



**May 7:
Workshop on Slavic Morphology**

**May 8-10:
Formal Approaches to Slavic Linguistics 24**

New York University

Department of Linguistics

FASL 24, NYU, FINAL PROGRAM
 May 7th-10th, 2015

THURSDAY, MAY 7TH: FORMAL APPROACHES TO SLAVIC MORPHOLOGY WORKSHOP*

9:00 – 9:30 *Registration and Breakfast (King Juan Carlos I of Spain Center, 53 Washington Square South, 1st Floor)*

Chair: Stephanie Harves

9:30-10:00	Pavel Caha (Masaryk U)	<i>Czech Numerals in a Phrasal Spell Out Model</i>
10:00-10:30	Ivona Kučerová (McMaster) and Jitka Bartošová (McMaster)	<i>Instrumental Situations: On Case Marking of Copular Clauses in Czech</i>
10:30-11:00	Guillaume Enguehard (Paris VII)	<i>The ѡ/a alternation in Russian -iva type verbs</i>

11:00-11:15 *Coffee Break*

Plenary Talk

11:15-12:15	Ora Matushansky (CNRS Paris VIII)	<i>n is for “Not There”</i>
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12:15-1:45 *Lunch on your own*

Plenary Talk

1:45-2:45	Katya Pertsova (UNC Chapel Hill)	<i>When You Cannot Win: Defective Verbs in Russian</i>
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2:45-3:00 *Coffee Break*

Chair: Maria Gouskova

3:00-3:30	Anya Stetsenko (St. Petersburg State U), Natalia Slioussar (St. Petersburg State U), Tatiana Matushkina (St. Petersburg State U)	<i>Attraction Errors in Case Agreement: Evidence from Russian</i>
3:30-4:00	Varvara Magomedova (Stony Brook) and Natalia Slioussar (St. Petersburg State U)	<i>Paradigm Leveling in Non-standard Russian: Consonant Alternations in Comparatives and Nouns</i>

* All FASL Morphology workshop talks will be held on the 1st floor of the King Juan Carlos I of Spain Center at 53 Washington Square South.

4:00-4:15 *Coffee Break*

Plenary Talk

4:15-5:15	Vera Griбанова (Stanford)	<i>On constraining inter-modular reference: Nonconcatenative exponence in the Russian derived imperfective</i>
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6:00 *Reception, 10 Washington Place, Dept. of Linguistics, 2nd Floor*

FRIDAY, MAY 8TH: FASL MAIN SESSIONS (SILVER CENTER)*

8:30-9:30 *Registration and Breakfast (Silverstein Lounge, 101 Silver Center)*

9:45-10:00 *Opening Remarks (Jurow Lecture Hall, 101A Silver Center)*

Syntax (Jurow Lecture Hall, 101A Silver Center)

Chair: Stephanie Harves

10:00-10:30	Snejana Iovtcheva (MIT) and Despina Oikonomou (MIT)	<i>Island Obviation in Answer Fragments: Evidence from Bulgarian li-questions</i>
10:30-11:00	Julie Goncharov (U Toronto)	<i>'Samyj' in Fragment Answers</i>
11:00-11:30	Adrian Stegovec (UCONN)	<i>Personality Disorders: Insights from the Slovenian Person-Case Constraint Pattern</i>

11:30-1:00 *Lunch on your own*

Morphology (Jurow Lecture Hall, 101A Silver Center)

Chair: Maria Gouskova

1:00-1:30	Katya Pertsova (UNC Chapel Hill) and Julia Kuznetsova (CLEAR group, UIT – The Arctic University of Norway)	<i>Experimental Evidence for Intraparadigmatic Effects in Russian Verbs</i>
1:30-2:00	Mary Ann Walter (METU NCC)	<i>Frequency Distributions as Faithfulness Targets: Or, Why Bulgarians Feminized Turkish Nouns</i>
2:00-2:30	Pavel Caha (Masaryk U) and Markéta Ziková (Masaryk U)	<i>Vocalic length as evidence for the incorporated-free particle distinction in Czech</i>

* All main FASL Sessions will be held on the 1st floor of the Silver Center at the corner of Washington Square East and Washington Place, entrance on Washington Place.

2:30-2:45 *Coffee Break*

Syntax: Extraction (*Jurow Lecture Hall, 101A Silver Center*)

Chair: Ivona Kučerová

2:45-3:15	Aida Talić (UCONN)	<i>Adverbial Left-Branch Extraction and the Structure of AP in Slavic</i>
3:15-3:45	Irina Sekerina (CUNY CSI) and Luca Campanelli (CUNY GC)	<i>Interference in Children's Online Processing of simple Wh-Questions: Evidence from Russian</i>

3:45-4:00 *Coffee break*

Syntax: Silence (*Jurow Lecture Hall, 101A Silver Center*)

Chair: Richard S. Kayne

4:00-4:30	Věra Dvořák (Rutgers)	<i>On Two Types of Silent Objects</i>
4:30-5:00	Barbara Citko (U Washington)	<i>To Gap or to Right Node Raise</i>

Plenary Talk

5:00-6:00	John Frederick Bailyn (Stony Brook)	<i>Self-Motivation and Getting to the Top: A new view of Superiority and what it means for the theory of movement</i>
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SATURDAY, MAY 9TH: FASL MAIN SESSIONS (SILVER CENTER)

8:30-9:00 *Breakfast (Silverstein Lounge, 101 Silver Center)*

Phonology (*Jurow Lecture Hall, 101A Silver Center*)

Chair: Gillian Gallagher

9:00-9:30	Draga Zec (Cornell)	<i>Patterning of Tone and Stress in Loanword Phonology: The Case of Serbian</i>
9:30-10:00	Amanda Rysling (UMASS Amherst)	<i>Polish yers are Epenthetic: An Argument from Lexical Statistics</i>
10:00-10:30	Lena Borise (Harvard)	<i>Intensity Peak Shift as a Precursor of Stress Shift?</i>

10:30-10:45 *Coffee Break*

Plenary Talk

10:45-11:45	Christina Bethin (Stony Brook)	<i>The Belarusian Genitive Plural: A Case for Reanalysis</i>
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11:45-1:30 *Lunch on your own*

Language Change (Jurow Lecture Hall, 101A Silver Center)

Chair: Pavel Caha

1:30-2:00	Łukasz Jędrzejowski (U Potsdam)	<i>'Don't Regret Anymore!' On the Semantic Change of the Clause-embedding Predicate 'żałować' in Polish</i>
2:00-2:30	Asya Pereltsvaig (Stanford)	<i>On the Slavic-Influenced Syntactic Changes in Yiddish</i>
2:30-3:00	Igor Yanovich (U Tübingen)	<i>Predicate-Auxiliary Order in Modern and Historical East Slavic</i>

3:00-3:15 *Coffee Break*

Syntax-Semantics: Scope (Jurow Lecture Hall, 101A Silver Center)

Chair: Barbara Citko

3:15-3:45	Svitlana Antonyuk-Yudina (Stony Brook)	<i>Against the QR-Parameter: New Evidence from Russian Scope Freezing</i>
3:45-4:15	Tania Ionin (UIUC) and Tatiana Luchkina (UIUC)	<i>Focus on Scope: Information Structure and Quantifier Scope in Russian</i>

4:15-4:30 *Coffee Break*

Syntax (Jurow Lecture Hall, 101A Silver Center)

Chair: Asya Pereltsvaig

4:30-5:00	Andreas Pankau (Goethe U, Frankfurt)	<i>The Matching Analysis of Relative Clauses: Evidence from Upper Sorbian</i>
5:00-5:30	Marta Ruda (Jagiellonian U)	<i>Rich Agreement and Dropping Patterns: pro-Drop, AGR-Drop, No Drop</i>

5:30-6:00 *FASL Business Meeting (Jurow Lecture Hall, 101A Silver Center)*

7:00 *FASL Conference Dinner (10 Washington Place, Dept. of Linguistics, 1st Floor)*

SUNDAY, MAY 10TH: FASL MAIN SESSIONS (SILVER CENTER)

9:00-9:30 *Breakfast (Silverstein Lounge, 101 Silver Center)*

Semantics (*Jurow Lecture Hall, 101A Silver Center*)

Chair: Lucas Champollion

9:30-10:00	Radek Šimík (U Potsdam)	<i>The Semantics of the Czech Demonstrative ‘ten’</i>
10:00-10:30	Todor Koev (U Dusseldorf)	<i>Quotational Indefinites: Bulgarian and Beyond</i>
10:30-11:00	Sergei Tatevosov (Lomonosov MSU/MГУ)	<i>Constraining the Distribution of the Delimitative</i>

11:00-11:15 *Coffee Break*

Information Structure (*Jurow Lecture Hall, 101A Silver Center*)

Chair: Tania Ionin

11:15-11:45	Lena Gröben (U Potsdam), Radek Šimík (U Potsdam), and Frank Kügler (U Potsdam)	<i>Stress Shift and NSR in Czech</i>
11:45-12:15	Jiri Kaspar (UCL)	<i>Topicalisation in Coordination under Subordination</i>

Plenary Talk

12:15-1:15	Maria Polinsky (Harvard)	<i>Molchanie zoloto: Some remarks on silent categories in Russian</i>
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1:15 **Closing Remarks**

*Self-motivation and getting to the top:
A new view of Superiority and what it means for the theory of movement*
John Frederick Bailyn
Stony Brook University

Most minimalist theories of movement are “top-down” in the sense that the driving force of overt displacement is associated with the feature of the c-commanding Probe and not with the feature of the c-commanded Goal. In combination with Economy principles such as Attract Closest (Richards 1997 a.o.), this provides a highly elegant analysis of the English Superiority in (1):

- 1) a. Who said what? (SUBJ_{wh} > OBJ_{wh}) b. *What did who say? *(OBJ_{wh} > SUBJ_{wh})

However, probe-driven movement theories require several unwanted stipulations to account for Bulgarian Superiority of the kind found in (2):

- 2) a. Koj kogo vižda? b. *Kogo koj vižda? (Bulgarian)
 who_{NOM} whom_{ACC} sees whom_{ACC} who_{NOM} sees
 “Who sees whom?” * “Whom does who see?”
 (SUBJ_{wh} > OBJ_{wh}) *(OBJ_{wh} > SUBJ_{wh})

First, most theories of Bulgarian Superiority require stipulation that Bulgarian allows Multiple Specs (Richards 1997, a.o.), (or allows adjunction of a lower WH to a higher one as in Rudin 1988 and Grewendorf 2005) whereas English C heads do not allow multiple landing sites. Second, such accounts require that that the C probe in Bulgarian, but not in English, continues probing for additional WHs after attracting the first WH phrase. Third, top-down accounts must allow either adjunction *to the right* of a higher WH phrase (Rudin 1988, Grewendorf 2005) or Tucking-In (Richard 1997), both of which are problematic for Minimalist theories of displacement. The generally assumed process of Tucking-in is particularly problematic because it violates not only the core combinatorial principle of bare Phrase Structure (Extension), but also because it requires assuming that multiple Specs are not equidistant. Additionally, as shown by Bošković (2007), Probe-driven movement theories generally encounter serious look-ahead problems, especially with regard to successive-cyclic WH movement.

In this talk, I offer an alternative architecture of multiple overt movement that provides an account of (2) fully consistent with Bare Phrase Structure (that is, allowing only bottom-up, cyclic derivations, without Tucking-in). In particular, I propose a restricted version of the “Self-motivated Movement” proposal of Bošković (2007) (that posits a [*u*K] on the Goal of moving elements) in which only elements that undergo *multiple* movements to a single head (such as Bulgarian WH-mvt) carry the self-motivating [*u*K] feature. (Others do not, and are analyzed in the standard minimalist Probe-driven fashion.) The result is a hybrid theory of movement that allows both Probe-driven movement (parasitic on Agree), and Self-motivated Movement.

The hybrid movement theory supports the original Bošković (2007) theory of Move and Agree in two crucial aspects: (i) maintaining that Agree is not subject to locality restrictions, and (ii) maintaining that there is no feature-checking involved in successive-cyclic movement to intermediate SpecCP. However, the hybrid theory improves on its predecessor in crucial aspects of technical implementation, especially with regard to how self-motivated movement begins and in not relying on *optionality* of the [*u*K] feature to account for English WH movement.

The action takes place in Bulgarian multiple WH-constructions, where the analysis nicely avoids the stipulations of multiply-checking Probes, multiple Specifiers, and Tucking-In. Consequences for other phenomena are discussed, including apparent lack of superiority in Russian/BCS type multiple WH-languages, and locality restrictions on Slavic WH-movement generally.

The Belarusian Genitive Plural: A Case for Reanalysis

Christina Y. Bethin, Stony Brook University

The paper presents new data from ongoing morphological change in Belarusian nominal declension which potentially bear on the nature of phonology-morphology interactions. It is generally accepted that the allomorphs in the genitive plural case are /-Ø/, /-ow/, and /-ej/, and that the /-ow/ allomorph is being extended from Declension Ia masculine nouns to all other declension classes. But this morphological change is unusual in two respects: 1) it is specifically the unstressed variant of the /-ow/ allomorph, [-aw], which is being productively extended; and 2) [-aw] is being extended under phonotactic conditions which are not active elsewhere in the nominal paradigm and that do not appear to be a generalization over the lexicon of Declension Ia nouns.

These developments indicate that noun morphology in Belarusian is operating on the surface, so to speak, both in terms of generalizing the end product of the phonological grammar (automatic vowel neutralization) and in terms of surface phonotactics (syllable structure conditions). I argue that the phonologically neutralized pronunciation of /-ow/ has been reanalyzed as an independent lexical allomorph /-aw/ and that this change is supported by paradigm uniformity. I also propose that there has been a concomitant reanalysis of the noun stem feature(s) which condition(s) genitive plural allomorphy. Unlike in Russian, Ukrainian, and older Belarusian, for which various analyses have argued that declension class or gender,¹ stem-final consonant type,² underlying theme-vowels,³ suffix stress,⁴ paradigmatic stress patterns,⁵ and/or the nominative singular vs. genitive plural markedness relation⁶ are among the critical factors determining genitive plural allomorphy, in Standard Belarusian today the feature relevant to allomorph selection in the genitive plural is primarily stress.

The extension of /-aw/ is to a large extent facilitated by the type of neutralizing vowel reduction specific to Standard Belarusian, whereby unstressed non-high vowels are pronounced as [a] after both palatalized and non-palatalized consonants. The generalization of /-aw/ in the genitive plural now completes the set of *default* inflectional suffixes in the plural of all Belarusian nouns, a development that is fully consistent with the unmarked status of the stem-stressed paradigm in general. The finding that stress governs allomorph selection in the Belarusian genitive plural raises the question of where stress-based allomorph selection is actually done in the grammar.

¹ Zalizniak, A. A. (1967). *Russkoe imennoe slovoizmenenie*. Moscow: Nauka.

Bilodid, I. K. (1969). *Suchasna ukrajins'ka literaturna mova. Morfolohiia*. Kyiv: Naukova dumka.

Biryła, M. V., & Shuba, P. P. (1985). *Belaruskaja hramatyka u dzviukh chastkakh. Vol. 1. Fanalohiia, arfaepiia, marfalohiia, slovoitvarenne, natsisk*. Minsk: Navuka i tekhnika.

Timberlake, A. (2004). *A reference grammar of Russian*. Cambridge: Cambridge University Press.

² All analyses and grammars recognize the contribution of this condition.

³ Halle, M. (1994). The Russian declension. In Cole, J. & Kisseberth, C., *Perspectives in phonology* (pp. 29-60). Stanford, CA: CSLI Publications.

Bailyn, J. F., & Nevins, A. Russian genitive plurals are impostors. In A. Bachrach & A. Nevins (Eds.), *Inflectional identity* (pp. 237-270). Oxford: Oxford University Press.

⁴ Pertsova, K. (2004). Distribution of genitive plural allomorphs in the Russian lexicon and in the internal grammar of native speakers. PhD thesis, UCLA.

Pertsova, K. (2015). Interaction of morphology and phonology in Russian genitive plural allomorphy. *Morphology*, online 17 Feb 2015.

⁵ Brown, D. & Hippisley, A. (1994). Conflict in Russian genitive plural assignment: a solution presented in DATR. *Journal of Slavic Linguistics* 2 (1), 48-76.

Brown, D., Corbett, G., Fraser, N., Hippisley, A., & Timberlake, A. (1996). Russian noun stress and network morphology. *Linguistics*, 34 (1), 53-107.

Butska, L. (2002). Faithful stress in paradigm: nominal inflection in Ukrainian and Russian. PhD thesis, Rutgers University.

⁶ Jakobson, R. (1957). The relationship between genitive and plural in the declension of Russian nouns. *Scano-Slavica*, 3. 1. 181-186. Also Pertsova (2004, 2015).

Dubina, A. (2012). *Towards a tonal analysis of free stress*. PhD thesis, Radboud University. Utrecht: LOT.

**On constraining inter-modular reference:
Nonconcatenative exponence in the Russian derived imperfective**
Vera Griбанова, Stanford University

Most generative linguistic theories share the core idea that linguistic operations subdivide into distinct modules, within which specific types of representations and operations are permitted (Scheer, 2011). The idea that communication between these modules (at their interfaces) is limited to a narrow set of interactions serves as a major constraining factor in our theorizing. Analysis of morphological operations plays a key role in these discussions, since it requires us to formulate just how much access morphosyntactic and morphophonological representations may have to each other. The narrow question investigated in this talk is whether morphosyntactic information can be accessed once it has been realized phonologically. The maximally restrictive position, advocated for in various instantiations in Halle 1990; Inkelas 1989; Bobaljik 2000; Bermúdez-Otero 2012; Bye and Svenonius 2012, is that it cannot: phonological operations should not be able to access morphosyntactic features directly.

Of particular importance in this regard is the question of how we should understand instances of *nonconcatenative exponence*, in which phonological operations — e.g. umlaut, ablaut, reduplication, etc. — reflect specific morphosyntactic information. How do we translate morphosyntactic information into phonological representations in a maximally constrained way when the relation is not about the realization of segments, but about the application of a phonological operation? In this talk I investigate two such case studies, both of them involving realization of the Russian derived imperfective (DI). The canonical realization of the DI — which makes prefixed, perfective verbs (1,3,5) into imperfectives — is suffixal (2). However, in the case of certain verbs the DI suffix is accompanied by vowel mutation in the root (4), and in certain others the only reflection of DI features is the realization of a vowel in the root of the verb (6).

(1) za-bol'-e-t' PFX-hurt-TH-INF 'to fall ill' (PFV)	(3) za-moroz-i-t' PFX-freeze-TH-INF 'to freeze (sth.)' (PFV)	(5) razo-sl-a-t' apart-send-TH-INF 'send out' (PFV)
(2) za-bol'-e-v-a-t' PFX-hurt-v-DI-TH-INF 'to fall ill' (IMPF)	(4) za-moraž-iv-a-t' PFX-freeze-DI-TH-INF 'to freeze (sth.)' (IMPF)	(6) ras-syl-a-t' apart-send-TH-INF 'send out' (IMPF)

In a realizational theory like Distributed Morphology (DM), these interactions have been dealt with through the application of readjustment rules: phonological rules which apply in a listed set of morphosyntactic environments, after the matching of morphosyntactic features to their corresponding phonological exponents (Vocabulary Insertion, in DM). These rules have often been the source of concern for their unrestrictedness and potential to weaken the predictive power of DM (Siddiqi, 2006, 2009; Bye and Svenonius, 2012; Bermúdez-Otero, 2012; Haugen and Siddiqi, 2013). They further have the property of necessitating simultaneous reference to phonological and morphosyntactic information, requiring a significant departure from the maximally conservative position in which these modules interact with each other only at the point of lexical insertion (Bermúdez-Otero, 2012). To the extent that morphophonological analyses can eventually do away with readjustment rules, or at least significantly limit their power, the benefit to DM is apparent: it would become both more restrictive and more convincing.

I develop and compare two analyses of the alternations in (4) and (6): the first is a readjustment analysis, which I demonstrate requires simultaneous intermingling of morphosyntactic and phonological information that leads to a fairly unrestricted view of their interaction. I pursue an alternative *featural affixation* view, following Bye and Svenonius (2012) (among many others) and building on Griбанова To appear, in which the non-local phonological effects observed in (4) and (6) are best accounted for if morphosyntactic features

like the DI can be realized directly via the insertion of autosegmental material, sometimes in addition to segmental material. Cases like (6) involve the insertion of a floating mora, whereas cases like (4) involve the insertion of a suffix along with phonological features which force a change in the closest root vowel. I argue that this approach, modeled in an Optimality Theoretic framework, allows us to better characterize the locus of the morphosyntactically triggered phonological change, without requiring reference to morphosyntactic information in the process. The featural affixation approach thus results in a more constrained inter-modular interaction than a readjustment approach.

References

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n is for “Not There”

Ora Matushansky, Paris VIII

It has become a standard assumption by now that roots have no lexical category and therefore a categorizing head *n* is required in order to create a noun. Given that this head will perforce be frequently null, the question arises what its semantics and featural makeup is. I will first argue that gender, number and even declension class can be not only lexically pre-specified, but also constructed in syntax proper, and then examine the relevance of these findings for two alternative hypotheses: (a) that gender and number are projected as separate functional heads or (b) that they are features on heads and/or maximal projections, and in particular on *nP*.

When You Cannot Win: defective verbs in Russian

Katya Pertsova, UNC-CH

Certain verbs in Russian (e.g. the verb *podebit'* “to win”) are famously defective. That is, they have a *paradigm gap* in the 1p.sg. present tense forms because none of the possibilities are acceptable to the speakers (e.g., *pobežu?* *pobed'u?* *pobežd'u?*). Understanding causes of defectiveness/gaps is important for understanding the nature of productivity, the constraints on morphological rules and representations, and the question of how morphological structure is learned.

The specific questions addressed in this talk are (i) do the verbal gaps in Russian have a synchronic explanation? and (ii) if so, what is it? Unlike most previous studies (Graudina et al., 1976; Sims, 2006; Baerman, 2008), my answer to the first question above is affirmative. I maintain that 1st person singular gaps are connected to the currently opaque morpho-phonological alternations that affect 1p.sg. forms of stems ending in dental consonants. One type of evidence for this conclusion is the behavior of novel borrowings from English: only borrowings which are subject to the dental alternations (e.g., *frendit'* “to friend”, *frilansiť* “to freelance”) behave like defective verbs by showing low inter-speaker agreement in the choice of 1p. sg. forms (unlike other types of borrowings). Secondly, I identify a new empirical observation that is crucial in explaining the otherwise difficult to explain *lexical selectivity* of gaps: the defective verbs are just those in which the dental alternations are unattested anywhere else in their morphological family. Verbs which have other related forms with the same alternation as the 1p.sg. form (most notably, in past passive participles and secondary imperfectives) are protected from gaps.

I then consider two possible ways to model these facts. The first model essentially assumes a filter-like component of grammar (a set of inviolable constraints) that apply post phonology (Orgun and Sprouse, 1999). I assume that this set of constraints includes LEXP constraints (Steriade, 1999, 2008), which require that every segment in the output form has a correspondent in at least one other *listed* output form. A similar explanation applies to another set of paradigm gaps in Russian – the gaps in the genitive plural of some nouns (Pertsova, 2005).

The second model attempts to implement the idea that gaps are due to a close competition of opposing forces, some favoring alternation, and others favoring non-alternation. Such competition can lead either to gaps or to variation depending on the probability that the grammar assigns to each variant. Crucially, competition and optimality in this model are conceived of differently than in standard phonological models like OT or Harmonic Grammar (although somewhat similar to certain bidirectional versions OT such as Deemter (2004)). I compare these two models and discuss their implications for other similar cases of defectiveness.

References

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**Silence is golden:
Some remarks on silent categories in Russian**

Maria Polinsky
Harvard University

This talk presents and analyzes primary and experimental data on the inventory of silent categories in Russian, with a particular emphasis on parasitic gaps. I examine systematic differences between parasitic gaps as observed in Germanic and their putative counterparts in Russian. I then compare Russian parasitic gaps to several other types of null elements observed in Russian, namely, arbitrary null pronominals, referential null pronominals, and implicit objects. I argue that Russian parasitic gaps should be analyzed as bound variables, which can only occur in those positions where null pronominals are allowed (the subject and the object position, irrespective of case marking in those positions). Null object pronouns are more felicitous in the context of telic/perfective verbs, although this correlation between null objects and telicity/aspect is not perfect. Atelic/imperfective verbs are often compatible with implicit objects. Novel experimental evidence indicates that implicit objects are not syntactically represented. When the context calls for the obligatory projection of a null object, those verbs that normally co-occur with implicit objects take a longer processing time as compared to those verbs that require pronominal null objects.

Czech numerals in a phrasal spell out model

The goal of the paper is to provide a Nanosyntactic analysis of a peculiar case marking pattern attested with Czech/Slavic higher numerals. Nanosyntax (Starke 2009, Caha 2009) is a framework whose central idea is that the mental representations attributed to speakers (i.e., syntactic structures) are very fine grained, with each feature harboured by a separate terminal node. Morphemes which correspond to more than one feature are treated as portmanteau markers that spell out a non-trivial syntactic constituent (a phrase):

(1) $[_{AP} A B] \Leftrightarrow$ morpheme

There are two consequences of this idea that – as I argue -- are useful in our attempts to understand the morphology and syntax of numerical phrases in Slavic (see previous work by Babby, Franks, Leko, Matushansky, Pesetsky, Rutkowski (in alphabetical order), among many others).

A. Case attraction

The most peculiar behaviour of Czech numerals (which holds across Slavic more generally) concerns the case marking of the counted noun. When the numerical phrase is either the subject or the object, the counted noun is marked genitive (see 2a). When the numeral is dative or instrumental, the genitive case disappears, and it is replaced by the appropriate case, see (2b,c).

(2a) 5-nom/acc cars-gen

(2b) 5-dat cars-dat

(2c) 5-ins cars-ins

The shared intuition has always been to understand the difference in terms of the structural/inherent distinction, giving rise to many sophisticated technical proposals. In a broad perspective, the structural/inherent distinction has been (and still is) prototypically understood as a derivational distinction in some sense; in earlier times, inherent case was assigned before structural cases at D-structure. In Pesetsky's modern (2013) analysis, timing is also crucial although it goes the other way round (obliques are assigned late and override the earlier genitive).

Breaking with the tradition, I develop a new representational perspective. I use a view on the structural/inherent distinction that originates the work by Bayer et. al. (2001), and has been elaborated on in Nanosyntax, specifically in Caha's (2009) proposal, where inherent cases are structurally more complex than structural cases, see (3):

3 $[ins E [dat D [gen C [acc B [nom A xNP]]]]]$

According to this proposal, cases correspond to collections of features (nom=A, acc=A,B, gen=A,B,C, ...) and the features are added on top of the (extended) projection of the noun as syntactic heads. As a consequence, the traditional *derivational* distinction between structural and inherent case is understood as a *representational* difference: inherent case has more structure than structural case.

My proposal for numerals takes the structure in (3) as given and independently motivated by syncretism and other effects discussed in Caha's work. The way I use it to explain the behavior in numerical patterns falls in line with approaches such as Pesetsky (2013) or McCreight's earlier (1988) work, who rely on the concept of multiple case marking. Specifically, I propose that the counted noun ALWAYS bears two cases, namely the genitive assigned by the numeral and in addition an agreement like case appropriate for the syntactic environment. So underlyingly, the data in 2 look as shown in the column SYNTAX.

	SYNTAX		PRONUNCIATION
(4a)	5-nom/acc $[[cars-gen] nom/acc]$	---	cars-gen+nom/acc
(4b)	5-dat $[[cars-gen] dat]$	---	cars- gen +dat
(4c)	5-ins $[[cars-gen] ins]$	---	cars- gen +ins

The idea is that a regular ellipsis process applies to such structures, eliminating one of the cases. The case which the ellipsis deletes is the one which is recoverable on the basis of an antecedent (the

other case). In (4a), nom/acc are recoverable on the basis of gen, because gen contains them (see (3)). In (4b,c), gen must be eliminated, because dat/ins contain it per (3). If correct, the peculiar case marking pattern warrants nothing special to be said. It is reduced to the interaction of two independent operations. The first operation is multiple case marking, also known as suffixaufnahme (in work by Plank 1995) or case stacking (in work by Richards 2013). The second concept is ellipsis under recoverability. Such a reduction of the peculiar case pattern is a welcome property of the 'representational' approach to the structural/oblique distinction.

The question that remains is how to understand the fact that in Czech/Slavic, only numerals (and some quantifiers) enter the peculiar suffixaufnahme structures (with two cases). The answer I suggest draws on the traditional insight that the numerals stand somewhere in between lexical nouns (assign genitive, decline like nouns), and functional categories in the NP (enter into concord). I spell out the idea in the next section.

B. Syntactic categories

In most conceptions of grammar, lexical items belong to exactly one category: A or B. In effect, this means that a lexical item like the Czech *deset* 'ten' or *sto* 'hundred' is either a numeral (for Czech the common stand) or a noun (see Matushansky and Ionin 2006), but it can never be both at the same time. However, the consequence of phrasal spell out is that this widely shared assumption is too simplistic. The morpheme which spells out the tree in (1) contains both the categories A and B at the same time, and to the extent that B has an effect on the outer environment of AP, the morpheme will exhibit a 'mixed' categorial behavior.

The phrasal spell out model can thus be used to model the mixed behavior of higher numerals in Czech and elsewhere. In particular, the fact that they assign genitive is something they share with nouns. At the same time, they differ from nouns in oblique contexts, and this difference can be shown to follow from the proposal that numerals spell out not only the lexical N head, but also a functional Num head in addition. Such a lexical entry leads to a particular structure, where the genitive dependent of the embedded noun is forced to move out of the constituent spelled out by the numeral, and acquires concord as a result of its special landing site.

The second fact that the proposal captures is that some numerals are ambiguous between a numeral use and a noun use, a fact similar to Kayne's (2006) English examples *hundred mistakes* and *hundreds of mistakes*. In the nominal use, the numerals combine with diminutive morphology, plural morphology, and always require the genitive on the counted noun, etc. I show how the ambiguity can be easily accounted for relying on the so called Superset Principle (Starke 2009). The principle says that the morpheme in (1) can spell out either the whole phrase, or a sub-phrase. The nominal use of the numerals then corresponds to a predicted scenario, where the lexical entry in (1) is used in order to insert the "numeral" solely under the syntactic N node.

Most importantly, the proposal forces any complements of the noun to be located outside of NumP. This is because otherwise Num and N could not spell out together. (i.e., Spell out targets constituents, the complement of N in a low position would be inside the constituent where Num and N are, and block their spell out.) There are reasons to believe that moving or being generated high in the functional structure of the NP correlates with agreement, hence the presence of the second case on the genitive.

CONCLUSIONS

In sum, the point is to show that phrasal spell out is a tool that provides new and interesting analytical options in the domain where syntax and morphology interact in intriguing ways. It allows for a very fine grained case decomposition (as in 3), which neatly captures case competition in numerical phrases. Secondly, the numerals themselves receive a treatment that both explains their affinity with nouns (they spell out N), and explains the differences (they spell out Num in addition).

Instrumental situations: On case marking of copular clauses in Czech

Predicative noun phrases in Czech copular clauses, similarly to other Slavic languages, can appear either in Nominative (NOM), or in Instrumental (INSTR) case (with the other DP being in NOM). We provide novel evidence that INSTR is an overt morphological mapping of a complex predicative structure, more precisely of a nominal combined with a situation pronoun (in the sense of Percus 2000, von Stechow & Heim 2007/2011, Keshet 2008, 2010, among others; henceforth, SP). We thus agree with the intuition that INSTR contains a secondary-predication-like element (Bailyn and Rubin 1991, Bailyn 2001) which restricts the spatio-temporal property of the primary predication (be it modeled as an aspectual projection of Matushansky 2000, eventive predication of Markman 2008, or a specific topic situation of Geist 2007). We depart from the existing accounts in that we show that the spatio-temporal link cannot be modeled as a Case licensing projection. Instead, INSTR is a morphological reflex of the SP merged in the extended projection of the predicative DP. The core empirical evidence for the proposal comes from case marking of concealed questions (Heim 1979) and their interaction with SPs overtly realized in the TP domain.

The background: The predicative DP in Czech copular clauses may appear either in NOM, or INSTR (Uličný 2000 and the literature cited there). The difference, reminiscent of the stage-level vs individual level predicate (Carlson 1977, Kratzer 1995, Filip 2001, among others), is rather subtle in most contexts. As we see in (1), with some DPs both NOM and INSTR are possible. [Note: We leave aside nontrivial interactions with copular agreement.] While INSTR is more likely to be used as a description of a temporally restricted property, such as employment, and NOM describes a more general property of Hana, speakers accept both case forms. The contrast between (2-a) and (2-b), however, clearly shows that INSTR restricts the predicate to a specific temporal interval, here to the play-situation. The examples also suggest that the distinction, rather than being of the stage vs. individual level predicate, is more adequately modeled as a restriction on topic time (be it in terms of aspect, eventuality, or a specified topic situation; cf. Matushansky 2000, Filip 2001, Geist 2007, Markman 2008, for Russian). This in turn provides insight into the apparent optionality of NOM vs. INSTR in some contexts, as a specified topic situation or the lack of it may be accommodated.

- (1) Hana byla zpěvačka/zpěvačkou.
Hana was singer.NOM/singer.INSTR
'Hana was a singer.'
- (2) Scenario: Children role-playing in kindergarten.
- a. #Honzík byl ředitel obchodu.
Honzík was manager.NOM of-store
- b. Honzík byl ředitelem obchodu.
Honzík was manager.INSTR of-store
'Honzík was the store manager.'

The puzzle: This generalization about the distinction between NOM and INSTR does not extend to copular clauses with pronoun TO (3.SG., 'it'). TO in copular clauses, analogically to English 'it', may anaphorically refer to an event, a proposition (situation), or an individual. If TO linearly precedes the copula, it refers to a situation expressed by the proposition, while post-copular TO refers to a sub-situation (including a minimal situation containing only an individual). As we can see in (3-a), post-copular TO may predicate over the car-accident, i.e., a minimal situation that contains only a car accident, while TO must pick up the whole proposition as its antecedent, (3-b). (3-c) is here as a control, to show that the issue is with predicating over the proposition, not with

the word order. Crucially, the predicative DPs in (3) must be in NOM. Since TO explicitly indicates a specified topic situation, the absence of INSTR is entirely unexpected.

- (3) Marie měla autonehodu. ‘Marie had a car accident.’
- a. Byla to nepozornost/*nepozorností.
was TO inattention.NOM/inattention.INSTR
‘It [=the (situation of) the car-accident] resulted from not paying attention.’
 - b. #To byla nepozornost/*nepozorností.
TO was inattention.NOM/inattention.INSTR
‘It [=that Marie had a car accident] was inattention.’
 - c. To byla tragédie/*tragédií.
TO was tragedy.NOM/tragedy.INSTR
‘It [=that Marie had a car accident] was/is a tragedy.’

Crucially, predicative DPs denoting a concealed question (Heim 1979, Nathan 2006, Percus 2014, a.o.), e.g., *příčina* ‘cause’, differ. If such a noun co-occurs with post-verbal TO, then it must be in INSTR, (4-a)–(4-b), but if it co-occurs with pre-verbal TO, it may be NOM or INSTR, (4-c)–(4-d).

- (4) Petr potkal nádhernou dívku. ‘Peter met a beautiful girl.’
- a. ??Byla to příčina jeho rozvodu.
was TO cause.NOM his divorce
‘It[=the situation involving the girl] was the reason of his divorce.’
 - b. Bylo to příčinou jeho rozvodu.
was TO cause.INSTR his divorce
‘It[=the situation involving the girl] was the reason of his divorce.’
 - c. To byla příčina jeho rozvodu.
TO was cause.NOM his divorce
‘It[=that P. met the girl] was the reason of his divorce.’
 - d. ?To bylo příčinou jeho rozvodu.
TO was cause.INSTR his divorce
‘It[=that P. met the girl] was the reason of his divorce.’

The proposal: We follow Nathan 2006 and Percus 2014 in that concealed questions contain a contextually restricted situation. We depart from them in that we argue that the contextually restricted situation is represented in syntax. More precisely, we argue that it corresponds to a SP, modeled as a situation variable attached either within the DP extended projection or in the TP projection (Percus 2000, von Stechow & Heim 2007/2011, Keshet 2008, 2010). Such a pronoun requires a propositional antecedent (cf. question under discussion of Roberts 1996/2012 and Büring 2003). We assume that the pre-verbal, i.e., the proposition referring, TO is in fact an overt morphological realization of such a pronoun, unlike its non-propositional counterpart (Bartošová & Kučerová 2014).

We argue that INSTR case is an overt morphological realization of a DP with a SP adjoined to it. The case distribution then follows: (i) If the DP requires a contextual restrictor and there is no overt SP in the structure, the SP must be adjoined to the DP; consequently, the DP surfaces as INSTR, (4-a)–(4-b). (ii) If there is an overt SP in TP, the DP may but does not have to have its own SP, and in turn it surfaces either with INSTR, (4-d), or with NOM, (4-c), respectively. (iii) Since regular predicative DPs do not require their own contextual restriction, if there is an overt SP in the structure, then the DP is in NOM, (3). (iv) If there is no overt SP, the restrictor is added only if the predication itself is restricted to a specific topic situation, which explains the pattern seen in (1)–(2).

The ɔ/a alternation in Russian -iva type verbs

0. Russian is known for showing a complex aspectual derivation (Schoorlemmer [1995], Svenonius [2004b]) involving *semantic* and *phonological* operations. I will show how, within the framework of Distributed Morphology, the analyses of these operations conflict.

1. The table in (1) shows aspectual pairs of Russian verbs. The perfective verbs in (1b-c) are derived from $\text{br}\text{ɔs-}\underline{\text{a-t}}^{\text{t}}$ by prefixation of na- . Then, the imperfective forms of these new verbs are derived by suffixation of -iva . It must be emphasized that the theme vowel occurring in (1a, b) and in the perfective of (1c) never cooccurs with -iva .

(1) *Exemples of aspectual pairs in Russian (Stressed nuclei are underlined)*

	Perfective (PF)	Imperfective (IPF)	Gloss
a.	$\text{br}\text{ɔs-}\underline{\text{i-t}}^{\text{t}}$	$\text{br}\text{ɔs-}\underline{\text{a-t}}^{\text{t}}$	« to throw away »
b.	$\text{na-br}\text{ɔs-}\underline{\text{a-t}}^{\text{t}}$	$(?\text{na-br}\text{ɔs-}\underline{\text{iva-t}}^{\text{t}})$	« to throw away a lot »
c.	$\text{na-br}\text{ɔs-}\underline{\text{a-t}}^{\text{t}}$	$\text{na-br}\underline{\text{as-iva-t}}^{\text{t}}$	« to sketch »

(2) Note:

- **nabrɔsətʲ can have a compositional (1b) or non-compositional (1c) meaning**
- **-iva implies a vocalic alternation (ɔ/a) (1c)**

According to Svenonius (2004), there are two categories of homophonous prefixes:

Lexical prefixes (1c): non-compositional meaning, cannot cooccur with other lexical prefixes.

Superlexical prefixes (1b): compositional meaning, can cooccur with lexical prefixes

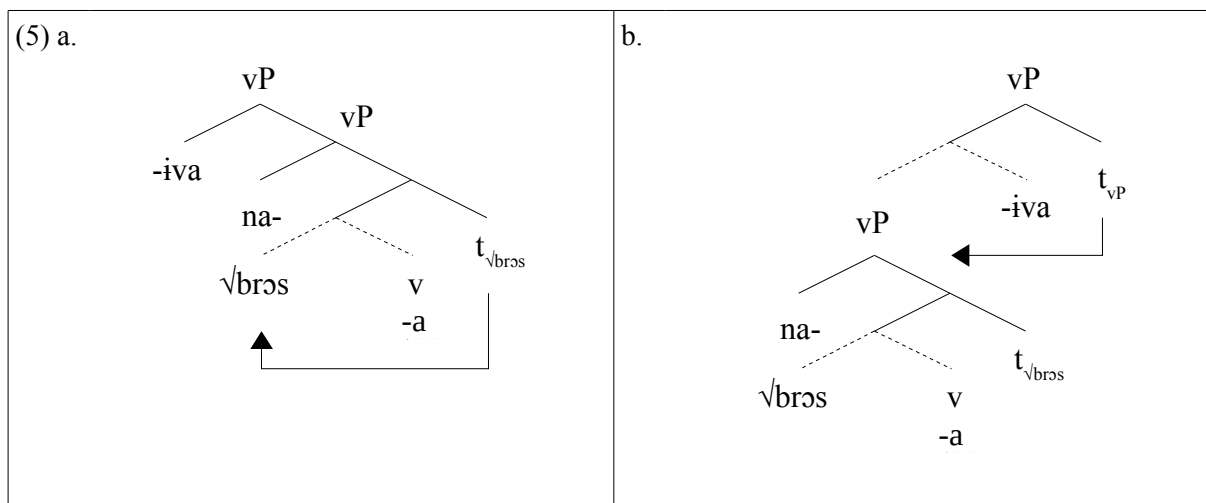
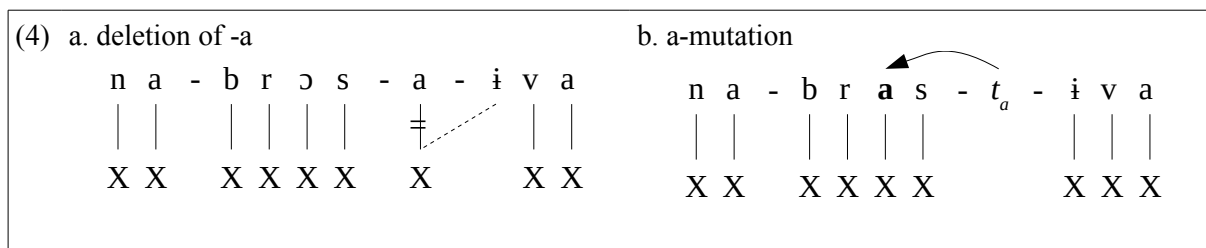
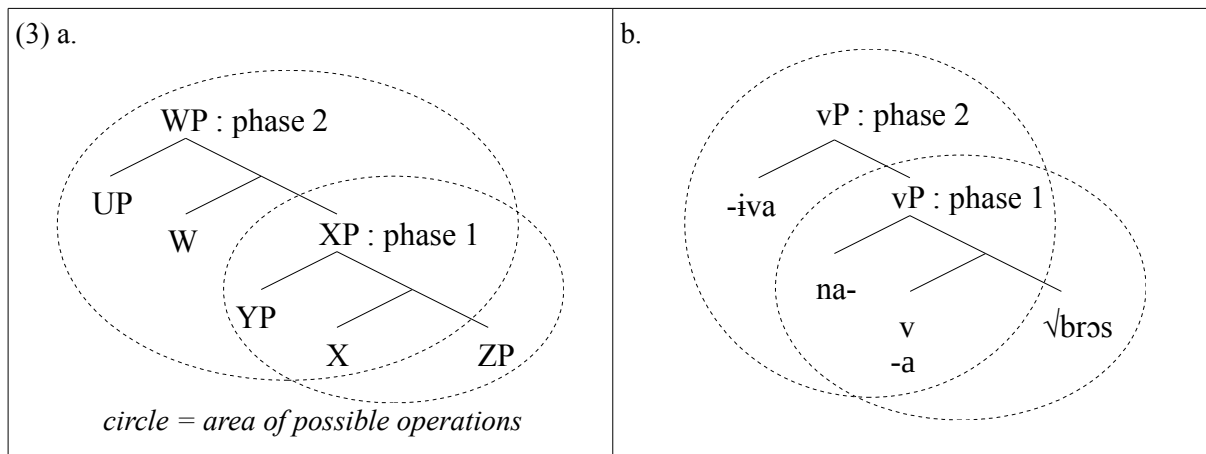
3. The framework of distributed morphology (Halle & Marantz, 1993 and later Lowenstamm, 2010) assumes that a phasal head spells out its complement. Following the *Phase Impenetrability Condition* (Chomsky, 2001), phonological or semantic operations are impossible between a spelled out complement and any material located in a higher phase (3a). Thus, to account for (2), both the lexical prefix and the suffix -iva must be included in the same phase as the root. However, their morpho-syntactic features conflict: **lexical prefixes and the suffix -iva cannot be included in a same phase.**

- On the one hand, lexical prefixes are: (i) included within the same phase as the root (ie. they bring non compositional meaning), and (ii) they imply a phase (ie. no more than one lexical prefix can adjoin the root). I analyse them as specifiers of the first phasal head (3b).

- On the other hand, the suffix -iva always selects a prefixed form (and rarely selects a superlexical prefix, see Svenonius [2004a] and Gribanova [2011]). Assuming that lexical prefixes are specifiers of a phasal head, -iva cannot be included into the first phase (3b).

4. As a conclusion, both the lexical prefix and the suffix -iva imply operations that should occur only within the first phase. However, we have shown that -iva is included in a higher phase. Thus, we should not expect the vocalic alternation in (2).

I propose the following **hypothesis**: the alternation in (2) is possible only by assuming an underlying morpheme involved in both phases, and phonologically erased by the suffix -iva (3b). Such a phenomenon is attested with the thematic vowels -i and -ε , which are realized as a palatalization of a root consonant in -iva type verbs (e.g. $\text{s-pr}\text{ɔs-}\underline{\text{i-t}}^{\text{PF}}$ / $\text{s-pr}\underline{\text{a}}\text{-iva-t}^{\text{IPF}}$ 'ask') (Halle, 1963). I assume that the ɔ/a alternation is a realization of an underlying -a suffix. Like palatalisation and -i , the a -mutation of the root vowel /ɔ/ and -a are in complementary distribution (e.g. $\text{na-br}\text{ɔs-}\underline{\text{a-t}}^{\text{PF}}$ / $\text{na-br}\underline{\text{a}}\text{s-iva-t}^{\text{IPF}}$). It follows that phonological operations are possible between -a and the root, between -a and -iva , but not directly between -iva and the root. I assume that -iva *phonologically* erases the morpheme -a following the mechanisms illustrated in (4). It results an ɔ/a alternation. The head movement is illustrated in (5): the root left-adjoins to the head v (5a), and vP left-adjoins to the head of the second phase (5b).



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ATTRACTION ERRORS IN CASE AGREEMENT: EVIDENCE FROM RUSSIAN

Background. Agreement attraction errors, as in (1), have been subject to scrutiny in the last decades (e.g. Bock & Miller 1991; Eberhard et al. 2005; Franck et al. 2002, 2006; Vigliocco et al. 1995).

(1) *[[The key] to the cabinets] were rusty (the underlined word is an attractor).

The main observations were the asymmetry of the error patterns (only plural attractors elicited errors) and the similarity of the effects in production and comprehension. The theoretical explanations fall into two main groups: (a) feature percolation (e.g. Franck et al. 2002; Eberhard et al. 2005) and (b) cue-based retrieval (e.g. Solomon & Pearlmutter 2004; Wagers et al. 2009). According to (a), the number feature of the attractor percolates upwards and the whole subject DP is erroneously marked as plural. The explanations in (b) suggest that the error occurs when we try to find the head of the subject DP for the purposes of agreement and retrieve a wrong noun. In languages that have morphological case this tends to happen when the form of the attractor coincides with the Nom.PL form, like in German (2a) as opposed to (2b) (Hartsuiker et al. 2003). The Pl/Sg asymmetry is explained by the markedness of the Pl feature.

(2) a. *die Stellungnahme gegen die Demonstrationen* ‘the position against the_{ACC.PL=NOM.PL} demonstrations’
b. *die Stellungnahme zu den Demonstrationen* ‘the position on the_{DAT.PL≠NOM.PL} demonstrations’

Our study. We report a production experiment looking at case agreement errors in Russian, which are frequent in spontaneous speech (e.g. Rusakova 2009). The attractor in Russian is a syncretic form of adjective, an example is given in (3). This phenomenon has some important similarities and differences to number agreement attraction.

(3) **Mozaiki* [v [novyx xramov]]... (the attractor is underlined)
mosaic_{NOM.PL} [in [new_{LOC(=GEN).PL} church_{GEN.PL}]]

Design and materials. The task was to listen to the beginning of a sentence, to repeat it and to continue it using the words on the screen, one of which required case agreement. Examples are given in (4a-b).

(4) a. Skazki **ob** ispolnyayushchix lyuboye zavetnoye zhelaniye + volshebnytsy
Tales about fulfilling any deep desire + enchantresses
long condition; preposition in bold requires Loc., the case of underlined word must be changed from Nom. to Loc.
b. Po slozhivsheysya traditsii sorevnovaniya **sredi** yunyx + lyzhniki
According to established tradition competitions among young + skiers
short condition, preposition in bold requires Gen., the case of underlined word must be changed from Nom. to Gen.

We manipulated the case required (Gen/Loc) and the linear distance from the attractor (three words / no words), using 2*2 square design with 10 stimuli per condition and 80 fillers.

Results. So far, 21 native speakers of Russian (age 18–42, 14 females) took part in the experiment (we are going to recruit more, but all relevant differences between conditions have already reached statistical significance according to the chi-square test). Attraction errors were elicited only in the Loc conditions (i.e. Gen forms were produced instead of Loc forms, 37 errors in total). There were significantly more errors in the long conditions than in the short conditions (34 vs. 3 respectively).

Discussion. The Gen/Loc asymmetry cannot be explained by defaultness/markedness. We propose to use the paradigm of directional syncretism (Baerman et al., 2005) to explain this phenomenon, as it postulates a hierarchical structure of the case system, unlike other paradigms of feature syncretism. According to it, in the Russian case system the Gen.PL value does not have its own form and is defined through a reference to the Loc.PL value. This can be compared to the defaultness/markedness effects producing inequality of feature values.

Comparing our results to the ones obtained in the studies of the same case errors in comprehension, we find a striking asymmetry. In several recent self-paced reading experiments looking at Gen.PL and Loc.PL forms, as we did in our study (e.g. Slioussar & Cherepovskaia 2014), attraction effects have been observed both in the Gen and in the Loc conditions. Namely, attraction errors triggered smaller slow-down

in reading than other case errors after prepositions requiring both Gen and Loc (notably, in the Gen conditions, the reaction to all types of errors was more pronounced). This suggests that the processes underlying the phenomenon are different in production and in comprehension. This is in line with the conclusions from some recent studies of number agreement attraction (Tanner et al., 2014), but the difference is more dramatic in our case. There are two possible explanations. Firstly, number and gender features can be different from case feature in terms of agreement mechanisms. Secondly, the structural relations in attraction configuration in our examples are different from the ones studied before with number and gender features (compare (1) and (3)), so the attraction itself may work differently in our case.

In any account, the percolation approach cannot provide a realistic explanation for the studied pattern because the attractor itself should agree with the noun and the Gen value cannot percolate from it to the preposition, as prepositions obviously do not have cases, but rather assign them. Cue-based retrieval seems to be a more probable explanation, if the error occurs at the re-checking stage when the syncretic form of the attractor activating several feature sets creates a misleading effect.

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Grammatical morphology in Serbian-speaking young adults with Down syndrome

Grammatical impairments have been extensively documented in individuals with Down syndrome (DS). Studies have revealed deficits in the domain of complex syntax (Perovic, 2006; 2008; Ring & Clahsen, 2005; Sanoudaki & Varlokosta, 2014), as well as morphosyntax in both children and adults with this disorder (Laws & Bishop, 2003). In English, difficulties with morphosyntax are usually observed in the omission and inconsistent use of articles, prepositions, pronouns, and grammatical morphemes marking finiteness on verbs.

This study is the first attempt at establishing whether there is an observable impairment in grammatical morphology in adult Serbian speakers with DS and if so, how it manifests itself. Serbian is a highly inflected language where nouns and their modifiers are marked for case, number and gender; tensed verbs agree with subjects in number and person, while participles also agree with the subject in gender.

So far, we have recruited 4 young adults with DS (mean IQ=61, mean CA=22 years, MLU in words=5.13), individually matched to typically developing controls on MLU (mean CA=4;1 years). Spontaneous speech samples were elicited via the wordless story book "Frog, where are you?" (Mayer, 1969).

The patterns that emerged in our sample reveal a particular deficiency in the domain of morphosyntax in Serbian speakers with DS which cannot be accounted for in terms of a simple language delay. The most striking difficulties were observed in the use of nominal inflection, where the participants with DS chose incongruous gender or number marking on nouns and determiners 32% of the time:

- (1) ovaj kuce
this-sg-Masc puppy-sg-Neut
this puppy

- (2) neki rupu
some-sg-Masc hole-sg-Fem
some hole

Auxiliary and copular verbs were omitted 33% and 26% of the time, respectively, while an error rate of 22% was observed in the selection of appropriate prepositions: e.g. where the verb selects a preposition + noun marked for locative case, our participants tended to use preposition + noun marked for accusative case. A smaller percentage of errors (around or less than 6%) were made with morphemes marking subject-verb agreement (mismatch in number or gender between the subject and the verb), incorrect case on subjects or objects, incorrect case within a PP, in addition to preposition omission. Interestingly, errors of tense marking were extremely rare, in contrast to reports for English-speaking individuals with DS.

Typically developing 4 year olds in the matched control group also had a large rate of auxiliary and copula omission (12% for both), but had little or no

difficulty with all other categories (3.5% error rate or less), with all differences statistically significant.

The observed deficiencies will be discussed with regard to the distinction between 'inherent' vs. 'contextual' inflection (Booij, 1996): it can be argued that our participants had less trouble with inherent, or interpretable, inflectional markers (those not crucially required by syntactic context but of syntactic relevance): number in nouns, tense/aspect in verbs. Their problems were confined to contextual, noninterpretable inflectional morphemes – dictated by syntax, but not crucially required for interpretation: agreement markers on determiners, verbs, and structural case markers on nouns.

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Paradigm leveling in non-standard Russian: consonant alternations in comparatives and nouns

This paper analyzes a paradigm leveling process currently taking place in Russian that affects consonant alternations. In standard Russian, these alternations are present in some verb forms (*ljubit'* 'to love' – *ljublju* 'I love'), in comparatives (*suxoj* 'dry' / *suxo* 'dryly' – *suše* 'drier, more dryly') and before certain derivational suffixes (*noga* 'leg' – *nožka* 'small leg, furniture leg'). However, many non-standard forms lack these alternations or have 'incorrect' variants unattested in standard Russian. Slioussar and Kholodilova (2013) demonstrated that although leveling simultaneously goes in two opposite directions, underapplication of consonant alternations is more widespread than overapplication in verb forms. Here, we continue their work studying comparatives and nouns. Our search for non-standard comparatives and noun forms in different corpora produced almost no results. Therefore we searched the Internet and elicited forms in an experiment.

Web search: methods and tools. Estimating relative frequencies of different forms found on the Internet is a challenge mainly because the counts provided by search engines are extremely imprecise (we used the Yandex search engine, which is very popular in Russia, but this is also true for Google etc.). To circumvent this problem, we used the method suggested by Slioussar and Kholodilova (2013). Namely, we first established what variants are attested searching for all theoretically possible forms and then put all attested forms in a single query, i.e. asked the search engine to look for them simultaneously. Then we sorted the results by date, counted relative frequencies of different variants (in the first one thousand results, if more were found) and did the relevant statistical tests.

To facilitate preparing queries and processing of the massive amount of results, we developed a collection of Perl scripts called *Lingui-Pingui*. This program can automatically form queries from the list of given morphs, send them to the search engine, download the results, sort them according to specified criteria and do various counts.

Web search: results for comparatives. In standard Russian, ten adjectives with the stems ending in *-d*, *-t* and more than one hundred adjectives with the stems ending in *-g*, *-k*, *-x* (all such adjectives) have synthetic comparatives with consonant alternations; both groups are not productive. Two types of adjectives were selected for our study: (1) 9 adjectives with stem-final dental plosives and 24 adjectives with stem-final velars that have normative synthetic comparatives with alternations; (2) 19 adjectives with stem-final velars that do not have normative synthetic comparatives, but native speakers still tend to generate such forms.

Group 1. We found that if a standard form exists, the process of alternation loss is more sporadic than in the case of verbs: usually about 1-2% forms lack alternations, although some adjectives like *ubogij* 'poky' or *uprugij* 'resilient' have up to 30% of comparatives without alternations. Unlike with verbs, no significant correlation with lemma frequency or the last consonant of the stem was found.

Group 2. This group consisted primarily of compound adjectives. Analogous simplex adjectives have synthetic comparatives with alternations, while these adjectives have only analytic standard forms. When speakers nevertheless try to form synthetic comparatives, these forms lack alternations significantly more often than in the first group. The most important factor is whether the second part of the compound is used as an independent adjective. If it is (e.g. *zorkij* 'sharp-sighted' for *dal'nozorkij* 'long-sighted'), most comparatives have alternations. If it is not (e.g. *dlinnorukij* 'long-armed', *dlinnonogij* 'long-legged'), the majority of comparatives lack alternations. This is noteworthy because the relevant stems with alternations can be found in many highly frequent words, e.g. *ručka* 'small hand, handle', *nožka* 'small leg, furniture leg'.

So it seems to be crucial whether a particular form is listed in the mental lexicon, not whether a model or even a particular version of the stem is available. This is similar to Slioussar and Kholodilova's results with the verbs: in the I class, the model is productive, but it plays the most important role whether a standard form with alternations from a particular verb is stored in the lexicon.

Experiment: results for comparatives. All tendencies observed for comparatives on the Internet were replicated in an experiment where participants (27 speakers of Russian, age 14-56)¹ were asked to produce comparatives from various real and nonce adjectives. The forms were embedded in short standardized sentences they were asked to complete. Notably, there were no restrictions on using ana-

¹ We also performed the same experiment on nine teenagers and ten subjects older than 50. No difference by age was found. We are grateful to Tatiana Matiushkina and Ekaterina Tskhoverbieva for collecting these data.

lytic comparatives (for several reasons, they were not included in Internet searches).

We took the same types of adjectives that were searched for on the web and added a group of adjectives with stem-final dental fricatives (/z/, /s/). Fricative alternations are extremely rare in adjectives (*vysokij* ‘tall’ - *vyše*, *nizkij* ‘short’ - *niže* are probably the only ones) and occur only together with the suffix *-(o)k-* dropping. However, in verb forms and derived nouns these alternations occur fairly often (e.g. *nosit* ‘to carry’ - *nošu*, *ukrasit* ‘to decorate’ - *ukrašenie* ‘decoration’).

Overall, experimental results replicated the web-study results described above. But several new correlations appeared. In particular, frequency and stem-final consonant played a significant role. For less frequent adjectives, subjects used analytic forms or synthetic forms without alternation more often ($p < 0.01$, Pearson’s correlation coefficient). In case of real adjectives with stem-final dental plosives (/d/, /t/), 100% of the comparatives formed by subjects were synthetic ones with alternations. For adjectives with stem-final velars (/g/, /k/, /x/), subjects produced only 60% synthetic forms with alternations, 34% analytic forms and 8% synthetic forms without alternations (i.e. using an analytic form is another way to avoid alternations – something we could not show in the web-search part of the study). Notably, the picture was the opposite for nonce adjectives: significantly more comparatives without alternations were formed from adjectives with stem final dental plosives (14% synthetic forms with alternations in case of stem-final /d/ or /t/ vs. 30% in case of stem final /g/, /k/, /x/).

Thus, a small group of highly frequent dental plosive adjectives that have synthetic comparatives with alternations is very stable, but speakers remember them one by one and fail to use the relevant model in nonce words, expectedly preferring a different productive model (like e.g. in *veselyj* ‘merry’ - *veselee*). In case of velar adjectives, the model with alternations is the only one available in standard Russian. Due to the tendency to get rid of alternations and to the unproductiveness of the model, speakers also have problems using it, but much less so than with nonce words with stem-final dental plosives. There were also several comparatives with alternations produced from nonce words with *-z* and *-s* stems, which is interesting, because they are extremely rare in standard Russian and can hardly be found on the Internet.

Web search: results for nouns. Many nominal derivational suffixes trigger alternations of a stem-final velar or dental fricative consonant in standard Russian. We started studying noun forms with diminutive suffixes. We selected two groups of nouns: new loanwords like *bag* ‘bug’ or *tæg* ‘tag’ and native words that are rarely used in diminutive form like *strax* ‘fear’. We found that only few forms lack alternations (i.e. the tendency is weaker than in comparatives and much weaker than in verbs, probably because we deal with derivation rather than inflection). An interesting side finding was that the distribution of suffixes is different from what is predicted by the prescriptive grammar.

Discussion. Many competing approaches to paradigm leveling exist. But we are cautious to interpret our results in favor of any theory. For example, the fact that underapplication of alternations is preferred to overapplication is problematic for McCarthy’s (2005) framework, being more readily compatible with accounts like (Albright 2002, 2010). However, these and other theories were primarily designed to work with different data, explaining why some groups of words developed particular established forms rather than predicting different frequencies of various non-standard innovations. We can gain access to such data only now, with the development of Internet communication. We strongly believe that the general principles underlying these data should be the same in both cases, but some adaptation is still needed. To give another example, alternations that are rarely attested in standard Russian can be taken as evidence that speakers, at least in some cases, rely on conditions on outputs (form X should contain consonant A) rather than on input-output relations (stem-final consonant B becomes A in form X) (e.g. Bybee 1995). However, this does not readily predict the vast diversity of such alternations, as well as their very low frequency compared not only to “standard” alternations, but also to the cases where alternations are missing.

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Island obviation in answer fragments: Evidence from Bulgarian *li*-questions

It has long been observed that sluicing is insensitive to islands (Ross 1969) whereas fragment (short) answers are not (Merchant 2004, Griffiths & Liptak 2014 (G&L)). While the sluice in (1) allows the wh-phrase [which] to be understood as the correlative of the indefinite phrase [*a Balkan language*] despite the Complex Noun Phrase (CNP) island, the question in (2) demonstrates the inability of a fragment answer to correspond to the DP-phrase [*Albanian*] within the island:

- (1) John wants to hire someone who speaks a Balkan language, but I don't remember which_i [_{TP} ~~John wants to hire someone who speaks t_i~~].
 (2) A: Does John want to hire someone who speaks Albanian?
 B: *No, Serbian_i [_{TP} ~~John wants to hire someone who speaks t_i~~].

We show that fragments can also be island insensitive as long as the language provides some mechanism **to make a question out of an island**, in other words to mark a constituent that is embedded under an island as the constituent under question. Such a mechanism, we claim, is available in Bulgarian where the question/focus particle *li*, can attach to a wide variety of constituents and mark that the question concerns this particular constituent. Crucially, these so called *narrow-focus questions* in Bulgarian allow for a fragment answer that seems to violate islands as shown for a CNP island in (3) and an adjunct island in (4). Notice that if the relevant constituents are not *li*-marked, the fragment answers are not licensed.

- (3) A: Petar iska da naeme njakoj, kojto angliiski_i #(LI) govori t_i?
 Peter wants subj hire someone who English Q speaks
 'Does Peter want to hire someone who speaks English?'
 B: ne, [_F Ruski]_i [_{TP} ~~Petar iska da naeme njakoj kojto t_i govori t_i~~]
 'No, Russian.'
 (4) A: Maria zavizhda, zashtoto Lena #(LI) ima nov kompjutar?
 Maria envies because Lena Q has new computer
 'Is Maria jealous because Lena has a new computer?'
 B: 'ne, [_F Ivana]_i [_{TP} ~~Maria zavizhda, zashtoto t_i ima nov kompjutar~~]
 'no,'Ivana'

The data from Bulgarian shed new light on the question of "island insensitivity under ellipsis" as they suggest that islands can be ameliorated under any type of ellipsis, thus allowing for a uniform treatment of sluicing and answer fragments. Following Merchant's (2001) *PF-theory of islands* (5), we argue that answer fragments and sluicing pattern together with respect to island insensitivity.

- (5) Island violations are due to properties of the pronounced syntactic structure, not to constraints on derivations or LF representations themselves. [Merchant 2004; 701]

We also follow G&L (2014) in assuming that the ungrammaticality of (2) is due to the lack of parallelism between the antecedent and the elided structure (6), as the DP *Albanian* in the English question cannot move out of the island, thus violating parallelism:

- (6) A: Does John want to hire someone who speaks Albanian?
 LF: [someone who speaks Albanian]_i λx ([_{TP} John wants to hire t_i])
 B: *No, Serbian_i [_{TP} ~~John wants to hire someone who speaks t_i~~].

However, contra G&L (2014), we argue that it is possible to preserve parallelism in *contrastive ellipsis* as long as movement out of the island is forced by the overt presence of a focus particle that marks the relevant constituent as being the constituent under question. In this respect, we claim that fragment answers with *-li* in Bulgarian force movement of a constituent to the left periphery, thus achieving parallelism with the sluice. Interestingly, we also notice a contrast between argument and adjunct fragments from Bulgarian island constructions. The contrast below demonstrates the behavior of focused adjunct within CNP (7) and without CNP (8):

(7) A: Ivan pokani student-a, kojto otlichno LI sviri na piano? [adjunct-*li* within CNP]

Ivan invited student-the, who excellent Q plays on piano
 ‘Does Ivan invite the Student who plays piano excellently?’

B: *ne, [umereno]_i [~~TP Ivan pokani studenta, kojto t_i sviri na piano?~~]
 ‘no, moderately’

(8) A: Saobshtixa, che silno LI shte vali snjag? [adjunct-*li*, no CNP]

announced.3pl that heavily Q will fall snow
 ‘Did they announced that it will snow heavily?’

B: ne, [umereno]_i [~~saobshtixa, che t_i shte vali snjag?~~]
 ‘no, moderately’

The contrast between (3)-(4) and (7) patterns with the well-established distinction between argument and adjunct covert *wh*-movement out of islands (cf. Sauerland 1997). As it was originally observed in Huang (1982) *wh*-arguments are insensitive to islands in Chinese whereas *wh*-adjuncts are not. The contrast in (3) vs (7) shows that the argument - adjunct distinction is replicated in Bulgarian *li*-marked questions, which in turn provides further support for the treatment of answer fragments on a par with sluicing under the *PF-theory of islands*.

In conclusion, we have argued that the *PF-theory of islands* is a general principle and we presented evidence from Bulgarian that contrastive ellipsis is also subject to this principle. We also argued in favor of the G&L account that the ungrammaticality of answer fragments in (2) is due to a lack of parallelism but we further argued that the parallelism can be obtained if there is a factor forcing movement of a DP out of an island. Such a factor is the particle *li*- in Bulgarian. This account can be naturally extended in English where we observe that in disjunctive questions where the disjunction is embedded under an island, the fragment answer is grammatical:

(9) A: Does John want to hire someone who speaks Albanian OR Serbian?

B: Serbian_i [~~TP John wants the person that he will hire to speak t_i].~~

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***Samyj* in fragment answers**

The goal of this talk is to provide a syntactic analysis of constructions in which Russian *samyj* is used as part of a fragment answer, see (1).

- (1) A: Do you remember Peter? He called me yesterday.
 B: Which Peter? Peter who plays the violin?
 A: On samyj.
 he self-M.SG.NOM
 ‘That’s the one.’ (lit. He himself.)

In the dialogue in (1), A’s affirmative reply consists of a nominative pronoun and *samyj* that agrees with it in number, gender and case. This answer has an emphatic flavour when compared to simple answers, such as *Da* ‘yes’ or *On* ‘he’.

Properties of Pron+*samyj* Pron+*samyj* has a number of very peculiar properties: (i) As illustrated above, it can be used as an affirmative answer to a *yes/no*-question. (ii) Pron+*samyj* can be embedded under reportative verbs and epistemic modals, but is deviant under modals expressing desire, see (2). (iii) Pron+*samyj* is incompatible with negation, see (3). (iv) For most speakers, Pron+*samyj* cannot surface in a regular argument position, see (4). These properties clearly distinguish *samyj* from the so-called emphatic reflexives in Russian as in *On sam prišel* ‘He himself came’ (e.g. Klenin 1980, Weiss 2006). I also show that these two paradigms of *self* in Russian differ with respect to morphological agreement and stress.

- (2) a. Kto eto? Neželi professor Semenov? - Ja ne znaju, no sudja po
 who this? NEG-Q-PART professor Semenov I not know but judging on
 tomu što vokrug nego vse sobralis’, dumaju, on samyj.
 that that around him everyone gathered think.1SG.PRES he self.M.SG.NOM
 ‘Who is this? Isn’t this Professor Semenov? - I don’t know, but given that
 everyone has gathered around him, I think this is he, indeed.’
 b. Ne znaju kto budet vesti seminary, no govorjat što eto
 not know.1SG.PRES who will lead seminars but say.3PL.PRES that this
 mozet byt’ professor Semenov. - #Xotelos’ by čtoby on samyj.
 may be professor Semenov desirable COND that.COND he self.M.SG
 ‘I don’t know who will run the seminars, but it’s rumoured that this may be
 Professor Semenov. - I’d love it to be him!’
 (3) A: Eto Petr? B: Net, ne on (*samyj). Eto ego brat.
 this Peter no, not he self.M.SG.NOM this his brother
 ‘Is this Peter?’ ‘No, that is not he. This is his brother.’
 (4) ?*Ty znaeš’, on sámj ko mne včera prixodil.
 you know he self.M.SG.NOM to me yesterday came
 ‘You know, he came to me yesterday.’

Analysis The analysis I propose derives the fragment answer *On samyj* ‘He self’ in (1) from the identity statement ‘He self is Peter’. I argue that ‘he self’ raises to the specifier of a positive Polarity Phrase above TP and triggers an obligatory TP-ellipsis (e.g. Merchant 2004, Progovac 2005, Authler 2013). This is schematically shown in (5):

(5) [PolP [DP he self]_i [Pol' Pol+ [TP ~~t_i is Peter~~]]] (simplified)

That is to say, I propose that Pron+*samyj* has an intermediate status between a fragment answer and a positive polarity particle, such as *yes*. Like a fragment answer (e.g. Merchant 2004), it is derived by TP-ellipsis and shows case-connectivity and preposition-stranding effects characteristic of fragment answers in other languages, see (6):

- (6) a. Ty imeeš' v vidu Zubrilovy Veroniku? - Ee samuju! (NRC)
 you have in view Zubrilova-ACC Veronika-ACC her self-F.SG.ACC
 'Do you mean Veronika Zubrilova? Her, indeed.' (lit. Her herself.)
 b. A vy k Kol'ke priexali, k Popovu? - *(K) nemu samomy...
 and you to Kol'ka-DAT came to Popov-DAT to him-DAT self-M.SG.DAT
 'Did you come to Kol'ka Popov? To him, indeed...'

However unlike fragment answers, Pron+*samyj* surfaces in PolP rather than FocusP which assimilates it to polarity particles. Like polarity particles, Pron+*samyj* can be used to answer a *yes/no*-question (property (i)), shows the embeddability properties discussed above (property (ii)) and makes the TP-ellipsis obligatory (property (iv)), see Authier 2013. The incompatibility with negation (property (iii)) is explained by postulating that *samyj* is an empathic marker dependent on the positive value of PolP.

Extension The proposed account is extended to the cases in which Pron+*samyj* is used with the overt copular focussed by the focus particle *i*, see (7) (which seems to present a counter-example to property (iv)):

- (7) On samyj *(i) est'/byl'/budet.
 he self I is/was/will.be
 'That is/would be/was the one.'

To account for such cases, I propose that *i* heads a Focus projection above VP and a verb (or copular) head-moves to this projection and right adjoins to *i*. Subsequently, *i*+copular undergoes a head-movement to Pol, as shown in (8):

(8) [PolP [DP on samyj]_i [Pol+T+FOC+V [i est'/byl]_k] [TP ~~t_i [FOCP t_k [VP t_k [DP Petr]]]]]]~~

Thus, the fragment answers with Pron+*samyj* in Russian are very different from other non-sentential phenomena in other languages, such as fragment answers to *wh*-questions, polarity particles and the so-called *Ga*-ellipsis in Slovenian. The contrast with the latter is especially revealing as *Ga*-ellipsis shows strikingly different properties and is argued to involve VP-ellipsis rather than TP-ellipsis (e.g. Franks and King 2000, Dvůrák 2007).

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Personality Disorders: Insights from the Slovenian Person-Case Constraint pattern

The *Person-Case Constraint* (PCC) is a ban on co-occurrence of specific case and person feature combinations on phonologically weak elements such as clitics, agreement affixes and weak pronouns. The PCC has received numerous treatments in terms of person feature checking/licensing failures (Béjar & Řezáč 2003, Anagnostopoulou 2005, a.o.). In this paper, I present a new PCC pattern from Slovenian, which is not predicted by the existing approaches, and propose a new account of PCC and the Strong/Weak PCC variation (see Bonet 1991 on the latter).

Central issue: Although sometimes listed as a language with no PCC, most Slovenian speakers exhibit restrictions on clitics consistent with the PCC (1a). In addition, Slovenian object clitics appear with both *Dat>Acc* (1b) and *Acc>Dat* (1b,2) orders (unlike in e.g. Greek or Serbo-Croatian). What is especially interesting is that *3DAT&1/2ACC violations are suspended with the *Acc>Dat* order (1b), but also that *Acc>Dat* order does not suspend PCC violations entirely, as illustrated by (2a).

- | | | |
|---|--|--|
| (1) a. *Sestra mu me/te bo predstavila.
sister 3.DAT 1/2.ACC will introduce
'The sister will introduce me/you to him.' | | b. Sestra me/te mu bo predstavila.
sister 1/2.ACC 3.DAT will introduce
'The sister will introduce me/you to him.' |
| (2) a. *Sestra ga mi/ti bo predstavila.
sister 3.ACC 1/2.DAT will introduce
'The sister will introduce him to me/you.' | | b. Sestra ga mu bo predstavila.
sister 3.ACC 3.DAT will introduce
'The sister will introduce him to him.' |

The full pattern is given in (3,4) below, with the traditional PCC in (3), and the *Acc>Dat* order with the previously unattested "inverse PCC" in (4). This pattern goes against the view of the PCC as a ban on 1st/2nd person DO/*Acc* clitics in the presence of IO/*Dat/Gen* clitics. This indicates that the PCC must be independent from the specific case morphology or θ -roles of IO and DO.

- | | | | |
|--------------------|------------------|---------------------|-------------------|
| (3) a. 3.DAT>3.ACC | b. 1/2.DAT>3.ACC | c. *1/2.DAT>1/2.ACC | d. *3.DAT>1/2.ACC |
| (4) a. 3.ACC>3.DAT | b. 1/2.ACC>3.DAT | c. *1/2.ACC>1/2.DAT | d. *3.ACC>1/2.DAT |

Imperatives complicate matters even further, since PCC effects are absent in imperatives with both clitic orders (5). In addition to that, Slovenian is a rare language that allows embedded imperatives. Significantly, in embedded imperatives clitics appear pre-verbally and PCC effects are observed (6).

- | | | |
|---|--|--|
| (5) a. Predstavi me mu!
introduce.IMP me.ACC him.DAT
'Introduce me to him!' | | b. Predstavi mu me!
introduce.IMP him.DAT me.ACC |
| (6) a. Rekel ti je, da me mu predstavi.
said you.DAT is that me.ACC him.DAT introduce.IMP
'He told you that you should introduce me to him!' | | b. *... da mu me predstavi.
... that him.DAT me.ACC introduc.IMP |

Existing approaches can only derive (3): For Béjar & Řezáč (2003) and Anagnostopoulou (2005) *Dat* checks off specific person (π) features on v^0 in a $v^0>Dat>Acc$ base structure, leaving none of the relevant π -features on v^0 for a 1st/2nd person *Acc* to check. *The former* achieve this with: (a) cyclic Agree (π probes before #), (b) moving *Dat* to void defective intervention, and (c) stipulating 3π does not require π -checking; and *the latter* with: (a) *Dat* is specified for π but defective for #, (b) v^0 can only check # on *Acc*, (c) *Acc* is unspecified for π , and (d) 3π is a lack of π -features. With both approaches it is crucial that *Dat/IO* and *Acc/DO* are made inherently distinct; as a result capturing the pattern in (4) becomes impossible. Similarly, for Nevins (2007) v^0 probes for specific π values on *Dat>Acc* and a non-matching *Dat* causes PCC. Also, in this approach clitics are reflexes of Agree itself. This makes 3>3 clitics (3a,4a) an issue; 3π never fits the π -values that v^0 probes for, so Agree cannot even occur.

Proposal: I capture (5) by appealing to Bošković (2004), where post-verbal clitics in imperatives result from pronunciation of lower copies. Imperatives involve F^0 , a PF affix that must merge with V under PF adjacency. Since in their surface position clitics intervene between F^0 and V, the *Stranded Affix Filter* forces pronunciation of lower copies of clitics so that F^0 can merge with V. The absence of a PCC violation results from the pronounced order of clitics differing from the one in their final landing site. I argue that in (5b), the unpronounced higher copies are 1.ACC>3.DAT, a configuration where PCC is not active (1b,4b), but the pronounced lower copies are *3.DAT>1.ACC (1a,3d) (an account will be provided in the talk why higher copies must be pronounced in embedded imperatives).

To account for the full pattern in (3,4) I propose that weak pronominal elements enter derivation with unvalued π -features; these need to be valued before spell-out either under Agree or by receiving a default π value as a last resort. I further propose that: (i) the default π value is 3π , (ii) probe X^0 (X^0 can be v^0 , T^0 , Asp^0 , or P^0 ; subject to language-internal/crosslinguistic variation) values π through Agree,

(iii) Agree cannot hold between *probe* and *goal* if there is a matching intervener (Chomsky 2000), and (iv) there is additional clitic movement in Slovenian (see below) which will be related to the fact that Slovenian clitics can be both proclitics and enclitics, even splittable (5).

(5) ? So mu včeraj ga dali?

did.PL him.DAT yesterday it.ACC give.PL (=‘Did they give it to him yesterday?’)

Derivation: The derivation of (3,4) assumes a *Dat*>*Acc* base order, with *Acc* clitic movement (before X^0 is merged), but is also compatible with free base-generation of *Dat/Acc* clitics. *Dat* acts as an intervener for Agree between X^0 and *Acc* in (6a). To avoid a crash, *Acc* must receive default (*d*) 3π . In a derivation where *Acc* moves above *Dat* (7a), *Dat* must then get default 3π for the same reason. X^0 can then assign any π value under Agree to the top clitic (6b,7b). Crucially, the banned configurations ($*1/2 > 1/2$, $*3 > 1/2$) are impossible, as Agree across a matching intervener violates locality.

(6) a. [$X^0 \dots [Dat\{uv\pi\} \dots [Acc\{d:3\pi\} \dots]]$] (7) a. [$X^0 \dots [Acc_1\{uv\pi\} [Dat\{d:3\pi\} \dots [t_1 \dots]]]$]
 b. [$X^0 \dots [Dat\{1/2/3\pi\} \dots [Acc\{d:3\pi\} \dots]]$] b. [$X^0 \dots [Acc_1\{1/2/3\pi\} [Dat\{d:3\pi\} \dots [t_1 \dots]]]$]

The analysis so far works for the Strong PCC. Crosslinguistically there is another pattern, Weak PCC, which differs by allowing $1/2.DAT > 1/2.ACC$ combinations. This pattern is also found with some speakers of Slovenian; as with Strong PCC, there is also an ‘inverse’ pattern with the *Acc*>*Dat* order. I propose the locus of variation is the following difference: (i) Strong PCC: clitic movement is independent of π -feature valuation, (ii) Weak PCC: π -feature valuation is what drives clitic movement, i.e. π must be valued in SpecXP. As a result, when X^0 merges in (9a,10a), if high *Dat/Acc* enters into Agree with X^0 , it must move to X^0 to be valued (9b,10b). As traces do not count as interveners (Chomsky 1995), the low *Acc/Dat* clitic can now Agree with X^0 and move ‘tucking-in’ under high *Dat/Acc* to get valued (9d,10d). Alternatively, low *Acc/Dat* can receive default π -value (9c,10c), thus deriving all acceptable patterns. Crucially, if *Dat* receives default π -value, it can no longer move to X^0 (with Weak PCC π -valuation requires movement to SpecXP), becoming an intervener for X^0 and *Acc*, blocking π -valuation via movement for *Acc*, correctly capturing the unacceptability of $*3 > 1/2$. The option of deriving $3 > 1/2$ by assigning the high *Dat/Acc* 3π , and low *Acc/Dat* $1/2\pi$ in a multiple-spec configuration is eliminated with the condition in (11), deriving the distribution in (12).

(9) a. [$X^0 \dots [Dat\{uv\pi\} \dots [Acc\{uv\pi\} \dots]]$] (10) a. [$X^0 \dots [Acc_1\{uv\pi\} \dots [Dat\{uv\pi\} \dots [t_1 \dots]]]$]
 b. [$Dat_1\{1/2\pi\} [X^0 \dots [t_1 \dots [Acc\{uv\pi\} \dots]]]$] b. [$Acc_1\{1/2\pi\} [X^0 \dots [t_1 \dots [Dat\{uv\pi\} \dots [t_1 \dots]]]]]$]
 c. [$Dat_1\{1/2\pi\} [X^0 \dots [t_1 \dots [Acc\{d:3\pi\} \dots]]]$] c. [$Acc_1\{1/2\pi\} [X^0 \dots [t_1 \dots [Dat\{d:3\pi\} \dots [t_1 \dots]]]]]$]
 d. [$Dat_1\{1/2\pi\} [Acc_2\{1/2\pi\} [X^0 \dots [t_1 \dots [t_2 \dots]]]]]$] d. [$Acc_1\{1/2\pi\} [Dat_2\{1/2\pi\} [X^0 \dots [t_1 \dots [t_2 \dots [t_1 \dots]]]]]]]$]

(11) Internally merged multiple Specs are allowed in XP, iff their features are valued by X^0 for non-conflicting values. (Conflicting values for π are: [+local] (i.e. $1/2\pi$) and [–local] (i.e. 3π))

(12) a. [$_{XP} 1/2\pi [_{XP} 1/2\pi X^0]$] b. [$_{XP} 3\pi [_{XP} 3\pi X^0]$] c. $*[_{XP} 1/2\pi [_{XP} 3\pi X^0]$] d. $*[_{XP} 3\pi [_{XP} 1/2\pi X^0]$]

Slovenian Weak PCC speakers allow $2.ACC > 1.DAT$ but not $*1.ACC > 2.DAT$, while (9,10) can derive both. I argue this restriction is PCC-independent based on the fact that Serbo-Croatian, where PCC is inactive (Migdalski 2006) and clitic order is rigidly *Dat*>*Acc*, allows $1.DAT > 2.ACC$ but not $*2.DAT > 1.ACC$ (which is a mirror picture of the Slovenian pattern) in spite of its PCC-inactivity.

So far *Multiple Agree* seems needed (Anagnostopoulou 2005), but only for Spec-head Agree (Weak PCC), not in-situ *goals* (Strong PCC). I will show in the talk that the Spec-head requirement and Multiple Agree are actually unnecessary. In (9,10) each clitic Agrees with and moves to X^0 separately to be valued in SpecXP (being closest to X^0 at relevant points). This requires only standard Agree, and the Strong/Weak PCC split follows strictly from in-situ valuation versus valuation-driven movement.

In summary, Slovenian shows a previously unobserved PCC pattern, in fact a much more complex PCC pattern than the ones described in the PCC literature crosslinguistically. The pattern is observable due to the availability of two clitic orders and both matrix and embedded imperatives. Based on this new data I proposed a new approach to the PCC phenomenon in general which also fully captures the complexities of the Slovenian PCC paradigm.

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Experimental evidence for intraparadigmatic effects in Russian verbs

BACKGROUND: Some Russian verbs famously have a paradigm gap in the 1p.sg. present tense form. For example, speakers cannot confidently determine the 1p.sg. form of *pylesosi-it'* "to vacuum"; but if pressed, they will reluctantly produce *pylesof-u* (with the expected and regular stem-final alternation) or *pylesosi-u* (without the alternation). Most previous studies of these verbs conclude that the gaps are historically motivated, but synchronically arbitrary (Graudina et. al. 1976, Daland et.al. 2007, Baerman 2009). Contrary to these claims, Pertsova (2014) suggests that the 1p.sg. gaps are due to a conflict between a (1) a regular morphological rule demanding stem-final consonantal alternations (e.g., the *si~f* alternation in the verb above), and (2) a paradigmatic pressure against alternations coming from Paradigm Uniformity. The alternations that affect 1p.sg. form also appear in past passive participles (ppp), but the rest of verbal forms have no alternations (and, hence, exert paradigmatic pressure on the 1p.sg. form not to alternate). Practically all verbs with paradigm gaps lack ppp's, and most verbs that have ppp's do not have gaps (Pertsova, 2014).

OBJECTIVES OF THE CURRENT STUDY: The goal of this study was to test the hypothesis that the speakers' confidence in 1p.sg. pres. forms depends on presence/absence of expected alternations elsewhere in the paradigm. We tested this hypothesis in a web-experiment, which recorded speakers' productions and subjective confidence ratings of the singular forms of low-frequency verbs that have or do not have ppp's. The results of this experiment overall support the above hypothesis. Further experiments are in progress to test the more fine-grain prediction that more frequent forms exert stronger paradigmatic pressure. In particular, we are testing whether higher frequency of ppp forms (for verbs that have them) is correlated with greater confidence in 1p.sg. alternations. Confirmation of this hypothesis will strengthen the view that computation of an inflectional form depends not only on morphological and phonological rules applying to that form, but also on the robustness of the relevant pattern in the paradigm (more details below).

METHODS: The experiment was a forced production task, in which subjects first read a sentence with a target verb in the infinitive form, and then used this verb in the next sentence either in 1st, 2nd, or 3rd person singular present tense. The verbs included 36 dental and 36 labial stems of conjugation II (verbs which have consonantal alternations in 1p.sg. forms). For reasons of space, we will only discuss dental stems. All verbs were of low frequency (< 2.5 ipm in the RNC), that is, verbs whose 1p.sg. forms are unlikely to be memorized. They were divided into three groups: **Group A** was comprised of verbs which are known to have a gap in 1p.sg. and which lack ppp's (e.g., *erundit'* "to speak nonsense"); **Group B** was comprised of verbs that are not marked in dictionaries as having a gap, but that also lack ppp's (e.g., *smerdet'* "to stink"); **Group C** was comprised of verbs that have ppp's and no gaps (e.g., *orosit'* "to dew"). Within each group there were an equal number of stems ending in each of the four dental consonants (-d, -t, -s, -z). The groups had stems of similar stress patterns and number of syllables. 223 native speakers of Russian participated in the experiment, which was administered over the web (23 of them currently live outside Russia or did not indicate their location). Three types of data were collected: the written responses in the fill-in the blank task, the subjective confidence ratings on the 5-point Likert scale, and RTs (not discussed here).

RESULTS: All responses were coded into three categories: expected stem-final alternation, non-alternation, and other (this category included erroneous responses in the wrong person or tense, as well as responses in which an unexpected alternation was applied, or the field was left blank). Table 1 reports proportions of each type of response per group. Only 1% of responses in Group C were non-alternations, in stark contrast to the other two groups. Figure 1 shows the distribution and means of confidence ratings within each group (the wider the "bean" the more responses are in

that category). For example, majority of responses in group C received the highest rating of 5. We used R (R Core Team 2014) and lme4 (Bates et. al. 2012) to perform a mixed-effects logistic regression with subject and item as random effects and group (A,B,C), stem-type (-d, -s, -z, -t), and lemma frequency as fixed effects was run on the proportion of non-alternations. Our analysis shows that group significantly impacts the results ($\chi^2 = 41.6$, $df=2$, $P=8.9e-10$). P-values were obtained by likelihood ratio tests of the full model with the effect in question against the model without the effect in question.

Table 1: percent of responses in the fill in the blank task

Types of response in 1p.sg.	Group A (gaps, no ppp's)	Group B (no ppp's)	Group C (ppp's attested)
Expected alternation	60%	69%	86%
Non-alternation	27%	18%	1%
Other	13%	13%	13%

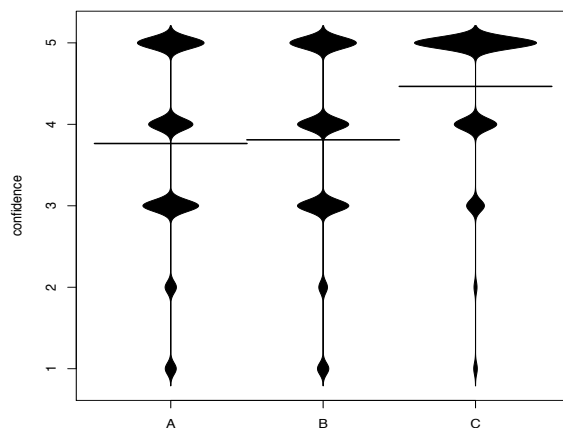
THEORETICAL IMPLICATIONS:

These results support a model in which there are two dimensions of well-formedness of morphological generalizations: (i) an interparadigmatic robustness (regularity and frequency of a pattern throughout different paradigms) and (ii) intraparadigmatic robustness (regularity and frequency of a pattern within a paradigm). For a potential *derived* form to become the preferred output it has to have a relatively high score on both of these dimensions. When all competing realizations fail this requirement, gaps arise (e.g., *pylesos'-u* has a low inter-paradigmatic score because other verbs with similar stems alternate in 1p.sg, while *pylesof-u* has a low intra-paradigmatic score because no other forms in the paradigm of this verb have the same alternation.) When several competitors do equally well, free variation may arise.

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Figure 1: confidence ratings on a 5 point Likert scale. The lines show the means for each group.



Frequency Distributions as Faithfulness Targets: Or, Why Bulgarians Feminized Turkish Nouns

The substantial literature on loanword adaptation focuses primarily on changes to source language forms driven by mismatches in the phonological systems of a pair of languages. However, recent work illustrates that loan adaptation may also involve changes that appear not to be motivated by this factor directly. Rather, borrowings may involve ‘unnecessary repairs’ to structures which are unobjectionable in the borrowing language, in order to yield a lexical distribution which better matches that of the borrowing language (Walter 2011).

This study documents one such case, involving Bulgarian loanwords borrowed from Turkish. I demonstrate that Turkish forms which would be unproblematically borrowed as neuter-gendered nouns in Bulgarian are instead borrowed with a final vowel change (/e/ to /a/) which yields feminine-gendered nouns. Moreover, such changes occur with precisely the frequency to yield a statistical distribution among noun genders in Bulgarian that remains unchanged despite the large lexical influx.

Therefore, in loan adaptation it appears that adults deploy their knowledge of distributional generalizations over the lexicon (Frisch and Zawaydeh 2001; Hudson Kam and Newport 2005) and are motivated by faithfulness to such generalizations at least as much as by faithfulness to individual phonemes or derivational transparency (Becker et al. 2011). An optimality-theoretic account is given as one means of formalizing this insight.

Gender in Bulgarian

Bulgarian nouns may be either neuter, feminine, or masculine gender. In general, neuter nouns end in /e/, feminine nouns end in /a/, and masculine nouns end in consonants or other vowels. Loanwords normally also follow these gender assignment rules, but a substantial class of exceptions is exemplified below. Here, potentially neuter nouns are borrowed with a vowel change to final /a/, yielding feminine forms.

<u>Bulgarian</u>	<u>IPA</u>	<u>Turkish</u>	<u>Gloss</u>
чешма	tʃeʃm <u>a</u>	çeşm <u>e</u>	fountain
тенджера	tendʒer <u>a</u>	tencere	cooking pan
махала	mahal <u>a</u>	mahalle	neighborhood
механа	mexan <u>a</u>	meyhan <u>e</u>	tavern

The Corpus

Two separate corpora were assembled of Bulgarian words of Turkish origin, ending in either /a/ or /e/ in the original Turkish. The first corpus is assembled from various sources on the Turkish-speaking minority in Bulgaria (n= 63; Georgieff 2012, Sakareva 2005, Kramer 1992). The second corpus consists of forms from Gadjeva’s (2009) study of Turkish loanwords in Bulgarian (n=144).

Results

Proportions of gender assignments as shown by final vowel in the two loanword corpora were compared to general proportions in the lexicon, as instantiated in the Xeba dictionary (2012) of approximately ten thousand head words. The dictionary data reveals that in the overall lexicon of Bulgarian, masculine and feminine nouns are of roughly equal number (each roughly 40%), while neuters are only 20%. Therefore, the number of neuter nouns is about half that of the number of feminine nouns (Row 1).

		Neuter (-e)	Feminine (-a)	neut/fem
1	Dictionary %	19	39	0.49
2	Corpus 1 (Gadjeva): Turkish	64	80	0.8
3	Corpus 1: Bulgarian	48	97	0.49
4	Corpus 2: Turkish	26	36	0.72
5	Corpus 2: Bulgarian	19	41	0.46

Row 2 gives the distribution of /e/-final versus /a/-final forms in the original Turkish, showing that the /e/-final forms are more prevalent. However, this changes when the final vowel of the resulting Bulgarian loanword is taken into consideration, rather than the source form. Row 3 demonstrates that the vowel changes are overwhelmingly in one direction, yielding a proportion of neuter-to-feminine forms that exactly matches the pre-existing ratio in Bulgarian. Rows 4 and 5 illustrate precisely the same pattern for the second loanword corpus.

Conclusions

Speakers appear to violate theoretical assumptions such as lexicon optimization and a general assumed desire for derivational faithfulness and transparency, in favor of maintaining consistent statistical distributions over the lexicon over time. This can be captured in an optimality-theoretic model of gender assignment (Rice 2006) that incorporates gradient constraint ranking (Boersma and Hayes 2001), following Walter (2011).

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Vocalic length as evidence for the incorporated–free particle distinction in Czech

Intro. Verbal particles in Germanic and elsewhere come in two varieties: incorporated and free. Slavic languages apparently have only the incorporated particles, hence the wide-spread term verbal prefix. Here we look at a length alternation found with Czech verbal prefixes, and argue that the alternation can be best explained if the prefixes too can be either incorporated or free, despite the fact that this has no obvious effect on their position in the surface string.

The length alternation. We start from the observation that some verbal prefixes have two distinct forms depending on their syntactic environment (a fact brought to attention by Scheer 2001). Roughly, when they attach to a verbal form, the prefix vowel is short, see the first column of Table (1). When they appear in a zero derived nominal, the prefix vowel is long, see the third column. For details concerning the verbal/nominal distinction, see Ziková (2012).

(1) Verb Prefix = CV, N prefix = CVV			
verb	gloss	zero N	gloss
vy -stup	get out!	vý -stup	outcome
na -stup	get on!	ná -stup	boarding
za -stup	step in!	zá -stup	substitute
při -stup	come here!	pří -stup	access
u -stup	step back!	ú -stup	retreat

Out of all the verbal forms that have the short prefix (like the present *za-stoup-í*, past *za-stoup-il*, infinitive *za-stoup-it*, passive *za-stoup-ený*, etc.), the imperative is chosen because it has no apparent suffix. And similarly, out of all the forms with the long prefix (relational adjectives *zá-stup-ný* ‘vicarious’, diminutive-

like *vý-stup-ek* ‘protrusion’, etc.), the zero derived noun is chosen also because it has no suffix. The comparison of the two suffix-less forms shows that prefix quantity is not dependent on purely phonological context in any obvious sense. Instead, we are looking at a morpho-syntactically triggered process. What is this process?

Phonology. We propose that the prefixes in (1) are stored in the lexicon as long, and shorten in verbs. We implement this by a templatic requirement (Scheer 2001, Bethin 2003, Caha-Scheer 2008) that requires *verbal* prefixes to be max 1μ (long vowels count for 2μ). Such a template explains the facts in Table (1): prefixes that do not meet this requirement have to shorten.

The proposal runs against the existing analyses by Scheer (2001) and Ziková (2012), who propose that the prefixes are short in the lexicon, and lengthen in contact with the noun. Evidence for a shortening analysis starts from the observation that some prefixes are always short, see (2).

(2) Verb Prefix = CV, N Prefix = CV			
verb	gloss	zero N	gloss
po -stup	move on!	po -stup	progress
se -stup	come down!	se -stup	descent
od -stup	move away!	od -stup	distance

Nothing else said, the lengthening analysis predicts that in the first line, we get the N **pů-stup* instead of *po-stup*. The wrong prediction is avoided by stipulation: the prefixes in (2) are simply claimed not to undergo the process.¹

However, under the shortening analysis, we need not make any stipulations here. The prefixes in table (2) are simply analyzed as lexically short, surfacing as such in the nominalization. Their ‘promotion’ to a verbal prefix status triggers (under our analysis) a templatic effect (be max 1μ), which is trivially satisfied without any effect on the shape of the prefix.

Second of all, we capture the regularity which holds regardless of any processes, namely that ALL verbal prefixes have a canonical prosodic shape (cannot have 2μ , epenthesis aside). The lengthening analysis does not predict any such regularity. The verbal prefixes are listed in (3), which is an exhaustive list ordered alphabetically.

(3) *Verbal* prefixes have max 1μ : *na, nad, o, ob, od, pod, pro, pře, před, při, s, u, v, z, za*
 Note that some verbal prefixes have no vowel; this is compatible with the max 1μ template. For these prefixes, we predict that they do not show any additional length in nominal environment, because there is no prefix lengthening. The prediction is borne out.

Syntax. On the basis of such facts, we think that the shortening analysis is to be preferred. For us, the direction of the change is important in that we believe that also in the morphosyntactic

¹To be fair, Scheer and Zikova claim that the non-lengthening prefixes are a phonological class. But this has some problems too, since *pro-*, which falls in the same phonological class as the non-lengthening *po-*, regularly lengthens. In sum, one needs a diacritic to code which prefixes lengthen and which not.

structure, the long prefix is primary, and the short version derived. The way we implement this idea is by claiming that the templatic requirement is tight to a particular structural position (Spec,Asp) which the prefix reaches by movement.

Specifically, we propose that Czech prefixes are generated as small-but-phrasal specifiers in the vicinity of the root (in the Spec of a low functional category, R(esult)). Here, they carry spatial meaning (if not over-riden by idiomatic interpretation), but contribute no aspectual information. If they stay here, they remain long, see (4b), where we use Ramchandian labels for the projections. However, if they move (string vacuously) to Spec,Asp – a higher functional projection – they are subject to the templatic requirement, and shorten, as shown in (4a). This analysis recalls the proposal in Svenonius (2004:sec.5). There, however, R is below the verb and prefixes always have to move. Here we assume that R is above the verb, and that when Asp is missing (in zero derived nouns and their kin), prefixes may surface in the low position.

(4) a. AspP

Particle
na
Asp
RP
Particle
ná
R
procP
stup

b. RP

Particle
ná
R
procP
stup

(5) a. **ut-kast**
out-throw = ‘draft’

b. Han har **kastet** katta **ut**
he has thrown cat out

(6) a. {**za/pří/pod**} moři
over/by/under sea

b. {**zá-/pří-/pod-**} -mořský
over/by/under sea
‘transatlantic, coastal, underwater’

The closeness of the root and the prefix. While string vacuous, the prefix movement affects structural closeness of the root and the prefix. We believe that the structural difference is empirically observable as the distinction between free and affixal (incorporated) particle. This finds support in both comparative considerations, and Czech internally.

Norwegian. Consider the Norwegian data (5). (5a) shows that the particle is incorporated in zero derived nouns (and other non-verbal constructions, see Svenonius 1996). In verbal contexts (5b), however, the particle is free. Thus, as for its trigger, the Norwegian incorporated/free particle alternation is virtually identical to the long/short particle distinction in Czech. Our proposal captures the parallel easily, building on the analysis of Norwegian by Taraldsen (2000). Taraldsen argues that particle stranding is dependent on particle movement. Specifically, for stranding to happen, the particle moves out of the VP (our RP) to a Spec of a functional projection above the VP, exactly as in (4a). Verb movement — understood as phrasal VP movement — may then strand the particle. However, if the particle does not move out of the VP, it cannot be stranded, yielding (5b). Our story for Czech length is identical; the difference is that verb movement in Czech never crosses the particle, but pied-pipes it along.

Prepositions. It has been noted that prepositions and prefixes are related (see work by Matushansky 2002, Gehrke, Svenonius; Gribanova 2009). Interestingly, those prefixes that can be used as prepositions also show length alternations (6). The two contexts here are similar to the English *under (the) water* vs. *underwater*, i.e., free vs. incorporated. When free (6a), the prepositions are 1 μ at most. When incorporated (6b), they may be long (*pří-*, *zá-*). This is the same distribution of length and shortness that we argued to arise in verbal prefixes.

Conclusions. There are reasons to believe that Czech prefixes alternate — even though string vacuously — between a free and incorporated status. If correct, the conclusion brings the Czech (and perhaps Slavic) prefixes even closer to Germanic, strengthening the suggestions made in previous research, but also refining it in several aspects.

Sel. references. **Bethin:** Metrical quantity in Czech. **Caha&Scheer:** The syntax and phonology of Czech templatic morphology **Gribanova:** Phonological evidence for a distinction **Matushansky:** On formal identity of Russian prefixes and prepositions **Scheer:** The Rhythmic Law in Czech. **Svenonius 96:** The verb-particle alternation in the Scandinavian languages. **Svenonius 04:** Slavic prefixes inside and outside VP. **Taraldsen:** V-movement and VP-movement in Derivations of VO-order. **Ziková:** Lexical prefixes and templatic domains.

Adverbial Left-Branch Extraction and the Structure of AP in Slavic

This paper shows that adverb extraction (AdvE) out of traditional adjective phrases (TAPs) is sensitive to the amount of structure projected within the TAP, which I show follows from a contextual approach to phases; and that the amount of structure projected in the predicative and attributive position is different. My arguments are based on a cross-linguistic survey of a number of Slavic languages regarding this extraction, and on a case-study exploring phonological, morphological, and syntactic properties of Bosnian/Croatian/Serbian(BCS) short-form adjectives (SFAs) and long-form adjectives (LFAs).

AdvE. A survey of Slavic languages regarding examples like (1) reveals two new generalizations (2):

- (1) a. TERRIBLY_i, HE WAS t_i TIRED. (BCS, BG, POL, RUS, SLO)
- b. *EXTREMELY_i, THEY MET t_i SMART STUDENTS. (BCS(long), BG, POL, RUS, SLO)
- (2) a. Slavic languages allow AdvE out of predicative position.
- b. Slavic languages disallow AdvE out of attributive position.

In many languages the morphology of attributive adjectives differs from that of predicative adjectives: e.g. long form in BCS and Russian, definite form in Icelandic, agreeing form in Dutch and German. Bailyn (1993) argues attributive TAPs quite generally must have a functional projection above the AP. I show that this suggestion coupled with a contextual approach to phases straightforwardly captures (2). Parallel to (1), Bošković (2008) observes a correlation between the (un)availability of adjectival left-branch extraction (LBE) (3) and the presence of articles, stating a generalization that only article-less languages may allow LBE, while languages with articles never allow it.

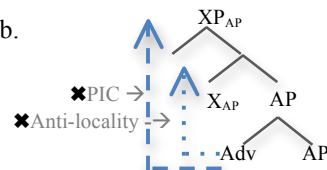
- (3) (*)SMART_i THEY ARE t_i STUDENTS.

Under a contextual approach to phases, Bošković (2013) argues that every lexical category projects a phase and that the highest projection in the extended domain of every lexical head is a phase. Concerning LBE, Bošković argues that the highest projection in the extended domain of N in all languages is a phase, and that the variation regarding LBE follows from the presence of the DP layer in languages with articles and the lack thereof in languages without articles (Corver 1992; Zlatic 1992; Bošković 2008), and an interaction of locality constraints: (i) the *PIC*, under which only the edge of a phase can be moved out of it; and (ii) *anti-locality*, a ban on movement that is too short which requires movement to cross at least one full phrase (not just a segment). Assuming adjectives are NP-adjoined (Corver 1992; Bošković 2008), the DP (phase) blocks adjectival LBE in languages with articles since such extraction violates either the PIC or anti-locality; LBE is not blocked in languages that lack DP, given that adjectives originate at the edge of the nominal phase. In sum, the amount of structure projected within the extended domain of a lexical category correlates with extraction possibilities of elements contained in it. Regarding (1-2), I suggest that the same interaction of locality constraints is at work. Parallel to N, A projects a phase in its extended domain. Assuming intensifying adverbs originate as AP-adjoined, attributive and predicative TAPs differ regarding the availability of AdvE due to the presence of a functional projection XP above AP in the attributive position, which is missing in the predicative position. In (1a), the Adv originates at the edge of the AP (phase), and can be extracted without violating the PIC/anti-locality (4a). (An account of unavailability of (1a) in English is also provided in the paper). In (1b), the XP layer is present above the AP to which the Adv is adjoined and functions as a phase as the highest projection in the domain of A (i.e. Adv is not at the edge of a phase). To move out of XP, the Adv has to stop in SpecXP (phasal edge),

(4) a.



b.



due to the PIC, but this step of movement is too short; it is ruled out by anti-locality (4b).

SFAs vs. LFAs. BCS long form adjectives can be used only attributively. Given that AdvE is disallowed out of TAPs with LFAs, it follows from above that the functional projection associated with the LFA

inflection (XP) is within the TAP. In contrast, previous analyses of LFAs place XP outside of the TAP, i.e. within the traditional nominal phrase (TNP). However, I provide evidence that XP is indeed a part of the TAP, rather than TNP, based on prosodic differences between SFAs and LFAs. Contemporary SFA/LFA distinction is almost entirely prosodic (cf. 5&6) (see Aljović 2002). Out of forty-two pairs of

SFA/LFA forms resulting from seven Cases and three genders in singular and plural, only in NOM.SG.M an overt inflection [-i] occurs in LFA in addition to the prosodic contrast present in other pairs (glá:dan – glà:dni ‘hungry’). The prosodic differences between SFAs and LFAs at first glance do not look systematic, and have not yet received an account in the literature: (i) if SFA has a rising tone it becomes a falling tone in LFA (5a-6a; 5b-6b); or (ii) if SFA has a rising tone, it shifts one syllable to the left and remains a rising tone in LFA (5c-6c); or (iii) the accentual difference is neutralized (5d-6d). Falling and rising accents result from the following rules in BCS (e.g. Inkelas and Zec 1988): (i) In a word with multiple underlying High(H) tones, the leftmost H wins; (ii) In the absence of underlying H tones, a default Initial H is inserted; (iii) A syllable has a rising accent if it precedes a winning H (due to H-spreading); (iv) An initial H is realized as falling.

- | | | | | | |
|----------|--|--------------|-------------|-------------|---|
| (5) SFA: | a. plá:vo:j | b. glá:dno:j | c. visóko:j | d. làbavo:j | →[´] rising accent
→[˘] falling accent
→ bold = locus of the winning H |
| (6) LFA: | a. plà:vo:j | b. glà:dno:j | c. visoko:j | d. làbavo:j | |
| | ‘blue.DAT.SG.F’ ‘hungry.DAT.SG.F’ ‘tall.DAT.SG.F’ ‘loose.DAT.SG.F’ | | | | |

The messy picture in (5-6), however, reveals what the actual LFA inflection is, which turns out to be different from the standard view under which LFA inflection is assumed to be added on top of SFA agreement morphemes, with exponents: [-i] for NOM.SG.M and -∅ elsewhere. In particular, I propose that the only LFA inflection is a phonemically null morpheme with a H tone (i.e. X=[∅^H]). SFAs and LFAs have the following morpheme sequences, with the underlying H tones indicated by [^H]:


- | | | | | |
|----------|--|---|--|--|
| (7) SFA: | a. plá:v- o ^H :j | b. glá:dn- o ^H :j | c. visók- o ^H :j | d. là ^H bav- o ^H :j |
| | ADJ-DAT.SG.F | ADJ-DAT.F | ADJ-DAT.SG.F | ADJ-DAT.SG.F |
| (8) LFA: | a. plà:v- ∅ ^H - o ^H :j | b. glà:dn- ∅ ^H - o ^H :j | c. visók- ∅ ^H - o ^H :j | d. là ^H bav- ∅ ^H - o ^H :j |
| | ADJ- X -DAT.SG.F | ADJ- X -DAT.SG.F | ADJ- X -DAT.SG.F | ADJ- X -DAT.F |
| | ‘blue’ | ‘hungry’ | ‘tall’ | ‘loose’ |

In (7-8), the dative suffix [o^H:j] has an underlying H tone, which spreads to the preceding vowel of the toneless ADJ, giving it a rising accent in (7a-c). In contrast to (7a-c), in (8a-c) the H tone of the dative suffix [o^H:j] is not realized, which is indicated by the fact that the vowel preceding it does not have a rising accent. Instead, the vowel preceding [o^H:j] has its own H in (8a-c). Given that this H tone is missing from the SFAs in (7a-c), the question is where this H tone comes from. As suggested above, LFA inflection is a null morpheme with a H tone. Contrary to the standard analysis where LFA inflection is added on top of agreement (ADJ-DAT.SG.F-**X** order), I argue this morpheme is located between ADJ and agreement in (8) (ADJ-**X**-DAT.SG.F order). Not being underlyingly linked to a vowel, the H tone of the LFA inflection [∅^H] links to the first vowel preceding it, i.e. the final vowel of ADJ. If ADJ is monosyllabic, this results in a falling accent (8a-b). If ADJ is polysyllabic, the H tone spreads to the vowel preceding it, giving it a rising accent (8c). SFA/LFA distinction is neutralized in (7d)-(8d) due to the underlying initial H tone of the ADJ, which wins in both SFA and LFA as the leftmost H in the sequence, regardless of the presence of other H tones, and is realized as falling. The sequences of morphemes in (7-8) represent what SFAs and LFAs look like in PF. The remaining question is which of these morphemes correspond to heads that project syntactic structure and which do not. Assuming syntax provides input to PF and LF, elements that are present in the syntax are expected to have semantic and/or syntactic reflexes. Elements that have neither syntactic nor semantic effect can be inserted in PF, as argued for agreement nodes (Embick and Noyer 2007). I suggest that ADJ projects AP in both SFAs and LFAs (4). The LFA inflection (X=[∅^H]) projects XP above AP (4b). The presence of XP in the syntax is supported by its blocking effect on AdvE with LFAs. X lowers to ADJ in PF by M-merger (Marantz 1984; Bobaljik 1995). The DAT.SG.F suffix realized as [o^H:j], marking agreement with the noun, is added in PF, hence has no semantic or syntactic effect. Finally, the ending [-i] that occurs only in NOM.SG.M (in addition to [∅^H]) is not LFA inflection. I argue there are two vocabulary items realizing agreement in NOM.SG.M: (i) [-i] is inserted in the context of X ([NOM.SG.M]→[-i]/X__); (ii) [-∅] is inserted everywhere else ([NOM.SG.M]→[-∅]/elsewhere). Their choice is determined by the Elsewhere Principle (Kiparsky 1973). The analysis of LFA inflection as [∅^H] rather than [-i] entirely captures the messy situation in (5-6).

Interference in Children's Online Processing of simple *Wh*-Questions: Evidence from Russian

There exists theoretical and psycholinguistic evidence that complex syntactic dependencies (Subject relative clauses) are easier for children to comprehend than Object RC, and one theoretical explanation is interference from the intervening Subject. Friedmann et al. (2009) argued that the Obj RC are more difficult only when the moved Object and the intervening Subject DPs share DP-internal features such as gender (Adani et al., 2010). Simple syntactic dependencies such as single clause *wh*-questions are easier than RC: Subj *wh*-questions are easy because there is no movement, and Obj should be also easy if the two DPs share few features. We conducted a Visual World Paradigm experiment in Russian that demonstrates that even when children answer Obj *Wh*-questions correctly, their online processing shows interference from the other present referent (Competitor) regardless of whether it intervenes or not and whether the two DPs are different in features.

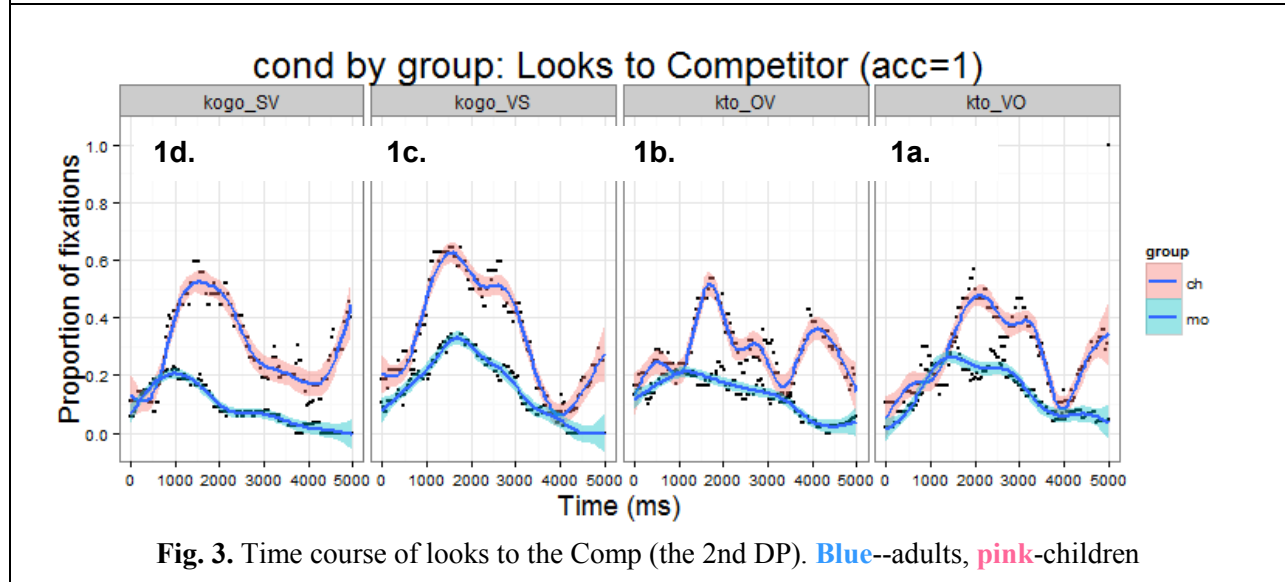
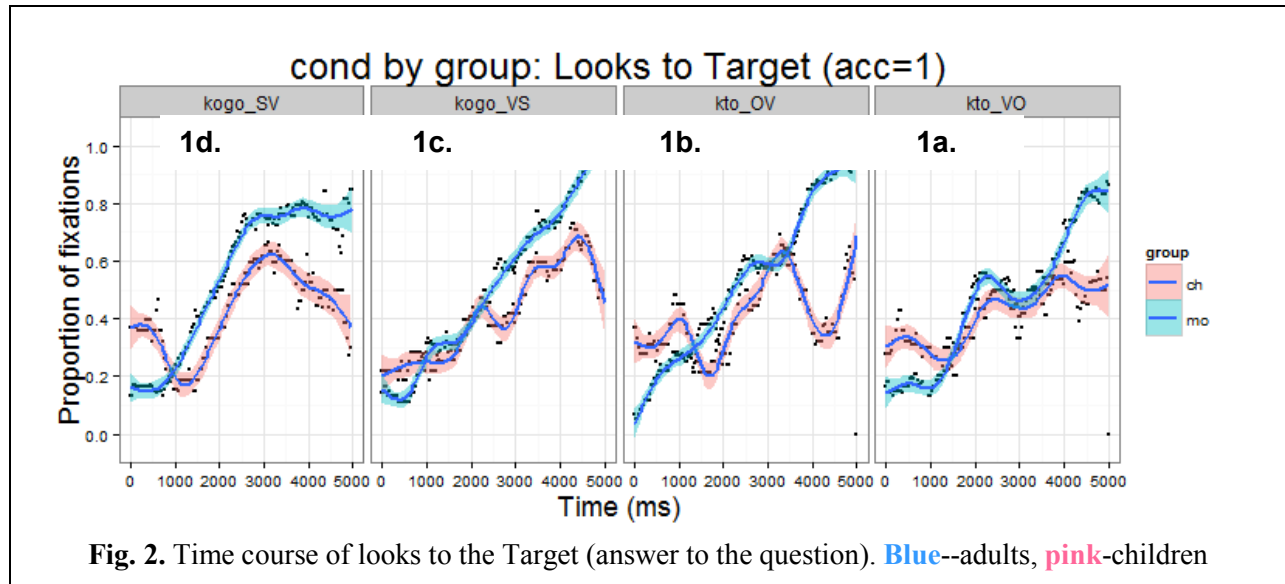
Russian adults ($N=8$) and 5-to-7-year-old children ($N=20$) listened to 3-sentence stories while viewing 4 pictures (Fig. 1: *goat, rabbit, hunter, and hole*) and answered a *wh*-question by clicking; their eye movements were recorded (Dickey et al., 2007). Materials were 20 subject- (1a-b) and object- (1c-d) *wh*-questions with different word orders containing unambiguously case-marked *wh*-words (*kto* NOM for Subj, *kogo* ACC for Obj).

(1)	Word Order	4 Regions of Interest (ms)				Fig. 1
		1-1000	1001-2000	2001-3000	3001+ ms	
Subject	a. Wh_{SUBJ} V O (canonical):	<i>Kto</i> who _{NOM}	<i>spas</i> saved	<i>kozla</i> goat _{ACC}	<i>v jame?</i> in the hole	
	b. Wh_{SUBJ} Q V (scrambled): Intervening Obj	<i>Kto</i> 'Who saved the goat in the hole?'	<i>kozla</i>	<i>spas</i>	<i>v jame?</i>	
Object	c. Wh_{OBJ} V S (scrambled):	<i>Kogo</i> who _{ACC}	<i>spas</i> saved	<i>zajac</i> rabbit _{NOM}	<i>v jame?</i> in the hole	
	d. Wh_{OBJ} S V (canonical): Intervening Subj	<i>Kogo</i> 'Who ₁ did the rabbit save ___ ₁ in the hole?'	<i>zajac</i>	<i>spas</i>	<i>v jame?</i>	

Conditions (1a, d) replicate the English contrast: the Who-Obj (*kogo*) in (1d) is displaced from the post-verbal position and the Subj (*rabbit*) intervenes between the filler and the gap. Conditions (1b, c) are Russian-specific, with the reverse pattern of interference that makes Obj RC easier to process for adults (Levy et al., 2013). We analyzed fine-grained time course of looks to the Target (answer to the question) and Competitor (the other referent) in 4 regions of interest (ROIs; 0-3000 ms).

PREDICTIONS: (1) **Who-Subj (1a-b):** No Subj (*rabbit*) reactivation at the Verb; no interference from Obj (*goat*) in (1b). (2) **Who-Obj (1c-d):** Obj (*goat*) reactivation at the gap after the Verb; no interference from Subj (*rabbit*) in (1c); interference from Subj in (1d).

RESULTS. Question answers were at ceiling for both groups (98% adults; 99.15% children). Adults' fixations to the Target (Fig. 2, blue lines) were significantly greater than to the Comp starting from the verb in (Fig. 3a-b, d); there were no signs of interference (proportions of fixations to the Comp do not exceed 20% except for 1c). In contrast, children (pink lines) fixated the Comp significantly more in 3 conditions (except 1a) during the first 3 ROIs (0-3000 ms). This interference was strong in the Obj (Fig. 3c, d) and Subj *wh*-question with the interfering Obj (Fig. 3b). Thus, contrary to the lexical restriction theory (Friedmann et al., 2009), children's processing of simple syntactic dependencies is burdened by referential competition even when other DPs do not intervene. This evidence supports the retrieval cue-based theory (Van Dyke & McElree, 2006), according to which effects of interference increase as complexity of syntactic dependencies increases, explaining difficulties children, bilingual speakers, and people with aphasia exhibit in processing RC, passives, and other non-canonical word orders.



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On two types of silent objects

Within the literature on phonologically null objects, at least two varieties seem to be firmly established in the typology: **generic null objects (GNO)**, originally described in Rizzi 1986 and exemplified by the Italian version of *Good music reconciles ___ with oneself*, and **indefinite null objects (INO)**, discussed most notably by Chomsky (1964), Bresnan (1978), and Levin (1993) in relation to English sentences such as *I ate ___*. GNO were syntactically analyzed as pronouns (Rizzi 1986, Authier 1992), consisting of a set of ϕ -features and of a D-feature/head (Landau 2010). INO, on the other hand, were argued to be represented only in the lexicon, either in the form of de-transitivizing rules that operate on individual predicates, cf. (1-a), or as two separate predicates, a transitive and an intransitive one, that are linked by a predicate-specific meaning postulate, cf. (1-b).

- (1) a. argument structure conversion (Bresnan 1978): $x \text{ EAT } y \rightarrow (\exists y) x \text{ EAT } y$
 b. inference rules for two lexical predicates (Fodor & Fodor 1980): $x \text{ EAT} \equiv (\exists y) x \text{ EAT } y$

On the basis of novel data from Czech, a Slavic language that has both GNO and INO, I show that while the main distinction between syntactically represented GNO and syntactically non-present INO holds, their analysis has to be much more fine-grained. I argue that Czech GNO have in fact an extremely impoverished syntax, corresponding to a bare nominal head, but are deprived of number, person and D features. Czech INO, on the other hand, although not being syntactic arguments per se, have to be derived by a general, syntax-sensitive rule of interpretation, and not as a result of lexical, item-specific rules if we want to account for their systematic, aspect-sensitive distribution.

I. **GNO**. On a par with their Italian counterparts, GNO in Czech are always human-denoting. They control into infinitival clauses (2), bind reflexives (3), and function as subjects of argument small clauses (4-a). According to Rizzi (1986), all of these are evidence for their presence in syntax.

- (2) Šikovný učitel přiměje_i [PRO_i chodit na hodinu včas a připraven-ý/^{C#}-á/^{??}-í].
 skilled teacher makes go to class on-time and prepared-SG.MASC/SG.FEM/PL
 ‘A skilled teacher makes (one) come to classes on time and well prepared.’
- (3) Ani nejlepší ochranka neochrání_i před sebou_i sam-ým/^{C#} sam-ou/^{??} sam-ými.
 neither best security not-protects before self alone-SG.MASC/alone-SG.FEM/alone-PL
 ‘Not even the best security guard protects (one) from oneself.’
- (4) a. Požívání marihuany dělá ___ otupěl-ým / *otupěl-ého
 Intake marijuana makes dull-INST.SG.MASC dull-ACC.SG.MASC
 b. Požívání marihuany dělá člověk-a otupěl-ým / otupěl-ého
 Intake marijuana makes human-ACC.SG.MASC dull-INST.SG.MASC dull-ACC.SG.MASC
 ‘Regular consumption of marijuana makes one dull.’

The agreement markers on adjectives bound by GNO directly, as in (3), or indirectly via PRO, as in (2), reveal that GNO are specified for masculine gender, which is pragmatically neutral in the sense that it subsumes both male and female individuals. Feminine gender is accepted only in contexts where the generalization is meant to apply exclusively to women (I mark this by ‘C#’ in the examples). The same pragmatic neutrality of masculine gender is generally attested also in the case of overt nouns denoting humans and human-like entities in Czech:

- (5) ředitel- \emptyset ‘principal-MASC.SG (male or female)’ \times ředitel-ka ‘principal-FEM.SG (female only)’

(Non-human nouns are specified for gender idiosyncratically, and the default gender in Czech is neuter, found e.g. in impersonal constructions.) On the other hand, GNO are not specified for number, as are overt [+hum] nouns, where SG is used to refer to atomic human-like beings, and PL is used for sets of atoms with cardinality >1 (Link 1983). But adjectives agreeing with GNO always have the default singular value, see (2) and (3), no matter how much we play with the context. In addition, the data in (4) show that GNO do not allow case agreement, in sharp contrast to their overt counterpart, a generically interpreted noun *člověk*. I explain this mismatch as a result of the missing number projection in the internal structure of GNO, i.e. KaseP selects at least NumP, not a bare NP. Finally, none of the possible combinations of person features [\pm Participant] and [\pm Author] is applicable to GNO – they are more like regular nouns in not having the person features at all. Both of these facts, missing NumP and no person features, lead to the conclusion that DP is missing altogether in

GNO. (It also fits in with the recent research on Slavic languages, pointing towards no DP layer in their nominals in general, cf. Dayal 2004, Bošković 2007, Despić 2009.) The syntax of GNO could be simply captured as $[_{NP} e_N]$ where e_N has only the pragmatically determined gender feature which is associated with a lexical semantic feature [+hum]. It was argued by Panagiotidis (2002), following Postal (1969), that a conceptually empty “pronominal noun” is present inside every pronoun: it is either null (e_N), or overt (e.g. *one* in *the tall one*). GNO can be thus viewed as a structurally minimal intersection between regular, concept-denoting nouns and purely referential pronouns, rather than as a full-fledged member of any of these two categories.

II. **INO.** Czech is much more generous than English in allowing null objects that could be paraphrased as ‘something’ or ‘someone’. They don’t pass the tests for being syntactic arguments but they have several syntactically relevant properties that call for explanation. Here I focus on the fact that they productively combine with imperfectives (which have either a continuous, progressive-like meaning or a habitual meaning in Czech) but are disallowed with the corresponding perfectives:

- (6) Táta často vyřezává___ / zrovna teď vyřezává___ / zítra *vyřeže___.
 Daddy often carves.IMPF / right now carves.IMPF / tomorrow carves.PF
 ‘Daddy often carves / is carving right now / will carve out tomorrow.’

Importantly, (im)perfectivity is a grammatical category determined in the aspectual head (Asp) that is located above VP. Moreover, it has been argued (Ramchand 2004, Svenonius 2004) that the so-called ‘secondary imperfectives’, often marked by the suffix *-va-* and exemplified also by the verb *vyřezá-vá* above, are derived syntactically, presumably in Asp. It is hard to imagine how listing predicates with existentially quantified arguments in the lexicon would account for this sort of data without losing the generalization. To overcome this issue, I propose that INO of the type in (6) are a result of a low-scope existential closure that applies at a VP-level to resolve a type mismatch. Transitive predicates inserted in V that have no syntactic (internal) argument to merge with are shifted from binary relations of individuals and events to sets of events (VP’s standard denotation), i.e. $\lambda x \lambda e [\text{VERB}(e) \wedge \text{Theme}(e, x)]$ shifts to $\lambda e \exists x [\text{VERB}(e) \wedge \text{Theme}(e, x)]$. A similar local \exists -closure was proposed by Chierchia (1998:(31)) to resolve the type mismatch between predicates in episodic contexts that combine with kind-denoting bare plural and mass nouns (BP&M). It follows from Chierchia’s account that BP&M in English should allow only the narrowest scope, in contrast to indefinite singular nouns that have the semantics of regular quantified phrases (the contrast observed in Carlson 1977). A parallel contrast can be found in the case of INO: while overt indefinite phrases such as *něco* ‘something’ can be interpreted with either a high or a low scope with respect to other quantified phrases, INO allow only the narrow scope (data not presented here for the sake of space).

Going back to the issue of aspect, we find yet another parallel between BP&M and INO: not only INO but also indefinite BP&M are incompatible with [+PF] verbs in Czech. (Note that morphologically bare BP&M in Czech are ambiguous between the indef. and the def. interpretation but the latter is the only one allowed for BP&M as direct objects of perfectives, cf. Krifka 1992.) The failure of INO as well as of indef. BP&M to combine with perfectives in episodic contexts can be explained if we acknowledge that neither INO nor indef. BP&M represent a syntactic constituent (semantically corresponding to an individual variable) that can move out of VP to Spec,Asp to satisfy its quantificational requirements, associated with [+PF] aspect value: INO are not represented in syntax at all, BP&M are represented only as predicates/kinds as argued for by Chierchia; cf. the proposal along the same lines by Giorgi & Pianesi who explain the ban on indef. BP&M as direct objects of perfective verbs as a consequence of their non-referentiality and inability to move out of VP.

(Note: there are several perfectives in Czech that do allow silent objects; I assume those to be true idiomatized cases.)

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To Gap or to Right Node Raise?

Early research on gapping established that in head initial languages like Polish it typically operates in a forward fashion (1a versus 1b) (cf. Ross 1970, Maling 1972) and that apparent *backward gapping* cases like (1c) are a result of a different process (scrambling and/or right node raising (RNR)).

- (1) a. Jan **lubi** piwo a Maria ___ wino.
 Jan likes beer a Maria wine
- b. *Jan ___ piwo a Maria **lubi** wino.
 Jan beer and Maria likes wine
- c. Jan piwo ___ a Maria wino **lubi**.
 Jan beer and Maria wine likes
- 'Jan likes beer and Maria wine.'

In this paper, I revisit the status of (1a) versus (1c) in light of recent research on *both* gapping and RNR. First, I discuss independently established differences between gapping and RNR and show that with respect to these differences backward gapping patterns with RNR. I then show how these differences follow from a multidominant analysis of RNR (see Abels 2004, Bachrach and Katzir 2009, Citko 2011, McCawley 1982, Wilder 1999, among others, for various variants of such an account).

A. Islands

RNR, unlike gapping, does not exhibit island effects (1a vs 1b) (as noted by Neij 1979 for gapping and Wexler and Culicover 1980 on RNR). In this respect, backwards gapping patterns with RNR (see 2c).

- (2) a. *Maria woli studentów którzy czytają Chomskiego a Ewa ___ Lakoffa.
 Maria prefers students who read Chomsky and Ewa Lakoffa
 'Maria prefers students who read Chomsky and Ewa prefers students that read Lakoff.'
- b. Maria lubi studentów którzy czytają ___ a Ewa woli tych co rozumieją **nowe analizy**.
 Maria likes students who read and Ewa prefers these that understand new analyses'
 'Maria likes students who read and Ewa prefers the ones who understand new analyses.'
- c. Maria lubi studentów którzy Chomskiego ___ a Ewa woli tych którzy Lakoffa **czytają**.
 Maria likes students who Chomsky and Ewa prefers these who Lakoff read
 'Maria likes students who read Chomsky and Ewa prefer the ones that read Lakoff.'

B. Embeddability

(3) shows that the gapped verb cannot be embedded (first noted by Hankamer 1979, more recently discussed by Johnson 2014). Neither RNR or 'backward' gapping is subject to this constraint; in both (2a) and (2b) above, the gap is embedded, with a grammatical result.

- (3) *Maria woli studentów którzy czytają Chomskiego a Ewa woli tych którzy ___ Lakoffa.
 Maria prefers students who read Chomsky and Ewa prefers these who Lakoff
 'Maria prefers students who read Chomsky and Ewa prefers the ones that read Lakoff.'

C. Agreement

The contrast between (4a) and (4b) shows that backward gaps, unlike forward gaps, allow so-called cumulative agreement (in addition to the expected singular agreement), whereby singular subjects inside the two conjuncts can result in plural agreement on the shared predicate). I follow Grosz 2009 and take plural agreement in (4a) to be indicative of a multidominant analysis (see (6a) below)

- (4) a. Jan winem ___ a Piotr szampanem **wzniósł/wznieśli toast na bankiecie**.
 Jan wine and Piotr champagne raised.SG/PL toast at banquet
 'Jan raised a toast at a banquet with wine and Peter with champagne.'
- b. Jan **wzniósł/*wznieśli** toast na bankiecie winem a Piotr szampanem.
 Jan raised.SG/*PL toast at banquet wine and Piotr champagne

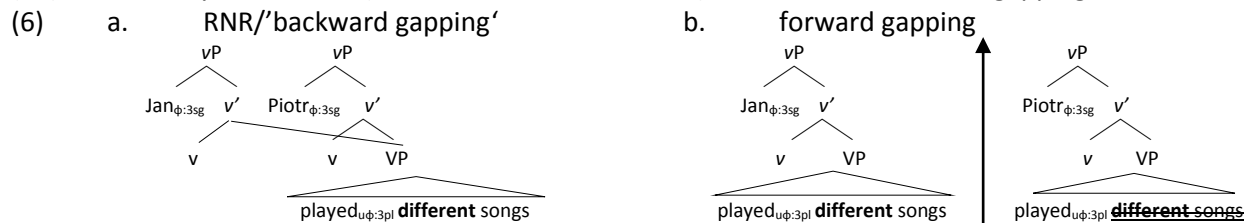
D. Relational Modifiers

Backward and forward gaps also differ with respect to the use of the relational modifiers (i.e. modifiers like *different*, *together* or *same*). (5a) allows the so-called internal reading (cf. Beck 2000, Abels 2004),

where the songs students played are different from the songs teachers played (as opposed to being different from each other, the reciprocal reading, which is the only reading available in (5b).

- (5) a. Nauczyciele na pianinie __ a studenci na akordeonie **zagrali różne piosenki**.
 teachers on piano and students on accordion played different songs
 'The teachers played different songs on the piano and the students on the accordion.'
- b. Nauczyciele **zagrali różne piosenki** na pianinie a studenci __ na akordeonie.
 teachers played different songs on piano and students on accordion
 'The teachers played different songs on the piano and the students on the accordion.'

Cumulative agreement and the use of relational modifiers both follow from a multi-dominant treatment of RNR (see Grosz 2009 on cumulative agreement and Abels 2004 on relational modifiers in RNR), where the bolded portion in (5a) is literally shared between the two conjuncts, as shown by the partial structure in (6a). The phi-features on the shared verb can be simultaneously valued by the two singular subjects inside the two conjuncts (hence plural agreement). Likewise, the relational modifier contained in the shared element is simultaneously c-commanded by the two subjects. The lack of island effects in RNR is also expected since there is no movement involved. If gapping involves a different process (such as ellipsis or ATB movement, as argued by Toosarvandani 2013 and Johnson 2009, respectively), the lack of cumulative agreement and relational modifiers follows from the structure in (6b), in which each conjunct contains a single verb, which will then only agree with its own singular subject. The remnant inside the second conjunct (*different songs*) moves to a higher focus-related projection, not indicated in (6b), followed by VP deletion (or remnant ATB movement); hence island effects in gapping.



Another argument in favor of analyzing 'backward gapping' as RNR comes from the well-known restriction on RNR, referred to as the Right Edge Restriction (noted already by Maling 1972). Backwards gapping becomes ungrammatical if the shared element is not final (as shown in (7), also (1b) above). On a multidominant analysis, this restriction follows from the linearization algorithm based on Kayne's (1994) Linear Correspondence Axiom, which makes the LCA sensitive to full dominance (whereby the shared VP in (6a) is not fully dominated by either v') and requires the non-shared material (i.e. fully dominated material) to be linearized *before* the shared (non-fully dominated) material (cf. Wilder 1999, 2008 and Gracanin-Yuksekk 2013 for concrete implementations of such an account).

- (7) *Jan __ do Londynu a Piotr **polecieli różnymi samolotami** do Paryża
 Jan to London and Piotr flew different planes to Paris

To conclude briefly, this paper establishes the following points. First, backward gapping is best analyzed as right node raising. Second, RNR and gapping are different processes, subject to different restrictions. And third, ellipsis is not a unitary phenomenon; some cases of what we think of as ellipsis (i.e. gapping) involve movement and/or deletion, whereas others (i.e. RNR) involve multidominance.

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Patterning of tone and stress in loanword phonology: the case of Serbian

In this paper we propose an analysis of a loanword pattern in Standard Serbian characterized by an idiosyncratic distribution of pitch accents that departs from the native phonological system, yet is in no obvious way related to any of the donor languages. This case of loanword specific prosodic properties will be interpreted as the emergence of lexical classes with exceptional phonological properties that can be captured in terms of minimal re-rankings within an Optimality Theory phonological grammar.

The class of loanwords that we focus on here emerges within the prosodic system of Standard Serbian, traditionally described in terms of two pitch accent types, ‘falling’ and ‘rising’, each phonetically associated with stress and a characteristic pitch contour (Lehiste & Ivić 1986, Smiljanić 2002, Zsiga & Zec 2013). These phonetic properties are captured in a straightforward way by factoring out High tone and stress as two interacting prosodic components (following Browne & McCawley 1965, Inkelas & Zec 1988, Zec & Zsiga 2008). High tone is lexically governed and can occur on any syllable in a lexical form, while the occurrence of stress is predictable, and as such subject to phonological constraints. Crucially, High tone and stress co-occur when High tone is on the initial syllable, as in (1), yielding a ‘falling’ accent, and occupy contiguous syllables in all other cases, yielding a ‘rising’ accent, as in (2). (Stress is designated by a vertical bar, and High tone by an *H* subscript on the tone bearing vowel.)

(1) Stress and High tone on the same syllable:

'va_Htra ‘fire’, 'ku_Hća ‘house’, 'ja_Hgoda ‘strawberry’, 'pra_Hvedan ‘just’, 'o_Hmorina ‘heat’

(2) Stress and High tone on contiguous syllables:

a. 'voda_H ‘water’, 'liva_Hda ‘meadow’, 'mara_Hma ‘scarf’, 'pozo_Hrište ‘theater’

b. ra'mena_H ‘shoulders’, le'pota_H ‘beauty’, ru'kavi_Hca ‘glove’

c. predu'zeće_H ‘company’, oso'vina_H ‘axis’

Even though a number of loanwords have been integrated into the standard pattern, we note at least two loanword specific prosodic patterns. We begin with a minor pattern, in which High tone and stress invariably co-occur on the same syllable, as illustrated in (3) and (4).

(3) *Adjectives*: fre'kve_Hntan ‘frequent’, šar'ma_Hntan ‘charming’, transpa're_Hntan ‘transparent’

(4) *Nouns*: kon'sta_Hnta ‘constant’, Pro'va_Hnsa ‘Provance’, ambu'la_Hnta ‘clinic’, guver'na_Hnta ‘governess’

Of central interest here, however, is a pattern we refer to as the major loanword pattern. While characterized by a separation of High tone and stress, this pattern departs from the standard in a peculiar fashion. As illustrated in (5) and (6), stress falls on the syllable immediately preceding the High toned one only when that syllable is word initial; otherwise, stress co-occurs with High tone.

(5) a. 'stude_Hnt ‘student’, 'docent ‘faculty’, 'age_Hnt ‘agent’, 'bila_Hns ‘balance’, 'produ_Hkt ‘product’

b. asi'ste_Hnt ‘assistant’, diri'ge_Hnt ‘conductor’, dija'ma_Hnt ‘diamond’ konti'ne_Hnt ‘continent’

(6) a. 'promo_Hcija ‘promotion’, 'ago_Hnija ‘agony’, 'emo_Hcija ‘emotion’, 'Sici_Hlija ‘Sicily’,

b. kompo'zi_Hcija ‘composition’, viki'pe_Hdija ‘wikipedia’, Kata'lo_Hnija ‘Catalonia’

The phonological analysis of both the standard and the loanword patterns crucially relies on the constraints on High tone and stress in (7), (8); and on the constraints that mediate between the two, listed in (9) and (10).

(7) ALIGNSTRESS-LEFT The stressed syllable is aligned with the *left* edge of the prosodic word.

(8) IDENTHIGH Correspondent tones must be identical.

(9) CULMINATIVITY: If σ_i bears HIGH TONE and σ_j bears STRESS, then $\sigma_i = \sigma_j$.

(10) EXTENDED CULMINATIVITY: If σ_i bears HIGH tone and σ_j bears STRESS, then no syllable may intervene between σ_i and σ_j .

As stated in (7), stress is left aligned; the faithfulness requirement on the High tone to remain in its lexically assigned position is stated in (8). Turning to the mediating constraints, (9) requires that the High

tone and stress occur on the same syllable, and (10) relaxes this requirement, allowing for the two to occur on contiguous syllables, but prohibiting any further separation; (9) and (10) are in a stringency relation.

In the standard pattern, IDENTHIGH and EXTENDED CULMINATIVITY are undominated, while the remaining two constraints can both be violated, with ALIGNSTRESS ranking higher than CULMINATIVITY. This insures that the stressed syllable is either co-extensive with, or minimally separated from, the High toned one. The latter case is presented in (11).

(11) Standard pattern: $\text{ramena}_H \rightarrow \text{ra}'\text{mena}_H$

ramena_H	IDENTHIGH	EXTCULMIN	ALIGNSTRESS	CULMINAT
☞ $\text{ra}'\text{mena}_H$			*	*
$\text{rame}'\text{na}_H$			**!	
$'\text{ramena}_H$		*!		*
$'\text{ra}_H\text{mena}$	**!			

Loanword patterns are analyzed as exceptional classes within the standard prosodic system, and are formalized in terms of constraint indexation (Pater 2009). The minor loanword pattern is captured by positing an indexed CULMINATIVITY constraint, ranked above ALIGNSTRESS, as in (12). This ranking will insure that stress co-occurs with High tone in all forms belonging to this lexical class.

(12) Constraint ranking: minor loanword pattern

IDENTHIGH, EXTCULMIN >> CULMIN_{MIN} >> ALIGNSTRESS >> CULMIN

The major loanword pattern, however, calls for two indexed constraints: CULMINATIVITY, as in the minor loanword pattern, and ALIGNPRWD-LEFT, which in this case requires a stressed syllable at the prosodic word's left edge. While inert in the standard pattern, this constraint expresses the unmarked status of initially stressed forms in the standard prosodic system, and as such emerges as an important player in this exceptional loanword class. The ranking is given in (13):

(13) Constraint ranking: major loanword pattern

IDENTHIGH, EXTCULMIN >> ALIGNPRWD-LEFT_{MAJ} >> CULMIN_{MAJ} >> ALIGNSTRESS >> CULMIN

The tableau in (14) accounts for the forms in (5a) and (6a), while the tableau in (15) captures constraint interactions in (5b) and (6b):

(14) Major loanword pattern $\text{age}_H\text{nt} \rightarrow '\text{age}_H\text{nt}$

age_Hnt	IDENTHIGH	EXTCULMIN	ALIGNPRWD _{MAJ}	CULMIN _{MAJ}	ALIGNSTRESS
☞ $'\text{age}_H\text{nt}$				*	
$\text{a}'\text{ge}_H\text{nt}$			*!		*
$'\text{a}_H\text{gent}$	**!				

(15) Major loanword pattern: $\text{emigra}_H\text{nt} \rightarrow \text{emi}'\text{gra}_H\text{nt}$

emigra_Hnt	IDENTHIGH	EXTCULMIN	ALIGNPRWD _{MAJ}	CULMIN _{MAJ}	ALIGNSTRESS
☞ $\text{emi}'\text{gra}_H\text{nt}$			*		**
$\text{e}'\text{migra}_H\text{nt}$			*	*!	*
$'\text{emigra}_H\text{nt}$		*!		*	
$'\text{e}_H\text{migrant}$	**!				

To conclude, the two loanword patterns presented here both depart from the standard system, but do so by virtue of exploiting system internal potentials for minimal constraint re-rankings. The ranking in (12), which captures the minor loanword pattern, hints at a “foreign” flavor by fully suppressing the separation of High tone and stress, typical of the native forms. But while the ranking for the major pattern in (13) secures this same effect for the forms in (5b) and (6b), the behavior of the forms (5a) and (6a) is an innovation that exploits markedness relations within the standard prosodic system.

Polish yers are epenthetic: an argument from lexical statistics

Introduction. It is difficult to identify whether a rule is default or exceptional when a language supplies many examples of rule undergoers and non-undergoers. Polish vowel-zero alternations are such a case. The tendency has been to give Polish and Russian yer vowel alternations a unified analysis. We supply analytic and quantitative arguments for analyzing Polish alternations as general and epenthetic, but subject to exceptions, in contrast to Russian's exceptional alternation caused by deletion (Gouskova 2012, Gouskova and Becker 2013).

Polish yers. In Polish, [e] alternates with zero in the final syllables of some words but not others, shown in (1). Hayes (2009, ch. 12) points out that whether the alternation is treated as deletion (Gussmann 1980, Bethin 1992, Jarosz 2008, Rubach 1986, 2013) or epenthesis (Czaykowska-Higgins 1988), there must be lexical exceptions: there are vowels that do not alternate (1a), and there are contexts (e.g., [t_r]) in which vowels appear in some words but not others (cf. (1c) and (1e)). Regardless of a word's pattern with case suffixes, [e] appears in the last stem syllable with the diminutive suffix [-ek], as in the 'Diminutive' column in (1)—except in obstruent-obstruent clusters, which may be unbroken in the diminutive (see (1e)).

(1) *Six types of patterns in Polish*

	UR	Unaffixed	Case Suffix	Diminutive	Gloss
(a) Nonalternating V	/seter/	seter	seter-i	seter-ek	'setter'
	/kalek/	kalek	kalek-i	kalet͡s-ek	'cripple'
(b) Epenthesis: 1σ	/dɲ/	d͡zɛɲ	dɲ-i	d͡zɛɲ-ek	'day'
	/mgw/	mgjɛw	mgw-i	mgjɛw-ek	'fog'
(c) Epenthesis CC# > 1σ	/sfetr/	sfeter	sfetr-i	sfeter-ek	'sweater'
	/lalk/	lalek	lalk-i	lalet͡s-ek	'doll'
(d) Variable epenthesis	/bit-v/	bitf, bitef	bitv-i	bitev-ek	'battle'
	/vew-n/	vewn, vewɛn	vewn-i	vewen-ek	'wool'
(e) Exceptional blocking I	/vʲatr/	vʲatr	vʲatr-i	vʲater-ek	'wind'
	/katedr/	katedr	katedr-i	kateder-ek	'cathedral'
(f) Exceptional blocking II	/most/	most	most-i	most-ek	'bridge'
	/swuʒb/	swuʒp	swuʒb-i	swuʒb-ek	'service'

Analysis. We argue that Polish vowel-zero alternations should be analyzed as epenthesis, using lexically indexed constraints (Pater 2008 *inter alia*). In non-alternating words such as (1a), the vowel is present in the UR. Alternating words such as (1b–d) differ in which constraint triggers epenthesis: in monosyllables, it is HEADEDNESS, the pressure to have a vowel nucleus (Szpyra 1992, Hayes 2009). In longer alternating words, the vowel breaks up a CC# cluster, so *CC# >> DEP (see (2a)). Sonorant-final clusters are especially common in this category. The third category of words has optional alternations at the morpheme boundary, usually affecting the same suffixes (-v, -n). The cases in which there are no alternations between unaffixed and case forms (see (1e, f)) are specified as exceptions to epenthesis: indexed CONTIGUITY_{EX} is ranked above *CC#, see (3). For such morphemes, CONTIGUITY_{EX} may be dominated, since there is obligatory epenthesis for CR-final stems in the context of diminutives: compare (3a) and (3b) for evidence that *CRC >> CONTIGUITY_{EX}. We attribute this to the selectional requirements of the [-ek] suffix, which favors bases that do not end in CR clusters (see Gouskova and Newlin-Łukowicz 2014 for a similar account of Russian [-ok]). *CC# also determines the site of epenthesis in /CCC/ words: in /mgw-a/ [mgw-a] 'mist' and /pxw-a/ [pxw-a] 'flea,' the vowel always appears after the first two consonants: [mgjɛw] 'mist (gen. pl.).' Finally, some words do not exhibit any alternations, such as (1f), in which epenthesis is blocked by CONTIGUITY and not triggered by *CRC.

Why not deletion? In our analysis, [vʲatr] and [most] are exceptions to epenthesis. The alternative is that [seter] resists deletion. A deletion analysis does not explain why only the [e] vowel alternates, or why [e] is predictably present in the context of the diminutive suffix even in morphemes that resist the

alternation elsewhere. To explain that pattern, a Russian-style deletion account (Gouskova 2012) would still have to posit epenthesis in diminutives.

(2) *Analysis of Polish words with alternations*

/sfetr/ 'sweater'	HEADEDNESS	*CRC	CONTIG _{EX}	*CC#	DEP
a. sfetr~sfetr				W	L
/sfetr-i/ 'sweater'					
b. sfetri~sfeteri					W
/mgw/ 'mist'					
c. mg ^ɛ w~mgw	W				L

(3) *Analysis of Polish words without alternations*

/v ^ɨ atr/ 'wind'	HEADEDNESS	*CRC	CONTIG _{EX}	*CC#	DEP
a. v ^ɨ atr~v ^ɨ ater					W
/v ^ɨ atr-k-a/					
b. v ^ɨ aterka~v ^ɨ atrka		W	L		L

Alternation is the general rule in Polish. The POLEX lexicon of Polish (Vetulani et al. 1998) contains 41,742 nouns. Of these, 6.3% contain a non-alternating [e] (see (4b)), 15.8% exhibit vowel alternation (see (4a)), and 16.1% end in CC# in some grammatical case (see (4c)). Of nouns that end in CC#, which may be considered exceptions to alternation, the majority end in the suffixes [-oɛtɛ], [-izm], [-ist], [-stv], [-ovɲ] and [-itm], see (4ci). These suffixes categorically never host alternating vowels, tend to be part of a more formal register in language use, and represent 11.1% of the lexicon. Thus, 5.0% of the lexicon ends in CC#, but does not contain these particular suffixes, see (4cii). If Polish speakers know that the above suffixes are unacceptable contexts for vowel insertion, and so rank faithfulness to them above *CC#, then the number of CC# words that must be treated as idiosyncratic exceptions to the epenthesis rule (5% of the lexicon) is smaller than the number of words that undergo it (15.8% of lexicon) in Polish, compared to Russian's 17% unbroken CC# and ~9% alternation (Gouskova and Becker 2013).

(4) *Corpus statistics*

		Count of forms	Of lexicon	Example
(a)	Alternating [e]	6,581	15.8%	sfetr~sfetri
(b)	Non-alternating [e]	2,624	6.3%	seter~seteri
(c)	Ends in CC# cluster	6,729	16.1%	
i.	<i>Suffixed</i>	4,630	11.1%	markeizm~markeizmu
ii.	<i>All unsuffixed</i>	2,099	5%	swuɟp~swuɟba
(d)	CCV# or non-[e] CVC	25,808	61.8%	azja~azji
	Total	41,742	100%	

Discussion. Russian and Polish vowel alternations are historically related, but they diverged: in Russian, they are exceptionally triggered deletion, but in Polish, they are the result of a productive epenthetic process subject to exceptions. Many differences between the languages follow from this. In Russian, alternation is not extended to loanwords (dizeli~dizel'a 'diesel'), vowel quality is only semi-predictable (mid [e] and [o]), and there are paradigm gaps (e.g., [mgla] 'mist' does not have a genitive plural). In contrast, Polish readily extends alternation to loanwords (dizel~dizl-a 'diesel'), predictably alternates [e], and has no paradigm gaps (/mgw-/ 'mist' is [mg^ɛw] in the genitive plural).

(5) *Russian versus Polish vowel alternations*

	Russian	Polish
Extended to loans?	No	Yes
Vowel predictable?	No	Yes
Paradigm gaps?	Yes	No
Unbroken CC#	17%	5%
Alternation	9%	15.8%

Traditional analyses of Polish and Russian yers, which posit similar representations for both languages, do not address the different qualities of the alternations, and do not predict that speakers of the two languages should behave differently with novel words. In contrast, our analysis makes a testable prediction that Polish speakers' regular epenthesis should extend alternation to novel items more readily than Russian speakers' lexically restricted deletion.

Intensity peak shift as a precursor of stress shift?

The stress system of the dialects spoken in the village of Malyja Aŭcjuki (MA) in south-east Belarus and in the Upper Snov Basin in north-east Ukraine has a typologically unusual property: a high tone, lengthening, and an intensity peak may be introduced on the immediately pretonic syllable, depending on the height of the pretonic and the stressed vowel. Specifically, this phenomenon is found in environments where the pretonic vowel is non-high and the stressed vowel is non-low. The goal of this paper is two-fold: (i) to show that intrinsic loudness/intensity of the stressed vowel is the driving force behind the changes that affect the pretonic vowel and (ii) to show that the dialects at hand are currently undergoing a stress retraction process.

It has been noted by fieldworkers since 1970s that certain dialects in the MA region in south-east Belarus and in the Upper Snov Basin in north-east Ukraine exhibit a ‘musical intonation’ and a high tone on the immediately pretonic syllable (Vojtovič, 1972; Belaja, 1974). Similar developments have been reported for some Russian dialects since early 20th century: cf. Broch (1916) on Mosal’sk dialects, Avenesov (1927) on Vladimir-Volga Basin dialects, Nikolaev (2009) on Tver dialects. In a recent account by Bethin (2006a, 2006b) the latter (Russian) dialects are called Type 1 dialects, while the former (Belarusian and Ukrainian) are Type 2 dialects. The main difference between the two types is in that only Type 2 dialects exhibit a dependency between the changes that affect the pretonic vowel, and vowel height. This sets Type 2 dialects apart from Type 1, and the present account will only consider the former.

Leaving aside the differences between the Belarusian and Ukrainian subtypes of Type 2, in these dialects non-high pretonic vowels ([ɛ, ɔ, a]) receive a high tone, lengthening and higher intensity in cases where the stressed vowel is non-low ([i, y, u, ε, ɔ, e, o, uo, ie]) - cf. (1) vs. (2). Data from Belaja (1974):

(1)	a. <i>sestru</i> ‘sister.ACC’	[sjɛ:’stru]	(2)	a. <i>sestra</i> ‘sister’	[sjɛ’stra]
	b. <i>dvoru</i> ‘courtyard.DAT’	[dvo:’ru]		b. <i>nazad</i> ‘backwards’	[na’zad]
	c. <i>zavod</i> ‘plant, factory’	[za:’vod]		c. <i>krušyna</i> ‘buckthorn’	[kru’šyna]

Instrumental data from Belaja (1974) confirms that in examples like those in (1) the pretonic vowel is consistently longer and higher in intensity than the stressed vowel, as well as comparable to it in height. Bethin (2006a, 2006b) provides an autosegmental account for these developments. According to it, in examples like (1), where the stressed vowel is high or mid-high, it is phonetically too short to bear the HL contour tone a stressed vowel should have. Consequently, the H peak shifts one syllable to the left, and causes introduction of lengthening and higher intensity on the pretonic vowel. In sum, according to Bethin, shifted pitch peak is the driving force for the pretonic vowel developments in Type 2 dialects, with length and intensity following pitch peak shift. This account successfully explains the dependence of the pretonic vowel developments on the height of the stressed vowel. Unfortunately, it also wrongly predicts that all pretonic vowels, including high ones, will develop higher pitch, intensity and length, as long as the stressed vowel is non-low and, as a consequence, cannot bear the HL contour tone. However, this is not the case, as (2c) above shows.

The present account suggests that intensity shift and not pitch shift plays the primary role in the pretonic developments in Type 2 dialects. Specifically, since non-high vowels are intrinsically more loud/intense, they can attract the peak of intensity from less loud/intense non-low vowels. This is what takes place when a non-high pretonic vowel is followed by a non-low stressed vowel. Pitch and lengthening, in turn, follow the shifted intensity peak. Such an approach successfully accounts for the data and does not over-generate: in cases like (2c), where both the pretonic and stressed vowels are high, no pretonic

developments are predicted, because the pretonic vowel is not more loud/intense than the stressed vowel.

The second objective of this paper is to argue that Type 2 dialects are currently undergoing a stress retraction process. It has been noted by fieldworkers that, impressionistically, in Type 2 dialects stress is retracted one syllable to the left (Belaja, 1974). Instrumental data showing that the pretonic syllable can receive highest intensity, length and pitch in a phonological word speaks strongly for the fact that it receives stress. It should be noted, though, that in addition to the three main correlates of stress - length, pitch and intensity - Type 2 dialects considered here exhibit vowel reduction in unstressed syllables. The prediction then is that, had the stress retraction process been completed and the once pretonic vowel received stress, the etymologically stressed vowel would show vowel reduction. This prediction is not supported by the data. For instance, the word *basonoški* 'open-toe sandals' is produced as [baso:'noʃki] not [ba'so:naʃki]. Therefore, stress in Type 2 dialects seems to be "dissected". In words where a non-high vowel in the pretonic syllable is followed by a non-low stressed vowel, $\frac{3}{4}$ of the stress correlates (length, intensity and pitch) are on the etymologically pretonic syllable, and $\frac{1}{4}$ (lack of vowel reduction) is on the etymologically stressed syllable. A reasonable conclusion is that the stress retraction process is in progress in Type 2 dialects. Newer instrumental data would show whether this process has been completed or interrupted.

To conclude, this paper has shown that: (i) in Type 2 dialects, low phonetic intensity/loudness of the stressed vowel causes shift of the intensity peak to the pretonic vowel, which, in turn, attracts higher length and pitch to the pretonic syllable (ii) Type 2 dialects are currently undergoing a stress retraction process. Additionally, these results allow to make a conclusion that a shift of intensity peak may be a precursor of a stress shift.

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Don't regret anymore! On the semantic change of the clause-embedding predicate *żałować* 'regret' in Polish

INTRODUCTION. In this talk, we will examine the semantic change of the clause-embedding predicate *żałować* 'regret' in Polish and show that the loss of the feature [-assertion] in ForceP affected its c-selection properties. We will demonstrate that this change (i) took place in the 19th century, and (ii) enabled *żałować* to embed CP-infinitives.

PHENOMENON. In Modern Polish *żałować* can be employed in two different ways. On the one hand, it can be used as a factive predicate in the sense claimed by Kiparsky & Kiparsky (1971) and translated as 'regret' (= *żałować1*). On the other hand it can also mean 'be-grudge' (= *żałować2*). Both predicates differ as to what kind of sentential complements they select. *żałować1* is a two-place transitive predicate licensing either DP- or CP-complements headed by the complementizer *że* 'that':

- [1] *Nie żałuje* [DP *swojej decyzji*] *żałować1* + DP
 NEG *żałować1.3SG* his decision-GEN
 'He doesn't regret his decision.'
 (NKJP, *Mazowieckie To i Owo*, 7/8/2008)
- [2] *Żałuję*, [CP *że częściej tu nie występuję*] *żałować1* + CP
żałować1.1SG that more.often here NEG perform.1SG (finite *that*-clause)
 'I regret that I don't perform here more often.'
 (NKJP, *Nasze Miasto Kraków*, 20/6/2002)

Remarkably, *żałować1* cannot embed infinitive clauses (cf. also Słodowicz 2008 for a recent general overview of clause-embedding predicates in Polish disallowing infinitive clauses):

- [3] **Żałuję*, [INF *nie potrafić wysoko śpiewać*] *żałować1* + CP
żałować1.1SG NEG can.INF high sing.INF (infinitive clause)
 Intended: 'I regret to not be able to sing high.'

żałować2, in turn, is a three-place ditransitive predicate selecting DP- as well as infinitive CP-complements:

- [4] *Nie żałujemy* [DP *urlop-u*] *doktor-owi Szczypul-e* *żałować2* + DP
 NEG *żałować2.1PL* vacation-GEN doctor-DAT Szczypuła-DAT
 'We do not begrudge Doctor Szczypuła a vacation.'
 (NKJP, *Dziennik Polski*, 23/5/2002)
- [5] *Żałujesz mi* [INF *iść na urlop*]? *żałować2* + CP
żałować2.2SG me.DAT go.INF on vacation (infinitive clause)
 'Do you begrudge me a vacation?'

Interestingly enough, finite CP-complements headed by the complementizer *że* 'that' and having an episodic interpretation cannot be embedded under *żałować2*:

- [6] **Żałujesz mi*, [CP *że pójdę na urlop*]? *żałować2* + CP
żałować2.2SG me.DAT that go.1SG on vacation (finite *that*-clause)
 Intended: 'Do you begrudge me a vacation?'

DEVELOPMENT AND ANALYSIS. Based on the empirical data extracted from: (i) Old Polish texts collected by the Polish Academy of Science, (ii) Polish Diachronic Online Corpus (Pol-

Di), and (iii) diachronic texts annotated in the National Corpus of Polish, we argue that *żalować2* developed out of *żalować1* in the 19th century:

- [7] $[_{VP} [_{v^0} \textit{żalować1}: \lambda x \lambda z \{x:\text{Agent}; z:\text{Theme}\}}]] \rightarrow$
 $[_{VP} [_{v^0} \textit{żalować2}: \lambda x(\lambda y) \lambda z \{x:\text{Agent}; y:\text{Experiencer}; z:\text{Theme}\}}]]$

In what follows, we analyze both *żalować1* and *żalować2* as lexical V-heads, indicating that none of these heads grammaticalized into a functional head associated with a functional projection. As for sentential complements, both finite *że*-clauses of *żalować1* and infinitives of *żalować2* are CPs. This follows from the fact, among others, that the matrix clause and the infinitive clause can be modified by two distinct temporal adverbials:

- [5] *Jeszcze wczoraj* pro_i *żalował-eś* *mi_j*
 yet yesterday *żalować2.l-PTCP.3SG.M-AUX.CL.2SG* me.DAT
 $[_{CP} \text{PRO}_{*i/j}$ *iść* *dzisiaj na urlop*]
 go.INF today on vacation

In other words, although *żalować* underwent a semantic change and although its complement types have changed, the syntactic size of its complements remained the same. The differences between *żalować1* and *żalować2*, in turn, follow from the presence/absence of an [assertion] feature in ForceP of the subordinate clause (cf. Basse 2008, de Cuba 2007). If *żalować* selects for a CP, the truth-value of *p* can be either presupposed by the speaker (= *żalować1*) or asserted by the matrix subject (= *żalować2*). In the former case CPs are analyzed as defective phases lacking the feature [assertion]. Internally, there is no edge feature on the left periphery in the embedded clause and any kind of movement to the left edge is disallowed (based on Basse 2008):

- [8] a. $[_{\text{ForceP}} \dots [_{T^0} \textit{żalować1} [_{vP} [v^0] \dots [_{\text{ForceP[-assertion]}] \dots [_{C^0} \textit{że}}] [_{vP} [v^0] \dots]]]]]]$
 $\underbrace{\hspace{10em}}_{[\text{Force}^0 - v^0]} \quad \quad \quad \underbrace{\hspace{15em}}_{[v^0 - v^0]} \quad \quad \quad \underbrace{\hspace{8em}}_{[vP]}$
- b. $[_{\text{ForceP}} \dots [_{T^0} \textit{żalować2} [_{vP} [v^0] \dots [_{\text{ForceP[+assertion]}] \dots [_{C^0} \textit{PRO}}] [_{vP} [v^0] \dots]]]]]]$
 $\underbrace{\hspace{10em}}_{[\text{Force}^0 - v^0]} \quad \quad \quad \underbrace{\hspace{15em}}_{[v^0 - \text{Force}^0]} \quad \quad \quad \underbrace{\hspace{8em}}_{[\text{Force}^0 - v^0]} \quad \underbrace{\hspace{2em}}_{[vP]}$

Evidence for [8a] comes, among others, from floating auxiliary clitics. In [9], a CP is embedded under *żalować1* and the auxiliary clitic cannot move from PtcpP to a higher position within the CP-field. The movement is blocked due to the absence of the [assertion] feature.

- [9] *Żałujesz,* $[_{CP} [_{C^0} \textit{że-??ś}]]$ $[_{\text{PtcpP}} \textit{zawalite-OKś}]]$ *tę sprawę?*
 regret.2SG that-2SG goof.l-PTCP.3SG.M-2SG this issue
 'Do you regret that you have flopped?'

If, on the hand, the feature [assertion] is activated, the C-Phase is not defective and the embedded C-head is an accessible goal for an Agree relation, which, in turn, is required both for PRO and secondary predicates in order to check their Case values in the embedded infinitive clause, e.g. the Dative in [10] (cf. Landau 2008):

- [10] *Żałujesz jej* $[_{CP} [_{C^0} \textit{PRO}}] \textit{uczesać się samej?}$
 regret.2SG her.DAT comb.INF REFL alone.DAT
 'Do you begrudge her to style her hair on her own?'

On the Slavic-influenced syntactic changes in Yiddish

Slavic influence on the phonology, morphology, and lexicon of Yiddish is well-documented (Weinreich 1980, Wexler 1987, *inter alia*). In contrast, syntactic innovations triggered by contact with Slavic languages are rarely investigated. This paper examines the extension of verb-second (V2) from root clauses to embedded clauses, as in (1), which was suggested to be Slavic-influenced by Weinreich (1958) and Santorini (1989, 1992). However, no satisfactory explanation has been offered so far for how Slavic languages—which lack V2 in either main or embedded clauses—could have engendered such a change in Yiddish. Specifically, two issues that have not been resolved conclusively are addressed here: first, what exactly is the nature of the change in Yiddish (in parametric terms: which parameter values have been reset); and second, what structures in which Slavic language(s) triggered this change.

I assume, following Santorini (1989), that the changes in Yiddish word order occurred in two stages. First, the headedness of VP and TP was switched from right- to left-headed, resulting in the emergence of VO and INFL-medial structures. This change occurred across Yiddish varieties and elsewhere in Germanic. At this transitional stage, Yiddish had V2 in main clauses like German, but its embedded clauses could have only a nominative subject in Spec-TP. The true embedded V2 pattern emerged only as a result of the second change that allowed the Spec-TP to be occupied by non-subject elements. This latter change occurred only in Eastern Yiddish, at the time when Slavic influence became evident in other components of the language. In this paper, I develop a parametric account of this change, analyzing V2 not as an “atomic” phenomenon controlled by a single parameter but rather as a result of several parameters each set a certain way. I show that only two of these parameters were reset under the influence of Slavic, while others already had V2-compatible settings before Slavic entered the picture.

Specifically, I modify the parameter system proposed by Bailyn (2004); see (2). I propose that under the influence of Slavic, the Tense domain parameter was reset from CP to TP, thus making all main clause configurations embeddable. The resetting of the Tense domain parameter necessitated the setting of the Weak NOM case parameter (which is undefined for CP-Tense domain languages). The new setting of the Weak NOM case parameter, also influenced by Slavic, allowed nominative case to be licensed “downward” in a position c-commanded by T°. This led to the possibility of subjects staying low and non-subjects raising to Spec-TP, to check the EPP. I depart from Bailyn’s system in the treatment of V-to-T raising: instead of splitting its effects between two parameters (NOM = [+T] and Kind of EPP), I propose that V-to-T raising is controlled by a single parameter. (The Kind of EPP parameter reverts to a simpler EPP parameter, which controls whether Spec-TP must be occupied.) Crucially, I show that this modified parameter system produces better results for Russian, specifically for the Generalized Inversion constructions, the linchpin of Bailyn’s (2004) analysis. Going back to Yiddish, the V-to-T raising parameter was already set “+” at the transitional stage shared by Western and Eastern Yiddish, and remained unaffected by Slavic.

This diachronic parametric account allows me to identify constructions in Slavic languages that may have triggered resetting of parameters in Yiddish. Such constructions must: (a) have the default XP-V-S order, (b) be embeddable, and (c) be implicated in contact-induced change. I demonstrate that late-medieval Slavic languages had constructions that fit that profile: oblique predicative possessive constructions, see (3). Drawing on the work of McAllen (2011), I show that both West and East Slavic languages had such constructions for at least 250 years from the beginning of contact with Yiddish, allowing for Slavic elements to gradually penetrate Yiddish. Besides shedding new light on the synchronic and diachronic Slavic syntax and offering a novel account of the Slavic influence on the syntax of Yiddish, this study has important implications for the history of Jewish-Slavic contacts in Eastern Europe.

- (1) a. ... oyb [oyfn veg vet dos yingl zen a kats].
 whether on-the way will the boy see a cat
 ‘... whether on the way the boy will see a cat’ [Santorini 1992: 597-598]
- b. * ... oyb [oyfn veg dos yingl vet zen a kats].
 whether on-the way the boy will see a cat

(2) Bailyn (2004), parameter system (“IP” replaced by “TP”):

NOM = [+T]	Tense domain	Kind of EPP	Weak NOM case	Language
+	TP	XP	–	English
–	TP	XP	–	French
–	TP	XP	+	Icelandic, Yiddish
+	TP	XP	+	Russian
	TP	X°	–	Greek, Spanish/Italian
	TP	X°	+	Celtic, Arabic
	CP	XP		German, Swedish
	CP	X°		??

- (3) a. dative-PPC (Old Czech; McAllen 2011: 32)
 neb mu bieše dci jediná.
 for him.DAT was daughter.NOM one.NOM
 ‘for he had one daughter’

- b. *u*-PPC (Old Russian; McAllen 2011: 55)
 i braka ou nixъ ne byvaše
 and marriage at them not was.IMPERF.3SG
 ‘and they did not have marriage’

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Predicate-Auxiliary order in modern and historical East Slavic

South and West Slavic languages exhibit a curious Participle-Aux word order, 1, where the structurally highest verbal element seems to be the (morphologically) non-finite participle, and not the (morphologically) finite auxiliary. There is still no consensus on the proper analysis either in individual languages or with respect to micro-variation within Slavic, cf. [Rivero, 1994], [Borsley and Rivero, 1994], [Bošković, 1997], [Embick and Izvorski, 1997], [Broekhuis and Migdalski, 2003], [Ackema and Čamdžić, 2003], [Migdalski, 2006], a.o.

I present new data on a similar phenomenon from East Slavic languages: Modern Russian, Middle Russian, and Old Ukrainian. I use the new data to argue for a common Slavic mechanism for the formation of Pred-Aux complexes, regardless of the clitic status of the involved Aux. In different Slavic languages, such complexes were put to different use, and constrained by various language-specific restrictions.

(A) Russian does not have analytical tenses with “*l*-adjectives” like West and South Slavic do, so it has no direct parallel to 1. But the same linear pattern is present for Russian Pred-s, 2. (Pred-Aux is available in Slavic with Part-Aux as well, but is rarely discussed in the literature.) Given that the Aux-Pred order is also grammatical, 3, and that Russian has an enormous number of scrambling options, it is non-trivial to show that the order in 2 is not just due to a focus movement of some sort. But facts from negation show that both 2 and 3 are in a sense neutral, basic orders. Russian Neg-concord conjunction *ni-ni* may only be licensed by sentential negation, [Testelets, 2007], and sentential Neg *ne* procliticizes to the structurally highest (“most finite”) verbal element in Russian. E.g., 4 where Neg attaches to the non-finite part of the analytical passive is out in the presence of *ni-ni*: it may only have constituent Neg. Yet with Pred-s, Neg *ne* can be sentential Neg when attached to Pred in the Pred-Aux order, 5. Though the acceptability of different orders varies by adjective, sentence, and speaker (more on this in (B)), we have that 1) Pred-s can behave as if they were “more finite” than the Aux, carrying sentential Neg; 2) either Pred or Aux may be “most finite” in a clause. Questions with *ne...li* point to the same conclusions: “*ne Pred li*” may be a polar question, while with analytical passives, “*ne Part li*” may only be a constituent question, 6-7.

(B) Even though Russian Pred-s allow for both Pred-Aux and Aux-Pred orders, specific Pred-s have different preferences. In both written and spoken Modern Russian, modal adjectives *dolžna* ‘must’ and *nado* ‘need’ appear almost exclusively with the Pred-Aux order, while other, “lexical”, Pred-s, e.g. *gotova* ‘ready’ or *rada* ‘glad’, show the two orders in various proportions, 8. While the overall distribution of the two orders is likely to be governed by many distinct factors (which hopefully can be captured by multivariate analysis, as in e.g. [Baayen et al., 2013]), the distinction between modal and “lexical” Pred-s may be called a *syntactic precategory*. Both orders are grammatical, but in the actual practice the Aux-Pred option is almost never used for modal Pred-s. Thus speakers may easily reanalyze those as members of a new syntactic category. In fact, as some speakers don’t find examples like 5a well-formed, reanalysis might have already taken place in some.

(C) When Middle Russian and Old Ukrainian data are added to the picture, it appears that the possibility to form Pred-Aux/Part-Aux orders is a common feature of the Slavic syntax, which may be further constrained by language-specific restrictions. Sometimes Pred-Aux is required or almost required, as by Bulgarian prosody in 1, morphological-word restrictions in Polish ([Borsley and Rivero, 1994], [Migdalski, 2006]), or by the Modern Russian modal-Pred precategory as in 8. But Pred-Aux remains available unless ruled out explicitly in other cases, as in Bulgarian embedded clauses, 9, or Russian non-modal Pred-s. In Middle Russian, we see cases like 10 where enclitic Aux follows the *l*-participle rather than appear in the Wackernagel clitic position. And most conspicuously, in Old Ukrainian, Aux *be* has reduced and full forms (e.g. *-m* vs. *esmi*), but both may appear either in the Wackernagel clitic complex or attached to the lexical verb (examples from *Lutsjka Zamkova Knyga* omitted for lack of space). This all suggests that the mechanism creating Pred-Aux/Part-Aux complexes is widely available in the Slavic, while variation stems from independent language-specific constraints.

Where not indicated otherwise, examples are from Russian.

Corpus results are obtained using the National Corpus of Russian, www.ruscopora.ru.

- (1) a. **Pročel** e knjigata [Part Aux XP] (Bulg)
 read.PART.MASC is book.DEF
 ‘He read this book.’
 b. ***E pročel** knjigata. [Aux Part XP] (Bulg)
 c. Petur **e pročel** knjigata. [XP Aux Part] (Bulg)
- (2) Ona **gotova byla** pridti zavtra. [Part Aux]
 she ready was to.come tomorrow
 ‘She was ready to come tomorrow’
- (3) Ona **byla gotova** pridti zavtra. [Aux Part]
 she was ready to.come tomorrow
 ‘She was ready to come tomorrow’ = 2
- (4) a. Ni Maša, ni Anja **ne byla priglašena**. [Neg Aux Part]
 not Masha not Anya NEG was invited
 ‘Neither Masha nor Anya was invited.’
 b. * Ni Maša, ni Anja **ne priglašena byla**. [Neg Part Aux]
 c. * Ni Maša, ni Anja **byla ne priglašena**. [Aux Neg Part]
- (5) a. Ni Maša, ni Anja **ne byla dolžna** pridti. [Neg Aux Pred]
 not Masha not Anya NEG was must.PRED to.come
 ‘Neither Masha nor Anya was invited.’
 b. *OK* Ni Maša, ni Anja **ne dolžna byla** pridti. [Neg Pred Aux]
 c. *??* Ni Maša, ni Anja **byla ne dolžna** pridti. [Aux Neg Pred]
- (6) Ne **sklonna** li Maša **byla** k etomu?
 Q inclined Q Masha was to that
 ‘Was Masha inclined to that?’
- (7) Ne **priglašena** li Maša **byla** tuda?
 Q invited Q Masha was there
 ≠ ‘Was Masha invited there?’
 = ‘Was it INVITED that Masha was there?’

written Modern Russian (230M words)		
	Neg Pred Aux	Neg Aux Pred
dolžna ‘must’	>1000	1
nado ‘need’	>1500	5
gotova ‘ready’	42	386
rada ‘glad’	95	20

spoken Modern Russian (11M words)		
	Pred Aux	Aux Pred
dolžna ‘must’	>1000	2
nado ‘need’	>1500	9
rada ‘glad’	33	24
gotova ‘ready’	66	76

- (9) a. Znam če **sūm pročel** knjigata. [C Aux Part] [Rivero, 1994, (38a)] (Bulg)
 I.know that am read.PART book.DEF
 b. Razbrah če **pročel e** knjigata. [C Part Aux] [Emb. & Izv., 1997, (9)] (Bulg)
 understood that read.PART is book.DEF
- (10) [XP_{host} clitic Part Aux] in Middle Russian:
 (a1500) ničto ot vas trebujū, za čudo že **prišel esmi** videti (MidRus)
 nothing from you I.require for miracle CLITIC came.PART is to.see
 ‘I require nothing from you, as for a miracle I **came**, to see [it]’

Against the QR Parameter: New Evidence from Russian Scope Freezing

This paper supports a view of Russian as a QR language of the English variety together with the general nuanced picture of Bobaljik and Wurmbrand (2012), wherein there is no “QR parameter” sorting languages as scope frozen vs. scope fluid; rather, scope freezing is a property of constructions. Russian, I argue, shows the same contexts of scope fluidity as those in English, but also exhibits previously unnoticed contexts where scope is indeed frozen – specifically in Russian ditransitives including (1), bona-fide spray-load constructions (2), spray-load type of verbs where scope freezing results on one of the orders via a simple reordering of internal arguments (3), what I call “reflexive monotransitives” (4), long-distance scrambling of a (lower) QP across another QP (5) and local scrambling of a lower QR across a higher one (6). Ambiguity vs. frozen scope in (1)-(6) are verified with a number of syntactic tests, some familiar from Bruening (2001) and some new, such as contrastive focus and passivization tests.

- (1) a. Maša potrebovala [kakije-to dokumenty] [s každygo posetitelja] (E>V), (V>E)
 Masha demanded [some documents]_{ACC} [PP from every visitor]_{GEN}
 ‘Masha demanded some documents from every visitor’
- b. Maša potrebovala [s kakogo-to posetitelja] [každyj dokument] (E>V), *(V>E)
 Masha demanded [PP from some visitor]_{GEN} [every document]_{ACC}
 ‘Masha demanded every document from some visitor’
- (2) a. Vanja zagruzil [kakoje-to seno] [na každyj gruzovik] (E>V), (V>E)
 Vania loaded [some hay]_{ACC} [on every truck]_{ACC}
 ‘Vania loaded some hay on every truck’
- b. Vanja zagruzil [kakoj-to gruzovik] [každyd vidom sena] (E>V), *(V>E)
 Vania loaded [some truck]_{ACC} [every type of hay]_{INSTR}
 ‘Vania loaded some truck with every type of hay’
- (3) a. Maša nakryla [kakoj-to prostynej] [každye kreslo] (E>V), (V>E)
 Masha covered [some sheet]_{INSTR} [every chair]_{ACC}
 ‘Masha put some sheet over every chair’
- b. Maša nakryla [kakoe-to kreslo] [každyj prostynej] (E>V), *(V>E)
 Masha covered [some chair]_{ACC} [every sheet]_{INSTR}
 ‘Masha covered some chair with every sheet’
- (4) a. Maša zarazilas’ [kakoj-to bolezni] [ot každygo pacienta] (E>V), (V>E)
 Masha infected_{REFL} [some illness]_{INSTR} [from every patient]_{GEN}
 ‘Masha got infected with some illness by every patient’
- b. Maša zarazilas’ [ot kakogo-to pacienta] [každyj bolezni] (E>V), *(V>E)
 Masha infected_{REFL} [from some patient]_{GEN} [every illness]_{INSTR}
 ‘Masha got infected with every illness by some patient’
- (5) a. *[Kto-to] xočet čtoby on_j uvolil [každygo sovetnika Buša_j] (E>V), *(V>E)
 [Someone] wants that he fired every adviser Bush_{GEN}
 ‘Someone wants him_i to fire every adviser of Bush_i’ (Principle C violation)
- b. [Každygo sovetnika Buša_j]_i [kto-to] xočet čtoby on_j uvolil t_i (V>E), *(E>V)
 [Every adviser Bush]_{GEN} [someone] wants that he fired
 ‘Every adviser of Bush_i, somebody wants him_i to fire’ (Principle C escaped)
- (6) a. Maša uverena, čto [kakoj-to čelovek] uslyšal [každyju šutku] (E>V), (V>E)
 Masha sure that [some person]_{NOM} heard [every joke]_{ACC}
 ‘Masha is sure that some person heard every joke’
- b. Maša uverena, čto [kakuju-to šutku]_i [každyj čelovek] uslyšal t_i (E>V), *(V>E)
 Masha sure that [some joke]_{ACC} [every person]_{NOM} heard
 ‘Masha is sure that some joke, every person heard’

While these results support the general conclusion of Bobaljik and Wurmbrand (2012) regarding the lack of the QR parameter, they also contradict specific aspects of their analysis insofar as Russian freely allows overt displacement (local and long-distance scrambling) yet also freely allows QR, all the while exhibiting previously undescribed scope freezing contexts. I propose a theory of scope freezing that relies on a key empirical generalization drawn from the data:

(7) **SF Generalization:** *Scope freezing always results from overt raising of one QP over another.*

Thus the one thing unifying all scopally frozen cases in (1)-(6), I argue, is the presence of overt raising of a lower QP across a higher one. Scope freezing itself I analyze in terms of a relation \sqsupset , established directly between the two QPs in raising contexts. Thus unlike previous theories of scope freezing that view the phenomenon either as a relation between a higher probe and a QP goal (Bruening 2001) or as a result of relative ordering of the two QPs wrt to the phase (Harada and Larson 2009), my account proposes that in scope freezing cases there exists a special relation between the two QPs themselves, similar to that existing between the two QPs in an inversely linked structure, or a binding relation. I propose a possible formalization in the spirit of Stanley and Szabo (2000) and Stanley (2002) whereby nominal restriction of the now lower QP1 (after overt movement of QP2 across QP1 has taken place) is associated with a domain variable bound by the now higher QP2. This binding relation established due to overt crossing of QPs is what precludes the structurally lower QP1 to raise past QP2, thus accounting for the relative nature of scope in scope freezing contexts, where QP1 is able to undergo further (covert) movement so long as it stays within the scope of the higher QP2 (Larson 1990).

The SF Generalization, which is shown to be very robust, encompassing an astonishingly wide range of constructions, has important consequences for the Russian VP-internal argument structure debate: on the premise that what causes scope freezing is an instance of overt movement of a structurally lower QP across a structurally higher one, we have a powerful tool for probing into VP-internal structure. This diagnostic suggests that none of the views found in the literature is entirely correct: it suggests that Russian ditransitives are not a homogeneous group, with one argument always projected higher than the other; instead, they are subdivided into three distinct classes, with internal argument structure of two of those classes being a mirror image of each other (ACC >> DAT/oblique and DAT/oblique >> ACC), and the third being a class where either argument can be base-generated in a structurally higher position). This conclusion is strongly supported by a wide range of syntactic and lexico-semantic tests. For instance, I show that semantic factors such as object *affectedness* play a crucial role in determining which group any given predicate belongs to. This finding confirms the crucial role of verb semantics as realized through thematic roles and its reflection in internal argument structure. The fact that the subdivision of predicates into three distinct classes based on scope freezing data is supported by a battery of syntactic and lexico-semantic tests lends further support to the conclusion drawn based on my Generalization. The SF Generalization itself is strongly supported by the existence of cases of scope freezing where one of the QPs is clearly an adjunct, rather than an internal argument, thus no issue of internal argument structure arises to begin with, yet scope freezing nevertheless obtains whenever the two QPs in question are overtly crossed (the same is true for instances of scope freezing that obtain with local and long-distance scrambling of QPs).

Overall, the detailed picture of Russian scope and scope freezing discussed in our work has important implications for cross-linguistic investigation of quantifier scope. In particular, it calls into question wholesale conclusions about other languages, previously claimed to be scope-frozen, such as Japanese (another language where construction-specific scope freezing is found, along with contexts of scope fluidity). Our work suggests that such languages may also have been misclassified into the “scopally-frozen” class; indeed, it is not clear that the label is not just an unfortunate misnomer, which glosses over existing important details of quantificational relations within a separately taken language classified as such.

Focus on scope: information structure and quantifier scope in Russian

This paper examines the scope readings of Russian double-quantifier sentences like (1) and (2), focusing on the relative contributions of word order, prosody, and information structure (IS). Corresponding English sentences are ambiguous between surface-scope and inverse-scope readings, which are commonly derived by covert QR of either the subject QP or the object QP to a higher position at LF (e.g., May 1977, Heim & Kratzer 1998). For Russian, there is disagreement about whether only surface scope is possible (Ionin 2003), vs. whether both surface and inverse scope are allowed (Antonyuk 2006). According to Ionin (2003), when prosody is neutral, the preverbal QP is in Topic position, and reconstruction of the topic is impossible due to IS considerations: the topic must be interpreted first. Ionin suggests that when the preverbal NP is not a topic, e.g., in a contrastive-focus configuration, inverse scope is possible. The link between contrastive focus and scope has been made for other languages. For German, it has been argued (e.g., Krifka 1998, Bobaljik & Wurmbrand 2012) that in a contrastive topic/focus configuration, marked by a rise-fall intonational contour, inverse scope becomes possible. This configuration has not previously been explored for Russian.

- (1) Odna devochka pogladila kazhdogo kotenka. (one>every), ?(every>one)
 One girl-NOM stroked-Fem every kitten-ACC
 surface-scope reading, paraphrase: a specific girl stroked all the kittens
 inverse-scope reading, paraphrase: for every kitten, a (potentially different) girl stroked it
- (2) Odnogo kotenka pogladila kazhdaja devochka. (one>every), ?(every>one)
 One kitten-ACC stroked-Fem every girl-Nom

To address the relationship between scope and focus, we conducted five experiments with 152 adult native Russian speakers (between 28 and 32 participants per experiment), all of which used a sentence-picture verification task. For each test item, participants viewed a picture, listened to a sentence, and stated whether the sentence matched the picture, by selecting YES or NO. Four sentence types were tested, with word order (WO) and quantifier configuration (QC: indefinite subject + universal object, vs. universal subject + indefinite object) varied, as shown in (3). The test picture for the sentences in (3) showed three different girls, each stroking a different kitten; this picture makes (3a,d) false on the surface-scope reading and true on the inverse-scope reading, with the reverse truth-values for (3b,c). Control pictures were also used for which, because of entailment, the sentence was true on both surface-scope and inverse-scope readings: e.g., for (3a-b), the control picture showed the same one girl stroking all three kittens, and for (3c-d), the control picture showed the same one kitten being stroked by all three girls. Two test lists were used, with counterbalancing of pictures and sentences across lists; there were 4 tokens for each picture/sentence-type combination in each list, plus fillers.

(3) Target sentences, English gloss

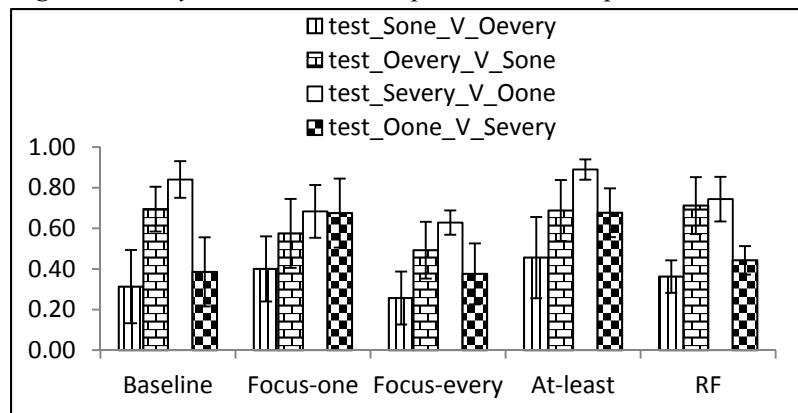
- a. $S_{one}VO_{every}$: One girl-NOM stroked-FEM every kitten-ACC. (= (1) above)
- b. $O_{every}VS_{one}$: Every kitten-ACC stroked-FEM one girl-NOM.
- c. $S_{every}VO_{one}$: Every girl-NOM stroked-FEM one kitten-ACC
- d. $O_{one}VS_{every}$: One kitten-ACC stroked-FEM every girl-NOM. (= (2) above)

In the **Baseline** experiment, the test sentences were presented with neutral intonation, in order to establish the baseline availability of inverse-scope readings. In the **Focus-one** experiment, the indefinite quantifier (a form of *odin* ‘one’) was given contrastive stress: the stressed element was thus preverbal in (3a,d) and postverbal in (3b,c). This experiment was designed to check whether contrastive focus facilitates inverse scope. The **At-least** experiment replaced *odin* ‘one’ with *po krajnej mere odin* ‘at least one’, in order to examine whether adding the focus particle *at least* has the same effect as contrastive stress. In the **Focus-every** experiment, the universal quantifier was given contrastive stress, so that the stressed element was now postverbal in (3a,d) and preverbal in (3b,c). In the **Rise-fall (RF)** experiment, a rise-fall contour marked each sentence, so that the preverbal element would be construed as topic, and the postverbal one as focus. (The Baseline and Focus-one experiments were previously reported in Authors (2014); the other three experiments are new.)

Performance with control pictures was near-ceiling in all conditions, indicating that participants were paying attention. Results with the test (distributive) picture are presented in Figure 1. The data were analyzed using a binary mixed effects logistic regression, with WO, QC, list and experiment as fixed effects, and participants and items as random effects. Both WO ($z=6.76$, $p<.001$) and QC ($z=6.84$, $p<.001$) had significant effects of the results, and interacted significantly with each other ($z=9.93$, $p<.001$). This was due to the rate of YES responses being significantly lower when the surface-scope reading was false (and inverse scope true), as in (3a,d), compared to when the surface-scope reading was true (3b,c), which indicates that surface scope is more accessible than inverse scope. There was no effect of list. WO and QC also interacted significantly with experiment when the Baseline experiment was compared to each of the Focus-one ($z=5.96$, $p<.001$), Focus-every ($z=3.39$, $p=.001$), and At-least ($z=2.84$, $p=.004$) experiments; however, there was no interaction between WO, QC and experiment when the Baseline and RF experiments were compared ($z=1.52$, $p=.128$): i.e., the performance patterns in these two experiments were the same.

Significant interactions were followed up with Bonferroni-corrected pairwise comparisons, which revealed the following. For the sentence type in (3d) (OVS with a preverbal indefinite), focusing the indefinite object (Focus-one experiment) or adding the focus marker *at least* (At-least experiment) significantly increased the rate of YES responses relative to the Baseline experiment: inverse scope became more accessible. For the other three sentence types (3a-c), the experimental manipulations did not have a significant effect, though placing focus on the preverbal universal QP in (3b,c), in the Focus-every experiment, marginally *decreased* the rate of YES responses relative to the Baseline experiment (i.e., once again, inverse scope became more accessible).

Figure 1: Study results: %YES responses with test picture



We conclude that, per Ionin (2003), IS is closely related to scope in Russian. When the preverbal QP is construed as the topic (either under neutral intonation, or under the rise-fall contour), surface scope is strongly preferred. However, inverse scope is still allowed about 20/30% of the time, which suggests that Russian scope is not frozen, and that surface scope is a preference rather than a

requirement (for processing-based accounts of such preferences in English see, e.g., Anderson 2004). At the same time, placing the preverbal scrambled object in contrastive focus overrides this preference, and makes the inverse scope reading more readily available, indeed preferred; we analyze this effect as focus-driven reconstruction of the scrambled object to its base position (cf. Neeleman & Weerman 2009). The fact that prosodic prominence (the Focus-one experiment) has the same effect as presence of a focus marker (the At-least experiment) indicates that we are dealing with the syntactic category of Contrastive Focus, rather than with a prosodic effect. Furthermore, the lack of a difference between the Baseline and RF experiments indicates that that topics behave the same regardless of whether they are prosodically marked: when the rise-fall contour establishes the scrambled object as the topic, rather than the contrastive focus, the object does not reconstruct. Our findings suggest that Russian differs from German (Krifka 1998, Bobaljik & Wurmbrand 2012); we will discuss possible reasons for this difference.

Selected references: **Anderson 2004**, The structure and real-time comprehension of quantifier scope ambiguity, PhD thesis, Northwestern. **Antonyuk 2006**, The scope of quantifier phrases in Russian: A QR analysis, *Linguistics in the Big Apple*. **Bobaljik & Wurmbrand 2012**, Word order and scope: Transparent interfaces and the $\frac{3}{4}$ signature, *LI* 43. **Ionin 2003**, The one girl who was kissed by every boy: Scope, scrambling and discourse function in Russian, *Proceedings of ConSole X*. **Krifka 1998**, Scope inversion under the rise-fall contour in German, *LI* 29.

THE MATCHING ANALYSIS OF RELATIVE CLAUSES: EVIDENCE FROM UPPER SORBIAN

Summary The aim of this talk is to show that Upper Sorbian (henceforth USO) provides morphological evidence for the Matching Analysis of relative clauses. The relevant morphological evidence comes from the suffix *-ž* appearing on relative pronouns in USO. The talk is structured as follows. I first show that previous analyses of the suffix *-ž* are empirically insufficient. I then argue that the suffix *-ž* is a reflex of the deletion of the copy of the head noun. Lastly, it will be shown that this analysis faces none of the problems the previous analyses have.

Relative Clauses in USo Relative clauses in USo can be formed in two ways (for a detailed overview taking also Lower Sorbian into account, cf. Bartels & Spiess 2012). Either a relative pronoun is fronted agreeing in ϕ -features with the head noun, or the invariant element *kiž* appears, which does not agree in ϕ -features with the head noun. Importantly, irrespective of which strategy is chosen, the suffix *-ž* has to appear on the fronted element (cf. 1); its omission results in ungrammaticality.

- (1) Tón hólc, štóž/kotryž/kiž tam sedži, je mój bratr.
the boy who which REL there sits is my brother
The boy who is sitting there is my brother.

Previous Approaches In the literature on USo, two approaches have been suggested for the obligatory presence of the suffix *-ž* on relative pronouns. The first and most common (Fasske 1981, p. 615) analyzes *-ž* as a derivational suffix that turns interrogative pronouns into relative pronouns (cf. 2).

- (2) relative pronoun = interrogative pronoun + ž
Such an approach faces two problems. First, there are relative elements with the suffix *-ž* for which no corresponding interrogative pronoun exists (cf. 3).
- (3) a. [relative pronoun kiž] =/= [interrogative pronoun ki]+ž
b. *Ki / √štó / √kotry je to činił?
who is that done
Who has done that?

Second, it fails to explain why *-ž* is also found on many adverbial complementizers (cf. 4).

- (4) *prjedyž* (before), *dónž* (until), *hačrunjež* (despite), *ručez* (as soon as), *dokelž* (because)
The second approach analyzes *-ž* as a subordination marker (Libš 1884, p. 190; Schaarschmidt 2002, p. 34). This approach faces three problems. First, it is morphologically unlikely because the general subordination marker is *zo* in USo (cf. 5), so the change from *zo* to *-ž* needs to be stipulated.

- (5) Ja wěm, **zo** je to wopak.
I know.1SG that is that mistake
I know that that was a mistake.

Second, this analysis wrongly predicts that *-ž* should appear in all embedded contexts; however, *-ž* must not appear in embedded questions (cf. 6).

- (6) Ja wěm, štó(*ž) je to činił.
I know.1SG who is that done
I know who did that.

Third, this analysis does not capture the position of *-ž*, since it can also appear NP-internally (cf. 7).

- (7) To je ta žona, [NP čejuz knihu] sym ja čitał.
that is the woman whose book am I read.
That is the woman whose book I read.

Importantly, the sentence in 7 cannot be argued to involve Left Branch Extraction, as shown in (8), because Left Branch Extraction is optional in USo. Given this, when fronting the whole NP from example 7, *-ž* is predicted to occur after that whole NP. This, however, is ungrammatical (cf. 9).

- (8) To je ta žona, čejuz-ž [NP ti knihu] sym ja čitał.
(9) * To je ta žona, [NP čejuz knihu]-ž sym ja čitał.

Analysis The analysis I want to put forward is that *-ž* is a morphological reflex of the deletion of the copy of the head noun internal to the relative clause, as shown in (10).

- (10) Tón hólc, [kotry hólc] tam sedži, je mój bratr.
→ Tón hólc, [kotry-ž] tam sedži, je mój bratr.

The viability of this analysis hinges of course on the correctness of a matching derivation for relative clauses. More specifically, it hinges on the correctness of the idea that the relative clause contains a copy of the head noun. Evidence for the correctness of this claim is available in USo. This evidence comes from antipronominal contexts (Perlmutter 1972, Postal 1994), that is, contexts barring pronouns from NP positions. One such context for USo is illustrated in (11).

- (11) Marko je na $\sqrt{\text{te wašnje}}$ / ***njo** rečal.
 Marko is on that way it spoken
*Marko has spoken in that way (*in it).*

Relative pronouns, however, are insensitive to this restriction, that is, they are licensed in antipronominal contexts (cf. 12).

- (12) Wašnje, **na kotrež** je Marko rečal, je mje překwapilo.
 way on which is Marko spoken is me surprised
The way in which he spoke surprised me.

The insensitivity of relative pronouns to antipronominal contexts follows neatly from the matching derivation because the relative pronoun is in fact an NP in disguise, as the structure for the sentence in 12 before the insertion of -ž shows.

- (13) Wašnje, [_{PP} na [_{NP} kotre **wašnje**]] je Marko rečal, je mje překwapilo.

Importantly, the insensitivity of relative pronouns to antipronominal contexts is unrelated to the determiner *kotr-* because this determiner itself is not licensed in antipronominal contexts (cf. 14a). Nor is it related to the presence of a trace at the base position whose status as an R-expression could circumvent the violation because movement in itself does not rescue such a violation (cf. 14b).

- (14) a. * Na kotre je Marko rečal?
 b. * Na čo je Marko rečal?

Consequences Although this analysis doesn't face the problems the other approaches have, it seems to create new ones. First, it has a problem with the relativizer *kiž* because no corresponding determiner *ki* exists. Second, it also doesn't seem to capture the presence of -ž on adverbial complementizers. The first problem is only apparent because *ki* can in fact be analyzed as a determiner, but as one that requires its complement to be elided. Such determiners exist in other languages, for example in German, where the indefinite reading of *welch-* is only possible when its NP-complement is elided (cf. 15).

- (15) Wir suchen Milch; haben Sie hier **welche** (*Milch)?
 we look.for milk have you here which milk
We need milk. Do you have any?

As for the second problem, that -ž is also found on many adverbial complementizers, this is only a problem if one wishes to distinguish adverbial subordinate clauses from relative clauses. However, previous work by Geis 1970 and recent work by Haegeman 2010 and Demirdache & Uribe-Etxebarria 2004, among others, demonstrate that adverbial clauses are best analyzed as relative clauses to silent NPs in the matrix clause. Adopting this assumption, the second problem vanishes. An adverbial clause such as in (16) will then have the structure in (17), and the presence of -ž follows as desired.

- (16) Wón je domoj šoł, prjedyž dało so do deščika.
 he is home went before gave REFL to rain
He went home before it started raining.
 (17) Wón je domoj šoł prjedy **TIME X TIME-X** dało so do deščika.
 → Wón je domoj šoł prjedy **TIME X -ž** dało so do deščika.

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Aspect and Negative Imperatives: A Phase-based Approach

We provide evidence that the external argument introducing phrase *vP* in Bosnian/Croatian/Serbian (BCS) is located between two separate AspPs representing imperfective and perfective aspect (1) (e.g., Travis 2010) and show how this proposal combined with a few additional assumptions about cyclic Spell-Out and Agree(ment) explains why BCS negative imperatives (NIs) are in general incompatible with perfective verbs. While we primarily focus on BCS, we also extend our analysis other Slavic languages.

$$(1) [_{AspP1} Asp1_{(IMPERFECTIVE)} [_{vP} v [_{AspP2} Asp2_{(PERFECTIVE)} [_{VP} V]]]]$$

Negative Imperatives and Aspect. It is well-known that many languages (Spanish etc.) disallow ‘true’ negative imperatives (NIs) (Rivero1994, Han 2000). A puzzling property of NIs in BCS and other Slavic languages is that their availability depends on aspectual properties of the imperative verb - Slavic NIs are generally incompatible with verbs in perfective aspect (e.g., Iatridou & Pancheva 2012, Ridjanovic 2012):

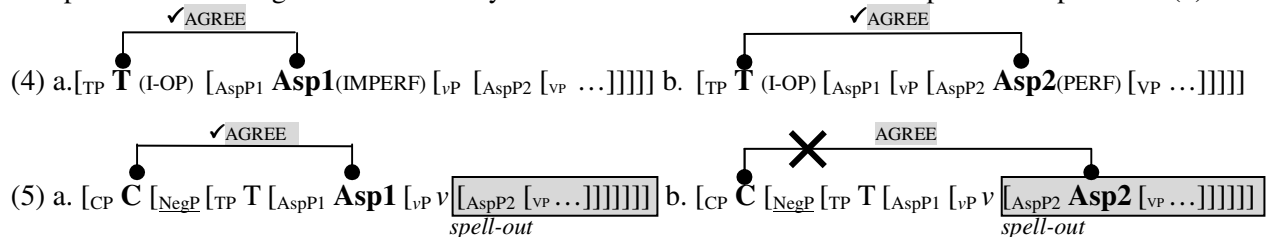
- (2) a. ✓Jedi tu jabuku!
 Eat-IMPERF-IMPERATIVE that apple
 ‘Eat that apple!’
 b. ✓Pojedi tu jabuku! **BCS**
 Eat-PERF-IMPERATIVE that apple
 c. ✓Ne jedi tu jabuku!
 Not eat-IMPERF-IMPERATIVE that apple
 ‘Do not eat that apple!’
 d. * Ne pojedi tu jabuku!
 Not eat-PERF-IMPERATIVE that apple

We argue that this restriction is a result of a combination of several syntactic factors and can be reduced to the locality conditions on Agree(ment). The main components of our analysis are: (i) the imperative operator licensing imperative inflection on the verb (I-OP), which is in T in positive imperatives, is located in C in NIs because it cannot stay within the scope of negation (Han 2000, Zeijlstra 2006), and (ii) perfective verbs occupy a position in the spell out domain of the *vP* phase (complement of *v*), in contrast to imperfective verbs which are located higher (1). Consequently, perfective verbs in NIs are too far away from the imperative operator to establish a successful Agree relation with it. We also discuss apparent exceptions to this restriction and show how they directly follow from the key assumptions of our analysis.

Analysis. First, we propose that I-OP always takes scope from the highest available syntactic position, which is not necessarily always C. In particular, in simple imperatives like (2a-b) I-OP is located in T from which it licenses the imperative inflection on the verb (in AspP1 or AspP2) through Agree (3a).

$$(3) a. \begin{array}{c} \checkmark \text{ AGREE} \quad \checkmark \text{ AGREE} \\ \text{T(I-OP)} [_{AspP1} Asp1 [_{vP} v [_{AspP2} Asp2 [_{VP} \dots]]]] \end{array} \quad b. \text{ Jedi/pojedi tu jabuku. ‘Eat that apple!’ BCS} \\ \text{eat- IMPERF/eat-PERF that apple}$$

Second, we assume that I-OP cannot be in the scope of negation in logical forms of sentences, an observation which goes back to Frege (Han 2000, Zeijlstra 2006); i.e., NIs universally have *only* a reading in which the directive force has scope over negation. Thus, NIs are unavailable in some languages because I-OP ends up in the c-command domain of negation in syntax. Assuming that NegP in BCS/Slavic is located above TP, the illicit scope Neg>I-OP would always be created in NIs like (2c-d). We argue that in such cases I-OP is located in C, the next highest available functional head, from which it takes scope over negation and the whole propositional content. In sum, I-OP is located in T in simple imperatives, and in C in NIs. Finally, we argue that imperfective verbs are higher than *v*, while perfective verbs are located in its complement, as shown in (1). The contrast in (2) is then essentially reduced to the locality conditions on Agree: I-OP cannot license the imperative inflection on perfectives in NIs since at the point when C is merged, *v*’s complement, which includes AspP2, is spelled-out (Chomsky 2001) (5). The problematic configuration arises only in NIs since I-OP is located in T in positive imperatives (4).



Aspect and Negative Imperatives: A Phase-based Approach

Perfective verbs are, however, allowed in NIs in two types of contexts. First, across Slavic languages perfective NIs are possible with certain strictly non-agentive verbs (Chaput 1985, Kučera 1985, etc.); in (6) the subject is not in control of the action and the situation comes about accidentally/unintentionally. This is predicted by our analysis since this obligatory lack of agency of the verbs in (6) indicates that the agent introducing ν P phase which triggers Spell-Out is not present (or is a ‘weak’ phase; Chomsky 2001). Consequently, in such cases I-OP in C can successfully enter Agree with the perfective verb in AspP2.

- (6) a. Nenachlad’ te se! b. Nie zgub tego klucza! c. Ne zaboravite ključeve!
 Neg-catch cold-PERF-IMP Neg lose-PERF-IMP that key Not forget-PERF-IMP keys
 ‘Do not catch cold!’ *Czech* ‘Don’t lose that key!’ *Polish* ‘Do not forget the keys!’ *BCS*

Second, ‘analytic’ NIs in languages like BCS allow perfective verbs (7). Here, the imperative inflection is located on the particle *moj*, which diachronically is the imperative form of the modal verb *moći* ‘can, be able’, but synchronically lacks any semantic content. We argue that in BCS the locality problem in (5b) is avoided by displacing the imperative inflection directly to T. Specifically, in the terminology of Pesetsky and Torrego (2007), the value for the interpretable but unvalued I-OP feature in C in (8a) is provided cycle-internally by the dummy element *moj*, which has the uninterpretable but valued I-OP feature. It also follows from our analysis that *moj* cannot be used to license positive imperatives (8b), since the locality problem which it is meant to resolve is created by the presence of NegP.

- (7) a. **Nemoj** pojesti tu jabuku! b. **Nemoj** da pojedješ tu jabuku! *BCS*
 Neg-IMPER eat-PERF-INF that apple Neg-IMPER that eat-PERF-PRS-2.SG that apple
 (8) a. [_{CP} **C**(I-OP) [_{NegP} Neg(NE) [_{TP} **T**(MOJ) [_{Inf/DA-Clause} ...]]]] b. *Moj pojesti tu jabuku! ‘Eat that apple!’
 ● ● IMPER eat-PERF-INF that apple

Agents, ν P and AspPs. The structure in (1) and our analysis of NIs predict that the availability of the agent should correlate with the type of aspect. A well-known example of this is the Russian *-sja* passivization, in which the nominal corresponding to the initial subject (external) argument may appear as an adjunct in instrumental only if the verb is imperfective (Babby 1975) (10). Given (1), this is expected since in the case of perfective verbs the *-sja* reflexivization applies at the level which does not include ν P.

- (10) a. Ostal’nye mašiny sobralis’ rabočimi. b. Ostal’nye mašiny sobralis’ (*rabočimi).
 Rest cars gathered_{IMPERF/REF} workers_{INSTR} Rest cars gathered_{PERF/REF} workers_{INSTR}
 ‘The remaining cars were gathered by workers.’ ‘The remaining cars were gathered (*by workers).’

In BCS the demoted subject is expressed with an adjunct ‘by phrase’ (which is preferably left out), but the use of agentive adverbs creates similar effects: the example in (11b), which includes a reflexivized *perfective* verb, only has the implausible, true reflexive reading (cakes ate themselves), unlike the minimally different example in (11a) based on an *imperfective* verb, which also has a passive meaning.

- (11) a. Kolači su se (namerno) jeli u podne. b. Kolači su se (*?namerno) pojeli u podne.
 Cakes are REFL intentionally eat_{IMPERF/PAST} in noon Cakes are REFL intentionally eat_{PERF/PAST} in noon
 ‘Cakes were (intentionally) being eaten at noon.’ ‘Cakes were intentionally eaten at noon.’

Also, ‘process’ and ‘result’ nominals in BCS are in general formed by adding the nominalizer *-je* to the passive participle of imperfective and perfective verbs, respectively (12) (e.g., Zlatić 1997). Crucially, unlike result nominals, process nominals can be modified by agentive adverbs and their possessors must be interpreted as agents (13), which clearly indicates that only process nominals (based on imperfective verbs) include ν P in their structure.

- (12) Reš-**ava-n-je** /Reš-**en-je** zadataka (13) a. Markovo (✓namerno) reš-**ava-n-je** zadataka
 Solve_{IMPERF-PART}/Solve_{PERF-PART} assignments b. Markovo (*namerno) reš-**en-je** zadataka
 ‘Solving/solution of assignments.’ Marko_{POSS} intentional

Finally, perfective affixes (AspP2) often create unpredictable/idiosyncratic meanings (14b), while imperfective affixes (AspP1) never do (14c); this is predicted by (1) given the well-known observation that the agent introducing ν P defines a boundary for the domain of special meanings (e.g., Marantz 1997).

- (14) a. vratiti ‘to return’ b. *po-vratiti* ‘to throw up(perf)’ c. *po-vrać-a-ti* ‘to throw up(impf)’
 return_{IMPERF} prefix_{PERF}-return prefix_{PERF}-return-suffix_{IMPERF}

The semantics of the Czech demonstrative *ten*

I propose a semantic analysis of the demonstrative *ten* in Czech, in which *ten* (i) is a type-flexible and type-preserving operator, (ii) does not involve the presuppositional type-shifter ι , and (iii) introduces two variables: an index i that “points at” some entity in the discourse (or extra-linguistic reality) and a relational variable R_j , whose value determines the relation between i and the denotation of the NP modified by the demonstrative (henceforth demonstrative NP).

Core evidence *Ten* (glossed as dem) productively modifies NPs without affecting their referential status (e.g., Berger 1993). Readings (a) of (1) and (2) show that the canonical referential reading (of *Mirkem* in (1)) and the canonical predicative reading (of *právník* ‘lawyer’ in (2)) can remain unaffected by the modification by a demonstrative. Readings (b) represent the “expected” case, where the demonstrative appears to shift a predicative nominal (coerced and typically modified by a relative clause in (1)) to a referential one. The existence of readings (a) shows (i) that *ten* can modify both referential (type e) and predicative (type $\langle e, t \rangle$) expressions and (ii) that *ten* need not affect the semantic type of the NP it modifies.

- | | | | | | | | | | | | | |
|-----|----------|-----------------------------------|---------|-----------|-----------|-----|-------|----|------------------------|-----|----------|--|
| (1) | S | tím | Mirkem | jsem | nemluvil. | (2) | Karel | je | vlastně | ten | právník. | |
| | with dem | Mirek | aux.lsg | neg.spoke | | | Karel | is | part | dem | lawyer | |
| | a. | ‘I didn’t speak with Mirek.’ | | | | | | a. | ‘Karel is a lawyer.’ | | | |
| | b. | ‘I didn’t speak with that Mirek.’ | | | | | | b. | ‘Karel is the lawyer.’ | | | |

Proposal The facts above could indicate either that *ten* is (multiply) ambiguous or that it is underspecified. In line with the latter option, I propose to generalize to the worst case and take readings (a) to be, in some sense, primary. In particular, I propose that the meaning of *ten* (unlike its English kin *this/that*; see Elbourne 2008) does not involve the presuppositional type-shifter ι and preserves the type of its NP argument. Following Elbourne (2008), I propose that *ten* takes three arguments, as illustrated in (3a): an index i of a variable type α (values include type e and type $\langle s, t \rangle$), a relational variable R_j of a variable type $\langle \alpha, \langle \beta, t \rangle \rangle$, and an NP of a variable type β (values include e and $\langle e, t \rangle$). The corresponding denotation of *ten* is in (3b). After all arguments are applied, the value of the function is $\llbracket \text{NP} \rrbracket$, provided that $g(i)$ and $\llbracket \text{NP} \rrbracket$ are related by $g(j)$, (3c). (As in Elbourne 2008, the meaning will eventually have to be fully intensionalized, a complication I put aside for ease of presentation.)

- | | | | | |
|-----|----|--|----|--|
| (3) | a. | | b. | $\llbracket \text{ten} \rrbracket^g = \lambda x_\alpha. \lambda f_{\langle \alpha, \langle \beta, t \rangle \rangle}. \lambda h_\beta : f(x)(h) = 1. h$ |
| | | | c. | $\llbracket (3a) \rrbracket^g = \llbracket \text{NP} \rrbracket$ if $\langle g(i), \llbracket \text{NP} \rrbracket \rangle \in g(j)$, undefined otherwise |

The other piece in the puzzle is the idea that bare NPs in Slavic are ambivalent between various semantic types, including the referential type e and the predicative type $\langle e, t \rangle$ (Chierchia 1998, Filip 1999, Dayal 2004, a.o.). I propose that this generalizes to NPs modified by demonstratives; i.e., the NP argument of a demonstrative in a structure like (3a) can either be of type e or $\langle e, t \rangle$.

Sample analysis I illustrate the proposal by analyzing the demonstrative NP *ten právník* ‘dem lawyer’ in (2). In (2a), *právník* is interpreted predicatively, (4a). The reading (2a) is typically used in a situation where the speaker wants to remind the hearer that Karel’s being a lawyer was already spoken about. This reminder is felt to be the contribution of the demonstrative (possibly jointly with some discourse particles) and is modeled here as a presupposition. The relevant reading is naturally captured by giving the index i the value of some particular discourse salient proposition about Karel (say, ‘Karel is a lawyer’) and the relational variable R_j the value $\lambda p_{\langle s, t \rangle}. \lambda P_{\langle e, t \rangle}. 1$ iff P is the comment of p . After the arguments are applied, we get truth if $\llbracket \text{NP} \rrbracket$ (‘is a lawyer’) is the comment of the proposition about Karel ($g(i)$).

- (4) Reading (2a)
- a. $[[\text{právník}]]^g = \lambda x.\text{lawyer}'(x)$
 - b. $[[[R_j [i \text{ ten}]] \text{právník}]]^g = \lambda x.\text{lawyer}'(x)$ if $g(i)$ (some salient proposition about Karel) and $[[\text{právník}]]$ (being a lawyer) are related by $g(j)$ (being a lawyer is the comment of the proposition about Karel), undefined otherwise

In (2b), *právník* is shifted (by a covert application of ι) to a referential expression, meaning essentially ‘the lawyer’. The demonstrative is felt to contribute the presupposition that the referent was mentioned before, which corresponds to the canonical anaphoric reading of definite/demonstrative NPs. In such a case, the value of i is the lawyer that was mentioned and the value of R_j is the identity relation.

- (5) Reading (2b)
- a. $[[\text{právník}]]^g = \iota x.\text{lawyer}'(x)$
 - b. $[[[R_j [i \text{ ten}]] \text{právník}]]^g = \iota x.\text{lawyer}'(x)$ if $g(i)$ (some discourse salient individual) and $[[\text{právník}]]$ (the lawyer) are related by $g(j)$ (identity), undefined otherwise

The issue of optionality The baseline prediction of the proposal is that the demonstrative *ten* in Czech will always be optional (the core meaning is determined even before they apply), which corresponds to existing observations. Yet, by contributing certain presuppositions, the demonstrative can steer the hearer’s attention towards preferring one reading over another. Below is an illustrative example adapted from Zimová (1995) (via Berger 1993:120). Sentence (6) introduces a particular devil into the discourse. Under the most salient reading of the continuation (6a), *ten čert* ‘dem devil’ picks up this referent, which follows from the present proposal; in (6b), on the other hand, the corresponding bare NP is interpreted generically, a reading made salient by the adverb and the imperfective aspect. If such cues are missing, however, as in (6c), a bare NP can be interpreted anaphorically.

- (6) Biskupa odnesl čert.
 bishop.acc carry.away devil.nom
 ‘A devil carried away the bishop.’
- a. Ten čert vždycky odnáší hříšníky komínem.
 dem devil always carries.away sinners chimney.instr
 ‘This devil always carries away sinners via a chimney.’
 - b. Čert vždycky odnáší hříšníky komínem.
 devil always carries.away sinners chimney.instr
 ‘A devil always carries away sinners via a chimney.’
 - c. Čert ho odnesl rychle a nečekaně.
 devil him carried.away quickly and unexpectedly
 ‘The devil carried him away quickly and unexpectedly.’

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Quotational Indefinites: Bulgarian and Beyond

Introduction Beyond their regular meaning as existential quantifiers, indefinites can trigger a range of additional implications, e.g. they can invite specific vs. nonspecific interpretations (see [4], [8], a.m.o.) or convey ignorance towards the identity the referent (see [5], [1], a.o.). In this paper, I discuss one less known variety of indefinites, which I call **quotational indefinites** (QIs). While I focus on QIs in Bulgarian (e.g. *edi-koj si* ‘one-who.MASC REFL’), such indefinites are also found in German (see [2]) and Japanese (see [9]), and are akin to English placeholders like *whatshisface* or *so-and-so*. I claim that (i) QIs range over *expressions* (i.e. linguistic objects) that (ii) are *referring* and that (iii) were *uttered* in a previous conversation. Taken together, these claims imply that indefinites can range over quotations (i.e. pieces of language that can be attributed to another speaker) and thus can serve reportative functions. More generally, this work uncovers important interactions between phenomena such as indefiniteness, quotation, and reportativity and forwards our understanding of the typology of indefinites.

Core empirical properties QIs can be regarded as fillers for referring expressions: they can fill in for proper names or definite descriptions but not for quantified DPs or indefinites (whether specific or nonspecific), see (1)-(2). In addition, the use of QIs triggers the implication that an antecedent expression was uttered in a previous conversation. Importantly, this implication projects, i.e. it survives embedding under entailment-canceling operators like negation or modals (3). Thirdly, QIs can also occur in direct quotations, as in (4). This sentence is ambiguous between (4a), a verbatim reading in which the QI is part of the previous utterance, and (4b), a non-verbatim reading in which the QI fills in for some referring expression in the original utterance.

- (1) Maria: *Ima-m srešta s Ivan / šef-a mi / edna prijatel-ka / mnogo xora.*
have-1SG meeting with Ivan / boss-DEF POSS / a friend-FEM / many people
Maria: ‘I have a meeting with Ivan / my boss / a friend of mine / many people.’
- (2) Maria *ima srešta s edi-koj si / edi-koj si / #edi-koja si / #edi-koi si.*
Maria have.3SG meeting with QI / QI / QI / QI
‘Maria has a meeting with someone.’
- (3) Maria *ima / n-jama / može da ima srešta s edi-koj si.*
Maria have.3SG / NEG-have.3SG / might.3SG SUBJ have.3SG meeting with QI
a. *Assertion*: ‘Maria has / doesn’t have / might have a date with someone.’
b. *Reportative implication*: ‘Maria’s date was mentioned in a previous conversation.’
- (4) Ivan *kaz-a: “Maria celun-a edi-koj si”.* (ambiguous)
Ivan say-3SG Maria kiss-3SG QI
a. *Verbatim reading*: ‘Ivan uttered “Maria celuna edi-koj si”.’
b. *Non-verbatim reading*: ‘Ivan uttered “Maria celuna z”, where z is an r-expression.’

Previous work on QIs Since Japanese QIs like *dare-dare* ‘who-who’ are claimed to only occur in quotations, [9] analyzes these as existential quantifiers over expressions that denote individuals (or objects of type *e*). This account then requires some adjustments for Bulgarian QIs, which routinely appear outside quotation. According to [2], German QIs of the form *der und der* ‘the and the’ existentially quantify over individuals (not expressions) that were uniquely identified in a previous

conversation. On this view, it is less clear why Bulgarian (as well as German) QIs can occur in direct quotations and obtain non-verbatim readings, which refer to expressions. Neither of these two accounts readily explains why specific indefinites are not good antecedents for QIs, given that specific indefinites have previously been analyzed as type e expressions (see e.g. [4]) and that such indefinites uniquely identify the referent. I build on this previous work and propose a single meaning for QIs in Bulgarian that derives all the empirical properties mentioned above.

Formal proposal I assume a new logical type u for linguistic expressions and a corresponding domain D_u , which contains all possible concatenations of symbols (see [7]). I also introduce an expression interpretation function $E : D_u \rightarrow D$ such that $E(\alpha) = \llbracket \alpha \rrbracket$ if α is a term of the language and otherwise E is the identity function. That is, E maps expressions that are part of the language back into more familiar domains, e.g. $E(\text{Ivan}) = \text{ivan} \in D_e$ because $\text{Ivan} \in D_u$ is also a term of the language. To accommodate arguments of type u (e.g. quotational arguments or traces of raised QIs), I extend the inventory of lexical meanings such that if $\llbracket \alpha \rrbracket^E = \dots \lambda x_e \dots \phi$ is part of the lexicon then so is $\llbracket \alpha \rrbracket^E = \dots \lambda z_u \dots \phi[x/E(z)]$, where $\phi[x/y]$ is just like ϕ but with all free occurrences of x substituted by y . For example, we now have as lexical meanings both $\llbracket \text{sleep} \rrbracket^E = \lambda x_e \text{sleep}(x)$ and $\llbracket \text{sleep} \rrbracket^E = \lambda z_u \text{sleep}(E(z))$. Finally, I adopt a partial semantics along the lines of [3] and borrow from these authors the (static) presupposition operator ∂ , where $\partial\phi$ is true if ϕ is true and undefined otherwise.

I propose that QIs are interpreted as existential generalized quantifiers over expressions (5). For example, a sentence of the form as in (6) receives the interpretation as shown. I assume that (6) has the LF of $[\text{QI}_z [\text{Maria date } z]]$, where the QI raises from its object position and leaves a trace of type u . The semantic derivation uses the enriched lexical meaning $\llbracket \text{date} \rrbracket^E = \lambda z_u \lambda x_e \text{date}(x, E(z))$ to get to the (lambda abstracted) meaning $\llbracket [\text{Maria date } z] \rrbracket^E = \lambda z_u \text{date}(\text{maria}, E(z))$, which then directly combines with the QI meaning in (5) and derives (6).

$$(5) \quad \llbracket \text{QI} \rrbracket^E = \lambda P_{ut} \cdot \exists z_u (\mathbf{r-expression}(z) \wedge P(z) \wedge \partial \exists y_e \mathbf{utter}(y, z))$$

$$(6) \quad \llbracket [\text{Maria is dating QI}] \rrbracket^E = \exists z_u (\mathbf{r-expression}(z) \wedge \text{date}(\text{maria}, E(z)) \wedge \partial \exists y_e \mathbf{utter}(y, z))$$

The meaning in (6) correctly predicts that the antecedent expression is a referring term, assuming that the predicate **r-expression** singles out proper names and definite descriptions. The conjunct $\partial \exists y_e \mathbf{utter}(y, z)$ describes the reportative implication. This implication projects because if ϕ and ψ are defined, the following logical equivalences hold: $\neg(\partial\phi \wedge \psi) \equiv \partial\phi \wedge \neg\psi$, $\exists x(\partial\phi \wedge \psi) \equiv \exists x\partial\phi \wedge \exists x(\phi \wedge \psi)$, $\exists x\partial\phi \equiv \partial\exists x\phi$ (see [3]). These equivalences ensure that presuppositional terms can always be pulled out of operator embedding. Finally, the puzzling non-verbatim readings of QIs in direct quotations follow if we allow raising out of quotation, as proposed in [9] and [6]. If (7) below has the LF of $[\text{QI}_z [\text{Ivan said: “Maria is dating } z”]]$, then the lambda abstracted meaning of $[\text{Ivan said: “Maria is dating } z”]$ is $\lambda z_u \text{say}(\text{ivan}, \text{Maria is dating } z)$, which can be directly fed into the meaning of the QI in (5) to produce (7).

$$(7) \quad \llbracket [\text{Ivan said : “Maria kissed QI”}] \rrbracket^E \\ = \exists z_u (\mathbf{r-expression}(z) \wedge \text{say}(\text{ivan}, \text{Maria kissed } z) \wedge \partial \exists y_e \mathbf{utter}(y, z))$$

References [1] Alonso-Ovalle & Menendez-Benito 2010 Modal indefinites *NLS* 18 [2] Cieschinger & Ebert 2011 Doubling definite determiners in German *LB* 226 [3] Coppock & Beaver ms Definiteness and determinacy [4] Fodor & Sag 1982 Referential and quantificational indefinites *L&P* 5 [5] Kratzer & Shimoyama 2002 Indeterminate pronouns: the view from Japanese *TCP* 3 [6] Maier 2014 Mixed quotation: the grammar of apparently transparent opacity *S&P* 7 [7] Potts 2007 The dimensions of quotation In *Direct Compositionality* [8] Schwarzschild 2002 Singleton indefinites *JoS* 19 [9] Sudo 2008 Quantification into quotations: evidence from Japanese wh-doublets *SuB* 12

Constraining the distribution of the delimitative

Problem. In Russian, formation of the delimitative verbs with the prefix *po-* is constrained in a variety of ways: contextually, (1), lexically, (2), by the properties of the internal argument, (3), by the animacy of the external argument, (4). The goal of this paper is to develop an analysis from which this apparent diversity follows. (Below, the meaning of the delimitative is approximated as ‘spend some time doing V’.)

- (1) Scenario 1. The lock in the door is broken. The agent tries to open the door with the key, then applies a picklock, then uses a crowbar, then tries to disassemble the lock, etc. At some point, he gives up.
*Scenario 2. The door is opened by typing a code that consists of a sequence of numbers, e.g., 1-2-3-5-5-6-7-8. After typing “5”, the agent stops.
Vasja **po-otkr-yva-l** dver’
V. PFV_{DLM}-open-PART-PST door
‘Vasja spent some time opening the door’
- (2) ??Vasja **po-zapi-va-l** tabletk-u (pjat’ minut i brosil).
V. PFV_{DLM}-wash.down-PART-PST pill-ACC 5 minutes and gave up
‘Vasja spent five minutes washing the pill down (and gave up).’
- (3) Vasja **po-čita-l** ^{OK}roman / ^{OK}stat’ju / ^{OK/?}pis’mo / [?]zapisku /
V. PFV_{DLM}-read.PART-PST novel article letter note
^{???}abzac / ^{??}predloženie / ^{???}slovo / *bukvu
paragraph sentence word letter
‘Vasja spent some time reading a novel/article/ letter/ note/ paragraph/ sentence/ word/ letter’
- (4) *Veter **po-otkr-yva-l** dver’
wind PFV_{DLM}-open-PART-PST door
‘The wind spent some time opening the door’

The data in (1)-(4) evoke a broader theoretical problem: derivation of non-culminating accomplishments (NCAs), instantiated by the delimitative in Russian. In many languages, perfective sentences based on accomplishment event descriptions do not entail culmination. There are several analyses of this phenomenon (Koenig & Muansuwan 2000, Bar-el et al. 2005, Tatevosov & Ivanov 2009, Martin & Schäfer 2012, a.o.), as well as specific analyses of the delimitative (Filip 2000, 2005 and elsewhere, Dickey 2000, 2006, Mehlig 2006, 2012, a.o.). However, most researchers preoccupied themselves with what happens when you have a non-culminating accomplishment. The question of what happens when you cannot have it has not been sufficiently addressed.

Structure of NCAs. Unlike in many other languages discussed in the literature (Thai, St’át’imcets, Turkic, and others) where NCAs are morphologically identical their culminating counterparts, in Russian NCAs involve two steps of derivation. In (1)-(4), the morpheme glossed as PART (= the (secondary) imperfective in the traditional terminology) and the prefix *po-* glossed as PFV_{DLM} subsequently merge with a verb stem. I propose, following Bar-el et al. 2005 and Tatevosov & Ivanov 2009, that this morphology renders two operations on the original extension of the event predicate (and assume that in other languages the same operations apply without being phonologically spelled out):

- (5) $\| V. \text{ open the door } \| = \lambda e. \exists e' [\text{open}_A(\text{Vasja})(e) \wedge \text{open}_{CS}(\text{door})(e') \wedge \text{cause}(e')(e)],$
where the relations open_A and open_{CS} are activity and change of state components of event structure.
- (6) $\| \text{PART} \| = \lambda P. \lambda e. \exists e' [e < e' \wedge P(e) \wedge \neg \text{FIN}(e')(e)]$
- (7) $\| \text{PFV}_{DLM} \| = \lambda P. \lambda t. \exists e [t \supseteq \tau(e) \wedge P(e) \wedge \text{Process}(P)]$

The PART operator extracts proper non-final parts of an event from the extension of an event predicate. For simplicity, I ignore issues surrounding the Imperfective Paradox; the full version of the analysis is to be couched in modal terms (Dowty 1979, Landman 1992, Portner 1998 a.o.; see the recent discussion in Altshuler 2013). I also follow Bar-el et al. 2005 and Tatevosov & Ivanov 2009 in assuming that PART by itself is neutral wrt to the viewpoint aspect (cf. Bar-el *et al*’s “inertia modality” operator); the result of its application is, in our case, taken by PFV_{DLM} as an argument. PFV_{DLM} introduces Klein’s (1994) perfectivity and an additional requirement that its first argument (that is, the PART+P predicate) denotes a process. (I depart from Pinon 1994 and Filip 2000 who analyze the delimitative *po-* as a measure function, whose lexical meaning is similar to ‘a little’, ‘for a while’, etc. In taking this stand, I follow Mehlig 2006, 2010 who argues that the meaning of the delimitative is neutral with respect to duration of an event, quantity of the internal argument involved, etc.) It is the Process modifier in (7) that bears the main burden of explanation for the phenomena in (1)-(4).

Processes. The combination of PART and the predicate in (5) denotes non-final parts of an activity that leads to the culmination where the door gets open.

$$(8) \quad \parallel \text{PART [V. open the door]} \parallel = \lambda e. \exists e' \exists e'' [e < e' \wedge \neg \text{FIN}(e')(e) \wedge \text{open}_A(\text{Vasja})(e') \wedge \text{open}_{CS}(\text{door})(e'') \wedge \text{cause}(e'')(e')]$$

The overall idea behind (7) is: at the stage of derivation where PFV_{DLM} applies, we need a process predicate. To be a process predicate means to contain a part *not ordered by the relation of necessary temporal precedence* (NTP):

$$(9) \quad \forall P [\text{Process}(P) \leftrightarrow \exists Q [\neg \text{NTP}(Q) \wedge Q \subseteq P]$$

To see what NTP is, consider (1) again. On the scenario 2, the activity component e of an opening event consists of contextually relevant parts: $e_1 =$ typing of 1, $e_2 =$ typing of 2, and so on; $e = e_1 \oplus \dots \oplus e_n$. The intuition is as follows: for such an event e to be in the extension of a predicate of opening activities in (8) on the scenario 2, subevents must be uniquely arranged by temporal precedence. If e_2 (typing of 2) occurs after e_3 (typing of 3), e is no longer an activity that leads to opening of the door, hence is not in the extension of (8). The definition of NTP is given in (10):

$$(10) \quad \forall P [\text{NTP}(P) = 1 \text{ iff } \forall e \forall w [P(e)(w) \wedge \exists \mu_w [\mu_w(e) = \text{the set of non-overlapping parts of } e \text{ such that } e = e_1 \oplus \dots \oplus e_n \text{ in } w, n > 1] \rightarrow \exists ! e' \in \mu_w(e). \text{INI}(e)(e') \text{ in } w \wedge \forall e'' \in \mu_w(e). \exists ! e'' \in \mu_w(e). e' <_T e'' \text{ in } w]]$$

In prose: A predicate P is ordered by necessary temporal precedence iff whenever an event e falls under P in a world w and **is divided in w into contextually identifiable non-overlapping parts, there is exactly one way for e to start in w and for any contextually identifiable part of e there is exactly one follow-up in w .**

PFV_{DLM} in (7) wants its argument (e.g. (8)) to be a process predicate, that is, to contain at least some non-NTP subset. I argue that all unacceptable sentences in (1)-(4) are bad because PFV_{DLM} fails to find such a subset, since they all denote NTP predicates, and the application of PFV_{DLM} creates an empty set of times.

Explaining the data. The verb *zapivat'* in (2) ‘wash down (of food, medicine, etc.)’ is a lexical NTP predicate. Any activity from its extension consists of subevents whose temporal order is fixed (‘take a container with some liquid’, ‘lift the container’,...). Therefore, (2) is out because (9) fails on it.

In (1), on the scenario 2 the NTP character of the activity is contextually entailed, which leads to the same failure as in (2). Lexically, however, ‘open the door’ is not an NTP predicate. As (1) shows, it is compatible with non-NTP scenarios, where either the green or the brown part of (10) or both are not met. In (1) on the scenario 1, specifically, applying a crowbar does not have to follow using a picklock, and so on.

In (3), acceptability decreases with the “size” of the internal argument. This can be naturally attributed to the fact that the smaller the size of what we read is, the more difficult it is to come up with a partition of an activity into contextually relevant parts (see Rothstein 2004 for related observations). Unlike reading a novel, reading a word or a single letter does not involve identifiable phases. Therefore, on ‘read a letter’ and similar examples the blue part of (10) fails, and the predicate comes out as trivially having the NTP property.

Finally, I argue that the same mechanism lies behind the unacceptability of NCAs with natural forces like (4) and other entities incapable of goal-oriented behavior. Workings of natural forces are not divisible into identifiable phases. Therefore, the blue part of (10) fails on (4), and we end up with a predicate trivially satisfying NTP.

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Stress shift and NSR in Czech

We present evidence from acceptability rating experiments that stress shift (i.e., a deviation from the default stress realization) can be motivated in two different ways in Czech: (i) to satisfy STRESS FOCUS and (ii) to satisfy *STRESS GIVEN. We model this finding by adopting a nuclear stress rule that requires stress to be rightmost within the focused constituent (rather than within a sentence).

Proposal We assume that information structure is expressed primarily prosodically in Czech (e.g., Šimík & Wierzba to appear): focus correlates with stress and givenness correlates with the lack of stress. The relevant constraints deriving these correlations are defined as follows (where sentence stress is the most prominent stress in a sentence).

- (1) STRESS FOCUS (SF): The focus of a sentence contains the sentence stress.
- (2) *STRESS GIVEN (*SG): Given expressions do not contain the sentence stress.

Both SF and *SG are conditions that have been, in one way or another, traditionally assumed in the Czech literature (e.g. Petřík 1938, Daneš 1957, 1959). Our core proposal is that the NUCLEAR STRESS RULE (NSR) of Chomsky & Halle (1968) (see Daneš 1957 for an early formulation on Czech) should not be defined upon the domain of a sentence but rather upon the domain of focus. We define the relevant constraint as follows.

- (3) NUCLEAR STRESS RULE-F (NSR-F): The most prominent stress in the focused constituent is realized on the rightmost element of the constituent.

Table 1 illustrates the basic predictions of NSR and NSR-F for a number of SVO structures (underlining = sentence stress, ✓ constraint satisfaction, ✗ constraint violation), where word order and sentence stress position are manipulated (SF and *SG are always satisfied). Both NSR and NSR-F predict all stress-final cases (a, c, e) to be acceptable, irrespective of the broad (a, e) or narrow (c) focus status of the stressed constituent. The predictions diverge for the stress shift cases (b, d): While NSR predicts both stress shift for SF and *SG reasons to be reduced in acceptability, NSR-F only predicts an acceptability reduction in the stress shift for the *SG condition. The reason is that in the SF condition, the stress is rightmost within the focus (trivially so). More generally, NSR-F predicts free ordering of stressed narrowly focused constituents, as long as no independent (e.g. syntactic) constraints are violated (see Junghanns & Zybatow 1997 for Russian).

	syntax/prosody/IS	NSR	NSR-F	label
a.	[S V <u>O</u>] _F	✓	✓	default
b.	S <u>V</u> _F O	✗	✓	stress shift for SF satisfaction
c.	S O <u>V</u> _F	✓	✓	reordering (for SF satisfaction)
d.	[S <u>V</u> O _G] _F	✗	✗	stress shift for *SG satisfaction
e.	[S O _G <u>V</u>] _F	✓	✓	reordering for *SG satisfaction

Table 1: Violation profiles for NSR vs. NSR-F

Experiment The experiment, in which 32 native speakers of Czech took part, consisted of a series of short dialogues, presented audiotively (on headphones). The participants’ task was to rate the acceptability of the response (target) in the context of the initial utterance by pressing a number (on computer keyboard) from 1/totally unacceptable to 9/totally acceptable. The target sentences consisted of the constituents S, V, O, and PP. We manipulated three factors (within items): 1. category stressed (O stressed vs. V stressed), 2. stress position (stress shift vs. default stress), 3. type of focus (narrow focus on the stressed constituent vs. broad focus on the whole sentence), giving rise to 8 conditions in total (2x2x2). The type of focus was manipulated contextually (by

the initial utterance) and systematically correlated with givenness (for narrow focus, the whole background was given, in broad focus, PP was given in O stressed conditions and O+PP was given in V stressed conditions). A schematic example of an item in all its conditions is provided in (4) and (5). There were 32 items in total (plus 64 fillers).

- (4) Initial utterances
- a. Did Marie force Václav to leave? *Narrow focus on O, followed by (5a) or (5b)*
 - b. Did Marie ask Jiří to leave? *Narrow focus on V, followed by (5c) or (5d)*
 - c. Do you know if everyone already left? *Broad focus, PP given, followed by (5a) or (5b)*
 - d. Do you have an idea why Jiří left? *Broad focus, O+PP given, followed by (5c) or (5d)*
- (5) Target utterances (schematic English)
- a. Marie forced Jiří to leave. *Stress on O, stress shift*
 - b. Marie forced to leave Jiří. *Stress on O, default stress*
 - c. Marie forced Jiří to leave. *Stress on V, stress shift*
 - d. Marie Jiří to leave forced. *Stress on V, default stress*

Results The mean ratings for all 8 conditions are in Table 2 (standard deviations in parentheses). According to pairwise t -tests, there is a significant difference between stress shift and default stress in the object/broad condition ($t = 3.1, p = 0.003$) but not in the object/narrow condition ($t = 3.0, p = 0.16$); in the verb conditions, the differences are not significant (narrow: $t = 0.3, p = 1.00$, broad: $t = 1.5, p = 0.60$) (all p -values Holm-Bonferroni adjusted).

Category stressed	Type of focus	Stress position	Mean rating
Object	Narrow	Stress shift	7.3 (1.86)
		Default stress	7.9 (1.36)
	Broad	Stress shift	4.9 (2.41)
		Default stress	5.9 (2.58)
Verb	Narrow	Stress shift	7.2 (1.87)
		Default stress	7.1 (2.11)
	Broad	Stress shift	6.3 (1.94)
		Default stress	6.7 (2.31)

Table 2: Results

Discussion We argue that there are two types of stress shift in Czech—for SF satisfaction and for *SG satisfaction. We propose that only the latter type violates NSR-F and is therefore expected to be less acceptable than the competing operation of constituent reordering (which satisfies NSR-F). This expected difference in acceptability was found to be significant for stress shift to an object but not for stress shift to a verb. Yet, the latter goes in the expected direction numerically and was found to be significant in Šimík & Wierzba (to appear). (We speculate that the difference was not so pronounced in the present experiment because the size of the discourse given part was relatively large (O+PP), which might have prompted a narrow focus interpretation of the verb.) Šimík & Wierzba’s work complements the present one in one more respect—it shows that stress shift for *SG satisfaction (and the consequent violation of NSR-F) is more acceptable than default stress (and the consequent *SG violation and NSR-F satisfaction).

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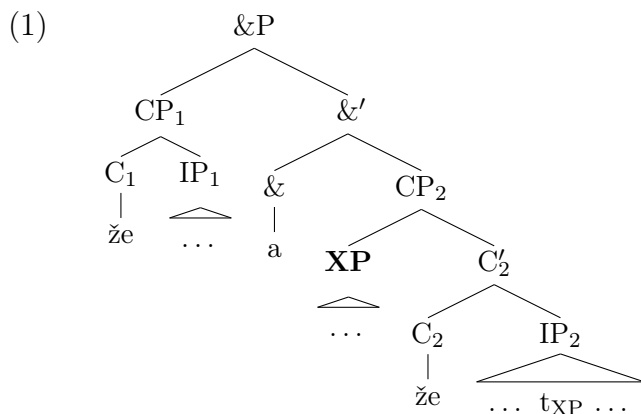
Topicalisation in coordination under subordination

INTRODUCTION This paper adds to the descriptive and theoretical work on Czech syntax and semantics by examining the properties of the boldfaced expression in (4). The embedded clausal coordination is assumed to have the structure indicated in (1). The main findings are: (i) when the topicalised constituent (i.e., XP) is interpreted as CT, the first conjunct has to comprise a constituent that is also interpreted as CT; (ii) in such cases, the word order within each conjunct is regulated by a combination of independent, language-specific restrictions, and a subset of principles proposed in Büring (2003; to appear).

BACKGROUND Jackendoff (1972) uses question-answer pairs to demonstrate how the form of the question can influence the form of the answer. As far as the phonetic realisation of the answer is concerned, he distinguishes between an A-accent and a B-accent. The former is realised with a fall accent and the latter with a fall-rise accent (p.261). Büring (2003) refers to any constituent realised with the A-accent as F, and to any constituent realised with the B-accent as CT. Depending on their interpretation, deaccented elements in the data set below are referred to as either T or G.

FINDINGS Considering basic question-answer pairs in Czech reveals that the order of constituents in the answer is regulated by the rule in (2). In principle, a (partial) answer to the question in (3) that comprises CT could have one of the following two constituent orders: SVO, OVS. If the order is SVO, S is interpreted as CT, V as G, and O as F. If the order is OVS, O is interpreted CT, V as G, and S as F. The sentences in (4) and (5) can both be used in reply to the question in (3). As far as coordination is concerned, the two conjuncts may (see (4)) or may not (see (5)) have an identical order of constituents. As far as semantics is concerned, each conjunct counts as a partial answer to the question in (3). According to Büring (to appear), the presence of CT in a clause indicates the presence of an alternative question. However, Büring's proposal does not force the answer to such a question to comprise CT. One prediction that follows from this is that it should be possible to coordinate a clause that comprises CT with a clause that does not comprise CT. A partial answer to the question in (3) can have an OSV order. Since V must be interpreted as G, either S or O might be interpreted as F. If S is interpreted as F, the sentence is severely degraded, regardless of whether O is interpreted as T or CT. If O is interpreted as F, S might be interpreted as T. However, the rule in (2) prevents it from being interpreted as CT. The structure in (6) satisfies all the necessary requirements on the use of CT in the second conjunct, yet it is ill-formed. I would like to argue that the presence of CT in between the conjunction *a* and the subordinating conjunction *že* forces the presence of CT in the first conjunct. If it did not, then it should be plausible to interpret *Petr* as T, *snědl* as G and *fazole* as F.

EVIDENCE It is also plausible for the CT-marked constituent in the second conjunct to follow *že*. If it is true that topicalisation has an interpretive effect, then the effect should be absent in the absence of topicalisation. The sentence in (7) shows that, when CT in the second conjunct is realised below *že*, the first conjunct need not contain CT. It is worth noting that the semantics of the complementiser *že* is not responsible for the interpretive effect mentioned above. The phenomenon can also be found in parallel constructions containing other complementisers (e.g., *aby*). The generalisation is that, when CT precedes the complementiser in the second conjunct, the first conjunct has to contain CT. Given this, the aforementioned movement operation should not be allowed in the absence of the first conjunct (cf. stripping), for there would be no second CT. The ungrammaticality of the sentence in (8), compared to the grammaticality of the sentence in (9), suggests that the above analysis is indeed correct.



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(2) CT-PRECEDENCE

When a constituent interpreted as CT and a constituent interpreted as F occur within the same clause, the constituent interpreted as CT must linearly precede the constituent interpreted as F.

- (3) Kdo co snědl?
 who.NOM what.ACC eat.PST
 Who ate what?

- (4) Jakub řekl, že [Petr]_{CT} [snědl]_G [fazole]_F, a [Marie]_{CT} že
 Jacob.NOM say.PST že Peter.NOM eat.PST beans.ACC and Mary.NOM že
 [snědla]_G [špenát]_F. [[SVO]&[SVO]]
 eat.PST spinach.ACC
 Jacob said that Peter ate the beans, and that Mary ate the spinach.

- (5) Jakub řekl, že [fazole]_{CT} [snědl]_G [Petr]_F, a [Marie]_{CT} že
 Jacob.NOM say.PST že beans.ACC eat.PST Peter.NOM and Mary.NOM že
 [snědla]_G [špenát]_F. [[OVS]&[SVO]]
 eat.PST spinach.ACC
 Jacob said that the beans were eaten by Peter, and that Mary ate the spinach.

- (6) ??Jakub řekl, že [fazole]_{CT} [Petr]_F [snědl]_G, a [Marie]_{CT} že
 Jacob.NOM say.PST že beans.ACC Peter.NOM eat.PST and Mary.NOM že
 [snědla]_G [špenát]_F. [[OSV]&[SVO]]
 eat.PST spinach.ACC
 Jacob said that the beans were eaten by Peter, and that Mary ate the spinach.

- (7) (?)Jakub řekl, že [fazole]_F [Petr]_T [snědl]_G, a že [Marie]_{CT}
 Jacob.NOM say.PST že beans.ACC Peter.NOM eat.PST and že Mary.NOM
 [snědla]_G [špenát]_F. [[OSV]&[SVO]]
 eat.PST spinach.ACC
 Jacob said that the beans were eaten by Peter, and that Mary ate the spinach.

- (8) *Jakub řekl, [Petr]_{CT} že [snědl]_G [fazole]_F. [SVO]
 Jacob.NOM say.PST Peter.NOM že eat.PST beans.ACC
 Jacob said that Peter ate the beans.

- (9) Jakub řekl, že [Petr]_{CT} [snědl]_G [fazole]_F. [SVO]
 Jacob.NOM say.PST že Peter.NOM eat.PST beans.ACC
 Jacob said that Peter ate the beans.

Note: T = Topic; CT = Contrastive Topic; F = Focus; G = Given; S = Subject; V = Verb; O = Object.

Deriving the Nominal Stress in Ukrainian

The stress system of Ukrainian is characterized by lexical stress, meaning that Ukrainian morphemes are inherently (lexically) accented. The distinctive features of Ukrainian stress have been noted in the literature (Stankiewicz 1993). While there are plenty of descriptive studies (e.g. Vynnyts'kyj 2002), the generative analyses of Ukrainian stress are few (Butska 2002, Yanovich and Steriade 2010, 2011). They do not account for all the major nominal patterns in terms of metrical representations.

Here I propose a comprehensive analysis of Ukrainian nominal stress which, unlike mentioned accounts, includes bracketed grid representations as proposed by Idsardi (1992), Halle and Idsardi (1995). Idsardi (1992) argues that in Russian metrical parentheses are introduced lexically and are accomplished with the following Edge marking Parameters:

- (1) a. Line 0: Edge: RRR (Mark the edge placing a parenthesis on a Right boundary to the Right of the Right-most element), Head: L (Project the leftmost element in a constituent to Line 1)
- b. Line 1: Edge: LLL (Mark the edge placing a parenthesis on a Left boundary to the Left of the Left-most element), Head: L (Project the leftmost element in a constituent to Line 2)
- c. Conflation (Eliminate all but the main stress) (Idsardi 1992: 110)

These general edge parameters interact with the lexical Edge markings, which are inherent to both stems and suffixes:

- (2) a. unstressed stem (no Edge), e.g. /*golov-*/ in *golová* ‘head’
- b. post-stressing (Edge: LRR), e.g. /*gospož-*/ *gospožá* ‘lady’
- c. stressed (Edge: LLL, LRL, or LLR), e.g. Edge: LLR /*koróv-*/ in *koróva* ‘cow’

The difference between these types is visible in the inflectional paradigms where stems combine with suffixes that are also lexically marked for stress. Unstressed suffixes have no Edge, stressed suffixes have Edge LLR: e.g. Nom. sg. *-á* is supplied with a left parenthesis. Here is the derivation of Nom. sg.:

- (3) Nom. sg. *-á*, Edge LLR:

	a. Unstressed <i>golov-</i> ‘head’, No Edge: x x	b. Post-Stressing <i>gospož-</i> ‘lady’, Edge: LRR: x x(c. Stressed <i>koróv-</i> ‘cow’, Edge: LLR: x (x
Line 2	x	x	x
Line 1	(x	(x	(x x
Line 0	x x (x) golov+a	x x(x) gospož+a	x (x (x) korov +a

Unaccented stems pattern variably depending on the accent of the suffix: in (3a), only the last element is marked (suffix Edge LLR), it is then projected to Line 1 (Head L) and gets a parenthesis to the left (Edge: LLL). The result is the desired stress on the suffix: *golov-á*. In (3b), the post-stressing stem marking (Edge LRR) and suffix marking (LLR) result in the desired stress on the suffix: *gospož-á*. The stressed stem in (3c) retains its stress on the same syllable of the stem due to its Edge marking (LLR); when two elements are projected to Line 1 in (3c), the leftmost wins (Conflation and Head L): *koróv-a*.

I propose that Ukrainian features the same Edge marking parameters and Lexical Edge Markings as Idsardi proposes for Russian in (1) and (2). There are also unaccented, accented and post-accenting stems that are derived in the same way as in (3). However, there are stress patterns in Ukrainian that act differently in the singular and plural. One type acts like accented in the singular, but post-accenting in the plural; another acts like post-accenting in the singular, but accented in the plural; then there is a type where stress falls on different syllables of the stem in singular and plural. These types are very common in Ukrainian, and cannot be derived using the regular parameters. I call the stems belonging to these three types *shifting stems*.

To account for these types, I propose an original shifting rule that comes with several constraints: a) a parenthesis must be already present on the stem (no unaccented stems); b) a parenthesis must be at

the edge of the stem (no accented stems of type $x(x)$); c) a shifting parenthesis cannot lose contact with the stem (no shifting to the suffix).

(4) Shifting rule (restricted to shifting stems when a plural ending is present):

(a) Move a left parenthesis to the right edge of the stem: $(x\ x > x\ x($

(b) Move a left parenthesis one constituent to the right: $(x\ x > x\ (x$. If movement to the right is not available, move the left parenthesis one constituent to the left: $x\ x(> x\ (x$.

Shifting is also triggered by Vocative singular and for certain nouns by Locative singular $-u$.

Applying the Shifting rule will result in the following derivations (the suffixes are unaccented):

(5) *hólub* ‘pigeon’, Gen. sg. $-a$, Nom. pl. $-y$

	a. Gen. sg. <i>hóluba</i>	b. Nom.pl. <i>holubý</i>
Line 2	x	x
Line 1	(x	(x
Shifting (a)	--	x x(x)
Line 0	(x x x)	(x x x)
	holub+a	holub+y

In (5b) the Shifting rule, as defined in (4a), applies in Plural at Line 0: it moves the left parenthesis to the right and the result is the desired Nom.pl. form *holubý*.

(6) *kóles-o* ‘wheel’, Gen. sg. $-a$, Nom. pl. $-a$

	a. Gen. sg. <i>kólesa</i>	b. Nom.pl. <i>kolésa</i>
Line 2	x	x
Line 1	(x	(x
Shifting (b)	--	x (x x)
Line 0	(x x x)	(x x x)
	koles+a	koles+a

In (6b) the Shifting rule, as in (4b), applies in Plural and moves the left parenthesis one constituent to the right at Line 0, which results in the desired Nom.pl. form *kolésa*.

(7) *pomel-ó* ‘broom’, Gen. sg. $-a$, Nom. pl. $-a$

	a. Gen. sg. <i>pomelá</i>	b. Nom.pl. <i>poméla</i>
Line 2	x	x
Line 1	(x	(x
Shifting (b)	--	x (x x)
Line 0	x x(x)	x x(x)
	pomel+a	pomel+a

In (7b) the left parenthesis is already at the right edge of the stem and no movement to the left is available. The Shifting rule, as in (4b), applies in Plural at Line 0 and moves a parenthesis one constituent to the left, which results in the desired form *poméla*.

Combining the Idsardian analysis of Russian with the newly introduced Shifting rule accounts for all possible stress patterns of Ukrainian underived nouns. This shows us the advantage of using the single-bracket metrical theory for analyzing lexical stress. It also allows us to shed light on the historical development of Ukrainian and generally East Slavic stress systems.

Selected references: Butska 2002 *Faithful Stress in Paradigms: Nominal Inflection in Ukrainian and Russian*, Rutgers. Idsardi 1992 *The Computation of Prosody*, Ph.D. thesis, MIT. Halle & Idsardi 1995 “General Properties of Stress and Metrical Structure”. In J. Goldsmith (ed.), *A Handbook of Phonological Theory*. 403 – 443. Vynnyts’kyj 2002 *Ukrains’ka aktsentna systema: Stanovlennia, rozvytok*. L’viv. Yanovich & Steriade 2011 *Inflection dependence in the nominal accentuation of East Slavic: evidence from Ukrainian and Russian*. Handout. FASL 2011.

Phase-by-phase computation of prominence in ellipsis and PP stranding island alleviations

This paper proposes that an account of PP-stranding in ellipsis in non-PP-stranding languages needs to take into account how prominence via Focus/Contrast is computed. The proposal here is that prominence is computed on a phase-by-phase basis (Selkirk and Kratzer 2007). Cases of PP-stranding in Polish will be argued to be instances of non-constituent ellipsis (Bruening 2015), but with one remnant. PP-stranding is possible when there is a smaller phase than the PP where prominence can be established. This is the case when the remnant of sluicing is a D-linked wh-phrase (but not a simple wh-phrase). When prominence needs to be computed in more than one phase within the domain of ellipsis, as is the case when there are multiple remnants, then one of the remnants needs to move or be an adjunct. In either case PP-stranding becomes impossible as is shown in non-constituent ellipsis, multiple wh-movement ellipsis, and in sprouting.

Data. Szczegielniak (2008), Rodrigues, et.al. (2008) show that, in languages that lack PP-stranding, D-linked sluice remnants can appear without the PP, but are marked for appropriate case. In (1) we see a wh sluice remnant marked for locative; when the structure is pronounced with material in italics the sentence is unacceptable (curly italics = deleted)

1. Jola zagrała w jakimś teatrze, ale nie wiem którym₁ *{*Jola zagrała w t₁ teatrze*}
Jola played in some theatre, but not know which (loc) Jola played in theatre
'Jola played in some theater, but I do not know which theater she played in'

Contrasts between pronouncing string in 1, with or without expression in italics, have been argued to suggest that the underlying structure of the sluice in (1) is a cleft construction that has additional wh-movement. However, based on acceptability surveys, Nykiel (2013) has argued that such clefts are as ungrammatical as wh-movement stranding a PP. Additional evidence that a cleft cannot be the underlying structure of (1) involves cases where the whole d-linked phrase is a remnant. In (2) the full cleft structure, from Szczegielniak (2008), is ungrammatical, yet it becomes fine if the italicized string is dropped.

2. Jola zagrała w jakimś teatrze, ale nie wiem którym teatrze₁ *{*to w t₁ Jola zagrała*}
Jola played in some theatre, but not know which theater (loc) it in Jola played
'Jola played in some theater, but I do not know which theater she played in'

Proposal. I will argue that PP-stranding in sluicing is an instance of phase-by-phase ellipsis that targets non-constituents and leaves pronounced the most prominent XP within a given phase (Selkirk and Kratzer 2007). Non-constituent ellipsis has been argued for cases of coordinate ellipsis as in (4) (Wilder 1997, Hofmeister 2010, Bruening 2015)

3. Jan zadzwonił do Marii we wtorek i {*Jan zadzwonił*} do Joli w piątek
Jan called to Maria on Tuesday and *Jan called* to Jola on Friday.
'Jan called Mary on Tuesday and Jola on Friday'

We can derive non-constituent ellipsis by assuming that at each phase level the most prominent XP can be treated as focused and become a remnant, provided the structure overall fulfills required syntactic and semantic constraints on ellipsis (see: Chung 2013). This allows us to delete the CP in (3) sparing, however, the PP complement embedded in vP phase as well as the PP adjunct, provided both are evaluated as prominent via focus contrast marking within the vP phase.

In order to account for PP-stranding in (1), let me assume phase-by-phase ellipsis and that complex nominals like: *which theater*, as well as any PP, are phases (Boskovic 2014). Marking prominence within the nominal phase containing a D-linked wh-phrase gives us two options: (i) mark as most prominent just the wh (which theater), or (ii) mark as most prominent the whole nominal (which theater). This translates into the possibility of having two types of remnants: a bare wh- (*którym*) as in (2), or the wh plus NP (*którym teatrze*) as in (3). Not marking prominence within the nominal phase but within PP phase gives us PP remnants containing the wh-expression as a whole (*w którym teatrze* = 'in which theater'). The latter non-PP-stranding derivation is the only option for remnants that are simple wh-expressions, since simple wh-words lack the status of a phase. This is why a simple wh like: *кто* 'who', cannot be remnant without the P it is a complement of (Szczegielniak 2008).

4. Jola podeszła do kogoś ale nie wiem *(do) kogo
 Jola approached to someone but not know to who
 'Jola approached someone but I do not know who'

Predictions. PP-stranding in ellipsis is impossible in cases when there is more than remnant, since prominence of two remnants has to be computed at a phase where both are present. Hence, multiple wh-slucing does not allow PP-stranding (Szczegielniak 2008), even with D-linked wh's.

5. Jan napisał jakiś list do jakiegoś ucznia ale nie wiem który *(do) którego
 Jan wrote some letter to some student but not know which (to) which
 '*Jan wrote some letter to some student but I do know which to which (student)'

PP-stranding is also impossible in structures like (5), where omission of a PP is out even if we make the nominal complex:

6. Jan wbiegł do dużego banku we wtorek i {Jan wbiegł} *(do) małego banku w piątek
 Jan ran into big bank on Tuesday and Jan ran into small bank on Friday.
 'Jan ran into a big bank on Tuesday and into a small one on Friday'

Note that the same observation applies to English counterparts of (4) indicating that, as argued in Bruening (2015), movement does not play a role in non-constituent ellipsis.

Sprouting also does not allow PP-stranding, indicating that prominence has to be evaluated at the level of the whole adjunct, not within the adjunct itself.

7. Jola zasnęła w jakimś teatrze, ale nie wiem *(w) którym
 Jola slept in some theatre, but not know (in) which (loc)
 'Jola slept in some theater, but I do not know which'

Finally, vP ellipsis does not allow PP-stranding since the PP remnants need to be marked as prominent at the vP level, there is no option of marking the just complement of the PP as prominent since the PP itself needs to be marked as prominent at the vP level.

8. W domu będzie nam ciepło ale *(w) lesie nie będzie
 in house is us(dat) warm but in forest not is
 'It will be warm for us in the house but not in the forest.'

Conclusion. This paper argues that PP-stranding in ellipsis in non-PP-stranding languages is, in essence, a case of non-constituent ellipsis. However, unlike NCE in (3), PP-stranding ellipsis has just one remnant. Availability of PP stranding violations in Polish ellipsis provides insight into how prominence is computed phase by phase, and how prominence later factors in establishing the types of remnants possible in ellipsis.

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Rich Agreement and Dropping Patterns: *pro*-Drop, AGR-Drop, No Drop

With cross-linguistic evidence for the strong correlation between so-called rich agreement and *pro*-drop accumulating, analyses of *pro*-drop aiming to derive what has been conceived of as the effects of the Avoid Pronoun Principle (Chomsky 1981: 65) within the syntactic component have been developed (following some early suggestions in Chomsky 1982, e.g. Fernández Soriano 1989 within GB, Roberts 2010 within minimalism). This contribution investigates the options of the realisation of the ϕ -features of the subject in standard Polish (henceforth Polish), Kashubian, and Silesian, with the aim of clarifying the nature of the correlation between the (lack of the) overt realisation of a subject pronoun and rich agreement. I will show, contra what is usually suggested in the literature, that rich agreement does not enforce *pro*-drop and that in addition to the cross-linguistically widely attested subject drop, a rich-agreement system can manifest verbal-agreement- ϕ drop, accompanied with an overt subject. I then develop an analysis of the latter pattern.

1. Empirical contribution In the past tense, the so-called *l*-participle form of the lexical verb, agreeing with the subject in gender and number, is used in all three systems discussed here. The expression of the person and number features of the subject is the point of variation between the three systems which is of greatest interest from the current perspective. The patterns of the expression of subject ϕ attested in Polish, Kashubian, and Silesian can be summarised as follows (ϕ here refers to person and number): (i) *pro*-drop & ϕ reflected in verbal morphology (Polish, Silesian); (ii) overt pronoun & ϕ reflected in verbal morphology (Kashubian, Silesian); (iii) overt pronoun & verbal ϕ dropped (Kashubian, Silesian). To illustrate, according to Breza (2004-2007), the following two patterns are attested in the Kashubian past tense throughout the person/number/gender distinctions (in addition to the archaic form employing the auxiliary *běc* ‘be’):

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| <p>(1) <i>pronoun + l-participle, no person/number marker (recent, widespread)</i>
 jô robił/ robiła
 I did-SG.M did-SG.F
 ‘I did’</p> | <p>(2) <i>pronoun + dummy że with the person/number marker + l-participle (South dialects)</i>
 jô że-m szedł/ szła
 I ŻE-1SG walked-SG.M walked-SG.F
 ‘I walked’</p> | <p>[Kashubian]</p> | <p>[Kashubian]</p> |
|--|---|--------------------|--------------------|

Of the three systems, only Polish is a typical null-subject language, using overt subject pronouns only in information-structurally marked environments. Subjects are not omitted in Kashubian at all (Cybulski & Wosiak-Śliwa 2004-2007; Nomachi 2014). Silesian shows a mixed pattern, with the determining factor being the person and number feature of the subject (as revealed by a judgment collection and a study of naturally occurring data; cf. also Tambor 2006). This shows that rich agreement does not enforce null subjects (see (2)). As illustrated in (3) from Karaś (2010), pattern (iii) and (i) can be found in a single sentence:

- (3) **jo** tam **zaczynoł** ty swoja robota, bo [...] jako młody synek po Politechnice Ślunskij
 I there started-SG.M this self’s job because as young guy after polytechnic Silesian
ze-ch przyszedł do swojij roboty, bo **ze-ch** sie nie **wyobrażoł** [...]
 ZE-1SG came-SG.M to self’s job because ZE-1SG self_{DAT} not imagined-SG.M
 ‘I started working there, because [...] as a young graduate of the Silesian University of Technology I came to work there, because I didn’t imagine [...]’ [Silesian]

Examples such as (3), where a single speaker produces different patterns with the same person (i.e. a pronoun accompanied with verbal- ϕ drop and *pro*-drop with overt verbal ϕ) show that the verbal- ϕ marker is indeed dropped rather than being absent from the morphological inventory of the speaker’s grammar.

If null subjects are deleted pronouns (see Perlmutter 1971, Holmberg 2005), the patterns in (i)-(iii) can be divided based on whether deletion applies and if so, whether the deleted element is the pronoun or the agreement ϕ marker. In the remaining part of this contribution, I focus on the discussion of the latter pattern.

2. AGR-drop: proposal Pattern (iii) is reverse to what is usually observed cross-linguistically. Here, just like in *pro*-drop languages, the person feature of the subject is realised overtly only once, but it is the

subject pronoun which is overt rather than the person/number agreement marker. The dropping of verbal ϕ /AGR in Kashubian and Silesian is possible due to the nature of the person/number inflection in the past tense in these systems (it does not apply in the present/future). More specifically, the person/number marker is a clitic, autonomous from the verb (this is also true of Polish, see Embick 1995 and Migdalski 2006 and the references cited therein). The marker appears attached either to the verb or to the pleonastic element *ze* (or a different pre-verbal constituent). Attaching the marker to lexical V is possible in Polish and Silesian (e.g. $\text{pro}_{1\text{SG},\text{M}}$ *szedł-em* ‘I walked-M.SG-1SG’ [Polish]; $\text{pro}_{1\text{SG},\text{M}}$ *szedł-ech* ‘I walked-M.SG-1SG’ [Silesian]) and attaching it to a non-V host is possible in all three systems (e.g. $\text{pro}_{1\text{SG},\text{M}}$ *ze-m szedł* ‘I ZE-1SG walked-M.SG’ [Polish]; *jô ze-m szedł* ‘I ZE-1SG walked-M.SG’ [Kashubian]; (*jo*) *ze-ch szedł* ‘I ZE-1SG walked-SG.M’ [Silesian]). Unlike in Polish, where the pattern in which the person/number marker is attached to the verb is prevalent, in Silesian the variant in which the marker is attached to a different host is more common and it is the only option possible when verbal ϕ is overt in Kashubian. There thus seems to be a correlation between the preference for the realisation of ϕ on a host different than the verb and the availability of verbal- ϕ drop.

I suggest that AGR-drop arises as a result of the impoverishment of the content of T, an impoverishment operation being able to capture the fact that whether ϕ drop is possible is dependent on the value of the [Tense] feature in T (and, in Silesian, also on the values of the ϕ -features in T). I thus take verbal- ϕ drop in Kashubian (e.g. (1) above) and Silesian (found in some variants of 1SG (e.g. (3)) and always with 1PL) to result from the application of the following impoverishment rules:

- (4) *Impoverishment rule for T in Kashubian:* $\{[\text{Person}:\alpha],[\text{Number}:\beta]\} \rightarrow \{\emptyset\}/__\text{T}_{\{[\text{Tense}:\text{Past}]\}}$
 (5) *Impoverishment rules for T in Silesian:*
 a. 1SG (optional): $\{[\text{Person}:\alpha],[\text{Number}:\beta]\} \rightarrow \{\emptyset\}/__\text{T}_{\{[\text{Tense}:\text{Past}],\{[\text{Person}:1],[\text{Number}:\text{SG}]\}\}}$
 b. 1PL (obligatory): $\{[\text{Person}:\alpha],[\text{Number}:\beta]\} \rightarrow \{\emptyset\}/__\text{T}_{\{[\text{Tense}:\text{Past}],\{[\text{Person}:1],[\text{Number}:\text{PL}]\}\}}$

The rules in (4)-(5) derive the verbal- ϕ -drop pattern, raising at the same time the question about the way in which they interact with the deletion of the subject pronoun in Silesian, where *pro*-drop is not completely blocked, unlike in Kashubian. On the current proposal, there is no formal relation between the deletion of the pronoun and the application of the impoverishment rules. Yet, a first person structure to which both *pro*-drop and impoverishment would apply would be indistinguishable from third person and the first person feature could not be identified on the basis of any overt element: *my szli* ‘we walked-PL.M’; *my szli* ‘we walked-PL.M’ [hypothetical]; *pro_{3PL,M} szli* ‘they walked-PL.M’. Parallel facts hold of first person singular. Hence, the application of both pronoun deletion and impoverishment would disobey the principle of deletion up to recoverability, which is why the two operations do not apply to the same structure.

3. Consequences for *pro*-drop In addition to clarifying the relation between the Avoid Pronoun Principle (and its more recent syntactic implementations) and *pro*-drop and showing that theories of the latter aiming to enforce the former undergenerate, the data presented here have shown that given a choice between pronoun and verbal- ϕ drop, a language can manifest the latter, so long as the application of an impoverishment rule to the features of T does not affect the morphological realisation of the lexical verb. The fact that either pronoun deletion or impoverishment can apply, but not both, can be taken to follow from the principle of deletion up to recoverability. The important question about the nature of this principle remains to be explored.

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THE TWO FACES OF RUSSIAN *DOLŽEN*

1. Introduction. The relation between evidentiality and epistemic modality is complex. In one line of research, for instance, evidentiality is regarded as a part of epistemic modality (Bybee 1985; Palmer 1986; van der Auwera and Plungian 1998). Rooted in this tradition, evidential markers are often attributed the semantics of (necessity) epistemic modals (Bulgarian, Izvorski 1997; Standard Tibetan, Garrett 2001; Japanese, McCready and Ogata 2007; St’át’imcets, Matthewson et al. 2008; Korean, Lee 2013). Epistemics themselves, on the other hand, have been claimed to impose evidential requirements. English *must*, for example, carries an indirect inference presupposition (von Stechow and Gillies 2010). However, when we compare it with its Dutch cognate *moeten*, we can immediately note that *must* lacks “purely evidential” readings which Dutch possesses. *Moeten* only signals that the argument proposition was acquired indirectly, rather than commits the speaker to it (see de Haan 2000, a.o.) while for *must* commitment is mandatory. Here, we describe two related Russian constructions that together constitute yet another datapoint in the typology of the epistemic-evidential overlap.

2. Two *dolžen* constructions. We report two Russian constructions in the “epistemicity+evidentiality” domain. Both feature predicative adjective *dolžen* (≈‘must’), and are transparently related to each other. One is the modal construction where *dolžen* appears with a finite auxiliary, agrees in gender and number with the subject, and takes an infinitive complement, (1a). The other functions as a clause-level adverbial, consisting of the impersonal-agreement form of *dolžen* and the infinitive of *bytj* ‘to be’, (1b).

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| (1) a. Na ulice dolžen idti doždj.
on street DOLŽEN GO.INF rain
‘It <i>dolžen</i> [=must] be raining outside.’
‘It must be raining outside.’ | b. Na ulice, dolžno bytj , idet doždj.
on street DOLŽEN be.INF goes rain
‘ <i>Dolžno bytj</i> , it is raining outside.’
‘It must be raining outside.’ |
|--|---|

At first glance, both (1a) and (1b) have identical English translations. We show that the two constructions are far from equivalent: they are associated with different evidential restrictions and also differ in strength.

3. Different evidential restrictions. *Dolžen* and *dolžno bytj* have different semantics vis-a-vis evidential restrictions (see e.g. Willet 1988 on various oppositions expressed by grammatical evidentials across languages). Both are out in direct-perception scenarios, which is also the case with *must* (von Stechow and Gillies 2010). But in indirect contexts *dolžen* and *dolžno bytj* are in complementary distribution. In inference scenarios, *dolžno bytj* is OK, but *dolžen* is out. In hearsay-type and conclusion-type scenarios, an opposite pattern holds: *dolžen* is OK, while *dolžno bytj* is ruled out, (4), (5).

- (2) **Direct perception scenario:** Looking out the window, I see it’s raining out there. I say 1a or 1b.
Direct perception judgements: * 1a (*dolžen*), * 1b (*dolžno bytj*)
- (3) **Inference scenario:** I see people entering the building with wet umbrellas. I say (1a) or (1b).
Inference judgements: * 1a (*dolžen*), ^{OK} 1b (*dolžno bytj*)
We provide an example with inference from visual cues; the same holds of auditory, gustatory and olfactory channels as well.
- (4) **Hearsay scenario:** I say (1a) or (1b), and follow it up with the following justification:
Mne ob etom skazala Maša
to.me about that said Masha
‘Masha told me about that.’
Hearsay judgements: ^{OK} 1a (*dolžen*), * 1b (*dolžno bytj*)
- (5) **Conclusion scenario:** Anja usually spends her Christmas vacation in Istanbul. This year, I have not heard from her in a while, so strictly speaking, I do not know her plans. It’s Christmas now.

- a. ^{OK} Anja **dolžna** bytj v Stambule.
Anja DOLŽEN be.INF in Istanbul
'Anja *dolžen* be in Istanbul'
- b. * Anja, **dolžno bytj**, v Stambule.
Anja DOLŽEN be.INF in Istanbul
'Anja, *dolžno bytj*, is in Istanbul'

Conclusion judgements: ^{OK} 5a (*dolžen*), * 5b (*dolžno bytj*)

(6) Summary

	<i>dolžen</i>	<i>dolžno bytj</i>
direct perception, (2)	*	*
inference, (3)	*	OK
hearsay, (4)	OK	*
conclusion, (5)	OK	*

4. Different strength. There exist scenarios where both (epistemic) *dolžen* and *dolžno bytj* are acceptable, such as (7). (We remain agnostic whether in such cases the two constructions are true alternatives, or imply different conceptualizations of the inference process.) These scenarios allow us to pin down a second difference in the behavior of the two constructions: their different strength. Speakers report that in (7) and similar examples, *dolžen* sounds like a stronger statement, with greater degree of conviction. And a statement with *dolžno bytj* may be sometimes described as a “guess”. Presence of the strength contrast is confirmed by the fact that only *dolžen* is compatible with the lead “Now we know for sure where Petja is”, (8).

- (7) **Reasoning-from-facts scenario:** We’ve been discussing Petja’s whereabouts, mentioning different facts bearing on the subject, like where he was last seen by any of us, what he said about his plans, etc. At some moment, I conclude that he must be in Paris, and express that with (7a) or (7b).

- a. ^{OK} Petja **dolžen** bytj v Pariže.
Petja DOLŽEN be.INF in Paris
'Petja must be in Paris'
- b. ^{OK} Petja, **dolžno bytj**, v Pariže.
Petja DOLŽEN be.INF in Paris
'Petja must be in Paris'

- (8) Teperj my točno znaem, gde Petja.
now we for.sure know where Petja
'Now we know for sure where Petja is.'

Judgements for continuation: ^{OK} 7a (*dolžen*), * 7b (*dolžno bytj*)

5. Conclusion. We have shown that Russian has two different “epistemic/evidential” constructions based on the same modal adjective *dolžen*. Despite featuring the same root, the two constructions have different semantics. They are associated with different evidential restrictions: *dolžen* is fine in hearsay and conclusion scenarios, while *dolžno bytj* is fine in scenarios with perception-based inference. In some cases, both constructions are out, as in direct-perception scenarios. In others, both are in, as in (7). But when both constructions are OK, we show that only *dolžen* is compatible with absolute conviction on the part of the speaker, so the two constructions differ with respect to strength.

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