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Keynote speakers

Variability and its limits in language processing: Linguistic and speaker-level constraints

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Much research in linguistics has focused on what is common (perhaps even universal) across different languages and different speakers of a language. At the same time, variability due to, for example, geographical or social factors is also a hallmark of language and language use. Psycholinguistic research faces the same challenge of disentangling variability in language production and comprehension from more general (perhaps universal) mechanisms of language processing. To address this issue, I will report new findings from a large study of language processing in bilingual (Turkish/German) individuals, in comparison to control groups of L1-German and L1-Turkish speakers. Our main finding was that grammatically-based mechanisms of language processing (viz. 'morphological decomposition') yielded more uniform performance than lexical access and retrieval processes in bilingual individuals. My conclusion will be that the grammar strongly constrains variability in language processing, even for otherwise heterogeneous individuals.

Aspects of linguistic complexity in monolingual and bilingual children's grammars

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Linguistic complexity can be invoked as a cause of vulnerability in language development and use at all levels of linguistic analysis, including the lexicon, syntax and discourse. Bilingual grammars are typically shown to differ from monolingual ones mostly in the use of inflectional morphology and vocabulary, but also in the appropriate use of reference management in connected speech. The causes of the differences have been attributed to reduced language input as well as limitations in processing resources. Focusing on the language production of Greek monolingual and Albanian, German and English bilingual children speaking Greek as the weaker language, I will focus on narrative production data. Measures of subordination and reference tracking will be used as indices of complexity in syntax and discourse. The data suggests that syntactic complexity is not a unified construct, as different types of subordinate clauses (complements, relatives and adverbials), are differentially affected by bilingualism. Typological distance between L1 and L2, levels of academic language developed through bilingual education, and vocabulary skills are relevant for the use of different types of syntactically complex sentences. Reference tracking on the other hand is affected by non-verbal cognitive skills as well as typological distance.

Implicational hierarchies in syntax

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Languages exhibit a variety of different types of complementation, which can be divided into different classes based on their semantic properties and/or their morphosyntactic properties. An important observation made in many works on complementation is that there is a dependency between the meaning of a complementation configuration and the morphosyntactic coding—changing one often also results in a change of the other. This raises the question of whether the meaning of a complementation configuration comes from the matrix verb, the complement clause, or both.

Despite significant cross-linguistic variation in complementation and the lack of simple surface universals, typological works have also brought out implicational relations, which are an important tool for understanding variation. Specifically, complementation configurations can be ranked according to their semantic properties, forming an implicational complementation hierarchy, along which syntactic or morphological distinctions, if present in a language, operate. I will discuss several phenomena where implicational relations have been observed, among them finiteness, indexical shift, restructuring, and cross-clausal A-dependencies, and show that the uniting factor is the underlying implicational complementation hierarchy. To derive the hierarchy and its implicational nature, I will suggest a synthesis model of complementation where the complement clause and matrix predicate may affect each other and together determine the possible meanings.

Presentations

Object-shifting and Head-raising One's Way to Discourse Configurationality

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I propose an account of discourse configurational (DC) properties of East Slavic (ES) derived word orders that situates them in the context of theories positing a correlation between rich AGR morphology and obligatory head raising. As is well known, the empirical landscape of East Slavic head movement differs significantly both from English, where only auxiliaries move to Tense and from French, where the lexical verb obligatorily raises to T (Bailyn 1995; Kallestinova & Slabakova 2008 ia). Investigation of Ukrainian and Russian DC word orders suggests that **the ES situation instantiates the following generalization: whenever the verb raises outside the AspP/vP and into the Tense domain, it must be interpreted as discourse-given**. Ukrainian and Russian being morphologically rich languages, v in ES is expected to obligatorily raise to Tense (Vikner 1997; Bobaljik&Thrainsson 1998; Rohrbacher 1999; Holmberg and Roberts 2013 ia). In reality, however, while the verb certainly can move to the T domain in ES, it clearly appears to not be required to do so. **The question is, how can the relation between the verb and Tense be captured in ES languages?**

In Roberts (2010), verb movement qua cliticization/incorporation into T is possible iff the features in v are a proper subset of the features in T, this arguably being the case in Romance languages but not in English. Adopting Roberts (2010), I hypothesize that while T in ES does have an uninterpretable V feature (in contrast to English), **crucially, the features in V are not a proper subset of those in T by virtue of v in ES encoding additional feature(s) not present in T.** This accounts for why the lower copy of V cannot be deleted (which would otherwise give the impression of obligatory verb raising, as in French) but will allow for the possibility of verb raising (hence in effect fully dissociating Agree from Move, a notion already well familiar in Slavic, see esp. Lavine and Freidin 2002). **I propose that Aspect in ES is crucially responsible for contributing v features that preclude incorporation of V into T**, cf. (1-2) & (3-4).

Crucial evidence for the account comes from the analysis of Slavic DC orders such as OVS/OVPPS, which I show are derived via (i.) Object Shift (OS) (see Antonyuk-Yudina and Mykhalyk 2013; Antonyuk and Mykhaylyk, forthcoming for OS in Ukrainian; Antonyuk, forthcoming on Russian OVS), and (ii.) verb raising outside the vP/AspP, with both movement operations being governed by the need for O and V to be interpreted as specific and given respectively. Both movements are formally modeled as raising in order to occur in the scope of a Givenness operator (following a modification of Kučerová 2012). Crucially, however, even in OV(PP)S orders the verb is shown to stay vP-internal whenever it is discourse-new, thus in effect OVS/OVPPS are really umbrella terms representing a number of distinct structural possibilities. The account presented here tracks the empirical profile of ES object shift and verb raising as well as provides a theoretical account for both that informs our understanding of these phenomena from a cross-linguistic perspective.

(1) (a) Petja čit-a-l stat'i/literaturu (Russian)
Peter read$_{IMP\text{-}PAST\text{-}SG.MASC.}$ articles/literature$_{ACC}$
'Peter was reading articles/the articles/literature/the literature'
(b) Petja pro-čital stat'i/literaturu
Peter $_{PERF}$-read-$_{PAST.SG.MASC}$ articles/literature$_{ACC}$
'Peter read the articles' (Borik 2002)

Grammatical aspect and aspectual class are intertwined in Russian but, crucially, separate from Tense (following de Swart 2012). As far as the relevant morphological differences between ES and Romance morphosyntax go, unlike ES, Romance languages exhibit fusing of past tense and perfective/imperfective aspectual morphology (2), making it impossible to map it to a compositional structure in which the past tense and the perfective aspectual operators are separate (de Swart 1998, 2012).

(2) (a) Il écrivit sa tèse en 2009. (French) (b) [past [perf [he write his thesis]]]
He wrote$_{PST.}$ his thesis in 2009
'He wrote his thesis in 2009'
(3) (a) Nina vysadila derev'ja v sadu. (Russian)
Nina VY-planted trees$_{ACC}$ in garden$_{PREP}$ 'Nina planted trees in the garden'
(b) Nina zasadila sad derev'jami.
Nina ZA-planted garden$_{ACC}$ trees$_{INSRT}$ 'Nina planted the garden with trees'
(4) (a) Marijka vy-ljapala farbu na stinu (Ukrainian)
Mary VY-splattered paint$_{ACC}$ on wall 'Mary splattered paint on the wall'
(b) Marijka za-ljapala stinu farboju
Mary Za-splattered wall$_{ACC}$ paint$_{INSTR}$ 'Mary splattered the wall with paint'

In derived word orders, especially in what I term *object-prominent constructions* (e.g., OVS, SOV, derived by A-movement, in which the object is shifted to the left of vP and interpreted as *given* and *specific/presupposed*, the verb is often discourse-given as well; the syntactic hight of the verb will thus typically correlate with its discourse status. Neither raising of the object nor verb head raising outside of AspP/vP is strictly obligatory though, with structures without such syntactic movement receiving the intended interpretation via prosodic encoding of relevant semantic features (Antonyuk-Yudina and Mykhaylyk 2013).

Keywords: object shift, head raising, East Slavic, Rich Agreement Hypothesis, givenness.

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Allomorphy, morphological operations and the order of Slavic verb-prefixes

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The Slavic verb surfaces in the template (1a). The labels (*prefix, suffix* etc.) reflect positional, semantic and morphosyntactic properties. We adopt these terms strictly descriptively, viewing these items as realizations of the syntactic heads in (1b). **Problem.** Slavic verbal prefixes are similar to suffixes in being affixal and having aspectual effects (Gribanova 2009). Yet unlike suffixes, they correspond to attested prepositions, introduce arguments, and are typically prosody-neutral. Standard approaches, with prefixes generated in two positions, one below the verb for (VP-) internal prefixes, and one above for external ones (Svenonius 2004, but see Arsenijević 2007, Žaucer 2009), require diacritics on external prefixes so they don't end up stem-final (if heads), or as clitics (if phrasal). We present **novel generalizations: A. Slavic verbal prefixes universally occur in a VP structure richer than that of the prefixless verb**, as shown by BCMS data in (2). In line with the standard view (Svenonius 2004), internal prefixes 'add' the result phrase (RP), yet contra this view we claim that external prefixes also condition causative or antipassive configurations, as in (2c-d). **B. In argument alternations** (conditioned by prefixation, see Antonyuk 2015, Antonyuk & Mykhaylyk accepted), **in at least one of the alternants, the prefix on the verb must be external** (3). Assuming an unmarked monadic argument structure for the base verb, this supports A. **C. Theme vowels (TV) and imperfectivizing suffixes (IS) display allomorphy**. Vocabulary Insertion of the TV is conditioned by the root and by T (if present within the cycle), whereas that of the suffixes depends on the lower TV, see (4). **Our analysis,** coached in Distributed Morphology and assuming early linearization, accounts for the linear order without diacritics, viewing it as a by-product of a mechanism enabling allomorphic Vocabulary Items (VI) of TVs and ISs. We model theme vowels as *v*-category heads, verbal prefixes as voice-heads showing agreement with the predicate introducing additional arguments, and ISs as Lowenstammian (2014) affixal roots. Telicity incurring with prefixation is a property of the expanded argument structure. When voice is non-null, a prefix is present in the structure, linearly intervening between the TV and T or between the TV and the IS. Since VIs of the TVs are sensitive to T and VIs of the IS are sensitive to the theme vowel, to rescue the derivation, the prefix gets demoted via Local Dislocation (LD), Leaning or a sequence of both (Embick & Noyer 2001). This gets the internal prefix left-adjacent to the root with external prefixes concatenated leftward according to the order of their hierarchical height, as in (5-6). **Discussion.** Our analysis significantly simplifies the account of Slavic verb prefixation and shows how morphological operations like LD are *motivated* (by Insertion) rather than stipulated.

(1a) prefix*-root-theme_vowel-suffix-theme_vowel-inflection
na-u- *grad-* *i-* *iv-* *a-* *la* → *naugrađivala*

(1b) voice root category_v root category_v tense_person_number_gender

(2a) kad Jovan grad-i-Ø prozore
when J build-ThV-Pres.3Sg windows.Acc
'when Jovan builds the windows'

(2b) kad Jovan u-grad-i-Ø prozore (u zid)
when J in-build-ThV-Pres.3Sg windows.Acc in wall
'when Jovan builds the windows in (the wall)'

(2c) kad Jovan na-u-grad-i-u-je-Ø prozore(u zid).
when J on-in-build-ThV-Ipf-ThV-Pres.3Sg windows.Acc in wall
'when Jovan builds a lot of windows in (the wall).'

(2d) Kad se Jovan na-u-grad-i-u-je-Ø prozora (u zid).
when Refl J on-in-build-ThV-Ipf-ThV-Pres.3Sg windows.Gen in wall
'when Jovan has his fill of building windows in (the wall).'

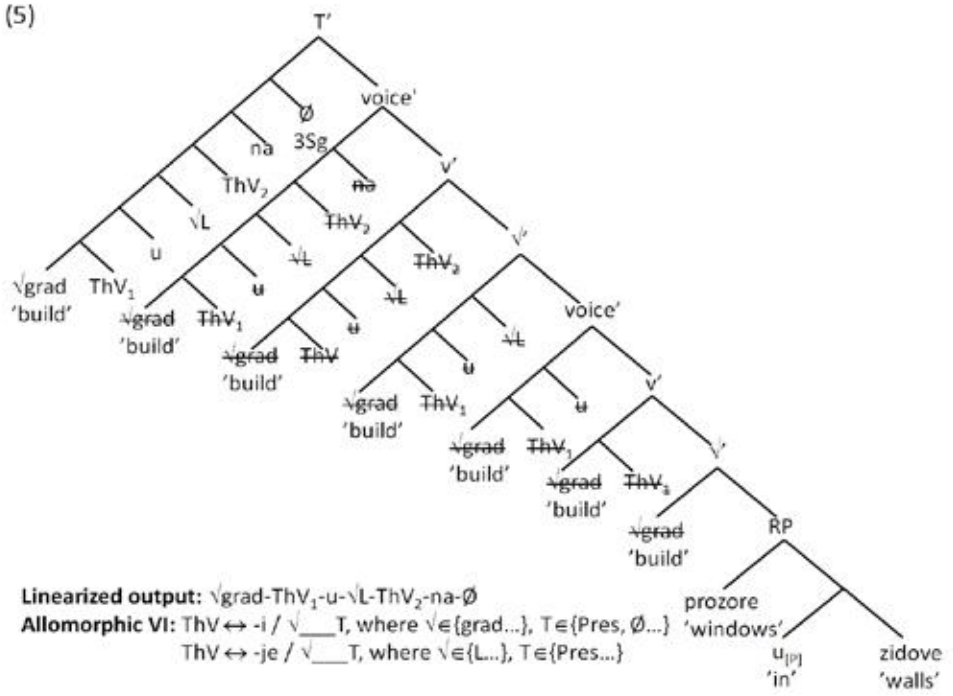
(3a) Maša v-pisala stihi v tetrad'. (*v* is internal)
M in-wrote poems.Acc in notebook.Acc
'Maša wrote the lines into the notebook.'

(3b) Maša is-pisala tetrad' stihami. (*iz* is external)
M out-wrote notebook.Acc poems.Inst
'Maša filled the notebook with poems (by writing them).'

(4a) pis-a-ti pis-je-m gled-a-ti gled-a-m
√write-ThV-Inf √write-ThV-Pres.1Sg √watch-ThV-Inf √watch-ThV-Pres.1Sg

(4b) sred-i-iv-a-ti → sređivati pregled-a-av-a-ti → pregledavati
√tidy-ThV-√L-ThV-Inf (√L = imperfectivizer) √tidy-ThV-√L-ThV-Inf

(5)



(6) *linearized output from syntax* *reordered voice heads* *output*
√grad-ThV1-u-√L-ThV2-na-Ø > na-u-√grad-ThV1-√L-ThV2-Ø > na+u+grad+i+u+je+Ø

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Nominative Case blocking in inflected infinitival complements of perception verbs in European Portuguese

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In European Portuguese (EP), infinitival complements of perception verbs may vary according to (i) absence vs. presence of the preposition *a* as a progressive aspect marker ((1) vs. (2)); (ii) presence vs. absence of agreement inflection on the infinitive:

(1) *Bare Infinitive Construction (BIC)*
A mãe viu as crianças cair / caírem
the mother saw the children fall.INF / fall.INF.3PL
'Their mother saw the children fall.

(2) *Prepositional Infinitive Construction (PIC)*
A mãe viu as crianças a cair / caírem.
the mother saw the children at fall.INF. / fall.INF.3PL
'Their mother saw the children falling.'

In the noninflected BIC, the infinitival subject gets Accusative Case (raising to object):

(3) A mãe viu-as / *viu elas cair
the mother saw-3F.PL.ACC / saw 3F.PL.NOM fall.INF.

Concerning the inflected BIC, most grammatical descriptions (Gonçalves, 1999; Raposo, 1981) assume that Nominative Case is available due to the presence of agreement inflection (in effect, in other instances of inflected infinitives, the subject is realized as Nominative).
In the PIC the subject is marked with Accusative Case regardless of agreement inflection:

(4) A mãe viu-as a cair(em).
the mother saw-3F.PL.ACC at fall.INF(.3PL)

Raposo (1989) proposes that the sequence DP *a* V-*Inf* is a Small Clause (SC) whose predicate is a PP that contains a clausal projection with an empty subject (either PRO or *pro*):

(5) a. A mãe viu [$_{SC}$ as crianças$_i$ [$_{PP}$ a [$_{SFlex}$ *PRO*$_i$ cair]]].
b. A mãe viu[$_{SC}$ as crianças$_i$ [$_{PP}$ a [$_{SFlex}$ *pro*$_i$ caírem]]].

In (6b) *pro* is valued as Nominative; therefore, the SC subject must raise to object so as to value its Case feature. This is why the subject surfaces as Accusative even in the inflected case.

This picture, however, faces an empirical problem, namely the fact that many speakers do not accept sentences with an inflected BIC and a Nominative subject; they prefer the Accusative form of the pronoun in the context of the inflected infinitive: *A mãe viu-as caírem*. This is unexpected given our current knowledge of Nominative Case valuation.

Even though this fact has been noted before (Hornstein, Martins & Nunes, 2008), the issue has never been addressed in a systematic way. The present study aims to fill this gap. We report on the results of two Grammaticality Judgment Tasks (GJTs) applied to a large pool of adult native speakers of EP. Results reveal that there is indeed an overall preference for Accusative case, *regardless of the presence of inflection*. The rate of rejection of Nominative Case in the BIC with agreement inflection is 89%. This rate is not very distant from that obtained for the PIC (91%).

Our analysis relies on the idea that, in the consistent Null Subject Languages (NSL), the head bearing subject agreement has a nominal specification [+D] and interpretable phi-features, so that it has the status of a pronominal affix/clitic on T (Barbosa 1995). A corollary of this property is that preverbal (referential) subject constructions in the NSLs are instances of Clitic Left Dislocation (CLLD) of the subject, where the CLLDed DP is doubled by *pro* linked to clitic-Agr. Left-dislocated subjects in EP are assigned Nominative Case by *default*. On this account, the unavailability of a Nominative case marked subject follows from the unavailability of left dislocation in this context.

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Panará verbal morphology and the nominative illusion

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In this talk I argue that argument clitics in Panará, an Indigenous language of the Jê family in central Brazil, do not present a nominative paradigm in irrealis (contra Dourado 2001). Instead, the allomorphy of participant exponence creates an illusion of nominative alignment.

One of the traits of the case systems of Jê languages is the strict correspondence between the case that a nominal bears and the clausal positions in which it can appear (Nonato 2014; Salanova 2017; Urban 1985). The template of Jê clauses is sketched in (1).

(1) *Jê clauses*

preverbal area	verb complex
emphatic | TAM | NOM/ERG | ABS/ACC	[clitic | verb]

From right to left, we find the verb in its strictly final position preceded by bound pronominal clitics, corresponding to absolutive and accusative pronouns across the family. To the left of this small verb complex is a preverbal area with its own internal configuration: a position for internal argument noun phrases, a position for strong pronouns (nominative or ergative), a position for TAM elements and, on the left end of the clause, the position of noun phrases doubled for emphatic effects, in which pronouns surface case-marked for ergative or nominative.

(2) *Mẽbêngôkre*

Aryp dja ba tẽ ŋõrõ, aryp kry.
already IRR 1SG.NOM go.SH sleep already cold
'I'm going to sleep, it's already cold.' (obs)

The Jê clausal configuration above is manifestly different from the non-verb-final structure of Panará clauses. However, the classic Jê clause has a correlate in the internal structure of the Panará verb complex, sketched in (3).

(3) *Panará clauses*

preverbal	verb complex	postverbal
(DP)	[TAM= ERG= … ABS= verb]	(DP)

The Panará verb complex is a verb-final domain, just like the Jê clause. It presents argumental indexes immediately to the left of the verb, preceded by a series of elements (incorporated postpositions, directionals, reflexives, among others), in turn preceded by the ergative indexes, to the left of which are also TAM morphemes, namely the modal clitics.

(4) Jy= py= ra= kõ= mẽ= ra= kwyy.
INTR ITER 3PL.ABS COM DU 1SG.ABS go
'We went away with them.'

Dourado (2001) presents an analysis where Panará ergative and absolutive clitics in realis mood shift to a system where a nominative paradigm cross-references transitive and intransitive subjects, and the absolutive paradigm becomes an accusative. However, a more fine-grained take from the lens of participant categories broader than traditional specific persons, with speaker/non-speaker and addressee/non-addressee oppositions (e.g., Harley & Ritter (2002)) can account for the illusion of Panará nominative, a consequence of an impoverished morphological inventory in irrealis mood and a discontinuous exponence of arguments in the verb complex (5).

(5) –Pjãn rahã ka= **ti=** = py= **a=** pôôj?
Q ADES IRR **NSPK** 2SG DIR **ADRE** arrive.IRR
'When will you come back?'
–Mỹ= py= akun= mõ rahã ka= **=** py= **=** pôôj.
DIR ITER dry.season go ADES IRR **SPK** DIR **NADRE** arrive.IRR
'I'll come back in the next dry season.'

I provide evidence that in irrealis mood two elements come into play: an impoverished inventory of participant morphology, which captures only speaker/non-speaker and addressee/non-addressee oppositions; and discontinuous exponence for absolutive arguments in intransitive clauses, where two exponence sites are used.

This results in a superficially tripartite system: while ergative arguments are cross-referenced their exponence slot with reduced morphology and transitive absolutives use the regular absolutive morphology in the absolutive slot (6), intransitive absolutives have a different system that does not overlap with the cross-reference of ergatives (5).

(6) Ka= ti= tã= ra= pari pjow kajapô hẽ.
IRR **NSPK.ERG** DIR **1PL.ABS** kill NEG Kayapó ERG
'The Kayapó will not kill us.'

There is no nominative in Panará: argument phrases are always case-marked in an ergative alignment, and cross-reference clitics are a patchwork of participant feature exponence.

Keywords: morphology; syntax; case; alignment; Amazonian languages

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The syntax of focus, wh-phrases, and neg-words in Georgian

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This paper argues that (narrow) foci and wh-phrases in Georgian (Kartvelian) have different syntax, despite their similar surface distribution (immediately preverbal): foci are interpreted in situ, while wh-phrases undergo A'-movement. In addition to traditional syntactic tests, novel evidence from the relative positioning of foci and wh-phrases with respect to n(eg)-words is discussed. These results point to two sets of implications: (i) languages with preverbal placement of wh-words and foci may use different syntactic mechanisms for the two phenomena (cf. Elordieta 2001; Cable 2008); (ii) consistent patterns of interaction between focus/wh and neg-words may provide evidence about the syntactic positioning of the former (similar in spirit to Beck & Kim 1997; Beck 2006 on intervention effects). Georgian also allows for postverbal foci; the interaction of the latter and neg-words further supports the current analysis. The data used in the paper comes from the author's fieldwork.

Georgian is underlyingly OV but alternates between OV and VO in neutral/broad-focus contexts. The latter is derived by optional movement of the verb to v^0, which places it above the direct object (DO) (Skopeteas & Fanselow 2010). Clause-medial modals (e.g. *unda* 'must') and strict initial headedness of CPs suggest that the clausal spine above the VP is head-initial (cf. Germanic, *modulo* V2). Based on evidence from the interaction between DOs with clausal negation and disjunction, verbs in neutral OV orders do not leave the VP (cf. Han, Lidz & Musolino 2007; Simpson & Syed 2014; Shibata 2015). Case is assigned to verbal arguments in situ (Legate 2008; Nash 2017). In neutral utterances, neg-words appear in the immediately preverbal position, regardless of their argument-hood/thematic role. In utterances containing preverbal foci/wh-constituents neg-words resist undergoing topicalization into the left periphery. This is expected, given that non-referential constituents do not constitute good topics (cf. restriction on CLLD of neg-words in Italian; Alexiadou 2006). The fact that Georgian does not require A-movement for narrowly syntactic reasons (case-assignment, EPP), combined with the fact that neg-words resist information-structurally motivated movement (topicalization), strongly suggest that neg-words do not leave their base positions, and, as such, can serve as tools for determining the structural positions of other constituents.

Wh-phrases in Georgian can only be found immediately preverbally. Island and weak cross-over effects suggest that wh-phrases are not interpreted in situ. When a subject neg-word appears in a wh-question, it can only be found to the right of the wh-phrase and the verb (1). Given that the neg-word is in its thematic position, the wh-phrase must have undergone A'-movement to the specifier of a dedicated projection, accompanied by raising of the verb to its head. In contrast, a subject neg-word precedes a preverbal focused DO (2). Given the low placement of focus and lack of evidence for movement (island and weak crossover-effects), it is interpreted in situ and may be accompanied by displacement of the intervening material (if there is any), to achieve focus-verb adjacency.

(1) *Dghes* (****aravin***) ***ra*** *ar* *i-q'id-a* ***ara-vin****?*
today NEG-who what NEG VER-buy-AOR.3SG NEG-who
'What did no-one buy today?'

(2) *Dghes* ***ara-vin*** [FOC ***p'amidor-eb-i***] (*ar*) *i-q'id-a* (****aravin***).
today NEG-who tomato-PL-NOM NEG VER-buy-AOR.3SG NEG-who
'No-one bought TOMATOES today.'

There is no semantic difference between preverbal and postverbal foci: both may be exhaustive or contrastive. All major constituent types can be focused in either position; both preverbal and postverbal foci take narrow scope with respect to left-peripheral material. Nevertheless, the two foci cannot be reduced to a single syntactic position, given that they interact differently with neg-words: postverbal but not preverbal subject foci are possible with DO neg-words (3). An in-situ analysis of postverbal foci would require leftward movement of all other constituents, which neg-words cannot undergo. Accordingly, the most parsimonious analysis for postverbal foci is right-adjunction.

(3) *Dghes* ***ara-per-i*** **(***[FOC ***Mariam-ma***]**)** *ar* *i-q'id-a* [FOC ***Mariam-ma***].
today NEG-thing-NOM M.-ERG NEG VER-buy-AOR.3SG M.-ERG
'MARIAMI bought nothing today.'

The current approach also accounts for the behavior of foci and wh-phrases in more syntactically complex contexts (those including modals, embedded nominalizations, and participial clauses).

Keywords: focus; wh-questions; negation; Georgian

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Russian declension without declension features and contextual allomorphy

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Introduction. This paper presents an analysis of the Russian declension in Nanosyntax (Starke 2009, 2018). The analysis has two theoretically important features.
(i) It makes no reference to language-particular declension features. This allows us to maintain the idea that morphosyntactic features are drawn from a set provided by the UG, i.e., language invariant. On the other hand, using language-particular declension features entails a grammar where morphosyntactic features arise on the basis of linguistic data. Whatever the ultimate answer to this issue, the question of whether we can account for declension phenomena without declension features is a theoretically relevant issue.
(ii) The analysis also does not use contextual rules. In order to correctly pair the right ending with a particular root, the analysis only relies on specifying each marker for the features it spells out. The correct pairing of roots and affixes falls out from such a specification and the Nanosyntax model of spellout. In contrast, contextual rules resemble surface-level 'assembly instructions' with no analytical depth. If such 'assembly instructions' can be eliminated, a simpler (and more explanatory) theory emerges.
Data. I focus on the singular with classes delineated as in (1) (Timberlake2004; cf. Corbett 1982). Each declension is mostly occupied by nouns of a particular gender (as indicated in (1)). One gender, however, can belong to two declensions (FEM in II and III).

(1) Russian declension, singular

	factory I_A (MASC)	place I_B (NEUT)	lip II (FEM)	notebook, III (FEM)
NOM	zavód-Ø	mést-o	gub-á	tetráď-Ø
ACC	zavód-Ø	mést-o	gub-ú	tetráď-Ø
GEN	zavód-a	mést-a	gub-ý	tetráď-i
LOC	zavód-e	mést-e	gub-é	tetráď-i
DAT	zavód-u	mést-u	gub-é	tetráď-i
INS	zavód-om	mést-om	gub-ój	tetráď-ju

(2)a. [K [IND [CLASS [REF xNP]]]]
mést
b. [K [IND [CLASS [REF xNP]]]]
zavód
c. [K [IND [FEM [CLASS [REF xNP]]]]]
gub
d. [K [IND [FEM [CLASS [REF xNP]]]]]
tetráď

The treatment of exceptions (mostly animate Ns) will rely on the idea that with these nouns, agreement is based on semantics. The only inanimate exceptions are found in Class III, where we have a lonely MASC noun (*puť* 'journey') and about a dozen neuters. However, the neuters do not pattern like *tetrád'* in the plural. I address this in the talk.
Analysis. I model the combinations of roots and endings as a simple function of the features they spell out. The features I use to this goal can be split in two parts (for convenience). The first type of features are case features. I use the privative decomposition proposed in Caha (2009), where the number of features monotonically grows in the order of cases given in (1) top down. (NOM is [F1], ACC [F1, F2], GEN is [F1, F2, F3], etc.)
Below case features (abbreviated as K in (2)) are number/gender features, but crucially no declension features. The number feature I use is the IND(IVIDUATION) feature of Harely&Ritter (2002), with singular as the default interpretation. For gender, I use two features located below IND. Masculine and neuter nouns will have the feature CLASS (see (2a,b)), which is further specified as FEM in nouns of the feminine gender (2c,d), again following Harley Ritter (2002). Below CLASS is RefP (nouns are referential) and the xNP,

which hosts additional features such as animate etc. In sum, the masculines/neuters have the *fseq* as in (2a,b), the feminines have an *fseq* as in (2c,d).

In Table (1), there are two non-feminine declensions (I_A, I_B). These two declensions have the same *fseq*, the one in (2a,b). The difference between them is modeled as a difference in the lexical specification of the root, as depicted by the rectangles in (2). The root *zavod* in (2b) spells out all features including K (in NOM, ACC), lacking overt marking in these cases. So the fact that *zavód* does not combine with, e.g., *-o,* is encoded without contextual rules. The root *mést* spells out only REFP, see (2a). The various endings of *mést-* spell out the remaining features: class, number and case. The strategy is such that the root plus the endings must spell out all the features, see the upper part of the table (3). Note that the endings *-o, -a,* etc. cannot be inserted with nouns that have FEM in their *fseq* (because of the Superset Principle). So again, the fact that feminines do not combine with these endings is encoded without contextual rules. The lower part of (3) shows that the noun *zavód* spells out all features in NOM/ACC. To spell out the genitive F3, it needs an ending. As a consequence, the root must backtrack to the size of REFP.

(3)

xNP	REF	CLASS	IND	F1	F2	F3	F4	F5	F6
NOM	mést			o					
ACC	mést			o					
GEN	mést			a					
LOC	mést			e					
DAT	mést			u					
INS	mést			om					
NOM	zavód								
ACC	zavód								
GEN	zavód			a					
LOC	zavód			e					
DAT	zavód			u					
INS	zavód			om					

(4)

xNP	REF	CLASS	FEM	IND	F1	F2	F3	F4	F5	F6
NOM	tetráď									
ACC	tetráď									
GEN	tetráď				i					
LOC	tetráď				i					
DAT	tetráď				i					
INS	tetráď				ju					
NOM	žen				a					
ACC	žen				u					
GEN	žen				y					
LOC	žen				e					
DAT	žen				e					
INS	žen				oj					

Within the two feminine declensions (II and III) we have a similar contrast in root size, see (2c,d). Nouns of Declension III (*tetrad'*) spell out all the features in NOM/ACC, see (4). In oblique cases, they backtrack below the foot of *-i*, which spells out FEM, and is therefore gender specific (it cannot combine with nouns that lack FEM). The root *žen-* of Declension II has a root of the size REFP, and the endings spell out the remaining features. Note that the endings of the 3rd declension are inapplicable here, as that would leave the CLASS feature without spellout.

Conclusions. The analysis removes from the grammar any reference to language-particular objects (declensions), and replaces them by a set of universally available features, namely those uncovered by the cross-linguistic study of pronominal systems (Harley Ritter 2002). The correct combinations of roots and endings falls out from the sequence of heads and lexical specifications of the roots and endings. There is no need to hard-code context specification of the endings, whether by reference to declension features or by specifying the set of roots they combine with.

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Deverbal Nominals in Czech: Event versus Result Nominals

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Traditionally, Czech syntactically derived nouns or deverbal nominals (DN) are divided into two categories; type 1 – verbal nouns ending with the suffix *-í* e.g.: *čtení* and type 2 – process nouns with several possible suffixes e.g.: *četba*, both roughly corresponding to the English word "reading". The description of their formal morpho-syntactic features can demonstrate their more or less verbal and nominal qualities. Based on Karlík & Nübler (1998) and Karlík (2000), some of the key features include:

(1) Type 1: aspectual sensitivity, co-occurrence with reflexive pronouns, compatibility with instrument case (used for agents; an alternative to a *by* phrase), verbal negation etc.
(2) Type 2: lexicalized nature (less productive suffixes), higher frequency, compatibility with genitive but not with instrument case, no reflexive pronouns, no verbal negation.

The distinction between these two types of derived nominals has been based on their form rather than their function. However, this distinction is not sufficient nor accurate as it does not capture the event versus result nature of the particular noun. Both verbal and process nouns can be used to express events and results. Example (3) shows type 1 as a result nominal, it is a physical letter or email of announcement and example (4) shows type 1 as a complex event nominal with the emphasis on the duration of the event.

(3) *Dnes mi přišlo **oznámení** ohledně odstávky vody.*
today me arrived announcement regarding outage water
'I have received an announcement today regarding the water outage.'
(4) *Jeho dnešní **oznámení** trvalo celou věčnost.*
his today's announcement lasted whole eternity
'His announcement today lasted forever.'

In the case of type 2, the word *malba* in example (5) is a result nominal, a physical picture. In example (6) it is a complex event nominal because yet again, there is an emphasis on the duration of the process of painting which lasted for two months.

(5) *Obdivovaly jsme **malbu** na stěně.*
admired1PLPastF are painitngACC on wall
'We admired the painting on the wall.'
(6) ***Malba** nástěných fresek zabrala dva měsíce.*
painting wallGEN frescoes took two months
'The painting of the wall frescoes took two months.'

Therefore, some DN of type 2 have an argument structure and are more verbal. These can function as complex event nominals. Type 1 in contrast can function as result nominals, but only

when they are derived from a verb that is perfective. The presence or absence of aspect seems to play a key role when it comes to the distribution of these DN.

Following Borer (1991), Emonds (2000), and Veselovská (2001), we believe that there are three levels of insertion. These could potentially explain the differences in the usage of the Czech DN. This theory operates with a complex of two syntactic heads – Verbal (lexical) and Nominal (derivational). Three levels of insertion include deep structure (initial numeration), the level of syntactic processes and post-cyclic structure (phonetic surface level). Depending on the level of insertion the resulting DN (type 1 or 2) shows different syntactic properties manifesting its more verbal or nominal nature.

Keywords: deverbal nominals; aspect; verbal nouns; process nouns

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L1 interference in motion encoding: analysis of written narratives by Czech learners of Spanish as a foreign language

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This study is based on Talmy's (1991, 2000) typology of verb-framed languages versus satellite-framed languages and the Thinking-for-Speaking (TFS) hypothesis posited by Slobin (1996, 2004). Spanish, a verb-framed language, tends to express the information of Path in the main verb (*bajar* 'go down', *entrar* 'enter', *salir* 'exit', etc.), while Manner, if it is encoded, is usually expressed in separate elements such as adverbs or gerunds. Spanish can also encode Manner in the main verb (*correr* 'run', *andar* 'walk', etc.) in situations that do not involve crossing a border (1) but if there is a border-crossing, a Manner verb is not possible (Aske 1989) and a Manner satellite is used instead (2).

It is possible to say *corrió en la casa* in Spanish, but the interpretation does not involve a border-crossing like in English 'he ran into the house'; instead, it means 'he ran inside the house'. The restriction against the use of Manner verbs for border-crossings does not occur in satellite-frame languages like Czech, where Manner is commonly encoded in the main verb and Path in a separate element which is usually a prefix (3).

According to the TFS, language trains its users since childhood to pay attention to specific aspects of a scene or event and to verbalize them using the available linguistic forms. Slobin (1996, 2004) believes these patterns are difficult to restructure when learning a second language (L2). This study compares the patterns of motion encoding for seven Spanish native speakers and seven Czech learners of Spanish in a written narrative task (based on a description of a picture book without text), with the following research questions:

Q1. Are there differences between the mean length of the narratives and mean number of motion verbs used in the narratives of the natives vs. the learners?

Q2. Are there differences between the groups in the type of motion verb construction used (see Table 1 for the types) in the elicited written narratives?

Q3. Do Czech learners of Spanish transfer patterns (Jarvis and Pavlenko 2008) from their first language system to their L2?

For each story the following steps were taken: (i) the total number of words, (ii) the total number of verbs, and within those (iii) the total number of movement verbs were counted; (iv) using the latter two figures the ratio between the total number of motion and the number of all verbs was computed. Next, (v) each motion verb used was then sorted into the 6 categories of constructions listed (with examples from the elicited texts) in Table 1. Then, (vi) the percentage of motion verbs in each category was counted for each participant. Finally, each text was inspected individually for a qualitative analysis.

The results showed that natives produced longer narratives and used more movement verbs than the learners, as expected. Also, the construction 'Path verb + Manner satellite' was used significantly more often by the natives. In fact, the learners did not use it at all. On the other hand, the learners did use more the 'Manner verb'. With respect to the boundary

crossing restriction, some ungrammatical cases of use of Manner verbs by learners in border crossing were found. This could mean that learners transferred the TFS pattern of their L1 into their L2. These findings are in line with the studies by Hasko (2010) and Cadierno (2010) in which influences of the L1 into the L2 were found and not it line with the one made by Cadierno and Ruiz (2006) in which even advanced learners of Spanish were not influenced by their L1 (Danish and Italian) when telling the frog story (Mayer 1969).

(1) *Corrió hacia la casa.*
ran (he) towards the house
Manner Path
'He ran to the house.'

(2) *Entró corriendo en la casa.*
entered (he) running in the house
Path Manner
'He ran into the house.'

(3) Vběhl do domu.
In-ran (he) to the house.
P+M
'He ran into the house.'

Type of movement verb construction	**Example**
Manner V (verb)	*Su perro **corría** con él* *His dog was running with him.*
Manner and Path V	*El niño y el perro **se cayeron**.* *The kid and the dog fell.*
Manner V + Path satellite (S)	*El ciervo **corría hacia** el barranco.* *The deer was running towards the cliff.*
Path V	*Y de pronto **sale** un tejón que le muerde la nariz.* *And suddenly a badger comes out and bites his nose.*
Path V + Manner S	*La rana **salió a hurtadillas** del tarro.* *The frog sneaked out of the jar.*
Path V + Path S	*Una rata **salió de** la guarida.* *A rat came out of the den.*

Table 1. Categorization used for the types of movement verb constructions

Keywords: motion encoding; Thinking-for-Speaking; boundary crossing

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Oblique relative clauses in Italian students with developmental dyslexia and bilingual students with Italian L2

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Overview and goals. This paper discusses the competence of oblique relative clauses by Italian high-school students with developmental dyslexia (DD) and bilingual students with Italian L2. These structures, which are typical of the formal register, are frequently substituted by more colloquial alternatives, namely sentences containing resumptive clitic pronouns. Typically developing children start producing oblique relatives at the age of 10 (Guasti and Cardinaletti 2003). Data on adolescents, either monolingual or bilingual, are not available.

Individuals with DD may manifest difficulties with constructions derived by syntactic movement in oral comprehension and/or production tasks at school age (Arosio *et al.* 2016), or even at the University (Cardinaletti and Volpato 2015), beyond their disability in reading and writing skills.

In research on bilingualism, it is suggested that age of onset may influence language acquisition and development (Grosjean 1982; Döpke 1992). The cut-off point for native-like performance is proposed to be 4 years (e.g. Meisel 2009, Unsworth *et al.* 2014).

Participants. 8 students with a diagnosis of DD (G1: mean age 17;11) and 9 bilingual students with Italian L2 (G2: mean age 17;7) participated in the study. Three of the bilingual students were born in Italy from migrant families, and six of them moved to Italy when they were children (age: 3-5). G1 and G2 were compared to a group of 74 Italian monolingual peers (G3).

Materials. The students were administered a sentence repetition task and an elicited production task. The sentence repetition task includes 33 experimental sentences (left-dislocation sentences, long-distance subject and object wh-questions, clefts, oblique relatives) and 16 filler sentences of the same length (Del Puppo *et al.* 2016). The production task, containing 20 trials, elicits subject, object, and oblique relative clauses.

Results. In the repetition task, the rates of correct experimental sentences repeated by G1 and G2 are significantly lower than those of G3. 2 students with dyslexia behaved like the Italian monolingual peers, while the rest of the group have significantly lower results ($p < .001$). The bilingual participants that moved to Italy after age 4 are significantly less accurate than those arrived earlier ($p < .05$). The students born in Italy from migrant families showed native-like performance.

Focusing on the repetition of oblique relative clauses, G1 performed worse than G2 and G3, who did not however differ.

The elicited production task confirms the results obtained by G1 and G2 in the repetition task. G1 had significantly lower performance in the production of oblique relative clauses, while G2 and G3 did not differ significantly in the production of relative clauses.

Discussion. This study shows that, overall, individuals with DD and bilingual individuals have difficulties in mastering complex structures derived by syntactic movement. G2 and G3 showed

similar performance in the use of oblique relative clauses because these structures are also difficult for monolingual Italian participants. At high-school age, constructions of the formal register are not fully mastered by G3 yet. This may be due to the frequency at which these constructions are used at school or in formal contexts. Monolinguals and bilinguals are exposed to this language variety to the same extent.

6 students with DD resorted to sentences of the colloquial register much more often than all the other participants. This may be due to their low experience with the formal register and their difficulties in reading.

Keywords: syntax; bilingualism; developmental dyslexia; relative clauses; syntactic movement

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Investigating the acquisition of clitic pronouns in restructuring contexts through a sentence repetition task: a study on Italian pre-school and school-age children

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Introduction – In Romance languages, 3rd person pronouns are acquired later than 1st and 2nd person pronouns and are more difficult to process (Coene, Avram 2011; Tuller et al. 2011). Data on accusative (ACC) vs. dative (DAT) clitics are controversial (Caprin, Guasti 2009; Tuller et al. 2011; Coene, Avram 2011). No data have been systematically collected on the acquisition of restructuring. Antelmi (1997) and Bernardini, van der Weijer (2018) found an asymmetry between proclisis and enclisis in monolingual and bilingual acquisition of Italian; Bennati, Matteini (2005) tested clitic pronouns in L2 learners. Note that proclisis requires longer dependencies than enclisis and the functional analysis of restructuring verbs, entering mono-clausal structures (Rizzi 1978; Cinque 2004), while enclisis is compatible with a lexical analysis of restructuring verbs (Cardinaletti, Shlonsky 2004). This study investigates the acquisition of 1st, 2nd and 3rd person singular ACC and DAT clitics in restructuring contexts, to test whether person, case, or clitic position affect accuracy. The sentence repetition task allows to test complex structures (such as clitic pronouns with restructuring verbs) that would be difficult to elicit (Devescovi, Caselli 2001, 2007; Del Puppo et al. 2016).

Participants – 87 Italian monolingual children took part in the experiment. Participants were divided into 6 groups: 11 children age 3;6-4;6 (G1, mean 3;9); 16 children age 4;9-5;6 (G2, mean 5); 15 children age 5;7-6;2 (G3, mean 5;10); 15 children age 6;6-7;3 (G4, mean 6;11); 15 children age 7;6-8;5 (G5, mean 7;11); 15 children age 8;4-9;5 (G6, mean 9). A control group of 16 adults (G7, age 20-28, mean 24) was also tested.

Materials – The repetition test includes 49 experimental sentences with clitic pronouns and restructuring verbs (modal and motion), plus 6 fillers of the same length (15/16 syllables). 28 sentences contain ACC clitics (masculine and feminine) and 21 sentences contain DAT clitics (masculine only, the feminine form is obsolete). Each sentence contains 1/2 restructuring verbs and appears in the test two/three times, with the clitic in one of the two (proclitic/ enclitic) or three (proclitic/enclitic intermediate/enclitic final) available positions:

N. of verbs	Clitic position	Example
2	proclitic	**Gli** posso prestare il mio nuovo libro preferito.
	enclitic	Posso prestar**gli** il mio nuovo libro preferito.
3	proclitic	**Mi** deve passare a prendere dopo la lezione.
	enclitic intermediate	Deve passar**mi** a prendere dopo la lezione.
	enclitic final	Deve passare a prender**mi** dopo la lezione.

Results – Adults performed almost at ceiling (mean: 98,4%), sporadically moving the clitic from the intermediate to the final enclitic position. Children performance improved with age:

Group	Mean percentage of target answers
G1	11%
G2	40%
G3	60%
G4	72%
G5	79%
G6	80%
G7	98%

Person and case features did not influence accuracy; clitic position did. Clitic misplacement was the most frequent error (mean: 11%). Children performed significantly better in the repetition of sentences containing proclitic pronouns, moving the clitic most frequently from the enclitic to the proclitic position in 2-verbs sentences (1) and from the final to the intermediate enclitic position in 3-verbs sentences (2). Misplacement errors did not affect the grammaticality of the sentences:

(1) Target: Vengo a trovar**ti** domenica nel pomeriggio.
Produced: **Ti** vengo a trovare domenica nel pomeriggio.
I will come see you Sunday in the afternoon.
(2) Target: Deve venire a ripeter**mi** tutto di nuovo.
Produced: Deve venir**mi** a ripetere tutto di nuovo.
She has to come to repeat to me everything again.

Discussion – Children are able to process long-distance chains in clitic climbing, showing a preference for proclisis, hence for mono-clausality. In 3-verbs sentences, some children dispreferred the final position, but without moving the pronoun all the way up to the proclitic position (cf. Jakubowicz's 2011 Derivational Complexity Hypothesis). Enlicisis on the intermediate verb means that the highest verb is analysed as lexical (Cardinaletti, Shlonsky 2004). Both types of restructuring structures seem available to children.

Keywords: clitic pronouns; restructuring; acquisition

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Processing and recall of temporal references at the sentence level

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Although many psycholinguistic studies focus on argument structure comprehension, such issues as adjunct recall and the role of focus at the sentence level mostly stay open. However, many studies have so far pointed out some differences between argument and adjunct comprehension. For example, Kenninson (2002) showed that sentences with NP arguments were comprehended more quickly than NP adjuncts when they followed biased transitive verbs. Gotzner and Spalek (2019) recently showed a significant effect of focus on the recall. We question, whether the recall could be affected by the word order position of an element aside from its formal properties. For this purpose, Czech serves as an ideal testing language since it has a flexible word order, which is consequently highly related to frequent focus position switch.

This pilot experiment tests how precise is the recall of temporal references determining the time point at the extended simple sentence level in comparison with the object recall after transitive verb. The main hypothesis is that object recall is more successful than temporal reference recall, as it had showed up in results from another pilot experiment recently made by Chromý (unpublished). We further expect that the position of an element in the sentence and its prominence (irrespective of its syntactic function) will influence the recall of this element. The experiment employs a 4×2 within-subject design with word-order (4 variants) and question type (when-question and what-question) as independent variables. For presentation of stimuli, Ibex Farm is used (self-paced reading with sentences presented as a whole). The intended sample will consist of 70 participants (undergraduate students of Faculty of Arts, Charles University). Altogether, each participant will read 24 experimental sentences (3 randomly generated items from each condition) combined with 96 filler sentences. We will measure response correctness and reaction times. One of the main problems we will discuss over the results is the variety of answers and their interpretation since we employ open-ended comprehension questions and the coding process thus needs to be done manually. Three possible outcomes of the experiment may be expected: (1) We will find a significant difference between object and adjunct recall independently of their word order position. (2) The rate of correct recall will be influenced by the word order position of the given element (the more prominent the element is, the better it is recalled) – independently of its syntactic function. (3) Both independent variables will have a significant effect (adjuncts will be recalled generally worse than objects, but their word order position will also affect the results). The experiment will thus inform us about the role of word order in information recall in comparison with the role of syntactic functions.

Keywords: adjunct, argument, focus, prominence, word order

Item examples:

(1) Word order 1: V neděli| v knihovně| velmi pečlivě| pročetl noviny| starší důchodce.| 'On Sunday| at the library| very carefully| read the newspaper| an older retiree.'

(2) Word order 2: Noviny| velmi pečlivě| pročetl| v neděli| v knihovně| starší důchodce.| 'The newspaper| very carefully| read| on Sunday| at the library| an older retiree.'

(3) Word order 3: Starší důchodce| v neděli| v knihovně| velmi pečlivě| pročetl noviny.| 'An older retiree| on Sunday| at the library| very carefully| read the newspaper.

(4) Word order 4: Starší důchodce| pročetl noviny| velmi pečlivě| v neděli| v knihovně.| 'An older retiree| read the newspaper| very carefully| on Sunday| at the library.'

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Nonword repetition in Czech-English bilingual children. The interaction of working memory and phonological complexity

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Background: Nonword repetition is one of the most reliable systems to assess language difficulties in children. Classic research on monolingual children shows that deficits in nonword repetition correspond to deficits in working memory (Gathercole et al. 1994) and/or phonological processing (Snowling, Chiat & Hulme, 1991). Current research better disentangled the relation between the two: deficits occurring with increased nonword length are regarded as working memory deficits, while deficits occurring in nonwords containing clusters of consonants are regarded as phonological deficits (Chiat, 2015, Sileo & Tyčová, 2019).
Research question: In this study, we assessed performance on nonword repetition in a group of Czech- English bilingual children. Considering that bilingual children tend to have enhanced working memory skills (Morales, Calvo & Byalistok, 2013), but reduced phonological skills (Fabiano-Smith & Goldstein, 2010), nonwords are an ideal ground for investigating the interaction between these two factors.
Methods: Twenty-four children (age 8-11) were recruited in international schools in Prague and were assessed with the Children's test of Nonword Repetition (CNRep, Gathercole et al., 1994). The CNRep is the most widely used nonword repetition task in the UK. The task is comprised of 40 items of different length (10 two-syllable nonwords, 10 three-syllable nonwords, 10 four-syllable nonwords, 10 five-syllable nonwords).
Approach: Our approach follows Cilibrasi et al. (2018) and Archibald and Gathercole (2007), as it compares performance in nonwords with clusters against nonwords without clusters. Following Cilibrasi et al. (2018), we focus on noninitial clusters in medium and long nonwords (4 and 5 syllable), since initial clusters in short nonwords are shown to behave idiosyncratically and are a less reliable measure of phonological processing.
Data: Accuracy was measured as a binary variable (accurate vs inaccurate), and for each participant it was then coded as proportion of correct responses in each of the 4 given conditions (4-syllable with cluster, 4- syllable without cluster, 5-syllable with cluster, 5-syllable without cluster).
Results: A two-way Anova shows a significant interaction between length and cluster and no significant main effects of cluster and length. Post-hoc t tests show that the length effect is present in nonwords without clusters, but not in nonwords with clusters (Figure 1).
Discussion: This study contributes to the study of the interaction between working memory and phonological complexity in bilingual children. Our findings suggest that, when phonological complexity is high, accuracy stays low for bilinguals (independently of length), but once phonological complexity is reduced, participants show a clear effect of length (i.e. working memory).
Keywords: nonwords, phonology, working memory

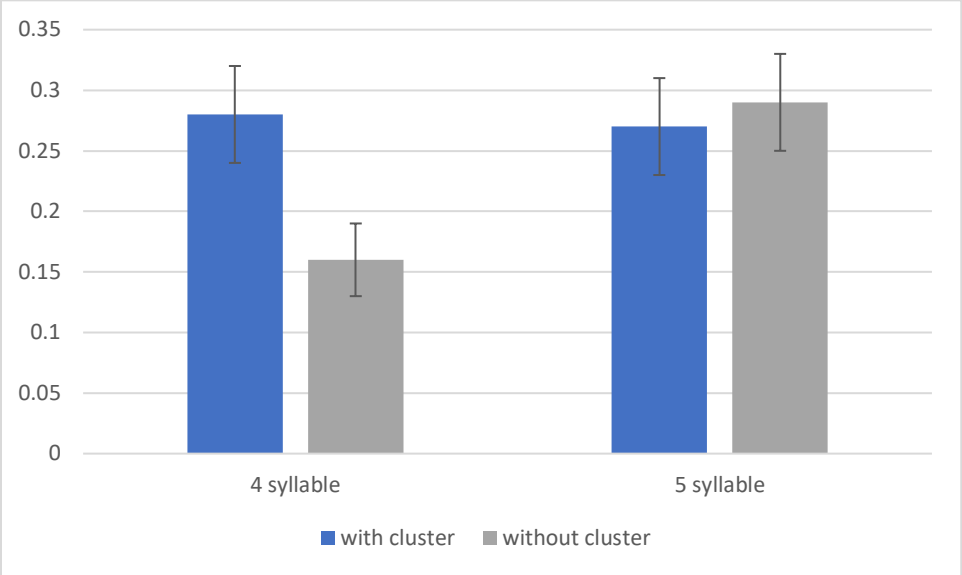

Figure 1. Proportion of errors in the four conditions

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An unexplained difference between reflexive and copular clausal passives in Romanian

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1. Data and aim

Romanian possesses a reflexive passive structure, the *Se*-passive, where *Se* is the Acc reflexive third person clitic, and a copular passive, formed with the Auxiliary Fi 'be'. For both *Se*- and *Fi*-pass(ives), the passivized D(irect) O(bject) is either nominal (NP/DP) or clausal (CP), e.g. a finite clause. While for nominal DOs, there is a balanced distribution of the two passives, with clauses, there is a sharp difference of acceptability between clausal *Se*-pass and clausal *Fi*-pass. Clausal *Se*-pass occur with *any* transitive verb and sound perfect. Clausal FI-pass are infrequent and even unattested for some verbs (e.g. *a spera* 'hope', *a vrea* 'want').
The aim of this paper is to present an account of this difference, which also correctly predicts which syntactic means improve the acceptability of clausal copular passives.

2.The proposal in a nutshell We essentially claim that the contrast between clausal *Fi*-pass and *Se*-pass springs from the Su/DO asymmetry, due to the difference between the features of the probes they interact with. Sus interact with Tense. Since Romanian is a consistent NSL, T is provided with [*i*T, *u*φ, *u*D] (Roberts 2010). In contrast, DOs interact with the lexical verb V, a probe endowed with [uφ]-features (Pesetsky 2021). CPs possess valued φ-features (Picallo, 2001), and, therefore, can appear as DOs of lexical verbs, alongside of DPs. However, they cannot intrinsically have an *i*D feature. This raises the problem of how Su-cls satisfy the D requirement of Tense. We propose that with Su-cls the problem is solved by means of a <$DP_{expletive}$, CP> chain, where the expletive is *pro*. P*ro*$_{expl}$ contributes a D-feature, but has interpretable unvalued φ-features. The φ-features of *pro*$_{expl}$ are valued by Agree with the CP. This requires *pro*$_{expl}$ and the CP to merge in the same *v*P-phase, with *pro* in Spec,*v*P and the CP in an adjunct position (Deal 2009, Longenbaugh 2019). After Agree with the CP, *pro*$_{expl}$ can duly check all the features of T. Recall now that in passive clauses there is *no syntactic representation of the Su*, and, thus, no expletive Su either (Bruening 2013). The CP is projected in object position and should check the features of T. We start, however, from the premise that, in principle, *any nominal in a configuration of agreement with T* can check the latter's *u*D feature. Our *claim* is that reflexive passive are flawless because *the uD feature of Tense is valued by the reflexive clitic before cliticization*. (Essentially, the expletive SE checks [Acc] in SpecAgrO (Schaffer 2008) and [Person] in a PersonP at the *v*P periphery (Stegovec 2015) *where it can be accessed by T*.) In contrast, in the *Fi*-pass, the DO CP, which becomes the passive subject, cannot value the *u*D feature of T. Hence clausal *Fi*- pass are instances of failed agreement (Preminger 2011), and their acceptability is imperfect.

3. Evidence for the proposal and the analysis

The analysis finds strong empirical support. First the fact that CPs have inherent φ- features is proved by the existence of *special clausal substitute*, the demonstrative, *asta*, with unique agreement properties. (Giurgea 2008). Certain differences between Su-cls and DO-cls follow naturally from the presence of a *pro*$_{expl}$ in Su-cls: a) OCls clauses cannot antecede θ-pronouns, SuCls can; b) SuCls may launch emphatic reflexives, OCls may not. c) OCls are replaceable not only by pronouns (e.g. *asta* 'this'), but also by the CP-proform, *aşa* 'so', accepted by all CP-selecting verbs (except for factives). In contrast, SuCls of Vs and As accept pronominal substitutes, but *exclude* the CP-proform *aşa* 'so'. This confirms the presence of *pro*$_{expl}$ in Spec,T for Su-cls. Strong evidence is also that in passives, the *derived SuCl can* be replaced by either the pronoun *asta* 'this' or the CP-substitute [$_{CP}$*aşa*].The possibility of *aşa* clearly indicates that passivized OCls *merge as CPs, not DPs*. Consequently, the *u*D-feature of T remains unchecked. Reflexive passives possess the clitic, which is sufficient to value the D feature of T. This does not happen with copular passives, hence the difference of acceptability.

keywords : clausal passive; copular passive; reflexive passive, D-feature on Tense.

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Passivization of multiple complement verbs in English

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With multiple complement verbs, both the indirect and the direct object can undergo passivization in English:

(1a) An apple was given to John. (1b) John was given an apple.

Note, however, that no preposition is possible when the indirect object is promoted:

(2a) * To John was given an apple. (2b) * John was given an apple to.

My aim is to account for the different passive structures in (1a) and (1b) and the ungrammaticality of (2a) and (2b) within the framework of Syntax First Alignment (SFA), proposed by Newson (2010).

In SFA, the input consists of sub-lexical elements, called conceptual units (CUs). It is the input where semantic interpretation takes place. The Generator imposes linear orders on these CUs, thus creating the candidate set, which is evaluated by alignment and faithfulness constraints. Alignment constraints require a given element, i.e. the target, to precede, or follow another element. These constraints are violated by a reverse order. Adjacency constraints are a type of alignment constraints which require two elements to be adjacent. They are violated by every element which appears between them. Faithfulness constraints are violated if an element present in the input is absent from the output.

Only after the winning candidate is determined, does lexical insertion take place. In other words, vocabulary elements are inserted post-syntactically. It is the Superset Principle which determines what can spell out a given string of conceptual units. It is also assumed that only contiguous sequences can be spelled out by a single vocabulary item.

As (3) and (4) illustrate, the preposition in active sentences appears when the third argument (i.e. the goal or the recipient) and the verb are not adjacent.

(3a) Someone gave an apple to John. (3b) Someone gave John an apple.
(4a) John bought snacks for Mary. (4b) John bought Mary snacks.

Given that these examples have the same meaning and the arguments are assigned the same theta-roles, the inputs associated with them are also the same. Therefore, it can be assumed that the CUs which the prepositions spell out in (3a) and (4a) are present in (3b) and (4b), respectively. I will refer to them as *v*, which -I propose - is responsible for licencing the third argument. I suggest that the *v*s in (3b) and (4b) are spelled out by the given verb. Thus, the vocabulary entry for these verbs must contain these CUs as well. Note that the Superset Principle allows the sequences with or without these CUs to be spelled out by the same vocabulary entries.

The question arises why the preposition is present in (1a) although it is adjacent to the verb. I claim that there are two requirements, i.e. i) the passive CU immediately follow the root and ii) *v* immediately follow the root. The first requirement is stronger; therefore, the root and *v* are separated by the passive CU, so *v* needs to be spelled out independently. Also, there is an adjacency requirement between *v* and the third argument, hence the ungrammaticality of (2b).

The preposition is absent if the third argument - due to topicalization - is fronted. In this case, *v* is deleted violating a faithfulness constraint. If it is assumed that this requirement is ranked lower than a constraint which requires the passive CU to precede *v,* we can see why (1b) more optimal than (2a). The higher ranked precedence constraint is vacuously satisfied by (1b), as *v* is not present in the output at all. (2a) is ruled out, because it violates the higher-ranked precedence constraint although it satisfies the lower-ranked faithfulness constraint. The table in the appendix demonstrates this.

APPENDIX

	v P/A arg_3	[pass] P *v*	faith (*v*)
To John was given an apple *v* arg_3 √[pass] arg_2		*(!)	
→ John was given an apple arg_3 √[pass] arg_2			*
John was given an apple to arg_3 √[pass] arg_2 *v*	*(!)		

Table 1

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Syntactic “fragments” and discourse patterns: backwards licensed anaphors PPs in spoken French

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Based on the pioneering “emerging syntax” framework of Ford and Thompson (1986), Thompson (2002) on the limits between syntax and discourse, Charolles (2003, 2005) presents an comprehensive study of locative and temporal PPs taking scope on large segments of the following discourse, based on formal written French data. Examples of this pattern are also found in spontaneous varieties:

(1) au Bangladesh tu as aucune femme dans la rue - autant **en Inde** les femmes travaillent dans les champs la femme c’est quelqu’un c’est une personne très importante dans la famille dans la société dans le village - **au Bangladesh** la femme elle passe toute sa vie enfermée à la maison et parfois elles sortent jamais.(voy, 43, 10)

In Bangladesh there are no women in the streets as much as in India women work in the fieds the woman (it) is somebody (it) is a person very important in the family in the society in the village In bangladesh (on the contrary) the whoman she spends all his life home and sometimes they never go out

The locative *en Inde* extends its scope on a following discourse unit composed of three independent sentences. The scopal effect is cancelled by the appearance of a new locative PP *au Bangladesh*, which, in turn, has scope over two coordinate sentences. Basically, this scopal effect can receive two explanations. The first one, supported by Charolles, involves a mismatch between syntax and semantics, that is: a preposed adjunct with non terminal contour syntactically attached to one sentence can take as semantic argument a conjunction of propositions. Under the second one, involving a syntax-semantics matching, the PP is an independant syntactic unit, an orphan fragment (Culicover Jackendoff 2005), linked to the context, not by a grammatical dependency relation, but by a “discourse pattern”. The main goal of this presentation will be to give theoretical and empirical arguments in favour of the “matching” hypothesis. My strongest argument will be based on the description of a less noticed empirical fact, which independently requires a solution based on discourse patterns. Deulofeu (2012) brings about cases of backwards wide scope detached PPs such as:

(2) *Il y en a* qui demandent du kirsch *d’autres préfèrent la vanille d’autres c’est de la poire* enfin au goût de des différentes personnes

some order Kirsh liquor, others prefer vanilla, others, it is pear (spirit), well (according) to the taste of the different persons

In this example, the last detached PP cannot be licensed only by the preceding verb. The combination would definitely sound very strange :

(3) ?? d’autres c’est de la poire au goût des différentes personnes

To make sense, *au goût des différentes personnes* must have scope over all the sentences of the preceding discourse and not only the last. But contrary to the forward large scope PP (1) *au gout des différentes personnes* cannot be syntactic licensed by one clause only, which undermines the mismatching solution.

Beyond advancing in empirical adequacy, I will show that the description of both discourse patterns (forward and backwards licensed) can help us in clarifying the theoretical syntactic issue of the distinction between integrated versus inserted syntactic constituents (Espinal 1991, Deulofeu 2003, 2014).

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No more as superlative modifier: experimental evidence from Czech

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Background. Previous research on modified numerals established some widely accepted contrasts between comparative modifiers (CM) and superlative modifiers (SM) (see Büring 2008; Geurts and Nouwen 2007; Nouwen 2015; Mayr 2013; Schwarz 2016 a.o.), such as: (i) CM don't but SM do give raise to obligatory ignorance implicatures; (ii) CM can scope over or under existential modals (EM) but SM have to outscope them. A *no more than Num* construction (NMC), where negation and comparison are combined in a way exemplified by an English sentence (1) from Nouwen (2008), to this day the most developed formal treatment of NMC, is then claimed to allow both scopes w.r.t. EM (Nouwen (2008)) and to have scalar bounding inference, signalling speaker's well-informedness (ibid), since English *no more* construction (unlike class B modifiers) give raise to equality readings like (=50) for (1). Such claims seem to be supported by the comparative morphology of NMC. I bring new experimental and corpus evidence against both claims, showing that (cross-linguistically) (i) NMC can be interpreted only with wider scope then EM; (ii) NMC is compatible (mostly) only with speaker's insecurity (or so-called variation) readings as SM. The experimental and corpus evidence comes from Czech as it was observed before that Slavic languages (unlike English) generally don't support speaker's well-informedness NMC interpretation ((Dočekal 2017).

Experiment. The experiment followed an observation (Geurts and Nouwen 2007; Blok 2019 a.o.) that class A modifiers allow both wide and narrow scope w.r.t. an existential modal readings but class B modifiers have to out-scope the existential modals (split-scope). The research question of the experiment then was whether Czech *no more* would behave more like class A or as class B modifier in this environment. The experiment was a truth-value judgment task where the context described a situation strongly preferring the wide scope of the existential modal over the degree quantifiers. There were three conditions (CM: FEWER, SM: AT-MOST and *no more* modifier: NO-MORE). An example item from the experiment with the translation of the context and glossed conditions is in (2). The subjects had to judge (on Likert scale 1-5, 1: worst, 5: best) the appropriateness of one of the conditions (for each item) in the context. There were nine items and nine fillers, 33 subjects participated in the experiment (implemented on IBEX farm), and all of them passed fillers (uncontroversial TVJT).

Results. The mean/median acceptability of the three conditions are the following: AT-MOST $1.15/1$, FEWER: $3.6/4$, NO-MORE: $1.4/1$. The boxplot representing the variation, means and medians is in the Figure 1. The mixed-effects model (R package LME4, subjects and items were random effects, answers were modelled as depending on the fixed-effect, condition) supports the descriptive statistics: there is a non-significant difference between AT-MOST and NO-MORE (t-value: 1.3, $p = 0.19$), statistically significant difference between AT-MOST and FEWER (t-value: $15.12, p < 2e-16$) and statistically significant difference between NO-MORE and FEWER (t-value: $13.99, p < 2e-16$). The experiment thus confirms that the scope behaviour of *no more* construction follows the pattern of class B modifiers, not the class A modifiers.

Fig. 1: Boxplot of responses

Analysis. The scope behaviour of Czech NMC is a class B profile. Thus I follow original Nouwen's 2008 suggestion to analyze German/Dutch *nicht mehr/niet meer* as negative differential expression, thus expressing that there is no positive difference in degree between the arguments of the comparative *more*, formally: $[\![nicht\ mehr\ \alpha]\!] = \lambda P.\neg\exists d'[max_d(P(d)) = \alpha + d']$. And since the negative differential analysis is equivalent to the class B at-issue semantics of *at most*: $\lambda P.max_d(P(d)) \leq \alpha$ (after Kennedy 2015), such approach applied to Czech experimental data correctly derives the similar scope behavior of NMC and class B modifiers. The wide scope of the NMC/class B modifiers in (2-a),(2c) then is $max_d(\Diamond contain(1LRopak, d)) \leq 0.5g$, which is incompatible with Alex's continuation and predicts low acceptability of NO-MORE and AT-LEAST in the experiment. The weak surface scope ($\Diamond[max_d(contain(LRopak, d)) \leq 0.5g]$) which allows 'more than' reading is allowed only for class A modifiers and explains the high acceptability of FEWER (whatever the reasons for obligatory wide scope of class B modifiers over existential modals are, see Blok 2019). The scope behavior of Czech NMC then shows that semantically NMC behaves as class B modifier, despite its comparative morphology. Next, pragmatic properties of Czech NMC seem to show that even alternatives for implicatures of Czech NMC are similar as class B modifiers (contra Nouwen 2008). Since all the corpus occurrences of Czech NMC (Czech national corpus, ČNK) seem to appear either in (i) anti-specific contexts (in the sense of Nouwen 2015: the speaker cannot mean some specific number) like (3-a); or in (ii) in non-epistemic, generic variation readings like (3-b). Such pragmatic behavior is more compatible with ignorance implicatures usually attributed to class B modifiers (with stronger alternatives like {exactly *n*, at most *n-1*} accounting for speaker's insecurity/variation). Class B type of implicature alternatives would account for the unnaceptability of sentences like (3-c) (and absence of their type in ČNK). In sum, it seems that English NMC is more exceptional type of NMC (see Blok et al. 2017 for a similar observation concerning English *no*).

(1) No fewer than fifty people showed up.

(2) Context: Alex is reading an info at a gas station which states that:

a. Jeden litr benzínu Ropák může obsahovat {a. nanejvýš/b. méně než/ c. ne víc než} 0.5 gramu olova.
one liter fuel.GEN.SG Ropák.NOM.SG can contain at-most/ fewer than no more than 0.5 gram.GEN.SG lead.GEN.SG
'One liter of the Ropák fuel can contain {a. at most/b. fewer than/c. no more than} 0.5 g of lead.'
Alex comments this: 'So, there can be sometimes even 0.6 g of lead in Ropák.'

(3) a. Nevím, kolik má metrů čtverečních, určitě ne víc než padesát.
neg-know how-much has meter square certainly no more than 50
'I don't know how many square meters it has, certainly no more than fifty.'

b. průměrnou délku denních přesunů, zpravidla ne víc než pět až šest km
average length day transports normally no more than 5 to 6 km
'average length of daily transports, regularly no more than 5 to 6 km.'

c. #Země má ne víc než dva měsíce.
earth has no more than two moons
'Earth has no more than two moons.'

Moving or static? Episode representation in child Russian narratives

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Following the studies of narrative and episode structure by W. Labov, J. Pustejovsky, D. Slobin, R. Longacre and others, the presentation discusses the ways of episode representation by Russian native monolingual children at the age of 3;7-8;6. The material for the research has been collected at a series of experiments that comprises experiments of 4 different designs that allowed obtaining a corpus of more than 200 elicited narratives based on either a picture book, or an animated cartoon. Each spoken narrative was audio and video recorded, each subject had to retell a story without any previous preparation or discussion. Russian school curriculum does not include any focused training of storytelling in primary school. The difference between the picture book and the cartoon allows us to compare the strategies of static vs. moving image description.

The results supported by the statistical analysis of episode structure show that children choose different strategies to retell a picture book with static images or a cartoon with moving image. In the first situation children at the age of 3;7-5;6 may either describe each picture separately or produce sentences that shortly represent the plot of two or three pictures all together. In both strategies children tend to omit any "redundant" details of both the plot or characters. Retelling a cartoon children at the age of 4;7-7;6 try to describe every episode that seem to be important for the plot and may introduce some interesting details, representing the relation between characters, their emotions, mental states or possible intentions. At the same time most of presented episodes contain a thorough description of starting situation and the initial events, but lack of any ending remarks. This may be explained by the fact that children had to retell a story online and a new episode had usually started a few moments before they could conclude the previous one. This explanation is supported by those narratives when children tried to conclude some episode which led to the omission of the following one.

Another remarkable result is the extremely small number of evaluations in any narrative either it is based on the picture book, or the cartoon. Children tend to retell a story being at an outside position but they still lack any critical thinking and perceive the story as it is. The only evaluation marks that may be found in the narratives by the younger children is the empathy to the characters, while older children include some remarks about the characters' behavior and the quality of the cartoon. Almost complete lack of the evaluation may be considered as a feature of cognitive development instead of being a language specific parameter. It is confirmed by the previous studies of adult narratives that comprise samples of critical views of the same cartoon. The lack of evaluation in the analyzed narratives may be considered as one of the most important features that differentiate personal and elicited narratives in child language.

Keywords: Language acquisition; Narrative structure; Episode structure; Storytelling strategy

Complete and Partial Projections

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Most recent generative work assumes that, besides idioms, the Extended or "Complete" Projections of the English lexical categories N, V, A, P are respectively DP (=SPEC–D–NP), TP (=SPEC–T–VP), AP, PP, and that only these categories satisfy (1).

(1) **Complete Projections.** All complements, adjuncts and subjects in English must be Complete (Extended) Projections.

Research questions concerning possible counterexamples nonetheless arise. In particular, some VP complements are plausibly not IPs:

(2) If English *to*-infinitives are headed by the P *to* (Duffley and Abida 2009), isn't the *complement of the P to* a bare (incomplete) VP*?*

(3) Aren't "English bare infinitive" complements to Vs like *go, let, make, help* plausibly VPs but not IPs (Veselovská 2017)?

(4) *He will go buy a map. They made us drink stale beer. John helps us clean the hall.*

(5) Aren't English present participles as in (6a-b) bare (incomplete) VPs, which are respectively complements of temporal aspect verbs and adjunct subject complements?

(6) *a. Nancy began/ resumed/ went on/ stopped/ was skipping lunch.*

b. Nancy walked to work smoking a cigar/ muttering curses.

Infinitival *to*. Wrt Question (2), the grammatical P *to* has only 2 features: its categorial feature P and the feature DIR (directional) differentiating it from e.g. *of,* which is a P with no directional feature.

The infinitival *to* in (2) is indeed an exception to (1); its VP complement is only a "Partial Projection" of V, a VP that doesn't project to TP. To account for this, we need an "Auxiliary Hypothesis" that allows *some* clausal complements to be Incomplete Projections.

The unmarked interpretation of a P is location in space or time. But infinitival *to,* like many "grammatical P", are not interpreted in this way. I propose this is due to a universal "Cancellation Feature" +Ø that affects interpretation of head categories:

(7) **Cancellation Feature**. If a morpheme in a category X^0 carries the Cancellation Feature +Ø, the category feature X^0 itself is not interpreted, though features occurring with it are.

This is my Auxiliary Hypothesis. When this new feature +Ø is generalized to other contexts and uses, a fruitful Auxiliary Hypothesis should lead to new predictions, previously unsuspected.

But first, how can the feature +Ø predict Incomplete/ Partial Projections? Notice that the second feature DIR on the P *to* can also occur with some Vs, with either a literal or figurative meaning: *reach the station/ reach a better understanding; see the horizon/ see a solution.*

This feature DIR expresses not only spatial direction, but also Duffley and Abida's "unrealized future" or "aim".

Now what seems striking is that if the *only interpreted feature(s)* of a closed class item Y, such as the P *to* or the V *go,* are typical features of an X as well, then an XP complement of Y need not be a Complete Projection. So a VP complement of *to* or *go* need not be Complete.

(8) **Partial Projections**. If XP is a complement of a *closed class item* Y^0, and if the interpreted feature(s) of Y^0 can be features of X^0, then XP need not be Complete.

By (8) the VP complements of *to* in (2) need not project to TP. These projections of V can be Partial, and by Economy of Representation, they must be. The Auxiliary Hypothesis (8) is thus confirmed.

It is now the possibly interpreted DIR feature on the closed class Verbs *go, make, and help* in (4) that allows these verbs to have bare VP complements that are incomplete projections (VPs), which are otherwise excluded as complements by (1).

Since English bare infinitives as in (3) can only be complements of closed class grammatical verbs (Veselovská 2017), by (8) these can also be Partial Projections. This is the predictive excess content of the auxiliary hypothesis of the Cancellation Feature.

Additional results: English present participles as in (5) are VP, which are complements to a grammatical A *–ing,* whose *only feature* is A with the Cancellation Feature +Ø. This *–ing* exemplifies Halle and Marantz's (2003) Merger operation, whereby a head (here A) is realized on the head of its VP complement as V+*ing.* Trivially, since this A has no interpretable feature, its VP complement, by (8), need not be complete.

Further predictions: English gerunds, also Partial VP Projections, fit into the approach in the same way. There are also Partial NP Projections that are complements of closed class nouns like *dozen* and *thousand*. whose only interpretable features are features of N.

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Syntactic priming in Czech language production: examining morphological boost

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Syntactic priming is the tendency to repeat the structure of a recently processed sentence in production or use the recently processed structures to bias sentence interpretation (Bock, 1986). Syntactic priming occurs without a repetition of words or prosody between sentences, suggesting primary role of syntax (Pickering et al., 2002; Cleland & Pickering, 2003). However, repetition of the same words across sentences enhances the effect of priming; this is called *lexical boost* (Hartsuiker et al., 2008).

There are only a few reports on syntactic priming from highly inflected languages such as Czech. Consequently, little is known about how the variability of grammatical morphemes marking syntactic roles, such as case, interacts with syntactic priming. It is possible that the repetition of grammatical morphemes between sentences will enhanced the priming effect (*morphological boost*) similarly to the lexical boost. We conducted two experiments that investigated syntactic priming in Czech, focusing on dative-accusative structures in which priming was previously found in Czech.

Participants read priming sentences and described target pictures. In one type of primes, nouns were chosen so that the dative and accusative case could be marked with the same endings as in the target structures (1). In the other condition, the dative and accusative endings were chosen to differ from the targets (2). We also included a condition with neutral prime (3.) We expected a greater priming effect in situation where prime sentences and target descriptions share same endings.

(1) Prime: The cow is licking the sheep's (-e suffix, DAT) head (-u suffix, ACC)
(Kráva olizuje ovečc-e/DAT hlav-u/ACC)
Target: The knight gives the princess (-ě suffix, DAT) a book (-u suffix, ACC)
(Rytíř dává princezn-ě/DAT knih-u/ACC)
(2) Prime: The director offers the officer (-e suffix; DAT) a job (-i suffix,ACC)
(Ředitel nabízí referentc-e/DAT prác-i/ACC)
Target: The master gives the dog (-ovi suffix, DAT) a can (-u suffix, ACC)
(Pán dává ps-ovi/DAT konzerv-u/ACC)
(3) Prime: The beetle crawls very busily (Brouk se usilvně plazil)
Target: The knight gives the princess (-ě suffix, DAT) a book (-u suffix, ACC)
(Rytíř dává princezn-ě/DAT knih-u/ACC)

In Experiment 1, very few participants used the nouns expected in the target sentences, so we conducted Experiment 2 with same design but added a sentence-initial segment of two words to increase the likelihood of expected target responses. Both experiments confirmed priming for dative-accusative structures (Figure 1 and 2) but did not support the thesis that case markings play a role in the syntactic priming, confirming analogous findings on free function morphemes (Bock, 1989).

Figure 1

Experiment 1: Numbers of target responses with different word orders across the priming conditions

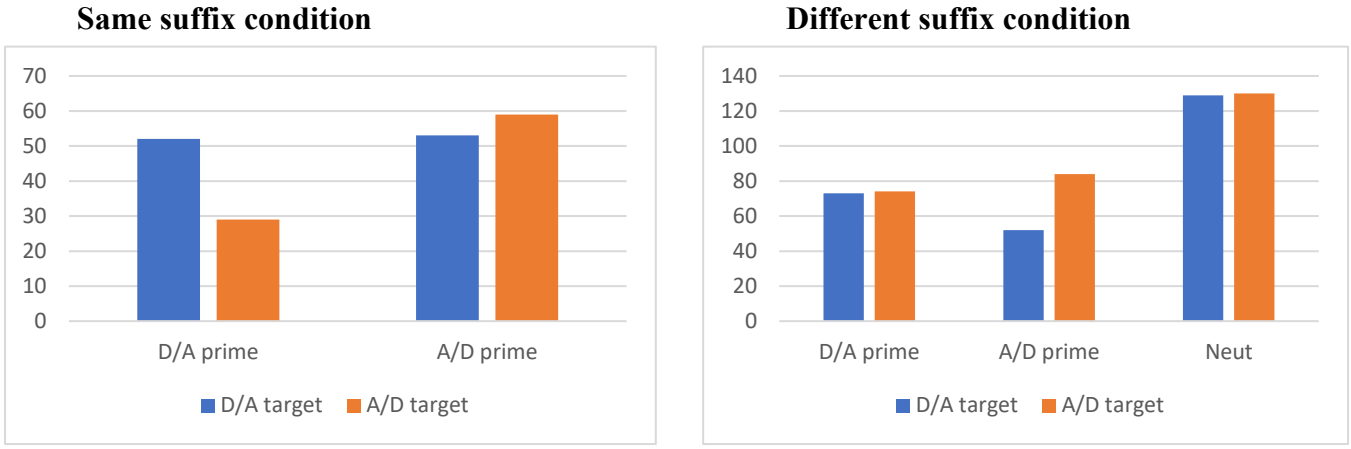
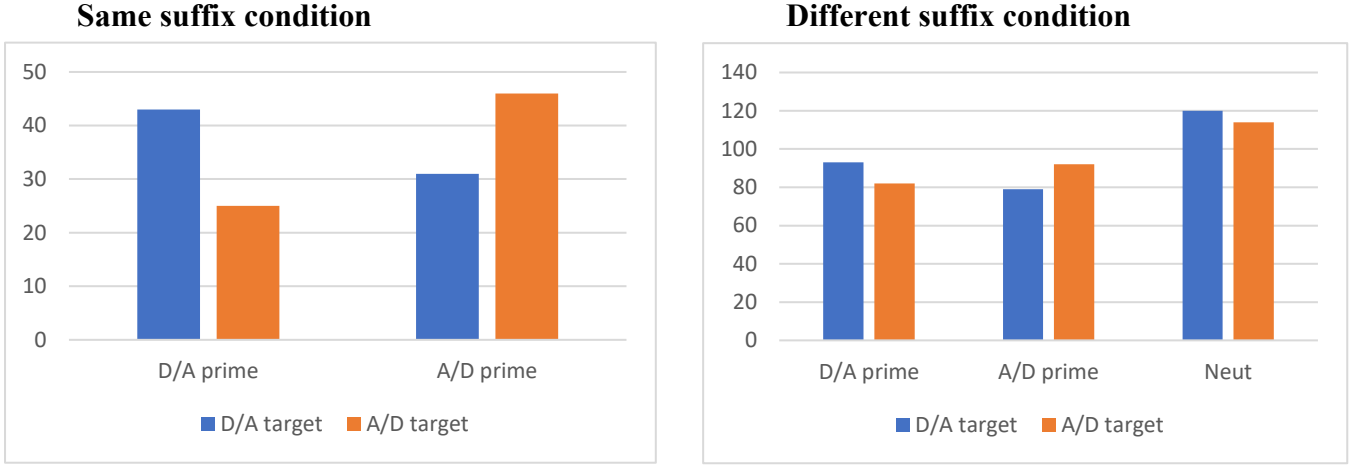


Figure 2

Experiment 2: Numbers of target responses with different word orders across the priming conditions



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Allomorphy and polymorphism in the Determiner system: on Plurals in Occitan and Andalusian

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The question of number marking - and of number in general - has given rise to many studies, whether from a historical, typological or theoretical perspective. Suffice it to mention the monograph published by Greville Corbett (2000). The purpose of this paper is to examine the characteristics of the definite article on the basis of a certain number of unpublished Occitan data - in this case the dialectological data collected in the 1970s by Xavier Ravier and Jacques Boisgontier in the context of the ALLOC (Atlas Linguistique et Ethnographique du Languedoc Occidental). In spite of the limitations inherent in this kind of research, it will be seen that the Occitan data are of great interest from the point of view of the typology of number marking, but also from the point of view of the diachronic reconstruction of plural marking. In particular, the Occitan data provide crucial information in the debate concerning the distinction between vowel marking and sigmatic marking of the plural in Romance.
Interestingly, it will be seen that Andalusian varieties show evolutions which, as far as plural marking is concerned, partly overlap with those observed in Occitan. Naturally, both dialectal areas offer specificities that will be highlighted: for example, the loss of final -s has led in some Occitan varieties to vowel lengthening and stress shifts that appear exceptional from the point of view of the typology of Romance languages and from the more general point of view of the typology of number marking. It is well known in fact that the weakening of the so-called « implosive » -s has given rise, at the level of the definite article, to strong polymorphism (i.e. the existence of free variants that can coexist in the same dialectal variety). The table in (1) illustrates the system of the definite article in the dialect of Molleville (Aude) and the table in (2) the system of the definite article in the dialect of Auzits (Aveyron): these data illustrate the extreme polymorphism which occurs in varieties which do not have a recognized standard.

(1) The definite article in the Occitan dialect of Molleville

	masculine					feminine		
	before vowel	before consonant				before vowel	before consonant	
singular	l	le				l	la	
plural	lez	les	lej	lij	li	laz	las	laj

(2) The definite article in the Occitan dialect of Auzits

	masculin	féminin

	before vowel	before consonant				before vowel		before consonant					
sing.	l	lu				l		la				lɔ	
plur.	luz	lus	luh	lun / lũ	lu[x]	lɔz	laz	lɔs	las	lah	lɔn / lɔ̃	lɔ[x]	la[x]

[x] stands for gemination

The complexity of the data - and the strong polymorphism of number marking in various dialectal varieties - provide essential insights into the diachrony of number marking in the Romance languages. They show that vocalic plurals can perfectly be derived from sigmatic ones.

Keywords: polymorphism; variation; number; sigmatic; Occitan

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Contrastive Focus and Epistemic Implicatures in English to Catalan Translation. An Applied Corpus Approach

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This work gives evidence for the relevance of an information structural approach on translation assessment of English novels translated into Catalan.

The main hypothesis in this research is that Catalan translators come up with different solutions when re-expressing contrastive foci (CF) on verb phrases (VP) marked with italics (polarity contrast marks with *do*-support have been excluded), the informative and modal value of the marked predicate being the chief changing factor. That is to say that contrast markers and focus placement in these cases are dealt with unevenly, depending on whether there is *a*) CF on verb lexical heads (1); *b*) CF on polarity (2) (Halliday 1967, Zimmermann 2016, Gutzmann et al. 2021), which can be felicitously translated via the Catalan polarity adverb *sí* ('yes') (plus the complementiser *que*), or *c*) epistemic implicatures (EPI) (3) equivalent to adverbs such as *realment* ('really') and *de debò* ('of truth'), which cannot be translated with polarity adverbs (*sí que*). Here, epistemic implicatures are understood as in Romero & Han (2004: 609, 626), as a «strong, non-cancellable effect», but as commitment markers (Krifka 2019).

Backing this hypothesis, 227 occurrences of marked VP collected from a corpus of six novels by different authors[1] show that whereas 61% of CF on verb lexical heads are translated equivalently (i.e. with a corresponding CF mark in the target text), and 52% of CF on polarity are translated equivalently, just 23% of epistemic implicatures have a corresponding epistemic adverb in the target text (see Table 1). All of the non equivalent translations show canonical word order and a lack of modal adverbs, which involves a sheer informational loss.

Chi-Square and Cramer's V tests show there is a significant negative relationship between equivalence and epistemic implicatures. The trends observed lead to questioning whether these translation asymmetries on utterances containing CF and modal marks result from structural differences between Catalan and English pragmatics (Dimroth et al. 2010), or arise from a lack of metalinguistic —and metapragmatic— awareness (Silverstein 1993) among translators.

Examples and data

(1) C[2]: "They hate little boys and little girls.
  (a) The difference is, they [$_{CF}$ *eat*] the little girls." (Jackson 2009: § 10)
  (b) L'única diferència és que a les nenes [$_{CF}$ se les mengen.] (Sales 2016: § 10)

[1] All of the novels were translated by different expert hands from 2010 to 2020. Only CF marked in italics have been selected, as a means to avoid subjective readings on the information structural role of the elements. All metalinguistic italics instances have been excluded.

[2] Contexts enabling marked utterances follow a capital (C) letter, contrastive focus ($_{CF}$) and epistemic implicatures ($_{EPI}$) are bracketed.

"the-only difference is.3SG that to the girls to.them-them-eat.3PL"

(2) C: The shirt was a screen print of a famous Surrealist artwork by René Magritte (...) beneath it wrote in cursive *Ceci n'est pas une pipe*. ("This is not a pipe.") "I just don't get that shirt," Mom said. (...)
   (a) "But it [$_{CF}$ *is*] a pipe." (Green 2012: §12)
   (b) Però [$_{CF}$ *sí*] que és una pipa. (Font 2014: §12)
   "but yes that is.3SG a pipe"

(3) C: [Although nobody expressed they do not believe the speaker, she feels untrusted.] When she was told her relentless melancholy was oppressive to those forced to witness it, she was surprised. Her mouth and eyes flashed angry hurt and she said,
   (a) "I can't help it. This is how I [$_{EPI}$ *feel*]."(Gornick 1987: 126)
   (b) «No ho puc evitar. És com [$_{EPI}$ em sento realment]. (...).»
   "not it can.prs.1sg help is.3SG how me feel.1SG really"

Table 1. Translation equivalence of marked VPs by mark type

	verb lexical head CF	*polarity CF*	*epistemic implicature*	*other*	***total***
equivalent	36	25	24	8	93
non equivalent	23	23	80	8	134
% equivalence	**61%**	**52%**	**23%**	50%	
TOTAL	**59**	**48**	**104**	16	**227**

Keywords: contrastive focus; polarity focus; epistemic modality; translation equivalence.

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Example sources (1–3)

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The interpretation of proper temporal adverbs in Italian: a morphosyntactic account

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The Puzzle. In Italian, we find a puzzling interpretive difference with a set of 'proper' temporal adverbials modifying verbal events, namely days of the week. Consider the data in (1):

(1)	a.	vado	al	cinema di	lunedì	
		I.go	to.the	cinema	of Monday	
	b.	vado	al	cinema il	lunedì/i	lunedì
		I.go	to.the	cinema the.sg	Monday /the.pl	Monday
	c.	vado	al	cinema	lunedì	
		I.go	to.the	cinema	Monday	

While (1a) and (1b) mean that the event is habitually iterated, it takes place on every temporal frame signalled by the proper temporal adverbial (Monday), (1c) means that the event is punctual, it takes place only on a specific temporal target (here, next Monday). So, when the temporal modifier is introduced by a preposition (1a) or a determiner (1b), the event is interpreted as a habitual but while when the proper temporal modifier is 'bare', the event is perceived as punctual, non-iterable.

Research question How does the morphosyntactic structure, in which proper temporal adverbs are found, influence their habitual/punctual interpretation?

Proposal. While the punctual interpretation (1c) can be linked to the movement to D of the (bare) proper temporal adverbs, the habitual interpretation can be achieved either for the interpretative properties of the determiners which introduces the proper names (1a) or for the relation instantiated by the preposition between the event structure and the temporal proper names (1b).

The (singular) definite determiner in (1b) introduces a generic (plural) reading (cf. Storto 2003, Zamparelli 2002, Falco & Zamparelli 2019), comparable to the effect highlighted in (2).

(2) a. Il dodo è estinto (=tutti I dodo sono estinti)
the Dodo is extinct (=All Dodos are extinct)

The same interpretive effect is obtained with another morphosyntactic tool, namely by use of the adposition *di* (1a). We assume (as in Manzini & Savoia, 2011) that the item *di* instantiate an 'inclusion/sub-set' relator (⊆) between the event structure of the predicate (*part*) and the proper temporal NP (*whole*), that is set of temporal frames, which (are able to) include it (1a).

Hence, the sub-set interpretation could arise because the NP, following Borer (2004), does not rise to a (Div) position high enough to ensure a countable reading. In essence, the temporal NP in contexts like (1a) is substance/mass-like and can be interpreted only as a whole/set. This fact actually forces a habitual (undefined) interpretation.

Finally, the proper temporal item *Lunedì* in (1c), like 'canonical' proper names in Italian (see Longobardi 1994 and subsequent literature) can rise to D. The N-to-D movement/chain crucially triggers an individual-like reference (Longobardi 2008, Roberts 2019), so that the event may be perceived only as punctual.

Concluding Remarks. We provide in (3) the relevant structures for the examples in (1), showing how subtle morphosyntactic differences in the encoding of proper modifying terms can enhance different interpretive facts.

(3) a. [IP [VP vado [1SG [PP al cinema]]] [⊆ di [NP Lunedì]]]
b. [IP [VP vado [1SG [PP al cinema]]] [$DP_{generic}$ **il** [NP Lunedì]]]
c. [IP [VP vado [1SG [PP al cinema] [$DP_{individual}$ Lunedì [NP ~~Lunedì~~]]]

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Non-segmental concomitants of scalar meaning: Intonation, gestures and facial expressions accompanying the use of the English particle *even*

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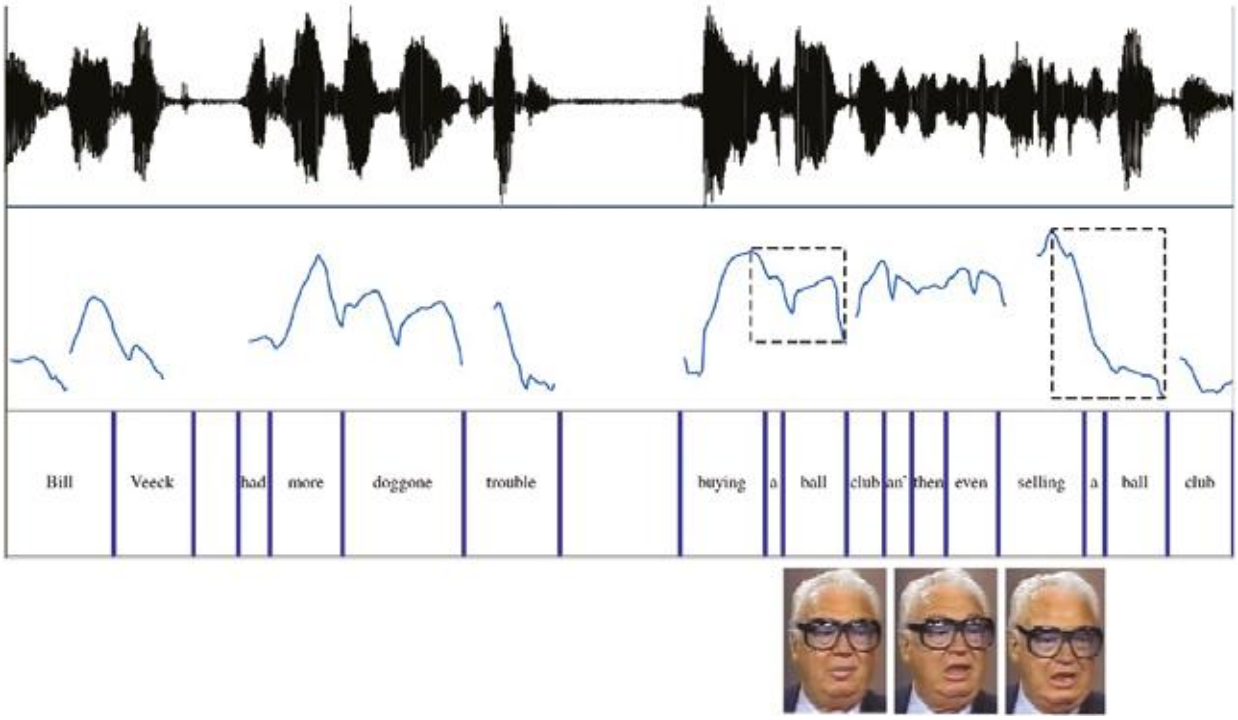
The scalar particle *even* signals or reflects an ordering of focus alternatives in terms of unlikelihood (Karttunen & Peters 1979), unexpectedness (Kay 1990) or some other dimension of 'pragmatic strength' (Gast & van der Auwera 2011). For example, in *Even Marcel drank beer*, Marcel is regarded as a particularly unlikely beer drinker. *Even* has been analyzed as a reflex of an illocutionary operator indicating 'scalar assertion' (Krifka 1995). This operator can be assumed to be associated with intonational correlates. Given the close relationship between intonation and what I call 'kinetic' articulation, covering bodily gestures and facial expressions, it moreover seems reasonable to assume that there are correlations between the occurrence of scalar operators and non-verbal signals.

In my talk I will present the results of a study comparing prosodic signals and kinetic articulation accompanying the use of the (scalar) particle *even* and its non-scalar counterpart *also*. The study is based on a sample of observations extracted from recordings of *The Late Show with David Letterman*. Preliminary results suggest that *even* tends to occur with a higher F0-range on the focus accent, and with specific facial expressions, such as a raising of the eyebrows, in combination with either *even* or its focus. For instance, in the example below, the speaker raises his eyebrows while uttering *then even*, and the F0-range on the focus *selling a ball club* is considerably larger than on the (lower-ranked) focus alternative *buying a ball club* (cf. the dotted rectangles).

(1) Bill Veeck had more doggone trouble buying a ball club and then even selling a ball club.



I will present both qualitative and (preliminary) quantitative results, discussing some methodological challenges, such as the annotation of multimodal data and ways of modelling such data statistically.

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Theme Allomorphy in Italian? A DM-account of the *-isc-* augment

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This paper proposes a new analysis of the Italian verbal augment *-isc-* within the framework of Distributed Morphology (Bobaljik 2017, for an overview). The augment is a semantically empty element that appears in (the majority of) third conjugation verbs with infinitives ending in *-ire*. As for its inner-paradigmatic distribution, it is restricted to the Present Indicative and Subjunctive forms – except for the 1pl and the 2pl – as well as the 2sg Imperative. Rather than interpreting the augment as part of the (suppletive) root (Embick 2016, Calabrese forthcoming), I argue that it is situated in the theme position of the verbal structure.
I account for the theme allomorphy in terms of Fusion. In the Present Tense Indicative forms of all Italian verbs, the Tense (T^0) and Agreement (φ) nodes fuse which means that only one Vocabulary Item (VI) can be inserted into the position, i.e. the Present Tense encodes a semantically unmarked Tense feature and is therefore morphophonologically never realised (cf. Oltra-Massuet 1999 for Catalan, Pomino & Remberger 2019, inter alia, for Italian and Spanish). Due to Fusion, the φ-features are more local to the root than before and, being in the sister node of v^0, may have an impact on all elements contained in v^0.

(1) Vocabulary Items for the theme-position (only the third conjugation is considered here)[1]
(a) /isk/ ↔ [-γ] / T[-past]
(b) /i/ ↔ [+α]

(2) Vocabulary Items for φ[2]
(a) /mo/ ↔ [1pl]
(b) /te/ ↔ [2pl]
(c) /no/ ↔ [pl]
(d) /ono/ ↔ [pl] / $\sqrt{}_{[+\alpha]}$ T[-past, -sbj]
(e) /o/ ↔ [1] / T[-past, -sbj]
(f) /i/ ↔ [2] / T[-past, -sbj]
(g) /e/ ↔ [3] / $\sqrt{}_{[+\alpha]}$ / T[-past, -sbj]

The derivation of the singular forms and the 3pl is exemplified in Table 1. As for the 1pl and the 2pl, it is argued that the process of Fusion is preceded by the Impoverishment of T[-past], thus preventing the selection of /isk/ and triggering the insertion of the default VI /i/ instead. It is necessary to assume the deletion of the whole T node; otherwise, in the Present Subjunctive forms, the feature [+sbj] would still be present. But it is exactly in the 1pl and in the 2pl where /isk/ is neither found in the Indicative nor in the Subjunctive (cf. Figure 1).
Conclusively, it appears that the presence of *-isc-* depends on the information encoded in T and φ. While TAM-triggered allomorphy may be linked to the specification of the VI in question, morphological processes like Fusion enable φ-features to directly trigger allomorphy.

[1] Following Oltra-Massuet (1999), the different conjugations are hierarchically interrelated according to their degree of markedness and specified in terms of features, i.e. α, β and γ, respectively.
[2] In the present study, it is necessary to assume that the 3pl ending /ono/ is a result of Fission, i.e. in this perspective the vowel /o/ is not the TV of third conjugation verbs (cf. Calabrese forthcoming). It is also assumed that the vowel /e/ in the 3sg is in fact an exponent of φ and not the TV (cf. Calabrese forthcoming).

Output Syntax	$\sqrt{}_{[+\alpha]}$	v^0		T^0		
Well-formedness Condition: TV	$\sqrt{}_{[+\alpha]}$	v^0	TV	T^0	TV	
Well-formedness Condition: φ	$\sqrt{}_{[+\alpha]}$	v^0	TV	T^0	TV	φ
Fusion	$\sqrt{}_{[+\alpha]}$	v^0	TV	T^0/ φ		
Full Specification	$\sqrt{}_{[+\alpha,-\beta,-\gamma]}$	$v^0_{[+\alpha,-\beta,-\gamma]}$	TV	T^0/ φ		
Vocabulary Item v^0	$\sqrt{}_{[+\alpha,-\beta,-\gamma]}$	Ø	TV	T^0/ φ		
Vocabulary Item TV (1a)	$\sqrt{}_{[+\alpha,-\beta,-\gamma]}$	Ø	/isk/			
Vocabulary Item φ (2f)	$\sqrt{}_{[+\alpha,-\beta,-\gamma]}$	Ø	/isk/	/i/		
Phonological Readjustment	$\sqrt{}_{[+\alpha,-\beta,-\gamma]}$	Ø	/iʃʃ/	/i/		
Output	/finiʃʃi/					

Table 1 Derivation of 2sg *finisci* 'you finish' (similar for 1sg, 3sg and 3pl)

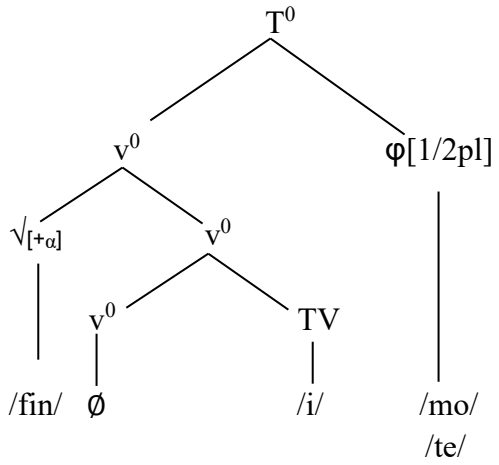

Figure 1 Structure of 1/2pl of *finire* 'to finish'

Keywords: Distributed Morphology; theme vowels; Italian verbs

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Tense, agreement and copula drop in Tundra Nenets copular clauses

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The distribution of the absence of a copula ('copula drop') in 'copular clauses' (CCs, i.e. clauses in which the contentful predicate is non-verbal) exhibits rich and multi-faceted cross-linguistic variation (for a typological overview, see Stassen 2013). The goal of this talk is to situate Tundra Nenets (TN; Samoyedic, Uralic) CCs in the landscape of this grammatical diversity, based on prior literature as well as novel corpus and questionnaire data.

While in CCs that do not have a nominal/adjectival/numeral (together: Nominal) predicate, the copula cannot be absent, if the predicate is Nominal, copula omission is affected by the tense, aspectual and mood properties of the predication. In non-finite contexts (including the complement of negation (1)), as well as in any (marked) aspects and non-indicative moods the copula must be overt (2). In these cases, the subject-agreement suffix appears both on the finite verb and on the predicate Nominal. With unmarked aspect and mood, no copula occurs in tensed CCs, regardless of the number and person of the subject; in this case, the predicate Nominals must bear not only subject-agreement but also (past) tense inflection (3a–b). We argue based on its morphosyntactic properties that future marking does not involve genuine grammatical tense (diverging here from Nikolaeva 2014), therefore future CCs, which require a copula, are no exception to our generalization concerning copula drop in tensed CCs.

Based on this overall pattern, as a first step we consider a Copula Support account (Benveniste 1966, Dik 1983, 1989), formulated in terms of the following conjectures:

(4) a. A copula is inserted in the functional head T unless all the inflectional features that would be associated with the copula are morphologically realized on the non-verbal predicate.

b. While Nominal predicates cannot bear mood or aspectual inflections in TN, they have the ability to bear tense and subject-agreement features.

We then argue that this picture needs to be revised in view of certain systematic exceptions. Namely, copula drop is licensed in three cases in which subject-agreement is not morphologically realized on the Nominal predicate: (i) when the predicate is a personal pronoun (5a–b), (ii) when the Nominal predicate is a possessive phrase involving a pronominal possessor (6a–b), and (iii) when the predicate is a so-called attributive postpositional phrase (7a–b). In these cases, the predicate Nominal's head has its own phi-features either inherently or due to predicate phrase internal agreement. Importantly, another commonality in these CCs is that, as opposed to (1)–(3), the subject of the CC must appear overtly even when it is pronominal (Nikolaeva 2014). This suggests the revision of (4a) as (4a'). We close by considering the implications of (4a') for Preminger's (2011, 2014) notion of 'failed Agree'.

(4) a'. A copula is inserted in the functional head T unless all the inflectional features that would be associated with the copula are morphologically realized on an element with

which T syntactically Agrees (=the non-verbal predicate and the subject).

Copula support

negation	(1) (măńˀ) Ŋardaĺo-dm ńi-dm ŋa-ʔ. PRON.1SG Ngardalyo-1SG NEG.AUX-1SG be-CNG 'I am not Ngardalyo.' (Labanauskas 2001: 66)
(marked) mood, aspect	(2) (măńˀ) ľekară-dmʔ / ŋarka-dmʔ ŋæ-wi-dmʔ. PRON.1SG doctor-1SG big-1SG be-INFER-1SG 'I was (apparently) (a/the) doctor/big (lit. adult).'

No copula	**Present**	**Past**
NP/AP predicate	(3a) (măńˀ) ľekară-dmʔ / PRON.1SG doctor-1SG ŋarka-dmʔ (*ŋæ-dmʔ). big-1SG be-1SG 'I am (a/the) doctor/big'	(3b) (măńˀ) ľekară-dăm-ć / PRON.1SG doctor-1SG-PST ŋarka-dăm-ć (*ŋæ-dmʔ). big-1SG-PST be-1SG 'I was (a/the) doctor/big.'
pronominal predicate	(5a) pidăr măń. PRON.2SG PRON.1SG 'You are me.'	(5b) pidăr măńă-ś. PRON.2SG PRON.1SG-PST 'You were me.'
possessive predicate	(6a) măń (pidăr) PRON.1SG PRON.2SG ńa-r / *ńa-dmʔ. friend-2SG.POSS friend-1SG 'I am your friend.'	(6b) măń (pidăr) PRON.1SG PRON.2SG ńa-ră-ś / *ńa-dăm-ć. friend-2SG.POSS-PST friend-1SG-PST 'I was your friend.'
attributive PP predicate	(7a) ťuku tol (măńˀ) this table PRON.1SG ŋile-m'i / *ŋile-∅. under.ADJ-1SG.POSS under.ADJ-3SG 'This table is the one under me.' (Nikoleva 2014: 253)	(7b) ťuku tol (măńˀ) this table PRON.1SG ŋile-m'i-nć / *ŋile-ś. under.ADJ-1SG.POSS-PST under.ADJ.3SG-PST 'This table was the one under me.' (Nikoleva 2014: 253)

Keywords: copular clause, copula support, subject agreement, Tundra Nenets

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The organizing principles of morphomic allomorphy

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In the last years, extramorphologically unmotivated exponences (known as morphomes since Aronoff 1994) have emerged as one of the most vibrant fields of research in morphology (see e.g. Maiden 1992, Round 2013, O'Neill 2014, Esher 2015, Maiden 2018, Herce 2019). The basic finding is that, unlike it might have been expected, morpho- syntactically and semantically arbitrary morphological structures can exist in language, and can be resilient and productive diachronically (see Table 1).

Morphomic literature, however, has been centered so far in proving these facts (i.e. the idiosyncrasy of these structures, the need for autonomous morphology etc.) and has been working almost exclusively with data from the Romance family. The time is come, however, for broader typological approaches to the phenomenon and for the search of cross-linguistic generalizations. This is the purpose of the present paper.

On the basis of an *ad-hoc*-assembled database with 110 morphomes from 74 languages from 30 different stocks, several findings have emerged, most important among these:

a) The cross-linguistic recurrence of certain morphomic affinities like SG+3PL, 1SG+3, 2+1PL, PL+1SG, PL+2SG and PL+3SG, which have all been found to occur in three or more genetically unrelated languages in the sample (see e.g. Table 2).

b) The geometrical paradigmatic contiguity that characterizes the vast majority of morphomic patterns in terms of the feature values involved (e.g. all the structures above).

c) The tendency for morphomic morphology not to be orthogonal to other form(ative)s in the same paradigm. Whereas morphemes typically cross-cut each other (e.g. in Georgian, the PL marker *-eb* and ERG marker *-ma* cover disjoint paradigmatic distributions and are compatible *-eb-ma* in the ERG.PL, see Aronson 1991), morphomes tend to spread only over supersets or identical sets with respect to other forms.

Explanations will be proposed for these findings which revolve around the diachronic origin of some of these patterns as well as the cognitive biases of human learners. Regarding the former, many of these morphomes emerge (by sound change, analogy etc.) out of paradigmatic configurations that are not random but rather subject to strong (e.g. Zipfian) trends. Regarding the latter, and as argued by Bermúdez-Otero & Luís (2016:336) "the ease or difficulty with which a category is discovered may largely depend on the logical relationship between the features that go into the category's definition". Because of this, certain morphomes may be more learnable than others and more stable diachronically.

The existence and potential stability of morphomic structures argues for the existence of some principle alternative to morphosyntactic values to constrain and structure allomorphy. The frequent lack of orthogonality of morphomes to other forms that has been found in this database argues that this principle could be their predictability from other (nonmorphomic) forms in the paradigm. Thus, not only morphosyntactic values (e.g. PL, 3, PRES.SBJV) but also forms (/ga/, /mu/, V) can provide the niche or domain of occurrence of allomorphy.

	sedere ‘sit’			*andare* ‘go’		
	PRS.IND	PRS.SBJV	IPF	PRS.IND	PRS.SBJV	IPF
1SG	siedo	sieda	sedevo	vado	vada	andavo
2SG	siedi	sieda	sedevi	vai	vada	andavi
3SG	siede	sieda	sedeva	va	vada	andava
1PL	sediamo	sediamo	sedevamo	andiamo	andiamo	andavamo
2PL	sedete	sediate	sedevate	andate	andiate	andavate
3PL	siedono	siedano	sedevano	vanno	vadano	andavano

Table 1: Partial paradigms of two Italian verbs (a suppletive alternation *va-/and-* has been innovated on the basis of the alternations *sied-/sed-* regularly generated by sound change)

	Luxembourgish ‘be’ (Schanen 2004)		Barai, Future converb (Olson 1973)		Nivkh, FUT Distant (Gruzdeva 1988)	
	SG	PL	SG	PL	SG	PL
1	sinn	sinn	-kuva	-kuva	-non	-non
2	bass	sidd	-kuma	-kuva	-ror	-non
3	ass	sinn	-kuma	-kuva	-ror	-non

Table 2: Three languages showing PL+1SG morphomes

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Head Movement in Germanic Doubly-Filled Comp Constructions

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Synopsis: We propose a novel analysis for the distribution of doubly-filled complementizer constructions in **(i) embedded questions**, **(ii) successive-cyclic movement**, **(iii) headed relative clauses**, and **(iv) headless relative clauses** in some German dialects, including our native Bavarian. While the phenomenon of doubly-filled compl is well-known (Bayer 1984, 2002a, b, Bayer & Brandner 2008 (henceforth: B&B), van Riemsdijk 1987, i.a.), we provide a unified and uniform account of it across all the constructions listed above, and also contribute to the feature theory of wh-elements.

1. Embedded questions: We follow B&B's description of South German varieties, such as Bavarian and Alemannic, arguing that **wh-elements fall into 2 classes**: morphologically **complex** ones (e.g. *wia-vü* 'how-much/many', *mit wem* 'with whom') appearing with *dass* 'that' in C, and morphologically **simplex** ones (e.g. *wer* 'who', *wo* 'where', *wia* 'how'), which do not appear with *dass* (in B&B's variety, as well as in our variety). We further follow B&B's interpretation that complex wh-elements occupy Spec,CP while simplex ones occupy C^0, the latter thus blocking the insertion of *dass*.

Analysis: We follow Roberts's (2010) analysis that head movement is conditioned on the feature make-up of mover and attractor in the following way:

1. The feature set of the mover must be a subset of the feature set of the attractor.
2. The mover must be simultaneously a minimal and maximal projection (i.e., not phrasal).

Thus, in embedded questions, simplex wh-elements will occupy C if they 1. do not contain any features other than [WH] (which is a subset of the features on interrogative C[WH]) and 2. are not phrasal. Complex wh-elements are phrasal and will thus never occupy C. We propose **a feature theory for wh-words** showing that they, in fact, do not contain (i) the feature D (nor its sub-features Person, Gender, or Number) if they are not D-linked, nor (ii) the feature Case (following Marantz 1991 and many others), nor (iii) the feature Animacy (following Wurmbrand 2017).

Our approach correctly accounts the following facts:

2. Successive-cyclic movement: Simplex wh-elements do not occupy C but SpecCP at their intermediate landing sites. This follows from the fact that an intermediate C does not contain the feature WH, and thus Roberts's subset condition is violated.

Our analysis also captures doubly-filled compl in relative clauses, which we assume work parallel to embedded questions, except that instead of the feature WH, the relevant feature is REL.

3. Headed relative clauses: In headed relative clauses, the relative pronoun agrees with the head noun in Number and Gender features. Thus, it no longer contains just the feature [REL], and so its features are not a subset of the features of relative C[REL]. This correctly predicts the co-occurrence of the relative pronoun with a dummy element *wos* spelling out C.

4. Headless and Light-headed relative clauses: Headless and light-headed (Citko 2004) relative clauses differ minimally from headed relative clauses in the absence of features on the head noun. The relative pronoun cannot agree with the head noun, and therefore does not spell out Number and Gender, but only [REL]. Thus, we correctly predict that a non-agreeing relative pronoun cannot appear together with dummy *wos*.

5. Parameterized spell-out: We argue that Bavarian is parameterized to spell out empty C[WH] as dass and empty C[REL] as *wos*. Spelling out empty C is necessary to host the prevalent subject clitics (Cardinaletti & Starke 1999). In this, Bavarian differs from Standard German, which does not have clitic pronouns and does not spell out empty C.

Keywords: default spell-out; doubly-filled compl; embedded question; German; relative clause

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Gradients of reflexivity: psych verbs in causative alternations

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The goal of the paper is to weigh in on the debate concerning the status of the SE reflexivizer/anticausativizer drawing on the data from psych verb anticausatives in Serbian, a language with the SE reflexivizer, and in English, a language in which this item is not present. It will be observed that SE anticausatives are generally possible with object experiencers in Serbian while English object experiencers famously do not participate in the causative alternation (cf. Levin 1994). This contrast will be attributed to the reflexive-like function of SE in line with Chierchia's (2004) account and against the more standard view that its role is merely to remove the external argument (cf. Schäfer & Vivanco 2012).

Languages that do not have the SE reflexivizer (e.g. English) do not allow causative alternations with object experiencers (1) as opposed to languages with SE (e.g. Serbian) that allow them (2).

(1) a. Someone annoyed Peter
    b. *Peter annoyed

(2) a. Neko je iznervirao Petra
       Someone.nom AUX annoyed Peter.acc
    b. Petar se iznervirao
       Peter.nom SE annoyed

Alexiadou (2016) explains the lack of causative alternation with English object experiencers as a peculiarity of English syntax arising due to diachronic factors while still connecting it to the lack of overt morphological marking of anticausativization. I propose to treat these facts as evidence of a semi-reflexive status of psych-verb anticausatives in languages with SE, and, hence, for the reflexive status of SE with these verbs in the sense of Chierchia (2004).

That SE anticausatives derived from psych verbs in a language like Serbian are not typical anticausatives is evidenced by the facts in (3).

(3) a. Vrata su se otvorila *vetrom / od vetra
       door.nom AUX SE opened wind.inst / from wind.gen
       'The door opened from the wind'
    b. Petar se posekao nožem /*od noža
       Peter.nom SE cut knife.inst / from knife.gen
       'Peter cut himself with a knife'
    c. Petar.nom se zaprepastio bratovim ponšanjem /??od bratovog ponašanja
       Peter.nom SE amaze brother's.inst behavior.inst from brother's.gen behavior.gen
       'Peter got amazed by his brother's behavior'

Typical anticausatives like *otvoriti se* ('open') allow the causer to be expressed as an *od*('from')-PP while disallowing instrumental NPs (3a). On the other hand, reflexives allow instrumental NPs while banning *od*('from')-PPs (3b). Crucially, psych verb anticausatives behave like reflexives in disallowing *od*('from')-PPs and allowing instrumental NPs.

Following a number of authors who argue that DPs and PPs expressing event participants need to be licensed by the appropriate layer of verbal structure (Alexiadou & Anagnostopoulou 2009 among many others), I assume that the facts in (3) speak in favor of a different syntactic treatment of typical anticausatives and psych-verb 'anticausatives', which should be analyzed as closer to reflexives.

The paper provides more evidence pointing in the direction of a different status of psych-verb SE anticausatives and typical anticausativies and discusses the implications of these facts for the status of SE arguing that Chierchia's (2004) reflexive approach to SE should be extended at least to psych-verb anticausatives and possibly beyond.

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Aspectual consonant mutation in Abui

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This paper deals with the system of final segment (coda or rime) mutation in Abui, a Timor-Alor-Pantar language of East Indonesia. Abui utilizes a variety of morphosyntactic means to encode aspectual meanings, among which paired stems, distinguished by their final segment, play a pivotal role. Stem alternation divides the Abui verbal inventory into three distinct classes (labeled Class I-III here). Class I verbs do not undergo alternation at all (38.6% of all examined verbs, 514 of 1330). Classes II and III are distinguished by the stem mutation type: stem-final coda consonant mutation for Class II and stem-final rime mutation for Class III. An overview of all three classes is given in Table 1. It is an update on the facts reported in Kratochvíl (2007:82-86).

class	mutation target	example	stems	%
I	none	*bool* 'hit'	**514**	**38.6%**
II	coda		**351**	**26.4%**
II.a	X*k*∼X*t*	*kek*∼*ket* 'prod'	91	6.8%
II.b	X*k*/*q*∼X*p*-*i*	*mooq*∼*moop*-*i* 'pray'	31	2.3%
II.c	X*ng*∼X*n*	*afeng*∼*afen* 'dwell'	94	7.1%
II.d	X*l*∼X*r*	*aral*∼*arar* 'burn off'	75	5.6%
II.e	X*i*∼XC-*i*	*baai*∼*baab*-*i* 'hit'	55	4.1%
II.f	X∼X*r*	*yaa*∼*yaar* 'go'	5	0.4%
III	rime		**465**	**35%**
III.a	X*a*∼X*i*	*tanga*∼*tangi* 'say, speak'	379	28.5%
III.b	CV∼C*iyeei*	*me*∼*miyeei* 'come'	5	0.4%
III.c	X*a*∼X(C)*eei*	*mara*∼*mareei* 'go up'	8	0.6%
III.d	XV_1i∼$XV_{1/2}$:*i*	*wahai*∼*wahaai* 'look'	53	4%
III.e	rime mutation	*sei*∼*saai*∼*siyei* 'come down'	11	0.8%
III.f	rime mutation	*tilei*∼*tilii*∼*tilia* 'hang'	9	0.7%

Following the consonant mutation typology by Merrill (2018), we present the mutations in a tabular format distinguishing mutation grades (rows), i.e. a-grade, b-grade, and c-grade, from mutation series (columns). Complexity considerations lead us to arrange the mutation grades from more complex (a-grade) to less complex (b-grade). Only two series contain c-grade forms and are therefore listed as last. Taking the verb ong 'build, make' as an example, its perfective stem on (alveolar) is captured here as the a-grade of the Xng~Xn series (Class II.c), while the imperfective stem ong (velar) is the b-grade.

a-grade	***t***	***p***	***n***	***r***	**C*i***	***r***	***i***	***iyei***	***ei***	**V:*i***	***iyei***	***ii***
b-grade	***k***	***k***	**ŋ**	***l***	***i***	**Ø**	***a***	***e***	***a***	**V*i***	***aai***	***ia***
c-grade											***ei***	***ui*/*ei***
class	II.a	II.b	II.c	II.d	II.e	II.f	III.a	III.b	III.c	III.d	III.e	III.f

There is an interesting correspondence between the natural phonological categories of the aspectual morphemes and their aspectual values: (i) constrictions in the front of the mouth correlate with perfectivity (entering into a state, a-grade), (ii) open mouth (open vowels, velars) correlate with processes and states (b-grade).

Baerman and Corbett (2012: 55) concede that there is no theoretical consensus about stem alternations. In some theories, stems are treated as constituting a paradigm, but others consider alternations to be units below the level of a fully inflected word and therefore deny their special status. Embick (2012) discusses attempts to assign stem alternations either to lexical memory or to phonology. Baerman and Corbett (2012: 65) treat stem alternations as a departure from the canonical situation where lexical information is realised by the stem and grammatical information by affixes.

Examining the above accounts of stem alternations against the Abui facts, we will argue for an abstract representation of the mutation grades and propose mutation rules.

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Noun paradigms with multiple gender values in Czech: looking for an adequate description in corpora and dictionaries

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This paper deals with Czech nominal morphology with respect to gender. It focuses on a specific subset of noun paradigms having word forms with more different gender values across categories case and number. Concerning such paradigms, the goal of the poster presentation is twofold: (i) to show a descriptional account of noun paradigms for Czech which puts more emphasis on gender agreement properties (in line with Corbett's 1991: 147 *agreement class approach* based on Zaliznjak 1964), in contrast to traditional analyses (e.g. Petr ed. 1986) with paradigmatic assignment of gender as an inherent category of nouns, (ii) to suggest practical solutions for annotations of paradigms with multiple gender values in corpora of the Czech National Corpus (CNC) and for their description in public dictionaries of Czech (Academic Dictionary of Contemporary Czech). The investigation is based on author's analyses of gender annotations and their usage in the corpora of CNC and on published grammars and dictionaries (e. g. Petr 1986, Cvrček et al. 2010, Havránek ed. 1960–1971).

There is not much dispute that most Czech nouns adhere to one of four sub/genders (masculine animate, MA; masculine inanimate, MIA; feminine, F; neuter, N). The assignment is based on a particular inflectional class with a complete set of endings showing agreement properties with adjectives/participles/demonstratives/possessives. Howevever, if we take closer look at adjectival paradigms in standard Czech (Figure 1), the picture of four genders is far from being straightforward (or *canonical*, using terms of Corbett & Fedden 2016). Full four-way distinction is applied just for one case/number: ACC.SG. Differences between some gender pairs are based just on three or four positions (of 14). Moreover, in none of the plural cases there is a distinction between masculine inanimate and feminine gender values. In colloquial Czech, there is no gender distinction in plural at all (see Figure 2). This does not mean that we should not distinguish four genders for Czech in general, but we should be more cautios when determining gender in noun paradigms with multiple endings. Only case positions where there is an agreement distinction are relevant for the agreement class aproach.

Following questions will be, inter alia, scrutinized: (i) Does it make sense to distinguish two paradigms (animate + inanimate), or one inanimate paradigm (with additional animate forms in ACC.SG and NOM.PL), or one double-gender paradigm with sub-genders in case of synonymous forms having distinct in/animate masculine agreement in ACC.SG + NOM.PL (e.g. *slaneček* 'salted hering' (?MA/MIA), *slanečci* NOM.PL(MA), *slanečky* NOM.PL(MIA))? Or (ii) should we state a special ?MIA+F double-gender for pluralia tantum showing no distinction between MIA and F (e.g. proper names *Hradčany*, *Lurdy*)? Or similarly, (iii) how to evaluate a masculine animate ACC.SG form within an inanimate paradigm in contrast to GEN.SG where there is no distinction in agreement (e.g. *hřib* (MIA) 'bolete', *hřiba* GEN.SG(?MIA/MA.SG)). Or (iv) how to cope with nouns referring to male referents using both feminine and masculine forms (e.g. *čipera* (?MA/F) 'sprightly person')?

Initial analyses show that wheras for corpora a strict agreement class approach shows consistent and predictable solutions, for dictionaries more traditional paradigmatic approach is still more suitable.

Figure 1. Noun agreement: syncretism of adjectival case alomorphs across genders in Standard Czech (grey cells = one adjectival form across distinct genders)

case	singular				plural			
	MA	MIA	N	F	MA	MIA	F	N
NOM/VOC	1		2	3	1	2		3
ACC	1	2	3	4	1			3
GEN	1			2	1			
DAT	1			2	1			
LOC	1			2	1			
INS	1			2	1			

Figure 2. Noun agreement: syncretism of adjectival case alomorphs across genders in colloquial Czech (grey cells = one adjectival form across distinct genders)

case	singular				plural			
	MA	MIA	N	F	MA	MIA	F	N
NOM/VOC	1		2	3	1			
ACC	1	2	3	4	1			
GEN	1			2	1			
DAT	1			2	1			
LOC	1			2	1			
INS	1			2	1			

Resources:

Czech National Corpus. Institute of the Czech National Corpus, Praha. <http://www.korpus.cz>

Akademický slovník současné češtiny [Academic Dictionary of Contemporary Czech]. ÚJČ AV ČR, Praha. <http://www.slovnikcestiny.cz>

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L1 attrition and L2 acquisition in Slovaks living in Czechia: the case of cognate and noncognate processing in two mutually comprehensible languages

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The present paper summarises the quantitative study on L1 attrition and L2 acquisition in the context of two closely related and mutually understandable languages. The population examined are native speakers of Slovak living long-term in Czechia, i.e. Czech-speaking environment.

L1 attrition can be broadly defined as a decrease in a language not caused by pathological phenomena (e.g., Köpke 2004, 3). Among factors influencing the severity of the attrition are, for instance, the length of residence in the L2 environment or degree of first language use (Schmid 2011, 70). L1 attrition can be also seen as a natural part of being bilingual as the presence of the second language naturally shapes the representation of the first language (Schmid and Köpke 2017, 641). The area which is extremely prone to various reconfigurations is vocabulary (Hulsen, de Bot, and Weltens 2002, 33). In bilingualism research, its structure is often explored by comparing reactions towards cognates and noncognates with cognates typically exhibiting a processing facilitation, mainly in L2 words (Lemhöfer and Dijkstra 2004, 534–38).

The current study combines the perspectives of L1 attrition research and research on the bilingual mental lexicon. It assesses the extent of L1 attrition and L2 acquisition through the performance in the recognition and production of Slovak/Czech noncognates (e.g., *velbloud – ťava*, 'camel') vs. cognates (further subdivided into identical cognates: *tráva – tráva*, 'grass'; and similar cognates: *lúka – louka*, 'meadow'). Three main hypotheses regarding the influence of sociodemographic factors on the performance were tested: 1. Higher amount of use of Slovak results in better performance for Slovak noncognates and worse performance for Czech noncognates. 2. Higher amount of use of Czech results in better performance for Czech noncognates and worse performance for Slovak noncognates. 3. Longer length of stay in Czechia results in better performance for Czech noncognates and worse performance for Slovak noncognates.

We used lexical decision task (to test word recognition) and picture naming task (to test word production) in two experimental sessions with each aimed at one of the languages in question. In the sessions employing Slovak stimuli the experimental group (= Slovaks living in Czechia; subdivided to smaller groups according to sociodemographic information) consisted of 64 participants, the control group (= Slovaks living in Slovakia) consisted of 47 participants. 46 participants from the experimental group and 30 participants from the control group took part in the experiments with Czech stimuli. In addition, second control group (= native speakers of Czech living in Czechia; n = 46) participated in the Czech tasks as well.

The analyses of reaction times from all the tasks were conducted using linear mixed-effects models (Bates et al. 2015). They showed that compared to Slovaks in Slovakia Slovak

noncognates are processed slower by Slovaks with less extensive Slovak use, with more extensive Czech use and with the longer period of stay in Czechia (the last result was not significant in the production task). In cognates there is no difference between the control and the experimental group. The Czech lexical decision task brought results showing that Slovaks in Slovakia show the advantage for identical cognates followed by similar cognates. Slovaks using Czech less, Slovak more and living in Czechia for a shorter time exhibit relatively better performance towards noncognates than Slovaks in Slovakia. The performance of Slovaks using Czech more, Slovak less and living in Czechia longer resembles even more closely the pattern seen in the Czech speakers who do not differ with regards to stimuli types. In the Czech picture naming task, the advantage for similar cognates was detected in all the Slovak groups with Slovaks using Czech more, Slovak less and living in Czechia longer being again closer to the performance of Czechs. This advantage can be explained by the strategy relying on the interlanguage correspondences (i.e., when trying to produce a Czech word form a speaker can use a native equivalent and automatically change it according to a frequently occurring correspondence, such as *ú – ou* as in *lúka – louka*).

In sum, the study provides evidence of L1 attrition which is connected to the amount of use of native as well as second language, and the length of residence in the foreign country. At the same time, it shows that under the condition of stay in the Czech environment and more extensive use of Czech the Czech-Slovak bilingualism can be shifted more towards patterns characteristic for Czech native speakers. These results contribute to the burgeoning field of L1 attrition research, in which studies on languages with mutual comprehensibility are scarce, and to the investigation of Czech and Slovak language relations, in which such psycholinguistic perspective has not been taken so far.

Keywords: L1 attrition; L2 acquisition; cognate; Czech; Slovak

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Underspecification of nominal functional categories in Slavic and Semitic

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The Slavic diminutive (DIM) morpheme (e.g., Czech *-ek*.M.SG, *-ka*.F.SG, *-ko*.N.SG etc.; henceforth, **K**) is homophonous with different morphemes: E.g., in Czech, the morpheme *-ka* is ambiguous between a DIM derived from a feminine (FEM) noun [jam-ka 'pit.F.SG-.**K**:F.SG; a small hole], a morpheme deriving socio-biological FEM from a masculine (MASC) noun [diplomat 'diplomat.M.SG' → diplomat-ka 'diplomat-**K**:F.SG, a female diplomat'], a nominalizer [sodová (voda) 'soda.ADJ (water)' → sodov-ka 'soda-**K**:F.SG, pop'], and a group forming morpheme [dvě děvčata 'two girls' → dvoj-ka děvčat 'two-**K**:F.SG girls.GEN, a group of two girls']. In addition, DIMs can yield a degree interpretation, and obtain additional pragmatic readings (affection etc.). Strikingly, the feminine morpheme (**F**) in Semitic, e.g., in Moroccan and Levantine Arabic (LA), and Hebrew, displays a parallel range of interpretations, with two important differences: **F** individuates [e.g., in LA: samak 'fish' → samak-i 'fish-**F**:SG, a unit of fish'], and cannot be a nominalizer. We argue that functional/interpretational variability in the nominal domain maps to PF uniformity via class of underspecified functional heads (Borer 2005), whose functional interpretation is determined by their syntactic position and environment (i* of Wood and Marantz 2015). The underlying syntactic underspecification triggers uniform PF realization despite varied syntactic/semantic behaviour, modulo independent differences of the surrounding nominal structures which account for the variation between Slavic and Semitic. Specifically, the proposal builds on work arguing for a connection between gender and DIM as classifiers (Zabbal 2002, Fassi Fehri 2003, Borer 2005), and argues that **K** and **F** are morphological realizations of a feature bundle corresponding to a nominalizing head (n), which is primarily based on gender. Different functions and interpretations arise from different attachments sites of n in the extended nominal domain, instead of a series of semantically specified functional heads (e.g., Fassi Fehri 2016, 2018a,b), or distinct morphemes (e.g., Borer & Ouwayda 2010). [For reasons of space, the following analysis mostly abstracts away from gender.]

Technically: CATEGORY CHANGE: Slavic n_K merges with the previously merged root and category head: [n_K [CAT $\sqrt{root}$]]. For this to obey structural economy, the new projection must differ from the primary merge one: a category change satisfies the economy condition. In contrast, Semitic roots are category-neutral (Arad 2003) and genderless (Kramer 2014). Analogically, there is no categorys-specific functional root that could yield a category change. DIMINUTIVES: We argue that the default interpretation of the light noun formation ([$n_{K/F}$ [CAT $\sqrt{root}$]]) is a DIM, construed as a bound interpretation (akin to nominal aspect). PRAGMATIC READINGS: A double DIM formation obeys structural economy only if it yields additional interpretations (Sichel & Wiltschko 2018). Double DIM thus yields a degree (based on the bounded nominal interpretation) or a pragmatic interpretation (affection). BIO-SOCIOLOGICAL GENDER: Valued gender can come to the derivation as an interpretable feature on D (Steriopolo & Wiltschko 2008, Kučerová 2018, Sigurdsson 2019), and agree

with the unvalued gender of $n_{K/F}$, deriving the bio-sociological gender of **K** and **F**. GROUP FORMATION: The light noun configuration offers itself to a partitive-like function, yielding a group reading. Semitic nominals can lack the individuation layer: when n_F attaches to a non-individuated structure, the interpretation must be that of the whole. In Slavic, a group interpretation arises in the context of structures that lack individuation, e.g., quantifiers. INDIVIDUATION: Semitic has a class of genderless unindividuated nominals. When n_F attaches to the primary merge of such a nominal, the interface interprets **F** as an individuating functional head (Borer's DIV). This interpretation is absent in Slavic because the equivalent of a Number projection is always present, and the individuating interpretation is excluded by structural economy.

Keywords: functional categories; features; nominal syntax; Slavic, Semitic

An ERP study on the cognitive process of speech act recognition

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In recent years, cross-domain research on the processing of language cognition using experimental pragmatic research has become a trend. According to Grice's Cooperative Principle (quality maxim, quantity maxim, relation maxim, and manner maxim), the linguistic form is related to the manner maxim. The manner maxim focuses on how the discourse should be spoken, emphasizing that the discourse should be perspicuous. In addition to the maxim of manner, the maxim of the relation is also one of the maxims for effectively performing speech acts. The maxim of relation focuses on the relevance of discourse in context. Whether the discourse is perspicuous or relevant in the conversation was related to the semantic integration of discourse in the context. To analyze the effect of linguistic form and relevance on the processing of speech act recognition, we used the experimental method of event-related potentials (ERP).

In the experimental design, there were three conditions: direct request, indirect request, and unrelated. These three conditions were divided into two categories. One category was related to linguistic form (direct request, indirect request) and the other was related to contextual relevance (related, unrelated). We constructed 30 contexts pairs, each context consisted of four sentences, which was followed by a target sentence. Each context had three different language form conditions. The first condition was the sentence directly requested (as Please step back.); the second condition was the sentence indirectly requested (as Could you step back?); the third condition was an unrelated sentence (as This train is delayed.) The study hypothesized that the processing of pragmatic was related to semantic integration. The N400 effect was a highly sensitive response of the brain to semantic processing during language understanding. Therefore, the results of the study had an N400 effect in the event of a violation of Grice's manner maxim or relation maxim.

The ERP results from 11 participants (4 males, 7 females; age range, 27 - 54 years; mean, 41.4 years; standard deviation, 9.07). An N400 effect was obtained in the unrelated condition was significantly larger than the N400 effect found in related conditions from 350 to 550 ms. There were significant differences in the magnitudes of the effects between the direct and indirect conditions ($p < .0001$). From the study we had concluded the following: First, the speech act recognition between the direct request and the indirect request was different. Secondly, to analyze from the N400 effect, the relation between context affected the processing of speech recognition. The study was shown that the cognitive process of language processing closely related to the psychological context.

Keywords: ERP; Language cognition; N400; Psychological context

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The semantic similarity of Latent Semantic Analysis: Evidence from the Event-Related Potential on Taiwanese Hakka Vocabulary

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The purpose of this article was to utilize ERP (Event-Related Potential) to prove the LSA (Latent Semantic Analysis) could be a tool to measure the similarity of words of Taiwanese Hakka. Taiwanese Hakka has belonged to Sinitic languages family and Taiwanese Hakka was one of the common languages in Taiwan. In addition, LSA was a technique of computer and the model of LSA was simulated how the brain stored words.

Through the LSA, we could compute the similarity of words. If the words were similar, the words would be a cluster on the semantic space. Then, we could utilize the clusters to design our materials. The words in the same cluster meant these words were similar; on the contrary, the words in the different clusters meant these words were dissimilar. Thus, we chose two similar words in the same cluster to be prime and target (word1 and word2), and we also chose two dissimilar words in the different clusters to be prime and target (word1 and word3). We chose 30 similar words (word1&2), and 30 dissimilar words (word1&3). Based on the model of LSA, we hypothesized that LSA had the same way of our brain to store words. Therefore, we expected that the condition of dissimilar words (word1&3) would evoke the N400 component.

There were nine Taiwanese of Hakka-native speakers (4 females, 5 males; mean age: 47.3, range: 35-57) took part in this experiment. Participants did not have a history of neurological disorder or defect and all were right-handed as assessed. All of the participants had to be familiar with the words of Taiwanese Hakka which was published by the ministry of education in Taiwan. Besides, the participants had to pass the Taiwanese Hakka language proficiency test of the elementary level. Before the formal task, participants would practice 8 trials (these trails did not appear in the formal task). At the end of each trial, the participants would be asked to judge whether the first word and the second word were related or not. After the experiment, a recording test was conducted to check whether the participant was familiar with these words or not.

Since researchers claimed LSA imitated how the human's brain stored words, we aimed to investigate how the brain realized the clusters of words by ERP on the component of N400. We hypothesized we could utilize ERP to prove it on the component of N400. We examined which kind of words, similar words or dissimilar words, was easier for participants to associate together. The results of our experiment, the brainwave of dissimilar words (word1&3) evoked the significant N400 on CZ. The brainwave indeed proved our hypothesis. Meanwhile, we hope LSA would be another tool for editing the textbook.

Keywords: ERP (Event-Related Potential); LSA (Latent Semantic Analysis); Taiwanese Hakka

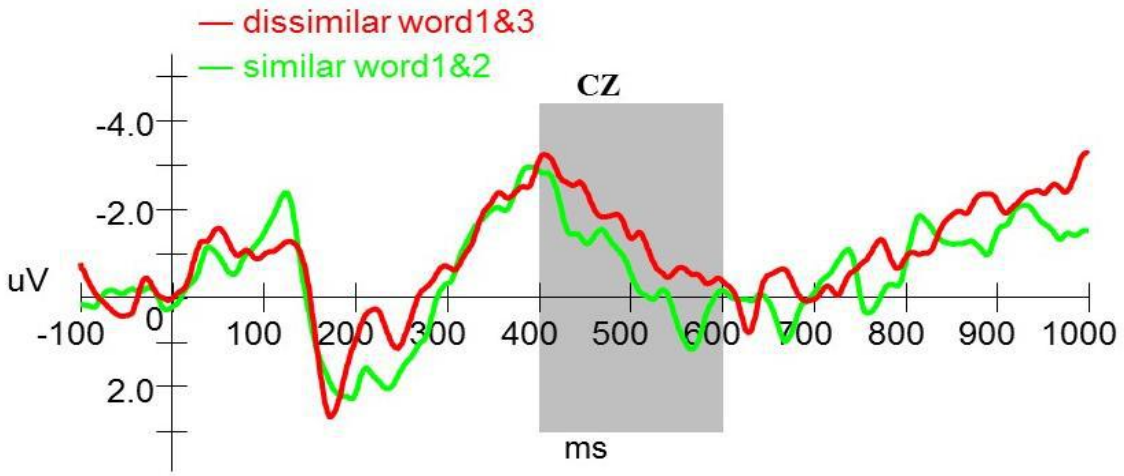

Figure 1. Grand averages for two conditions at electrodes CZ.

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The Syntax of Locative Inversion in Mandarin Chinese

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This paper investigates the syntax of Locative Inversion (LI) in Mandarin Chinese. This construction has the surface structure Loc + V + Asp + NP. This order contrasts with a canonical SVO order in Mandarin Chinese. The construction has also been referred to as existential sentences (Huang 1987), presentative sentences (Hu 1995), existential structure (Yang and Pan 2001) in the literature. (1a) illustrates an instance of Mandarin LI. The verb *guà* 'hang' is preceded by a localiser phrase and is followed by a Theme argument. The verb can be suffixed either by the durative aspect marker *-zhe* or by the perfective aspect marker *-le*. It has been well observed in the literature that only the perfective *-le* is compatible with the occurrence of the passive *bèi* (Pan 1996) and a subject-oriented adverbial 'deliberately' (Feng-his Liu 2007), (1b).

(1) (a) qiáng-shàng guà **-zhe/-le** yì-fú huà
wall-on hang -ZHE/-LE one-Cl painting
'On the wall was hung a painting.
(b) qiáng-shàng **bèi Zhāngsān/gùyì** guà***-zhe/-le** yì-fú huà
wall-on PASS Zhangsan/deliberately hang-ZHE/-LE one-Cl painting
Lit. 'On the wall was hung a painting by Zhangsan/deliberately.'

We raise three questions:

(2) (a) What is the position and origin of the preverbal localiser phrase?
(b) What are the classes of verbs that can enter LI?
(c) What does the 'selection' of aspectual markers tell us about the syntactic structures?

We argue that (i) the preverbal localiser phrase moves from inside the VP to SpecTP (*pace* Paul et al. 2019), not in a topic position (*pace* Yu 1995); (ii) based on Yu (1995) and Feng-hsi Liu (2007), we provide a refined classification of verb classes that can enter LI. We argue that there is no uniform structure for LI with different classes of verbs, and that the localiser phrase does not always originate in the same position within VP; (iii) based on the interpretative differences induced by the presence of temporal adverbials (Na Liu 2010) and of *yòu* 'again', we argue that the *-le* marking LI has a causing event component, whereas the *zhe*-marking LI does not. At last, building on Nie (1989), Yeh (1993) and Smith (1997), we

further observe that when marked with *-zhe*, different verb classes in LI are interpreted with a stative reading, or an on-going dynamic reading, or both. We propose different VP structures, which can be embedded under the durative *-zhe* in Asp°, in order to capture the stative vs dynamic interpretation.

Keywords: Locative Inversion; Syntax; Aspect markers; Mandarin Chinese

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Revealing Pragmatic Integration of Speech Act Sequences: Evidence from ERPs

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Since the middle of the twentieth century, speech act theory has become a topic of sustained investigation in the field of pragmatics. Speech act theory stresses the intent of the acts, such as apologies, complaints, compliments, greetings, invitations, partings, promises, refusals, or requests. The exchange of such speech acts in everyday conversation is swiftly performed. It is suggested that speech act recognition must be an early process, in order to prepare a fitted reply in time (Levinson, 2013). The aim of this study is to get a better understanding of the sequencing of speech acts. To explore the nature of speech act sequences, we assumed an integrating process along the lines of Gibson (2000), which proposed that prior information generates prediction concerning what follows.

There have been important advances in understanding psychological and physiological responses to interpersonal speech acts, different from the precious works which relied mostly on behavioral measures and self-reports. Due to its excellent temporal resolution, ERPs has been used to investigate pragmatic comprehension of speech act sequences in real time. The P600 amplitude, as claimed in Kaan et al. (2000), reflects the amount of resources used for the integrating processes. Thus, the P600 amplitude is used in this study as an indicator which reflects speech act integration difficulty.

Nineteen native Chinese speakers (11 female, 8 male, mean age 41.4) participated the study. There were 40 trials randomized, and divided into two blocks, for each participant. Each trial consisted of four utterances. One hundred and sixty utterances were included in the materials, divided into four stimulus sets. Set 1 was made of the order ABCD, Set 2 ACBD, Set 3 ADBC, and Set 4 ADCB. A stood for the speech act Greeting, B Compliment, C Request, and D Parting.

As shown in Fig.1 and Fig. 2, a clear dissociation is demonstrated between greeting-request and greeting-compliment/ greeting-parting sequences. The greeting-compliment/ greeting-parting sequences elicit larger P600 amplitude than the greeting-request sequence, reflecting more difficulties in integrating the current input with the prediction made by the preceding context. The greeting-request sequence is highly preferred. It elicits the smaller P600 amplitude, reflecting less difficulties in integrating the current input with the prediction made by the preceding context. Moreover, among the participants, the male group shows a largest P600 in the continuation of greeting-compliment sequence. Future researches are needed to explore the different patterns between men and women, as well as the correlations of ERPs with individual sensitivities to speech act recognition.

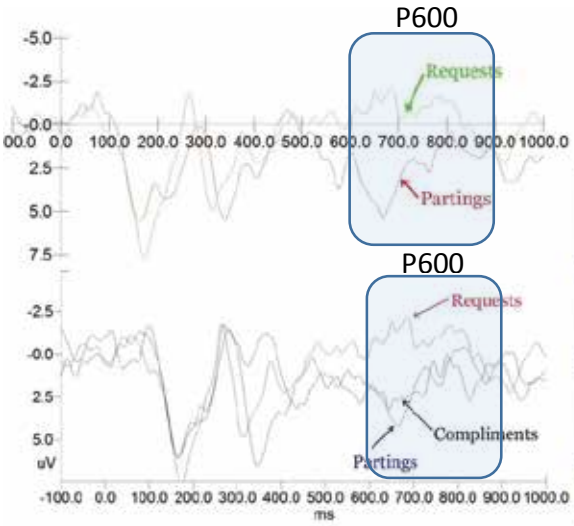

Fig. 1. Grand-average event-related potential (ERP) waveforms measured at Cz for the requests/partings conditions (upper), and the requests/compliments/partings conditions (lower). The time windows for the P600 ERP components are highlighted.

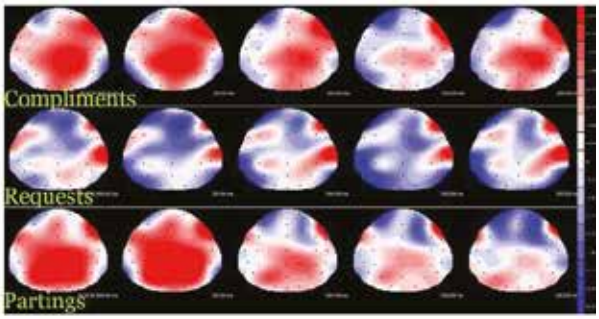

Fig. 2. Scalp distribution of the ERP effects in the time-window 600-850 ms for the three conditions: Compliment (upper), Request (middle) and Parting (lower), preceded by Greeting. It reveals different processing of the less preferred conditions, Greeting-Compliment/Greeting-Parting sequences, from the preferred one.

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Key words: speech act sequences, pragmatic comprehension, integrating processes

ABSOLUTELY AND *TOTALLY* IN PRESENT-DAY SPOKEN BRITISH ENGLISH

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The study explores the various functions of adverbs *absolutely* and *totally* in present-day informal spoken British English. It shows the emerging non-intensifying uses of the adverbs, suggesting different stages of their delexicalization and pragmaticalization.

The material was drawn from the Spoken British National Corpus 2014. The approach applied combines qualitative and quantitative analysis of the data. The quantitative analysis explores the frequencies of the adverbs in the corpus in relation to the sociolinguistic parameters of age and gender of speakers (cf. Hessner & Gawlitzek 2017). The chi-square tests show that while the difference in the frequency of *totally* in men's and women's speech is not significant (at the level of $p < 0.05$), women significantly overuse *absolutely* in comparison with men. *Absolutely* displays a tendency to increase in frequency with the age of the speaker, regardless of gender. *Totally* shows a similar tendency only in the case of men; women use the adverb less with rising age.

The qualitative analysis focuses on syntactic structures in which the adverbs appear, on their semantic preferences and semantic prosody, and on the pragmatic functions of the adverbs standing alone. For the study of the syntactic roles of *absolutely* and *totally*, 100 random examples of each adverb were extracted from the corpus. The results of our study correspond to the previous findings (Tao 2007; Aijmer 2016; Beltrama 2017), showing that the most common syntactic function of both adverbs is that of an intensifier of adjectives (in 40% and 50% of instances of *absolutely* and *totally*, respectively). The two adverbs, however, differ markedly in their distribution in functions other than intensification. The second most common role of *absolutely* is that of a free-standing adverb (37% of instances), which serves as a reaction signal expressing agreement and typically functioning as a turn-initiating device. In this role, it loses its original meaning of wholeness and comes to mean '*yes*, *sure*'. The level of delexicalization of *totally* is notably lower. It appears frequently as a disjunct bearing the meaning '*definitely/surely*' (13% of instances), also moving away from its original meaning of completeness. However, it rarely appears as a free-standing adverb expressing agreement (in 8% of instances only).

Following Tao's (2007) study of *absolutely*, the degree of delexicalization and pragmaticalization of the adverbs can be linked to their semantic prosody. The collocation profile (based on the whole Spoken BNC2014) of *absolutely* shows that its semantic prosody is rather complex and dependent on the word class of the collocate. Generally, however, positively evaluative collocates prevail. In correspondence with previous findings (Partington 2004), the semantic prosody of *totally* proved to be more stable, as the adverb generally prefers collocates with unfavourable and negative meanings. While the co-occurrence with positive expressions enhances the use of *absolutely* as an affirmative turn-taking discourse

marker, the negative semantic prosody of *totally* may have negative impact on the pragmaticalization process.

Keywords: spoken British English; *absolutely*; *totally*; delexicalization; pragmaticalization

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An extralinguistic source for the strict order of adjectives?

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According to the cartographic approach to syntax, adjective ordering, which is argued to be universal (Hetzron 1978, Sproat and Shih 1991, Cinque 1994, etc.), comes from a universal hierarchy of functional projections (FPs) which host specific types of adjectives (Scott 2002). Adopting this as a premise, we explore the origin of this hierarchy, i.e., the origin of the specific ordering of individual FPs in the functional hierarchy.

Possible origins of the various hierarchies of FPs have been discussed in Cinque & Rizzi (2008), a.o., who suggest general cognition as one option (see also Ramchand & Svenonius 2014). If the hierarchy indeed derives from general-cognition restrictions, then the order of the projections hosting adjectives should also be reflected in various non-linguistic cognitive processes. In fact, the question of the origin arises even if one rejects functional projections as the grammatical tool to model the strict ordering of adjectives, and general cognition is still one of the candidates for the answer, as suggested in Scontras et al. (2017). In this talk, we report on an experiment with which we tested the hypothesis that the functional hierarchy derives from general-cognition restrictions.

We focus on the NP-internal order of adjectives for size, color, and shape. Cross-linguistic data indicates that these three classes of adjectives universally come in the order SIZE>SHAPE>COLOR (Sproat and Shih 1991, a.o.), as exemplified by Slovenian (1) and tree-diagrammed in (2). Assuming that syntactic structure is built (Chomsky 1994, etc.) and acquired in a step-by-step fashion bottom-up (Radford 1996, Vainikka & Young-Scholten 2011, etc.), we expect that there will be some sort of bias for the properties expressed by adjectives of the lower FPs. For example, when defining an object, decisions might be most likely made on the basis of color, less likely on the basis of shape and the least likely on the basis of size (COLOR>SHAPE>SIZE). If such a bias is detected, it would show that the order of adjectives stems from general cognition, and on the assumption that FPs provide a good tool to model universally observed word-order restrictions, it would also provide an argument for the claim that universal hierarchies of FPs derive from properties of general cognition.

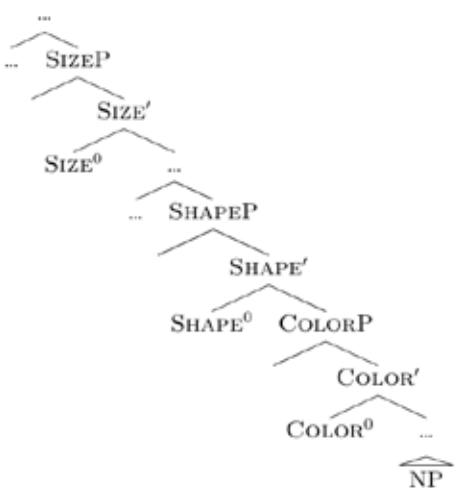
We conducted an online experiment with 578 participants (recruited via Amazon Mechanical Turk). The participants saw a grid of 12 objects (3 rows, 4 objects per row) out of which 1 differed from the other 11 in either shape, color, or size (the stimuli were calibrated prior to testing). An example is shown in Figure 1 (the magnitude of difference between objects on target trials was considerably smaller than that on practice and filler trials; for greater clarity, Figure 1 shows a practice trial). Participants were asked to click on the item which they think is the one that is different from the rest. The experiment included 5 practice trials, 18 fillers/controls and 72 target trials (in random order). Each property was tested twice in each of

the 12 possible locations.

We excluded subjects who reported colorblindness, those who reported that they did not use a personal computer and subjects who did not pass the control trials (with a success rate of 100%), N= 251. Figure 2 shows the distribution of correct responses by property. The differences between the success rates for the three properties are statistically significant, see Table 1. Our results confirm the hypothesis that adjective ordering restrictions are based on properties of general cognition, in agreement with Scontras *et al*. (2017). But our study actually provides a much stronger argument for this conclusion than Scontras *et al*.'s in that our experiment did not test any linguistic knowledge but really compared only non-linguistic perception of three properties. Further, assuming that the ordering of the related adjective classes is set by functional projections, our results also confirm the hypothesis that the order of functional projections within functional sequences is determined by properties of general cognition.

(1) (a)	majhna	okrogla	zelena	miza		(Slovenian)
	small	round	green	table	→	SIZE > SHAPE > COLOR - OK
(b)*	majhna	zelena	okrogla	miza	→	SIZE > COLOR > SHAPE - *
(c)*	zelena	majhna	okrogla	miza	→	COLOR > SIZE > SHAPE - *
(d)*	zelena	okrogla	majhna	miza	→	COLOR > SHAPE > SIZE - *
(e)*	okrogla	zelena	majhna	miza	→	SHAPE > COLOR > SIZE - *
(f)*	okrogla	majhna	zelena	miza	→	SHAPE > SIZE > COLOR - *

(2)



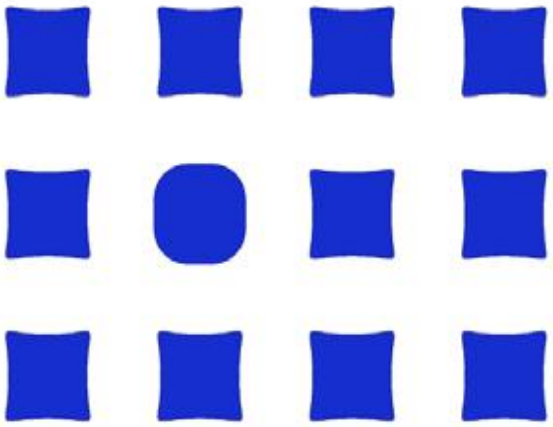
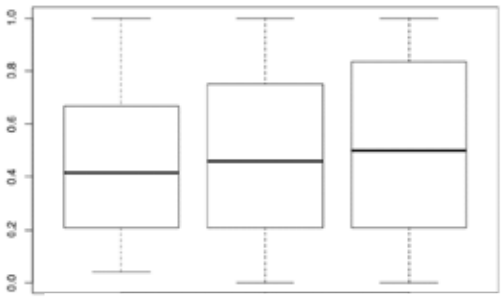


Figure 1: Example of a practice trial

			p.value	p.crit	Sig
size	vs.	shape	0.00623	0.0250	TRUE
size	vs.	color	0.00074	0.0169	TRUE
shape	vs.	color	0.03825	0.0500	TRUE

Table 1: Post-hoc tests for differences between conditions



size < shape < color

Figure 2: Success at condition

Keywords: adjectives, universal hierarchy of functional projections, general cognition

Does morphological richness account explain morphological ability of children with specific language impairment?

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This study focuses on the acquisition of morphology in preschool children with specific language impairment (SLI). According to the previous research, children with SLI have specific problems in this language area. We apply the morphological richness account (MRA; Leonard, 2014) as a theory explaining this deficit in Czech, replicating the study design by Lukács et al. (2009); they tested the theory on Hungarian.

The MRA theory presupposes that limitations in morphology in children are a result of the interaction between limited processing capacity of children with SLI and structure of the acquired language. The first hypothesis assumes that children should primarily devote their limited processing capacity to the acquisition of the most prevalent grammatical cues in language, i. e. morphology in Czech. Therefore, they should be only delayed in the acquisition of these grammatical cues. Nevertheless, MRA presupposes that more extensive deficits occur, when inflections encode more dimensions and require greater demands on processing – which is problem of verbs in Czech, but not of nouns. The third assumption is that children have some knowledge of inflections, so they should make errors, which differ from target morpheme in one dimension (near-miss error). Fourth MRA hypothesis presupposes that if near-miss error is not used, inflection should be more frequent.

The aim of this research was to examine the ability to inflect nouns and verbs in 17 children with SLI (from 5 to 7 years old) in comparison with 17 younger typically developing (TD) children (from 3 to 4 years old). Each TD child was matched to child with SLI on gender and results in a receptive vocabulary task. Modified sentence imitation was used to examine the children's ability to use morphological markers (target morphemes were masked by cough and children had to repeat the sentences and complete the target word). Accuracy in the completions of target morphemes was scored for grammaticality.

In testing MRA hypothesis, we found that the first hypothesis was confirmed by this research – children with SLI were as proficient as TD children in completion of target nouns ($z=1,33$, $p=0,18$). Contrary to the second presupposition, children with SLI were much less successful in completions of nouns than verbs (like TD children; $z = 7,487$, $p < 0.001$) and in completion

of target verbs were as accurate as TD children (z=1,40, p=0,16). Third hypothesis was confirmed by data – near-miss errors were prevalent, but relationship with frequency in non near-miss errors was not approved.

In contrast with the Hungarian study, this research confirmed the applicability of the MRA theory to Czech only to some extent. Our findings are important for presuppositions of acquisition of language in children with SLI in Slavic languages, which can be different from languages of other language families.

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We would prefer our proposal to be included in Workshop 2 (Language processing from a psycholinguistic and cognitive perspective).

The athematic infinitives in old Sardinian

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In old Sardinian, we find, within the second verb class, an allomorphy between infinitive forms. Next to the rhizotonic infinitives in *-er* (old Sardinian *faker* 'to make', *vender* 'to sell', *auer* 'to have') there is a subclass of rhizotonic infinitives that present a form at first sight "shortened" that is accompanied by the lengthening of the consonant of the root (*cherre* instead of **chere* 'to ask, to want', *morre* instead of **morer* 'to die', *tenne* instead of **tener* 'to hold'). Previous analyses (Wagner 1984: § 31, § 207, Blasco Ferrer 1984: 105, 2003: §32, 43) have treated the evolution of these "short" and rhizotonic forms on the assumption that one must subtract or add phonological material to a form that is already perfectly constructed.
Wagner in particular (cf. Wagner 1984: § 31), proposed a rule of syncope for infinitives of the *morre* type < **morĕre*, and a lengthening of the nasal for infinitives of the *tenne* type (cf. Wagner 1984: § 207). This lengthening would be due to the proparoxytonic accentuation of the infinitives (**ténere* > **ténnere* > *ténne*), which would thus simply follow a tendency in the Sardinian lexicon to lengthen this consonant in proparoxytonic words (cf. *enneru* < GENĔRU(M) 'son-in-law', *tenneru* < TENĔRU(M) 'tender').
To this analysis that appeals to phonology, invoking segmental and prosodic constraints, I contrast another that, inspired by the principles of *Distributed Morphology* (cf. Halle & Marantz 1993, Embick & Halle 2005, Embick 2013, 2016, Calabrese 2012, 2013, 2015a-b), puts the emphasis on the conditions of locality between morphemes and exponents and reduces the weight of lexicon and phonological output constraints. In fact I assume that, in a period not documented in early texts, alongside the thematic forms (**pet-e-re* 'to ask') there were athematic roots that, by associating themselves with the exponent of the infinitive morpheme, would have triggered, in some cases, a process of progressive assimilation, through a readjustment rule (cf. (1)):

(1) thematic infinitives	*vs*	athematic infinitives	
a) *pet-e-re '		b) mor-re	c) ten-re
petere 'ask-TV-INF.'		*morre* 'die-INF.'	*tenne* 'hold-INF.'

Later, the infinitives in *'-ere*, therefore thematic, have been reduced in old Sardinian, to *'-er* (cf. (2)) because of a reinterpretation of the final vowel as an epenthetic vowel (cf. Pittau 1972[2]: 98):

(2) Infinitives 2nd class	*vs*	Infinitives 1st and 3rd class	
a) *pet-e-re > pet-e-r		b) iur-a-re	c) parth-i-re
petere 'ask-TV-INF.'		*iurare* 'swear-TV-INF'	*parthire* 'divide-TV-INF'

In the second verb class, we thus went from a situation where we had a single exponent (*-re*) and two types of radicals, thematic and athematic (cf. (3)), to a system that had two types of radicals and two suffix allomorphs. The two suffix allomorphs or rather the *Vocabulary Items* (VI), enter into competition. This competition is governed by locality conditions. The VI that inserts *-re* which is specific to roots such as *mor-*, *pon-* etc. must be adjacent to the root. The presence of the thematic vowel interrupts this adjacency, leading to selection the VI *-r*:

(3) a. athematic	b. thematic
$[[[pon]_R\ ]_V\ re]_T$	$[[[pet]_R\ e_{TV}]_V\ r]_T$
ponne 'put- INF.'	*peter* 'ask-TV-INF.'

Hence the well-documented alternation, as mentioned above, in the early Sardinian documents where the *peter* type 'to ask' alternates with the *ponne* types 'to put'.

Keywords: old Sardinian, infinitive, Distributed Morphology, thematic vowel

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Post-verbal phrases and their correlates in Tundra Nenets

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1. Background Tundra Nenets (TN; Uralic, Samoyedic) is standardly described as an OV language that is particularly strict with regard to verb-finality (Tereshchenko 1973, Nikolaeva 2014) (1). A set of systematic exceptions are constituted by examples that appear to involve dislocated afterthoughts (Nikolaeva 2014), which are mostly found in spoken language. The term 'afterthought' (AT) is used here neutrally to refer to right-peripheral phrases associated with a clause-internal correlate, typically a pronominal element, without distinguishing 'afterthought' from 'right dislocation' in the narrower senses (Lambrecht 2001). In this presentation, we seek to confirm the syntactic status of these post-verbal constituents and explain the occurrence of their overt or covert pronominal correlates.

2. Post-verbal phrases One way in which a rigidly verb-final language may start shifting toward a more flexible word order is by incorporating right-peripheral dislocates into the post-verbal part of the clause proper (É. Kiss 2013). That post-verbal NPs are still strictly clause-external in TN rather than clause-internal is evidenced by object agreement. Verbal object agreement in TN is obligatory with third person zero pronominal objects and third person topical lexical objects, while it is absent in the case of non-topical (new information or focused) lexical objects (Dalrymple & Nikolaeva 2011; Nikolaeva 2014). Importantly, in the presence of a post-verbal lexical object without an overt pre-verbal object pronoun, agreement on the verb is mandatory (3). As post-verbal objects cannot be assumed to be obligatorily topical across all AT constructions, agreement on the verb in these cases must be due to a zero object pronoun internal to the clause, functioning as the correlate of the dislocate.

That post-verbal object NPs are clause-external is also confirmed by the fact that they cannot function as a focus when no overt object-correlate is present (4). If the position of the post-verbal object were inside of the clause, this would be unexpected, as focus is not positionally restricted in TN (Nikolaeva 2014). The unacceptability of examples like (4) is explained, however, if the dislocated NP is clause-external and has a zero object pronoun correlate inside the clause. As a zero obj-pronoun cannot be focused, its information status is necessarily incompatible with that of the dislocated NP it is associated with.

3. Correlates The pronominal correlate does not need to be silent. As shown in (5), just as in sentences without dislocation, subject pronouns may be covert or overt in the presence of an associated dislocate. Possessive pronouns seem to be exceptional in this regard: while poss-pronouns are also optional outside dislocation constructions, they must remain silent when linked to a right-peripheral dislocate (6).

We argue that the exceptionality of the case of poss-pronouns is merely apparent. The position of the correlate in AT is known to be limited by certain locality constraints on movement in many languages: the correlate cannot be in a position from where an element could not be extracted (e.g. Whitman 2000, Ott & de Vries 2015). Our assumption is that NPs

in TN constitute islands for extraction of their possessors, as Left Branch elements (Ross 1967), and possessors external to the NP originate outside of the NP and bind a zero possessive pronoun inside it (cf. É. Kiss 2014) (7). As external possessors are outside the NP that erects an island for NP-internal possessors, they (and only they) may be "right dislocated", being linked to a zero pronominal correlate outside the possessive NP (8). The net effect is that when a possessor is post-verbal, its correlate inside the possessed NP must be zero.

(1) **Sergei Masha-mʔ meńe joľće.*
Sergey Masha-ACC love.3SG very
Intended: 'Sergey loves Masha very much.'

(2) *jăxă-koća-ʔ xæw-xăna jiľe-ŋa-xăʔ, jabta-ko jăxă-ʔ xæw-xăna.*
river-DIM-GEN side-LOC live-CO-3DU narrow-DIM river-GEN side-LOC
'They lived near a small river, near a narrow small river.' [afterthought]

(3) *Pavel măneʔ-ŋa-*(da)-∅-ś, Irina-mʔ.*
Pavel see-CO-OBJ.SG-3SG-PST Irina-ACC
'Pavel saw (her), Irina.'

(4) Q: *What is the man reading?*
A: **xasawa tola-b'i(-da), padăr-mʔ.*
man read-DUR-3SG book-ACC
Intended: 'The man is reading THE BOOK.'

(5) *(pida) Irina-mʔ măneʔ-ŋa-ś, Pavel.*
3SG Irina-ACC see-CO-3SG.PST Pavel
'He saw Irina, Pavel.'

(6) [NP *(*Pida) ti-da*] *tăńana me-ʔ, Sergei-ʔ.*
3SG reindeer-PL.3SG there be-3PL Sergey-GEN
Intended: 'His reindeer are there, Sergey's.'

(7) External possessors: **Lex-Poss/i** . . . [ZeroPron-Poss/i N] V →

(8) AT of a possessor: **ZeroPron-Poss/i** . . . [ZeroPron-Poss/i N] V **Lex-Poss/i**

Keywords: post-verbal phrases; afterthought; (pronominal) correlates; Tundra Nenets

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Perception and production of geminate timing in Hungarian voiceless stops

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Introduction. Gemination has been widely investigated in many languages. It was confirmed that the primary acoustic cue for the singleton-geminate contrast is duration (e.g., Ham 2001, Khattab and Al-Tamimi 2008, Ridouane 2007). Moreover, it was suggested that in case of complex speech sounds, such as stops, detailed examination is needed to find out which portions of the internal structure (closure duration [CD], VOT, or total duration) are targeted by phonological lengthening. Hungarian is a language which expresses semantic differences using contrastive consonant phoneme length. Previous phonetic research showed that the average duration of Hungarian geminates (G) is approximately 160% of the average duration of singleton (S) consonants (Neuberger 2015, Olaszy 2006, Pycha 2010). However, a considerable overlap was evinced in the production of singletons and geminates. Production of speech sounds seems to be highly variable, which may pose difficulties for listeners, especially concerning the perception of those temporal cues which are linguistically significant, i.e. define relevant phonemic contrasts, like distinctive consonant length.

The aim of the present study is to examine the acoustic and perceptual correlates which distinguish single /p, t, k/ stops from their geminate counterparts in Hungarian. The main question is how closure duration contributes to perception and production of S:G opposition of voiceless stops? A comparison of production and perception results is made to reveal the role of CD as acoustic cue and perceptual distinction between Hungarian singleton and geminate stops. Perception test and acoustic data analysis are supposed to explore relation between acoustic and perceptual domain.

Methodology. From the production point of view, singleton and geminate stops was investigated in an approximately 6-hour long spontaneous speech sample (BEA database; Neuberger et al. 2014) from seven monolingual, Hungarian-speaking adult males. The data set contained 855 manually segmented /p, t, k/ stop consonants in intervocalic positions. Durational measurements of the internal structure of stops (especially CD) were carried out using Praat (Boersma and Weenink 2014). From the perception point of view, a binary discrimination test of stops was conducted. In VCV sequences, closure duration was systematically manipulated along the durational scale between 100 and 230 ms (in 10 ms time steps). Thirty-three monolingual, Hungarian-speaking adult were asked to listen to audio samples (logatoms iCi where C is /p/, /t/ or /k/) and make a binary decision about whether the heard consonant was long or short. Boundaries between two quantity categories were evaluated based on production and perception data. Statistical analysis was conducted using SPSS.

Results. Both production and perception results of this study confirmed that phonological length contrast is expressed in significantly different total duration and closure duration of S vs. G stops in Hungarian. VOT seemed to be invariant and therefore irrelevant parameter in

the distinction. However, the realisation of S and G consonants shows considerable overlapped durations in production. In spite of the wide variability, adult listeners are able to identify phonemes and distinguish them by quantity successfully along a continuous durational scale of the phonetic realisations – as confirmed in the perception test. Response curves formed S shapes on the dimension of closure duration, and listeners' responses shifted from S to G in the interval between 145 and 165 ms of CD. This study was conducted with the intention of obtaining detailed information about the relationship between acoustic and perceptual cues of consonant length in Hungarian.

Keywords: geminate, stop consonant, closure duration, Hungarian

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Case changing and case maintaining movements in Dependent Case Theory: Dative Extraction in Hungarian

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It is well known that the Hungarian possessor can either be nominative or dative and that only the dative possessor can be extracted from the possessive DP:

(1) a. {Péter/Péter-nek a} kutyá-ja
Peter.NOM/Peter-DAT the dog-1SG.POSS
'Peter's dog'

b. Péter-nek/*Péter elveszett a kutyá-ja.
Peter-DAT/Peter.NOM got.lost the dog-1SG.POSS
'Peter's dog got lost.'

Similar observations can be found in Hungarian inflected postpositions where pronominal complements obligatorily appear inside the PP and are nominative while full DP complements are obligatorily extracted and are dative:

(2) a. (én-)mellett-em / *mellett-em állt én
I-next.to-1SG next.to-1SG stood.3SG I
'next to me' intended: 'He stood next to me.'

b. mellett-e állta-m Péter-nek / * Péter-nek mellett-e állt-am
next.to-3SG stood.1SG Peter-DAT Peter-DAT next.to-3SG stood-1SG
'I stood next to Peter.' intended: 'I stood next to Peter.'

We also find dative subjects in inflected infinitives, optionally extracted from within the vP. Extracted or not, these subjects maintain a dative case, even if moved further out of their own clause:

(3) (Péter-nek) nem kell (Péter-nek) el-men-ni-e.
Peter-DAT not have.to away-go-INF-3SG
'Peter does not have to leave.'

Although this seems to indicate that dative is a non-structural case, being maintained under movement, the fact that it is otherwise identical to the nominative subject of finite clauses argues that it is structural. Moreover, there are languages where possessor extraction and similar movements do not maintain the case associated with the DP internal possessor position. In Oromo, a topicalised possessor appears with unmarked case rather than genitive (4) and in Choctaw and (5):

(4) Obbolesá xiyya, makiináa-n isá c'apt'e. (Owens 1985)
brother my car-MNOM his broke-F-PAST
'(As for) my brother, his car broke.'

(5) a John im-ofi-yat illi-h. (Broadwell 2006)
John 3III-dog-MNOM die-TNS
'John's dog died.'

b John-at piláashaash ofi-yat im-illi-h.
John-MNOM yesterday dog-MNOM 3III-die-TNS
'John's dog died yesterday.'

If alternation under movement is an indication of structural case, then it seems that possessors generally receive structural case. The question is why movement from the lower nominative positions in these Hungarian constructions results in a case change, whereas movement from the higher dative positions does not.

We briefly overview an analysis of the distribution of dative and nominative case in Hungarian from a Dependent Case Theory (Marantz 1991, Baker 2015) perspective. Baker analyses the case changing movements in possessor extraction constructions as involving an unmarked case being overwritten. This does not work for Hungarian as both dative and nominative are unmarked and therefore should interact with movement in the same way. However, he analyses other instances of case changing movements, such as differential object marking structures and the passivisation of double object constructions, in terms of the distinction between hard and soft domains, the latter allowing the assignment of unmarked case to be delayed. Following this analysis, we argue that the Hungarian non-finite inflection found in possessive DP and inflecting PP structures always gives rise to hard domains (DP/PP) for which dative is the unmarked case. The DP contains a soft nP domain, the origin of the possessor, for which nominative is the unmarked case. The inflected PP contains a possessive structure (Dékány, 2018), which we analyse as identical to the nP in possessive DP. Thus the analysis extends to this structure straightforwardly. The inflected infinitive construction is also easily captured, the dative case being assigned at the clausal level. This is the complement of the non-finite agreement, so a hard domain, and hence the dative will not be affected by movement.

We demonstrate that the analysis also extends to Baker's data (5-8). These languages lacking agreement within their possessive structures have soft possessive domains, allowing for a different case to be assigned to the extracted possessors. This way Baker's case overwriting mechanism can be discarded and the theory simplified.
We discuss an interesting issue concerning what happens when case assignment is delayed, but the DP does not move: which domain is relevant for determining the case to be assigned? Baker's data do not allow this question to be answered as the assigned case could be associated with either. The Hungarian data, however, conclusively show that it is the domain relevant to the position of the DP that determines which case is assigned.

Keywords: dative; Dependent Case Theory; Hungarian

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Competition of prefixes and prefixal constructions in Czech verbs of motion

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Lexical function is one of the principal functions of verbal prefixes in Czech and it consists in expressing lexical meaning. There is an asymmetric relation between forms and meanings of prefixes – one prefix usually has several meanings and one meaning can be expressed by several prefixes.

The aim of the paper is to find out which circumstances influence the choice of particular prefix in expressing certain meaning and how prefixed derivatives differ. Prefix variation in Russian was described by Janda and Lyashevskaya (2011) or by Olsson (2019), who analysed co-occurrences of verbs. Competition of prefixes in Slovak was examined by Janočková (2014), who compared verbs of sensory perception by component analysis and identified semes of three main types of actionsart – locativity, temporality, and modality (see Sekaninová 1980). The author showed that verbs usually contain combination of several semes. In Czech linguistic sources, only synonymy of verbal prefixes is described so far.

We expect the context (mainly valency complement) to play an important role in the choice of prefix – each prefix is typically combined with a certain valency complement. We also expect the strong influence of analogy with other verbs from the same semantic class. Other assumption is that prefixes expressing meaning which is also included in the semantics of simplex verb will be preferred (Janda et al. 2013).

For this analysis, we chose Czech prefixed verbs of motion from the field of sport (particularly neological, i.e. verbs not included in the Czech dictionaries) belonging to five word-formation nests (more than 50 lemmas). The sources of material are corpus syn v8 (www.korpus.cz) and neological archive Neomat (www.neologismy.cz). We compared the prefixed derivatives by component analysis and examined their typical co-occurrences (direct objects, adverbials).

There were found two types of competition in prefixed verbs. In the first case, verbs differ in prefix but they have the same valency complement (examples (1)–(4)). In the second case, each prefix is combined with another valency component and we can consider it as competition of the whole prefixal constructions (examples (5)–(7)).

The analysis showed that the differences between prefixed derivatives consist in accentuating (or profiling, see Langacker 1990) one semantic feature and suppressing other features. In verbs of motion, it can be profiled into: the beginning of an action (3), the duration of an action (4), the final stage of an action (1), or the result of an action (2). Prefixal constructions differ in scale of locativity. Verbs with prepositional phrase as a valency complement emphasizes spatial semantic feature (examples (5), (7)), whereas verbs with objects in accusative case as a valency complement accentuate temporal and modal semantic features (6).

(1) *Milan Škoda se prosmýkl kolem Mariána Čišovského,* ***dosprintoval*** *na hranici velkého vápna a propálil Matúše Kozáčika*
Milan Škoda dodged around Marián Čišovský, he **do-sprinted** to the edge of the penalty area and defeated Matúš Kozáčik.

(2) *K míči se v půli hřiště dostal rychlonohý útočník domácích Malár,* ***přisprintoval*** *do velkého vápna protivníka a nekompromisně prostřelil jeho gólmana.*
A quick-footed forward Malár got the ball in the midfield, he **při-sprinted** into the opposing penalty area and defeated the goalkeeper.

(3) *Lašák vydržel v brance jen čtyřiadvacet minut, po čtvrtém gólu domácích* ***vysprintoval*** *na střídačku.*
Lašák stayed in the goal only twenty-four minutes, after the fourth goal of the home team, he **vy-sprinted** to the bench.

(4) *Díky své rychlosti* ***prosprintoval*** *až na úroveň vápna, ale místo střely ještě posunul na Ogureka.*
Due to his speed, he **pro-sprinted** into the penalty area, but instead of shooting he passed to Ogurek.

(5) *Dnes nad ránem si chtěla* ***dobruslit*** *pro zlato.*
Today early in the morning she wanted to **do-skate** for the gold medal.

(6) *Martina Sáblíková* ***vybruslila*** *dvě zlaté a jednu bronzovou medaili.*
Martina Sáblíková **vy-skated** two gold and one bronze medal.

(7) ***Probruslila se*** *k mnoha medailím,* ***probruslila se*** *až do filmu, stala se slavnou a bohatou.*
She **pro-skated** [herself] to many medals, she **pro-skated** [herself] to the film, she became famous and rich.

Keywords: verbal prefix; prefix variation; verbs of motion; neologism; Czech

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Syntactic training of oblique relative clauses in Italian students with developmental dyslexia and bilingual students with Italian L2

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Overview and goals. This study presents data on the improvement and generalization effects promoted by a syntactic training of complex relative clauses administered to high-school Italian students with developmental dyslexia (DD) and bilingual students with Italian L2. Their linguistic competence was compared to a group of monolingual Italian participants in the repetition and production of complex syntactic structures before and after linguistic training.

Beyond their reading disability, individuals with DD may face difficulties with constructions derived by syntactic movement in oral comprehension and/or production tasks (Arosio *et al.* 2016). Previous research on bilingualism has shown that age of onset may influence language acquisition and development (Grosjean 1982; Döpke 1992). The cut-off point for native-like performance is proposed to be 4 years (Meisel 2009, Unsworth *et al.* 2014).

Participants. 6 students with a diagnosis of DD (G1, mean age: 15;11) and 2 bilingual students with Italian L2 (G2, mean age: 18;9) participated in the study. The bilingual students moved to Italy when they were 5 years old. G1 and G2 were compared to a group of 61 Italian monolingual students ranging in age from 14;3 to 20;8 (G3).

Materials. Two oral tasks were administered. The sentence-repetition task includes 33 experimental sentences, both simple (left-dislocation sentences) and complex (long-distance subject and object wh-questions, clefts, oblique relatives) and 16 filler sentences of the same length (Del Puppo et al., 2016). The production task contains 20 trials eliciting subject, object, and oblique relative clauses. Bilingual students and students with dyslexia were also assessed after training using the same materials.

Assessment of linguistic skills (before training). G1 and G2 produced more ungrammatical sentences than G3 in both tasks and more sentences typical of sloppy registers in the production task. Overall, the bilingual students and the students with DD showed significantly more difficulties than the Italian monolingual participants in mastering complex structures derived by syntactic movement (G1: 61%, G2: 64%, G3: 87%).

G1 performed at ceiling in the production of subject relatives and produced pragmatically appropriate passive relatives when object relatives were targeted, showing a performance comparable to G2 and G3. In the repetition and the production of oblique relative clauses, G1 differed significantly from G2 and G3.

Note that G2 and G3 showed lower performances in the repetition of oblique relatives compared to the repetition of the other structures investigated (G2: 59% vs 75%; G3: 62% vs 93%). This may be due to the frequency at which they are used at school or in formal contexts. Monolinguals and bilinguals are exposed to this language variety to the same extent.

Syntactic training. G1 and G2 were administered a syntactic training modelled on Levy and Friedmann (2009) and focused on relative clauses, the most complex structures. Their

performances significantly improved in both tasks after training. They also improved in the repetition of untrained sentences: clefts and *wh*-questions. Generalization effects were found in similar studies and show that syntactic training helps generalizing from more over less complex structures of the same syntactic type (Thompson et al. 2003, 2007; Levy and Friedmann 2009; D'Ortenzio 2019).

A follow-up session was administered to the students with dyslexia: after three months to two students, after six months to one student, and after nine months to the other three students. Results showed that the syntactic competence of all students was maintained.

Issues for future research. Persistent difficulties with complex structures derived by syntactic movement suggest the utility of developing protocols of syntactic training helping students with DD and late bilinguals improve their linguistic competence.

Keywords: syntactic training; oblique relatives; developmental dyslexia; bilingualism

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Context-induced root allomorphy in Romance

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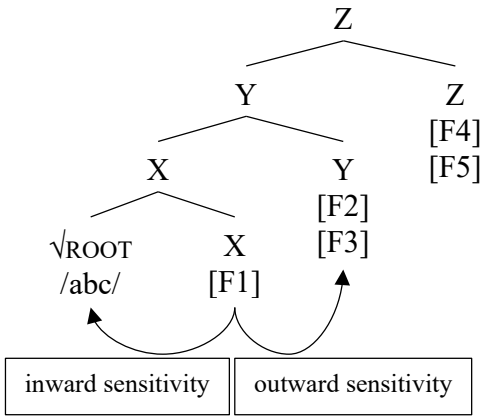
This talk studies various patterns of root allomorphy found in Romance within the framework of Distributed Morphology (DM). In DM, when it comes to the realization of the affix X in (1a), X is inward sensitive, i.e. the form of the affix may depend on the phonological form /abc/ of the root, but X is also outward sensitive, i.e. the form of the affix may depend on grammatical features encoded in Y (cf. Bobaljik 2000). In contrast, the insertion of the root can only be sensitive to the context to its right, i.e. at this point only grammatically conditioned allomorphy is possible (1b). Yet, assuming with Oltra Massuet (1999) a.o. that verbs in Romance have, as a general rule, the structure in (2), including positions for theme vowels (Th), we must take into consideration locality effects on allomorphy since it is not clear whether T(AM) and/or φ are close enough to the root in order to grammatically condition its form. In order to tackle with this problem, we will explore three theoretical approaches within DM; (i) Fusion (Arregi 2000), (ii) Pruning (Embick 2010, Calabrese 2015) and (iii) Spanning (Svenonius 2012, 2016, Merchant 2015) – and evaluate which of these accounts best for root allomorphy.

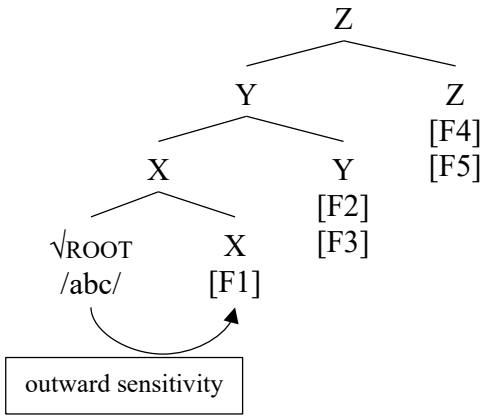
Since one of the essential aspects of our analysis is segmentability, we will put a special focus on French, where the transparency of the complex structure in (2) varies from one conjugation class to the other for several, interconnected reasons. One reason has to do with the presence or absence of Ths. The II. conjugation has the stem extension *-iss-* (cf. (3)), whereas the I. and III. conjugation are, at first glance, both athematic. However, many linguists have shown that there is a difference between (3a) and (3c) with respect to the underlying presence of a Th (Schane 1966, Gertner 1973, Foley 1979 a.o.): The stem final consonant of *viv(re)* (= III) is only maintained before a vowel (e.g. *nous viv-ons* [viv-õ] 'we live'), but is deleted before a following consonant (cf. *je vis* [vi(z)] 'I live' not **je vivs* [viv(z)]). The stem final consonant of *arriv(er)* (= I) in the corresponding form, in contrast, is not deleted: cf. *tu arrives* [aʁiv(z)] 'you$_{sg}$ arrive' not **tu arris* [aʁi(z)]. This difference has been explained by assuming that *arriv-* has a theme vowel [ə], which does not surface, but which blocks consonant deletion (cf. /aʁiv+(ə)+(z)/). Thus only III. verbs (3c) count as truly athematic and exactly this class hosts the most irregular, suppletive verbs: The loss of the Th has a direct effect on the stem formation, for which, in French, we can distinguish at least four different cases, distributed differently across the conjugation classes (4). In our analysis, especially for (4c), the Spanning approach is argued to be the most appropriate one.

Figures and tables

(1) a. realization of X



b. realization of √ROOT



(2) √ROOT + v° + Th + T°[PAST] + Th + φ[1PL] (e.g. Spanish *atom-iz-á-b-a-mos* '(we) atomized')				(Th = theme vowel)
(3) a. "superficially athematic":	*aim-∅-i-ons*	[ɛm-j-ɔ̃(z)]	'(we) loved'	I.
b. thematic:	*fin-iss-i-ons*	[fin-is-j-ɔ̃(z)]	'(we) finished'	II.
c. athematic:	*romp-∅-i-ons*	[ʁɔ̃p-j-ɔ̃(z)]	'(we) broke'	III.

(4) a. fully regular verbs: *aimer* [ɛm-e] 'to love' ~ *aiment* [ɛm-(ə)(t)] 'they love' (= one stem);
b. "irregularly" regular verbs that undergo minor phonologically predictable changes (i.e. vowel alternation or /j/-insertion): *lever* [ləv-e] 'to raise' ~ *lèvent* [lɛv-(ə)(t)] 'they raise';
c. irregular verbs showing subregularities: *peindre* [pɛ̃dʁ(ə)] 'to paint' ~ *peignent* [pɛɲ(ə)] 'they paint';
d. irregular verbs with idiosyncratic alternations: *aller* [al-e] 'to go' ~ *vont* [vɔ̃(t)] 'they go'.
(cf. Gertner 1973, Meunier & Marslen-Wilson 2004)

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Pronominal absolute stems in modal existential and other constructions in Hungarian: "hidden multifunctionality"

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We intend to show how multifunctional the *ki*-pronoun in Hungarian is (*ki* ~ 'who'; and the statements below also hold true for its inanimate counterpart *mi* ~ 'what' and their case marked versions, referred to as KI from now on).

The basic function of KI is the interrogative one (1a); where KI occupies a narrow focus position, shown by the [verb stem + preverb] order in Hungarian. If the question concerns a pair, one of the KI pronouns should appear in the focus position before the verb stem and the other must be placed at the end of the sentence (1b) in a *mirror-focus* construction (É. Kiss 1992, Alberti & Medve 2000). If, however, more than one KI pronouns precede the finite verb stem, only the *wh*-word immediately preceding the verb stem has an interrogative focus function, while the other KI has a function of a (positive) universal quantifier (1c) (É. Kiss 1992: 145). As shown in (1e), however, KI cannot function as a (positive) universal quantifier in "normal" sentences; in these cases, the *mind-* 'every' series of pronouns should be used. KI can also function as a relative pronoun (1d) and as a negative universal quantifier in certain constructions (1f).

(1) a/b. Kit$_?$ mutatott be Juli Marinak / kinek$_?$?
KI.Acc introduced.3Sg preV Juli Mari.Dat / KI.Dat
'Whom did Juli introduce to Mari/whom?'

c. Kit$_\forall$ kinek$_?$ mutatott be Juli?
KI.Acc KI.Dat introduced.3Sg preV Juli
'Whom did Juli introduce to whom?
[For each relevant person, to whom did Juli introduce them?]'

d. Ki korán kel, aranyat lel.
KI early get.up.3Sg gold.Acc find.3Sg
'He who gets up early finds gold. [The early bird catches the worm.]'

e. *(Minden)kit$_\forall$ bemutattam Marinak.
every.KI.Acc introduced.1Sg Mari.Dat
'I introduced everyone to Mari.'

f. Ez mit $_{\forall\neg}$ sem ér.
this KI$_{what}$.Acc also_not is_worth.3Sg
'This is worth nothing.'

In the light of the high degree of (somewhat hidden) multifunctionality (cf. Haspelmath 1997: 58, 291–292; 2003) of KI in Hungarian (also expanding to archaic uses, see É. Kiss 2014: 39), it is not surprising that there is another function that can be attributed to it: that of an existential pronoun (2a), in modal existential infinitival constructions (MEIC) (Šimík 2011). We argue against Lipták's (2003) suggestion, according to which in MEIC$_H$, KI functions as a focus (cf. (1a). In contrast to her hypothesis, native speakers do not accept preverbs following the verb stem in MEIC$_H$ (see Figure 1), which is a characteristic property of Hungarian narrow focus; cf. (1a). We argue that in this construction KI has a (non-contrastive and non-referential) topic-like "anchoring" function, based on the fact that it has the meaning of *vala-* 'any-' pronouns (2b-b'), claimed to be topics in Hungarian (É. Kiss 1992: 157). Nevertheless, they are special topics because they are not necessarily specific/referential but provides existential bounding, and can follow a quantifier (2b') (NB: this is normally not possible for topics in Hungarian and presumably has to do with its logical contribution). As for MEIC$_H$ with two KI-pronouns (3a), we argue that both have existential interpretation rather than universal (cf. Surányi 2005); we claim that there is some difference in meaning between (3a) and (3b).

(2) a. Van (*?vala)kit bemutatnom Marinak.
is KI.Acc preV.introduce.Inf.1Sg Mari.Dat
'There is someone I can introduce to Mari.'

b. *(✓Vala)kit mindenkinek bemutattam.
someone/KI.Acc everyone.Dat preV.introduced.1Sg
'There is someone I introduced to everyone.'

b'. Mindenkinek *(✓vala)kit bemutattam.
everyone.Dat someone/KI.Acc preV.introduced.1Sg
'For each person there is someone I introduced to them.'

(3) a. Van kit kinek bemutatnom.
is KI.Acc KI.Dat preV.introduce.Inf.1Sg
'There is at least one person whom I can introduce to at least one person.'

b. *(✓Minden)kinek van kit bemutatnom.
everyone/KI.Dat is KI.Acc preV.introduce.Inf.1Sg
'For each relevant person, there is at least one person whom I can introduce to them.'

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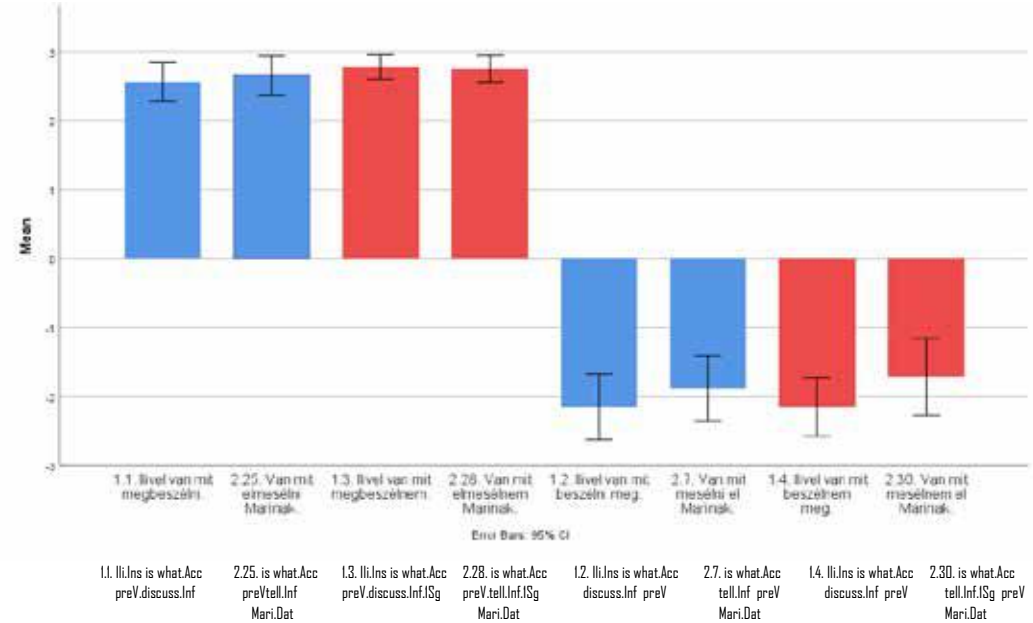
Figure 1. Grammaticality judgments concerning simple modal existential *wh*-constructions: means with 95% confidence intervals



Xinkan Influence on Prestigious Ch'orti' Language during Classic Maya

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Diversity in structure among Ch'olan Mayan languages has been scrutinized due to considerable interest surrounding the decipherment of the Classic Mayan hieroglyphs, which have been determined to be Ch'olan. Xinkan has been ignored due to its present-day location outside the Classic Mayan area and a general reluctance by scholars to consider language influence from a less prestigious non-Mayan language as a possible factor in language change. This paper examines the possibility that language interference (Thomason 2003) from Xinkan led to the unique verb structure in Ch'orti' (Ch'olan) that contrasts sharply with that of other Mayan languages, including other Ch'olan languages.

Linguistic evidence that Xinkan speakers may have influenced the innovative structure of Ch'orti' verbs undermines the claim of direct Ch'olti'-to-Ch'orti' descent (Robertson 1998, Houston et al 2000; Robertson and Law 2009), which is based on the theory that the Ch'olti' habitual proclitic ***a*** gave rise to the Ch'orti' 3rd person incompletive ***a-*** prefix, leading to the innovative set of person markers in Ch'orti'. Significantly, however, Xinkan and Ch'orti' share a 3rd person prefix ***'a-*** on intransitive verbs in the incompletive aspect, which contrasts with a zero morpheme for the 3rd person in the completive. This latter proposal would explain the origin of the aspectual morpheme ***a***, which occurs only in the Ch'olan branch of Mayan.

(1a) Xinkan (Rogers 428):

Incompletive	***a****-yoko'*	3SG:INC-float:INC	'he/she floats'
Completive	***Ø-****yooko'*	3SG:CMPL-float:CMPL	'he/she floated'

(1b) Ch'orti' (data from the author's fieldwork):

Incompletive	***a****-way-an*	S3:INC-sleep-VI	'he/she sleeps'
Completive	*way-an-****Ø***	sleep-VI-A3:CMP	'he/she slept'

Other shared features are the unique method of indicating incompletive vs. completive aspect through the contrast between prefixed and suffixed person markers respectively and the reliance on portmanteau affixes to mark both aspect and person.

(2a) Xinkan (Rogers 96, 229):

Incompletive	***ün****–wak'i*	S1SG:INC–play:INC	'I play (it)'
Completive	*waki–****n'***	play:CMP–S1SG:CMP	'I played (it)'

(2b) Ch'orti' (data from the author's fieldwork):

Incompletive	***in***-*way-an*	S1SG:INC-sleep-VI	'I sleep'
Completive	*way-an-**en***	sleep-VI-A1SG:CMP	'I slept'

Xinkan is known to have been in contact with Ch'olan languages (Campbell 1972), as evidenced by borrowings into Xinkan of cultural, commercial, and agricultural terms. The borrowings indicate contact during the Classic Maya Period (250-900 AD). Despite the recent location of Xinkan speakers in a small region in southeastern Guatemala, Xinkan toponyms (place names) are found in the Post-Conquest Ch'olti'-Ch'orti' area (Campbell 1997), which overlaps with the location of numerous Classic Mayan sites.

Because Xinkan speakers were borrowing words from the more prestigious Ch'olan language, presumably during the Classic Mayan period (Campbell 1972), they must have been learning that language. Language transfer from Xinkan speakers could have influenced Proto-Eastern-Ch'olan verb structure, initiating the split between the two language varieties: Ch'olti' and Ch'orti'. With its simpler verb structure, Ch'orti' would have provided easier linguistic access to the Classic Mayan culture for all outsiders as a *lingua franca*.

Keywords: Ch'orti', Mayan, language contact, substratum interference, historical linguistics

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The attributive use of deverbal nouns in Evenki

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The attributive position in Evenki is usually filled by adjectives, pronouns, attributives (derived by attributive markers ATR), etc. Modifiers exhibit optional agreement with the head noun: *ая-**л-ду** дуннэ-**л-ду*** 'good-PL-DAT land-PL-DAT' "(became) good lands"; ***эвэ-ды-вэ** праздник-**ва*** 'Evenk-**ATR.REL-ACC** holiday-**ACC**' "(people celebrated) the Evenki holiday"; *эвэ-**ды-ø** композитор-**ва*** 'Evenk-**ATR.REL** composer-**ACC**' "(I knew) the Evenki composer". Other markers that derive attributives: *-мV* 'material', *-чи* 'property', etc.

Certain deverbal nominals (derived by *-вӯн* 'NMLZ.RES/NMLZ', *-кӣт* 'NMLZ.LOC/NMLZ', *-дяк* 'NMLZ.LOC') cannot attach attributive markers: *булта-**кӣт**(*-**ты**)* 'hunt-**NMLZ(.LOC)-ATR.REL**'. As juxtaposition of the modifier noun and the head noun is not licensed in Evenki, it is expected that these deverbal nouns cannot serve as nominal modifiers, so that the possessive construction (isafet II) must be used instead: *бэйнэ̄ булта-**кӣт-ин*** 'wild.animal hunt-**NMLZ(.LOC)-PS.3SG**' "wild animal(s) hinting".

These constraints on deverbal nouns seem to be correct for the XX-th century Evenki, at least for the oral language (Vasilyevich 1940; Nedjalkov 1997), and no modifier deverbal nouns occur in the XXI century's oral stories (URL: http://gisly.net/corpus/). In written (newspaper and translated) texts ((Kolesnikova 1966, 154), URL: http://corpora.iea.ras.ru/corpora/search.php), examples of deverbal nouns modifying nouns, both without agreement (1) and with agreement (2) are found.

Such instances violate the morphological constraint on modifiers: not only adjectives or attributives derived by an ATR morpheme can be modifiers and demonstrate optional agreement with the head noun. We assume that the reason why deverbal nouns derived by *-вӯн, -кӣт, -дяк* cannot attach ATR-s (derivation markers) is that their bases are XP-s (NP-s) rather than X-s: they are complex event nouns (Grimshaw 1990): their verbal functional structure is partially visible in syntax, cf. (3).

Following [Graschenkov 2019, sec. 2.1.3, (143)], we introduce the attributive head Atr and the projection AtrP that is included into adjective and attributive modifiers' structure. The attributives with an overt ATR form complex heads derived via incorporation of X (V/N/…) into Atr, as in (4a). Modifiers in (1)-(2) are AtrP-s with a null Atr, and with the XP (=NP) in SpecAtrP, cf. (4b-c). The nominal construction with an agreeing modifier has structure (5) (cf. (Kim 1997, 8)). Agr has a strong uninterpretable Case/Number feature, following (Chomsky 2003), so that N raises to Agr, and [N+Agr] are in the Spec-Head relation to AtrP.

(5) cannot account for (1) without the modifier noun agreement. For (1), assume that Atr can be "phi-incompatible", similar to "phi-incompatible" Tense (Harves 2013, 658). The "phi-incompatible" Atr licenses null agreement. This solution accounts for optional modifiers agreement.

(1) [*авгара-**кит*** *училища-**т***] [newspaper, *авгара-**кит*** ‘treatment’]
heal-**NMLZ** college-**INST**
“(The school was called) **medical** college”

(2) [*ани-**вун-ма*** *альбом-**ва***] [newspaper; *ани-**вун*** ‘present, gift’]
send.presents-**NMLZ-ACC** album-**ACC**
“(I.V. Mukto handed every pupil) a **gift** album”

(3) [$_{NP}$ *Север-**га**-р* [$_{AspP}$ [$_{VP}$ *оро-р-**во*** *игри*]-[$_{Asp}$ ***дe***]]-***кӣт***] [newspaper]
North-**RESID**-PL reindeer-PL-**ACC** raise-**IPFV** -**NMLZ**
“he North **Reindeer breeding** reserve”

(4) a. **[$_{Atr}$ [$_{Atr}$ X+Atr]]** b. **[$_{AtrP}$ XP [$_{A'}$ Atr (ø)]]** **c. XP=NP**

(5) [$_{DP}$ [$_{AgrP}$ **[$_{AtrP}$ XP [$_{Atr'}$ Atr (ø)]]** [$_{Agr'}$ [$_{NP}$ [$_{N'}$ N]] Agr]] [$_{D'}$ D]]

Key words: deverbal noun, attributivization, morphological constraint, agreement, Evenki

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On the Distribution and Grammaticality of the Czech Conjunction Aniž since 1900

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The poster deals with the distribution of the single-word conjunction aniž roughly 'without' and the change of acceptability of constructions with this conjunction in the past century. Aniž historically consists of three words, namely the conjunction a 'and', the negation ni 'not' and the final ž that is etymologically connected with the conjunction že used in a similar way to the English relativizer that (Bogoczová 2018). I argue that this complex conjunction is undergoing a loss of some of the grammatical meaning that its original parts.

Aniž is treated by some speakers of Czech differently from its complex synonym *bez toho*, *aby*/*že* 'without that'. There are instances of the string *bez toho, aniž* occuring in the Czech National Corpus as Štícha (2010) observes. I searched the Czech National Corpus for instances of this which will be presented by this poster. I believe that the possibility of combining the two conjunctions arises from the fact that *aniž* changed in its grammatical meaning and now does not, at least for some of the Czech native speakers, include the semantic negation that it used to, which makes it available for this combination.

I aim to demonstrate that there are actually two major changes taking place presently in possible distribution of *aniž*. The first one that started earlier is the change in acceptability of constructions such as example (1) below.

(1)	*Uděl-al*	*to,*	*aniž*	*by*	*si*	*stěžov-al.*
	did-PAST.3sg.MASC	it	without	COND¨	REFL	complain-PAST.3sg.MASC

'He did it without complaining.'

At the beginning of 20th century, the insertion of the conditional *by* into the construction was according to the link[1] not acceptable. But in the present-day data this has become possible and sentences such as (1) are considered grammatical according to the link[2].

Later even the variant in (2) where the subordinated verb is negative started to appear in spoken and to a lesser extent in written Czech as evidenced by CNC findings, but according to link[3] it is still not accepted as part of the standard Czech by grammars.

(2)	*Uděl-al*	*to,*	*aniž*	*by*	*si*	*ne-stěžov-al.*
	did-PAST.3sg.MASC	it	without	COND¨	REFL	NEG-complain-PAST.3sg.MASC

'He did it without complaining.'

The problem arises from the seeming double presence of negation in the construction. It appears that the negative subordinating conjunction created by the *ni* in example (1) does not allow the second negative verb but precisely when the negative meaning is lost, the verb itself must appear in the negative form. This recalls the English negative subordinating conjunctions *unless* and *until*. As the corpus data shows despite the second construction still

being less common, the number of such sentences is rising. This poster will discuss this in detail.

Keywords: aniž; conjunction; negation; loss of meaning; linguistic change

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Český národní korpus: https://www.korpus.cz/ (accessed 18.01.2020)

ɛ- vs *a*- alternation in the auxiliary and distribution of OCls in Calabro-Lucanian dialects

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1. The data. In the Romance dialects spoken in the area between Calàbria (Morano(1)) and Basilicata (Colobraro(2)), in the active form of transitive verbs the auxiliary *have* alternates two allomorphs, one with the root vowel *a*-, and one with *ɛ*-. The alternant *a*- lexicalizes, i.e. incorporates the [+back] exponent of the 3rd person IA, in (1a)/(2a),

(1) a. aɟɟu vist-u/a/i
(him/her/them)have.1SG seen-MSG/FSG/PL
'I have seen him/ her/ them'

(2) a. a: camatə
(him/her/them)have.3SG called
'(s)he have called him/her/them'

The alternant *ɛ*- occurs in the other contexts, including non-active readings (unaccusatives) and unergatives, as in (1b)/(2b)

(1) b. ɛɟɟu rurmut-u / vinut-u
have.1SG slept / come
'I have slept'

(2) b. ɛ vvənutə / ddurmutə
have.3SG come/ slept
'(s)he has come/ slept'

Moreover, *ɛ*- characterizes active contexts where the IA is lexicalized by 1st / 2nd person OCls or DPs, (1c)/(2c),

(1) c. t ɛɟɟu vist-u
you have.1stSG seen-MSG
'I have seen you'

(2) c. m ɛ ccamatə
me have.3SG called-MSG
'(s)he has seen you'

Finally, the alternant *ɛ*- occurs if the 3rd person OCl is independently lexicalized by the *l*- alternant , such as in negative contexts, (1d), and deontic periphrasis *have-to-V*, (2d) (Lausberg 1939).

(1) d. nu ll ɛɟɟu vist-u
Neg him have.1SG seen-MSG
'I did not see him'

(2) d. l ɛddʒ a ca'ma
him/her/them have.1SG to call'
'I have to call him/ her/ them'

This distribution leads us to identify *ɛ*- as the basic allomorph. In Basilicata dialects *a-/ɛ*- allomorphy coexists with the enclisis of 3rd person OCls in the 1st/2nd and plural persons of the auxiliary, (2a').

(2) a'. ɛddʒ-/ ɛj- u/a/i camatə
have.1SG-/2SG- him/ her/ them called
'I have/ you have called him/ her/ them'

With lexical verbs beginning with a consonant OCls show vocalic forms coinciding with the gender/ number nominal inflection in proclitic position, as illustrated in (1e)/(2e).

(1) e. u/ a/ i 'virɪ-rɪ
him/ her/ them see-3SG
'(s)he sees him/ her/ them'

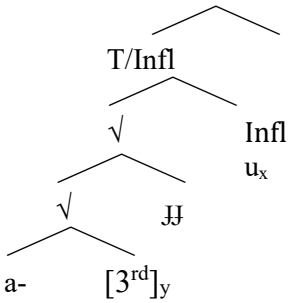
(2) e. u/ a/ i ′cama-ðə
him/ her/ them call3SG
'(s)he calls him/ her/ them'

The following generalizations may be drawn:

- ✓ 3rd person OCls have the alternants: *u/a/i* with lexical verbs/enclisis on auxiliary, *l-u/a/i* in negative/deontic/imperatives contexts, ∅ with *a-* auxiliary
- ✓ The manner in which OCls are lexicalized is governed by the negative (and the modal) operator and by the person of the verb (Colobraro)
- ✓ *have* allomorphy: *ɛ-* vs *a-* externalizing the 3rd person internal argument in active syntax

2. Discussion. The alternation *ɛ-/a-* belongs together with well-attested South-Italian phenomena concerning the lexical expression of 3rd person OCls with the auxiliary (Savoia/Manzini 2010, Manzini/Savoia 2010). Unlike Savoia/Manzini (2010), whereby the auxiliary in C subsumes the 3rd person properties, we connect the different realizations of 3rd and 1st/2nd person IA to the content properties of lexical items. We assume that lexical elements, including morphemes, are fully interpretable, and contribute to externalizing the syntactic structure (differently both from DM and cartographic paradigm). So, in the case of the incorporated 3rd person IA we may propose the representation in (3):

(3)



A question raised by an anonymous reviewer needs to be clarified. In these dialects there is no phonological process or constraint preventing [l] from combining with [a] or [ɛ], as shown by examples like [ˈl ɛriva] 'the grass', [ˈl atʃina] 'the grapes' (Morano). More to the point, *l-* clitic regularly occurs before *have* with lexical reading, as in [l addʒə, l ɛjə…] 'I have it, you have it…' (Colobraro). In other words, nothing suggests a phonological origin of this phenomenon as due to the amalgam of clitic *l* and *ɛ-*; rather, the distribution of the *ɛ-* (from 'be') and *a-* (from 'have') according to verbal classes and syntactic structure is crucially implied. Moreover, the fact that the alternation concerns only the auxiliary creates a further obstacle to mere morpho-phonological treatments. Nor can we assume an alternation between ∅ and *l* on principled base: we assign an interpretable content to lexical items, inflections/ clitics included, and exclude not processable categories. Finally, the drop of 3rd person OCls before the auxiliary interplays with the enclitic occurrence in some varieties, like the one of Colobraro in (2a')-(4), making typical DM morpho-phonological adjustment rule (e.g., impoverishment) an inadequate solution.

3. A proposal. Returning now to our analysis, the agreement may be accounted for as the morphological manifestation of the identity between referential feature sets. So, *a-* is able to introduce the referential properties interpreting the 3rd IA, as in (4).

(4) [T a_y-ɟɟu [[VP v [VP [PRT $vis_{x,y}$-t-u_y]]]]] Morano

The co-occurrence between the allomorphy *ɛ-/a-* and enclisis of 3rd person OCls highlights an interesting connection. If, as Roberts (2010) suggests, the Romance OCls can be considered the true head of agreement for *v* phase, then the two morphological solutions investigated seem to satisfy the same requirements. The *a-* alternant is able to lexicalize the agreement of *v* on its IA since the edge of *v* is accessible by auxiliary (T) in the CP phase (Chomsky 2001). On this point, we argue that the inability of the auxiliary *ɛ-* to attract the object (cf. Roberts 2010) follows from its lexical nature overlapping with *be* as shown by Baldi/Savoia (2019). The insertion of a specialized alternant overcomes the deficient nature of auxiliary, in (4); otherwise, OCls are inserted in the immediate domain of *v*, (5).

(5) [T ɛddʒ [OCl u_y [VP v [VP [RT $cama_{x,y}$-t-ə y]]]]] Colobraro

DOM effect can be connected to the deictic nature of 1st/2nd person OCls, fully interpretable in relation to the discourse universe independently of the event lexicalized by v/V. Contrary, 3rd person OCls are interpreted in relation to the event requiring to be licensed by *v*. As to negative contexts, we rely

on the idea that referentially richer alternants including the definiteness root *l-* are required for 3rd person OCls in contexts where the pronoun is out of the scope of negative operator, (see Manzini and Savoia 2017). Other phenomena seem to involve in turn referential hierarchies (enclisis-verbal person relation) and modal properties (imperative/ deontic periphrasis).

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When bilinguals switch between languages: Impact of switching on Voice Onset Time

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Phonetic consequences of performing in a bilingual mode (Grosjean 2008) have been investigated in language-switching (LS) tasks, (Olson 2013) typically picture naming, and in code-switching (CS) tasks (Bullock et al. 2006). For CS, with both languages used within a single utterance, phonetic effects are often reported in words appearing *before* the switch from one language into the other, and are interpreted as a consequence of speech planning (e.g. Fricke et al. 2016). However, planning cannot explain carry-over phonetic effects found in LS picture-naming tasks in which new picture-and-language cues are given only *after* the previous word has been uttered. To our knowledge, phonetic effects of language co-activation have not been tested with the same bilinguals for both code- and language-switching.

Fourteen high-proficiency Czech speakers of L2-English were recorded in two sessions, each time performing a LS picture-naming task followed by a CS sentence-reading task. In Session-A, 75% of the stimuli were in one language (English or Czech) and 25% in the other, in both tasks; in Session-B the language bias was reversed. Session order was counterbalanced. In each task, the VOT of ten target *k*-initial words, 5 in switch and 5 in control non-switch positions, was measured. The words were English in the English-biased session (long-voice-lag /k/) and Czech in the Czech-biased session (short-voice-lag /k/). Questions: (1) In the CS task, will the VOT of /k/ in the target words be shifted towards the values of the language speakers switch into? (2) In the LS task, will the VOT of /k/ in the switch position be shifted towards the values of the previously spoken language? (3) Will the effect of planning (CS) be different from the effects of residual language activation (LS)?

English and Czech mean VOT values were submitted to repeated-measures ANOVAs (Task [LS, CS] and Position [Switch, Non-switch] as within-subject variables). Results for English VOT revealed an effect of Position and a Task-by-Position interaction: Czech-to-English switching led to convergence, i.e. shorter, more Czech-like VOT of English /k/'s in the LS picture-naming task but not in the CS task. For Czech VOT, an effect of Task was found – target Czech /k/'s produced during CS had shorter (more Czech-like) VOT than during LS. There was a near-significant Task-by-Position interaction ($p = .0843$): in the CS task, but not in the LS task, English-to-Czech switching led to divergence, further shortening of VOT of Czech /k/.

Language switching did not affect the bilinguals' dominant language, Czech, but it increased phonetic interference in their L2 English. Speech-planning available in code-switching may have allowed the bilinguals to keep pronunciation of /k/ separate in their languages: to maintain the acquired English-like VOT when saying L2-English words and enhance native VOT in L1-Czech words.

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A semantics for relative pronouns: Wh-based pronouns and the Czech *jenž*

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In the semantic literature, relative pronouns have received much less attention than interrogative ones. I aim at filling this gap and offer a novel semantic analysis of relative pronouns, building on state-of-the-art analyses of interrogative pronouns and incorporating some traditional observations and assumptions about relative pronouns.

Relative pronouns are often based on their interrogative kin. A paradigmatic example is the Bulgarian *koj* 'who.I(NTERROGATIVE)' vs. *kojto* 'who.R(ELATIVE)' (Rudin 2009). Here I call the postfix *-to* and its functional equivalents in other languages (Hungarian *a-,* Greek *o-,* Slovenian *-r,* etc.) the R(elative)-particle.

Following much recent work (Beck 2006; Cable 2010; Kotek 2019; a.o.) I take interrogative wh-words to denote alternatives; e.g. $[\![\text{who.I}]\!] = \{x : \text{HUMAN}(x)\}$. I propose that R-particles take the set as input, implicating the structure [R [who.I]], and return its characterstic function, if the input is a superset of the NP head denotation; for [$_{\text{NP}}$ man [$_{\text{CP}}$ who.R λ_1 [$_{\text{TP}}$ t_1 smokes]]], $[\![\text{who.R}]\!] = \lambda x[\text{HUMAN}(x)]$ if $\underline{\{x : \text{HUMAN}(x)\} \supseteq \{x : \text{MAN}(x)\}}$. The result combines with its sister which in turn combines with the NP head (both by predicate modification), yielding $\lambda x[\text{HUMAN}(x) \wedge \text{MAN}(x) \wedge \text{SMOKES}(x)]$. The underlined superset presupposition is essentially what Rooth's (1992) focus-sensitive squiggle contributes, the only difference being that the subset is not resolved contextually (as in question–answer congruence) but clause-internally. In other words, the R-particle is essentially a Rooth-style squiggle adapted to create an explicit anaphoric link between the relative pronoun (or: the internal NP head on raising/matching analyses) and the (external) NP head of the relative clause (a full-fledged analysis will be provided in the talk). Also, it is a functional sibling of Cable's (2010) Q-particle: what the Q-particle does for interrogative wh-words – namely operate on alternatives and establish a relation to the interrogative complementizer, the R-particle does for relative wh-words – it operates on alternatives and establishes a relation to the relative head.

The Czech relative pronoun *jenž*, illustrated in (1), provides further evidence for the proposed interaction between the R-particle and alternatives. The pronoun is based on the strong pronoun (*jemu* → *jemuž*), which, as illustrated in (2), entails the activation of alternative denotations – whether C(ontrastive) T(opic) or F(ocus)-alternatives, correlating with initial and final position, respectively, and with phrase-level accent. It is in complementary distribution with the pronominal clitic *mu,* which is non-contrastive and lacks accent. The R-particle *-ž* (cognate of the Slovenian *-r*) operates on the alternatives introduced by *jemu* and relates them the nominal head *muž.*

(1) muž jemuž David věří
man.NOM him.DAT.R David trusts
'man who David trusts'

(2) {Jemu$_{\text{CT}}$} D. {mu} věří {jemu$_{\text{F}}$}.
him.DAT D. him.CL.DAT trusts him.DAT
'David trusts him.'

Keywords: relative pronouns; semantics; wh-words

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We thought it was special, but it's not: (Non-)Local allomorphy in Slovenian

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Slovenian is one of the languages used as a source of data for a model of non-local allomorphy in Božič (2019). Specifically, Božič (2019, 501) argues for non-local allomorphy in Slovenian because the root of the verb seems to differ depending on finiteness and this interaction occurs across the theme vowel (*ž-e-ti* 'to reap' vs. *žanj-e-m* 'I reap'). We propose a local account of root allomorphy in Slovenian as a consequence of general minimality condition in the sense of Piggott (2010).

Slovenian verb forms have the structure Root (√) – Theme (θ) – Tense & Agreement Morphology (*ϕ*). Verbs can have different theme vowels (TVs) in finite and non-finite forms, but they don't have to, and their roots can either have a vowel, e.g. *vid*, or are consonantal (e.g. *sp*), (1). In verbs with root allomorphy, (2), there is always a combination of the two: one allomorph of the root contains a syllable, whereas the other one is consonantal. This means that there are no verbs which have two consonantal or two syllabic root allomorphs, (3).

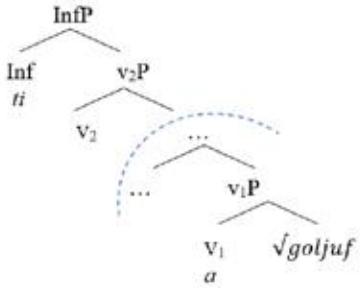
(1)	√-θ1-INF		√-θ2-1PL	
	(a) vid-e-ti	'to see'	vid-i-mo	'we see'
	(b) sp-a-ti	'to sleep'	sp-i-mo	'we sleep'
	(c) pas-∅-ti	'to graze'	pas-e-mo	'we graze'
(2)	√-θ1-INF		√-θ2-1PL	
	(a) ž-e-ti	'to harvest'	žanj-e-mo	'we harvest'
	(b) br-a-ti	'to read'	ber-e-mo	'we read'
	(c) ved-e-ti	'to know'	v-e-mo	'we know'
(3)	(a) *žinj-e-ti	žanj-e-mo		
	(b) *br-a-ti	kr-e-mo		

The proposed account of root allomorphy is based on two components. First is the structure of the verbal domain proposed in Simonović and Mišmaš (2020) who argue that verbs in Slovenian are spelled out in two cycles. This accounts for the prosody of the Slovenian verb, where stress consistently gets placed either on the final syllable of the root (e.g. in *vijúg-a-ti* 'wind') or the TV (e.g. in *goljuf-á-ti* 'cheat'). The verbal root always belongs to the first cycle, whereas tense and agreement morphology consistently belongs to the second cycle. Assuming that Slovenian prosody places stress on the final syllable of the root cycle (Simonović forthcoming), they show that when the TV is in the root cycle, the TV gets stressed, (4a), but if the TV is outside the lowest cycle, the stress ends up on the root, (4b). The second component is a minimality condition for the output of the root cycle: it has to be at least one syllable, see Piggott (2010) for a typology. Finally, we also assume that roots which display allomorphy have an ordered-pair representation. For instance, the root of *ž-é-ti~žánj-e-mo* is /ž, žanj/.

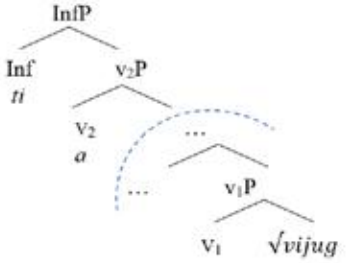
If we now consider the example (2a), in *ž-é-ti* stress is on the TV, implying the structure in (5a). As for the minimality condition, since the root and the TV form a syllable, the outcome is a grammatical one for PF. In the present tense form *žánj-e-mo*, however, the stress is on the root, implying that the TV is *not* in the root cycle. The form with the first allomorph **ž-e-mo* is ungrammatical, because the output of the root cycle (*ž*) is not a syllable, (5b). This leads to the insertion of the second allomorph as a last resort, (5c), which leads to the attested form *žánj-e-mo*.

There are 24 verbs with root allomorphy in Slovenian. As we will show in the talk, while we do need to assume an allomorphic VI (still local) for just 2 roots, our account runs just on the proposed phonological restriction for the remaining 22 roots.

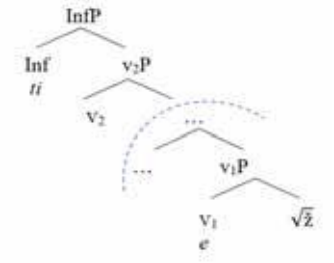
(4) (a)



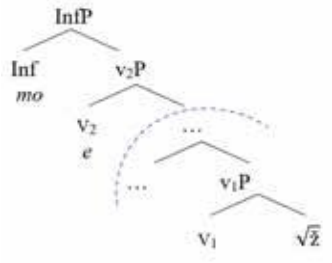
(b)



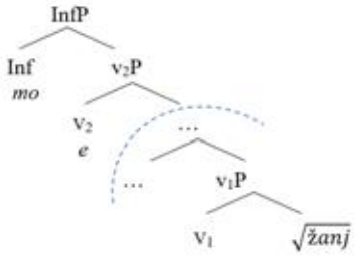
(5) (a)



(b)*



(c)



Keywords: verbs, stress, root allomorphy, Slovenian, Distributed Morphology

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The 'fuzzy' classifier in Longdu (Zhongshan Min)

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Longdu is one of the three Zhongshan Min variants spoken in a Min dialect enclave in Zhongshan County, Guangdong Province in southern China. Zhongshan Min belongs to Northeastern Min (Bodman 1982). Min is one of the major dialectal groups in China. We focus our discussion on one particular classifier in Longdu, which we call the 'fuzzy' classifier. This classifier denotes an indeterminate amount and is compatible with both bounded (e.g., *apples*) and unbounded objects (e.g., *water*), similar to the English *some*. Interestingly, this classifier shows distinctive forms depending on its definiteness interpretation. The indefinite form is nɛɪː^{11}, as in (1) and the definite form is aː^{55}, as in (2).

The explicit definiteness marking provides a glimpse into the definiteness of the classifier when embedded in different kinds of noun phrases. When preceded by a bare modifier, including possessives, locatives, relative clauses, etc., only the definite fuzzy classifier can be used. This is shown (3) with a relative clause bare modifier. When a demonstrative is present, either the definite or the indefinite form of the fuzzy classifier can be used, as shown in (4). In a lot of Chinese dialects, reduplication of the classifier gives rise to universal quantification. The same applies to Longdu and only the indefinite version of the classifier is allowed to reduplicate, as shown in (5).

We adopt Sio (2006, 2008), assuming that referential properties in Chinese are regulated by the interplay between two referentially related layers, the top layer is the Specificity Phrase (SP) and the bottom layer the Classifier Phrase (ClP). The two layers are regulated by an AGREE relation (Chomsky 2000, Pesetsky and Torrego 2007). Classifiers can be either definite or indefinite. In the former case, the classifier comes with a *u*S [+def] feature (an uninterpretable SPECIFIC feature with a [def] value). In the latter case, the classifier comes with no S feature/value, ∅. The *i*S [ ] feature on S is the probe and the *u*S [+def] feature is the goal. The *i*S [ ] feature on S agrees with the *u*S [+def] feature on the classifier. The classifier, with its *u*S [+def] feature, moves to the S head. The nominal is interpreted as definite. When the classifier comes with no S feature/value, the S head remains unspecified in syntax and is assigned an 'indefinite' interpretation at LF. This is shown in (6). Demonstratives are inherently definite, so they carry a *i*S [+def] feature. When a demonstrative is merged in SpecSP, the S head receives a [+def] value from the demonstrative. The structure is compatible with both a definite classifier (the *u*S[+def] feature also agree with S in such cases) and an indefinite classifier. We assume the same mechanism applies to all classifiers, but only the fuzzy classifier shows a distinct form for definite and indefinite interpretation in Longdu.

Data:

(1)	wɑ^{13}	kʰo^{55}	mɛː^{13}	nɛɪː^{11}	pʰəŋ^{31}gwɔː^{13} /	nɛɪː^{11}	t͡ʃʊi^{13}
	1SG	go	buy	CL$_{\text{fuzzy-indef}}$	apple	CL $_{\text{fuzzy-indef}}$	water

'I go buy some apples/water.'

(2) α^{55} pʰəŋ^{31}gwɔː^{13} / aː^{55} t͡ʃʊi^{13} ɦɔ^{55} ɦɔ^{13} mɪ^{31}
CL fuzzy-def apple CL fuzzy-def water very good taste
'The apples/water are/is very tasty.'

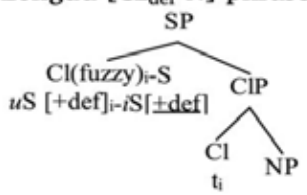
(3) sɔŋ^{31}moː^{31} mɛː^{13} α^{55} pʰəŋ^{31}gwɔː^{13} hɔ^{13} hɪɛ̃ʔ^{31}
yesterday buy CL fuzzy-def apple good eat
'The apples [I] bought yesterday are yummy.'

(4) t͡sɪ^{13} nɛɪː^{11} / α^{55} hɑːn^{31}jɛ^{13} m^{31} hɔ^{13}hɪɛː^{31} gɛ^{33}
this CL fuzzy-indef CL fuzzy-def thing NEG yummy SFP
'These things are not yummy.'

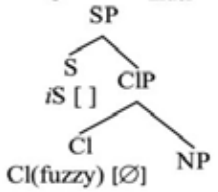
(5) nɛɪː^{11} nɛɪː^{11} pʰəŋ^{31}gwɔː^{13}
CL fuzzy-indef CL fuzzy-indef apples
'all the apples'

(6)

a. **Longdu [CL$_{def}$-N] phrase**



b. **Longdu [CL$_{indef}$-N] phrase**



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Predictive effects of number-marked copula in sentence processing of Czech 2-year-olds

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There are conflicting findings regarding the early comprehension of grammatical number marking in verbs (Brandt-Kobele & Höhle, 2010; Johnson, de Villiers, & Seymour, 2005; Lukyanenko & Fisher, 2016). Two preferential-looking studies reported here examined the comprehension and predictive effects of number marking in the comprehension of the Czech copula "být" (to be). They are first such studies in a language with rich inflectional morphology

In both studies, children saw pairs of pictures showing different objects. In the critical trials, one of the objects was shown in a single instance, while the other object was shown in a group of two to four. Children then heard a sentence that described one of the pictures using a copula structure such as:

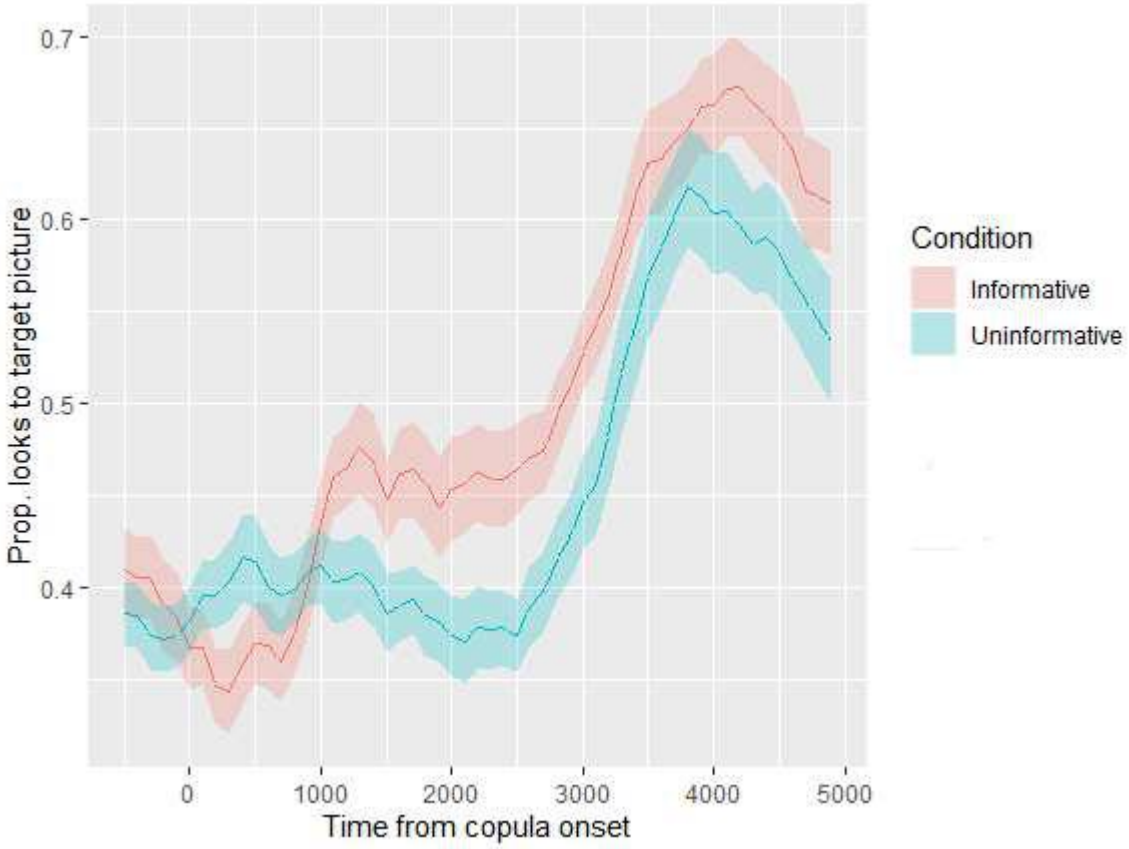
> Podívej, tady je/jsou na obrázku kniha/knihy.
> Look there is/are in the picture book/books.

Children's faces were recorded and their gaze direction coded, focusing on the effect of the copula on the proportion of looks towards the target picture. Differences were tested using random permutation analysis.

In Experiment 1, 40 children saw 18 trials, 6 each with singular and plural targets, and 6 in control condition, where both pictures showed single or multiple objects and the number morpheme was thus not informative. No significant effects were found. Experiment 2 examined 27-month-olds. Number of trials was increased to 16 experimental and 16 controls, which used the same picture pairs. Control trials had sentences without any number-marking morpheme before the target noun. There was a clear effect of number marking as early as 600 ms after copula, confirmed as statistically significant by random permutation analysis (see Figure 1). The effect was stronger in children with better scores in an offline vocabulary comprehension task. Overall, the results show that young 2-year-olds use their knowledge of grammatical number to anticipate upcoming words but the effect requires sufficiently powered experiment to be shown.

Keywords: grammatical number; language acquisition; copula; early comprehension

Figure 1: proportion of looks towards the picture with the number of instances (single vs. multiple) corresponding to the copula and noun grammatical number in the target sentence (sg. vs. pl.). Copula was present in the Informative condition only.



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A phonological model for lexical variants in Czech Sign Language

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Data and problem: In this talk we bring new data from Czech Sign Language (ČZJ) and elaborate Sandler's phonological Hand-Tier model (HTM; Sandler 1989, 2006) originally constructed for the representation of lexemes in American Sign Language. Our analysis is motivated by a practical task: to classify variants and synonyms during the lemmatisation process in Dictio, the first ČZJ dictionary online. For spoken languages, a dictionary entry standardly contains the citation form of a lexeme and all the variants (Čermák 1995); e.g., the gender variants in Czech: brambor (potato-masculine) / brambor-a (potato-feminine). However, two (or more) expressions of a different word-forming nature are not considered variants but synonyms (Filipec 1995); in Czech jazykověda (linguistics; traditional Czech lexicon) and lingvistika (linguistics; English/Latin origin). The common ground of the variant- and synonym-pairs is their shared meaning, but their place in a dictionary entry differs. What seems as a simple task for spoken languages (common root for variants, different roots for synonyms) becomes a challenge for sign languages. Typologically, sign languages are close to the isolating type. Cross-linguistically, there is very little evidence for affixation (see e.g. Meir 2012) and our problem moves from the morphological to the phonological level. Each lemexe is formed by three simultaneously articulated parameters: handshape, place, and movement. It remains unclear which of them can be seen as a root (Zwitserlood 2012). Since Stokoe (1960/2005) the three parameters are treated as categories close to phonemes. **Analysis**: Fenlon et al. (2015) note that a pair of signs is likely to be variants in case they differ in just one parameter, but this becomes non-trivial facing the data. We employ HTM (with some refinements) to clearly define the minimal difference as a feature change in one of the main phonological categories the features are grouped into (three colors in Figure 1). Consequently, also multiple feature changes within one main parameter do not indicate synonyms but variants. Apart from other phonological models – e.g., Move-Hold model (Liddell&Johnson 1989), Prosodic model (Brentari 1998) – HTM accurately captures the subtle contrasts observed in ČZJ and important in this lexicographic task. With this tool in hand, we will show the representation of ČZJ data. First, we will show the simple pairs like PRAGUE#1 and PRAGUE#2, obvious variants differing just by the handshape parameter. We will explain the importance of a phonological model on puzzling pairs like FOURTEEN#1 and FOURTEEN#2 At the phonetic level, we observe four differences: orientation of both the dominant and non-dominant hand, handshape of the non-dominant hand, location of contact. Using HTM, we classify the pair as variants: the last three differences fall within one parameter (place of articulation) and the orientation of the dominant hand follows from the location (it is relative). Hence, the contrast is phonetic. **Contribution**: Our research contributes the following: a) empirical level: phonological description of (deeply understudied) ČZJ; b) practical level: resolving a part of lemmatisation issues in Dictio; c) theoretical level: a qualitative shift of HTM based on the contrasts in ČZJ data; we work out the exact position and function of [rep] and [contact] and update the model for the secondary movement.

Keywords:
sign language;
phonology;
variants

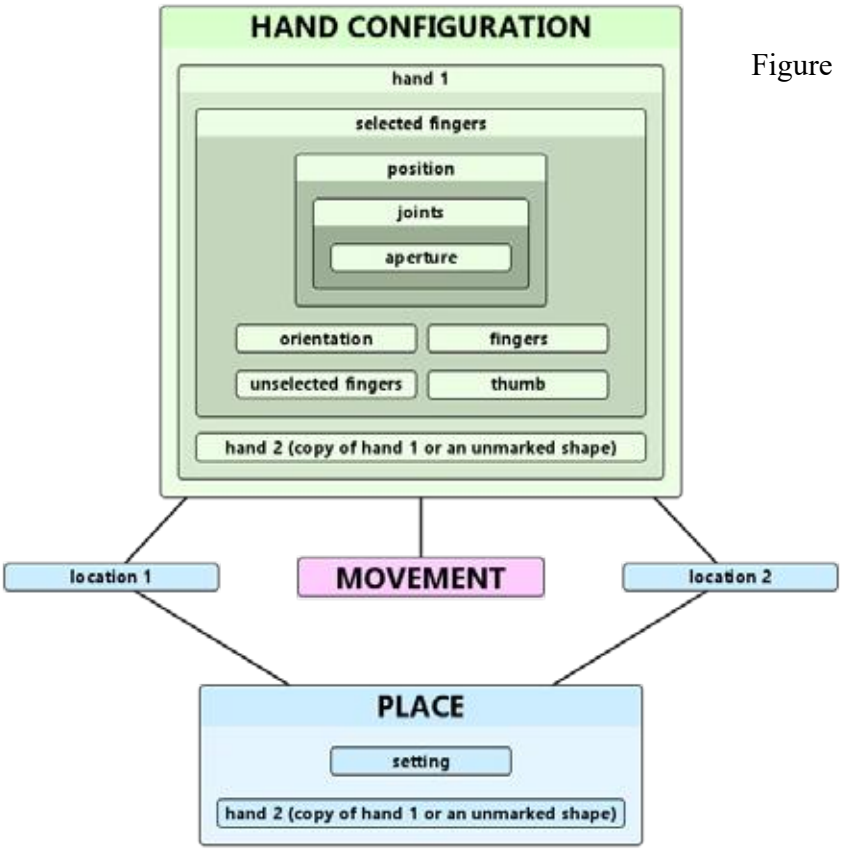

Figure 1

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To The Best of My Memory and Belief. Learning New Language Forms

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Univerzita Palackého

I wish to propose a previously unexamined factor instrumental in learning vocabulary, which may account for the differences between learning a native and a foreign language: the development of critical thinking in adolescence. The hypothesis being proposed here is that the difficulties experienced in foreign vocabulary development result from the learner's readiness to question new information. Following Gilbert's (1991, p. 111) claim that rigorous critical thought is the last to emerge and children are prone to accept propositions uncritically, I suggest that it is to this absence of doubt that children owe their success in remembering lexical items after a single exposure, a phenomenon referred to as *fast mapping*. The rationale is that the mental belief systems are memory's filtering mechanism for what to retain: information perceived as questionable is allowed to decay without being granted access to long-term memory.

I present the results of an experiment suggesting that memory of new language forms is enhanced by the learner's conviction in their validity. Briefly, the experimental design involves manipulating the learners' perception of the validity of language forms to be learned by having their meanings either corroborated or questioned by a native speaker acting as an assistant "confederate". Subjects were then given a surprise quiz one week after the first experience with the new lexical items. It was found that subjects who had been given strong reasons to trust their understanding of the new forms' meaning and function were then significantly more likely to remember these forms a week later than those who had been led to question their understanding of the new language forms. The experiment focused on the retention of formulaic sequences, a choice motivated by the realization (especially within usage-based approaches to language acquisition) that the failure to acquire sufficient numbers of formulaic sequences is behind the impression of unidiomatic language production in a second / foreign language. More generally, not knowing formulaic language is linked to lower levels of proficiency in a foreign language (e.g. Pawley & Syder, 1983; Schmitt, 2004) and further, foreign learners are indeed known to produce fewer multiword sequences than native speakers and they also produce word combinations that sound unnatural to native speakers (e.g., *turn attention to*) (Wray 2002; Christiansen & Arnon 2017). If the ability to accept new information is a factor responsible for variation in the acquisition of formulaic expressions, it may explain why children differ from adult learners in their successful acquisition of formulaic sequences, which by extension may, at least in part, account for the age differences in language acquisition.

Keywords: lexical memory, belief, formulaicity

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VOS-VSO alternations in Kaqchikel

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Keywords: syntax, VSO-VOS alternations, head movement, remnant movement

Introduction: In this paper I argue against the uniform head movement analysis for Mayan languages, as proposed by Clemens and Coon (2018) (C&C) in which both VSO and VOS orders are derived via a verb movement to the clause-initial position. Specifically, their account that the surface VOS orders follow from, (i) postsyntactic reordering of arguments (ii) right-side subject topicalization and (iii) heavy NP shift, do not account for discourse neutral VSO-VOS alternations in Kaqchikel. To account for VSO-VOS alternations in Kaqchikel I argue for a syntactic analysis in which either the subject DP or the VP move to a spec,IP position, yielding the respective orders. This correctly accounts for the basic word order facts in Kaqchikel, as documented in Broadwell (2000). **Background**: In many Mayan languages, VOS orders occur readily when objects are bare NPs, but are unavailable with DP objects. Determiners, demonstratives and proper names cannot appear in VOS object position, pertaining to the presence of D^0 material, as only NPs can be objects in VOS orders, but not DPs (cf. 1a). If both arguments are postverbal and the object is a DP, the resulting order must be VSO (cf. 1b) (Clemens and Coon 2018:247):

(1) a. Tyi y-il-ä x'ixik wiñik [Ch'ol]
PFV a3-see- woman man
'The man saw the woman.' (Vázquez Álvarez 2011:21)

b. Tyi i-kuch-u aj-Maria ili si' [Ch'ol]
PFV a3-carry- CLF-Maria DEM wood
'Maria carried this wood.'

To account for (1a) C&C reject right-side specifiers (a la Aissen 1992) as they "present complications for rigid VSO languages like Qanjob'al and Mam" (p. 249), presumably because subjects in VSO must be left-side specifiers; whereas a *v*P-fronting analysis by Coon (2010) is rejected because it "would be difficult to extend to languages with rigid VSO orders" as it is "unclear how children would acquire predicate fronting if it were consistently remnant predicate fronting" (p. 250). As a solution C&C propose that VSO is the basic word order derived via verb movement to the initial position, while VOS is derived from VSO in three different ways: (i) postsyntactic restructuring of bare NP objects, (ii) heavy-NP shift, and (iii) right-side topics. Since the object in (1a) lacks the determiner and presumably the D^0 layer, C&C suggest that objects are NPs that postsyntactically move to yield VOS orders in order to maintain prosodic constituency. In contrast, object DPs contain D^0 heads which are phase heads and therefore cannot move postsyntactically. **Analysis**: C&C analysis is generalized to account for the VOS in Mayan family; However, it fails to account for the verb-initial orders in Kaqchikel as they can be interpreted as either VOS or VSO, as long the arguments are of equal degree of definiteness (cf. 2a-b), contrary to what C&C predict to be possible. If however one of the arguments is indefinite and the other definite then order *must* be VOS where the object is indefinite (cf. 3a-b).

(2) a. x-r-oqotaj ri tz'i' ri me's [Kaqchikel]
COMPL-3.SG.ERG-chase the dog the cat
'The dog chased the cat.'/ 'The cat chased the dog.'

b. x-r-oqotaj jun tz'i' jun me's
COMPL-3.SG.ERG-chase a dog a cat
'A dog chased a cat.'/ 'A cat chased a dog.' (Broadwell 2000)

(3) a. x-r-oqotaj jun me's ri tz'i' [Kaqchikel]
COMPL-3.SG.ERG-chase a cat the dog
'The dog chased a cat/*'A cat chased the dog."

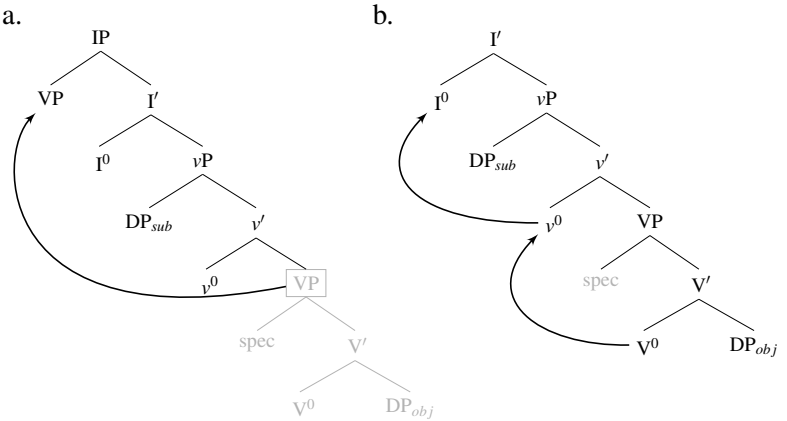
b. ?*x-r-oqotaj ri tz'i' jun me's
COMPL-3.SG.ERG-chase the dog a cat

Thus, Kaqchikel *does* exhibit VOS orders in which objects are definite involving the D^0 layer suggesting that the VOS-VSO alternation in (2a-b) is syntax-internal, rather than the result of the postsyntactic object movement. Furthermore, heavy (subject) NP shift is ruled out, as well the right-side (subject) topicalization, as there are no reasons to think that the subject moves (topicalizes) to the clause-final position, since there are no prosodic differences between the two readings.

To account for the ambiguity in (2), I propose that the two orders are derived by either a head movement yielding VSO, or VP-remnant movement yielding VOS. This analysis correctly accounts for the fact that there are no prosodic distinctions between the two readings in (2a) and (2b). In (3) the definite DP *ri tz'i'* 'the dog' must follow the indefinite DP *jun me's* 'a cat', and it must be the subject of the verb. A relevant observation that can be made is that the definite arguments cannot precede the indefinite (*DEF<INDEF).

A uniform head movement is untenable for (2) because if the verb moves to the initial position we are forced to postulate a strong feature that optionally triggers object shift, allowing the object to cross the subject yielding VOS orders. Uniform VP-remnant movement is also out since we run into the same problem of having an optional object shift out of VP, before the VP fronts. Consequently, we are left with the option of having either VP move to the front along with the direct object over the subject, yielding VOS (cf. 4a), or, alternatively, verb alone moves to the front yielding VSO (cf. 4b).

(4) a. b.



This type of semantically vacuous optionality has been proposed by Biberauer and Richards (2006) who argue that movement can be triggered by a feature that appears on multiple elements. Consequently, either V or VP, both containing the [V] feature, could be triggered for movement in the derivation allowing for both orders. I assume that the projection to which either VP or the verb moves is IP. Furthermore, I assume that the IP projection bears an EPP feature that must be checked either by VP, or in the case of verb movement by the subject which raises to spec,IP in (4b). Since Kaqchikel imposes the *DEF<INDEF restriction, head movement is prohibited, and therefore the $V0_{indef}S_{def}$ orders are derived via VP-movement only. **Conclusion**: The data from Kaqchikel shows that VOS orders are available even if the object contains a D^0-layer, as instantiated by the presence of both definite and indefinite articles. C&C's head movement analysis involving (i-iii) (see above) does not account for the data in Kaqchikel, as VOS orders may come with definite objects (cf. 2). Right side subject topicalization (ii) is ruled out as there are no prosodic differences between VSO and VOS interpretations. The alternation is also available with light subject NPs , suggesting that the heavy (subject) NP shift (iii) cannot be at play. As a solution, I have argued that syntax optionally outputs verb movement and VP-movement analysis that allow for the ambiguous interpretation of verb initial orders. In conjunction with the *DEF<INDEF restriction, the verb movement analysis is blocked and the $V0_{def}S_{indef}$ orders are correctly ruled out.

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New smell categories formed with and without consistent verbal labels

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One unresolved source of controversy in cognitive science is the power of language to influence people's categorical perception of sensory input. In the domain of vision, evidence for, as well all against, language-specific effects often comes from crosslinguistic studies on the categorical perception of objects (e.g., Boutonnet et al., 2013 vs. Malt et al., 1999), colors (e.g., Thierry et al., 2009 vs. Franklin et al., 2005), and motion events (e.g., Athanasopoulos et al., 2015 vs. Papafragou et al., 2008). Critics argue that attributing language effects, or their absence, to results of tests with speakers of different natural languages is problematic because possible confounding factors such as variation in people's culture-specific experiences or in previous knowledge cannot be excluded (e.g. Freundlieb et al., 2012). These potential confounds can be eliminated, for instance, by training the same group of speakers to categorize familiar concepts with consistently or inconsistently paired novel verbal labels (e.g. Lupyan & Ward, 2007) or even better, combining new verbal labels with unfamiliar or difficult-to-name concepts (e.g., using tactile stimuli, Miller et al., 2019).

In this study, English native speakers were trained to categorize odors which were consistently or inconsistently paired with novel words. The aim was to test two alternative theoretical accounts that would predict distinct outcomes. Under the "universalist" view (e.g., Gleitman & Papafragou, 2005), one would expect no language effect on the formation of odor categories because categorization operates independently from linguistic encoding. In contrast, "relativist" accounts (e.g., Boroditsky, 2001) suggest that categorization would be affected by odor-word pairing consistency because more consistent verbal cues will help make key perceptual features more salient and thereby enhance category formation.

Two training conditions were designed to test the effect of verbal labeling on the ability to categorize olfactory stimuli. In the first training condition (CONCORD), 22 participants performed the task with 75% consistent smell-label parings, and in the second condition (DISCORD), 22 participants received training with only 25% consistent smell-label pairings (Fig. 1). The task and the frequency of encountering each smell and each pseudoword were identical across the two training conditions. The only manipulation was in the high vs. low consistency of smell-label pairings.

The presence of meaningless pseudowords enhanced the formation of olfactory categories when pseudowords and odor stimuli were consistently paired. Learning gains were present but delayed and significantly reduced with inconsistent pseudoword-odor pairs (Fig. 2). These findings bring two new insights to previous research on labeling effects. First, they demonstrate that new verbal cues undergo multisensory integration with co-presented odors and affect the capacity to categorize olfactory input. And second, they also demonstrate that strong language links aid olfactory perceptual processing and improve expertise in odor categories markedly faster than weak language links do. The results show that different types of linguistic input (i.e., consistency of odor labelling) can influence category formation in substantially different ways, raising the possibility that not just naming, but the underlying conceptual representation of odors may differ across cultures in accordance with the language people speak.

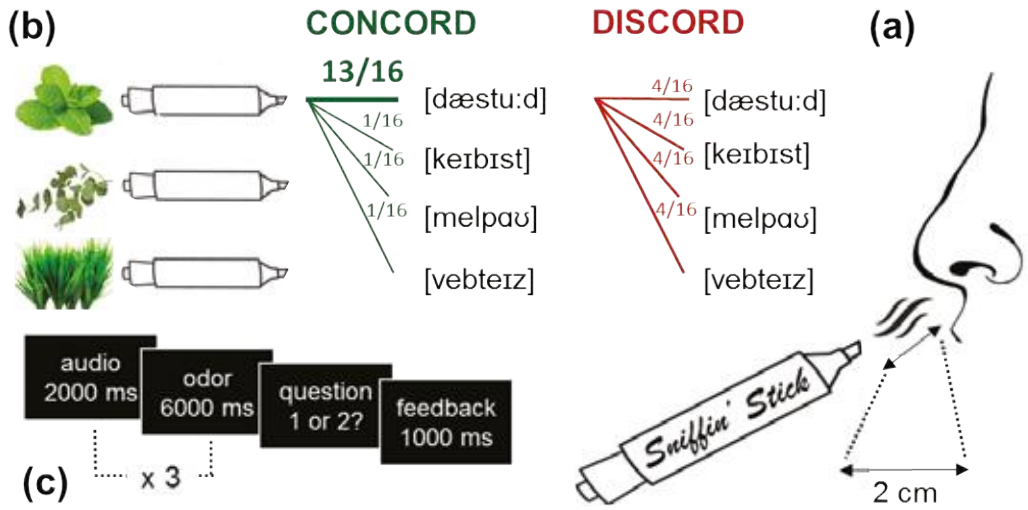

Fig. 1. Experiment design. (a) Sniffin' sticks were used as olfactory stimuli. They were presented in a quiet and well-ventilated room, on a static platform, using an odorless glove, with the tip of the pen held around 2 centimetres under the participant's nose. (b) Bisyllabic pseudowords used as verbal stimuli were co-presented with the odors. For the training phase, pseudoword pairs were presented under a consistent (CONCORD) or an inconsistent (DISCORD) condition. Each smell was presented 16 times in total, always within the same triplet. To manipulate the strength of associations formed during training, the consistency of odor-pseudoword pairs was 13/16 in the CONCORD condition and 4/16 in the DISCORD condition (as shown for *mint-odor* within the *mint-eucalyptus-grass* odor triplet). (c) The odor similarity judgment test used the same task design as the first day of training, except that the test was performed without presentation of pseudowords.

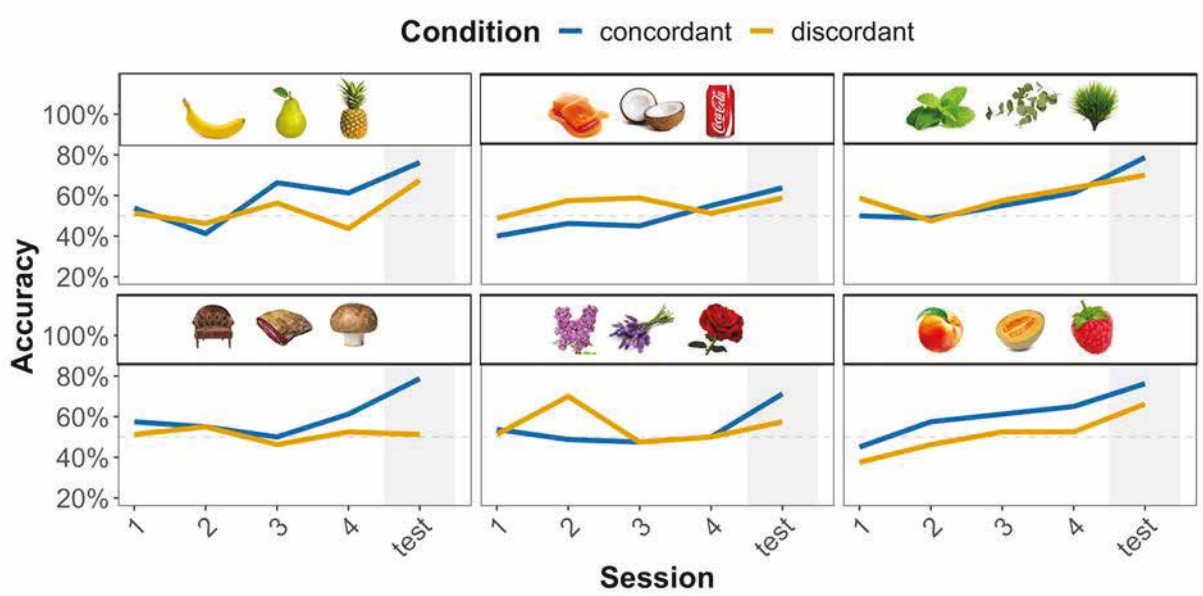

Fig. 2. (a) Changes in categorisation accuracy (vertical axis) across the four training sessions and test session (shown along the horizontal axis) shown separately for each odor triplet. Average accuracy is shown for participants in the concordant (blue) and discordant conditions (orange). In the test session, unlike the training sessions, categorisation was performed without verbal labels. The dashed horizontal line indicates baseline, i.e., chance performance, 50%. The results for the six odor triplets are shown in the following order (from right to left, top row) *banana-pear-pineapple*, *caramel-coconut-coke*, *eucalyptus-mint-grass*, (bottom row) *leather-smoked meat-mushroom*, *lilac-lavender-rose*, *peach-melon-raspberry*.

The degree nature of *swarm*-alternations: experimental evidence from Slovak

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The *swarm*-alternation is a relation between sentences such as *Bees **are swarming in** the garden* (A-construction) and *The garden **is swarming with** bees* (L-construction). The two main frameworks regarding these alternations are Dowty's (2000, 2001) *dynamic texture hypothesis* and Hoeksema's (2009, 2018) *high-degree hypothesis*. Hoeksema declares the abundance interpretation of the L-construction to be their core meaning and categorizes them as high-degree predicates, implying their PPI status.

We follow this line of research, assuming a scale (as defined in Kennedy & McNally 2005) underlying the L-construction and building on Hoeksema's analysis and subsequent experiments on Slavic *swarms* which reveal that (i) they are not relative gradable predicates (as shown by the unacceptability of modification by *veľmi* 'very' compatible with open scales: **Záhrada veľmi bzučala včelami* '*The garden was very buzzing with bees'); and that (ii) they are maximum-standard degree constructions (determined by the incompatibility of modification by *trochu* 'slightly' targeting the lower end-point of a scale: **Ten svah se trochu hemžil lyžaři* '*The hillside slightly swarmed with skiers'); but their PPI status (if they are not properly modified) is improbable (Dočekal & Šafratová 2019).

Our research goal, then, was to determine the exact structure of the underlying scale on the basis of Slovak *swarm*-predicates. More specifically, our experiment tested whether the L-construction accepts the modifier *úplne* 'completely' targeting the maximum end-point of a scale, entailing that the scale in question is upper-bounded.

Experiment

The experiment (a truth-value judgment task conducted on IBEX farm using Likert scale from 1: worst to 5: best) consisted of 16 items and 16 fillers. 66 Slovak speakers participated. There were four conditions: i. REF-POS: positive reference level for *completely* (e.g. modification of a degree achievement), ii. REF-NEG: negative reference level for *completely* (e.g. modification of an accomplishment or a motion verb), iii. COMPLETELY-A: the A-construction with *completely*, iv. COMPLETELY-L: the L-construction with *completely*. The relevant conditions are exemplified in (1); (1a) corresponds to Completely-A and (1b) to Completely-L.

(1) A: "Zabral ten prípravok proti hmyzu?"
A: "worked the agent against insects"
A: "Did the insect repellent work?"

a. B: "Nie, v kuchyni sa mi úplne hemžia mravce."
B: "no in kitchen SA.REFL me completely swarm ants.NOM"
B: "No, ants are completely swarming in my kitchen."

b. B: "Nie, kuchyňa sa mi úplne hemží mravcami."
B: "no kitchen SA.REFL me completely swarm ants.INSTR"'
B: "No, my kitchen is completely swarming with ants."

Results

A logictic regression model was fitted and the modification by *úplne* 'completely' has shown statistically significant positive effects on the L-construction (as demonstrated in Table 1 and Figure 1 below). Using the typology of scales based on their structure (Kennedy & McNally 2005, Solt 2015) and the results of the experiment on Slovak data, it is argued that *swarm*-predicates are absolute gradable predicates accommodating upper-bounded scales with maximum standards of comparison.

Condition	Mean	Median	t-value	p-value
REF-POS	4.4	5	12.08	$< 2e-16$
REF-NEG	1.6	1	-15.65	$1.01e-12$
COMPLETELY-A	3.2	3	reference level	reference level
COMPLETELY-L	3.9	4	7.23	$< 2e-16$

Table 1: Acceptability scores for the four conditions

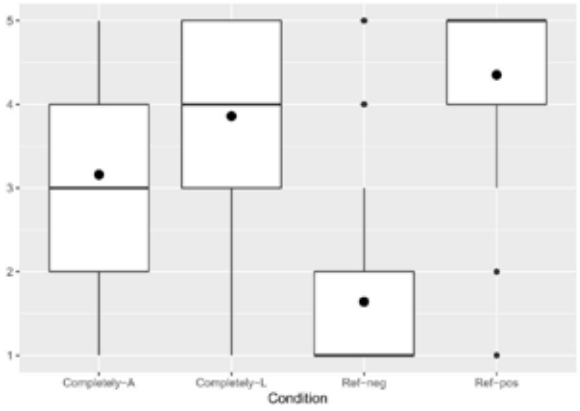

Figure 1: Box plot for the four conditions

Keywords: swarm-alternation; degree semantics; gradability; scalarity; Slovak; experimental study

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Parts, quarters and halves: Polish proportional quantifiers

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Introduction. Since the early years of formal semantics a lot of research has been dedicated to the study of quantifiers. Yet, despite many important results certain properties of the class of proportional quantifiers have not achieved enough attenation so far (with the notable exception of Hackl 2009). In this paper, I investigate the syntactic and semantic properties of different classes of proportional quantifiers in Polish. Though some quirks in their behavior have been recognized and analyzed (see Przepiórkowski 2006 and Dziubała-Szrejbrowska 2016 for a syntactic analysis and Wągiel 2019 for a semantic treatment) they remain surprisingly understudied. The main aim of this paper is to give firmer empirical footing for the study of the expressions in question.

Corpus study. In order to determine the distribution of proportional quantifiers in Polish, I have conducted a corpus study based on the National Corpus of Polish (NCP). I have examined syntactic environments and collocations of the following expressions: *część*, *cząstka* (both 'part'), *ćwierć*, *ćwiartka* (both 'quarter'), *pół*, *połowa*, *połówka* (all 'half') and *większość* ('most'). Based on the corpus data, the syntactic properties of different types of Polish proportional quantifiers are the following. First of all, of all of the examined quantifiers only *ćwierć* and *pół* can and do often co-occur with measure terms and numeral phrases, see (1). On the other hand, morphologically complex proportional quantifier derived with the suffix *-k-*, i.e., *cząstka*, *ćwiartka* and *połówka*, as well as *część* are incompatible with degree modifiers such as *prawie* ('almost'), *niemal* ('nearly') and *ponad* ('above'), see (2). Finally, while *część*, *połowa* and *większość* can combine with cumulative predicates such as plurals and mass nouns, *cząstka*, *ćwierć*, *ćwiartka*, *pół* and *połówka* cannot, see (3). The constraint does not seem to be grammatical since all of the above can appear with pluralia tantum. The results are summarized in Table 1.

Physial and informational objects. Recently, it has been reported that classifiers which are optional in Hungarian give rise to a non-trivial intepretative effect when combining with nominals which are ambiguous between a physical object sense and and informational object sense such as *book* (e.g., Pustejovsky 1995, Gotham 2017). Numeral phrases with a classifier disambiguate otherwise polysemous nouns and force a physical object sense (Schvarcz and Wohlmuth 2020). Interestingly, a similar effect is observed with Polish quantifiers derived with the suffix *-k-*. Specifically, while (4-a) is a normal sentence, (4-b) is weird since it forces a physical object interpretation of the NP which is incompatible with a reading scenario.

Analysis. Following Grimm 2012, I assume that referents of concrete nouns are properly modeled in terms of mereotopological notions such as connectedness and integrity. In other words, they are treated as spatial entities that come in one piece. I propose that the typology of proportional quantifiers in Polish results from an interaction between mereotopology and degree semantics. In particular, certain quantifiers introduce special restrictions on the interpretation of the NP. Finally, I assume that NPS with quantifiers such as *ćwiartka* primarily refer to physical objects and only under special circumstances can be shifted to measures via a

special operation (Rett 2014). On the other hand, NPs with quantifiers such as *ćwierć* simply refer to measures. The combination of these factors explains the properties given in Table 1.

(1) a. …wiedzą, co znaczy **ćwierć tony** trotylu w rękach amatora.
they-know what means quarter$_1$ ton.GEN TNT.GEN in hands amateur.GEN
'…they know what a quarter ton of TNT in the hands of an amateur means.'NCP

b. #Wiedzą, co znaczy **ćwiartka tony** trotylu w rękach amatora.
they-know what means quarter$_2$ ton.GEN TNT.GEN in hands amateur.GEN

(2) a. …obie miały okulary automobilowe zakrywające **niemal pół** twarzy…
both had eyeglasses automobile.ADJ covering nearly half$_1$ face.GEN
'…they both had car goggles covering nearly half of a face…' NCP

b. #Obie miały okulary automobilowe zakrywające **niemal połówkę** twarzy.
both had eyeglasses automobile.ADJ covering nearly half$_3$ face.GEN

(3) a. …wywinął tylko ciupagą i **połowa napastników** padła na ziemię.
he-brandished only axe and half$_2$ agressors.GEN fell on ground
'…he only brandished an axe and half of the agressors hit the ground.' NCP

b. #Wywinął tylko ciupagą i **pół napastników** padło na ziemię.
he-brandished only axe and half$_1$ agressors.GEN fell on ground

Table 1: Distributional properties of Polish proportional quantifiers

	ćwierć 'quarter'	*pół* 'half'	*połowa* 'half'	*większość* 'most'	*część* 'part'	*cząstka* 'part'	*połówka* 'half'	*ćwiartka* 'quarter'
measure terms	✓	✓	*	*	*	*	*	*
degree modifiers	✓	✓	✓	✓	*	*	*	*
cumulative pred.	*	*	✓	✓	✓	*	*	*

(4) a. Jadzia przeczytała **pół książki**.
Jadzia read half book.GEN
'Jadzia read half a book.'

b. #Jadzia przeczytała **połówkę książki**.
Jadzia read half book.GEN

Keywords: proportional quantifiers; partitivity; syntax; semantics; Polish

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Building numerals: Some are part of others

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Data. Cardinals have at least two different functions: ABSTRACT COUNTING, used in contexts like (1), and OBJECT COUNTING, as in (2) (Bultinck 2005; Rothstein 2017). Languages often distinguish these functions morphologically (Hurford 1998; Fassi Fehri 2018). Table 1 gives a representative typology of formal relations between the two uses. In addition to symmetric numerals (one form for both functions), there are two kinds of asymmetric cardinals, i.e., plain asymmetric and inverse asymmetric, as well as idiosyncratic numerals with two suppletive forms. The ordering is based on the frequency of a pattern (inverse numerals are scarce).

Universal semantic features. In order to account for the data, we propose three syntactic heads in (3)–(5). SCALE is a lower bounded set of natural numbers, e.g., the interval $[4, \infty)$. NUM (for 'number') takes a set of integers and yields the smallest number from that set, i.e., forges a proper name of a mathematical entity. Finally, CL (for 'classifier') takes a number and returns a counting device, i.e., a predicate modifier equipped with the pluralization operation * (Link 1983) and the measure function $\#(P)$ (Krifka 1989).

Composition. Combining the ingredients in (3)–(5) via standard Function Application yields the structures in (6)–(7). For instance, in (6) the application of MIN turns the interval $[4, \infty)$ into the integer 4. The resulting expression is, thus, of type n and can be used as a name of a number concept. On the other hand, (7) is an object-counting modifier. After the number slot is saturated by 4, we obtain an expression which, when applied to a predicate, yields a set of pluralities of entities that have the relevant property and whose cardinality is 4.

Nanosyntax. To account for the morphological patterns, we adopt the view that lexical entries link morphemes to non-trivial syntactic structures. Following Starke (2009), the Superset Principle allows a given morpheme to pronounce *any sub-constituent* contained in its entry. For instance, (7) can also pronounce (6) since this structure is its sub-constituent. We assume that there are no cardinals pronouncing only SCALE, but we will independently justify its relevance based on morphological evidence from Czech and Vurës (Malau 2016).

Typology. The proposed system is able to derive all the attested variation by treating different types of numerals as lexicalizations of different structures derived from the universal semantic components, see Table 2. Symmetric numerals are stored as complete structures pronouncing all the three heads, which allows them to cover both the abstract-counting and the object-counting function. On the other hand, asymmetric numerals lexicalize only the abstract-counting meaning, and thus require additional morphology in order to be able to be used as modifiers, e.g., a classifier. Idiosyncratic numerals have suppletive forms for the two functions. Finally, the inverse pattern is scarce because it can only arise in a very particular configuration. Specifically, a numeral needs to be stored simply as SCALE, NUM needs to have an overt exponent, and [CL NUM] needs to be lexicalized as a null morpheme. As a result, abstract- and object-counting numerals are spelled out according to the inverse pattern.

Predictions. Finally, our theory predicts two more very rare types of numerals: (i) inverse numerals with Ø overtly realized and (ii) numerals with two affixes. The potential candidates

for (i) and (ii) are Abkhaz numerals 2–10 (Hewitt 2010) and numerals in languages that allow for classifier stacking such as Akatek (Aikhenvald 2000), respectively.

(1) Two times two is four.

(2) four apples

Table 1: Morphological marking patterns

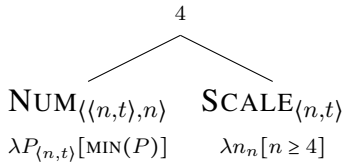
LANGUAGE	NUMBER	ABSTRACT COUNTING	OBJECT COUNTING	TYPE
English	4	*four*	*four*	symmetric
Japanese	4	*yon*	*yon-ko*	asymmetric
Maltese	2	*tnejn*	*żewġ*	idiosyncratic
German	1	*ein-s*	*ein*	inverse asymmetric

(3) $[\![\textsc{scale}]\!]_{\langle n,t\rangle} = \lambda m_n[m \geq n]$

(4) $[\![\textsc{num}]\!]_{\langle\langle n,t\rangle,n\rangle} = \lambda P_{\langle n,t\rangle}[\textsc{min}(P)]$

(5) $[\![\textsc{cl}]\!]_{\langle n,\langle e,t\rangle,\langle e,t\rangle\rangle} = \lambda n_n \lambda P_{\langle e,t\rangle} \lambda x_e[{}^*P(x) \wedge \#(P)(x) = n]$

(6)



(7)

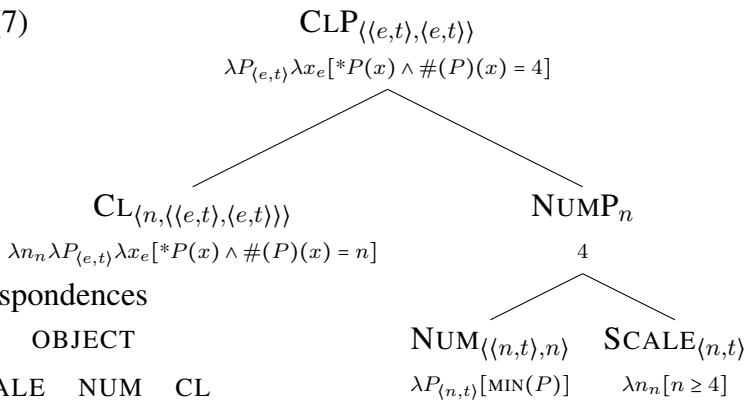


Table 2: Meaning/form correspondences

ABSTRACT			OBJECT		
SCALE	NUM		SCALE	NUM	CL
four		English 4	*four*		
yon		Japanese 4	*yon*		*ko*
tnejn		Maltese 2	*żewġ*		
ein	*s*	German 1	*ein*	Ø	

Keywords: numerals; cardinals; typology; morphosemantics; Nanosyntax

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Agentive and non-agentive target state participles in English

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At least since Kratzer (2000), the external and internal syntax of target state participles has generated a great deal of discussion and controversy. In the accounts of Kratzer (2000) and Anagnostopoulou (2003), target state participles in German and Greek are shown to include event implications because they can be modified with result-oriented manner adverbs such as *sloppily,* which function as "type-shifters" (they turn resultant states into target states).

(1) (Kratzer 2000, 392)
   (a) Die Haare waren immer noch schlampig gekammt.
   The hairs were still sloppily combed
   'The hair was still combed sloppily.'
   (Anagnostopoulou 2003, 13)
   (b) Ta malia mu ine akoma atsala xtenismena.
   The hair my is still sloppily combed
   'My hair is still sloppily combed.'

It is noteworthy that manner adverbs are also found to modify certain stative adjectives (as illustrated below with the data from the Corpus of Contemporary American English), which means that such modification is not restricted to eventive or agentive constructions.

(2) (a) His argument was **deliberately provocative** and mischievous…
   (b) Like her fellow New Yorker magazine contributors Ed Koren and Roz Chast, Ms. Kalman offers **gently humorous** cartoon commentary on the trials and tribulations of modern metropolitan life.
   (c) Uneven and **sloppily sentimental**, "Life as We Know It" is still the best Katherine Heigl comedy since "Knocked Up".
   (d) Brady, played by Kelsey Grammer, is trying to keep the studio in business, as you can tell when he says **clumsily obvious** lines…

As noted by Anagnostopoulou (2003) target state passives cannot license *by*-phrases (**The tires were still inflated by Mary*). McIntyre (2013), however, points to the existence of *still*-modifiable adjectival passives which do allow by-phrases on the condition that "the by-phrase referent is responsible for continuing the state expressed by the participle" (McIntyre 2013, 30).

(3) (a) The road remained blocked by the police.
   (b) The dictator remained unsupported by the warlords.

The Corpus data reveals that such passives are commonly derived from Object Experiencer verbs:

(4) (a) Harold blinked, still stunned by the beauty and variety of the fields,…
(b) He seemed calmed by her vehement profession of understanding, but he was still troubled by something.
(c) Asked about the incident, Simms acknowledged that he was still bothered by the memory.

OE-derived target state passives differ from agentive situation-in-progress participles in the following ways: firstly, they seem to allow only non-volitional *by*-phrases; secondly, they accept degree modification with *very* (*very troubled*/*bothered*/*fascinated*), unlike blocked or unsupported which only accept *very much*; thirdly, OE adjectival passives can express idiosyncratic meanings of verbs such as *shake* or *devastate* (e.g. *John is still shaken/devastated by the news*), which is relevant in that according to Marantz (2001, 2007) and Arad (2001, 2003), idiosyncratic forms are expected to be formed by attachment of the category-assigning affix directly to the root via what is referred to as 'inner affixation'. This entails that OE-derived target state passives, unlike situation-in progress participles and similarly to target states such as *still combed* or *still hidden*, are derived by attaching the adjectival suffix directly to the root.

Keywords: passive participle, adjective, external argument, Distributed Morphology

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Distance affects the retrieval of presuppositional antecedents

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There is a growing body of data supporting theories of memory recall that understand recall as (immediate) content-addressable retrieval that is subject to interference (Jäger, Engelmann, and Vasishth 2017; McElree, Foraker, and Dyer 2003). So far most of the studies concentrated on syntactic dependencies. Our study turns to a case of semantic dependency that might involve a similar memory retrieval operation, especially since some see it as a kind of VP-anaphora (Van der Sandt 1992). We present results of a three-experiment study involving a so-called additive "too". This expression carries a presupposition that in the preceding discourse there is an object to which a given property applies.

Following the findings that intervening material slows down retrieval in syntactic dependencies (Lewis and Vasishth 2005; Grodner and Gibson 2005) and that interference seems to play a role in presupposition resolution (Chen and Husband 2018) we hypothesize that increasing the distance between the presupposition trigger and its antecedent will slow down the retrieval of the antecedent.

Method We conducted three experiments: an acceptability judgment task (Exp. 1) followed by two different self-paced reading (spr) tasks (Exp. 2, 3). Test items (N=32) with $2 \times 4 = 8$ conditions consisted of sentences with parallel clauses in which the second clause either contained the trigger "too" and its proper understanding depended on the information from the first clause or did not contain the trigger and could be understood on its own (TOO vs NIL). In the second clause there could be an additional unrestricted relative clause of varying length (0 vs 4 vs 8 vs 12 words). The role of the experiment 1 was to exclude the possibility that the difficulty of the items can explain the results obtained in the self-paced reading tasks. See supplementary material for an exemplary item.

Results In experiment 2 (37 participants, 1 excluded) we compared four regions of interests, starting from the word "too" or the verb. We fit a linear mixed model and found an effect of distance ($t = 3.265$) on the second word after "too" (or the verb) but no significant interaction effects. We also compared regions taking the verb as the reference point. Here, after factoring out the position and the length of the word, we found main effects of distance ($t = 3.197$) and trigger ($t = 3.343$). In experiment 3 (40 participants, none removed) we ran a similar analysis, but the results were different. We found a significant interaction effect between the distance and the trigger for the first word after "too" or the adverb ($t = 3.043$).

Discussion The aim of the experiment 3 was to improve upon the design of experiment 2, where we already found the distance effect, but no interaction, possibly due to the misalignment of regions across conditions. Experiment 3 does find an interaction effect, which suggests that presuppositional antecedents are more difficult to retrieve when the distance is longer. Our results can therefore be seen in line with earlier studies on the processing of dependencies in general, and as shedding more light on the mechanism behind the resolution of anaphoric dependencies in particular (Jäger, Engelmann, and Vasishth 2017; Dillon et al. 2013).

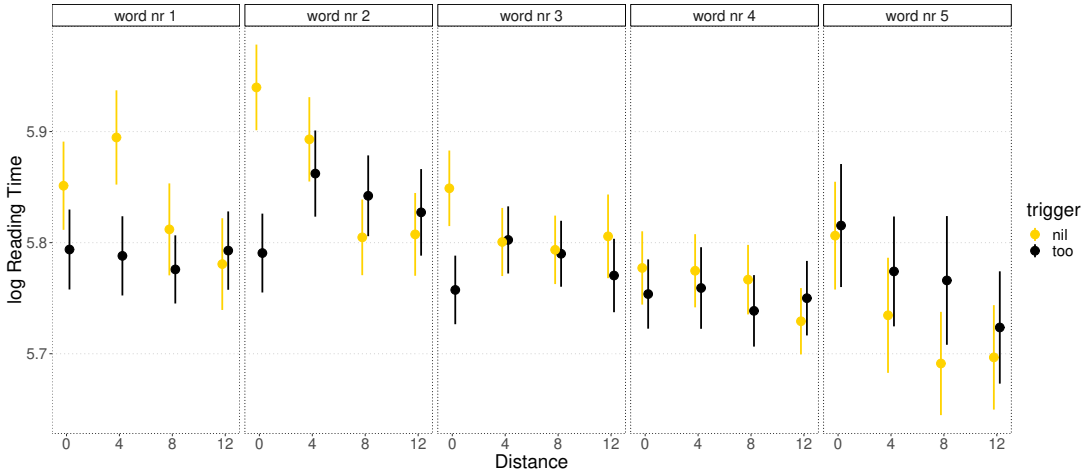
Supplementary material An example of an item is presented below. This item comes from the experiment 3. In experiments 1 and 2, in the NIL condition, the word "often" was not present. TOO condition: presuppositional trigger present, NIL condition: trigger not present. The numbers indicate the distance.

NIL condition

0 The cook is a swimmer and the waiter dances often, I have been told recently.
4 The cook is a swimmer and the waiter, who is a boxer, dances often, I have been told recently.
8 The cook is a swimmer and the waiter, who is a great boxer from southern Amsterdam, dances often, I have been told recently.
12 The cook is a swimmer and the waiter, who is a great lightweight boxer from east parts of southern Amsterdam, dances often, I have been told recently.

TOO condition

0 The cook is a dancer and the waiter dances too, I have been told recently.
4 The cook is a dancer and the waiter, who is a boxer, dances too, I have been told recently.
8 The cook is a dancer and the waiter, who is a great boxer from southern Amsterdam, dances too, I have been told recently.
12 The cook is a dancer and the waiter, who is a great lightweight boxer from east parts of southern Amsterdam, dances too, I have been told recently.



Summary plot for the second self paced reading task. The dots indicate mean reading times, the bars show standard error. On the y axis one can see log-transformed reading times, on the x axis the distance. Each panel shows different region of interest (word 1 is the critical region).

Keywords: presupposition; self-paced reading; memory;

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Against Span Based Vocabulary Insertion: Lessons from Japanese

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In DISTRIBUTED MORPHOLOGY (hereinafter DM), VOCABULARY INSERTION (VI) applies to a terminal node (Embick, among others) while, in NANOSYNTAX, VI applies to a phrase/phrases based on SPAN, which is based on EXTENDED PROJECTION (cf. Svenonius). The data accounted for by DM and NANOSYNTAX mostly overlap, but this this paper provides two cases where the Span-based insertion does not predict the occurrence of allomorphy. The SPAN is proposed to account for occurrence of allomorphy in the following non-linear adjacent cases. For instance, in Korean, *al-* 'know' shows suppletion under the context of negation as in (1), where a V-VOICE-NEG-TENSE sequence from the extended projection, and therefore, it forms the SPAN.

(1) a. al-n-ta
know-PRES-DECL
'know'

b. * mos/an(i) al-n-ta
not know-PRES-DECL
'do not understand'

c. molu-n-ta
NEG.know-PRES-DECL
'do not understand.'

Under phrasal insertion, "insertion does not take place if the vocabulary item is not specified all features. Furthermore, the item containing fewer features unspecified in the node must be chosen (cf, SUPERSET PRINCIPLE, Starke)." Following the SUPERSET PRINCIPLE, in (1c), *molu* is inserted to the [NEG, know] complex in order to use up all the features. Moreover, *molu* is not available if the $\sqrt{Root}$ is followed by causative morpheme as in (2). In this case, the SPAN targeted by VI is composed of <V, Voice, Neg>, so that it is not compatible with the description of the suppletive form. Therefore, based on the SUPERSET PRINCIPLE, *ani/mos* is selected for the exponent of [NEG], *al* is for [know] and *il* for [CAUS].

(2) a. ani/mos al-li-ess-ta.
NEG know-CAUS-PAST-DECL

b. * mol-li-ess-ta
NEG.know-CAUS-PAST-DECL

However, Japanese has two counter-examples. The first is anegative form. Japanese has two types of "exist", *i(ru)* and *ar(u)*, and the former is used for animate subjects and the latter for inanimate ones. Among the two, *ar* displays suppletion in the context of ____ /[NEG]. This may be a problematic case, since inflection of a negative form of a verb in Japanese is adjectival. As shown in (3), *i-* is negated by the negative sufffix like other verbs and adjectives in Japanese. However, *ar-*, when negated, becomes its suppetive form, *nai*. This sppletion is blocked when the potential suffix is employed as in (3f).

(3) a. i-ru
be-PRES

b. ar-u
be-PRES

c. i-nai
be-NEG

d. * ar-a-nai
be-**a**-NEG

e. ari-e-nai
be-POTENTIAL-NEG

The crucial detail here is that *v* and *a* does not form an extended projection, and therefore the Span cannot be defined. Therefore, the (3f) challenges VI based on span. The other problem is based on one case of nominalization of verb roots. As Marantz points out, Japanese displays $\sqrt{Root}$ allomosemy in "-*i* ending" nominal. The most famous example is *nagasi*, which expresses "to flow" and "a sink". In this case, the "-*i*" ending is regarded as a realization of *n*. If this is so, both n and $\sqrt{Root}$ or *v* need to be in the same SPAN, which is impossible within the extended projection.

Keywords: Morphology (Theoretical); Distributed Morphology ; Nanosyntax ; Locality

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