

SinFonIJa 15

**University of Udine
September 22-24, 2022**

Oral presentations

Abstracts

Licensing deverbal *-lac/-lec* nominalizations in Western South Slavic

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In this talk we focus on *-lac/-lec* nominalizations in Bosnian/Croatian/Serbian [BCS] (*-lac*), (1), and Slovenian (*-lec*), (2), i.e., deverbal event-participant nominalizations from *-l* participles.

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|-----|-----------------------|--------------|-----------------------------|
| (1) | čit-a-ti, | čit-a-l, | čit-a-l-ac |
| (2) | br-a-ti, | br-a-l, | br-a-l-ec |
| | read-TV-INF ‘to read’ | read-TV-PTCP | read-TV-PTCP-AGENT ‘reader’ |

Stramljič-Breznik (1992) and Marvin (2002) observe that agentive *-lec* nominalizations in Slovenian can only be derived from imperfective verbs, an observation corroborated for contemporary Slovenian in Marvin (2019), who finds that the SSKJ standard Slovenian dictionary lists 800 *-lec* nominalizations from imperfective and only 10 (i.e., ca. 1%) from perfective verbs. A similar, yet less strong, tendency is reported for Croatian in Babić (2002), who notes that only 13% of Croatian *-lac* nominalizations are derived from perfectives. Based on this, we expect BCS and Slovenian to behave similarly with respect to the derivation of *-lac/-lec* nominalizations. In this talk, we will show that this holds but can be further qualified: For both languages, not all imperfective verbs derive *-lac/-lec* nominalizations (as previously observed in, for example, Marvin 2002 for Slovenian), and the same share of perfectives do so (i.e., ca. 18%, see the table below). More importantly, however, we show that the data reveal previously unobserved systematic differences between the two languages. In the talk, we offer an account for these observed differences in which we argue that the properties relevant for this division are atomicity (BCS) and perfectivity (Slovenian).

The BCS set of *-lac* deverbal nominalizations includes the 98 items found in the hrWac corpus (min. freq. 5), while the Slovenian data include 794 deverbal *-lec* nominalizations recorded in the WeSoSlav database (Arsenijević et al. in prep; min. 1 hit in the Gigafida 2.0 corpus). While the difference in the two sets *prima facie* indicates that *-lec* nominalizations are more common in Slovenian, different extraction methods prevent us from making this claim.

Since (im)perfectivity of the verbal base has been established as a relevant factor for derivation of *-lac/-lec* nominalizations and since perfectivity is closely related to derivational complexity (i.e., simplex verbs tend to be imperfective, prefixed perfective, and prefixed-suffixed verbs again imperfective), the two sets of data were compared with respect to (im)perfectivity of the base and structure of the base. We compared the quantitative composition of the verbs deriving *-lac/-lec* nouns in terms of structure (simplex / prefixed / prefixed-suffixed) and (im)perfectivity to the baseline (i.e., to all verbs in the two languages, based on the data from the WeSoSlav database, which consists of 5300 most frequent BCS and 3000 most frequent Slovenian verbs). The results are summarized in the following table:

	BCS		Slovenian	
	All Vs (N=5300)	Vs deriving <i>-lac</i> nominals (N=98)	All Vs (N=3000)	Vs deriving <i>-lec</i> nominals (N=794)
Imperfectives, aggregate	51.5%	81.2%	46.3%	85.7%
Simplex imperfectives (-prefix, -suffix)	15.0%	54.1%	15.4%	28.2%
Suffixed imperfectives (-prefix)	13.4%	4.1%	2.8%	7.9%
Prefixed & suffixed imperfectives (SIs)	15.6%	12.2%	14.5%	40.4%
Perfectives, aggregate	48.5%	18.8%	53.4%	18.3%
Simplex perfectives (-prefix, -suffix)	0.8%	1.02%	1.9%	1.6%
Prefixed perfectives (-suffix)	40.9%	17.3%	45.3%	11.7%

We make the following observations: (i) as expected based on the literature, both BCS and Slovenian tend avoid making *-lac/-lec* nominalizations from (prefixed) perfectives, (3b) and (4b), (ii) BCS *-lac* nominalizations have a stronger tendency for simplex bases than Slovenian,

(3a) and (4a), and in turn (iii) Slovenian *-lec* nominalizations show a stronger tendency for suffixed bases. The difference becomes especially striking when we focus on secondary imperfective [SI] forms, since (iv) BCS avoids *-lac* nominalizations from SIs, while Slovenian shows no such tendency, (3c) and (4c). In fact, while SIs represent 16.6% of all Slovenian verbs in WeSoSlav, 40.4% of *-lec* nominalizations are derived from SIs. BCS, on the other hand, has a comparable share of SIs (15.6%), but only 12.2% of *-lac* nominalizations derived from SI. Moreover, we also find several *-lec* nominalizations that do not correspond to an attested SI form in Slovenian, (5), see also Simonović (2020).

(3)a. znati, znalac	b. poznati, *poznalac	c. poznavati, poznavalac
know.IPFV, knower	know.PFV	know.IPFV knower
(4)a. gledati, gledalec	b. ogledati, *ogledalec	c. ogledovati, ogledovalec
watch.IPFV, watcher	watch.PFV	watch.IPFV, watcher
(5)a. okusiti	b. *okuševati / okušati	c. okuševalec
taste.PFV ‘to taste’	taste.IPFV taste.IPFV	taster (regularly)

We argue that the quantitative distribution is mainly explained by two factors. (i) Perfective verbs derive only episodic nominalizations (these refer to someone who did something in a specific event), and imperfective verbs both episodic and generic (dispositional, refer to someone who generally does something) nominalizations. The default nature and semantic versatility make generic nominalizations more frequent. This explains why perfective verbs derive fewer nominalizations with the suffix in question than imperfectives. (ii) The property relevant for this division in BCS is atomicity and in Slovenian perfectivity: perfective verbal predicates in Slovenian and atomic ones in BCS derive episodic nomina agentis. As perfective verbs are atomized and simple imperfectives are non-atomized, they behave the same in the two languages. Secondary imperfectives are atomized but not perfective. Hence, they easily derive *-lec* nominalizations (both generic and episodic for a series of events) in Slovenian, but not in BCS (where they target only the latter meaning). This view is corroborated by independent observations of different aspectual semantics of Slovenian verbs compared to BCS and more generally Slavic languages of the eastern aspectual type (e.g., Dickey 2000).

In addition, the two languages have different inventories of agentive suffixes, and the suffix *-lec/-lac* establishes different competition with other agentive suffixes. In particular, the BCS *-lac* derives nouns denoting sentient subjects of events described by the verb which are not necessarily agentive (cf. the strictly agentive suffix *-ač*, unrestricted for sentience), while in Slovenian the derived nouns are not even restricted by sentience. This was also noted for Slovenian in Marvin (2019) for some *-lec* nominalizations from perfective bases (e.g. *rešiti* ‘to save.PFV’, *reši-lec* ‘ambulance’), but can also be observed in *-lec* nominalizations from imperfective verbs (e.g. *ločevati* ‘to separate.IPFV’, *ločeva-lec* ‘separator’; *trditi* ‘to harden.IPFV’, *trdi-lec* ‘thickening agent’).

References: Arsenjević, Boban. et al. in prep. *WeSoSlav: Database of the Western South Slavic verbal system*. Babić, Stjepan. 2002. *Tvorba rijeci u hrvatskome književnome jeziku*. Zagreb: Hrvatska akademija znanosti i umjetnosti. Dickey, Stephen M. 2000. *Parameters of Slavic Aspect: A Cognitive Approach*. Stanford: CSLI Publications. Marvin, Tatjana. 2002. *Topics in the Stress and Syntax of Words*. PhD Thesis: MIT. Marvin, Tatjana. 2019. On aspect in eventive and agentive nominalizations in Slovenian. *Philological Studies* 17.2. 251–267. *SSKJ*. Dictionary of the Slovenian Standard Language. Fran.si. Simonović, Marko. 2020. Categories, Root Complexes and Default Stress. *Linguistica* 60.1. 103–117. Stramljič Breznik, Irena. 1992. Izglagolske izpeljanke s pomenom vršilca dejanja. *Slavistična revija*, 40.4. 411–427.

Two levels of definites in Odia
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Two levels of definites in Odia. The long standing debate on whether definiteness is a unitary phenomenon or is it a spectrum of sub-kinds of definites has received much attention in recent works. Schwarz (2009) proposes that there two kinds of definites, *unique & anaphoric*, with support from German and other languages. In unique definites the referent is an individual that is salient to interlocuters. In German, a contracted form of article+preposition *vom* is utilized in such cases. Meanwhile, a non-contracted version *von dem* is utilized for anaphoric definites, which are cases where the referent is familiar from prior linguistic context. The denotation of two forms of the article minimally differ with the denotation of the anaphoric version consisting of an extra *index* argument that establishes reference with a linguistic antecedent.

In this work I show that Odia - an article-less and verb-final South Asian classifier language(CL), illustrates this distinction morpho-syntactically. In Bangla, a related CL, definites are formed syntactically with the raising of the nominal to spec DP (Dayal 2012,2014). Dayal claims that BNs cannot have a definite reading and it is only the raised constructions which do. The data in Bangla is somewhat mixed though, Biswas (2012) shows that in unique definite contexts BNs *can* have a definite reading, but does not provide an explanation on how these are derived and if there is any correlation with the raised definites. Odia seems to show a similar pattern: the base word order is always [NUM CL N](1). Definites can be formed via raising of the nominal to a position preceding [NUM CL](2).

- | | |
|---|--|
| <p>(1) dui-ta pila kheluthil-e
 two-CL child play-3.PL
 ‘Two kids were playing’</p> | <p>(2) pila dui-ta kheluthil-e
 child two-CL play-3.PL
 ‘The two kids were playing’</p> |
|---|--|

These *raised* definites (2) occur in anaphoric contexts but fail to appear in unique ones. Odia clearly delineates between the two kinds of definites and utilizes BNs for unique cases (3):

- | | |
|--|---|
| <p>(3) aji dokan bandh thila
 today shop close be.PST
 ‘The shop was closed today’</p> | <p>Note: BN in Odia have a range of readings such as kind, generic, predicative. Definite readings are only achieved in unique contexts as discussed in Hawkins (1978).</p> |
|--|---|

Background on NP-raising Dayal (2012): Nouns in CLs are assumed to be kind denoting in their most basic form. Definites in Bangla are shown to be formed with the nominal raising from its base position in N to spec-DP (4).

- (4) $[_{DP} N_i [D' D_{+def} [_{NumP} [_{Num'} NUM [_{ClP} [_{CL'} CL [_{NP} t_i]]]]]]]$

The singular classifier -ta is defined as a function from kind level arguments to *atomic* object level individuals (5).

- (5) $[-ta] = \lambda x^k \lambda y [^U x(y) \wedge \mathbf{AT}(y)]$

A [+def] feature in D^0 triggers movement. The nominal moves and leaves a trace, which is interpreted as an indexed variable after it combines with a classifier. A shift to argumental

reading is achieved by the ι operator at DP. A BN without the classifier cannot undergo ι -shift since it is of type e_k , thus deeming a CL-projection to be necessary. This analysis can be extended to Odia, but fails to capture definite interpretations of BN definites. Based on data from Odia definites that haven't been discussed in prior works, I address the following questions: (i) how are BN definites interpreted in the semantics of a CL language like Odia?;(ii) Is there a DP projection for BN definites?;(iii) where is anaphoricity encoded for the raised NP structures?

Analysis: I propose that there are two distinct mechanisms for Odia definites by drawing on the independently motivated *unique-anaphoric* distinction. BN definites in Odia are derived by the function *Evaluation Index (EI)* (Jiang 2018). *EI* is defined as function that shifts arguments from kind to object level ones ($\langle e^k, e \rangle$). Acc. to Jiang (2018) *EI* restricts the kind argument to a specific situation and yields the *maximal* member in that situation. I formally define *EI* as follows while keeping the essence of previous definitions by Jiang (2018):

$$(6) \quad EI = \lambda s \lambda x_k . \iota y [\cup x(y)]$$

In a relevant situation, *EI* is a complex function that takes the situation variable s and a kind-level argument. It then type-shifts the kind argument via combination of the operators $pred \cup (e_k \rightarrow \langle e, t \rangle)$ and ι (in the said order) and yields a definite reading. The two operators necessarily need to apply together or it could lead to wrong predictions such as (i) bare nouns having predicate type readings in an argument position, and (ii) bare nouns being able to compose with numerals freely without the aid of a classifier.

Anaphoric definites are formed by the syntactic process of NP raising similar to Dayal's analysis. I follow Schwarz (2009)'s definition for German strong article. For Odia, I assume that a null D^0 selects for a predicate - which is the raised nominal, and an extra argument which is an *index* that establishes reference of the nominal with a linguistic antecedent:

$$(7) \quad \llbracket D^0 \rrbracket = \lambda P_{\langle e, st \rangle} . \lambda z : \exists ! x [P(x) \wedge x = z] . \iota x [P(x) \wedge x = z]$$

Deviating from Dayal (2012)'s analysis, I posit that that the *index* argument is located in the specDP and the NP moves to spec of NumP. This is to accommodate overt demonstratives (DEM) in the D^0 position when needed. A movement to specDP would yield the wrong word order where N precedes DEM. The landing position of spec NumP may seem a bit controversial but has added support from examples with heavy numerals which do not permit definite readings with NP-raising.

The 2 kinds of definites are derived at different levels in the nominal-syntax. BN definites are derived at NP, while the NP-(NUM)-Cl definites are derived at DP. A split DP analysis consisting of more than one DP projection is not favourable due to structural economy constraints such as MINIMIZE DP (Patel-Grosz & Grosz (2017)). A similar account on definites is presented by Jiang (2012, 2018) for Nuosu Yi (Sinitic) which has both BN definite as well a definite article at its disposal. Odia adds support to a theory of definites where both NP/DP are active sites for definite interpretations and it is possible that other languages with BN definites also have such dual processes.

Selected references: *Definite and demonstrative descriptions: a micro-typology* (Ahn, 2017), *Reanalyzing definiteness in Bangla* (Biswas, 2012), *Bangla classifiers: Mediating between kinds and object* (Dayal, 2012), *Two types of definites in natural language* (Schwarz, 2009), *Definiteness in Nuosu Yi and the theory of argument formation* (Jiang, 2018).

Equatives and two theories of negative concord: experimental evidence from Czech

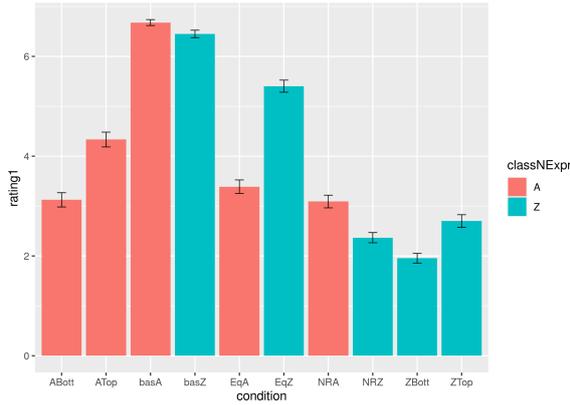
Mojmír Dočekal (Masaryk University in Brno)

Background. There are two theories of neg-words and negative concord currently: (i) standard, widely adopted syntactic theory ([12, 13] a.o.), (ii) slightly overlooked semantic theory ([7, 6]). Even if the syntactic theory works well in many cases, there are systematic data patterns which are problematic for it. We constructed an experiment testing acceptability of Czech neg-words (*žádný* ‘any’) and strong NPIs (SNPIs), *ani jeden* ‘not even one’, to gather solid data allowing us to test predictions of both theories, focussing on equatives, Neg-Raising and scalar contexts.

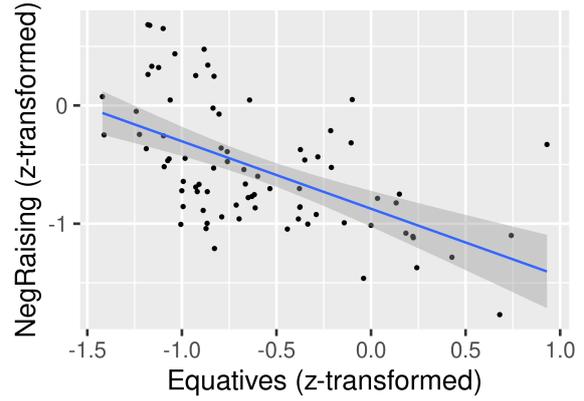
Experiment. The experiment was the acceptability judgment task in two parts: in the first part subjects judged acceptability of sentences, in the second part we provided a context against which the target sentence was judged. In both parts subjects rated sentences on Likert scale 1 to 7 (1 the worst, 7 the best). The experiment was run online on L-Rex platform and filled by 105 subjects; 82 of them passed the fillers and their answers were included into the analysis. Each subjects rated 32 items and 32 fillers. In the first part of the experiment there were three conditions: baseline (BAS), equatives (EQ) and NegRaising (NR), each condition was crossed with two conditions: SNPIs (ANI) and neg-words (ŽÁDNÝ), 3x2 design. In the second part there were two conditions: bottom of the scale (BOTT) and top of the scale (TOP), again crossed with ANI and ŽÁDNÝ, 2x2 design. The example items from both parts are in (1) and (2). The standard-error bar graph is in Figure 1a. We analyzed the data in mixed-effects linear models (R package LME4, [10, 1]). The dependent variable was the subject’s rating. The independent variables of the models were the three conditions (part1) and the two conditions (part2) and their interaction with ANI and ŽÁDNÝ (plus the item and subject intercept+slope random effects). The baseline was BAS. All the main effects were negative (t-values and p-values: $-21.84, p < 0.001$; $-23.92, p < 0.001$; $-23.20, p < 0.001$ for EQ, NR and BOTT respectively). More telling are the interaction effects: we found (i) a strong positive effect of EQ by ŽÁDNÝ; (ii) a significant negative interaction of NR by ŽÁDNÝ; (iii) a significantly strong negative interaction of BOTT by ŽÁDNÝ (t- and p-values respectively: $10.35, p < 0.001$; $-2.48, p < 0.001$; $-4.561, p < 0.001$). Another model constructed for BAS, EQ, NR and TOP yielded effects of the same magnitudes, just the t-value of the main effect TOP was $t = -14.81, p < 0.001$. Summary: neg-words in the standard of equatives were much more better accepted than SNPIs (their acceptability was the third best after the two crossed BAS); (ii) SNPIs were judged better than neg-words in NR; (iii) in probability/scalarity manipulated environments SNPIs were judged better than neg-words. Given that the positive evidence to distinguish neg-words from SNPIs is very limited in strict negative concord languages, we hypothesized that some speakers can treat *ani* as neg-word; therefore we checked correlations of (by speaker) z-transformed ratings of EQ and NR. And indeed, we found that there are speakers who seem to treat *ani* as SNPI, accepting it in NR and rejecting it with EQ (left part of Figure 1b) but there are also speakers who reject it in NR and accept it with EQ (right part of Figure 1b); notice that there no reject-all speakers (empty bottom left quarter), neither accept-all speakers (empty top right quarter). Crucially no such correlation was found against the baseline. And the correlation between EQ-NR acceptability was strong ($t = -5.97, p < 0.001$, also the slope of the correlation line in Figure 1b.)

- (1) a. V království nezůstal {žádný/ani jeden} zloděj.
 in kingdom neg-remained neg-word/NPI thief
 ‘No thief remained in the kingdom.’ BAS
- b. Král nechce, aby v království zůstal {žádný/ani jeden} zloděj.
 King neg-wants that in kingdom remained neg-word/NPI thief
 ‘The king doesn’t want any thief to remain in the kingdom.’ NR
- c. Zloděj ze souostroví Qwghlm je tak šikovný jako {žádný/ani jeden} zloděj.
 thief from archipelago Qwghlm is so clever how neg-word/NPI thief
 ‘The thief from the Qwghlm archipelago is as clever as no other thief.’ EQ

(2) Kontext: Šikovný trpaslík ze vsi najde v těchhle dolech za den 1, 2 někdy i 3 diamanty.



(a) Standard-error barplot of responses



(b) Correlation graph (SNPI: ani)

Figure 1: The SE-barplot and the correlation graph

C.: A clever dwarf from the village will find 1, 2 or 3 diamonds in these mines per day.

a. Jeden šikovný trpaslík ze vsi nenašel včera v dolech {žádné/ani 3/1} diamant(y).
 one clever dwarf from village neg-found yesterday in mines neg-word/NPI 3/1 diamond(s)

‘One clever dwarf from the village didn’t find even 3/1 diamond(s) in the mines yesterday.’ TOP/BOTT

Discussion. The high acceptability of neg-words in EQ nicely follows from semantic theory of neg-words: following [7], we treat neg-words as existential ($\lambda P. \exists x[\text{thief}(x) \wedge P(x)]$) with non-at-issue meaning component (postsupposition in the dynamic version of the semantic theory: [6] which requires emptiness of the extension of the discourse referent; after Kuhn we label this non-at-issue part as $\mathbf{0}_x$). SNPIs we treat in the standard way following [5], [3] and [8] for scalar SNPIs and [2] for the general framework. But as for truth-conditions (TCs), we assume that Czech SNPIs are existential as neg-words: the difference between neg-words and SNPIs is only in non-at-issue component ($\mathbf{0}_x$ for neg-words; scalar for SNPIs *ani*: the crucial scalar presupposition of *ani* we, following [8], take as a presupposition – covert or overt *even* ϕ requires ϕ to be relatively unlikely to be true among alternatives of ϕ). The high acceptance of neg-words in EQ we explain as follows: (i) following [9] (for German), we assume that Slavic equatives are syntactically built from the correlatives and therefore are bad licensors of NPIs generally (unlike English equatives); (ii) the correlative nature of non-English equatives can be (in core) formalized as involving maximally informative operator (max_{inf} instead of the English-type equative max); (iii) max_{inf} is compatible $\mathbf{0}_x$ but still would crash with classical negation (verbal negation cannot appear in the standard of non-English equatives). The decreased acceptability of neg-words (against SNPIs) in TOP and BOTT follows from the positive inference: (2a) implies that some diamonds were found contradicting $\mathbf{0}_x$ (analogical inferences for other items). The high acceptance of SNPIs follows the standard theories of NPI licensing. As for NR, again standard theory of Neg-Raising ([11]) explains this; for neg-words in NR, we propose that Slavic languages require $\mathbf{0}_x$ both in the intensional and extensional contexts (unlike Spanish, e.g., see [6]). Finally, as for speaker variation: we propose that some speakers switch from the scalar presupposition of SNPIs to the $\mathbf{0}_x$ with *ani* (such behavior was observed before: [4]).

Consequences. Decreased acceptability of neg-words in TOP/BOTT and its high acceptance in EQ are empirical arguments in favor of the semantic theory; syntactic theory would have to assume $OP_{-[iNEG]}$ in the standard of EQ which goes against all current theories of equatives. Also, the by-speaker variance is very problematic for syntactic theory. Despite that, many open questions remain (precise formulation of the locality constraints for neg-words in semantic theory, a.o.).

[1] Bates, D., M. Mächler, B. Bolker, and S. Walker (2015). Fitting linear mixed-effects models using lme4. *Journal of Stat. Soft.* 67(1), 1–48. [2] Chierchia, G. (2013). *Logic in grammar*. OUP Oxford. [3] Crnić, L. (2011). *Getting even*. Ph. D. thesis, MIT. [4] M. Dočekal and J. Dotlačil (2017). Strong NPIs vs. n-words. In *SuB, Berlin*. [5] Gajewski, J. R. (2011). Licensing strong NPIs. *NLS 19(2)*, 109–148. [6] Kuhn, J. (2022). The dynamics of negative concord. *L&P 45(1)*, 153–198. [7] Ovalle, L. A. and E. Guerzoni (2004). Double negatives, negative concord and metalinguistic negation. *Proceedings of CLS 38(1)*, 15–31. [8] Panizza, D. and Y. Sudo (2020). Minimal sufficiency with covert even. *Glossa 5(1)*. [9] Penka, D. (2016). Degree equatives-the same as comparatives. In *Workshop on Eq. Constr. University of Cologne*. [10] R Core Team (2022). *R: A Language and Environment for Statistical Computing*. Vienna, Austria: R Foundation. [11] Romoli, J. (2013). A scalar implicature-based approach to Neg-Raising. *L&P 36(4)*, 291–353. [12] Zeijlstra, H. (2004). *Sentential negation and negative concord*. LOT/ACLCLC. [13] Zeijlstra, H. (2008). Negative concord is syntactic agreement. *Ms., Uni. of Amsterdam 5*, 113.

Semantic and pragmatic properties of Camuno *po*: towards a unified account
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The paper investigates the properties of the discourse particle *po* in Camuno, a Gallo-Romance variety spoken in northern Italy, aiming to provide a semantic characterization of its semantic import and pragmatic effects on the interpretation of the host proposition. I argue that a presuppositional account can capture the variety of values the particle can convey, which stems from the underlying contrastive value introduced by *po*.

Cognate forms of *po* have been described for several northern Italian varieties (see, e.g., Munaro & Poletto, 2005; Hack, 2014; Hinterhölzl & Munaro, 2015) and Italian (Coniglio, 2008; Cognola & Cruschina, 2021). In their use as discourse particles, these elements can convey several readings, among others, expressing astonishment (Croatto, 1986); emphasis and focus (Poletto & Zanuttini, 2003); surprise and indignation (Hack, 2014); and inability to find an answer and concern for the information inquired about (Coniglio, 2008). These readings are attested in Camuno as well, and they share two basic values explicitly mentioned in Cognola & Cruschina (2021): counter-expectation and mirativity. In other words, the speaker conveys surprise over the mismatch between the expectations regarding a proposition and the actual state of affairs. The particle is thus licensed by a presupposition regarding the previous beliefs of the speaker. In their analysis, the proposition in (1a) negates the presupposition in (1b: adapted from Cognola & Cruschina 2021, [29]).

- (1) a. Non siamo *poi* così lontani dalla verità.
 NEG be.1PL.PRS *poi* so far from-the truth
 ‘We are not so far from the truth, after all.’
 b. $p_{[POI]} = \text{PRESUPPOSITION: [we are far from the truth]}$
 ASSERTION: [we are not far from the truth]

However, a characterization like (1) is insufficient to capture all the attested meanings of *po*, and a more inclusive analysis must be developed to accommodate the data.

I propose that *po* is licensed by a presupposition related to the doxastic evaluation of a proposition *p* (in line with Grosz’s (2020) “expressive presuppositions”): the speaker initially believes that *p* is uncontroversial, but at the utterance time, this is no longer the case. Here, “uncontroversiality” is defined as (2):

- (2) A proposition *p* is uncontroversial iff all participants *x* to the conversation believe that *p* is factual ($[p=1] \in B(x)$) and $\neg p$ is not under consideration in the utterance context.

The conversational progression is articulated as follows (3):

- (3) T- 2: the speaker initially believes that a proposition *p* is uncontroversial = $Bs(U(p))$
 T- 1: some contextual clue motivates a shift in the speaker’s beliefs regarding the common ground.
 T0: the speaker believes that $\neg p$ is under consideration = $Bs(\neg U(p))$
 PRESUPPOSITION LICENSING *PO*: *p* is no longer believed to be uncontroversial

In other words, *po*-propositions belong to the common ground management domain (Krifka, 2008) since they indicate how the common ground should develop ($U(p)$) according to the speaker, rather than referring to the actual state of affair ($\neg U(p)$). Consider (4):

- (4) La ho hǝ̀ta la laura ho à Brè *po*
 the her daughter CL.3SG work.3SG.PRS up in Breno *po*
 ‘Her daughter works in Breno [and you should know that!].’

The import of *po* to the meaning of *p* can be paraphrased as “and you should know that” as in the portion of translation in brackets. From a semantic standpoint, *po* takes expressions of

type $\langle s, t \rangle$ as arguments, i.e., the internal structure of the proposition p is not relevant for the interpretation (5):

- (5) a. [The addressee tells the speaker that her son *deserves to be sent to boarding school* ($=q$). The speaker can only think of a single relevant event: *A's son drank a beer* ($=r$), which she does not believe being warrant sending someone to boarding school ($\neg(r \rightarrow q)$).]
 b. l' a po biit na bira!
 CL.3SG have.3sg po drink.PRT a beer
 'He just drank a beer [nothing too serious].'

The utterance in (5b) is a simple structure, but the proposition that *po* modifies is the entire elliptical structure $r \rightarrow q$. Crucially, the speaker believes $p = (\neg(r \rightarrow q))$, and that the addressee is considering $\neg p = (p \rightarrow q)$.

The same interpretation and licensing conditions are present for interrogative structures, with the crucial difference that, in this case, p ceases to be uncontroversial because, according to the speaker, it is no longer factual (6):

- (6) T-2: the speaker initially believes that a proposition p is uncontroversial = $Bs(U(p))$
 T-1: some contextual clue motivates a shift in the speaker's beliefs regarding the common ground
 T0: the speaker believes that $p=0 \rightarrow Bs(\neg p=1)$
 PRESUPPOSITION LICENSING *PO*: p is no longer believed to be uncontroversial

This unified presuppositional account can easily capture all the possible values conveyed by *po*-propositions. From a pragmatic perspective, the mismatch between the speaker's initial beliefs and the ones at the utterance time is strictly related to the mirative import, the request for further information, the pointer function of the particle, and the focus reading of the proposition itself described above. Additionally, this line of analysis can provide a more solid ground to investigate further these interpretations, including the apparent correlation between contrast and prosody in Camuno (see Bellunese in Hinterhölzl & Munaro [2015]).

On an impressionistic level, the analysis presented here can provide a common trait for the various cognate forms attested in Northern Italian varieties, on which micro-variation in syntactic distribution and pragmatic import can be investigated. The account is also compatible with the analyses for German particles proposed by Grosz (2020) and Gutzmann (2015), providing additional tools to describe the categorical properties of discourse particles.

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X-marking and The Italian Reportative Conditional

Ilaria Frana (Kore University of Enna), Paula Menendez-Benito (University of Tübingen)

1. **INTRODUCTION.** Languages often use the same morphology ('X-marking', von Fintel & Iatridou submitted) to mark counterfactual conditionals, unattainable desires and weak necessity. In some Romance languages, X-marking can also give rise to a reportative interpretation, which has received little attention to date in the formal semantics literature (but see Howell (2011) on French). We put forward an analysis of the reportative use of the Italian "conditional mood" [CD] and discuss how this use might fit in the general view of X-marking presented in vF & I.

2. **DATA.** The Italian CD has all the hallmarks of X-marking: (i) It is used in the consequent of subjunctive (X-marked) conditionals (1), (ii) when added to a desire predicate (2) it can signal that the desire is unattainable, and (iii) it conveys weak necessity when added to a necessity modal (3). Additionally, it can receive a reportative interpretation (4).

- 1) Se Sara sapesse la risposta, Lea **saprebbe** la risposta.
If Sara know.subj.3sg the answer, Lea know.CD.3sg the answer
'If Sara knew the answer, Lea would know the answer.'
- 2) Il mio cane **vorrebbe** essere un gatto.
The my dog want.CD.3sg be a cat.
'My dog wishes he was cat'
- 3) (Per fare questo lavoro) **dovrebbe** avere la patente, ma non è necessario.
(to do this job) must.CD.3sg have the drivers-license, but not is necessary
(For this job), she should have a drivers-license, but it's not mandatory.
- 4) Tik Tok **starebbe** pensando ad un servizio di streaming musicale.
Tik Tok be.CD.3sg thinking at a service of streaming musical
Tik Tok is allegedly thinking about a music streaming service.

3. **EPISTEMIC DISTANCING.** Descriptive work on the press/journalistic conditionals in Romance repeatedly notes that this use involves 'distancing' on the part of the speaker. When the CD is used in a reportative way, it often signals lack of commitment: a speaker uttering a declarative sentence with the reportative CD does not need to be committed to the reported proposition (epistemic distancing/absence of commitment, cf. Faller 2019 and AnderBois 2014). The utterer of (5) below is clearly not committed to the reported proposition (p = that Gianni stole the company's money), nor she is suggesting to add it to the CG (however, note that p is at-issue since the speaker utters it with the intention of addressing the QUD 'Why did Gianni get fired?').

5) **Context:** I just found out that our colleague Gianni got fired. I ask to one of my other colleagues: "What happened, why did he get fired?"

- 6) **Avrebbe** rubato dei soldi, ma io non ci credo.
Have.CD.3sg stolen some money, but I not it believe
'He allegedly stole some money, but I don't believe it.'

4. **X-MARKING: BACKGROUND.** vF & I argue that X-marking performs two different functions, depending on the construction: (i) **Expansion.** In conditionals (and desire predicates), it marks widening of the domain of quantification beyond the context/epistemic set (Stalnaker (1968, 1975)): X-marked conditionals like (1) signal that the modal base is not entirely contained in the set of epistemically accessible worlds. (ii) **Restriction.** when combined with necessity modals as in (3), it signals the presence of an additional ordering source (sensitive to negotiable priorities, Rubinstein (2012)) which reduces the domain of quantification.

5. THE PROPOSAL. Building on vF & I and ideas in Howell (2011), we argue that the reportative CD instantiates both expansion and restriction. Starting with the common assumption that assertions are implicily modalized – they involve quantification over a set of worlds compatible with the speaker’s beliefs / commitments (Hacquard (2010), a.o.), we propose that the Italian reportative conditional is X-marking on a default assertoric operator (11), where $\text{Dox}(s, w)$ are the speaker’s belief worlds in the world of evaluation.

$$7) \quad [[\text{ASSERT}]]^w = \lambda p_{st} \forall w' \in \text{Dox}(s, w) [p(w') = 1] \quad (\text{simplified})$$

According to vF & I, X-marking can perform either (i) domain expansion (e.g. in counterfactuals and unattainable desires) or (ii) domain narrowing (e.g. in weak necessity). Neither possibility alone is going to work for the reportative: (i) we certainly don’t want to derive that for an utterance of ‘CD p ’ to be true, the reported p has to hold in all the w outside of the context set (how large is this set?) (ii) restriction alone, without expansion outside the context set, won’t do either since it won’t derive epistemic distancing (6). Instead, we propose the CD instantiates both expansion and restriction: first, we expand the modal base of the assertoric operator to include worlds outside the belief set of the speaker (see also Silk (2018) on weak necessity). Second, we restrict that expanded modal base with an informational ordering source (see Kratzer 2012 on reportative *sollen*), to obtain a subset of worlds where the content of a salient report is true. In this way, our domain of quantification is both expanded to include w outside the context set (hence lack of commitment/epistemic distancing is derived), and restricted in a sensible way.

6. IMPLEMENTATION. We model modal domain expansion following a suggestion in vF&I (submitted), which in turn refer to Grano & Phillips-Brown (2020) analysis of (counter)factual want ascriptions. This is illustrated in (12), where $\text{Sim}_w(p)$ “represents what will (would) happen if p is (were) true”. The result is that the arbitrary domain D is expanded to include any world that is the most-similar p -world to some world in D .

$$8) \quad \text{Domain expansion (after vF&I and Grano & Phillips Brown)} \\ D^{+p} = D \cup \{w' \in W : \exists w \in D. \text{Sim}_w(p) = w'\}$$

Applying domain expansion to the modal base of the assertoric operator, we derive a domain of quantification that includes the p -worlds that are most similar to the worlds in the speaker’s doxastic set at w (i). Assuming then an informational ordering source (e.g. $g(w)$ represents the propositional content of some source of information in w), we obtain the truth-conditions in (13)

$$13) \quad [[\text{ASSERT} + \text{CD}]]^{f.g.w}(p) \text{ is defined iff} \\ \text{(i) modal base } f \text{ is } \text{DOX}_{\langle s, w \rangle}^{+p} \\ \text{(ii) ordering source } g \text{ is ‘informational’ (Kratzer (2012))} \\ \text{If defined } [[\text{ASSERT} + \text{CD}]]^{f.g.w}(p) = 1 \text{ iff } \forall w' \in \text{Max}_{\langle g(w) \rangle}(f) : p(w') = 1$$

Many questions remain open: why would we want to or need to reach outside the context set? vF & I say that in the case of counterfactuals, one reason is that p is presupposed to be false (there are no p -worlds in the CS). So, in order to engage in a thought experiment, X-marking is necessary. In the case of the CD, this may have to do with a shift in the default commitment setting, from the speaker to the source of the report (c.f. Faller 2019).

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If you can see it you can't help seeing it: The inherent modality of verbs of involuntary perception, (re)cognition and physical disposition in Hungarian
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MAIN OBSERVATIONS & CLAIMS This talk is concerned with verbs of involuntary perception (such as *lát* ‘see’, *hall* ‘hear’ or *érez* ‘feel’), involuntary (re)cognition (such as {*meg*|*fel*}-*ismer* ‘recognize’, *ismer* ‘be acquainted with’, *emlékezik* ‘remember’ *talál* ‘find’ or *ért* ‘understand’) and physical disposition (such as *el-ér* ‘reach’, (*ki*-)*bír* ‘endure’, *el-bír* ‘carry’, *tűr* ‘endure, tolerate’, *áll* ‘withstand’, {*be*|*át*|*ki*|*el*}-*fér* ‘fit into/through/through on the way out/inside’) in Hungarian. These verbs pattern together across four, seemingly unrelated, phenomena: 1) they cannot felicitously combine with the ability modal auxiliary *tud* ‘be_able_to’, 2) they (and only they) appear in dispositional middles, 3) they (and only they) appear in so-called root infinitivals of circumstantial modality and 4) a large subset of them can function as modal auxiliaries. I argue that all these pieces of novel empirical evidence point into the same direction: in Hungarian, verbs falling into these classes have an enriched semantics: they are lexically specified as modal, with ability modality hard-wired into their semantics:

$$(1) \quad [[\textit{lát}]]^{w,g} = \lambda x. \lambda y. \exists w' \in W [R_{\text{ability}}(w)(w') = 1 \ \& \ [[\textit{see}(y,x)]]^{w',g} = 1]$$

For simplicity, I will gloss verbs such as *lát* as BE_ABLE_TO.see.

INFELICITOUSNESS WITH AN ABILITY MODAL AUXILIARY Unlike their counterparts in English, these verbs cannot felicitously combine with an ability modal auxiliary (this has been observed by [Kiefer \(1984\)](#) wrt verbs of involuntary perception):

(2)a. #*János tud-ja lát-ni az óceánt a teraszáról.*
 John be_able_to-3SG BE_ABLE_TO.see-INF the ocean.ACC the balc.his.from
 intended: John can see the ocean from his balcony.

b. *János lát-ja az óceánt a teraszáról.*
 John BE_ABLE_TO.see-3SG the ocean.ACC the balcony.his.from
 ‘John can see the ocean from his balcony.’

(3)a. #*Nem tud-t-am fel-ismer-ni Marit.*
 not be_able_to-PST-1SG PRT-BE_ABLE_TO.recognize-INF Mary.ACC
 intended: ‘I could not recognize Mary.’

b. *Nem ismer-t-em fel Marit.*
 not BE_ABLE_TO.recognize-PST-1SG PRT Mary.ACC
 ‘I could not recognize Mary.’

The infelicitous versions are practically unattested and judged as very unnatural by native speakers. I argue that this is due to redundancy: since ability modality is lexically specified, it is redundant to reintroduce in the form of an ability modal auxiliary. My proposal is that sentences with these verbs are always modal ability sentences in terms of their asserted meaning, and in the case of episodic (non-generic) readings, the non-modal interpretation is an actuality entailment:

(4) *Tegnap este lát-t-am a királynőt.*
 yesterday evening BE_ABLE_TO.see-PST-1SG the queen.ACC
 i. Yesterday evening I was able to see the queen. ASSERTION
 ii. Yesterday evening I saw the queen. ENTAILMENT

With verbs of involuntary perception and (re)cognition, these entailments obtain independently of whether the verb is perfective (3) or imperfective (2). I argue that this is because perception or (re)cognition is involuntary with these verbs: if you are able to see something, it follows that you see it, unless you consciously restrict your ability by shielding your eyes etc. As expected, verbs of *voluntary* perception (such as *néz* ‘look’) or (re)cognition (*fel-idéz* ‘recall’) are indeed compatible with the modal *tud* ‘be_able_to’. With verbs of physical disposition, possibility does not logically entail actuality: just because I could reach something does not mean that I actually reached it. With such verbs, actuality entailments only obtain with perfectives (cf. [Bhatt \(1999\)](#), [Hacquard \(2009\)](#) a.o. on actuality entailments associated with perfective ability modals):

- (5) a. *El-ér-t-em* *a polcot,* (imperfective, no actuality ent.)
 PRT-BE_ABLE_TO.reach-PST-1SG the shelf.ACC

‘I was able to reach the shelf,’ ASSERTION
le tud-t-am volna ven-ni bármit.
 PRT be_able_to-PST-1SG be.COND take-INF anything.ACC
 ‘I could have taken anything.’

- b. *El-ér-t-em* *a polcot* (perfective with actuality ent.)

PRT-BE_ABLE_TO.reach-PST-1SG the shelf.ACC
 i. ‘I was able to reach the shelf,’ ASSERTION
 ii. ‘I managed to reach the shelf,’ ENTAILMENT
és le-vet-t-em a lekvárt.
 and PRT-take-PST-1SG the marmalade.ACC
 ‘and I took the marmalade.’

The particle *el* can be associated both with perfective and imperfective readings (Dékány 2008). In DISPOSITIONAL MIDDLES, the external argument of a transitive verb is syntactically suppressed and the sentence is interpreted as generic ability modality statement.

- (6) a. *Innen lát-sz-ik a hegycsúcs.*
 from.here BE_ABLE_TO.see-MID-3SG the summit

‘One can see the summit from here.’ (=‘The summit is visible to all from here.’)

Following Alexiadou & Doron (2002), Halm (2020) assumed that the source of ability modality in dispositional middles is a silent modal operator high in the syntax. Under my proposal, there is no need for such stipulation as the modality is lexically hard-wired. This also explains why dispositional middles are limited to exactly this semantically well-defined and closed class of verbs in Hungarian. Assuming that GEN stands for \forall -quantification over relevant entities:

- (7) \emptyset_{GEN} *Lát-sz-ik a hegycsúcs.*

GEN BE_ABLE_TO.see-MID-3SG the summit
 $\forall x. \exists w' \in W [R_{ability}(w)(w') = 1 \ \& \ [[see(summit,x)]]^{w':g=1}]$

‘One can see the summit from here.’ = ‘The summit is visible (to all).’

(In languages such as Eng. or Hebrew, where a larger and more diverse set of verbs are admissible in disp. middles, it is of course plausible to assume a silent MOD operator high in the syntax.) ROOT INFINITIVES OF CIRCUMSTANTIAL MODALITY involve root clauses containing a single infinitival verb form with a modal meaning. Strikingly, the verbs that participate in this construction are the exact same ones that cannot combine with the ability modal *tud* ‘be_able_to’:

- (8) a. *Innen lát-ni a hegycsúcsot.*

from.here BE_ABLE_TO.see-INF the summit.ACC
 ‘One can see the summit from here.’

Bartos (2002) argues convincingly against a biclausal analysis of this construction (i.e. a silent matrix clause containing a modal operator). However, since he does not ascribe any inherent modality to the verbs concerned, he needs to stipulate a silent MOD operator right above CP, ending up with what he half-jokingly terms a one-and-a-half-clausal analysis. Also, in Bartos’s (2002) account, there is no satisfactory characterization of the verbs that are involved in the construction. Both problems disappear under my proposal: since the verbs involved are all inherently modal, there is no need for an extra-clausal silent modal operator and we can give a clear lexical semantic characterization of the verbs involved.

Some verbs of involuntary perception, (re)cognition and physical disposition (*lát* ‘see’, *ért* ‘understand’, *bír* ‘endure’) can function as ABILITY MODAL AUXILIARIES themselves:

- (9) a. *Félig-meddig meg-vakul-t-am, nem lát-ok olvas-ni.*
 sort.of PRT-blind_v-PST-1SG not be_able_to_{visual}-1SG read-INF

‘I am half blind, I can’t read (because of a degradation of my ability to see).’

I argue that the grammaticalization of such main verbs as auxiliaries is a type-lift phenomenon, where the type of ability (visual, cognitive etc.) is re-encoded in the restrictor of the modal:

- (10) a. $[[[lát_{main\ verb}]]^{w:g} = \lambda x. \lambda y. \exists w' \in W [R_{ability}(w)(w') = 1 \ \& \ [[see(y,x)]]^{w':g=1}]$
 b. $[[[lát_{modal\ auxiliary}]]^{w:g} = \lambda q. \exists w' \in W [R_{visual\ ability}(w)(w') = 1 \ \& \ q(w')=1]$

Silent and overt arguments in child language

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1. Introduction. In the literature, it has been controversially discussed whether children master PRO structures before or after Raising to Object (RtO) structures. While Kirby (2011) argues that RtO (1b), is easier for children, Landau and Thornton (2011) propose that children avoid deficient RtO structures and prefer full complements, (1a), instead.

- (1) a. John_i wants [PRO_i to solve the puzzle].
 b. John_i wants him_j [t_j to solve the puzzle].

We first present a comprehensive corpus study of child production data and report on the developmental trajectory of the control verb *want*, demonstrating that children have available silent arguments in the form of PRO (2-a) and traces of the raised argument in RtO (2-b) very early on. We observe an apparent asymmetry in the acquisition of the verb *want* depending on the subject of the embedded clause. Namely, PRO (2-a) appears first in child spontaneous production (see also Landau and Thornton 2011), have significantly higher frequency, and differ in the choice of Voice of the embedded verb compared to traces (2-b).

- (2) a. I_i want [PRO_i to read a book]. Eleanor, 2;00.06, MPI-EVA-Manchester
 b. I_i want him_j [t_j to eat]. 4687NH, 2;00.00, NewmanRatner

We then show that children do in fact realize subjects that must stay unpronounced in adult grammar, producing what Alexiadou et al. (2021) call *errors of commission*. From this perspective, overt subjects in the position of PRO and traces are in fact expected in child language and our data demonstrates that this is indeed born out.

2. Corpus study. We extracted all the utterances surfacing with the verb *want* from 49 corpora of typically developing children acquiring UK English (210 children, age range: 1;0-7;0) and US English (1112 children, age range: 0;6-8;0) from the CHILDES database (MacWhinney 2000) using the CLAN software. Out of total number of utterances containing the target verb (N = 31002), sentences in which the verb *want* is followed by an embedded clause (N = 7756) were selected for the analysis. The analysis covers the time span between the age of 1;4 when the first occurrence of control is attested in our corpora, and the age of 6;5 (N = 7701). In the next step, we annotated all the utterances (N = 7701) for the type of the silent subject (PRO vs. trace) and the Voice of the verb in the embedded clause.

3. Results. Our data shows that embedded clauses surfacing with PRO in the context of the control verb *want* are significantly more frequent (N = 5501) than clauses containing the trace of the raised silent subject in the RtO construal (N = 2200), aligning with Landau and Thornton’s results. As demonstrated in Figure 1, PRO appears first in the child spontaneous speech, while both forms record increase in frequency between 30 and 40 months (age 2;6-3;4). We argue that preference for PRO over traces stems from children’s bias against deficient structures, as suggested in Landau and Thornton (2011): complements involving PRO, in contrast to RtO environments, constitute complete functional domains, see also Santos et al. (2016). Furthermore, the two types of silent subjects differ with respect to the verb class in the embedded clause. Despite almost identical patterns with non-core transitive and causative verbs (Figures 2 and 3), the results of the generalized linear regression demonstrate the strong preference for PRO subjects over traces with causatives ($p = 0.008941$) NCTs ($p = 0.005599$), STs ($p = 7.97e-05$), and unergatives ($p = 0.000157$).

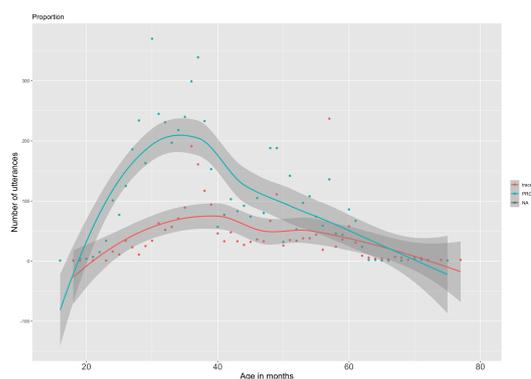


Figure 1: Proportion of PRO and traces

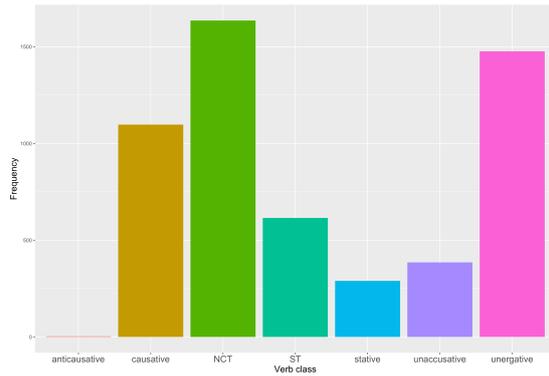


Figure 2: Distribution of verb classes with PRO subject

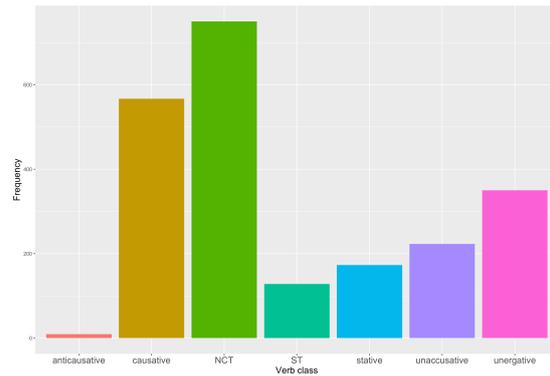


Figure 3: Distribution of verb classes with raised subject

4. Errors of commission. Alexiadou et al. (2021) argue that often in child grammars overt realizations of material that stays unpronounced in adult grammar can be found. In that sense, *errors of commission* may serve as a tool for investigating universal conceptual representations (CRs). Our data provides evidence for the overt realization of the subject argument that is silent, PRO, in adult grammar. This pattern is attested across 11 corpora. It covers a long time span in acquisition from the age of 1;6 (3-a), when the first overt PRO in our data is attested, to the age of 4;06 (5-d). Furthermore, we provide evidence that PRO in child language comes in three guises. In the first type, a child overtly realizes PRO in the form of the pronoun in nominative case (3).

- (3) a. I want **I** go. Olivia, 1;06.00, *Wells*
 b. I want **I** put the roof on. Aran, 2;04.13, *Manchester*

In the second group, instead of adult PRO, children overtly realize the subject argument of the embedded clause in the form of a pronoun in accusative case (4). This pattern is most frequent at the age of 2, when children also use the accusative form *me* to express subjects of matrix clauses (e.g., *Me want see outside*, Laura, 2;09.13, *Wells*). Accusative has been argued to be the default case in English (Schütze 2001), which might explain its presence in these contexts. Finally, in the third group of *errors of commission* in the subject domain, attested at later age, children use *me* to mark a subject of the embedded clause, overtly realizing *to* (5), which is absent in group two (4). This suggests that they analyze the control as an RtO environment, a pattern that is ruled out in adult English.

- (4) a. I want **me** read the other way. Nina, 2;02.28, *Suppes*
 b. I want **me** have some. Abe, 2;10.27, *Kuczaj*
 (5) a. Mommy I will want **me** to be right back. Matt, 3;00.02, *Weist*
 b. I don't want **me** to go into the doctor. Ross, 4;06.01, *MacWhinney*

This provides evidence that children acquiring English overtly realize obligatorily silent arguments in adult language. Such *errors of commission* in the subject domain, widely attested across several corpora, strongly support the idea proposed in Alexiadou et al. (2021) that child language reveals underlying representations.

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Exploring Consonant Harmony in Child Language Development and in Language Loss

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Consonant Harmony (CH), i.e. long-distance partial or full assimilation between non-adjacent consonantal segments (e.g. Hansson, 2010; i.a.), is a process not typologically common in adult systems. CH is widely attested in the early stages of (a)typical phonological development in many languages, Standard Modern Greek (SMG) among them (e.g. Kappa et al., 2022, i.a.), and it has been viewed as a *repair mechanism*, facilitating and promoting acquisition of structures while the acquisition of phonemic contrasts is yet to be completed (e.g. Vihman, 1978, i.a.). CH is also employed in aphasia, as a *compensatory mechanism* (Kohn et al., 1995).

Aim of this paper is to verify Jakobson's (1941) claim that aphasia is the mirror image of acquisition, and that phoneme acquisition and loss are both subject to the notion of *Markedness*. Therefore, this study will explore and subsequently compare the CH patterns attested in SMG, both in typical child speech and in aphasic adult speech, a topic not yet addressed in the Greek phonological literature. For the purposes of the study we rely

- (i) on a corpus of longitudinal developmental data from the spontaneous speech of 4 (male) children (ages:2-2;06.15 years;months.days) who acquire SMG as ambient language,
- (ii) on the Goutsos et al. (2011) corpus on *TalkBank*, from where we have drawn data from 10 Greek-speaking Persons With Aphasia (PWA) with phonemic paraphasias.

In both (i) and (ii) the CH applies within the domain of the phonological word (PWd).

- i) Typically developing children. CH directionality mainly leftwards (trigger of CH in italics)

Target	Child's Output	#Child No.(age)	Gloss	CH
1) <i>'feta</i>	<i>'teta</i>	#2(2;01.11)	'slice'	CORONAL
2) <i>'pano</i>	<i>'tano</i>	#2 (2;01.24), #1(2;04.16)	'on/above'	CORONAL
3) <i>sfu'gari</i>	<i>fu'dali</i>	#2(2;01.11), #6(2;03.19)	'sponge'	CORONAL
4) <i>xar'ti</i>	<i>sa'ti</i>	#2(2;01.11), #4 (2;05.18)	'paper'	CORONAL
5) <i>'cita</i>	<i>'tita</i>	#1(2;04;16), #2(2;01.24), #6(2;03.19)	'look!'	CORONAL
6) <i>ka'pelo</i>	<i>pa'pelo</i>	#2(2;01.11), #1(2;05.01), #6(2;03.19)	'hat'	LABIAL

Table 1. Percentages of CH in the speech of typically developing children. CH fades with age

Child #No /Age	Tokens with CH	CORONAL CH (tokens)	LABIAL CH (tokens)	DORSAL CH (tokens)
#2/ 2;00.24-2;03.24	296	87.50% (259/296)	11.50% (34/296)	1% (3/296)
#6/ 2;03.19- 2;05	82	93.90% (77/82)	3.66% (3/82)	2.44% (2/82)
#1/ 2;04.16-2;07.01	32	75% (24/32)	15.60% (5/32)	9.40% (3/32)
#4/ 2;05.18-2;08.15	18	66.80% (12/18)	16.60 % (3/18)	16.6% (3/18)

- ii) 26 instances of CH, mainly a CORONAL one, within the PWd, in a total of 162 paraphasias (16% of the total paraphasias of the 10 PWA studied), indicating that this is a rare compensation strategy among Greek-speaking PWA (trigger of CH in italics).

Target	Output	Gloss	Person with Aphasia	CH (trigger)
7) <i>ma.na</i>	<i>'na.na</i>	'mom'	PAR-A11	CORONAL
8) <i>vo'θiso</i>	<i>ðo'θiso</i>	'to help.1SG.FUT.'	PAR-A38	CORONAL
9) <i>e.je.fa.li.'ko</i>	<i>e.je.fa.li.'to</i>	'stroke'	PAR-A33	CORONAL
10) <i>'piso</i>	<i>'ðiso</i>	'back'	PAR-A13	CORONAL
11) <i>'ci.pos</i>	<i>'ci.kos</i>	'garden'	PAR-A13	DORSAL

In both the children's developmental data (1-6) and in the data of Persons With Aphasia (7-11) we have attested the following common CH patterns:

I. For both children and Persons With Aphasia, CH may occur leftwards between two onsets in successive syllables that may have similar feature(s) in the target structure, namely the same MANNER OF ARTICULATION (MoA) within the domain of phonological word. The

consonant segments that are mainly targeted by CH are LABIAL and DORSAL ones that agree to the most unmarked PLACE OF ARTICULATION (PoA), namely to the **unmarked** CORONAL PoA (Paradis & Prunet 1991) of the onset of a strictly following syllable, e.g. 'cita→'tita (5), ma.na→'na.na (7), vo'iθiso→'ðo'iθiso (8), following the *harmonic PoA hierarchy* (Prince & Smolensky, 2004), i.e. CORONAL>DORSAL (5) and CORONAL>LABIAL (7), (8) (>: more harmonic or less marked), while MoA and laryngeal features are realized faithfully.

II. CH may occur between two onsets in successive syllables that may have dissimilar feature(s) in the target structure, namely different MoA and PoA e.g. 'pano→'tano (2), sfu'gari→fu'dali (3), xar'ti→sa'ti (4), e.je.fa.li.'ko→e.je.fa.li.'to (9). In this case different patterns emerge:

a) PoA agreement to the most unmarked PoA (like above in (I)) for both children and PWA: CORONAL>LABIAL in (2) and CORONAL>DORSAL, in (3), (4), (9), while MoA and laryngeal features are realized faithfully.

b) both PoA and MoA agreement to the consonant with the more unmarked primary PoA, according to each grammar e.g. CORONAL>LABIAL: 'feta→'teta (1), 'piso→'ðiso (10).

The data show that in the children's developmental data LABIAL>DORSAL (6), while in the aphasic speech DORSAL>LABIAL (11).

Our results indicate that CH in Greek language development and language loss seems to be guided by *agreement* to an **unmarked primary PoA feature, i.e the CORONAL one**. We illustrate the grammars active in cases (i) and (ii), couching our analysis in Span Theory (McCarthy, 2004), and Agreement By Correspondence theory (ABC; Rose & Walker, 2004).

We claim that, while CH in language acquisition and loss is driven by unmarkedness, as claimed in the literature, it is the result of different requirements in the relevant grammars. CH in (Greek) developmental data is viewed not as product of phonologized speech error(s), but as a neutralization process which minimizes the contrasts, mainly in primary PoA features within the PWd, due to the children's immature phonological system in general (Fikkert & Levelt, 2008) which is being reorganized in the course of phonological development, and the faithful PoA licensing for each consonant segment within a PWd occurs in later developmental stages/a later age. CH in Greek aphasic data is a compensatory mechanism that seems to result from a phonological access deficit, not from an immature system or system reorganization (like in developing grammars): the PWA has access to the segmental quantity of the target word but a restricted access to some distinctive features (PoA or MoA) that cannot be retrieved for some phonemes within a lexical item. In order for these phonemes to be licensed and realized, they agree to an *unmarked for PoA* adjacent consonant on the segmental (consonantal) tier.

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Strong Quantifiers Resist Argument Ellipsis

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Background. Argument Ellipsis (AE) is a well-studied phenomenon in East Asian languages (Sato 2018, Sakamoto 2020) as well as in Hebrew (Landau 2018, to appear) and a number of other languages (Sato and Karimi 2016, Soltan 2020). Throughout the years, a number of curious restrictions on AE have emerged, which find no parallel in other elliptical constructions like VP-ellipsis, sluicing or stripping. Recently, Landau (to appear) proposed the following constraint to account for some of these restrictions.

- (1) *Type-restricted AE* (Landau to appear)
Elided arguments must be of type $\langle e \rangle$.

According to Landau, AE is derived by *pro*-replacement after TRANSFER (hence, invisible to PF). Because simplex variables are restricted to type $\langle e \rangle$ (Landman 2006), and *pro* is one such variable, the nominal substituted for *pro* must denote an individual, too. Landau shows that (1) accounts for the failure of AE to target higher-type arguments: Predicate nominals (*become X*), argumental adverbs (*behave X*), measure arguments (*cost X*) and others. One higher type unexamined by Landau is $\langle \langle e, t \rangle, t \rangle$, a generalized quantifier (GQ). This talk fills the lacuna by showing that GQ-denoting arguments also resist AE in Hebrew (noting parallels in Japanese and Korean). However, because “quantificational” readings can often be mimicked by $\langle e \rangle$ -type arguments, proving this point requires extra care.

Noncounterexample I: E-type pronouns. Object gaps whose antecedents are universal QPs appear to contradict (1), but as pointed out by Ahn & Cho (2011) for Korean, the relevant readings are easily obtained with a plural E-type pronoun; hence the object gap in the second sentence in (the Hebrew) example (2) may well be an E-type *pro* and not an elided strong (universal) QP.

- (2) ani makir kol student ba-kita ha-zot. Gam ata makir ___ / otam.
I know every student in.the-class the-this also you know them
'I know every student in this class. You do too / You know them, too.'

Noncounterexample II: Choice functions. Weak quantifiers and cardinals also routinely license AE in many languages, Hebrew included.

- (3) afiti harbe ugiyot. Mixal gam afta ___.
baked.1SG many cookies Mixal also baked.3SG.F
'I baked many cookies. Mixal did too.'

However, weak quantifiers and cardinals are perfectly compatible with a predicate/modifier denotation (type $\langle e, t \rangle$), introducing a set. The indefinite DPs can be construed as a choice function applied to this set, yielding an $\langle e \rangle$ -type denotation (Reinhart 1997, Winter 1997). Indeed, the choice function analysis has been successfully applied to such elided arguments in Japanese (Sato 2016, Kurafuji 2019). Kurafuji goes further to argue that even QPs headed by *most* (normally taken to be strong) lend themselves to this analysis; in Hebrew, AE of *most*-NPs only supports the E-type reading (data omitted for space reasons).

Test case I: $\neg \gg \forall$. The GQ “disguise” of E-type pronouns, seen in (2), falls off under scopal interaction with negation. Thus, while a universal QP can take scope under negation (4a), its elided counterpart cannot (4b), mirroring the behavior of a definite pronoun (see Ahn and Cho 2011 for parallel facts in Korean). Notably, the desired reading *is* available under stripping (removing the verb), which involves full TP deletion, falling outside the purview of (4) (data omitted for space reasons).

- (4) a. Yosi lo kara kol ma'amar ba-rešima. $\neg \gg \forall, \forall \gg \neg$
Yosi not read every article in.the-list
'Yosi didn't read every article on the list.'
b. Rina kar'a kol ma'amar ba-rešima, aval...
Rina read every article in.the-listbut
'Rina read every article on the list, but...'

Yosi lo kara ___ / otam, hu kara et rubam. $\forall > > \neg / * \neg > > \forall$
 Yosi not read them he read ACC most.of-them
 ('Yosi didn't read them, he read most of them.')

Test case II: Downward entailing quantifiers. Constant (2012) pointed out that DE quantifiers cannot be translated as choice functions since their witness set may be null. This implies that such quantifiers will resist AE, being genuine GQs. The prediction is confirmed in Japanese (Tomioka 2014, Kurafuji 2019) and in Hebrew too. Notice again how TP-ellipsis, not being an instance of AE, is free of this constraint: B's response below is uninterpretable when the verb is included.

- (5) A: ani makir paxot me-xaci me-ha-anašim kan.
 I know less from-half from-the-people here
 'I know less than half the people here.'
 B: gam ani (#makir) ____.
 also I know
 'Me too.'

Test case III: Exeptive phrases. Nominals such as *everyone but Mary* are modelled as generalized quantifiers, imposing disjointness or subtraction (von Stechow & Iatridou 2007, Gajewski 2013). In Japanese such nominals display the very restricted distribution of *strong NPIs* (Sauerland and Yatsushiro to appear), and the same is true of the Hebrew exeptive *ela*-NP 'but NP', whose head is systematically null, being understood as THING or PERSON, depending on context. Strikingly, *ela*-NP resists AE (6a), in sharp contrast to standard Negative Concord Items (NCI), which allow it (6b) like any other indefinite object. This immediately follows if the former denotes GQs and the latter denote saturated choice functions (type <e>).

- (6) a. Gil lo madad **ela žaket exad.**
 Gil not tried.on.3M.SG but jacket one
 Dan gam lo ___ / * Dan gam lo madad ____ .
 Dan also not Dan also not tried.on.3SG.F
 ('Gil tried on only a single jacket. Dan did too.')
- b. Gil lo madad **af žaket.** Dan gam lo madad ____ .
 Gil not tried.on.3M.SG any jacket Dan also nottried.on.3SG.F
 'Gil didn't try on any jacket. Dan also didn't.'

Time permitting, I will discuss two further environments where (1) predicts AE to fail: numeral NPs scoping under negation and distributive inverse scope sentences.

Conclusion. The present study has several implications beyond corroboration of (1). It sharpens the dichotomy between AE and V-stranding VP-ellipsis, a familiar competing analysis, as the latter is not expected to display any of the effects discussed above (witness the English VPE translations). In addition, it contributes to the growing literature on choice functions and their various manifestations, and may well inform the proper analysis of NCIs and exeptive phrases in general.

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Lexical prefixes don't stack. And when they do?

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It has been observed that when Slavic verbal prefixes stack, i.e. when a verb hosts more than one prefix, their ordering does not seem to be random, but it rather reveals certain restrictions of a fairly formal character. Two types of ordering restrictions have been observed when it comes to Slavic prefixes. Firstly, prefixes can be classified into two (or three) groups: lexical and superlexical prefixes, with lexical prefixes always ordered closer to the verbal root (Babko-Malaya 2003, Svenonius 2004, Tatevosov 2008, a.o.). One property separating lexical from superlexical prefixes is their ability to stack: a verb can only host one lexical prefix, while superlexical prefixes can stack. And secondly, superlexical prefixes, when stacked on a verbal stem, follow a fixed order (Istrakova 2004, Wiland 2012, Endo and Wiland 2014, a.o.).

We set out to test these two descriptive statements by investigating a sample of verbs extracted from the *Gigafida 2.0* corpus of written Slovenian (Čibej et al. 2019). We examined 507 multiply-prefixed verbs with at least 100 occurrences in the corpus. Figure 1 shows the relative amount of prefixes that a prefix can appear with either when it comes first in a pair of prefixes or second, while Figure 2 shows the frequency of prefixes relative to their position in a multiply prefixed verb.

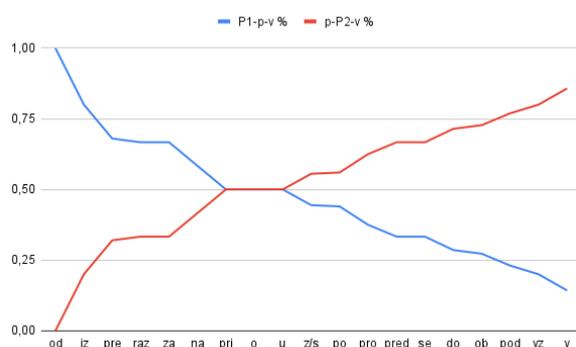


Figure 1

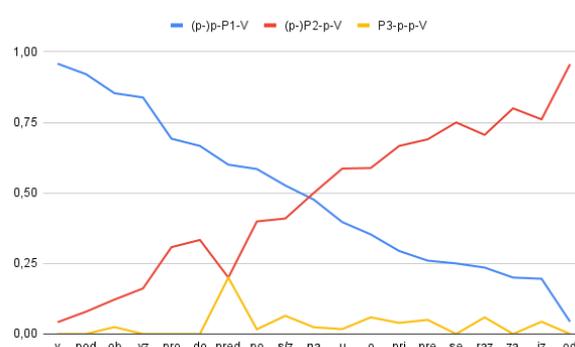


Figure 2

On the one hand, the data in Figures 1 and 2 are consistent with the two descriptive statements from above (superlexical prefixes indeed precede lexical ones, so for instance *v-*, for which the literature has not identified any superlexical uses, almost never stacks; superlexical prefixes seem to appear in a certain order). On the other hand, lexical prefixes exhibit some unexpected behavior that we focus on in this talk, namely, no prefix appears exclusively in the position attached immediately to the verbal root (at this point we ignore the difference between the observed order of prefixes in Slovenian (either one from Figs. 1 and 2) and the orders reported in Endo and Wiland 2012). So even though prefixes such as *vz-*, *s-/z-*, *pod-* etc. are said to be (nearly) exclusively lexical prefixes (Šekli 2016), they appear in approximately 20% of multiply prefixed verbs stacked over another prefix.

One of the defining properties of lexical prefixes is their inability to stack on top of other prefixes. This, together with their idiosyncratic or spatial resultative meaning, is taken as a motivation for analyzing them as originating inside the VP, for example as heads of a Result Phrase (Svenonius 2004) from where they undergo movement to the VP. Since a verb cannot have more than one resultative complement (Rappaport & Levin 2001, Ramchand 2008, a.o.), the verb will thus only be able to have one lexical prefix. Probing into our data sample described above, however, we find a small group of verbs that appear to contain more than one lexical prefix. Some examples are provided in (1)-(3) (and see Romanova 2004, drawing on Isačenko 1960, for Russian data similar to (1) and (2)).

- (1) a. pri-j-e-ti b. o-pri-j-e-ti (2) a. vz-p-e-ti b. po-vz-p-e-ti
 at-√-TV-INF.PFV around-at-√-TV-INF.PFV up-√-TV-INF on-up-√-TV-INF
 ‘to hold’ ‘to clasp’ ‘to climb’ ‘to climb’
- (3) a. po-stav-i-ti b. vz-po-stav-i-ti
 after-√-TV-INF.PFV up-after-√-TV-INF.PFV
 ‘to put/stand’ ‘to establish’

In examples (1)-(3), the outer prefixes *o-*, *po-* and *vz-* do not carry a ‘superlexical’, adverbial meaning, but rather a spatial, (1b), or idiosyncratic, (3b), meaning typical of lexical prefixes. In some cases, (2b), the contribution of the additional prefix is unclear, i.e., we cannot find a context where only (2a) or only (2b) could be used. Now, these prefixes are not pure perfectivizers, since i) they can combine with a prefixed verb that is already perfective, as in (1)-(3), and ii) unlike standard lexical prefixes, such as *pri-* ‘at’ in (4b), this “second” lexical prefix does not perfectivize when occurring on a secondary imperfective, as in (5b). These verbs also cannot straightforwardly be analyzed as verbs with a complex-path prefix string analogous to complex-path prepositions, such as *izpod* ‘from under’ (e.g. *iz-pod-makniti* ‘move sth from under sth’). And if one were to argue that verbs like *s-pri-jeti* only have a single lexical prefix, *s-* (while *prij-* is an undecomposable root), the perfectivity of *pri-jeti* and the existence of the potential root *-j-* with various other prefixes (e.g. *na-jeti* ‘to hire’, *ob-jeti* ‘to hug’, *pre-jeti* ‘to receive’, *za-jeti* ‘capture’, etc.) suggest that this is not the right analysis.

- (4) a. teči b. pri-teči (5) a. pri-jeti b. pri-jemati c. s-pri-jemati
 run.IPFV at-run.PFV at-hold.PFV at-hold.IPFV with-at-hold.IPFV
 ‘to run’ ‘to run up’ ‘to grab’ ‘to grab’ ‘to stick’

Furthermore, while doubly prefixed verbal strings like (6b) have already been argued to contain two resultative prefixes (Žaucer 2009), the prefixes under discussion here differ from these in that, among other things, they do not introduce unselected objects (in relation to the singly-prefixed verb). Examples (6) (based on Žaucer 2009) and (7) show this contrast.

- (6) a. za-vezovat (*se) gojzarje b. na-za-vezovat se gojzarjev
 behind-tie self boots.ACC on-behind-tie self boots.GEN
 ‘be tying up boots’ ‘get one’s fill of tying up boots’
- (7) a. pri-jeti vejo b. o-pri-jeti se vejo
 at-hold branch.ACC around-at-hold refl branch.GEN
 ‘to grab a branch’ ‘to grab on to a branch’

While at first glance our data with double lexical prefixes could be taken as an argument for verbs being able to host more than one result, we will not argue for such an analysis as the “second” lexical prefix does not introduce a new argument or a new sub-event. Rather, we will argue that some of our data may have arisen from structures with a result prefix and a result-modifying prefix in the sense of Žaucer (2013), and some should be analyzed similar to den Dikken’s (1995) double particle constructions such as *I’ll send the letter on over to Grandma’s house*, or PPs embedded under particle verbs, e.g., *throw out the trash onto the lawn*. We will therefore argue that in our verbs with more than one lexical prefix the resultative part contains a single PP (cf. den Dikken 1995, Svenonius 2004).

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Non-local allomorphy in Russian verbal stress retraction
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Problem: Since Garde 1968, 1998, Halle 1973, Melvold 1990, Gladney 1995, Feldstein 2015, etc., in the present tense Russian verbs have been known to exhibit one of three patterns: systematic stress on the stem, systematic post-stem stress and the variant pattern with post-stem stress in the 1sg and post-stem stress in all other forms (illustrated with 3sg):

(1) Accentual interaction in Russian verbs, illustrated for the semelfactive suffix *-nu-*,

		accented PRES-3SG	accented PRES-1SG	accented PAST-FSG	unaccented PAST-PL
a.	stem: <i>-top-</i> ‘stomp’	tóp-n-e-t	tóp-n-u	tóp-n-u-l-a	tóp-n-u-l-i
b.	post-stem: <i>-max-</i> ‘wave’	max-n ⁱ -ó-t	max-n-ú	max-n-ú-l-a	max-n-ú-l-i
c.	variant: <i>-obman-</i> ‘lie’	obmá-n-e-t	obma-n-ú	obma-n-ú-l-a	obma-n-ú-l-i

Underlying representations: with Jakobson 1948, Halle 1973, Melvold 1990, etc., we assume that the vowel of the semelfactive suffix *-nu-*, overt before consonantal suffixes (like the past-tense suffix *-l-*), is deleted before vocalic suffixes (such as the first-conjugation present-tense suffix *-ě-*) by a general vowel-before-vowel deletion process to avoid hiatus. The suffix *-ě-* is retained before consonantal suffixes and deleted before the vocalic 1sg suffix *-u-*:

- (2) a. $\sqrt{-nu-ě-t} \rightarrow \sqrt{-n-} -ě-t$ 3sg
 b. $\sqrt{-nu-ě-u} \rightarrow \sqrt{-n-} -ě-u \rightarrow \sqrt{-n-} -u$ 1sg

Underlying accents: Russian stress follows the Basic Accentuation Principle (BAP, Kiparsky and Halle 1977), by which the leftmost accent wins. Following the same uncontroversial prior analyses (Garde 1968, 1998, Halle 1973, Melvold 1990, etc.) I assume that the present-tense suffix and the semelfactive suffix, as well as most theme suffixes, introduce an accent (evidence comes from athematic verbs).

Retraction: Halle 1973 and Melvold 1990 propose that the stems in (1c) are lexically marked to trigger retraction, an independently motivated process moving accent one syllable to the left, in all cells except 1SG. Yet Feldstein 2015 points out that two more forms based on the present tense, the imperative (surface *-i* or *-j*) and the present tense gerund (surface *-ja*), have the same stress placement as the 1SG form. The fact that the non-retracting suffixes are all simple vowels (*-V#*) strongly suggests that the process is phonological in nature.

Proposal: I will argue that the pattern in (1c) involves allomorphy of the present-tense suffix across the semelfactive suffix. Specifically, I suggest that with “retracting” stems the present-tense suffix is realized as the front yer *-ĭ-* marked to resist accentuation. Independent evidence for the existence of such a yer comes from Halle 1973, observing that retraction in nouns can either land on the stem-final yer or skip it. Thus the three nouns in (3), while post-accenting in the singular, have stress on the stem in the plural. Our crucial contrast is (3b) vs. (3c), which both contain a stem-final yer. In the nominative plural the stem yer is not vocalized and stress in both examples falls on the syllable before the yer. In the genitive plural in (3b) the stem yer is vocalized and stress is stem-final, as in (3a), yet in (3c) the stem-final yer cannot be stressed (for whatever reason) and stress shifts one syllable further to the left.

- (3) a. *-koles-* ‘wheel’: nom.sg: *kolesó*, nom.pl: *koliósa*, gen.pl: *koliós*
 b. *-kolĭc-* ‘ring’: nom.sg: *kolícó*, nom.pl: *kólĭca*, gen.pl: *koléc*
 c. *-pisĭm-* ‘letter’: nom.sg: *pis’mó*, nom.pl: *písma*, gen.pl: *písem*

I suggest that the present-tense *-ĭ-* allomorph shares whatever property the yer in (3c) has that makes it resistant to accentuation. More specifically, I propose that both yers are unaccentable. For the present-tense allomorph this entails that the accent assigned to it (whether underlying or arising from the deletion of the vowel of the preceding accented suffix) ends up on the next syllable. When the next syllable is that of the 1sg suffix *-u-* (or any other vocalic suffix), stress surfaces on it. The remaining suffixes, however, are consonantal and can be argued to all contain yers (2SG *-šŭ-*, 3SG *-tŭ-*, 1PL *-mŭ-*, 3PL *-ntŭ-*; the one exception is the 2PL *-te-*, for which a special proviso is needed). Since unvocalized yers cannot be stressed, stress is shifted to the preceding syllable (that of the present-tense suffix) again and from it, by the same mechanism as in (3), to the syllable before it (i.e., the final syllable of the stem).

Alternative 1: stem accentuation: The first hypothesis, that the patterns in (1) correspond to accented, post-accenting and unaccented stems, respectively, is disproved by comparing the present-tense paradigms to the past tense, where only two patterns are attested, showing that the semelfactive suffix is accented. Since this accented suffix is to the left of both tense and agreement inflection, by BAP the stress pattern in (1c) cannot be due to an unaccented stem. As athematic verbs and verbs with the unaccented theme suffix *-a-* exhibit accentual variability in the past but not in the present, this hypothesis is further disproved.

Alternative 2: hiatus resolution: Idsardi 1992:124 proposes that stems like (1c) fail to trigger stress retraction in 1SG because the present tense suffix (*-ě-*) is deleted before a vocalic suffix. Two problems arise with this proposal. Firstly, as noted by Feldstein 2015, retraction also fails in the present tense gerund (surface *-ia*), which, however, is not vocalic underlyingly. Secondly, while second conjugation verbs also exhibit the pattern in (1c), the second-conjugation present-tense suffix, *-i-*, is not deleted before the 1sg *-u-*, but rather turns into a glide.

To illustrate both points, consider the second-conjugation verb in (4) with the theme suffix *-e-* (motivated by the past-tense form in (4a)) and the present tense suffix *-i-* (motivated by the 3SG form in (4b)). As the 1SG form in (4c) shows, [i] before a back vowel triggers glide-formation and subsequent mutation (Halle 1963, Lightner 1972, Coats and Lightner 1975, Bethin 1992, etc.), which is a distinct process from that invoked for (1c). Postulating *-a-* as the underlying form of the gerund suffix yields the incorrect surface representation (4d). (Lightner 1965:76 postulates the historically motivated *-nC-*, if we adopt this view as well, the crucial factor will be that a different vowel is created, which does not inherit the yer's unstressability.)

- | | | | |
|--------|---|----|--|
| (4) a. | vid- e- l- a
see TH PAST F
[she] saw | c. | vid- e- i- u ⇒ <i>viž'u</i>
see TH PRES 1SG
<i>I see</i> |
| b. | vid- e- i- t ⇒ <i>vidit</i>
see TH PRES 3SG
<i>sees</i> | d. | vid- e- i- a ⇒ <i>*viža</i>
see TH PRES GER
<i>seeing</i> (attested: <i>vid'ia</i>) |

Alternative 3: non-locality: The relation between the root marked for the “retraction” diacritic and the present-tense suffix is non-local, as is particularly clear in the case of the semelfactive suffix *-nu-*. Can it be argued that it is the suffix following the root (the semelfactive in (1) or the theme suffix in (4)) that is assigned some special property by the root? If yes, what would this property be? It cannot be unaccentability, because with the unaccented consonantal past-tense suffix *-l-* there is no retraction. It cannot be a floating accent, because this would render the whole stem post-accenting and retraction would still be unexpected. Finally, it would have to be linked to the present tense, because the vowel-initial passive past participle suffix *-ěn-* does not trigger retraction, and in this the non-locality resurfaces.

Further discussion: The postulated special yer is motivated historically (the first-conjugation present-tense suffix *-ě-* is historically derived from the *-ĩ-* theme), yet the second conjugation present-tense suffix is generally assumed to be *-i-* (4). Do we assume the “retracting” variant to also be *-i-* even though a retracting [i] is not independently motivated? I will argue that there is independent evidence for postulating that the surface [i] before the 3SG suffix in (4b) arises from a two-step process: firstly, the theme suffix *-e-* undergoes ablaut in the present tense. This ablaut is independently motivated by the verb *molót'i* ‘to grind’, whose root vowel is fronted in the present tense (1SG: *mel'íu*), and by the so-called transitive softening verbs, whose theme can be argued to undergo the same process. The second step transforms the *i-ĩ* sequence into the [i] of the second-conjugation present tense. If this analysis is correct, it will do away with the two standard conjugation classes of Russian, retaining just *-ĩ-* throughout, which would be lowered to [ě] in the first conjugation (because the preceding vowel there is not [i], it will be deleted or changed into a glide before [i], which itself will be lowered before non-1sg endings as discussed above). Irrespective of this additional proposal, the hypothesis that the pattern in (1c) involves a suffix with properties known to be attested elsewhere (3c) is progress on prior proposals.

Left-right asymmetries in conditional clause attachment and multiple complementizers

Nicola Munaro (University of Venice)

Capitalizing on the basic distinction between central and peripheral adverbial clauses proposed by Haegeman (2012), slightly revised in Badan & Haegeman (2022), the aim of this work is to shed some light on certain left-right asymmetries in the distributional properties of conditional clauses in standard Italian, drawing evidence from multiple complementizer constructions in Romance.

In modern standard Italian, both a non-integrated peripheral conditional (1a) and a central conditional (1b) can freely appear at the right periphery of a clause:

- (1) a. Mi hanno detto che dovremo parlare con Gianni, se proprio vuoi saperlo.
'They told me that we will have to speak with John, if you really want to know.'
b. Mi hanno detto che dovremo parlare con Gianni, se il tuo collega non verrà alla riunione.
'They told me that we will have to speak with John, if your colleague will not join the meeting.'

However, the situation is more intricate when the conditional clause precedes the embedded clause; a central conditional clause interpretively associated to the embedded clause follows generally the subordinating complementizer *che* (2a), while its positioning between the embedding predicate and the complementizer (2b) or before the main clause (2c) yields deviant or ungrammatical sequences:

- (2) a. Mi hanno detto che, se il tuo collega non verrà alla riunione, dovremo parlare con Gianni.
'They told me that, if your colleague will not join the meeting, we will have to speak with John.'
b. ??Mi hanno detto, se il tuo collega non verrà alla riunione, che dovremo parlare con Gianni.
'They told me, if your colleague will not join the meeting, that we will have to speak with John.'
c. *Se il tuo collega non verrà alla riunione, mi hanno detto che dovremo parlare con Gianni.
'If your colleague will not join the meeting, they told me that we will have to speak with John.'

Interestingly, the grammaticality pattern is exactly the reverse with a peripheral conditional clause, which preferably precedes the main clause (3c), while its occurrence after the embedding predicate (3b) or after the embedding complementizer (3a) results in a deviant structure:

- (3) a. ??Mi hanno detto che, se proprio vuoi saperlo, dovremo parlare con Gianni.
'They told me that, if you really want to know, we will have to speak with John.'
b. ?Mi hanno detto, se proprio vuoi saperlo, che dovremo parlare con Gianni.
'They told me, if you really want to know, that we will have to speak with John.'
c. Se proprio vuoi saperlo, mi hanno detto che dovremo parlare con Gianni.
'If you really want to know, they told me that we will have to speak with John.'

Adopting a cartographic approach to the structure of the left-periphery along the lines of Rizzi & Bocci (2017), and following previous studies on the distribution of conditional clauses in multiple complementizer constructions (Ledgeway (2005), Paoli (2007)), I will show that preposed adverbial clauses could occupy in early Italo-Romance varieties different specifier positions within the left periphery of embedded clauses; this possibility has been lost over the centuries and is no more attested in modern Italian, where preposed central conditional clauses target the specifier of a high functional projection within the Topic field (cf. Munaro (2005)). Beside the ordinary structure with one complementizer introducing the embedded clause, in Old Italian we can find numerous examples where the protasis appears sandwiched between two instances of the complementizer *che*:

- (4) a. ...però vi priegho in lealtade e fede *che*, se ttue vuoi del mio avere, *che* ttu ne tolghi.
'...therefore I ask you in loyalty and faith that, if you want my belongings, that you take some...'
(*Libro della distruzione di Troia*, p.155, ll. 26-27)
b. ...ti priego *che*, se egli avviene ch'io muoja, *che* le mie cose ed ella ti sieno raccomandate.
'...I ask you that, if it happens that I die, that my things and she be entrusted to you.'
(*Decameron*, 2,7,84)

Ledgeway (2005) - discussing some similar examples of complementizer doubling from Southern Italian varieties of the 14th-15th century - interprets the first occurrence of *che* as the lexicalization of Force[°] and the second one as the phonetically realized trace left in the intermediate landing site Topic[°] by the complementizer raising from Fin[°] up to Force[°]. In the same vein, Paoli (2007), discussing some cases of complementizer doubling in early Romance, takes the second occurrence of *che* to head the TopicP projection, which hosts the topicalized adverbial clause in its specifier:

(5) Main clause [ForceP [Force[°] *che1*] [TopicP conditional clause [Topic[°] *che2*] ...]]

The possibility for a topicalized phrase or an *if*-clause to intervene between two instances of *que* is still robustly attested in modern Ibero-Romance; according to Villa-García (2012) and González i Planas (2014), in complementizer doubling structures *que1* lexicalizes the head Force[°], while *que2* lexicalizes a head Topic[°] which hosts the topicalized adverbial clause or the topicalized phrase in its specifier. We can safely conclude that in double complementizer constructions the function of the higher complementizer is to lexicalize the subordinating head Force[°], while the lower occurrence of the complementizer marks the boundary of a Topic subfield (cf. Benincà & Poletto (2004)).

From a diachronic perspective, it is therefore possible to detect a direct relation between the presence of complementizer doubling and the relative freedom of placement of central conditional clauses (the situation of early Italo-Romance and modern Ibero-Romance): the loss of complementizer doubling in most modern Italo-Romance varieties entails a gradual shift to a stricter localization of central conditionals within the left periphery.

Going back now to the grammaticality asymmetry between (2) and (3) above, I will argue that it is due to the different levels of attachment of integrated vs non-integrated conditionals. Following Haegeman & Hill (2013), I postulate a recursive SpeechAct layer, articulated in a higher SpeechAct2, encoding the setting up of the discourse layer with an ‘attention seeking’ attitude of the speaker, and a lower SpeechAct1 with a ‘bonding’ function, anchoring the associated clause to the discourse; in particular, I submit that non-integrated peripheral conditionals should be analyzed as sentential speech act modifiers occupying the specifier of the SpeechAct2 projection, which is merged at the left of ForceP. Central conditionals are instead merged at a much lower structural level, but - as argued above - can nonetheless undergo a displacement process targeting the specifier of a Topic projection of the embedded clause, yielding the sequence in (2a). Under this approach, the two sequences in (1a) and (1b) are produced, despite appearance to the contrary, by two radically different syntactic derivations: while (1b) arguably reflects the basic word order with the central conditional clause adjoined to the right of the vP of the embedded clause, (1a) is derived by topicalizing the whole chunk formed by main and embedded clause to the left of the peripheral conditional sitting in the specifier of SpeechAct2P inside the left periphery of the main clause.

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Tense in epistemic and counterfactual modals: evidence from Bulgarian

Vesela Simeonova (University of Graz)

I. Background. The interactions between tense and non-root (epistemic) modals have been subject to great interest especially since Condoravdi’s 2001 seminal work. Drawing on data mainly from English, Condoravdi argues that past tense can project either higher or lower than the modal, giving rise to epistemic and counterfactual (‘CF’) readings, respectively:

- (1) Mary **might have** (a. already/b. still) won the race.
 a. epistemic: modal > past (I wonder if she actually did)
 b. counterfactual: past > modal (But she didn’t.)
 c. logically **impossible**: past > modal > past

Condoravdi’s theory predicts that it is **LF-impossible** for tense to appear in **both** positions (1c). While much cross-linguistic work has been done since (see Laca, 2012; Karawani, 2014; Xie, 2015; Qin, 2019; Fălăuş and Laca, 2020), this prediction has not been verified to date.

II. Research question. I test Condoravdi’s prediction on tense in Bulgarian – a language that has **overtly** tensed modals as well as **no** infinitives, which means that its temporal morphology is fully transparent, unlike English and most languages. This makes it ideally suited for determining the position wrt the modal at which tense is interpreted.

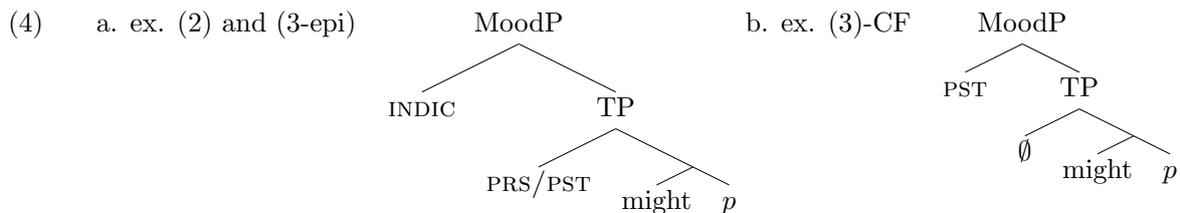
III. Novel data. Example (2) demonstrates that (1a) is borne out: a low perfect under a modal tensed for present indeed gives rise to epistemic readings only and cannot be CF.

- (2) Može da e pristignal.
 might.PRES SUBJ aux.PRES.3SG arrive.PP
 ‘He might have arrived.’ (✓epistemic: given what is known presently; #CF: if he hadn’t missed the train)

However, when the modal is tensed for past and the main verb is present, (3), the string is **ambiguous** between a CF and an epistemic reading, as opposed to only CF in Condoravdi’s (2001) model. Note also that while in both readings the orientation of the main verb is future with regards to the modal, the anchoring of the modal is present **or** past on the CF reading and **past** on the epistemic one, itself an understudied phenomenon.

- (3) Može-she da pristigne.
 might-PST SUBJ arrive.PRES.3SG
 ‘He might have arrived.’ (✓epistemic: given what was known at some past time (but before the time of the potential arrival); ✓CF: if he hadn’t missed the train)

IV. Formal syntax-semantics account. I propose that the tense on the modal can be interpreted at one of two syntactic positions that are each **higher** than the modal: at TP for epistemic readings, yielding a **real tense** interpretation (4)a, and at MoodP for the CF readings, (4)b, giving rise to a **fake past** interpretation in the sense of Iatridou (2000):



- (5) $\llbracket PST \rrbracket = T(x)$ excludes $C(x)$ (where T =Topic and C =centered to speaker)
- a. at TP: C interpreted wrt times (the *now* of the speaker)
 - b. at MoodP: C interpreted wrt worlds (the world $w_{@}$ of the speaker)

Importantly, in this proposal epistemic modals are **always** in the scope of tense, even when the perspective is present, as in (2) (i.e. (2) has a real present feature at TP, as in (4a)), not only unifying the availability of temporal expression on modals in root clauses but also tying it explanatorily to their flavor. In Condoravdi’s model tense can only be interpreted **either** below or above the modal, i.e. when below, the modal itself is not tensed, unable to explain why the perspective is temporally interpreted.

This model also explains (i) why we don’t see a CF interpretation in (2): CF needs past morphology (there is no fake present!); (ii) the dissociation between morphological past and the temporally ambiguous interpretation of CF as in (2): since the modal can get only one temporal marking, tense morphology is necessarily interpreted either at TP or at MoodP, and in the latter case the temporal interpretation is entirely context dependent.

V. Predictions and more data. My proposal predicts that since the CF/Epist interpretation of the modal is independent from the tense on the main verb, (i) a combination of past perspective and past orientation is logically possible, contrary to Condoravdi’s prediction in (1c); (ii) it should allow both the epistemic and the CF readings, as the high past in (3). Both predictions are borne out:

- (6) Može-she da e pristignal.
 might-PST SUBJ aux.3SG arrive.PP
 ‘He might have arrived.’
- a. ✓epist: we had incomplete information in the past t about his arrival at $t_1 < t$
 - b. ✓counterfactual: if he hadn’t missed the train...

VI. The role of the low perfect. The final ingredient in the account is what happens with the main verb. I propose that the Bulgarian *da*-subjunctive is not temporally finite despite having surface present tense morphology (see Haug et al., 2019) but is only aspectual and the present perfect on the main verb gives a past interpretation due to its (standard) aspectual encoding of precedence (as in (6)a); similarly, present main verb morphology, e.g. in (3), contributes only aspect (simultaneity for imperfective and posteriority for perfective). This idea builds on Smirnova (2010) and is further supported by the lack of morphologically past tenses after *da* (e.g. **pristigna* ‘arrived.AOR’ in (6) instead of the low perfect), which is not explained if the main verb has full-fledged tense. Structurally, it means that below the modal verb there is no TP projection but only AspP, i.e. there is no tense in the scope of a modal.

Conclusion. The novel findings reported here demonstrate finer-grained temporal interpretations of modals and CF than previously thought possible. I propose an explicit formal syntax-semantics model in which the distinction between the CF and the epistemic reading is determined entirely above the modal. This has intriguing consequences for the understanding of modality, counterfactuality, and their interaction with tense and finiteness.

Clickable references: Condoravdi (2001) • Fălăuș and Laca (2020) • Haug et al. (2019) • Iatridou (2000) • Karawani (2014) • Laca (2012) • Qin (2019) • Smirnova (2010) • Xie (2015).

Towards an adverbial-only analysis of Bulgarian focus-sensitive particles

Carla Spellerberg (Goethe University Frankfurt)

The syntactic and semantic properties of focus-sensitive particles (FSPs), adverbials such as English *only* or *even*, have received varying degrees of attention so far depending on the language studied. FSPs are small, invariable particles that tend to associate with focus (Sudhoff 2010: 1). Up to today, a lot remains unknown about the distribution of FSPs in Slavic languages, and work on information-structural aspects of Slavic is often centered around Russian data, with other Slavic languages being understudied in this respect (Jasinskaja 2016: 731-2).

There are only few in-depth studies of Bulgarian FSPs, such as Tomaszewicz (2013), and Tisheva & Dzhonova (2003), a corpus study of the distribution of the FSP *samo* ‘only’ at the level of surface structure. Tisheva & Dzhonova (2003: 65) argue that *samo* “can have scope over NP, PP, AdvP, VP, or part of XP”. Additionally, Bulgarian FSPs can left-adjoin to the focused constituent or can follow the focus. An example is given in (1).

- (1) (Tisheva & Dzhonova 2003: 66)
- a. Čet-a samo [ROMAN-I]_F
read-1SG only novel-PL
‘I read only novels’
 - b. Čet-a [ROMAN-I]_F samo.
read-1SG novel-PL only
‘I read only novels’

Samo ‘only’ marks narrow focus, adjoins to the focused constituent as closely as possible, and assigns focal stress to the constituent it has scope over (Tisheva & Dzhonova 2003: 60). On the surface level, *samo* and other Bulgarian FSPs seem to be able to adjoin to various types of phrases, as Tisheva & Dzhonova (2003) argue. This is hardly surprising as it is well-known that Bulgarian word order is extremely flexible. Although SVO is taken to be the basic, unmarked word order in Bulgarian, different word order patterns can be exploited for information structural reasons (see Rudin (1986), for example, for an overview).

When it comes to analyzing the distribution of FSPs in a language, there are two possible main analyses available: the adnominal and the adverbial-only analysis. The adnominal analysis assumes that FSPs can attach to all possible types of phrases, including VPs, DPs, and PPs. The adverbial-only analysis proposes that FSPs only adjoin to projections belonging to the Extended Verbal Projection (EVP) (Büring & Hartmann 2001). Büring & Hartmann (2001) provide an adverbial-only account of German FSPs, arguing that this type of analysis accounts for distributional facts of German FSPs that are surprising and unaccounted for under an adnominal analysis, such as the impossibility of FSPs adjoining to DPs within PPs. (2) shows that this prohibition extends to Bulgarian.

- (2) a. samo s [ANNA]_F
only with Anna
‘only with Anna’
- b. *s samo [ANNA]_F
with only Anna
intended: ‘only with Anna’

At first sight, it seems as if FSPs like *samo* in fact adjoin to DPs such as in (1). However, an adnominal analysis of Bulgarian FSPs that only considers surface structure falls short of explaining the data in (2).

In this talk, I provide an adverbial-only account of Bulgarian FSPs such as *samo* ‘only’, showing that the analysis of Büring & Hartmann (2001) can be extended to languages with extremely flexible word order. I present new data demonstrating how an adverbial-only analysis captures the distributional facts of Bulgarian FSPs, including the prohibition in (2). The fact that FSPs like *samo* can be stranded when the phrase in focus is moved to FocP in the left periphery provides a further argument that *samo* does not adjoin to the DP in question:

- (3) [ROMAN-I]_F čet-a samo
 novel-PL read-1SG only
 ‘I read only novels.’

In addition to the proposed adverbial-only analysis, I discuss a potential account of post-focal *samo* (as shown in (1b)) and whether the fact that the focused constituent moves above the FSP in the left periphery as well as in the VP could indicate that Bulgarian has a focus projection (and possibly further information-structural projections) within VP that the focused constituent can move to, similar to the proposal that Belletti (2004) makes for Italian.

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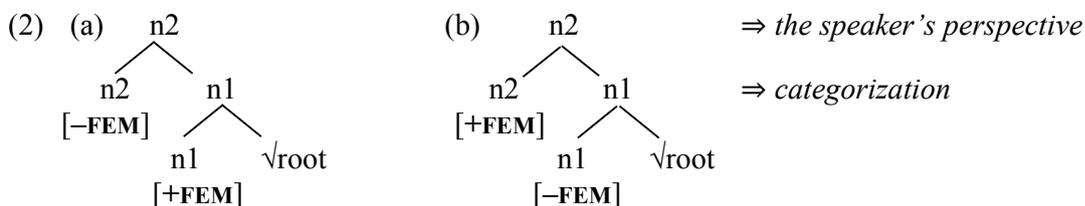
**Gender discrepancies and an evaluative gender shift:
A cross-linguistic study within the Distributed Morphology framework**
Olga Steriopolo (Leibniz-ZAS)

This research proposes a cross-linguistic study of the meaning (function) and structure (form) of grammatical gender discrepancies within the theoretical framework of Distributed Morphology. Gender discrepancies are mismatches between the usual application of gender morphology and a reversed gender morphology (typically using feminine gender to refer to a man, or masculine gender to a woman). Such mismatches can be applied deliberately by a speaker for evaluative purposes, namely, to express their positive or negative value judgements toward a referent.

For example, in Manambu, a fat and smallish man can be referred to with the feminine gender, as in (1a), while an unusually big woman can be referred to with the masculine gender, as in (1b). In both cases, such use of a reversed gender is considered extremely derogatory (Aikhenvald 2012).

- (1)
- | | | | |
|----|--|----------------------------|-----------------------|
| a. | <i>kə-ø</i>
this-F.SG | <i>numa</i>
big-F.SG | <i>du</i>
man |
| | ‘this fat round man’ (smallish) | | |
| | | | |
| b. | <i>kə-də</i>
this-M.SG | <i>numa-də</i>
big-M.SG | <i>ta:kw</i>
woman |
| | ‘this (unusually) big, boisterous, or bossy woman’ | | |
- (Aikhenvald 2012: 53, 54)

In terms of the form, I propose that grammatical gender discrepancies can arise as the result of a conflict in the values (+ or –) of the morphosyntactic gender features located on two structurally different levels of the DP, *n1* and *n2*, as shown in (2).



In terms of the function, I suggest that the syntactic level of the speaker’s perspective, which is optionally projected in the DP structure, can be employed for socio-pragmatic purposes, namely to indicate a speaker’s view on a deviation from the norms and values, as accepted in a given society. This level can also be used to indicate a speaker’s emotive attitudes which are often associated with the concept of size. Such associations are different across cultures and languages, as in some languages the concept of smallness is associated with endearment, while in others it is associated with derogation (and we see a similar opposition for the concept of largeness).

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Monotonic and non-monotonic person categories: New natural classes

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Proposal. In this paper, I explore patterns of syncretism in the person domain and argue that two natural classes can be defined according to the feature values that drive their derivation: a monotonic class, for person categories which are derived by uniform values across features (+/+ or -/-), and a non-monotonic class, for person categories which are derived by non-uniform feature values (+/-, or vice versa). This proposal is rooted in the action-on-lattice approach to features (see e.g. Harbour 2016) and is shown to capture all possible patterns of syncretism simultaneously, while still accounting for their different frequencies of occurrence, without resorting to any extrinsic stipulations.

Syncretism patterns. Syncretism patterns are commonly derived by assuming shared primitives across syncretic categories, which are thus said to form natural classes. In this paper, I focus on three patterns of cross-linguistically rare syncretism (see Cysouw 2011: 438 for a quantitative overview): 1–3 in paradigms without the clusivity contrast (e.g. Germanic verbal inflection; hearer–non-hearer split in defective agreement paradigms where only 2nd person is overtly realised (Author 2021), e.g. some varieties with subject clitics or C-agreement) and 1INCL–3 and 1EXCL–2 in paradigms with the clusivity contrast (e.g. Mam, Noyer 1992 for the latter). Available accounts rooted in predicative features may only capture these patterns by assuming different primitives for different languages, and fail to simultaneously account for them and for more widely attested patterns; for instance, if 1 and 3 are syncretic (leaving aside privative accounts, which relegate 1–3 to accidental homophony), then they must share a [–hearer] feature (see e.g. Frampton 2002). However, this system bars the 1–2 syncretism, by far more common cross-linguistically. Besides, such accounts do not explain the constrained availability of these patterns of syncretism; consider again 1–3 derived by [–hearer]: if 1 and 3 form a natural class, on a par with 2 and 3 ([–speaker]), why is the former considerably less frequent cross-linguistically than the latter? In this paper, I account for all patterns of syncretism holistically by proposing that the grammar is sensitive to the monotonicity of person categories derivation and that two natural classes may be defined accordingly.

Action-on-lattice features. The current proposal is embedded in Harbour’s (2016) action-on-lattice approach to person features: [author] ‘A’ and [participant] ‘P’ denote lattices (power sets of subsets) of the person ontology, i.e. speaker i , hearer u , other(s) o , o' , etc, and perform lattice(/set)-theoretic operations on a third lattice, π , by means of their values (‘+’ for disjoint addition, ‘-’ for joint subtraction; these are detailed in Harbour 2016: ch. 4). The denotations of the three lattices are (Harbour 2016:73–74):

$$(1) \quad \text{a. } \llbracket \pi \rrbracket = \{i_o, iu_o, u_o, o_o\} \quad \text{b. } \llbracket \text{author} \rrbracket = \{i\} \quad \text{c. } \llbracket \text{participant} \rrbracket = \{i, iu, u\}$$

According to the feature values (+ or -?), to feature activity (how many features act on π ?), and to the order of operations (does A or P act on π first, if both are active?), different partitions of the π lattice are obtained, and ultimately different paradigms (Harbour, *ibid.*). As I explore syncretic (rather than conflated) paradigms, here I focus on cases in which both features are active, yielding tripartitions (no clusivity contrast) or quadripartitions (clusivity contrast). Their (plural) derivations are summarised in (2), where brackets indicate function applications:

(2) a.	Tripartition (<i>English</i>)	b.	Quadripartition (<i>Tok Pisin</i>)
1	we (+P(+A(π))) = { i_o, iu_o }	1EXCL	mipela (+A(-P(π))) = { i_o }
2	you (+P(-A(π))) = { u_o }	1INCL	yumi (+A(+P(π))) = { iu_o }
3	they (-P(\pm A(π))) = { o_o }	2	yupela (-A(+P(π))) = { u_o }
		3	ol (-P(-A(π))) = { o_o }

**‘Die hard’: fossilized syllabic structures emerging
in late phases of (a)typical phonological development**

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Research in prosodic development in Greek and cross-linguistically investigates, on the one hand, cluster production mostly on the basis of the repair mechanisms which circumscribe cluster formation, and, on the other hand, the order of cluster acquisition. It is reported that cluster simplification and positional faithfulness are the most prominent repair mechanisms cross-linguistically. As far as simplification is concerned, it is vastly driven by markedness/sonority considerations. Additional studies have placed emphasis on the statistical effects of these repair mechanisms and their perceptual/production salience throughout phonological development (cf. Barlow 1997; Ohala 1998; Gierut 1999; Steele 2002; Gnanadesikan 2004, for English; Fikkert 1994, for Dutch; Lléo & Prinz 1996, for German and Spanish; Lukaszewicz 2000, for Polish). However, very few works delve into the phonological principles that shape cluster formation in late phonological development. This is the aim of this study.

In late phases of phonological development in Greek, clusters are either accurately produced or are substituted for other clusters. In the second case, unmarked clusters, i.e., clusters whose members are defined by bigger distance on the sonority scale, are substituted for marked clusters whose members are very close on the sonority scale (Tzakosta 2017). Marked clusters are perceptually vague and, consequently, difficult to be produced (cf. Tzakosta 2009). The production of marked clusters instead of unmarked ones seems like an oxymoron, the produced consonantal sequences are more marked than the target ones; however, such data emerge both in typical and atypical Greek (examples in (1) and (2), respectively) as well as other aspects of Greek, such as its dialectal variants (see examples in (3)).

The systematic emergence of this phenomenon leads us argue that the Classical Sonority Scale (hereafter CSS) (cf. Selkirk 1984, Steriade 1982) and the bi-dimensional model proposed by Morelli (1999), in which cluster formation is evaluated on the basis of two distinct scales, i.e., the manner and place scales, are not adequate to account for cluster selection. We propose the *Three Scales Model* (hereafter TSM) (cf. Tzakosta 2019), according to which in addition to the scales of manner and place, voicing needs to be established as a distinct scale. Like in the CSS, TSM suggests that well-formedness is driven by the rightward satisfaction of the scales in combination with the distance holding among cluster members. Furthermore, it is proposed that different degrees of scale satisfaction and different distances existing between cluster members result in different degrees of cluster well-formedness and acceptability. Clusters are defined as perfect, acceptable and non-acceptable. Perfect clusters satisfy all scales, acceptable clusters satisfy at least one and maximally two scales. Voicing is the crucial scale since its satisfaction defines a cluster as acceptable, whereas its violation automatically marks a cluster as non-acceptable. As a result, the TSM broadens the pool of acceptable consonant clusters, the phonotactic correlations of the language bear more flexibility than that reported till today, consequently, the model adequately explains the systematic production of marked phonological structures instead of less marked ones. We will consider such structures to be *fossilized structures*.

To summarize, in the course of our presentation, we will show that the theoretical superiority of the TSM to the CSS boils down to the fact that the TSM a) can explain the substitution of unmarked/ perfect clusters for marked/ acceptable ones, b) allows for more flexibility in the phonotactic constraints of all aspects of a language, in our case Greek, c) provides information regarding the very subtle factors which affect intra-language and inter-language syllabification (cf. Iliopoulou & Kappa in press), d) simultaneously accounts for the internal synthesis of all kind of consonantal sequences, both tautosyllabic and heterosyllabic (cf. Tzakosta 2009, 2013), as well as their systematic fossilized production even when acquisition is (expected to be) completed e) makes predictions about the strength of phonotactic constraints at a diachronic

but also a synchronic level (cf. Tzakosta 2019). As a result, we do not need different tools to account for exceptional and statistically sporadic data attested in various aspects of a language. On the contrary, we argue that such data may provide important information regarding the seemingly invisible principles which shape the phonological system of a language, and, consequently, provide new perspectives on language acquisition and learning.

Greek L1 data

- (1a) /a.ftó/ → [a.ptó],[a.ftó] ‘this -DEM.PRO’ (B: 1;11.27)
 (1b) /sxo.lí.o/ → [θxo.lí.o] ‘school-NEUT’ (D: 2;07.06)
 (1c) /pá.sxa/ → [pá.θka] ‘Easter’ (B.M.: 2;09.25)

Greek SLI data

- (2a) /a.'kri.ða/ → [a.'stsil.ða] ‘grasshopper-FEM.NOM.SG.’ (S2)
 (2b) /'pro.va.to/ → ['spo.ða.to] ‘sheep-NEUT.NOM.SG.’ (S4)
 (2c) /'kti.ri.a / → ['θti.ri.a] ‘building-NEUT.NOM.PL.’ (S4)
 (2d) /ka.'tsi.kes/ → [ka.'tsi.kses] ‘goat-FEM.NOM.SG.’ (S4)

Greek dialectal data

- (3a) /tu.fé.ci/ → [tfé.ci] ‘rifle’ (Thessaly, Tzartanos 1909)
 (3b) /pi.θa.mí/ → [pθa.mí] ‘span’ (Thessaly, Tzartanos 1909)
 (3c) /pu.ká.mi.so/ → [pká.msu] ‘shirt’ (Meleniko, Andriotis 1989)
 (3d) /ku.bá.ros/ → [kba.ré.ls] ‘bestman’ (Thassos, Tombaidis 1967)
 (3e) /ku.vá.ri/ → [gvár] ‘κουβάρι’ (Kozani, Margariti-Roga 1989)
 (3f) /ku.δúni/ → [kðu.nél] ‘bell’ (Thassos, Tombaidis 1967)

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The comparative in Ukrainian: suffixes, augments, and root sizes

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1.outline I propose that comparative suffixes are composed of two separate heads. I also suggest that there are classes of roots that differ in terms of their structural size within a nanosyntactic approach of spell-out. This explains the morphosyntactic forms of the comparative suffix in Ukrainian across different adjectival classes.

2.the data Ukrainian comparative adjectives are formed by adding a comparative suffix, which follows the root and precedes the agreement marker *-yj*, to the positive degree. This suffix can be either *-š*, as in *star-yj–star-š-yj* ‘old’–‘older’, or *-iš*, as in *čyst-yj–čyst-iš-yj* ‘clean’–‘cleaner’. There is a very limited set of adjectives with the *-č* and *-šč* suffixes. I follow Bevzenko (1960) and Pluč (2010) in analysing them as allomorphs of the *-š* suffix.

A number of comparative adjectives have an additional morphology, the so-called augments (AUG) *-k* or *-ok* in the positive and in the comparative (1a-b). However, there are other adjectives that have augments in the positive and lose them in the comparative (1c-d).

	POS	CMPR	gloss
(1)	a. dzvin- k -yj	dzvin- k -iš-yj	voiced
	b. žorst- ok -yj	žorst- ok -iš-yj	cruel
	c. šyr- ok -yj	šyr-š-yj	wide
	d. korot- k -yj	korot-š-yj	short

Theoretically there are six possible patterns for the comparative formation: three possible augment situations (no augment, augment retention, augment drop) for two suffixes (*-š* and *-iš*), summarized in (2). The last two patterns are unattested. When an adjective has an augment in the positive form and loses it in the comparative it cannot be followed by the suffix *-iš* (2e). When it has an augment in the positive form and keeps it in the comparative it cannot be followed by *-š* (2f).

	POS	CMPR	example	gloss
(2)	a. root	root-š	star-yj–star-š-yj	old
	b. root	root-iš	čyst-yj–čyst-iš-yj	clean
	c. root-AUG	root-š	korot- k -yj–korot-š-yj	short
	d. root-AUG	root-AUG-iš	dzvin- k -yj–dzvin- k -iš-yj	voiced
	e. root-AUG	root-iš	<i>unattested</i>	<i>unattested</i>
	f. root-AUG	root-AUG-š	<i>unattested</i>	<i>unattested</i>

3.DM analysis Bobaljik (2012) proposes that the comparative form of an adjective contains the positive. Under this assumption there is one comparative head that attaches to the positive degree. However, certain Slavic languages have two comparative suffixes where one is a phonological subset of the other, as *-iš/-š* in Ukrainian. The table in (3) has two bisyllabic adjectival roots, both ending in labiodental [v], but the first one takes the *-š* suffix, while the second one can only take *-iš*.

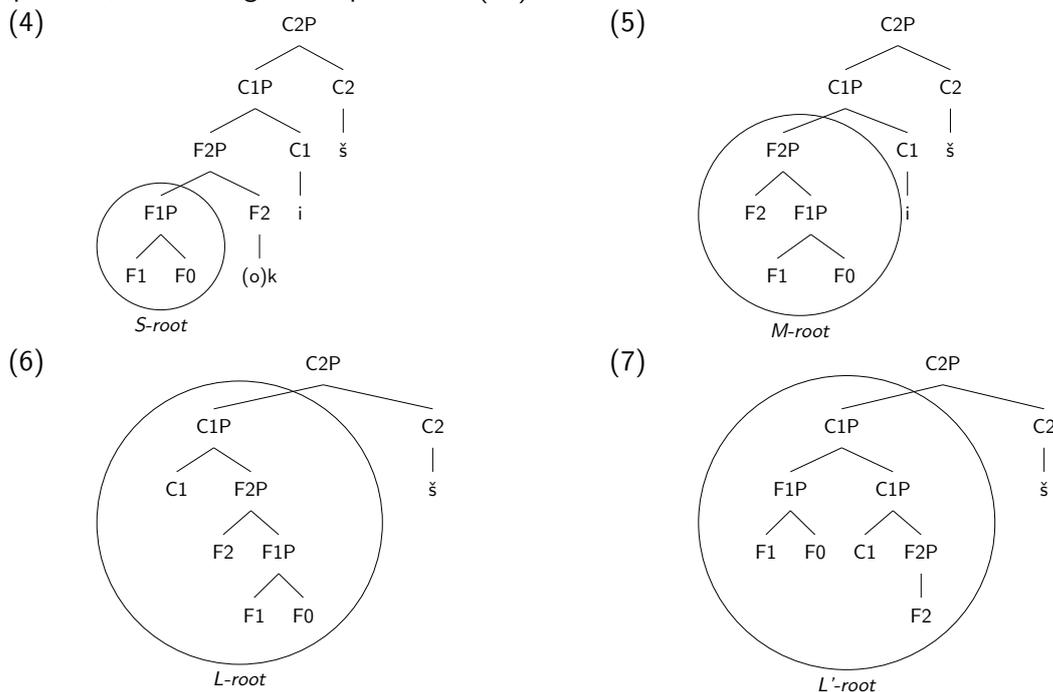
	POS	CMPR -š	CMPR -iš	gloss
(3)	dešev-yj	dešev-š-yj	*dešev-iš-yj	cheap
	važlyv-yj	*važlyv-š-yj	važlyv-iš-yj	important

Meanwhile, certain adjectives can take both suffixes *-š* and *-iš*, as *bahat-yj–bahat-š-yj/bahat-iš-yj* ‘rich’–‘richer’. Both of these observations suggest there has to be more to the structure of the comparative instead of one comparative head. Secondly, these languages have augments in the positive that sometimes disappear in the comparative (1c-d), violating the containment relation.

4.Nanosyntactic analysis I propose a nanosyntactic analysis (Starke 2009) for the Ukrainian data. It has two key notions that are relevant for this analysis: submorphemic syntax and phrasal spell-out. The first one is built on the observation that there are more featural distinctions than there are morphemes available, e.g. the Ukrainian agreement marker *-yj* stands for Masculine, Singular, and Nominative. The second one assumes that if multiple heads make up a single morph, “then it must be possible for spellout to target phrases (XPs) and not just heads” (Baunaz and Lander 2018:16).

Caha et al. (2019) propose that the comparative morpheme is represented in syntax not by one but by two functional heads: C1 and C2. I propose that *-iš* is to be decomposed into two morphemes *-i* and *-š*, where *-i* is a spellout of C1 and *-š* is a spellout of C2. I will be also using such labels as F1, F2 (feature 1, 2) for the trees in (4-7). I propose that there are four different root types in Ukrainian comparatives, each differing in the amount of structure that they spell out. Vanden Wyngaerd et al. (2020) divide roots of adjectives into three types: 'small', or *S-roots*, 'medium', or *M-roots*, and 'extra-large', or *XL-roots*. I will be using a similar notation for the root sizes in Ukrainian.

5. Deriving the empirical patterns *S-roots* (4) are 'small' as they spell out only F1P. They need an augment to spell out F2P, and both C1P and C2P to spell out the comparative. Such adjectives belong to the pattern in (2d). It also explains the impossibility of (2f), where an AUG is followed by *-š*: F2P is spelled out by an augment which is then followed by C1P *-i*, and only then by C2P *-š*; a C1P head cannot be 'skipped'. *M-roots* (5) are 'bigger' as they spell out more structure, not only F1P, but also F2P. As a result, they do not take augments, but need C1P and C2P in the comparative, and belong to the pattern in (2b).



L-roots (6) spell out C1P in addition to F1P and F2P. Such adjectives only need C2P in the comparative and belong to the pattern in (2a). The last type of the roots is what I call *L'-roots* (7). They spell out the same amount of structure as *L-roots* in the comparative, but their positive degree is different. *L'-roots* need an augment in the positive, but lose it in the comparative, as in (2c). I suggest that the derivation of these adjectives involve a type of Partial Overwrite (Blix 2021).

6. conclusions The difference in comparative morphology is the result of the difference in adjectival root sizes: the bigger the root, the less morphology it needs. The nanosyntactic approach presented above not only helps to explain the mechanism behind allomorphy in Ukrainian, but also explains patterns of augment drop, augment retention, and augment absence.

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A mereotopological account of the event-external/internal distinction

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Introduction. Depending on a position in a sentence, multiplicatives such as *twice* and *three times* can count either entire events, i.e., occasions, or event-internal acts, i.e., subevents that are relevant parts of a whole. Under the event-external reading (1) means that on three separate occasions the salesman rang the bell (once), whereas the event-internal interpretation states that on one occasion they rang the bell three times (Cusic 1981, Andrews 1983). Furthermore, in (2) *twice* unambiguously counts the number of independent knocking occasions, whereas *three times* quantifies over particular knocks within each of those knocking eventualities (Cinque 1999). In this paper, I propose to extend mereotopology to the domain of events. This allows for modeling acts as simplex singular eventualities and occasions as clusters thereof (see also Landman 2006 for a proposal to extend the notion of group to the domain of events and Henderson 2017 for an analysis of pluractionals as swarms of events). Consequently, the meaning of (2) can be informally paraphrased as (3).

- (1) The salesman rang the doorbell three times.
- (2) John knocked on the door three times twice.
- (3) John performed two series of three knocks on the door.

More data. In some languages, the above distinction is overtly encoded. In Mandarin the verbal classifier *cì* triggers only event-external quantification (4), whereas *xià* licenses only event-internal readings (5) (Donazzan 2013, Zhang 2017). In Polish, there is an interplay between a type of quantificational adverbial and aspect. When combined with a semelfactive, the multiplicative *trzy razy* patterns with *three times* in that it licenses both event-external and event-internal interpretations (6), whereas with an imperfective, it can yield the event-internal reading only on the iterative interpretation. In addition, there is also the construction *po trzykroć*, which triggers only event-internal quantification (7) (note though that it is vanishing and for many speakers it sounds archaic).

- (4) Dàlín zài mén-shàng qiāo-le sān cì.
Dalin at door-on knock-PRF three CL_{ext}
'On three separate occasions, Dalin knocked at the door.' (Mandarin)
- (5) Dàlín zài mén-shàng qiāo-le sān xià.
Dalin at door-on knock-PRF three CL_{int}
'On one occasion, Dalin knocked at the door three times.' (Mandarin)
- (6) Jacek za-pukał do drzwi trzy razy.
Jacek SMLF-knocked to door three times
'Jacek knocked at the door three times.' (Polish)
- (7) %Jacek za-pukał do drzwi po trzykroć.
Jacek SMLF-knocked to door DISTR thrice
'On one occasion, Jacek knocked at the door three times.' (Polish)

Mereotopology. In order to account for structured parthood, I follow Grimm (2012) and adopt mereotopology, a theory of wholes extending standard mereology with topological notions (Casati & Varzi 1999). In mereotopology, CONNECTEDNESS (C) allows for capturing a configuration in which two entities share a boundary. Given C, it is possible to define more complex mereotopological notions to capture subtle distinctions between different spatial configurations. An entity is SELF-CONNECTED (SC) iff any two parts that form the whole of that entity are connected to each other (8) (O stands for overlap). A stronger notion of MAXIMALLY STRONGLY SELF-CONNECTED

(SSC) if (i) every part of the entity is connected to (overlaps) the whole (strongly self-connected) and (ii) anything else which overlaps it and is strongly self-connected is once again part of it (maximality). The notion of MSSC allows for distinguishing between integrated wholes from other mereological objects such as scattered entities and arbitrary sums. Furthermore, inspired by Grimm (2012), I propose a revised formulation of the property TRANSITIVELY CONNECTED (TC) (10), which determines whether two objects are connected through a series of mediating entities. In addition, TC allows for defining the concept of CLUSTER (CLSTR) (11) (again, a revised definition). An entity x is a cluster relative to a connection relation C and a property P iff x is a sum of entities falling under the same property which are all transitively connected relative to some subset of a sequence Z under the same property and connection relation. This allows us to define predicates of MSSC entities (12), clusters (13) and generally objects individuated in mereotopological terms (14).

$$(8) \quad \text{SC}(x) \stackrel{\text{def}}{=} \forall y \forall z [\forall w (O(w, x) \leftrightarrow (O(w, y) \vee O(w, z))) \rightarrow C(y, z)]$$

$$(9) \quad \text{MSSC}(x) \stackrel{\text{def}}{=} \text{SC}(x) \wedge \forall y [\text{SC}(y) \wedge O(y, x) \rightarrow y \sqsubseteq x]$$

$$(10) \quad \text{For a finite sequence } Z = \langle z_1, \dots, z_n \rangle, \text{TC}(x, y, P, C, Z) \text{ holds iff } z_1 = x, z_n = y, C(z_i, z_{i+1}) \text{ holds for } 1 \leq i < n \text{ and } P(z_i) \text{ holds for } 1 \leq i \leq n.$$

$$(11) \quad \text{CLSTR}_C(P)(x) \stackrel{\text{def}}{=} \exists Z [x = \sqcup Z \wedge \forall z \forall z' \in Z \exists Y \subseteq Z [\text{TC}(z, z', P, C, Y)]]$$

$$(12) \quad \text{PMSSC}(P) \stackrel{\text{def}}{=} \forall x [P(x) \rightarrow \text{MSSC}(P)(x)] \quad (14) \quad \text{PIND}(P) \stackrel{\text{def}}{=} \forall x [P(x) \rightarrow$$

$$(13) \quad \text{PCLSTR}(P) \stackrel{\text{def}}{=} \forall x [P(x) \rightarrow \text{CLSTR}(P)(x)] \quad \text{MSSC}(P)(x) \vee \text{CLSTR}(P)(x)]$$

Building on Mazzola's (2019) theory of time, I propose to extend mereotopology to the domain of events. On the assumption that time is linear and gapless, events can be viewed as temporal particulars structured by TEMPORAL CONNECTION (TEMP) on which MSSC and CLSTR can be based.

Analysis. I propose that semelfactives denote sets of singular eventualities that are conceptualized as MSSC events (15). Such events can be pluralized and clustered by CLSTR (16). I assume that thematic roles compose with the verb via special heads, e.g., agent is introduced by AG (17), and assume that existential closure (EC) applies once the verb is combined with all its arguments (18).

$$(15) \quad \llbracket \text{knocked} \rrbracket = \lambda e_v [\text{MSSC}_{\text{TEMP}}(\text{KNOCKED})(e)]$$

$$(16) \quad \llbracket \text{CLSTR} \rrbracket = \lambda P_{\langle v, t \rangle} : \text{PMSSC}_{\text{TEMP}}(P) \lambda e_v [\text{CLSTR}_{\text{TEMP}}(P)(e)]$$

$$(17) \quad \llbracket \text{AG} \rrbracket = \lambda P_{\langle v, t \rangle} \lambda x_e \lambda e_v [P(e) \wedge \text{AG}(e) = x] \quad (18) \quad \llbracket \text{EC} \rrbracket = \lambda P_{\langle v, t \rangle} \exists e_v [P(e)]$$

Counting is performed by the additive measure function $\#(P)$ (Krifka 1989), which is standardized by the requirement in (19), where $\text{PIND}_{\text{TEMP}}(P)$ specifies eventualities that are individuated as units either in terms of $\text{PMSSC}_{\text{TEMP}}(P)$ or $\text{PCLSTR}_{\text{TEMP}}(P)$. English *three times* and Polish *trzy razy* have the general semantics in (20). The event-external/internal distinction then reduces to the (non-)occurrence and/or position of CLSTR in the sentence. To illustrate the composition, the structure of (2) is given in (21). On the other hand, Mandarin *sān cì* and *sān xià* have the more specific meaning in (4)–(5). In particular, *cì* is specified to quantify over clustered eventualities, i.e., occasions (22), whereas *xià* counts MSSC events, i.e., acts (23), similar to Polish *po trzykroć*.

$$(19) \quad \forall P_{\langle v, t \rangle} \forall e_v [\#_{\text{PIND}}(P)(e) = 1 \text{ iff } \text{PIND}_{\text{TEMP}}(P)(e)]$$

$$(20) \quad \llbracket \text{three times} \rrbracket = \llbracket \text{trzy razy} \rrbracket = \lambda P_{\langle v, t \rangle} : \text{PIND}_{\text{TEMP}}(P) \lambda e_v [P(e) \wedge \#_{\text{IND}}(P)(e) = 3]$$

$$(21) \quad [\text{EC} [\text{John} [\text{AG} [[\text{CLSTR} [\text{knocked on the door three times}]] \text{twice}]]]]$$

$$(22) \quad \llbracket \text{sān cì} \rrbracket = \lambda P_{\langle v, t \rangle} : \text{PCLSTR}_{\text{TEMP}}(P) \lambda e_v [P(e) \wedge \#_{\text{PCLSTR}}(P)(e) = 3]$$

$$(23) \quad \llbracket \text{sān xià} \rrbracket = \llbracket \text{po trzykroć} \rrbracket = \lambda P_{\langle v, t \rangle} : \text{PMSSC}_{\text{TEMP}}(P) \lambda e_v [P(e) \wedge \#_{\text{PMSSC}}(P)(e) = 3]$$

Conclusion. There are two significant consequences of the proposal that mereotopology can be effectively applied to the domain of events: (i) abstract entities involve structured part-whole relations and (ii) there is a unified mechanism of individuation and counting across ontological categories.

References. Andrews (1983) *A note on the constituent structure of modifiers* • Bach (1986) *The algebra of events* • Casati & Varzi (1999) *Parts and places* • Cinque (1999) *Adverbs and functional heads* • Cusic (1981) *Verbal plurality and aspect* • Donazzan (2013) *On counting and measuring events* • Grimm (2012) *Number and individuation* • Henderson (2017) *Swarms: Spatiotemporal grouping across domains* • Krifka (1989) *Nominal reference, temporal constitution and quantification in event semantics* • Landman (2006) *Indefinite time-phrases, in situ-scope, and dual-perspective intensionality* • Mazzola (2019) *The mereotopology of time* • Zhang (2017) *The syntax of event-internal and event-external verbal classifier*