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BOOK OF ABSTRACTS

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SinFonJA is a traveling conference that covers topics from all areas of theoretical linguistics, comparative linguistics, psycholinguistics, neurolinguistics, sociolinguistics, language acquisition and discourse analysis. It was first organised in Nova Gorica in 2008 and got its name from the Slovenian *SIntaksa FONologija In Jezikovna Analiza* 'Syntax, Phonology and Language Analysis'. Over the past 17 years it has been organised in Brno, Udine, Novi Sad, Budapest, Kraków, Dubrovnik, Ljubljana, Graz, Niš, Vienna, Sarajevo, Nova Gorica.

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Eleni Bužarovska

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IS IT ALWAYS POSSIBLE TO DETERMINE THE SOURCE OF A (LOCAL) BALKANISM?

Local Balkanisms refer to linguistic features that develop in specific geographical or dialectal zones within the Balkans due to prolonged contact and bi-/multilingualism. Unlike broader Balkan structural convergence, such as the loss of the infinitive or the emergence of postposed definite articles, local Balkanisms often do not extend uniformly across all Balkan languages or dialects. Instead, they emerge from micro-level interactions, shaped by historical, social, and geographic factors such as migration routes or trade networks.

An illustrative example of a local Balkanism is differential object marking (DOM), a cross-linguistically common phenomenon in which a language overtly marks a subset of direct objects based on semantic (e.g., animacy, specificity) and/or discourse-pragmatic factors, e.g., topicality or focus (Bossong 1985; Witzlack-Makarevich & Seržant 2018 among others).

In the Balkans, DOM is present in Romanian and some Aromanian dialects, involving the use of the grammaticalized preposition *pe* ‘on’. A similar strategy, using the preposition *na* ‘to’, is employed in peripheral Bulgarian and Macedonian dialects, particularly in contact areas with non-Slavic languages. This pattern has been documented in multiple locations in bilingual or multilingual zones (Topolinjska 1995, Adamou 2010, Asenova & Aleksova 2008, Bužarovska 2017). Several hypotheses regarding the origin of DOM in peripheral Macedonian dialects have been suggested. Older views interpret DOM in Macedonian as a contact phenomenon resulting from interaction with Aromanian (Koneski 1986) or Greek (Topolinjska 1995; Bužarovska 2001), although these explanations do not account for the uneven distribution of this feature. A more balanced explanation includes a combination of external and internal factors (Bužarovska 2020). In multilingual environments, the replicated *na*-

pattern serves as a topicalization strategy that disambiguates the roles of sentence participants. The most recent view (Kozhanov et al., forthcoming) suggests that mechanisms such as syntactic reanalysis or analogy with constructions like dislocated topics introduced by *na* may have contributed to the emergence of DOM, while not excluding language contact.

In this context, Friedman and Joseph (2025) note that while a definitive explanation remains uncertain, the phenomenon is relevant to broader typological and theoretical discussions of DOM. Overall, DOM in certain Balkan Slavic dialects demonstrates how language contact, internal grammatical change, and sociolinguistic dynamics interact to produce region-specific structure, unknown in other Slavic languages.

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THE (NON-)DEFICIENCY AND (NON-)REDUNDANCY OF CLITIC PRONOUNS

Focusing on Clitic Doubling (CD), in this talk I will address the foundational question of the ontology of the range between agreement, clitics and weak and strong pronouns and the deep nature of the categories included. The strong hypothesis is that these all instantiate the same grammatical class of items, which however differ from each other in the size of the underlying structure, as well as what features trigger the realisation of various degrees of strength. Hypothesising that the answer to the latter question is to be sought in Kiparsky's (2008) D-hierarchy, and postulating universal realisation of all the items included in the range, I set to model the strength of realisation in terms of various types of **Deficiency** (defined here as features invisible to the PF interface) and **Redundancy** (features invisible to the LF interface), including operations such as impoverishment, or rules of exponence. In particular, it is hypothesised that the responsible feature for all repeated realisations is [topic], but that in the process of grammaticalisation it gets weakened. Ultimately doubling is generalised and driven by mere syntactic locality, which following Kallulli and Roberts (2025), I will implement in terms of Form Copy (Chomsky et al. 2024). What begins as topic-doubling in a certain position ends as agreement with the highest argument or universal clitic doubling. Depending on various factors, crucially including the degree of grammaticalisation and the syntactic position, languages display doubling of various degrees of strength, from different zero elements, to agreement, to clitics. The main empirical puzzles targeted concern binding, reconstruction effects, resumption, the Person-Case Constraint and (anti-) locality effects associated with clitic pronouns.

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DEVERBAL ADJECTIVES IN SLOVENIAN: FIRST INSIGHTS

The talk focuses on deverbal adjectives in Slovenian. Previous work (see Simonović & Mišmaš (2022) for Slovenian, based on Aljović (2000) for BCMS) considered primarily adjectival participles with *-l* (derived from unaccusative verbs, as in (1)) and *-n/t* (derived from transitive verbs, as in (2)). This talk, however, focuses on three underexplored groups of Slovenian deverbal adjectives: (i) adjectives with the suffix *-ljiv*, (3), (ii) adjectives with *-ln*, (4), and (iii) present active participles with *-oč*, (5a), and *-eč*, (5b).

- | | | | | | |
|--------|---------------------------|----------|-----|----------------------------|-----------|
| (1) | o-slab-e-l-a | (mišica) | (2) | o-pis-a-n-a | (težava) |
| | around-weak-TV-l-F.SG.NOM | (muscle) | | around-write-TV-n-F.SG.NOM | (problem) |
| | ‘weakened (muscle)’ | | | ‘described (problem)’ | |
| (3) a. | paz-ljiv-a | (bralka) | b. | ber-ljiv-a | (zgodba) |
| | attend-ljiv-F.SG.NOM | (reader) | | read-ljiv-F.SG.NOM | (story) |
| | ‘attentive (reader)’ | | | ‘readable (story)’ | |
| (4) a. | var-ov-a-ln-a | (oprema) | b. | br-a-ln-a | (očala) |
| | protect-ov-TV-ln-F.SG.NOM | (gear) | | read-TV-ln-N.PL.NOM | (glasses) |
| | ‘protective (gear)’ | | | ‘reading (glasses)’ | |
| (5) a. | u-mir-a-j-oč-e | (drevo) | b. | bol-eč-a | (roka) |
| | in-dead-TV-j-oč-N.SG.NOM | (tree) | | hurt-eč-F.SG.NOM | (hand) |
| | ‘dying (tree)’ | | | ‘painful (hand)’ | |

The talk considers these groups of Slovenian deverbal adjectives in order to offer a systematic overview of the data as well as some initial observations and questions about their structure and meaning. But the bigger goal of the talk is to gain a better understanding of not just the structure of these items, but also verbal structure in Slovenian. The main source of data will be the *Annotated database of Slovenian adjectives* (Mišmaš et al. 2025).

Despite being deverbal, these adjectives do not form a uniform group, either in terms of their meaning or structure. For example, present active participles have an episodic interpretation, while adjectives with *-ljiv* and

-ln do not. Instead, adjectives with *-ljiv* receive a dispositional, as in (3a), or a modal passive reading, (3b). Adjectives with *-ln*, on the other hand, can be interpreted as potential, as in (4a), or, as traditional grammars (e.g., Toporišič 2000) term it, having a purpose reading, (4b). Structurally, adjectives with *-ln* preserve the theme vowel, while adjectives with *-ljiv* do not and present active participles differ in terms of the theme vowel of their bases (*-oč* adjectives can have an overt theme vowel, *-eč* do not). Furthermore, adjectives with *-eč* and *-oč* both take present tense stems of imperfective verbs as their base, while *-ln* adjectives use the non-finite base (compare the root in (4a), *br-*, to the infinitive *br-a-ti* ‘to read’ and *ber-oč-a* (*javnost*) ‘reading (public)’ to *ber-em* ‘read.1SG’). The three groups also differ in terms of the morphological structure of their base: *ljiv*-adjectives can be derived from simplex or prefixed verbal forms but do not allow for verbal suffixes; adjectives with *-eč* do not include either verbal prefixes or suffixes; while those with *-oč* can include both. Finally, the groups also differ in terms of the aspect of their bases, as only those with *-ljiv* seem to take both perfective and imperfective bases, while those with *-ln* and *-eč/-oč* tend to take imperfective bases. In the talk, these asymmetries will be further explored to gain a better understanding of the interaction between the verbal and the adjectival domain.

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LANGUAGE AFFIRMATION AS A CONCEPT IN LINGUISTICALLY CONTESTED SPACES: THE CASE OF THE MACEDONIAN LITERARY LANGUAGE

In this contribution, we draw on theories of identity affirmation to introduce the notion of language affirmation, which we define as a two-way process whereby language codifiers seek to gain international acceptance of the language they are promoting, and international experts or linguists reciprocate by affirming the existence of the language in their writings. This kind of language affirmation serves as a basis for other external validation processes, such as the establishment of an ISO code for the language, acknowledgement by diplomatic missions and governments of the languages, and the growth of language programs to facilitate the spread of these languages to speakers of other languages. Our research has shown that identity affirmation processes, like language affirmation, can include an emotional dynamic whereby the codifiers of a language seek to inspire a strong emotional response from stakeholders on the existence of a new language. Often, the early adopters, or “believers” in the new language play a key role in promoting acceptance alongside the local actors. To this end, we examine the processes of language affirmation for the the Macedonian literary language, especially beginning in the 1940s. We consider in depth the role of the Soviet linguist Samuil Borisović Bernštejn and in the early international acceptance of the Macedonian language as seen in the work of Horace Lunt and others. The processes of language affirmation for Macedonian have been ongoing in recent years given discourse emanating from neighboring countries that have questioned aspects of Macedonian language and identity. However, as we demonstrate, the language affirmation process in Macedonia is contrasted to that in the former Serbo-Croatian speech territory, where the newest

standard languages, Bosnian and Montenegrin, have not received the same level of international acceptance and where language affirmation efforts have encountered greater resistance with future developments in these language standardization processes uncertain.

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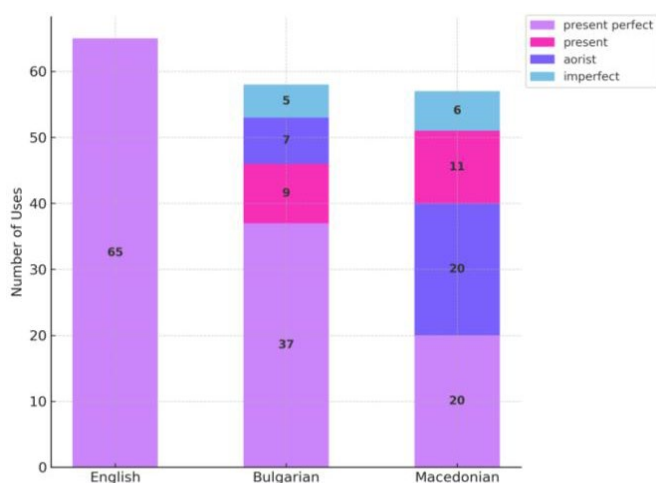
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PERFECT AGREEMENT: THE SYNTAX OF PAST TENSES IN BALKAN SLAVIC

Perfect tenses are subject to variable cross-linguistic distribution ([1], [2], [9], [13]). Balkan Slavic perfect has received considerable attention in the literature on the Balkan Sprachbund ([8], i.a.). We adopt a minimalist syntactic approach to tense and aspect [3], supported by corpus data, to compare present perfect uses in the English (En) version of *Harry Potter and the Philosopher's Stone* with its translations in Bulgarian (Bg) and Macedonian (Mc). Our goal is to account for variation in the use of the perfect and to understand the division of labor between perfect and aorist/imperfect in Bg and Mc. We use a Translation Mining approach [17] to extract all the present perfect contexts in the En original and its Bg and Mc translations. Figure 1 shows the frequency of Bg and Mc tenses used to translate En perfect. A chi-square test of independence, conducted on language and tense categories used for translations of the En perfect, showed a statistically significant association ($p < .001$) between language and tense choice.



Two-sample proportion tests were used as post hoc comparisons to follow up on the chi-square result, revealing that Mc significantly differs from Bg ($p = .01$) in the use of perfect and aorist (i).

- | | | |
|-----|--|-----------|
| (i) | a. I've won the House Cup for Gryffindor. | <i>En</i> |
| | b. Az sām spečelil Kupata na domovete za Grifindor.
I aux win.ptcp cup of houses for Gryffindor | <i>Bg</i> |
| | c. Go osvoiv Kukniot kup za Grifindor. | <i>Mc</i> |
| | it win.aor house cup for Gryffindor | |

Our data show that Mc resorts to aorist (ic) in contexts in which Bg (ib) uses current relevance be-perfects [11]. In evidential contexts, both Bg and Mc use the perfect with definite time expressions. No have-perfects were used in Mc [5].

- | | | |
|------|--|-----------|
| (ii) | a. ...last night Voldemort turned up in Godric 's Hollow. | <i>En</i> |
| | b. ...minalata nošt Voldemor se pojavił v Godriks Holou.
last night Voldemort appeared.ptcp in Godric's Hollow | <i>Bg</i> |
| | c. ...deka snošti Voldemor se pojavił vo Godrikovata Dolina.
that last-night Voldemort appeared.ptcp in Godric's Hollow | <i>Mc</i> |

Mc lacks 3rd person auxiliaries ([8], [11]), while in Bg the auxiliary distinguishes true perfects from evidentials (without auxiliary). To explain the significant difference between Bg and Mc, we argue that contexts like (i) are not evidentials. We conclude that Mc perfect is mainly used to express indirect evidentiality, while in Bg it can be used both as canonical and evidential perfect. We account for the observed variation in syntactic terms by adopting a minimalist Agree framework [7], whereby morphemes are represented in the syntactic computation as bundles of features that participate in probe-goal relations.

In the Bg context in (ib), V is merged with an interpretable aspect feature ASP:PFV and an uninterpretable past tense feature UT:PAST; v is merged with an interpretable present tense feature T:PRES. AspP is merged with an uninterpretable unvalued aspect feature UASP:_ and the Asp head probes down looking for a goal carrying an interpretable aspect feature, finding ASP:PFV in VP, which values UASP:_ in AspP. UT:PAST parasitically raises to Asp together with ASP:PFV. When TP, encoding an uninterpretable unvalued tense feature UT:_, is merged, T probes down looking for a goal carrying an interpretable tense feature. The first such feature it finds is T:PRES on v, which values the tense feature on

T as present, as shown in (iii).

- (i) [TP [T[T:PRES] [AspP [Asp[ASP:PFV; UT:PAST] [vP [v[T:PRES] [VP [V[ASP:PFV; UT:PAST]]]]]]]]]

UT:PAST parasitically raises to Asp and is left unchecked. We argue that UT:PAST makes it possible to derive the current relevance reading in Bg. Following [18], feature checking does not lead to deletion of uninterpretable features, so UT:PAST on Asp is not problematic for semantic interpretation. An additional mechanism is established between T:PRES on TP and the

UT:PAST on AspP. Following [14], we propose that Asp functions as a bound variable: UT:PAST,

in accordance with Binding Condition A, is bound in its local domain and interpreted as past relative to speech time encoded by T:PRES on T. T:PRES is spelled-out as a be-auxiliary (whose final position in the structure is a matter of syntax-phonology interface, [4]), while the ASP:PFV, UT:PAST bundle is spelled out as an I-participle.

In Mc (ic), V carries ASP:PFV and T:PAST. ASP:PFV moves to AspP, when the Asp head probes VP to find a goal carrying an interpretable aspect feature; T:PAST parasitically moves to AspP. When TP, encoding an uninterpretable unvalued tense feature UT:_, is merged, the T head probes down and finds T:PAST on AspP, finally agreeing with it and resulting in the spell- out of an aorist form (iv).

- (ii) [TP [T[T:PAST] [AspP [Asp[ASP:PFV; T:PAST] [vP [v [VP [V[ASP:PFV; T:PAST]]]]]]]]]

In (ii), we argue that the perfect use in Bg and Mc follows from its evidential nature [15, 17]. V carries ASP:PFV and UT:PAST. v here carries an interpretable and unvalued tense feature T:_ [18]. When Asp probes down looking for a compatible goal, it finds ASP:PFV in V, which values the aspect feature on Asp. T, encoding an uninterpretable unvalued tense feature UT:_, probes down looking for a compatible goal, finding T:_ on v. Following [16], we propose that Agree can apply vacuously when it involves an unvalued probe and an unvalued goal: the probe on T becomes interpretable, but it remains active for further Agree operations. T:_ on T probes again and it finds the uninterpretable past tense feature UT:PAST on AspP (v).

- (iii) [TP [T[T: PAST] [AspP [Asp[ASP:PFV; UT:PAST] [vP [v[T:_] [VP [V[ASP:PFV; UT:PAST]]]]]]]]]

Agree between T and Asp yields an interpretable valued feature

T:PAST, which is interpreted at LF as past. T does not get spelled out as an auxiliary due to the lack of a value; only when T:PAST is assigned, T is finally spelled-out as a bare I-participle. We follow [6] and propose that the evidential meaning is associated with an EpistModP merged above TP; in (2), EpistModP containing an epistemic operator [10, 12] scopes above TP, forcing an evidential interpretation (vii).

(vii) [EpistModP Op [TP [T[T:PAST] [AspP [Asp[ASP:PFV; UT:PAST] [vP [v[T: $\bar{\lambda}$] [VP [V[ASP:PFV; UT:PAST]]]]]]]]]]]

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ARTICLE ACQUISITION IN L2 ITALIAN: PREDICTING ERRORS AMONG BALKAN LANGUAGE SPEAKERS

Background. The study of article acquisition in second language (L2) learners has been a central topic in linguistic research, especially concerning article semantics and the developmental stages of grammaticalization. However, within the Italian context, investigations into article acquisition by L2 learners remain limited. In Italian, articles must agree in gender and number with the head noun. The key distinction between definite and indefinite articles depends on quantification and referentiality (Nitti, 2023, p. 528). NPs in Italian may thus be categorized as [+definite; +specific], [+definite; -specific], [-definite; -specific], and [-definite; +specific]. This contribution aims to address this gap by focusing on a specific subset of newly arrived learners in Italian secondary educational settings: 43 teen speakers (aged 11-23) from Balkan countries, namely Albania (n=13), Bulgaria (n=8), Bosnia (n=2), Kosovo (n=5), Moldova (n=10), and Romania (n=5). Learners represent a range of Balkan languages with varying degrees of typological distance from Italian.

Objective. The main objective of the study is to analyze article usage and misuse in L2 Italian by this Balkan group, with the goal of predicting article distribution where errors occur and of identifying the most salient linguistic properties of noun phrases (NPs) in relation to the learners' L1s. The study is started from the following research question: how do speakers of Balkan languages acquire and use definite and indefinite articles in L2 Italian, and which morphosyntactic features of noun phrases, particularly specificity and definiteness, predict their patterns of article omission or overuse?

Methods. This study is framed within the Processability Theory (Pienemann, 1998), which posits that learners acquire grammatical

structures in a predictable order based on processing constraints, and it assumes that article use in L2 Italian depends on the learner's ability to process and produce feature agreement (gender, number, definiteness, specificity). It also draws on cross-linguistic research showing that articles may encode [+definite] and/or [+specific] features, depending on the language (Ionin et al., 2004).

Morphosyntactic errors were collected during academic years 2024-2025 in 5 secondary schools in Veneto (Italy) from four types of written productions: (1) fill-in-the-blank exercises involving masculine and feminine Italian nouns with definite articles; (2) free written tasks, such as an email and a short fable; (3) brief written answers to reading comprehension questions based on informational texts; and (4) binary-choice tasks administered during an Italian L2 workshop conducted by the present author. In line with Leivada et al. (2019), combining various elicitation tasks helps capture the variability of learner populations, particularly when dealing with multiple L1 backgrounds. A notable trend observed among the Balkan learners is the systematic overuse of feminine article *la* in Italian, aligning with the findings of Nitti (2023). Additionally, article omission is not random but can be conditioned by phonological constraints (Belletti & Guasti, 2015, p. 56). Article omission and article overuse patterns are consistent with predictions from Universal Grammar.

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RELATIVE CLAUSE FORMATION IN BALKAN SLAVIC TORLAK

In my ongoing research, I analyze the formation of relative clauses in the South Slavic Torlak dialects. Torlak is spoken in parts of Serbia, Bulgaria, North Macedonia, and Kosovo. The number of speakers is declining, and Torlak has been classified as a vulnerable language on UNESCO's scale of endangered languages (Salminen 2010: 37). My study examines two primary strategies of relativization from a functional-typological perspective.

European languages, as well as the languages spoken in the Balkans, employ several relativization strategies, including those using inflected relative pronouns and invariable relativizers (e.g., Murelli 2011: 97, 99). In this study, I focus on the use of the variable relativizer *koji* ('who' or 'which') and the invariable relativizer *što* ('that') in contexts where both are structurally possible. The data comes from Torlak-speaking communities in Eastern Serbia, example (1) illustrates the relativizer *koji* in oblique:

(1) **sag imam čoveka s koga si spim** now have man.ACC with who.
OBL REF sleep 'Now I have a man with whom I sleep.'

The data is drawn from the Torlak dialect corpus 1.0 (Vuković 2020), which consists of semi-structured interviews conducted between 2015 and 2018, following Plotnikova's (1996) questionnaire.

Special attention is given to the invariable relativizer *što*, which has been discussed as a Balkanism common to many Balkan languages. Preliminary results show that both relativizers occur most frequently with subject and, less often, direct object relativization. Other positions are rarely relativized. Resumptive pronouns with inanimate direct objects are commonly omitted, whereas omission is less frequent with animate objects. These findings suggest that only subjects and direct objects are consistently relativized in Torlak.

Finally, I examine the forms *što-to* and *koji-to*—relativizers with clitic-like suffix *-to*. The goal is to determine the syntactic and semantic environments in which these forms appear.

(2) **sin što-to nestade** son that-DET disappear.AOR.3SG ‘a son who has disappeared’

(3) **a mi koj-to smo ležali na slamu-tu** and we who-DET AUX.1PL lay.PCPT on hay-DET ‘and we who were lying on the hay’

These examples illustrate how cliticized forms contribute to meaning and structure in relative clauses. The paper argues that such forms may be markers of grammaticalization, influenced by contact with other Balkan languages.

The contribution of this research is twofold. First, it offers a detailed description of a rarely studied relativization system, enriching typological and syntactic work on Balkan Slavic languages. Second, by situating Torlak within the Balkan Sprachbund, it provides insight into language change in contact situations—particularly processes of simplification and convergence.

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SPLIT PLURALITY AS PATTERN BORROWING IN THE BALKAN CONVERGENCE AREA

Keywords: split plurality, multiple exponence, pattern borrowing, Balkan convergence area

It has been noted recently by Alexiadou (2024) that plural marking and language mixing favour double marking, i.e. multiple exponence. Following a similar line of research in the languages of the Balkan convergence area (Bozhoviq 2021; 2022), in this paper we present a split analysis of nominal plural marking (in the vein of Kramer 2016) in Albanian (1), Balkan Slavic (2), and Balkan Romance (3), as an instance of pattern borrowing (Sakel 2007; Matras & Sakel 2007; Gardani, Arkadiev & Amiridze 2015; Gardani 2020) in an areal (Sprachbund) context.

(1) Albanian

varg ‘string’ : *vargj-e* ‘strings’

(2) Macedonian

čičo ‘uncle’ : *čičo-vc-i* ‘uncles’

(3) Romanian

urs ‘bear’ : *urș-i* ‘bears’

Splitting the plural marking between a low (n) and a high (Num/Div) head in the nominal functional sequence, resulting in double marking of plurality, involving alternations on the root, various suffixes, and combinations thereof, as in (1), has worked as a competition resolution strategy in Albanian historical morphology, initiated by a plural-to-singular reanalysis cycle (Bozhoviq 2021). Similarly, Balkan Slavic varieties, in an intensive contact with Albanian and Balkan Romance, have innovated various ways to double mark the plurals, as in (2), often with different semantic readings however (Stankiewicz 1986: 118), and double marking of the plural, typically involving root alternation and a suffix, as in (3), is an innovation characteristic for Romanian, setting it apart from the rest of the (non-Balkan) Romance family (Maiden et al. 2021: 37–38).

As such, split plurality as an areal feature in the Balkan convergence area belongs to *pattern borrowing of distributional and organizational properties* in Gardani's (2020) typology of pattern borrowing, but certain aspects of it also exemplify other types of pattern borrowing, including *pattern borrowing of abstract devices* (e.g. palatalization in dialectal Serbian [Balkan Slavic] *bubreg* 'kidney': nom.pl. *bubrez-i*, acc.pl. *bubrez-e* 'kidneys', where in addition to the inflectional ending, the alternation has been generalized as the marker of the plural stem, thus realizing a plural feature at the little n head, as in the Albanian and Balkan Romance pattern), or *pattern borrowing of abstract properties of formatives or devices* (e.g. variation, which is overabundant in Albanian and Romanian plural morphology, and also produces lexical plurals with or without double marking in Balkan Slavic, as in e.g. Macedonian sg. *pat* : pl. *pat-išt-a* 'ways, roads' vs. *pat-i* 'occurrences'). Occasionally, pattern borrowing in the Balkan plurals is accompanied by matter borrowing as well, e.g. of the Greek plural formative in Aromanian (Gardani 2020: 273) or the Turkish plural marker *lar/ler*, borrowed into various Balkan languages. Usually, however, the borrowed material fits into (itself contact-induced and areally diffused) double marking pattern, accompanied by additional native plural morphology (e.g. Albanian *hoxha-llar-ë*, dialectal Balkan Slavic *hodža-lar-i* 'hodjas', etc.).

The data from Balkan languages, as sketched out above, allows for a closer investigation of the typology and mechanisms of pattern borrowing as well as its relation to matter borrowing in multilateral convergence situations; in particular in relation to the recent proposals in Gardani (2020) and Alexiadou (2024).

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ARTIFICIAL INTELLIGENCE APPS CAN IMPROVE THE ACQUISITION OF NONNATIVE LANGUAGE SPEECH SOUNDS

Research has consistently shown that adult nonnative speakers often face challenges in perceiving and producing segmental sounds, with native language interference being a key factor (Georgiou & Kaskamba, 2024). However, recent studies have begun to challenge the notion that age is a barrier to acquiring native-like pronunciation abilities in adulthood (Prela et al., 2024). The rapid evolution of Artificial Intelligence (AI) presents a promising opportunity to improve learning outcomes, particularly in the underrepresented field of pronunciation (Low, 2021). While much of the research on AI in language learning has focused on comprehensibility and intelligibility, it has often overlooked the enhancement of specific speech sounds in both perception and production. This study aims to fill this gap by investigating how training with an AI-powered mobile app influences nonnative perception and production of speech sounds. Twenty female participants, aged 20 to 29 with B2–C1 level English proficiency, took part in the study. They began with a pretest using an AXB task to assess their ability to discriminate the English /i:/–/ɪ/ vowel contrast. Participants then produced these vowels in sentence contexts, and their speech (F1, F2, and duration) was analyzed using Praat software. The intervention involved training with the Speakometer mobile app, which included tasks for recording English vowels, pronunciation feedback, and practice. Participants were instructed on how to use the app and completed four one-hour training sessions at home. A posttest, identical to the pretest, was administered to measure changes in performance. The statistical analysis was conducted using mixed-effects models in R. The results demonstrated significant improvements in discrimination accuracy after the intervention (see Figure 1). In addition, the Euclidean Distances in participants' vowel productions significantly differed between the pretest and posttest, with the posttest data moving closer to native speaker norms (see Figure 2). Durations also matched those of native speakers following the intervention.

These findings underline the effectiveness of AI-powered apps in promoting speech acquisition and suggest their potential for personalized, interactive pronunciation training outside of the classroom.

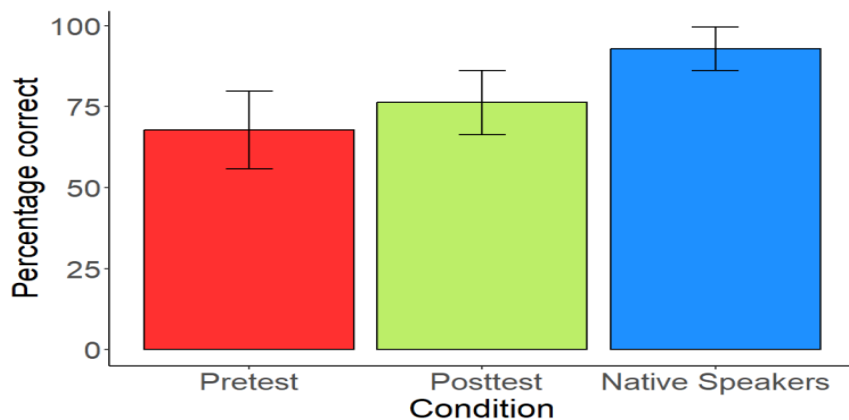


Figure 1: Percentage of correct responses in the perception task across the three conditions.

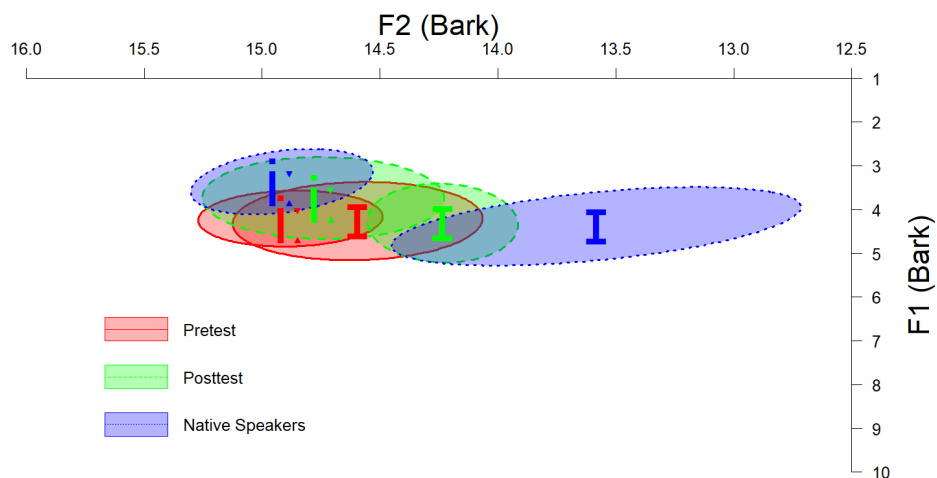


Figure 2: F1 × F2 of English vowels /i:/ and /ɪ/ across the three conditions.

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PRODUCTIVE CAUSATIVE IN KAYTAG DARGWA AND THE (IM)POSSIBILITY OF CAUSATIVE RECURSION

Introduction. There has been a long debate on whether causative can in principle be recursive. Most notably, Key (2013) claims that apparent double causatives do not in fact instantiate syn-tactic recursion of causing events. Rather, they merely involve morphological reduplication of the causative morpheme, see also (Svenonius 2005) for typological data showing that there exists a strong crosslinguistic prohibition against multiple productive morphological causatives.

The opposite position is (sometimes implicitly, cf. Miyagawa 1998; Harley 2008 a.m.o) held by the majority of linguists and is recently defended in (Nie 2022), where it is suggested that only those causatives may allow recursion that involve stacking of both argument- and event-introducing heads – Voice and *v/Caus*, respectively. If causative involves only adding of the Voice head (Nie 2020), recursion is expected to be prohibited.

In this talk, I discuss the productive causative construction in Kaytag Dargwa (< Nakh-Daghe-stanian) and show that (i) it is Voice-selecting in the terminology of (Pylkkänen 2008); (ii) it involves a syntactically represented causing event, and (iii) it is not recursive.

Structure. Amongst productive causative constructions, Pylkkänen (2008) distinguishes verb-selecting causatives from phase-selecting (or Voice-selecting) causatives. These two types are distinguished mainly with respect to properties of the causee, particularly whether it patterns like a subject (in which case we have a Voice-selecting causative) or not (in which case we have a verb-selecting causative). One of the most popular tests for the subjecthood of the causee in causative constructions is agent-oriented modification. Subjects can be associated with such adverbial expressions as ‘intentionally’, ‘grumpily’ and so on. In Kaytag Dargwa, as exemplified in (1), causee can be the target of agent-oriented modifier *barhu-barhul* ‘on purpose’.

- (1) mutaj-li musa-c:i barhu-barhul mat:rat b-elq'-uχ-un
 PN-ERG PN-INTER on.purpose plate.ABS N-break.PFV-CAUS-AOR
 i. 'Mutai on purpose made Musa break the plate.'
 ii. 'Mutai made Musa break the plate on purpose.'

Reflexive-binding possibilities can also be employed to establish the subjecthood of causees in productive causative constructions. In both (2a) and (2b) the only available binder for the complex reflexive pronoun is the causee. Importantly, in (2b) the causee can bind the pronoun even though there is an apparent case mismatch between the inter-lative causee and the ergative marked first component of the complex reflexive.

- (2) a. pat'ima-li tuxtur-c:i:j [cine-c:i ca]j / *i ʔaʰh w-ar-iχ-iw
 PN-ERG doctor-INTER REFL.OBL-INTER REFL.ABS good M-LV.PFV-CAUS-AOR
 'Patimat made the doctor cure herself.'
- b. pat'ima-li tuxtur-c:i:j [cin-ni ca]j / *i ʔaʰh w-ar-iχ-iw
 PN-ERG doctor-INTER REFL-ERG REFL.ABS good M-LV.PFV-CAUS-AOR
 'Patimat made the doctor cure herself.'

Example (3) illustrates that there are two syntactically represented events, as it is possible to modify the caused subevent separately. In other words, causativization in Kaytag Dargwa does not involve simple stacking of the Voice head.

- (3) rasul-li ižel mutal duc' Ø-ič'-uχ-u-l=di
 PN-ERG today PN.ABS run M-LV.IPFV-CAUS-PROG-CVB=PST
 i. 'Today Rasul made Mutal run.'
 ii. 'Rasul made Mutal run today.'

Given these facts (some additional evidence, especially on the position of causee argument, will be presented in the talk), I suggest the following structure for Kaytag Dargwa causative:

- (4) [VoiceP CAUSER [VoiceP [CausP [VoiceP CAUSEE [[vP ...] Voice]] Caus] Voice]]

Recursion. Kaytag Dargwa, unlike some other languages with bi-eventive productive causa-tives (e.g. Turkish or Hokkaido Japanese), prohibits double causatives, as (5a) shows for the unergative predicate 'run'. However, as we can see in the example (5b), a sentence with multiple causees is grammatical when only one causative suffix is present.

- (5) a. *učitel'-li rasul-c:i musa duc' Ø-ič'-uχ-u-l ca
 teacher-ERG PN-INTER PN.ABS run M-LV.IPFV-CAUS-CAUS-PROG-CVB COP
 Exp.: 'Teacher asks Rasul to make Musa run.'
- b. učitel'-li rasul-c:i musa duc' Ø-ič'-uχ-u-l ca
 teacher-ERG PN-INTER PN.ABS run M-LV.IPFV-CAUS-PROG-CVB COP
 'Teacher asks Rasul to make Musa run.'

Elimination of causative recursion has usually been stipulated away by some specific morpho-logical constraint, for example a process of morphological haplology (Kuroda 1993). However, this solution is implausible, since the intermediate causee does not demonstrate any of the subject properties, that is it is not introduced in [Spec, VoiceP], see (6). So, Kaytag Dargwa seems to falsify Nie's (2022) claim that bi-eventivity is the main ingredient of causative recursion.

- (6) ʔa'li-l musa-c:i barhu-barhul rasul-c:i kiniga b-elč'-uχ-un
 PN-ERG PN-INTER on.purpose PN-INTER book.ABS N-read.PFV-CAUS-AOR
 'Ali asked Musa to make Rasul read the book on purpose.'
- i. on purpose CAUS > CAUS > V
 ii. # CAUS > on purpose CAUS > V
 iii. CAUS > CAUS > on purpose V

In 'no causative recursion' camp, in order to account for the availability of multiple causees, it is suggested that "the semantics of indirect causation allow for an indefinite number of causal links"; however, these links crucially "are not syntactically represented" (Key 2013: 225). This means that intermediate causees might be associated with intermediate causing events in the semantics, but not in the syntax.

Outlook. Kaytag Dargwa data may pose a challenge for (Nie 2022), according to which recursion should be allowed if the causative involves adding a new *v/Caus* head, responsible for the introduction of a separate thematic domain. On the other hand, the data may be considered to argue in support for an approach as in (Key 2013), which completely prohibits causative recursion and postulates some fixed universal functional hierarchy. However, if Turkish is the language that allows genuine causative recursion, as Nie (2022) suggests using the same diagnostics that were employed here, then her approach turns out to be more appropriate, as, all other things being equal, overgeneration is to be preferred over

undergeneration. I will present available data from some other Nakh-Daghestanian languages and suggest that selection and, possibly, bundling are the key in constraining Nie's approach.

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REVISITING PARASITIC GAP IN RUSSIAN

Problem. Parasitic gap (PG) is an empty category that is licensed in the subordinate clause by A'-movement of a co-indexed constituent in the matrix clause, (1a). In English and some other languages, the null object is indeed 'parasitic' on A'-movement, since it is impossible in the absence of such, (1b).

- (1) a. [Which articles]_i did John file _{ti} [without reading ___i]? (Engdahl 1983: (1))
 b. *John filed [my articles]_i [without reading ___i].

Meanwhile, there are some languages that allow null objects in a wider variety of contexts, including those lacking either A'-movement or any linguistic antecedent in general; Russian is one of them. Such null objects in Russian have been analyzed as *pro* (Erteschik-Shir et al. 2013; Gribanova 2013), or results of vP-ellipsis (Gribanova 2013) or Inner Constituent Ellipsis (Bailyn 2017). The remaining challenge is whether Russian still has PG with standard licensing conditions, or such an empty category should be subsumed into a wider class of null objects. Franks (1992) and Ivlieva (2007) argued that PG is indeed present in Russian; some other researches have used PG as a diagnostic for other syntactic phenomena in Russian (Polinsky & Potsdam 2014; Bondarenko & Davis 2023). However, this notion still requires a more thorough revision.

Data. The standard configuration of PG must conform to certain requirements. First, PG is licensed by overt A'-movement. The other restrictions come from the fact that PG is analyzed as a trace of a null operator, which itself is an R-expression. This operator is moved to the left periphery of the subordinate clause to meet the Zero Subjacency requirement (Chomsky 1986: 54). Second, the antecedent of the PG cannot be the subject of the matrix clause, as in this case it would c-command the null operator, which would cause Binding Principle C violation. Third, PG cannot be licensed if the operator movement to the left periphery is blocked — e.g. by the scope of NPI-licensing operators or by island constraints.

Finally, Franks (1992) claims that Russian imposes a matching restriction on the PG and its antecedent: allegedly, the phonological form of the item recovered in place of the null object must match the one of the antecedent.

I will show that null object is still possible in sentences, minimally differing from the standard configuration in that they violate some of the requirements above. Thus, the optionality of overt A'-movement has already been included in Ivlieva's (2007) analysis of PG in Russian, (2a). Further, I will demonstrate that null object in the subordinate clause is perfectly licit when it is syntactically bound by its antecedent, (2b), or when Zero Subjacency is violated, (2c). Lastly, I will present the results of two acceptability judgement studies that argue against Franks' (1992) identity condition, (2d).

(2)

a. OK Vasya vybrosil [ètu knigu]i, [posle togo kak obrugal __i].

Vasya threw.away this book after criticized

'Vasya threw this book away after he had criticized it.' (Ivlieva 2007: (15b))

→ *'this book' is only covertly topicalized*

b. OKKtoi ti žalovalsja, [Opi čto Lena obīzaet __i]?

who complained that Lena is.hurting

'Who complained that Lena was hurting him?'

→ *Subject antecedent, Principle C violation*

c. OK[Kakoe pis'mo]i ty otpravil, [! čtoby Petja razozlilsja,

which letter you sent so.that Petya became.angry

[Opi pročítav __i svoej žene]]?

having.read his wife.DAT

'What letter did you send to make Petya angry when he read it to his wife?'

→ *PG in an island inside of subordinate clause, Zero Subjacency violation*

d. OK[S [kak-**im** pevc-**om**]i] Petja pozdorovalsja tj,

with which-INS singer-INS Petya greeted

uvidev __i posle koncerta?

having.seen after concert

'Which singer did Petya greet when he saw him after the concert?'

__i = {kak-**ogo** pevc-**a** 'which-ACC singer-ACC'}

→ *Identity condition violation*

Discussion. These data show that the null object in the discussed configurations is possible despite failing to meet the standard PG licensing requirements. None of the other analyses of null objects seem to explain the acceptability of data in (2). Gribanova's (2013) vP-ellipsis is only possible

under verbal identity requirement. Thus, it cannot be applied to these configurations due to the fact that verbs in matrix and subordinate clauses are lexically different. The null objects cannot be viewed as instances of *pro* either. Gribanova's (2013) approach to *pro* requires A'-dependency between null object and matrix clause topic, which incorrectly predicts sentences like (2c) to be banned. Erteschik-Shir et al. (2013) argue that *pro* is licensed by the discourse status of the antecedent as topic. However, this explanation is not applicable to *wh*-antecedents, which function as foci. Bailyn's (2017) Inner Constituent Ellipsis approach undegenerates as well, as it imposes strict identity condition on the null object and its antecedent, just as (Franks 1992) — my experimental data prove that it is not the case for Russian. In my talk, I will propose a modification of Inner Constituent Ellipsis that uses the notion of Vehicle Change (Fiengo & May 1994). This analysis uniformly approaches null objects in configurations either standard or non-standard for PG, therefore showing that postulating PG in Russian is redundant.

List of abbreviations

ACC — accusative, DAT — dative, INS — instrumental.

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DIFFICULTIES WITH SPATIAL PREPOSITIONS IN L2 ENGLISH: CROSSLINGUISTIC INSIGHTS FROM MACEDONIAN LEARNERS

This paper investigates the acquisition patterns of the spatial prepositions *in*, *on*, *at*, and *to* by Macedonian learners of English across the B1, B2, and C proficiency levels. Prepositions pose difficulties for learners even at advanced stages due to their complex semantics. Drawing on cognitive linguistics frameworks (Talmy 2000; Tyler and Evans 2003; Lindstromberg 2010; Langacker 2010), we assume that prepositions are polysemous units organized around an abstract primary meaning component, referred to as a *protoscene*. The protoscene constitutes a spatially based schema grounded in human bodily experience. It applies to most uses of the preposition, and varies along the following primary parameters: topological (geometric)—including position, height, shape, and size; force-dynamic—presence or absence of a path; and functional—relationships between entities reflecting human spatial experience.

While all languages express basic spatial configurations, the clustering of features in individual prepositions often differs across languages. A given preposition rarely covers the same functional range as its closest equivalent in the learner's L1. For instance, the Macedonian preposition *vo* is commonly considered the closest equivalent of the English *in*, as both share the feature of containment (example 1). However, unlike *in*, Macedonian *vo* is also used in dynamic scenes to express movement between points (example 2a). In English, the preposition *to* is preferred in such contexts (2b), while the use of *in* would be considered incorrect (2c).

- | | | |
|-------------|----|--------------|
| (1) The key | is | in the box. |
| Ključot | e | vo kutijata. |

(2) (a) Otidoa	vo Grcija	na odmor.
(b) They went	to Greece	on holiday.
(c) They went	*in Greece	on holiday

Differences and similarities between the L1 and L2 may lead to crosslinguistic influence (Odlin 2003; Gass and Selinker 2008). A contrastive analysis of the targeted English prepositions and their corresponding Macedonian equivalents served as the basis for establishing hypothetical points of transfer.

The acquisition study draws on data collected from the Macedonian English Learner Corpus, supplemented by results from a short survey. First, the authors analyze the distribution of these prepositions in learner writing at each proficiency level to identify where and why errors in preposition use occur. These findings are then compared with the results of grammaticality judgment and translation tasks, conducted live in the classroom with Macedonian students aged 18 to 25 from various academic disciplines. Approximately 120 students participated. Each student completed a placement test before proceeding with the survey.

The research aims to determine which prepositions present the greatest challenges for Macedonian learners and how their acquisition progresses across proficiency levels. It is expected that learners will show improved performance at each successive level, while prepositions lacking close L1 equivalents will continue to be source of errors even at higher levels.

Key words: acquisition, cognitive linguistics, learner corpus, interlanguage, error analysis, language transfer

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THE MORPHOSYNTAX OF (PART AND WHOLE) MATERIALS

Introduction. This paper examines how different languages, focusing primarily on Italian, encode materials morphosyntactically, particularly the distinction between *whole* and *part* materials. Italian prepositions such as *di* (of), *in* (in), *con* (with), and *a* (at, to) introduce materials with differing interpretations: *whole-materials* refer to the totality of a material composing an entity, while *part-materials* indicate partial composition. By analyzing these distinctions, the study develops a theoretical framework to account for the morphosyntactic strategies employed in Italian and their typological significance. **The data: Italian and beyond.** The encoding of materials in natural languages is understudied in typology and theoretical linguistics. Italian is an ideal test case due to its diverse prepositional use: *di* encodes *whole-materials*, while *con* and *a* introduce *part-materials*. Furthermore, while *di* introduces bare nouns for material (both bare singulars 1a/ and bare plurals 2a/3a), *a* and *con* require an obligatory (or optional for plurals -3b) determiner for both singular mass nouns, as in *a* +D (1b), and plural count nouns (2b).

- | | | |
|-----|---|--|
| (1) | a. Una granita di/*del caffè
*A slush of/of the coffee /
a coffee slush (entirely coffee-based)'' | b. Una granita a/*a caffè
*a slush at the/at coffee
a coffee-flavored slush'' (coffee as an ingredient) |
| (2) | a. Una granita di/*dei gelsi
A slush of/of the mulberries | b. una granita a/*a/ coi / *con gelsi
a slush at the/*at/ with the/with the mulberries |
| (3) | a. Una casa di/*dei mattoni rossi
"A house of/*of the red bricks"
(entirely brick-made) | b. Una casa con (i) mattoni rossi
"A house with the red bricks"
(bricks as part of the construction, e.g., the facade) |

As for *whole-materials*, Italian allows the use of the preposition *in* (in) as a substitute for *di* (of) (4). However, they are not equivalent; *in* does not always alternate with *di*. The contrast between substance and

material seems to account for the discrepancies: *in* selects materials but not substances, while *di* selects both substances and materials.

- (4) un tavolo in / di legno
A table in/of wood
- (5) a. una granita di /*in caffè
 a slush of/in coffee
 b. un biscotto di farina / ?? in farina integrale
 a biscuit of whole-wheat flour / ?? in whole-wheat flour

The incompatibility of *in* with substances may be linked to the fact that they can be interpreted as compounds or with a subatomic interpretation (as in the subatomic plural, Borer 2005). Evidence supporting this interpretation is the fact that *in* is discarded with bare plurals, which are usually analyzed as a function to worlds to plural individuals (Carlson 1997, Krifka et al. 1995), as in (6).

- (6) un mantello di perline / ??in perline
A cloak of pearls / ??in pearls

Across Romance languages, the contrast in interpretation between *whole-materials* and *part-materials* is also encoded in different prepositions: in Spanish *whole-materials* are expressed through the preposition *de* (of) (7a-8a) and *part-materials* (7b-8b) through the preposition *con* (with). However, contrary to Italian, no determiner is found to introduce the noun denoting the material, but plural marking is available just for the part-material interpretations (8b) and unavailable for the whole-material interpretation (7c-8a).

- | | | |
|---|---|--|
| (7) a. un granizado de cafe
A slush of coffee
<i>a coffee slush</i> | b. Un granizado con café
A slush with coffee
<i>coffee-flavored slush</i> | c. Un granizado de morer-a
a slush of mulberry/ies
<i>a mulberry slush</i> |
| (8) a. una casa de ladrillo rojo/*ladrillos rojos
<i>a house of red brick" (entirely brick-made) /</i> | b. Una casa con ladrillos rojos
<i>a house with red bricks"</i> | |

The parametric variation between Spanish and Italian is then linked to the availability of determiners for the *part-material* interpretation, which can be present in Italian but is absent in Spanish. A non-Romance language like Turkish shows a similar pattern. Korfilt (1997) demonstrates that in Turkish, we encounter data similar to those illustrated above for Italian and Spanish. See the examples in (9), taken from Korfilt (1997: 232).

- In Turkish, materials are denoted by adding the ablative case marker to the noun representing the material, as in (9a). It's also possible to use the noun representing the material without affixing a case marker, as in (3b). Materials in Turkish can also be introduced by the instrumental case, as in (10).

- In (10), bricks would be utilized for constructing the house, but it's likely that other materials would also be employed. Conversely, the construction involving the ablative case (9a) and the construction with no suffixation (9b) both indicate the sole use of the specified material. These distinctions reveal significant interpretative and syntactic differences, forming the basis for the subsequent analysis.

As for the *part-materials*, the preposition is an instantiation of a reverse inclusion (part-whole) relation. Following Franco & Manzini (2017), the inclusion is construed not mathematically but as looser zonal

inclusion (in the sense of Belvin & den Dikken, 1997) where the material is seen as count entities - introduced by a D - which are included in the entity (the DP head in 11).

(11) **Part-material (con/a):** [DP D [NP N [PP (\supseteq) [DP D Material]]]]

The difference between Spanish and Italian lies in the availability of the D to introduce the material, which is the only case in which bare plurals can appear in Spanish (see the contrast between 8b-8a and the Italian counterpart 3a-3b).

For the *whole-material* interpretation, we have a different relation between the entity and the material that we represent through the operator \cap , representing a set intersection (also available in conjunctions in the terms of Den Dikken 2006) between the entity and the material.

(12) **Whole-material (di/in):** [DP D [NP N [PP \cap [NP Material]]]]

The preposition *in* is incompatible with substance bare nouns that denote a set of subatomic parts $\{x | \text{subatoms}(x)\}$ (e.g., *drops of coffee* for *coffee*). The difference between (11) and (12) is linked to the availability of a D *in part-material* interpretations since the material cannot be seen as a whole but is included as a part of the entity, so the material needs quantification in some respect. The D layer is impossible when there is an *intersection* between the material and the entity determining the *whole-material* interpretation. Languages may vary on the lexical device responsible for interpretation, with Italian relying on different prepositions and D availability, while languages like Spanish and Turkish encode it using different prepositions/case marking (PP/KP). **Conclusions.** The study reveals that Italian employs distinct syntactic and interpretive mechanisms for encoding *whole* and *part materials*. *Whole-materials* are associated with simpler syntactic configurations, while *part-materials* involve more complex structures with D. These findings highlight the intricate interplay between morphosyntax and semantics in material encoding and provide a foundation for further typological exploration, including considerations on the +/- predicative/ and +/- argumental status of the nouns of materials across languages following the Nominal Mapping Parameter (Chierchia 1998).

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QUANTIFICATIONAL MATCHING IN INDEFINITE ARGUMENT DROP

Keywords: definiteness, ellipsis, quantificational matching, semantics, Modern Greek

Modern Greek (MG) displays a type of ellipsis where indefinite arguments can be elided as long as they are licensed by an indefinite antecedent, either a bare noun or a noun preceded by a weak determiner/cardinality quantifier. Interestingly, the elided argument can only be interpreted as having the same descriptive content and quantificational force as its antecedent. I will propose that this effect is best captured by a set-theoretic approach based on Larson (2024) which postulates an injective function f that maps one element of the domain to one element in the co-domain. I will focus exclusively on elided arguments in direct object position as in (1).

- (1) I Theodora mazevi deka/merikes/liges/Ø/... fraules ki o
Andreas pulai *e*.
the.Theodora picks ten/several/a few/Ø/...strawberries and
the.Andreas sells
'Theodora picks ten/several/a few/Ø/... strawberries and Andreas sells
[ten/several/Ø/... strawberries]'.
'Theodora picks the strawberries and Andreas sells them.'

This is restricted to indefinite objects; only they can be elided. If the antecedent is a strong determiner, including but not limited to the definite article, a pronominal object clitic is mandatory, as in (2).

- (2) I Theodora mazevi tis fraules ki o Andreas *(tis) sells
the.Theodora picks the.F.PL.ACC strawberries and the.Andreas
CL.F.PL.ACC pulai
'Theodora picks the strawberries and Andreas sells them.'

Even though the null indefinite object in (1) is descriptively and quantificationally matched with its antecedent, it is not co-referential with it; both indefinites introduce novel discourse referents (in the sense of Karttunen (1977) and Heim (2002)). Although different discourse referents can have the same denotation, only a disjoint reference reading is available in such sentences, where referential dependency is impermissible and there is no anaphoric relation between the antecedent and the null object (Chierchia & McConnell-Ginet, 1990). This is a pragmatic effect; the disjoint reference effect is defeasible. A sentence like '*In fact, the strawberries Andreas sold were the same ones Theodora picked.*' would be perfectly felicitous and would not yield a contradiction. Conversely, in (2), the pronominal clitic necessarily co-refers with its antecedent thus only a co-referential reading is available.

Giannakidou & Merchant (1997) view the cardinality quantifiers in the antecedent as intersective adjectives which, although in attributive position, are analyzed along with the noun they modify as predicative conditions, e.g., the content of *deka fraules* 'ten strawberries' is the two conditions/properties of cardinality (ten) and descriptive content (strawberries). The representation for (1) is given below in (3).

(3) $\exists X(\text{strawberry}'(X) \ \& \ \text{ten}'(X))[\text{pick}'(t, X)] \ \& \ \exists Y(\text{strawberry}'(Y) \ \& \ \text{ten}'(Y))[\text{sell}'(a, X)]$

(Giannakidou & Merchant, 1997: 144)

This phenomenon is especially interesting because it represents an instance where quantification seems to function independently from reference and denotation, i.e., quantificational and descriptive content matching happens without referential and denotational matching. The latter two are expected by the novelty condition. While an indefinite always introduces a novel discourse referent, more than one discourse referents can have the same denotation and can also have different ones: both possibilities are allowed and expected according to the novelty condition. The descriptive and quantificational matching, on the other hand, are not. Heim (2002) only discusses singular (in)definites, i.e., individuals, where quantity (cardinality) is by definition fixed. Applying the novelty condition to plural indefinites whose denotation is a set instead of an individual still yields the expected results, but something else must be posited to account for the preservation of cardinality without the preservation of denotation.

One such condition could come from Larson (2024), who, based on Rothstein (1995), analyzes sentences that have a similar matching effect, a one-to-one mapping between two elements built into their interpretation like in (4).

(4) For every drop of rain that falls, a flower grows.

The proposal to capture the relationship between raindrops and flowers, which necessitates the existence of at least as many flowers as raindrops, consists of a second-order representation with an injective function f that maps each element of its domain to an image in its co-domain. Although most sentences discussed in Larson (2024) contain the universal quantifier, Rothstein (1995) observes this effect in sentences with cardinality quantifiers as well, therefore, this function could be postulated for sentences like (1), ensuring that the elided object in the second conjunct is at least as many strawberries as the object in the first conjunct, yielding a representation like (4).

(4) $\exists f[\text{injection}(f) \ \& \ \text{domain}(f) = \text{strawberries} \ \& \ \text{range}(f) = \text{strawberries}$
 $\& \ \exists x[\text{strawberries}(x) \ \& \ \text{picks}(x, t) \rightarrow \exists y[\text{strawberries}(y) \ \& \ \text{sells}(y, a) \ \& \ y = f(x)]]]$

(adapted from Larson, 2024:269)

A central point of interest would be to determine whether this effect in Modern Greek is pragmatic, semantic, or a combination of both. Barring differences in the aspect of the verbs, it is the intuition of the author that cancelling the matching effect yields a sentence that is infelicitous and/or simply odd. The degree of infelicity would be stronger if the attempted cancellation was in terms of descriptive content than in terms of quantificational/cardinality matching. In other words, continuing (1) with a sentence like ‘*In fact, Andreas was selling watermelons.*’ would yield a higher degree of infelicity than continuing with ‘*In fact, Andreas sold only 5 strawberries.*’, whose result might be better described as oddness instead of infelicity. It should be noted, however, that without any sort of continuation, the null indefinite of the second conjunct of (1) would be interpreted as being descriptively and quantificationally matched with the indefinite antecedent. In order to uncover the nature of this matching effect and the degree of infelicity and/or oddness of possible continuations, further research and acceptability judgements from native speakers would be needed.

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NUOSU YI REDUPLICATED POLAR QUESTIONS AND WH-AGREEMENT

Background. Nuosu Yi (NY) is an underdocumented Tibeto-Burman language spoken in Southwest China. This paper focuses on the fact that reduplication of verbs and adjectives in the form A-A (with *no particle* between reduplicants) derives a polar question in NY. I propose that NY polar questions involve a Reduplication Phrase (RedupP), where Redup carries a Q feature that checks the Q feature of interrogative C, which is spelled out as the sentence final particle (SFP) a^{21} ; this particle has not been discussed in previous literature.

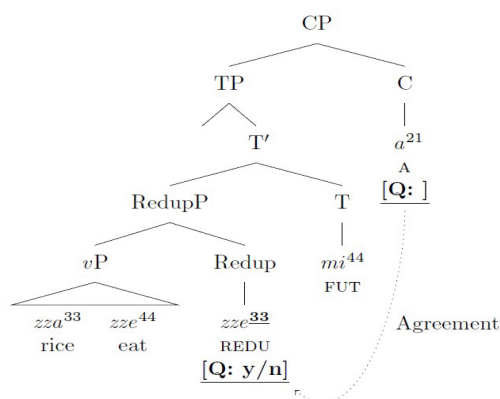
Polar Questions. NY has two ways of forming polar questions. One uses disjunctive dda^{21} between positive and negative forms, similar to English “Hot or not hot?”. The second, which is the focus of this paper, uses *reduplication*. NY reduplicates the last syllable of a verb or adjective to form a polar question; I term these reduplication questions AAQs. The reduplicant always receives a 33 (mid) tone. The reduplicated verb/adjective is optionally followed by the sentence final particle a^{21} (see (1)), homomorphic and probably etymologically related the negative particle, but synchronically distinct. a^{21} can also occur optionally after wh-questions (see (2a)). Even though A-or-not-A Qs and AAQs have similar meanings, SFP a^{21} is ungrammatical after A- or-not-A Qs (see (2b)). NY AAQs can be embedded (see (3)), but a^{21} is restricted to matrix clauses, indicating a C position that cannot be selected by a higher verb, similar to the Mandarin interrogative complementizer *ma*.

- (1) a. $Mu^{33}ga^{55} A^{55}go^{21} mgu^{44} mgu^{33} (a^{21})?$ b. $Ne^{33} zza^{33} zze^{44} zze^{33} (a^{21})?$
 Muga Ago love REDUP A 2SG rice eat REDUP A
 ‘Does Muga love or not love Ago?’ ‘Do you want to have a meal or not?’
- (2) a. $Ne^{33}ka^{55} go^{33} jjo^{33} (a^{21})?$ b. $Ca^{33} dda^{21} a^{21} ca^{33} (*a^{21})?$
 2SG where LOC have A hot or NEG hot A
 ‘Where are you?’ ‘Is it hot or not hot?’
- (3) $I^{21}nyi^{21} ca^{44} ca^{33} (*a^{21}) (su^{33}) nga^{33} go^{44} dde^{33} <a^{21}> jji^{33}$.
 today hot REDUP A COMP 1SG know<NEG>
 ‘I don’t know if today is hot or not.’

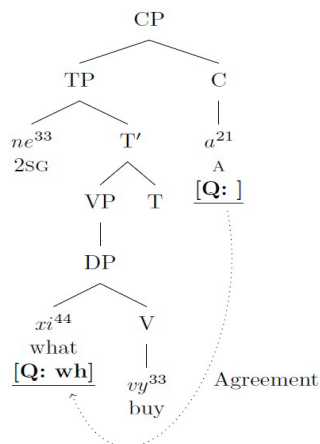
Previous analyses. Previous analyses ([Liu, 2016](#); [Zhang & Wuni, 2020](#)) argue that the NY AAQ pattern is not true reduplication. Liu observes that NY AAQs invariably realize the last syllable of the reduplicated predicate (the reduplicant) as 33 tone, regardless of its underlying tone, in contrast to other reduplication patterns such as intensified adjectives. Liu posits a floating 33 tone that spells out the Q-operator, and claims that the reduplication is forced by the need to carry the tone; however Liu's account fails to explain why the tone must be borne specifically by reduplication. Zhang & Wuni suggest that NY AAQs are reduced from A-(or)-not-A questions, with the Q-operator associated with the underlying A-(or)-not-A pattern as in familiar analyses of Chinese ([Huang, 1991](#)). But the fact that a^{21} can follow NYAAQ, but cannot co-occur with A- or-not-A (2b), implies the AAQ and A-or-not-A patterns have different structures;. Liu's analysis also does not account for SFP a^{21} ; furthermore, 33 tone on the reduplicant occurs in at least one other case of syntactically significant reduplication, reduplication of personal pronouns to derive reflexives. 33 tone is also the most basic and common tone in NY, which make it an unlikely candidate to carry a grammatical function.

Analysis. The proposed analysis of this paper is that NY reduplication questions are syntactically true reduplication. The RedupP head bears a [+Q] feature, specifically [Q: y/n]. As (2) shows, a^{21} in C is compatible with wh-expressions and AAQ. I adapt a wh-agreement approach ([Reintges, LeSourd, & Chung, 2006](#)) and propose that C carries an generalized Q feature, which is checked by Agree with a lower Q-carrying element; the latter can be the Redup Head (in polar questions) or a wh-expression (5).

- (4) Tree for $zza^{33} zze^{44} zze^{33} mi^{44} a^{21}$ 'Will (you) eat?'



- (5) Tree of $ne^{33} xi^{44} vy^{33} a^{21}$ 'What did you buy?'



After Agree, at PF, C is optionally pronounced as a²¹, and only the lowest copy of Redup or the wh-expression are pronounced. The underspecified Q feature, [Q:] that does not specify selection of a yes/no question or a wh-question follows [Cheng & Rooryk, 2000](#). This is also evidenced by sentences like (6), which is ambiguous between a polar question, and a wh-question, suggesting an unspecified [Q:] in C. [Cheng & Rooryk, 2000](#) propose that underspecified [Q:] in French and Korean is checked by wh-feature movement, while I propose a wh-agreement relation between NY a²¹ and lower Q. I posit that Q in C in NY is active (uninterpretable), thus requiring agreement with a lower Q.

- (6) *Mu³³ ga⁵⁵ xi⁴⁴ vy³³ si⁴⁴ la³³ su³³ ne³³ dde³³ jji⁴⁴ jji³³ (a²¹)?*
 Muga what buy RES come COMP 2SG know REDUP A
 ‘Do you know what Muga bought today?’
 ‘What do you know that Muga bought?’

Implications. Reduplication in NY introduces a novel interrogative function cross-linguistically, extending its role beyond intensification and pluralization ([Downing & Inkelas, 2015](#); [Nadarajan, 2006](#)) to serve as a distinct marker of polar questions. It is thus the reduplication itself, rather than tone or reduction from other forms, that carries the [+Q] feature, resulting in the interpretation of the sentence as a question. The question remains is that why reduplication can carry a [+Q] feature. One potential explanation is that reduplication can be associated with an [irrealis] feature, which is diachronically reinterpreted as a [+Q] feature. The hypothesis of an [irrealis] feature associated with reduplication is supported by the related language Burmese, where reduplication of verbs elicits conditional meanings ([Okell and Allott 2001](#)). Under this assumption, the [Q: y/n] feature in NY reduplication is related to a more general class of [irrealis] features in the Lolo-Burmese subfamily of Tibeto-Burman.

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INTERNAL VERBAL STRUCTURE OF -NIE/-TIE NOMINALIZATIONS ACROSS SLAVIC: QUANTITATIVE INSIGHTS FROM UKRAINIAN, SLOVAK, BCMS AND PANONIAN RUSYN

Deverbal nominalizations have been widely studied in neoconstructionist morphology (Alexiadou 2001; Alexiadou & Borer 2020), though Slavic data have received comparatively less attention. Building on Simonović & Arsenijević (2014) analysis of -nie/-tie nominals (NTNs) in Bosnian/Croatian/Montenegrin/Serbian (BCMS), we distinguish: (i) productive, prosodically faithful, semantically compositional NTNs (with verbal structure) and (ii) unproductive, prosodically divergent, opaque forms (pure nominals). Cross-linguistically, West Slavic (e.g., Czech) permits productive derivation from both aspects with imperfective-based NTN embeddings under aspectual verbs (Biskup 2023); East Slavic (e.g., Russian) shows aspect-neutral behavior (a single nominal per aspectual pair; perfective-based NTN embeddings under aspectuals, too) (Tatevosov 2011); South Slavic (BCMS) restricts productivity to imperfective bases (see Mišmaš 2020 for a cross-Slavic overview). This typology — West Slavic → both aspects, South Slavic → imperfectives only, East Slavic → no consistent pattern, frames our analysis. We present quantitative evidence supporting this tripartite typology and explore Pannonian Rusyn's (PR) alignment with its closest relatives (Ukrainian, Slovak) and areal neighbor (BCMS). To assess internal verbal structure, we apply three diagnostics: (1) genitive-marked complements (evidence of verbal syntax); (2) plural marking (nominal properties); (3) aspect of the stem.

We compiled comparable samples of PR, Slovak, BCMS, and Ukrainian (a single philological journal issue per language; see Table 1), extracted all NTNs, and annotated them for: (i) verbal stem; (ii) stem aspect (PFV/IPFV); (iii) presence of genitive-marked complements; (iv) number (plural). We then calculated shares of perfective stems, nominals with genitive complements, and plural forms.

Language	#words
Rusyn	67745
Slovak	59671
BCMS	28175
Ukrainian	49841

Table 1: Sources for the 4 corpora

Language	IPFV (%)	PFV (%)
BCMS	84.21	15.79
Rusyn	82.68	17.31
Slovak	66.11	33.89
Ukrainian	47.88	52.12

Table 2: Aspect distribution by language

The results confirm that differences among the three types of NTNs are quantifiable via the share of perfective stems (Table 2). Ukrainian (East Slavic) slightly favors perfective stems; BCMS (South Slavic) strongly prefers imperfective stems. Slovak (West Slavic) falls in between, with a moderate imperfective preference. PR patterns clearly with BCMS, showing a strong preference for imperfective stems.

Structural contrasts among NTNs also appear in genitive complement and, to a lesser extent, plural distribution (Figure 1). Slovak shows the highest frequency of genitive complements, particularly with perfective stems, suggesting internal verbal structure regardless of aspect. In contrast, BCMS and especially PR show more genitive complements with imperfective stems, while Ukrainian displays the reverse. Plural forms are rare across all languages, with PR showing the clearest contrast.

We propose that patterns of internal argument realization arise from variation in the verbal structure inherited by NTNs. One possibility is that they inherit a full VoiceP, including accusative case assignment, predicting obligatory accusative-marked internal arguments—as in English gerunds—though this pattern appears absent in our sample. A second type of NTNs inherits a smaller structure (vP without VoiceP), where the internal argument is selected but surfaces with genitive case, as in canonical noun-argument structures. This accounts for genitive-marked arguments in Slovak (regardless of aspect) and in BCMS and PR with imperfective-derived forms. Thus, in both West and South Slavic, productive NTNs derive from a vP-only structure, allowing argument selection but lacking accusative assignment.

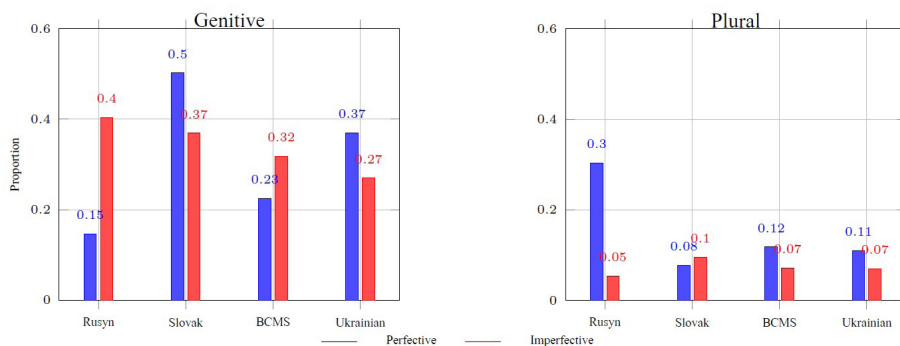


Figure 1: Aspect distribution by case across languages

Perfective-derived NTN_s come almost exclusively from transitives (Mišmaš et al. 2020), while the productivity of imperfective-based NTN_s allows derivation from unergative and stative verbs. Interestingly, NTN_s from these verbs are exceptional among imperfective-derived NTN_s in allowing non-compositionality and prosodic unfaithfulness in BCMS (Kovačević 2021). Along with covert internal arguments, this explains why not all NTN_s co-occur with genitive- marked arguments. Zooming in on transitive stems in BCMS, the contrast between perfective and imperfective-derived NTN_s becomes sharper.

A third type lacks verbal structure altogether—i.e., root-based NTN_s (Lowenstamm 2014). In such cases, postnominal genitives are interpreted as arguments of the noun, not selected by a verb (cf. McIntyre (2014)). This accounts for Ukrainian, where NTN_s show no aspectual productivity, low compositionality, and no link between aspect and argument realization, representing a distinct, lexical nominalization system.

Regarding pluralization, we argue that it is most compatible with the root-based NTN_s, which matches the strongest aspectual contrast in BCMS and PR, likely reflecting a recent shift toward the South Slavic pattern.

Finally, we present preliminary findings for Macedonian, which differs from the languages in our sample in two respects: some NTN_s do take direct objects and there are two exponents of the NTN suffix, *-nje* and *nie*, which tend to combine with imperfective and perfective bases,

respectively. We consider how Macedonian data fit the typology described above.

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AS ABOVE SO BELOW: ON THE MACEDONIAN DEFINITENESS EXPONENT

The Macedonian definiteness exponent has the properties of both a clitic (Tomić, 1996) and an affix (Franks, 2001), and can appear both above and below D. I propose an analysis that can account for this dual nature via postsyntactic mechanisms.

The exponent appears on the structurally highest ϕ -feature agreeing item in the nominal domain – on a noun (1a), an adjective (1b), or a quantifier (1c) – and is a 2P Wackernagel clitic that can appear both above and below the DP layer, as quantifiers select DPs as their complement (Cardinaletti & Giusti, 1992). The all quantifier in Macedonian cannot appear without this exponent (1d).

- | | | | |
|----|--|---|---|
| 1. | a. Žena
woman.F.Sg
'A woman' | – | Žena-ta
woman.F.Sg-the.F.Sg
'The woman' |
| b. | Dobra žena
good.F.Sg woman.F.Sg
'good woman' | – | Dobra-ta žena
good.F.Sg-the.F.Sg woman.F.Sg
'The good woman' |
| c. | Si-te dobri ženi
all.Pl-the.Pl good.Pl woman.Pl
'All the good women' | | |
| d. | *Si dobri ženi
all.Pl good.Pl man.Pl
'All good men' | | |

The definiteness exponent also behaves like an affix as it affects the morphophonological domain of its host. It blocks final devoicing (2a) – unlike clitics in Macedonian (2b) – triggers deletion and epenthesis (2c), and shifts its host's stress (2d).

a. Maž	–	maž-ot	
[Maš]		[Mažot]	
man.M.Sg		man.M.Sg-the.M.Sg	
‘A man’		‘The man’	
e. Maž	i		
[Maš]	[i]		
husband.M.Sg	Poss.Cl	‘Her husband’	
f. Dobar	maž	–	dobri-ot
good.M.Sg	man.M.Sg	good.M.Sg-the.M.Sg	man.M.Sg
‘A good man’		‘The good man’	‘A good man’
g. Organi’zacija	–	organiza’cija-ta	organization.F.Sg
organization.F.Sg-the.F.Sg			
‘An organization’		‘The organization’	

I propose that the definiteness exponent being realized lower than D is a result of Generalized Lowering (Stojković, 2019), which is a postsyntactic operation that lowers one item (the host) to another (the goal) if the two have a matching feature and the goal is the closest item to the host with said feature. Consequently, the exponent will never appear more than once in the extended nominal domain (3a), on an item lower than the structurally highest ϕ -feature agreeing item (3b), and on an item that does not agree with the noun (3c). Additionally, as Lowering precedes Vocabulary Insertion, the definiteness exponent can affect its host (2a, 2c, 2d).

3. a. *Site dobrite ženi
all.Pl-the.Pl good.Pl-the.Pl woman.Pl ‘All the good women’
- b. *Dobra ženata
good.F.Sg woman.F.Sg-the.F.Sg
‘The good woman’
- c. *Mnoguta dobra žena
very-the.F.Sg good.F.Sg woman.F.Sg ‘The very good woman’

I suggest that the all quantifier in Macedonian carries an inherent uninterpretable DEF feature

that is licensed by the adjacent D head’s interpretable DEF feature. This structural context bleeds Generalized Lowering, for which I adopt contextual phasehood (Bosković, 2014) so that QP and DP are in the same

phase at PF. Therefore, the all quantifier in Macedonian cannot appear without this definiteness exponent (1d).

Finally, this item's behavior lends further support to the claim that the clitic/affix distinction is not a dichotomy but a continuum (van Gelderen, 2011; Zanon, 2022), as it illustrates that an item may exhibit characteristics of both categories.

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MORPHOSYNTACTIC ERRORS IN THE ORAL INTERLANGUAGE OF MACEDONIAN LEARNERS OF FRENCH AS A SECOND LANGUAGE

1. Introduction and Hypothesis. This article falls within the field of acquisitional linguistics and error analysis research. More specifically, in it we analyse and categorise the morphosyntactic errors found in the idiosyncratic dialect (Corder, 1980: 18), i.e. the oral interlanguage of the Macedonian learners of the French language. The assumption which served as our basis was that the morphosyntactic errors in the analysed monologues will reflect the main traits of the interlanguage in general: *instability, permeability in relation to L1, simplification and overgeneralization of rules* (Marquillo Larry, 2003: 74). Concerning the grammatical category, relying on experience, we expected that most of the errors would be related to the usual weak grammatical points of the Macedonian learners of French language, i.e. in terms of the agreement within the nominal group, the use of verbs (pronoun and verb agreement), verb structures and word order. We expected the number of *absolute* errors to be significantly higher compared to the *relative* ones, while in terms of operation, we assumed that the errors would mainly happen due to *omission*.

2. Corpus and Analysis. We conducted the analysis by using the dynamic interlanguage electronic base Francoral, which we used to extract 28 oral productions (monologues), created in controlled environments, as well as the adequate transcripts. The productions were created from 27 Macedonian examinees who are learning French as a foreign language in a University environment. We conducted the morphosyntactic analysis based on the grids suggested by Tombolini (2016) and Jamet (2013–2020), relying on the interlanguage researches and the linguistic error conceptions of Selinker (1972), Corder (1967–1984) and Debyser et al. (1967). Based on the analysis parameters suggested by the quoted authors, we designed the following grid for the analysis of the morphosyntactic errors in this paper:

Transcript N.	Erroneous segment	Morphosyntactic category of the error	Operation involved in the error	Communicative acceptability
		<ul style="list-style-type: none"> ▪ gender of words, determiners (definite, indefinite, partitive articles, possessive adjectives, demonstrative adjectives) ▪ agreement ▪ conjugation ▪ pronouns ▪ prepositions ▪ incorrect verb construction (wrong preposition after the verb, missing auxiliary) ▪ verb tenses ▪ subordination ▪ word order ▪ conjunction ▪ negation 	<ul style="list-style-type: none"> ▪ addition ▪ omission ▪ substitution ▪ displacement 	<ul style="list-style-type: none"> ▪ absolute error (non-existent or unacceptable form) ▪ relative error (non-blocking)

3. Preliminary Results and Discussion. From the corpus of 28 monologues, we isolated 148 examples within which we identified a total of 179 morphosyntactic errors. The high percentage of errors confirms the instability of this transitory language system. The analysis partially confirmed our assumption that most of the errors are related to the agreement within the noun group. Namely, the highest percent of errors detected (58 errors or 32.4%) is related to the use of determinants (omission, wrong form, disagreement with the noun, etc.):

[1] c'était vraiment Ø expérience magnifique [It was Ø truly experience wonderful]

(omitted determinant), interference from L1

[2] le plus belle ville [**the** most beautiful city]

(wrong determinant), interference from L1

As we assumed, there is also a high number of errors in the use of verbs and verb tenses (44 errors or 24.6%) which is due to the higher complexity of the tense system in French, as compared to the Macedonian language which often relies on aspect to express tense relations:

[3] le dernier vacance que j'**avais**/les dernières vacances que j'ai eues [the last vacation **I was having**]

(imparfait instead of passé composé)

[4] je **lire** des livres [I **reading** books] [*je lis des livres*]
(unconjugated verb in present tense)

Contrary to the assumption that the interlanguage would display a high level of permeability compared to the word order, i.e. that a high number of interferences from the Macedonian language would occur, we managed to identify a relatively small number of errors (8 errors or 4.5%). This can be explained by the simplification of the statements in the oral expression, deriving from the pressure for an urgent reply and the use of basic sentence components: subject, verb, object (frequent lack of adverbial and adjectival additions). Contrary to this, the interlanguage displayed higher permeability in the two most frequent operations through which the errors were generated: omission and substitution. Our hypothesis that *omission* is the dominant operation was not confirmed, i.e. we established that *substitution* (overgeneralization of rules) appears in several times more cases. According to us, this points at higher-than-expected productivity and creativity of the interlanguage:

[5] ils départent **pourquoi** l'homme travaillait dans le, () gare et la femme est.../*ils partent parce que l'homme travaillait à la gare* [they leave **why** the man worked in the, () station and the woman is ...]

(substitution of the conjunction *parce que* with the interrogative word *pourquoi* due to interference from L1(why the man worked....))

[6] le marketing est Ø très bon créatif travail/le marketing est **un** très bon travail créatif [the marketing is Ø very good work creative]

(omission of the undetermined determinant, interference from L1 (Ø very good work creative))

The assumption that dominance of absolute errors would be detected was not confirmed either. The number of relative errors which do not obstruct the message conveyance is significantly higher. This shows that even beside the grammatical deviations, the interlanguage is functionally understandable:

[7] quand je **lire** sur l'ordinateur/*quand je lis sur l'ordinateur* [when I **reading** on the computer]

(relative error, the message is understandable)

On the other hand, the absolute errors were mostly made due to the use of incomplete sentences which block the understanding of the message:

[8] je n'aime pas euh ... les voit- les voitures les voitures parce que les roues [rués] sont très...euh très très ...,

[I don't like uh... cars because the wheels [streets] are very...uh very very...],

(an absolute error which blocks the message)

4. Further Analysis. The results will be cross analysed with the metadata on the examinees which are an integral part of the electronic database (language level, native language, knowledge of another foreign language, etc.), in order to establish a more comprehensive interpretation about the causes for the generation of the morphosyntactic errors.

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HUMAN TO HUMAN INTERACTION IN TECHNOLOGY-MEDIATED COMMUNICATION: LINGUISTIC ANALYSIS OF OPENINGS AND CLOSINGS

Since Schegloff's (1968) seminal work on telephone conversation openings, human interaction has changed significantly. For example, past research revealed that the participants did not recognize each other by saying their names, but they relied on the other party to recognize them by their voice. Today, however, voice is frequently absent as communication increasingly takes place via text on devices such as smartphones and laptops, offering users greater flexibility in availability and space. Despite this technological advancement, what is the same throughout centuries is that although conversation openings and closings are ritualized speech acts (House & Kádár, 2023), they do require interactional work (Schegloff, 1986, 2006). We rely on shared assumptions about how to begin and end conversations because these are routine, socially meaningful practices that we engage in daily in personal or professional settings. Studies that focus specifically on how conversations are opened and closed in technology-mediated communication remain relatively limited. Most existing research has examined text-based computer-mediated communication (e.g., Abe & Roever, 2019, 2020; Bekar, 2013, 2015; Negretti, 1999) or interactions in virtual gaming environments (Pojanapunya & Jaroenkitboworn, 2011). To address this gap, the present study analyzes the openings and closings of online conversations among tertiary-level students of English, using a conversation analysis approach grounded in empirical interactional data. The research addressed two main questions: (1) What types of utterances and emoji are used to open and close text-based chats? and (2) Are there any cross-linguistic differences when interlocutors communicate in Macedonian versus English? Data was collected from 20 online chats in a Macedonian-English code-switching environment, which reflects the multilingual reality of many university students today. The social media used were Facebook Messenger, Viber and Instagram.

The study draws on previous research into telephone conversation structures, assuming that text-based chat, as a hybrid between written and spoken language, shares certain structural and functional similarities with telephone discourse. A combination of quantitative analysis (e.g., number of turns, length of sequences) and qualitative linguistic analysis yielded several findings: (1) interlocutors adapted to the emergent discourse with different participants; (2) they employed varied strategies to either align with or diverge from perceived norms of socially accepted interaction; and (3) participants often packed several functions into their closing turns, reflecting social, emotional, and contextual considerations. For example, in face-to-face conversations, failing to say ‘goodbye’ is typically viewed as impolite. In contrast, the affordances of text-based platforms—such as asynchronicity, multitasking, and intermittent availability—grant users greater freedom to end conversations in more fragmented and flexible ways.

This paper forms part of a broader investigation into cross-linguistic interaction and digital discourse. It also invites future research on how large language model-based chatbots like ChatGPT might support and shape L2 users in practicing various conversational and linguistic structures across languages and modes.

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GENERICITY, PLURACTIONALITY, RESTRICTORS AND INDEFINITES IN CZECH: TWO EXPERIMENTS

Introduction. Despite its long research history, the nature of generic statements still lacks an empirically adequate theory that accounts for the interaction of genericity with other scope operators. We present new experimental data from Czech, showing that generic sentences containing a predicate with the habitual/generic $-(v)a$ interact with indefinite NPs differently than pluractional sentences with iterative morphology. Our findings have consequences for theories of genericity in Slavic languages (Filip and Carlson (1997), Filip (2017), Biskup (2024)) and in general (Krifka et al. (1995), Ferreira (2016), Van Geenhoven (2001), Van Geenhoven (2004)). Theories of genericity either derive it from iterativity (Ferreira (2016) a.o.) or argue that it is a separate operator (Filip and Carlson (1997)). It has been argued (Kuhn and Aristodemo (2017)) that pluractionals can only have a narrow scope with respect to plain indefinite objects. We used the scope interpretation of indefinites as a test. Our research question is: do generic sentences (with $-(v)a$) allow wide scope interpretations of the genericity operator with respect to indefinite objects?

Experiments. The first experiment studied the interaction between generic and pluractional sentences with indefinite NPs. Participants judged the acceptability of sentences with indefinite NPs in contexts strongly favoring the narrow scope of the indefinite (see table below) using a 7-point Likert scale (7=best, 1=worst). There were 3 conditions (PERF, PLUR, GEN): baseline

(1) with a semelfactive verb and a universal quantifier over times, pluractional (2a) with iterative morphology, and generic (2b) with the generic morpheme $-(v)a$. There were 9 experimental items (1x3 conditions) and 9 fillers. 118 participants took part in the first experiment (online in L-Rex). In a follow-up study (experiment 2), we tested the influence of the presence of a restrictor (following Boneh and Doron (2013)) as the factor improving the acceptability of genericity with indefinites (for a similar contrast in English: *Mary smokes a cigarette #(after dinner)*). Experiment

2 had three conditions, two of which were the same as in experiment 1 ((1) and (2-b)), plus a third one with an explicit restrictor, as in (3). For the sake of space, we focus on experiment 1.

- (1) Petr každý den chyt-nu-l jednu rybu.
 Petr every day catch-SEM-3SG one fish
 'Petr caught one fish every day.'

- (2) Petr {a.chyt-a-l/b.chyt-á-va-l} jednu
 Petr catch-ITER.3SG/catch-á-GEN-3SG one
 rybu.
 fish
 'Peter caught one fish (repeatedly)/(regularly).'

- (3) Petr po ránu
 Petr on morning
 chyt-á-va-l jednu
 catch-á-GEN-3SG one
 rybu. fish
 'Peter caught one fish in the
 morning.'

Results and discussion. 98 participants passed the fillers. We analyzed the results using a Bayesian hierarchical model (R Core Team (2024), Goodrich et al. (2023)) with one independent variable (verb with conditions PERF, PLUR, GEN) and random intercepts for participants and items. The condition GEN was the reference level. The differences between the baseline and the other two conditions are credibly different (see Figure 1): PERF was 3.5 points better than GEN, Bayes factor (BF) in favor of the existence of the difference: $4.71e+21$ (extreme evidence); PLUR was 0.8 points worse than GEN, BF in favor of the existence of the difference: 366 (also extreme evidence). The experimental results show that generic sentences with $-(v)a$ can have a wide scope with respect to indefinites. In contrast, pluractional sentences with only the iterative suffix are much less likely to have such a scope. This is a new experimental finding that we interpret as follows: the marker $-(v)a$ is a generic operator that can be formalized as a modalized universal quantifier (operator in the sense of Kuhn and Aristodemo (2017); modalized UQ after Greenberg (2007)) – see

formalization (4), while the iterative morphology is a pluractional filter (in the sense of Kuhn and Aristodemo (2017)) which restricts the denotation to the plural set of (catching) events but doesn't sum events like universal quantifiers, see (5). We conclude that generic sentences with the suffix -va contain an operator distinct from the iterative operator/filter (at least in languages with an overt generic marker). The level of acceptability of genericity with indefinites is positively influenced by the presence of a restrictor, as indicated by the results of experiment 2 (see Figure 2).

Day	Fish
Monday	Salmon
Tuesday	Trout
Wednesday	Carp
Thursday	Catfish
Friday	Tuna
Saturday	Mackerel
Sunday	Bass

$$(4) \quad \forall w'[w' R w_0 \rightarrow \forall t[\text{day}^{X_{\text{day}}}(t) \rightarrow \exists y[\text{fish}(y) \wedge \# \text{fish} = 1 \wedge \text{catch}(t, \text{Peter}, y, w')]]]]$$

$$(5) \quad \llbracket \text{VP} \rrbracket = * \lambda t'. \exists y[\text{fish}(y) \wedge \# \text{fish} = 1 \wedge \text{catch}(t', y)] \wedge \# t' > 1$$

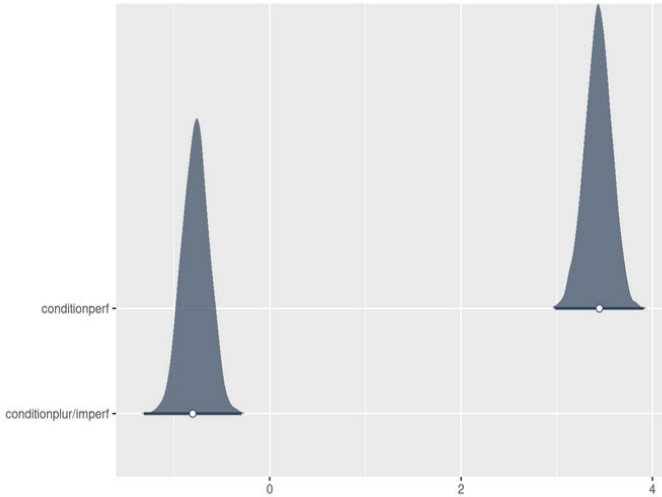


Figure 1: Results of the experiment 1

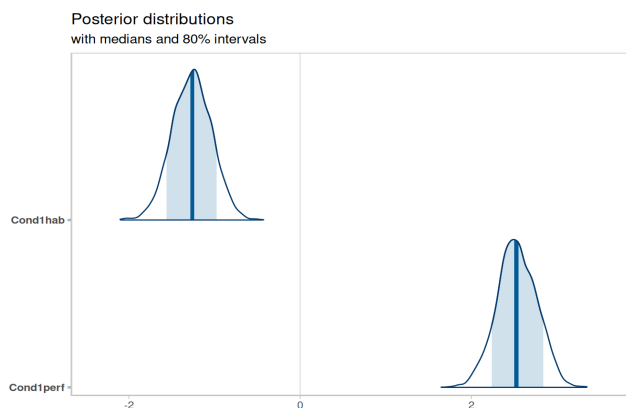


Figure 2: Results of the experiment 2

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A ‘NEWER’ BALKANISM - DIFFERENTIAL PLACE MARKING IN BALKAN ROMANCE, MACEDONIAN, AND GREEK

Keywords— Balkan Linguistics, Differential Place Marking, Language typology, Dialectology.

Phenomena of Differential Place Marking (Haspelmath 2019), also called zero-marking of spatial relations (T. Stolz, Lestrade, and C. Stolz 2014), have often been mentioned in the languages of the Balkans: in Aromanian (Kramer 1981, Caragiu-Marioțeanu 1975), Modern Greek (Holton, Mackridge, and Philippaki-Warbuton 1997, p. 335), Ancient Greek (Luraghi 2017), and in Macedonian (Koneski 1965, p. 117). Sandfeld (1930, pp. 110–111) even elaborated on such phenomena in the Balkan varieties from a comparative perspective. He provided examples from Albanian (Example 1), Aromanian (2), Balkan Slavic (3), and Greek (4):

- (1) *Laskoviq-Ø* *vajta*
Laskovik(M)-NOM/ACC.SG.INDF go.1SG.AOR
‘I went to Laskovik.’ (Albanian, Sandfeld 1930, p. 111)
- (2) *mi duc Sărun-ă*
I.ACC go.1SG.PRS Thessaloniki(F)-NOM/ACC.SG.INDF
‘I go to Thessaloniki.’ (Aromanian, Sandfeld 1930, p. 111)
- (3) *si-te sel'an-i-Ø 'od-el-e cărkov-Ø*
all.PL-DEF villager(M)-PL-INDF go.IPFV-PTCP-PL church(M)-SG.INDF
‘All the villagers went to church.’ (Balkan Slavic, Sandfeld 1930, p. 111)
- (4) *πά-ω σχολεί-ο*
go.PFV-1SG.PRS school(N)-NOM/ACC.SG
‘I go/will go to school.’ (Greek, Sandfeld 1930, p. 110)

Vidoeski (1999, p. 25) even considered such phenomena a ‘newer Balkanism’. Until now scholars have mainly mentioned the presence of phenomena of Differential Place Marking, but have not further described the actual patterns in the different varieties and the semantic factors playing a key role. One exception is the short chapter by Stolz et al. (2014) on the Aromanian variety of Kruševo. This is the reason why we study these patterns more in detail in different Balkan varieties in our presentation. We present and discuss linguistic data from different Aromanian as well as other Balkan Romance varieties (Istro-Romanian and Meglen Vlach) to better understand the inter- and intra-diatopic variation of Differential Place Marking. We study and compare their occurrences in the linguistic transcripts from different synchronic Aromanian varieties, e.g., from Kruševo (Goľab 1984), Ohrid and Struga (Marković 2007), Turia/Kranéa (Bara, Kahl, and Sobolev 2005), Istro-Romanian (Kovačec 1998/Cantemir 1959), and Meglen Vlah (Atanasov 1990). We then contrast the situation in these varieties with the marking patterns in other Balkan varieties like Macedonian (Vidoeski 1999) and Greek.

As we will show in our presentation, the picture is not uniform in the different Balkan Romance, Macedonian, and Greek varieties. The relative frequencies of the marking patterns of Differential Place Marking do vary within/among the different varieties. Furthermore, there seem to be different semantic factors, like proper vs. common noun, proximity vs. remoteness, playing a major role in the marking patterns.

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ASPECTUAL MARKED GERUNDS IN APULIAN AND ITALIAN

In this paper we will describe the distribution of gerunds in some Apulian (south-eastern) varieties and in Italian: gerunds are cross linguistically found in embedded clauses where matrix verb determines the tense and controls exhaustively the embedded verb (event in Wurmbrand & Lohninger. 2019). Curiously gerunds in Apulian varieties are not found in progressive constructions, as in Italian or English, but embedded under the *go* auxiliary or in negative imperative constructions. We propose that the variation in the distribution of gerunds is linked to the aspectual value that gerunds denote in each variety.

Gerunds in northern Apulian varieties is found under *go* periphrases to express both iterative (1) or negative imperative (3) or under *be* (2) for negative imperative constructions (Rohlf, 1969).

(1)

Mari ve	mandzennə	i 'kəttə	crotə
Ma'ri goes	eating	the mussels	raw

‘Mari eats raw mussels’

(2) Mari, non zi mandzennə i 'kəttə crotə

Ma'ri, not be2sg eating the mussels raw
‘Mari, don’t eat raw mussels’

(3) nn ɔ: ʃə:tə camannə

Neg him go.2pl call.GER

‘don’t call him’

Taranto

(Manzini & Savoia 2005, 2:458)

Italian and Apulian varieties differ in that gerunds are found embedded in progressive constructions under *stay* while in Apulian varieties progressive is expressed through an aspectual periphrasis involving finite embedding under *stay* (4). In the same varieties the auxiliary *go* (5)

can be found in similar construction involving finite embedding to express future/ andative.

- (4) Stek a fattsə u p3n t Conversano (BA)
 Stay-1s to make Pres , ind 1s he bread
 ‘I am making the bread’ (Lorusso 2019:204)

- (5) Vek a fattsə u p3n Conversano (BA)
 Go-1s to make Pres , ind 1s the bread
 ‘I am going to make the bread’

If we focus on the auxiliary stay and go in these constructions, we find that while the finite embedded verbs in (6) can be substituted by a gerund under go, we never find a gerund embedded under stay in (7) contrary to what happens in Italian.

- (6) *Stek fafenna u p3n Conversano (BA)
 Stay-1s to make Pres , ind 1s the bread
- (7) Vek fafenna u p3n Conversano (BA)
 Go-1s to make Pres , ind 1s the bread
 ‘I am going to do the bread’

The gerunds encode an aspectual value which is incompatible with the progressive construction involving the stay auxiliary, but it is allowed with constructions involving the go auxiliary. Gerunds should be analyzed as a syntactic constituents merged as part of the syntactic projections associated with aspectual constructions (a sub-event). Gerunds, in fact, have been analyzed in Spanish or Italian or as a RhemePs, in Ranchand’s (2008) terms, which imply the incorporation of some path (Fabregas & Jimenez Frenandez 2018) or as an instantiation of an inclusion (\subseteq) relation between the clausal auxiliary and the embedded subevent which includes it (Franco & Lorusso 2020). The analysis of the distribution of the gerunds in Apulian will allow us to identify the aspectual/modal characteristics that gerunds can/might represent in this varieties and how

(8) Le cose andarono veramente sempre peggiorando Standard Italian
‘things were (lit. went) constantly getting worse.

Furthermore, in these varieties gerunds are often reduplicated (9) confirming a reiterative interpretation of a manner (or a property) of how the matrix predicate is achieved/developed.

(9)	mangennə	(mangennə),	so	arrvatə a kesə	Conversano (BA)
	Eating	eating	I am	arrived at home	
	'I have arrived home eating'				

The relations between gerunds encoding a property which can be ordered /prohibited (included/excluded in the to-do-list of the addressee) is confirmed by the Spanish gerunds (10) which is used as a strong imperative. In English gerunds are also found in prohibitions but preceded by a negative (modal) element and no auxiliary (Iatridou 2018).

(10) Andando!

Going

‘Go!’

(11) No smoking

The distribution of gerunds in clausal embedding in Apulian varieties allows us to make predictions on the aspectual values that the gerunds can encode: in Apulian it encodes an iterative aspect while in Italian, on the contrary, gerunds refer to an imperfective, in the sense that no initiation or culmination point is interpreted, and stage/part identifiable event (Manzini et al. 2017) allowing a progressive reading. The distribution of gerund in clausal embedding confirms that languages vary in the morphosyntactic forms which encode different aspectual values. Although gerunds are found embedded under ‘high control’ matrix verbs (Wurmbrand, Lohninger. 2019), languages vary on which aspectual interpretation may be encoded through gerunds.

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PHONOLOGICAL DOMAIN STRUCTURE AND DOMAIN NARROWING IN SLAVIC MID VOWEL ALTERNATIONS

This paper presents an amphichronic analysis of microvariation in related, yet distinct patterns of morphophonological alternation across the Slavic languages. Using the framework of the life cycle of phonological processes (Bermúdez-Otero 2015), I focus on patterns of *domain narrowing*, and show how they contribute to analysing several central issues in Slavic morphophonology. Many Slavic languages demonstrate an alternation between front mid vowels and a back vowel (usually *o* or *a*) after synchronically or historically palatalized consonants (see e. g. Janczulewicz 2021). The alternation is driven by the right-hand context: *e* forms occur before palatalized consonants or syllables with front vowels; the conditioning of non-*e* forms is more variable, but basically they occur in the absence of a fronting factor: Belarusian *несці* ['nesʲtʲɫi] 'carry.inf' ~ *нёс* ['nos] 'carry.pst.sg.m', Polish *plecie* 'weave.prs.1sg' ~ *plotą* 'carry.prs.3pl', Bulgarian *бял* ['bjaɫ] 'white.sg.m' ~ *бели* ['beli] 'white.pl'.

In most present-day varieties, the patterns frequently demonstrate misapplication, such as back vowels in 'front' contexts: Polish *jeziro* 'lake.nom' ~ *jeziorze* 'lake.loc' (**jezierze*), *piana* 'foam.nom' ~ *pianie* 'foam.loc' (**pienie*), Ukrainian *вечору* ['vɛʃɔru] 'evening.dat' ~ *вечори* ['vɛʃɔri] 'evening.loc' (**вечери*). This is particularly common in inflection. The same morphemes can alternate as expected in derivation: Polish *pojezierze* 'lakeland', *pienisty* 'foamy', Ukrainian *вечеря* [vɛ'ʲɛrʲɪa] 'evening meal'. I argue that synchronically this misapplication generally follows from the stratal organization of phonological grammar (Bermúdez-Otero 2018): the alternations are generally transparent at the stem level, and overapplication arises under word-level affixation. This has diachronic corollaries within the life cycle model. First, mid vowel alternations must have undergone *domain narrowing*, applying transparently under word-level suffixation. This is attested both historically (Old Polish *na jeziorze*) and synchronically, in some Russian vernaculars. Second, the notion of

domain narrowing provides an explicit formal account of ‘analogical levelling’, the traditional explanation for these misapplication patterns.

In the paper, I explore the consequences of this approach. Notably, multiple languages show a pattern where nouns generalize the back vowel (as in the above examples), but verbs often show front vowels: Polish *czesać*, Ukrainian *чесати* [tʃɛˈsatɪ] ‘scratch.inf’ for expected, and historically attested, *czosać*, *чосати*. I show how the stem-level affiliation of the alternations predicts these patterns: following Bermúdez-Otero (2018), stem level alternations involve stem allomorphy. I argue that this approach accounts for the different outcomes of the levelling, and also suggest that the domain structures underlying the analysis are consistent with an approach to Slavic verbal morphology in which verbs possess two lexically specified stem allomorphs (as in many traditional approaches), rather than a single stem whose allomorphs are derived by rule (Jakobson 1948). More generally, I argue the material is more consistent with a relatively ‘shallow’ approach to morphophonological alternations in Slavic (cf. Padgett 2011) than with one based on long derivations largely reproducing historical developments, as widely practised in mainstream generative phonology.

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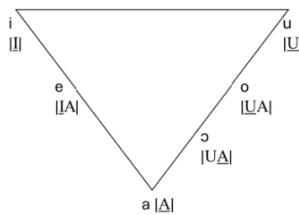
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|U| AND |I| ARE NOT THE SAME: METATHESIS IN SAMBALPURI

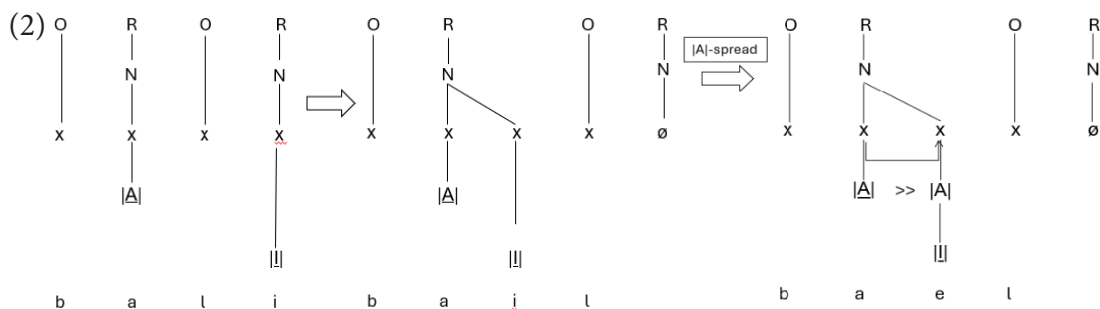
This paper investigates the case of metathesis and vowel lowering in Sambalpuri (Sb), a variety of Odia (Eastern Indo-Aryan language). Sb is an interesting case to study these processes due to its high tolerance for word-final consonants, unlike other varieties of Odia.

For this study I use representations from Element Theory (Backley, 2011). Sb has an asymmetric 6 vowel repertoire of /i, e, a, ɔ, o, u/. Fig. 1 shows the elemental configurations of Sb vowels: |I|, |IA|, |A|, |UA|, |U|, |U|. It is observed that the vowel with elements |UA| does not have a corresponding front vowel with the configuration |IA|.



Metathesis and vowel lowering are distinct phonological processes which change a string (/AB/→[BA]) and lower the height of the vowel (i→e), respectively. There are three cases involving these processes in Sb: A. Metathesis without lowering, B. Metathesis and lowering, C. Neither process. I shall use Government Phonology (Kaye et al., 1990) to analyse these cases in Sb disyllabic words (1). A. Metathesis without vowel lowering: There are words in Sb with |U| and |I| elements in successive nucleus, such as /uli/ which go through metathesis to form [uil] (1a.).

(1)	(C)VCV	(C)VVC	
1a.	/uli/	[uil]	‘onion’
	/d ^h uli/	[d ^h uil]	‘dust’
1b.	/aji/	[æj]	‘today’
	/bali/	[bael]	‘sand’
1c.	/alu/	*[aul]*[aol]	‘potato’
	/b ^h alu/	*[b ^h aul]*[b ^h aol]	‘bear’
1d.	/inu/	*[iun]	‘from here’
	/miṭu/	*[miuṭ]	‘parrot’



B. Metathesis and vowel lowering: There are words in Sb with \underline{A} and \underline{I} elements similarly

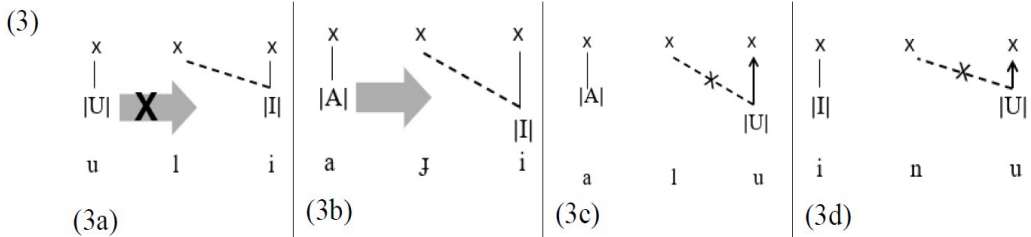
(1b.), such as /bali/, which undergo metathesis to form [bail], and consequently lowering to form [bael]. Backley, (2011) states that, \underline{A} and \underline{I} are in different tiers. Due to intra-constituent government (Harris, 1990) \underline{A} governs the succeeding \underline{I} and hence, induces spreading of \underline{A} . This leads to a change in the nucleus from \underline{I} to \underline{AI} =[e], making /bail/ → [bael]

(2). \underline{I} and \underline{U} , on the other hand share the same tier in case A., due to which spreading is blocked. It is to be noted that metathesis created the environment for lowering by bringing the vowels adjacent to each other.

C. No metathesis or vowel lowering: Contrary to expectations, there are also words with \underline{A} or \underline{I} , and \underline{U} in Sb (1c, 1d), which do not go through metathesis (and the consequently vowel lowering). In this paper I provide a possible explanation for this discrepancy, in the application of metathesis, between the words 1a. and 1b. and those in 1c. and 1d. Belvin (1998) defines compensatory metathesis as a vowel at the edge of a phonological domain undergoing phonetic weakening in quality and duration. The size and distribution of the vowel inventory is crucial in determining the occurrence of such a process. Compensatory metathesis is thus more likely to result in languages with small and widely spaced vowel repertoires like 5-vowel (Oceanic) and 3-vowel (Australian) languages. For example, in Routuman /tiko/→[tiok] ‘erroneous’, /seseva/→[seseav] ‘flesh’. I assume that the cases in Sb are similarly instances of compensatory metathesis. It appears so then, that the lack of metathesis with words involving a final \underline{U} vowel is due to a restriction on the phonetic weakening of this element, unlike \underline{I} which readily undergoes weakening and metathesis.

Backley (2011) observes that, phonetically, \underline{I} shows two high energy peaks, at 500Hz and 2.5kHz, with an intervening dip. \underline{U} , on the

other hand, has energy concentrations at the lower frequencies, 0-1kHz, followed by a falling pattern. I argue that this characteristic of raising energy in [I] makes it suboptimal for a word-final position, which is generally marked by a drop in energy. This makes a final [I], as seen in 1a. and 1b., more prone to weakening processes like compensatory metathesis. The falling pattern of [U] on the other hand, is optimal for a word- ending segment and therefore does not undergo such weakening processes and is retained at its underlying word-final positions. This preference for a final /u/ is also cross-linguistically reflected in the choice of /u/ as a final epenthetic vowel across many languages including Telugu, Kanada (Krishnamurti, 2003) and Japanese (Mori, 2004).



(3) shows the representations and processes occurring with each of the different cases explained in this paper. The dotted line represents possible metathesis, the regular line shows default position and segmental links as in [I], and the arrowed line represents a higher preference for retaining [U] in the final position. (3a) shows metathesis but no vowel lowering due to the [U]-[I] being in the same tier. (3b) shows metathesis along with [A]-spread. (3c & 3d) shows no metathesis or vowel lowering due to the presence of [U] in the final position.

This paper therefore provides an analysis for the metathesis and lowering patterns observed in disyllabic Sb words. The language goes through metathesis for [I]-ending words but not for [U]- ending words. This disparity is argued as a consequence of acoustic-energy related positional preferences in the language.

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THE IMPORTANCE OF HAVING A DEGREE: ATTRIBUTIVE SHORT AND LONG FORM ADJECTIVES IN BCMS

Introduction. Bosnian/Croatian/Montenegrin/Serbian (BCMS) attributive adjectives (As) can appear in short or long form (SF vs. LF). Descriptively, a tendency has been observed for SFs and LF to occur with indefinite and definite nominals, respectively (1) (Maretić, 1963; Stevanović, 1986).

(1)

a. jedan velik-? kaput

one big-SF coat

‘one big coat’

b. taj velik-i kaput

this big-LF coat

‘this big coat’

This tendency led to syntactic analyses, according to which the LF/SF difference in BCMS, an articleless language, signals nominal definiteness [\pm DEF] (Zlatić, 1997; Progovac, 1998; Leko, 1999; Despić, 2011) or specificity [\pm SPEC] (Aljović, 2002; Trenkic, 2004; Talić, 2017), or that at least SFs always appear with indefinite nominals (Stanković, 2015). However, the LF-to-+DEF/SPEC and SF-to-–DEF/SPEC patterning is violated in both directions (2), (3) (cf. Kovačević, 2014).

(2) a. Kad uđeš u sobu, na sredini je velik-i okrugl-i sto. [LF in –DEF]

when enter.2SGPRS in room on middle is big-LF round-LF table

‘As you enter the room, there is a big round table in the center.’ (after Trenkic, 2004)

b. Treba mi neki velik-i kaput.

[LF in –SPEC]

needs me some big-LF coat

‘I need a big coat.’

- (3) Vòlim taj velik-Ø kaput. [SF in +DEF / +SPEC]
 love.1SGPRS that big-SF coat
 ‘I love that big coat.’

The present account. Rather than signaling $\pm\text{DEF}$ of the nominal referent, we propose analyzing the SF/LF distinction in terms of definiteness of degree (DoD), with a morphosyntactic locus within the AP (similar to Marušič and Žaucer’s 2014 analysis of the clitic *ta* in colloquial Slovenian). We follow a common analysis of gradable adjectives as involving scale structure and expressing a relation between an entity x and a degree d , which is a point on the scale; see, e.g., Kennedy and McNally (2005) [KM]. Under KM’s analysis the degree argument always gets existentially closed, and this happens either when degree modification is added (4-a), or by an empty *pos*(itive) head, which locates d on the scale with respect to a contextually determined standard, (4-b).

(4)

- a. $\llbracket \text{Deg}(\text{P}) \rrbracket = \lambda G \lambda x \exists d [\mathbf{R}(d) \wedge G(d)(x)]$
 b. $\llbracket \text{pos} \rrbracket = \lambda G \lambda x \exists d [\mathbf{standard}(d)(G)(\mathbf{C}) \wedge G(d)(x)]$

We depart from KM’s analysis in three ways: (a) We assume that also non-gradable As involve scale structure, treating gradability as a mere reflex of vagueness resolution (cf. Sassoon, 2013): less vague, or crisp predicates are incompatible with degree modification because they involve a trivial 2-point scale ($[0,1]$); (b) we dissociate degree modification from existential closure of d , following Bierwisch et al. (2024) [BKR]: Degree modification adds further conditions on d , but the existential (or other) import does not depend on this; and (c) existential closure is just one way of binding d , which is the standard way in languages that lack definiteness marking in the degree domain, such as English. BCMS, on the other hand, has a definite marker in the degree domain, and we propose that this is the adjectival LF morphology, implemented for positive forms in (5).

(5)

$$\llbracket \text{pos} + \text{LF morphology} \rrbracket = \lambda G \lambda x. \iota d [\mathbf{standard}(d)(G)(\mathbf{C}) \wedge G(d)(x)]$$

More generally, we assume that d can be (in)definite (unique or anaphoric), and (epistemically and/or scopally) (non)specific. Our analysis predicts that whenever d is (contextually) unique (incl. anaphoric to another degree in the context), we should get the LF, and the SF should be banned.

Empirical support. A first argument for the analysis comes from the fact that relational and spatial As lack SFs (6), which correlates with their non-gradability (7). Under our account, these As lack SFs because they are crisp predicates, which involve a definite point on the scale (1; nothing between 0 and 1). In support of this claim, we present linear models drawn from a sample of 1100 most frequent BCMS adjectives in Ljubešić and Klubička (2016), which show that the frequency of SF is strongly predicted by the frequency of the comparative form, but the frequency of the comparative form does not affect the frequency of LF.

- (6) a. $\{ *seo-sk-\emptyset / seo-sk-i \}$ put ‘village road’
 b. $\{ *pred-nj-\emptyset / pred-nj-i \}$ točak ‘front wheel’
 (7) a. $*seo-sk-ij-i$ ‘village-ADJ-COMP-LF’
 b. $*pred-nj-ij-i$ ‘front-ADJ-COMP-LF’

Second, there is a strong preference for LFs with specific measure phrases (8), and comparative (and superlative) forms always appear in LF (9). We assume that both operate on degree intervals, following BKR. With specific measure phrases, the relevant endpoint on this interval is specified and thus requires definiteness marking. Comparatives/superlatives involve anaphoric definiteness.

- (8) dva metra $\{ ??visok-\emptyset / visok-i \}$ čovek
 two meters tall-SF tall-LF man
 ‘a/the two-meter tall man’
 (9) $\{ novij-i / *novij-\emptyset \}$ kaput
 newer-LF newer-SF coat
 ‘(a/the) newer coat’

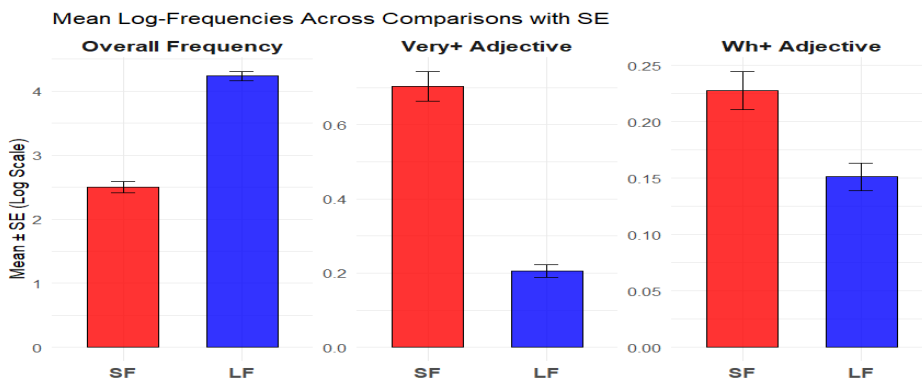
Third, vague degree modifiers like *veoma* ‘very’ disprefer LFs (10). These are mere standard boosters, which still only involve an indefinite degree on the scale.

- (10) *veoma* $\{ mlad-\emptyset / ??mlad-i \}$ čovek
 very young-SF young-LF man
 ‘a/the very young man’

There is also quantitative support for this (see right figure): While LFs are significantly more frequent overall, SFs are significantly more frequent in combination with *veoma* ‘very’; they are also more frequent with *koliko* ‘how-much’.

Finally, co-occurring SFs and LFs within the same NP challenge nominal \pm DEF/ \pm SPEC accounts, see (11) (attested online): Under our account, ‘regular’ appears in LF because it is a crisp, non-gradable predicate (it lacks the comparative *običniji*); the LF ‘cheap’ signals discourse- uniqueness; and with the SF ‘reliable’, the degree is not unique in the context of Quartz watches.

- (11) Treba mi [običn-i jeftin-i pouzdan-Ø quartz sat].
 need me regular-LF cheap-LF reliable-SF Quartz watch
 ‘I need a regular reliable cheap Quartz watch.’



Conclusion. Our account of the LF/SF difference in BCMS in terms of definiteness of degree explains data left unaccounted for by standard nominal \pm DEF/SPEC accounts. It also captures gaps in A(djective) paradigms, where certain As lack or disprefer SFs or LFs. If correct, the analysis presents a case for a cross-linguistically rare morphological category of definiteness, DoD, which sheds new light on both definiteness and degree in natural language.

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POLARITY ITEMS LICENSING IN THE NON-MONOTONIC ENVIRONMENT: EXPERIMENTAL EVIDENCE

Background. Current theories of Negative Polarity Items (NPIs or generally PIs) licensing (Gajewski (2011), Chierchia (2013)) consider them unlicensed in affirmative episodic statements if no traditionally recognized licenser is present. Experiments (for English: Gajewski (2016); for Czech: Dočekal and Juřeň (2023)) show that the number of the head NP may affect NPI licensing. Another theoretically expected factor in acceptability is genericity. Kadmon and Landman (1993) point out the relation between genericity and free-choice *any*. However, the effect on potential indefinite licensors for PIs has not been tested. We constructed an experiment testing the number of the head NP and the genericity/episodicity of the verb as factors in NPI licensing in Czech. We asked if speakers recognize genericity as a boost for the acceptability of sentences with *sebemenší*. Generic sentences are non-monotonic (Nishiguchi (2003), Kirkpatrick (2019) a.o.), which poses a problem for the still most widely used theories of NPIs which derive their distribution from downward-entailingness (Ladusaw (1979) and all after him).

Experiment. We conducted an experiment in PCIBex on native speakers of Czech. We employed a 2×2×2 factorial design, controlling for number (sg/pl on the subject and predicate), genericity (generic: the adverb *ve většinou* – “mostly” + habitual *-av-* morpheme in the predicate × episodic: the adverb *právě* – “just” + perfective predicate) and PI presence (PI: *sebemenší* “the slightest”, adj: a non-polarity-sensitive adjective). The participants rated the acceptability of the stimuli on a 1 (low) to 5 (high) scale. We hypothesized genericity would be rated higher than episodicity, plural higher than singular, and PI-sentences lower than non-PI sentences.

- | | |
|--|--|
| <p>(1) (pl):<i>Jasnovidky</i>/ (sg):<i>Jasnovidka se</i>
clairvoyant.F.PL /SG with
[(PI):<i>šebemenší</i>
slightest.INS
<i>známkou</i>]/[(adj):<i>vysokou úrovní</i>]
hint.INS/high.INS level.INS
<i>nadání většinou</i>
talent.GEN mostly
<i>vidávají/vidává smutnou</i>
see.HAB.3PL/3SG sad.ACC
<i>budoucnost</i>.
future.ACC
'Clairvoyants/A clairvoyant with the
slightest hint/a high level of talent see/-s
a sad future most of the times.'</p> | <p>(2) (pl):<i>Jasnovidky</i>/ (sg):<i>Jasnovidka se</i>
clairvoyant.F.PL /SG with
[(PI):<i>šebemenší</i>
slightest.INS
<i>známkou</i>]/[(adj):<i>vysokou úrovní</i>]
hint.INS/high.INS level.INS
<i>nadání právě uviděly/uviděla</i>
talent.GEN just see.PF.PST.3PL/3SG
<i>smutnou budoucnost</i>.
sad.ACC future.ACC
'Clairvoyants/A clairvoyant with the
slightest hint/a high level of talent have/-s
just seen a sad future.'</p> |
|--|--|

Results and discussion. The data were analyzed in a mixed-effects Bayesian linear regression model using *rstanarm* package (Brilleman et al. (2018)) in *R* (R Core Team (2025)). The model uses the sum-coded contrasts in 2x2x2 design with interactions (the conditions GEN, PLUR, NPI against EP, SG, ADJ); the dependent variable is the subject's response on the Likert scale. The model uses the full random effects structure and *rstanarm* default weakly informative priors. The model shows a credible main positive effect of genericity (GEN: $\hat{\beta} = 0.09$ 95% Cr(edibility) I(interval)=[0.05, 0.13] with Bayes factor (BF) 31.8 – very strong evidence in favor of the effect); the effects (and interactions) are interpreted against the grand mean (Intercept): $\hat{\beta} = 3.87$, CrI=[3.73, 4.02], BF 2.13e+93. The strongest main effect is negative for the PI (NPI: $\hat{\beta} = -0.45$, CrI=[-0.49, -0.41], BF 2.36e+23 – extreme evidence). The third main effect is positive for the plural (PLUR: $\hat{\beta} = 0.06$, CrI=[0.02, 0.10]), but there is moderate evidence against its existence due to the BF of 0.330. The strongest interaction effect is between genericity and PI (GEN:NPI: $\hat{\beta} = 0.13$, CrI=[0.09, 0.16], BF 3.00e+04 – extreme evidence). All other interactions (GEN:PLUR, PLUR:NPI, GEN:PLUR:NPI) receive BF 0.018 and below, meaning very strong evidence against their existence (direct argument for their H₀). Linguistic interpretation: PIs are licensed by genericity (credible interaction GEN:NPI) but not by plurality (noncredible PLUR:NPI). To formalize genericity, we follow the dynamic approaches to counterfactuals and generics (von Fintel (2001), Kirkpatrick (2019)), which use dynamic conditional '>' quantifying over most normal worlds. The generic (1) is then formalized in (3), non-monotonic modal universal

quantification (UQ). Assuming that *sebemenší* is an NPI, its occurrence in (1)/(2) is un-expected. Since it appears in the first argument of the non-monotonic UQ, we use a non-standard approach to NPIs licensing (Barker (2018)): licensed if the wide scope interpretation of the NPI fails to entail the narrow scope of the NPI w.r.t. other operators – true for (3) where the PI occurs in the first argument (*ClairvoyantWithTalent(x)*). Our results starkly contrast with the English data (Gajewski (2016)), where the experiment did not show the effect of genericity on NPI licensing in definite descriptions but only the effect of the number of the head NP. We hypothesize that this follows from the lack of definiteness distinction in Slavic languages and partially from the predicate’s morphological marking by -av- (dedicated genericity marking).

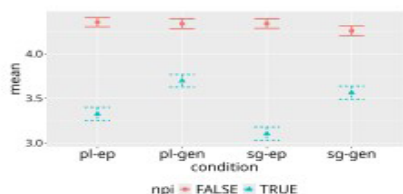


Figure 1: Responses: mean and standard errors

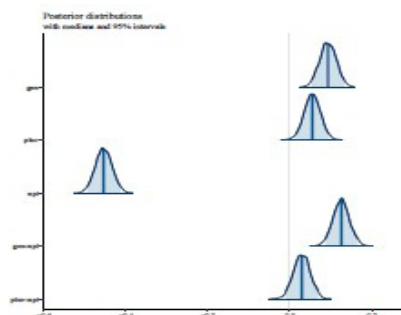


Figure 2: Main effects and interaction.

- (3) $\forall (ClairvoyantWithTalent(x) > SeeSadFuture(x))$
 $\forall w' \in^* (w, \llbracket ClairvoyantWithTalent(x) \rrbracket) : \text{if } \llbracket ClairvoyantWithTalent(x) \rrbracket^{w'} = 1,$
 then $\llbracket SeeSadFuture \rrbracket^{w'} = 1$

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SYNTACTIC CONSIDERATIONS ON TURKISH ALTERNATIVE QUESTIONS

This work investigates the syntactic structure of Turkish alternative questions. I argue that there is no *wh*-element in the structure for these questions. I follow Gračanin-Yüksek, 2016 in that the disjuncts in Turkish AltQs are of size CP and address a novel piece of data problematic for a large disjuncts analysis.

Turkish, unlike English, has different strategies for alternative questions and disjunctive yes/no questions. The unambiguous AltQs have an optional Disj⁰ *yoksa* and obligatory focus on both sides of the disjunct followed immediately by the particle MI (Gračanin-Yüksek, 2016).

- (1) Hezal İhtilal mi (yoksa) Epik Büyü Savaşları mı oynadı?
Hezal İhtilal MI (or_{Alt}) Epic Spell Wars MI play-PST
'Did Hezal play İhtilal or did she play Epic Spell Wars?' (✓: AltQ ✗: PolQ)

Turkish AltQs, unlike their English counterparts (Larson, 1985; Han & Romero, 2004; Beck & Kim, 2006), are licit in syntactic islands with a wide scope reading, suggesting they do not contain a *wh*-element. There is also no overt *whether*-like element under any condition.

- (2) * [Can-ın neden yaz-dı-ğ-ı] dilekçe uzun?
Can-GEN why write-PST-COMP-POSS petition long
Unavailable reading: 'The petition Can wrote why, is long?'
(3) [Can-ın izin için mi (yoksa) görevlendirme için mi yaz-dı-ğ-ı] dilekçe uzun?
Can-GEN leave for MI (or_{Alt}) appointment for MI write-PST-COMP-POSS petition long
'Is the letter that Can wrote for a leave or for an appointment long?' (✓: AltQ)

Beck and Kim, 2006 argue that English AltQs do not have a *wh*-element given they do not embed under *surprise*, which embeds *wh*-questions. I argue this effect is semantic. Following (Heim, 1994), *surprise*

embeds weakly exhaustive questions whereas English AltQs are strongly exhaustive (Biezma & Rawlins, 2012; Guerzoni & Sharvit, 2014). Turkish AltQs are strongly exhaustive: *both* or *neither* are not felicitous answers, therefore knowing one disjunct is true means knowing the other is not. Turkish AltQs embed under '*merak et-*' (*wonder*) but not under '*şaşıır-*' (*be surprised*) as predicted by their semantics, not syntax.

- (4) a. * Ege Eren-in çay mı (yoksa) kahve mi iç-ti-ğ-in-e şaşıır-dı.
 Ege Eren-GEN tea MI (or_{Alt}) coffee MI drink-PST-COMP-POSS-DAT be surprised-PST
 'It surprised Ege whether Eren drank tea or coffee. '
- b. Ege Eren-in çay mı (yoksa) kahve mi iç-ti-ğ-in-i merak ed-iyor.
 Ege Eren-GEN tea MI (or_{Alt}) coffee MI drink-PST-COMP-POSS-ACC wonder-PROG
 'Ege wonders whether Eren drank tea or if he drank coffee. '

Turkish AltQs are subject to intervention effects with '*sadece*' (*only*) when it precedes the focus-marked element in the disjunction. There are no intervention effects when '*sadece*' follows the focus-marked element, even under ellipsis. This is problematic for a large disjuncts account for two reasons. First, under Beck and Kim, 2006 intervention effects in AltQs result from a focus operator c-commanding DisjP, therefore no intervention effects are predicted in 5a where the intervening '*sadece*' is present in both disjuncts. Second, Focus Deletion Constraint (Han & Romero, 2004) which derives intervention effects in AltQs under a large disjuncts account by assuming focused items cannot be elided, predicts 5b to be unacceptable.

- (5) a. * Sadece Ömer Mete-yi mi ara-dı (yoksa) sadece Ömer Can-ı mı ara-dı?
 only Ömer Mete-ACC MI call-PST (or_{Alt}) only Ömer Can-ACC MI call-PST
- b. Mete-yi mi sadece Ömer ara-dı (yoksa) Can-ı mı?
 Mete-ACC MI only Ömer call-PST (or_{Alt}) Can-ACC MI
 'Did only Ömer call Mete or Can?'

I argue facts about primary stress in Turkish account for this effect. There is only one focus, assigned to the left periphery of the preverbal domain, and a focused phrase cannot be marked with the obligatory primary stress if a wh-element is in the left periphery since a wh-element also bears primary stress (Göksel & Özsoy, 2000).

- (6) a. OKUL-A_F ne zaman gid-ecek-sin? b. * Ne zaman OKUL-A_F gid-ecek-sin?
 school-DAT what time go-FUT-2SG what time school-DAT go-FUT-2SG
 'When will you go to school?'

Each alternative in a Turkish AltQ necessarily bears focus (Gračanin-Yüksek, 2016). When the left periphery of the focus field is occupied by ‘*sadece*’ which immediately precedes a fo- cused constituent (Göksel & Kerslake, 2004), primary stress is assigned to it. Given there is only one focus, items in the disjunct marked for focus cannot be assigned primary stress and the AltQ is not licit.

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TONE AND STRESS IN ENGLISH LOANWORDS IN SERBIAN

This study investigates pitch accent patterns in English nominal loanwords in Novi Sad Serbian. The goal of this study is to describe the previously undocumented pitch accent patterns, and in doing so provide basis for further research on Serbian pitch accent. All data were verified with four native speakers of Novi Sad Serbian.

While Serbian pitch accent is generally assumed to be tone-driven (de Lacy, 2002; Zec, 1999; Zec and Zsiga, 2010; Simonović, 2012; Werle, 2009), English loanwords systematically preserve the source stress position (Example set 1). This is in contrast not only with the native lexicon, but also with many earlier loanwords from Turkish, German and French (Example set 2), where source stress position was borrowed as high tone and the resulting stress position was determined by rules which apply to native lexical strata. This change is an indication of the nascent possibility of lexical specification for stress in Serbian lexical material, and possibly the increasing role of stress in the phonology of contemporary Serbian (similar tendencies are reported in Simonović and Kager (2020), although with rather different scopes and explanations). English loanwords also differ from both native lexicon and earlier loanwords in that Neo-Štokavian accent shift does not apply to them (Example set 3), indicating that stress faithfulness is an active component of Serbian phonological grammar.

Perhaps even more intriguing than source stress preservation is the distribution of high tone, which shows no clear correlate to source prosody. Resulting tone placement in English nominal loanwords strongly correlates with the syllable structure of the syllable following the stressed syllable, a correlation unknown to native lexical items. Long and/or closed post-stress syllables are suitable loci for high tone, while short and open syllables are not (Example set 4).

The surfacing of high tone in monosyllabic loanwords with non-nominative in- flexional endings correlates with yet another set of syllable

properties. Tone surfaces on the inflectional ending provided that the root syllable is short and does not have more than one consonant in the coda. High tone surfaces on the root syllable only if it contains a long vowel or a complex coda (Example set 5).

All data above point to two main conclusions: firstly, stress is becoming increasingly important in Serbian phonology; secondly, apart from native tone assignment rules, tone assignment in Serbian seems to follow a set of principles which have previously not been detected, presumably due to precedence of other principles in native strata.

Example set 1 English *after* /'æftə/ → Serbian *after* /'aftér/; English *shopping* /'ʃɒpɪŋ/ → Serbian *šoping* /'ʃopíŋg/; English *whiskey* /'wɪski/ → Serbian *viski* /'vɪski/; English *reality* /rɪ'ælɪti/ → Serbian *rijaliti* /ri'jáliti/; English *event* /'ɪvənt/ → Serbian *ivent* /i'vént/; English *design* /dɪ'zám/ → Serbian *dizajn* /di'zájn/; English *management* /'mænədʒmənt/ → Serbian *menadžment* /'menádʒment/ or /'ménádʒment/

Example set 2 Turkish *bahtsız* /baht'suɪz/ → Serbian *baksuz* /'baksúz/; Turkish *bahtsızlık* /bahtsuz'luk/ → Serbian *baksuzluk* /bak'suzlúk/; German *Rucksack* /'ʁʊkzak/ → Serbian *ruksak* /'rúksak/; French *panneau* /pa'no/ → Serbian *pano* /'panó/

Example set 3 English *appeal* /ə'pɪl/ → Serbian *apil* /a'piíl/; English *design* /dɪ'zám/ → Serbian *dizajn* /di'zájn/; English *event* /'ɪvənt/ → Serbian *ivent* /i'vént/; English *review* /rɪ'vju/ → Serbian *ričju* /ri'vjúu/; English *reality* /rɪ'ælɪti/ → Serbian *rijaliti* /ri'jáliti/

Example set 4 English *biking* /'baɪkɪŋ/ → Serbian *bajking* /'bajkíŋg/; English *backup* /'bækʌp/ → Serbian *bekap* /'bekáp/; English *feedback* /'fɪdbæk/ → Serbian *fidbek* /'fɪ:dbék/; English *password* /'pæswəɪd/ → Serbian *pasvord* /'pasvórd/; English *yuppie* /'jʌpi/ → Serbian *japi* /'jápi/; English *jumbo* /'dʒʌmbó/ → Serbian *džambo* /'dʒámbo/; English *gangsta* /'gæŋstə/ → Serbian *gengsta* /'géŋgsta/; English *whiskey* /'wɪski/ → Serbian *viski* /'vɪski/

Example set 5 All Serbian examples presented contain the genitive case affix -a. English *break* /breɪk/ → Serbian *brejka* /'bréjka/; English *chat* /tʃæt/ → Serbian *četa* /'tʃetá/; English *click* → Serbian *klika* /'kliká/; English *feed* /fɪd/ → Serbian *fida* /'fíida/; English *link* /lɪŋk/ → Serbian *linka* /'líjka/; English *trip* /tɹɪp/ → Serbian *tripa* /'trípá/

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**FROM THE ROOT TO AGR AND BACK: DISENTANGLING
ALLOMORPHIC INTERACTION IN BCMS VERBS**

Numerous contributions have been devoted to the grammar of thematic vowels (ThVs) in recent years (cf. Antonyuk et al. 2024), with a considerable number of these focusing on B(osnian)C(roatian)M(ontenegrin)S(erbian) (Kovačević et al. 2024, Milosavljević & Arsenijević 2022, Quaglia et al. 2022, Simonović et al. 2023). While investigating important issues raised by ThVs (e.g. impact on argument structure and role in aspectual composition), these contributions leave unaccounted for the systematic allomorphy ThVs display in these languages: the “infinitive” (1a-2a), vs. the “present” 1b-2b) ThV forms and the two root forms concomitantly displayed by a subset of verbs (2).

- (1) a. ples-a-ti b. ples-je-mo (> plešemo)

dance-THV-INF dance-THV-1PL
- (2) a. zv-a-ti b. zov-e-mo

call-THV-INF call-THV-1PL

We address the following questions: (i) How many processes of allomorphy are involved and what is their timing? (ii) What are their triggers? (iii) How are these processes best modeled? (iv) What are the broader implications? We couch our analysis in Distributed Morphology (Halle & Marantz 1993). Table 1. and Table 2 illustrate the distribution of the “infinitive” and of the “present” ThV exponents in verbal inflection.

<a, je>	Aorist 1SG	Impf 1SG	Inf	ActPtcp	PstAdvPtcp	PassPtcp
				F.SG	F.SG	F.SG
	ples-a-h	ples-a-ah	ples-a-ti	ples-a-l-a	ples-a-vš-i	ples-a-n-a

Table 1: ThV /a/ in the inflection of *plesati* ‘to dance’

<a, je>	Present 1SG	Imperative 2SG	PresAdvPtcp
	ples-je-m	ples-je-i	ples-je-u-ć-i

Table 2: ThV /je/ in the inflection of *plesati* ‘to dance’

As can be seen, the “present” realization has a narrower distribution than the “infinitive” realization. Although both can be found in finite forms, we argue that finiteness plays a central role in determining the surface form of the ThV, and we claim that finiteness is to be identified with Agr (possibly, Person), and not with Tense (cf. Wurmbrand et al. 2020). Observe first that Agr cannot operate at distance: in (3), the auxiliary *je* is endowed with the relevant finiteness features and c-commands the complex head $\sqrt{+v+Asp+\phi}$, but crucially, it is not adjacent to the head *v* hosting ThVs, and the chosen exponent must be the non-finite one.

- (3) *Jovana je* { *ples-a-l-a* // **pleš-e-l-a* }
- Jovana AUX.3SG dance-THV-PTCP-F. dance-THV-PTCP-F.SG
- ‘Jovana danced.’ SG

Hence, the relation between Agr and *v* is not a feature-sharing relation (like Agree) and it does not occur in Syntax, but at PF, and must occur within a Morphological-word (Embick 2010: 37). Crucial evidence for the role of Agr, and in particular for Person, comes from imperatives, where only the “present” form (4a,b) (and the corresponding root allomorph (5a,b)) is allowed:

- | | | | | |
|-----|--------------------|----------------------------|--------------------|------------------|
| (4) | a. <i>pleši</i> | c. <i>*plesaj</i> | (5) a. <i>zovi</i> | c. <i>*zvi</i> |
| | dance-IMP.2SG | dance-IMP.2SG | call-IMP.2SG | dance-IMP.2SG |
| | (< /ples-je-i/) | (< /ples-a-i/) | (< /zov-i/) | (< /zv-i/) |
| | b. <i>plešite</i> | d. <i>*plesajte</i> dance- | b. <i>zovite</i> | d. <i>*zvite</i> |
| | dance-IMP.2PL | IMP.2PL | call-IMP.2PL | call-IMP.2PL |
| | (< /ples-je-i-te/) | (< /ples-a-i-te/) | (< /zov-i-te/) | (< /zv-i-te/) |

According to Isac (2015: 101-152), “true imperatives” like the ones in (4-5) do not involve a Tense feature specification, but do involve a 2-Person

feature, ultimately shared with T/Agr (a single node obtained by Fusion). We argue that ThV realization is a complex phenomenon consisting of two different instances of allomorphy: one universal and inward-sensitive (6i), where the root determines an ordered pair of exponents for the $\sqrt{\text{v}}$ head hosting the ThV: <default, marked>; and another language-specific and outward-sensitive (6ii), where T/Agr selects the marked exponent. When the root involves allomorphy, beside the two processes just described (7i-ii), there is an additional process of outward-sensitive allomorphy (7iii), where the selected ThV exponent picks one form from an ordered pair of root forms:



Agr may only affect the ThV exponent if strictly linearly adjacent to it, as testified by the different behaviour of the Aorist (adjacency blocked by an aspectual suffix) and of the Present (adjacency obtains), cf. (8) vs. (9):

- (8) a. ples-a-h-e (>[plesafe])
dance-THV-AOR-3PL
'They danced.'
b. $\sqrt{\text{v}} - \text{v} - \text{Asp} - \text{T/Agr}$
- (9) a. ples-je-m (>[plefem])
dance-THV-1SG
'I dance/am dancing'
b. $\sqrt{\text{v}} - \text{v} - \emptyset - \text{T/Agr}$

We exemplify the allomorphic VI with the VI rules for the ThV class <a, je> (10) and root allomorphy with the VI rules in (11):

- (10) $\sqrt{\text{v}} \leftrightarrow /je/ / X \text{Agr}[\alpha\text{Author}, \beta\text{Participant}]$ (11) $\sqrt{\text{v}}\langle ZV, ZOV \rangle \leftrightarrow /zov/ / _ [v, /e/]$
 $\sqrt{\text{v}} \leftrightarrow /a/ / X \text{Agr}[\alpha\text{Author}, \beta\text{Participant}]$
 $X \in \{\sqrt{\text{PLES}}, \sqrt{\text{PIS}}, \sqrt{\text{PLAK}}\dots\}$
 $\sqrt{\text{v}}\langle ZV, ZOV \rangle \leftrightarrow /zv/ / _ v$

The present account correctly predicts that nominalization will display the “infinitive” ThV form and the corresponding root form (12-13):

- (12) a. pisanje
write-THV-NMLZR
'writing'
b. *pišenje
- (13) a. zvanje
call-THV-NMLZR
'profession'
b. *zovenje

The illustrated patterns of allomorphy reveal a complex, yet ordered and strictly constrained interaction between $\sqrt{\text{v}}$, v and Agr in morphology. In the talk, we will explore both further implications for BCMS verbal morphology (e.g. the PresAdvParticiple) and similar patterns of interaction in other languages.

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PRODUCTION OF SPATIAL PREPOSITIONS IN SLOVENE BY CHILDREN AGED 2 TO 5

Spatial prepositions are among the earliest grammatical elements acquired in child language development. They are fundamental for expressing relationships between objects and are closely tied to the development of cognition (Bowerman and Choi, 2003). Their acquisition follows a universal developmental sequence, progressing from simpler concepts like containment to more complex relational ones (Johnston & Slobin, 1979; Mitrofanova & Westergaard, 2018). Children acquire prepositions that describe relationships with one participant earlier than those requiring two, and comprehension generally precedes production (Internicola and Wiest, 2003). While cross-linguistic studies have mapped general patterns in preposition acquisition, the Slovenian language remains under-researched in this domain.

Our study investigates the acquisition of seven spatial prepositions: *v* (Eng. ‘in’), *na* (Eng. ‘on’), *pod* (Eng. ‘under’), *pred* (Eng. ‘in front of’), *za* (Eng. ‘behind’), *pri* (Eng. ‘next to’), and *med* (Eng. ‘between’) in Slovenian-speaking children aged 2;00 to 4;11. The primary objectives were to determine the order of acquisition, identify developmental patterns, and analyze age-related error types.

The study involved 50 monolingual Slovenian children attending a public kindergarten in Ljubljana. Each child completed 21 (three per preposition) tasks involving familiar objects (Duplo block figurines and a box). The tasks for *pred* (in front of) and *za* (behind) tested three different scenarios: (1) a typical setup with an animate figure and an orientation-neutral object;

(2) two animate figures with a fixed orientation; (3) and a 90-degree rotated scene requiring the child to adopt the figure’s intrinsic perspective (see Figure 2). The spatial relationship was demonstrated on a table, and

the child was asked: “Where is X?”. Responses were audio recorded and transcribed. The results were analyzed using descriptive statistics, and group differences were tested with the chi-square test.

The findings reveal a clear developmental progression: the prepositions *in*, *on*, and *under* were acquired by age three; the more complex prepositions *in front of*, *behind*, *next to* showed significant improvement after age four, while the preposition *between* demonstrated zero success. These results are consistent with prior studies about the acquisition of spatial prepositions. However, the findings also underscore language-specific features of Slovenian that influence acquisition patterns. Children frequently used deictic pronouns (e.g., *here*, *this*) and locative adverbs (e.g., *up*, *inside*) in place of prepositional phrases. Adverbs often appeared as clarifiers (e.g., *up on the box*), while pronouns were more common as standalone responses in younger children. Both elements declined with age—likely reflecting vocabulary growth and increasing ability to adopt a third-person perspective. This finding parallels the observed greater difficulty with projective relations and using an intrinsic orientation, tested with *in front of* and *behind*. The errors were primarily substitutions (e.g., *behind* for *in front of*), while omissions and incorrect case marking were rare. This is crucial to note, as these phenomena can not be researched in English, which neither marks case morphologically nor allows for unexpressed arguments.

By examining Slovenian, a highly inflected Slavic language, this study adds new data to the typological and developmental research on spatial language and highlights clinically relevant error types that may support early diagnosis and intervention planning in speech-language pathology. The results can inform assessment tools and therapy protocols for Slovenian-speaking children.

Figure 1: Proportion of children correctly using each spatial preposition across three age groups (2;00–2;05, 2;06–3;11, 4;00–4;11).

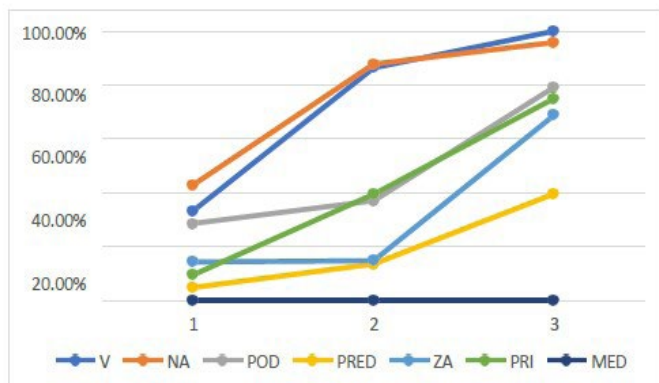


Figure 2: Tasks 1, 2 and 3 (from left to right) for the preposition *pred* (in front of).



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SUBJUNCTIVE PAST IMPERATIVES

Background. While we usually think of imperatives as future oriented, there is growing evidence that some languages also have past imperative (PI) (Mastop, 2011), a construction that combines (counterfactual, ‘CF’) past tense marking with imperative meaning and bears a markedly negative attitude of reprimanding the addressee (called also ‘reproachatives’). The PI construction is gaining interest since it relates morphologically and semantically to a constellation of expressions: CF conditionals, optatives, past deontic modals, imperatives, exclamatives and expressives. Some analyze it as a hidden (insubordinated) conditional (Biezma, 2013), while others as a true past imperative (Bosque, 1980; Vicente, 2013; Vallejo, 2017), with van Olmen (2018) proposing a hybrid account.

In addition to the nature of the construction, its cross-linguistic distribution also needs explanation: why is it so rare (van Olmen, 2018) and what specific properties make it available in a given language. This is a puzzle for both imperative and conditional accounts of PI since arguably most languages have linguistic means to express both constructions.

New insights from Bulgarian. Most previous works focus on Spanish (Bosque, 1980; Vicente, 2013; Vallejo, 2017) and Dutch (Mastop, 2011, Schwager, 2011; van Olmen, 2018). They face the challenge of impoverished morphology in PI, expressed with infinitival perfect (e.g. *Haber venido!* – ‘Had you come!’). The present work contributes novel findings from Bulgarian, a language with rich verbal morphology that lacks infinitives and uninflected forms and can therefore inform the PI construction more transparently. While van Olmen (2018) states that only six European languages have the PI construction, here we present evidence that Bulgarian (Balkan; South Slavic), too, has PI, as in (1).

(1) Da	beshe	slozil screenshot.	Ne=chetem	misli.
Subj	aux.2sg. PST	put.PP screenshot	not=read.pres.1pl	thoughts

‘~Had you included a screenshot. We don’t read thoughts’ (natural example)

Note: Since English does not have PI, this translation is an approximation only

We propose that PIs arise at the intersection of three ingredients: (i) non-canonical imperative morphology; (ii) strong counterfactual marking; (iii) conversational givenness.

Imperative. The Bulgarian PI is a true imperative, albeit non-canonical. Arguments:

(i) it is not a declarative speech act: (1) does not have a truth-value and cannot be replied to with ‘That’s not true’ (unlike a modal statement with *should have*). Also, it is unembeddable, again unlike a modal statement with *should have* (and unlike embedded imperatives), cf. (2):

(2) Kazaha=mi{*da bjah slozil / √che trjabvashe da sloza} screenshot. told.3pl=me subj aux.1sg.PST put.PP / that should.PST subj put screenshot ‘They told me {*that I had included / √ that I should have included a screenshot}.’

(ii) the morphology of PI in Bulgarian is directly related to that of non-past imperatives: PI features the analytic subjunctive particle *da*, which (among many other uses) is used for impolite 2nd person commands (3a) (cf. standard imperative (3b)) and 3rd person commands, which can range from polite to neutral (4a) to subjunctive (4b) to curses (not shown here).

(3) a. (ti) da	mulchish! keep.quiet.	b. Mulchi! keep.quiet.2sg.imper
you subj	pres.2sg	

‘You keep quiet!’

‘Keep quiet!’

(4) a. Da vlez sledvashtijat patsient. Subj	b. Da zivee	kralitsata!
enter.pres.3sg next patient	subj live.pres.3sg	queen

‘~Enter next patient’

‘Long live the queen!’

Strong counterfactuality (‘CF’). While counterfactuality is usually regarded as cancellable, there are languages with dedicated CF marking (Karawani, 2014). We report that Bulgarian is such a language, too, cf. (5). Notably, the morphology used to convey strong CF is the same that

forms the PI construction: the subjunctive *da*, also used in imperatives (see above) and the pluperfect, which conveys two layers of past (Ippolito, 2013) one for the event and one for the modal evaluation, going back in time when the possibility was still open. This contributes to the meaning of impoliteness in that it emphasises that the now closed possibility (strong CF; you didn't include a screenshot) was still accessible at a past time (you could have). Furthermore, the imperative the modal a deontic flavor, accounting for the observation of many works that the PI construction is ultimately not a conditional. Notice that if there was still an open possibility that the antecedent was true at the time of utterance, the speaker would not have sufficient grounds to reproach the addressee. Thus, strong CF is a necessary ingredient of PI.

(5) **Da beshe slozil** screenshot, shtjahme da razberem kakuv e problemat.

Subj aux.pst put.PP screenshot fut.pst.1pl subj understand.1pl what is problem

'If you had put a screenshot (which you didn't), we would've understood what the problem was.'

Givenness. We follow Biezma's (2011) idea that the impoliteness in PI is also contributed by their givenness – either in the conversation or as world knowledge (also van Olmen, 2018; cf. the continuation with 'We don't read thoughts' in (1)), producing a 'duh' effect. This is supported by the fact that PIs are not felicitous out of the blue but are rather used as replies. For Biezma, givenness emerges from the inverted conditional structure of PI in Spanish. We suggest that it follows more generally from the property of strong CF (a necessary ingredient of PI, as argued above), since the falsity is presupposed, and the inverted structure is but one among various ways to convey strong CF.

Cross-linguistic outlook. We conclude with a conjecture on why PIs are (supposedly?) so rarely found typologically. If the proposal put forth here is on the right track, then PIs cross-linguistically are morphologically dependent on the availability of shared non-canonical imperative morphology and strong CF marking (like the subjunctive described here), and that is arguably rarer than the ingredients proposed by other approaches. As further support for this conjecture we point out that of the six languages discussed by van Olmen (2017) as having PI, Arabic also has strong CF (Karawani, 2014); so does Spanish (Vallejo, 2017); and in Spanish and Hungarian, the form used in PI also shares properties with imperatives. It remains to be tested with regards to other languages with PI.

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STRUCTURAL AMBIGUITY AND CASE LICENSING IN JAPANESE DITRANSITIVES

[background] In Japanese ditransitive constructions, the agentive arguments and the theme arguments are marked with the nominative case marker, *-ga*, and the accusative case marker, *-o*. Furthermore, the receiver/goal arguments are marked with the so-called dative case marker, *-ni*, as in (1) a,b. Under the *kata*-nominalized context, both nominative and accusative marked arguments are marked with the genitive case marker *-no*. This is because, according to Kishimoto (2006), under the nominalization, the sentence lacks T-projection, and hence, the subject cannot get a nominative case, and, without nominative licensing, accusative case licensing is neither possible. Furthermore, the dative case marker cannot be maintained under *kata*-nominalization, and the dative-*ni* turns to the GOAL/PATH marker *-e* with the genitive *-no* (*e-no*) as in (2).

[Dative as structural or inherent?] This paper claims that the so-called dative case marker, *-ni*, is not structurally licensed, but it is licensed inherently with the following: In Japanese, only arguments marked with structural cases allow quantifier floating, but inherent cases cannot (Miyagawa 1989), as in (3)b,c respectively. Based on this observation, the ungrammaticality of the quantifier floating from the *-ni* marked argument exhibits the inherent nature of the case marker *-ni* (4). Furthermore, Woolford (2006) observes that an argument with inherent case cannot be promoted as a subject of passive construction. This is also applicable to the Japanese *-ni*, which cannot be promoted to a sentential subject in a passive construction (5).

[Two types of Structure of Ditransitive] This paper further claims that the Japanese ditransitive constructions are structurally ambiguous between (6)a, b). In the sentence with *-ni* marked argument entails the possessive relation that “the *ni*-marked argument HAS the *o*-marked argument” as in (6)a), while the sentence with the *e*-marked argument does not entail

such a relation between two NPs as in (6)b). More precisely, in structure (6)a), the receiver argument is marked by inherent case, *-ni*, and the possessive relation between *-ni*-marked arguments and *o*-marked arguments is established by a low APPL head (cf. Pytkkanen 2008). In (6)b), the *-e* marked argument is just a GOAL and is in Spec.P. As a result, no possessive relation is established between the two NPs.

[Nominalization of Ditransitive: Absence of Appl head in nominalization]
The fact that the unavailability of *ni*-marked arguments in the nominalized context indicates an applicative projection within the nominalized context, as in (7). The unavailability of the applicative projection within the nominalization is also supported by the unavailability of supporting benefactive introducing verb *-age* within the *-kata* nominalized context as in (8)b).

[Crosslinguistic Observation] The unavailability of the structural case is also observed in English (cf. Pesetsky 1995). English also has “V IO DO” and “V DO to IO”. However, among the two, under the nominalized context, only “V DO to IO” is possible. This supports the current observation that APPL is unavailable within the nominalization as in (9).

- (1) a. Sensei-ga gakusei-ni hon-o age-ta.
 prof-nom student-NI book-acc give-past “A prof. gave students a book”
 b. Sensei-ga gakusei-e hon-o age-ta.
 prof-nom student-E book-acc give-past “A prof. gave a book to students.”
- (2) a. Sensei-ga gakusei-ni hon-o age-ta.
 Prof-nom student-NI book-acc give-past
 b. Sensei-no gakusei-{*no/*ni-no/e-no} hon-no age-kata (-ga kininatta)
 Prof-gen student- gen/Ni-gen/E-gen book-gen give-NML is concerned
- (3) a. Sensei-ga toshokan -ni -kasyo -de hon -san-satu-o yon-da.
 prof-nom library -two-classifier-at book -three-cl-acc read-past
 b. (San-satsu) sensei-ga toshokan-ni-kasyo-de hon-o (san-satsu) yon-da
 three-cl prof.-nom library-two-cl -at book-acc three-cl read-past
 c. *(Ni-kasyo) Sensei-ga toshokan-de hon-o (ni-kasyo) yon-da.
 two-cl prof-nom library-at book-acc two-cl read-past
- (4) a. Sensei-ga gakusei-san-nin-ni hon-o age-ta.
 Prof.-nom student-three-cl-NI book-acc give-past
 b. *(san-nin) Sensei-ga gakusei-ni (san-nin) hon-o age-ta.
 three-cl prof.-nom student-NI three-cl book-acc give-past
- (5) a. *Gakusei-ga sensei-ni-yotte hon-o kuba-rare-ta.
 Prof-nom student-by book-acc distribute-pass.-past.
 b. Hon-ga sensei-ni-yotte gakusei-ni kuba-rare-ta.
 book-nom prof.-by student-NI distribute-pass.-past
- (6) a. [TP [vP NP-subj [VP [.APPL_{to} IO [DO APPL_{to}]] V] v] -T]
 b. [TP [vP NP-subj [VP [pp IO [p DO G_(=to)]] V] v] -T]
- (7) a. *[NP [vP NP-subj [VP [..APPL_{to}IO [DO .APPL_{to}]] V] v] -NML]
 b. [NP [vP NP-subj [VP [pp IO [p DO G_(=to)]] V] v] -NML]
- (8) a. Sensei-ga musuko-ni eigo-o oshie-te age-ta.
 Prof-nom his.son-NI English-acc teach-converb give-past
 b.*Sensei-no musuko-e-no eigo-no oshie-te age-kata
 prof-gen his.son-E-gen English-gen teach-conv. give-NML
 c. Sensei-no musuko-e-no eigo-no oshie-kata
 Prof-gen his.son-E-gen English-gen teach-NML
- (9) a. *Sue’s gift of Mary (of) a book.
 b. Sue’s gift of a book to Mary.

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THE ANALYTISM IN THE MACEDONIAN AND IN THE BULGARIAN LANGUAGES

The text deals with the analytism in the Macedonian and the Bulgarian languages. First it gives general information regarding the feature of analytism in these two Slavic languages, such as the territory it occupies, the period it started to appear, the forms in which it represents itself (the lack of case formants, doubled objects etc.). Then, the analysis starts with the possible sociolinguistic reasons for its appearance (by explaining the sociolinguistic context of the time – the use of other prestigious languages in about 9th century, when it approximately appeared, like the Latin, the Greek etc.), the great language changes that happened in that time (the appearance of the new Slavic literary language, the translation of the first Slavic books from older Greek originals etc.). After all the facts deemed relevant regarding this feature are shown, the author shortly dwells on the process of losing the case suffixes and on the formation of the analytical structure. In the end, the conclusions are given, in the sense of the possible explanation for the emergence of this feature only in these two Slavic languages.

Keywords: Analyticity, Macedonian Language, Bulgarian Language, influence of prestigious languages

