that the rise of CLD in Spanish is the result of the clitics' reanalysis from being phrasal (DPs) to becoming heads (D°). However, as has been shown, Old Catalan clitics need to be analysed as heads (they never appear left of negation and cannot be separated from the verb), but doubling of full pronouns was – like in Old Spanish – not yet obligatory (Fischer 2003). There seems to be no one-to-one correspondence between the categorical status of the clitic and CLD. For a satisfactory explanation of the emergence of CLD other factors need to be taken into account.

It was often proposed that in the Old Romance languages word order is related to information structure (e.g. Lehmann 1976), which can be seen in the fact that object DPs and object clitics may be placed pre- or postverbally, triggering a difference in the information structure (e.g. Martins 1994, Fischer 2003), similar to object shift and Germanic scrambling (cf. Alexiadou & Anagnostopoulou 1997 etc.). In the course of time due to grammaticalisation processes, fewer functional categories remain active, leading to the fixation of word-order. As a result it was no longer possible to express information structural details via word-order, other means needed to take over this task. We propose that the grammaticalisation process of the clitic and that of the object together with the grammaticalisation of active functional material (the change in word-order) trigger the emergence of CLD structures. More specifically, CLD needs to be understood as a mechanism to restore information otherwise encoded in the linear order of the full object and the clitic w.r.t. the verb.

New empirical evidence from Old Spanish and Old Catalan strengthens the view that the emergence of CLD can be explained by a cyclic change:

I. Absence of clitics. The full object DP has some syntactic freedom depending on the information structure of the clause:

(2) a. que nos uenzcamos **a ellos**. b. quesi **a ellos** uenciesse OS
that we beat.1pl to them that-whether to them win.3sg
'that we beat them.' 'whether he beats them.' CDAR_Hamburg

II. Emergence of clitics (DP/D°). Restrictions of the free placement of the full object DP. Clitics, however, still have a certain freedom of placement w.r.t. the verb appearing pre- and postverbally in main and subordinate clauses. The first optional CLD constructions appear in the language (3) in contexts where information structure would require movement of the object DP out of the VP:

(3) Prec-vos que **m**'ojats tots A MI un poc. OC
pray.1sg-Cl2sg.DAT that Cl.1sg.ACC-hear.2pl all to me a bit
'I ask you to hear me for a while.' CDAR_Hamburg

III. Grammaticalisation of the clitic (D°), i.e. the free-placement w.r.t. the verb is not allowed anymore. CLD of full pronominal DPs becomes obligatory.

IV. Further grammaticalisation of the clitic (i.e. the loss of features, e.g. specificity). Fixation of the linear order of full object DPs. CLD spreads to further contexts:

(4) **Las** saludé a las maestras del jardín. B.A. Spanish
Cl3pl.ACC greeted.1sg to the teachers from-the kindergarten
'I greeted the teachers from the kindergarten'. (Zdrojewski & Sánchez 2014:164)

V. The grammaticalisation of the clitic continues (D°>phi). Case, person, number, etc. may get lost in the clitic. The clitic being stripped from grammatical and information structural features allows CLD in all contexts.

(5) Eso también **lo** mata las plantas. Andean Spanish
that too Cl3.masc.sg.ACC kill.3sg the plant.fem.pl
'That too kills the plants.' (Zdrojewski & Sánchez 2014:165)

We assume that the next step would be the loss of the category object clitic altogether, which was also the starting situation of the whole cycle.

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George Walkden:

Null subjects and null D: the evidence from diachrony

In recent years, two proposals have emerged that link the omission of referential subjects to the non-obligatoriness of (overt) D. In this paper I investigate the predictions that this makes in the diachronic arena, concluding that they find striking support. Barbosa (2013), following Tomioka (2003), proposes that the key factor in radical argument drop is the independent availability of bare NP arguments. Under this analysis, a null NP is universally available, but since pronouns are D elements (ultimately following Postal 1969), a requirement to spell out D will mean that arguments are always spelled out. Bošković (2010), meanwhile, in the context of a strict division between DP languages and NP languages in which the DP layer is absent entirely, suggests that radical argument drop is possible only in NP languages. This follows from a proposed requirement that the number feature of D be overtly spelled out, which necessarily holds only in DP languages; moreover, he proposes that NP languages also lack TP, and hence there can be no English-style EPP requirement in such languages.

In this paper I investigate the strongest possible version of this hypothesis, which predicts that there is a strict biconditional relation between null subjects and null D. I remain neutral as to whether D is phonologically null or structurally absent. The crucial data comes from the early Germanic languages. Unlike most of their modern descendants, these have no requirement for D to be overtly expressed, and the obligatory definite (and indefinite) article has yet to be fully grammaticalized (Crisma 1999, Wood 2007, Sommerer 2011 for Old English; Lander & Haegeman 2014 for Old Norse). These are also partial null argument languages (Rosenkvist 2009; Walkden 2014: ch. 5), which Barbosa (2011) argues are a subcategory of radical null argument languages. Conceptualizing the null-argument/null-D grammar and the innovative overt-argument/overt-D grammar as two probabilistically-weighted competing grammars in the sense of Kroch (1994), the biconditional hypothesis predicts that null subjects and null D should systematically covary. Specifically, I claim that the overt grammar is already on the rise by the time of the attested texts, but not yet absolute.

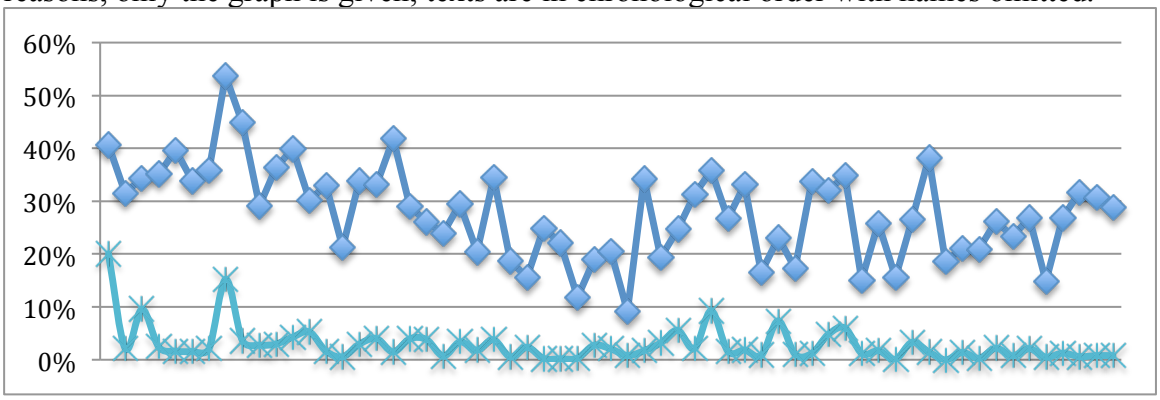
Sommerer (2011: 229) presents data for the proportion of bare common nouns that are definite (as opposed to indefinite or non-referential) in four Old English texts, using the YCOE (Taylor et al. 2003). I replicated Sommerer's method for *Bald's Leechbook* and *Beowulf*, two texts which Walkden (2013) shows to have had the highest proportion of null subjects. (In each case, following Sommerer, the first 250 bare common nouns were used, as it was necessary to analyse the examples by hand). There is a statistically significant correlation (Spearman's rho = 0.82857, p=0.04156). (1) and (2) are examples of bare common nouns and null subjects in *Beowulf* respectively.

Text	N definite bare common nouns	% definite bare common nouns	N null subjects (Walkden 2013)	% null subjects
Cura Pastoralis	11/250	4.4%	10/2575	0.4%
Boethius	12/250	4.8%	13/2270	0.6%
Orosius	17/250	6.8%	28/1378	2.0%
Leechbook	30/250	12.0%	46/253	18.2%
Bede	31/250	12.4%	76/2210	3.4%
Beowulf	87/250	34.8%	65/418	15.6%

(1) þonne bið on hreþre under helm drepen biteran stræle
then is in heart under helm hit bitter dart
'Then **he** is hit in the heart, under the helmet, by the bitter dart'
(OE; cobeowul,54.1745.1443)

(2) Gecyste þa **cyning** … **ðegn betstan**
kissed then king … warriorbest
'The king … then kissed the best warrior, and took him by the neck'
(OE; *Beowulf* 1870; Sommerer 2011: 194)

Preliminary investigation using the IcePaHC corpus of historical Icelandic (Wallenberg et al. 2011) also indicates a relationship: there is a link between the total proportion of nominals in a text that are bare common nouns (blue line) and the total proportion of unambiguously non-topic-drop null subjects in a text (teal line; Spearman's rho = 0.52924, $p<0.00001$), though these bare common nouns have not been checked manually for referentiality. For space reasons, only the graph is given; texts are in chronological order with names omitted.



Further investigation is necessary to establish whether the phenomena are truly linked rather than simply declining over the same time period; suggestively, however, neither phenomenon declines monotonically, but both undergo a resurgence between the 17th and mid-19th centuries.

A remaining question under a radical null argument analysis is why third person null subjects are more frequent than first and second person null subjects in early Germanic, as has been well established (Rosenkvist 2009; Walkden 2014: ch. 5). Following Kinn (2015), who builds on Déchaine & Wiltschko (2002), I suggest that third person pronouns in early Germanic lack a D layer, and hence may be omitted more freely in languages in which the requirement for overt D is already on the rise.

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Rok Žaucer and Franc Marušič:

The modal cycle vs. negation

Background: Standard Slovenian and many Slovenian dialects express possibility modality primarily in two ways, with a modal auxiliary that combines with a main verb in the infintive, (1a), and with a modal adverb that combines with a lexical verb in a finite form, (1b). While the first strategy is common among Slavic and more generally European languages, the second is not; when possibility is expressed with a modal adverb, it normally combines the modal adverb (and often an auxiliary) with an infinitival main verb or with a main verb in a 'that'-complement (Hansen 2005, Olmen & Auwera, to appear). Moreover, the two strategies occur in a sort of complementary distribution (Roeder & Hansen 2007): while the modal auxiliary is generally used with sentential negation, the modal adverb is employed elsewhere, (1)-(2). This makes Slovenian, together with Russian, stand out from the rest of the Slavic languages in having a modal specialized for impossibility (Hansen 2005).

(1) a. *Ne morem iti v kino.* b. *Lahko grem v kino.*
not can$_{1SG}$ go$_{INF}$ in cinema easily go$_{1SG}$ in cinema
'I can't go to the cinema.' 'I can go to the cinema.' (from Hansen 2005)

(2) a. **Morem iti v kino.* b. **Ne lahko grem v kino.*
can$_{1SG}$ go$_{INF}$ in cinema not easily go$_{1SG}$ in cinema ((2b) from Hansen 2005)

Aim: We will address the questions of how the typologically unusual pattern from (1b) (poss. modal adverb + finite main verb) came about and how the peculiar complementary distribution pattern from (1) arose. We will argue that the current situation is a result of a development typical of cyclical change (van Gelderen 2011), in which the adverbial modal started out as a modality-reinforcing manner adverb, eventually grammaticalized as a possibility modal head, but has failed to generalize to negative contexts due to characteristics of the negative particle and the hierarchy of the clausal functional structure.

Diachronic data: The modern Slovenian modal *lahko* is cognate with the manner adverb *lahko* 'easily'. The oldest Slovenian sources (ca. 1000 A.D.) do not attest the modal-adverb strategy from (1b) above, while the modal auxiliary strategy is attested both with and without negation. In the 16th century, the modal auxiliary is also attested both with and without negation, (3), but cooccurrence of the adverb *lahko* and the modal auxiliary is also amply attested, (4). In many such cooccurrences, *lahko* is demonstrably used as a manner adverb meaning 'easily', (4a), and in some it may be a modal doubler, (4b). Cooccurrences of *lahko* and a finite verb form (without a modal auxiliary) are also attested, though all these instances of *lahko* may be analyzable as manner uses.

(3) a. … *taku ta isti ne more priti v tu Božye kralevstvu.*
so this same not can come in this god's kingdom
'… so this same person cannot come into god's kingdom' [1557]

b. *Ie li ſe more jéſti, kar je neſlanu?*
aux Q refl can eat what aux unsalted
'Can one eat what is not salted?' [1584]

(4) a. *Iz tiga tudi more en vsaki zastopni človik lahku inu dobru zastopiti,*
from this also can one every reasonable man easily and well understand
'Every reasonable man can easily and well understand …' [1575]

b. … *inu sledni lahku more zastopiti inu zamerkati, …*
and last easily can understand and notice
"… and anyone can notice and understand …" [1564]

Both the use of the modal auxiliary strategy with and without negation, as well as the use of a modal *lahko* cooccurring with the modal auxiliary, persists in texts from the 17th and 18th centuries. While this situation extends into the 19th and early 20th century, this period also starts to reveal a modal *lahko* next to a main finite-form verb, with no modal auxiliary, (5).

(5) a. *taki* *lahko morejo* *vsaki dan svoje bučele obiskovati …*
such easily can each day their bees visit
'such people can visit their bees every day' [1871]
b. *Kedar večje živali blizo panjev pridejo, tudi lahko jezne postanejo.*
when bigger animals close hives come also easily angry become
'They can also get angry when large animals come close to the hives.' [1882]

From the second half of the 20th century general corpora of Slovenian (e.g. Gigafida, dlib) no longer attest cooccurrences of modal *lahko* and modal auxiliary; a modal *lahko* only appears next to a finite-form main verb, as in (1b).

Analysis (vP adverb-to-Mod$_{POSS}$): Assuming the standard position of possibility modal auxiliaries from Cinque (2004), Butler (2003), etc., the modal auxiliary can be taken to realize the head of ModP$_{POSS}$. In the earliest stage when the adverb *lahko* starts to cooccur with the modal auxiliary, it is a manner adverb, hence in vP or just above it (cf. Cinque 1999). The original meaning of *lahko*—'easily'—then starts to get bleached and the adverb comes to be used primarily as a strengthener to the auxiliary-realized ModP$_{POSS}$. Subsequently, *lahko* grammaticalizes/is reinterpreted as a ModP$_{POSS}$ element. As a consequence, the modal auxiliary is no longer necessary for the modal interpretation and can disappear, with the lexical verb taking over the role of hosting agreement. In some modern dialects, *lahko* is realized by a phonologically reduced form which is no longer homophonous with the cognate manner adverb (e.g. *loh* in Ljubljana Slovenian), likely suggesting the last stage of grammaticalization, i.e. with what started out as a manner adverb realizing a Mod$_{POSS}$ head.

Analysis (no *lahko* with negation): Ilc & Sheppard (2003) analyze Slovenian sentential negation as sitting between vP and TP, and the negative particle *ne* as the head of NegP and as a verbal proclitic which forms a syntactic constituent with the finite verb after the latter has undergone verb raising. Assuming with Butler (2003), Cinque (2004), etc., that the relevant clausal projections have the relative order from (6), then the modal *lahko*, as a nonsuffixal head, will be an intervener preventing the verb from raising and adjoining to Neg^0. And with the negative particle being a verbal proclitic, this situation has prevented *lahko* from spreading to contexts with sentential negation.

(6) [TP [NegP [Mod$_{POSS}$P [vP]]]]

This analysis is corroborated by two types of modern Slovenian data. In standard Slovenian and many dialects, *lahko* in fact *can* cooccur with negation, as long as we are dealing with vP-negation, or if *lahko* realizes epistemic rather than root possibility, which is above NegP rather than below it (Butler 2003), or if a root-possibility *lahko* has been fronted. Secondly, unlike Standard Slovenian and central Slovenian dialects, some western Slovenian varieties allow the negative particle to be stressed and split from the finite verb, (7), and there we also find root *lahko* attested together with sentential negation, (8).

(7) *Človek se vpraša, če ti né že malo manjka.* [Gorica Slo, * in Standard Slo]
man refl asks if you$_{DAT}$ not already little misses
'You ask yourself if you haven't gone a bit nuts.'

(8) *A vam né lahko tako naštimajo, da bi blo ...?* [Gorica Slo, * in Standard Slo]
Q you$_{DAT}$ not easily thus arrange that would been
'Can't they arrange it so that it would …?'

Conclusion: Combining the linguistic cycle model (van Gelderen 2011) with independently proposed approaches to Slovenian negation, the clausal architecture and locality provide answers to both starting questions: the origin of the typologically rare pattern in (1b) and the peculiar complementary distribution from (1).

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