



NOVI SAD LINGUISTIC COLLOQUIUM 6

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Department of English

Faculty of Philosophy, University Novi Sad

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BOOK OF ABSTRACTS

Organizing Commitee

Tanja Milićev (Department of English, University of Novi Sad)

Maja Marković (Department of English, University of Novi Sad)

CONFERENCE PROGRAM

10:00 - 10:30	Predrag Kovačević (University of Novi Sad): Serbo-Croatian complementizer DA as an accusative case marker						
10:30 - 11:00	Nina Ilić Matijević (University of Novi Sad): Wh-word <i>koliko</i> 'how much/how many' fronting						
11:00-11:30	Anja Šarić (University of Frankfurt am Main): Morpho-syntax of nominalizations: licensing and case						
11:30-12:00	Coffee Break						
12:00 - 12:30	Aleksandra Mirković (University of Novi Sad): Covert modality in Serbian						
12:30 - 13:00	Neda Todorović (Utrecht Institute of Linguistics) Atypical interpretations of temporal forms in Serbian						
13:30 - 14:00	Srđan Popov (University of Groningen): ERP language-related components: The case of gender (agreement) processing						
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	The No-Reference Hypothesis: Syntax-phonology mapping in a fully modular system						
15:30 - 16:00	Livia Sági (University of Novi Sad): Acquisition of word order in Hungarian and the information status of arguments						
16:00 - 16:30	Aleksandar Živanović(University of Novi Sad): Focus in Serbian: Empirical evidence						
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17:00 - 17:30	Aniko Kovač (Saarland University): An RNN-based declination generator for Serbian						
17:30 - 18:00	Mirjana Sekicki & MariaStaudte (Saarland University): Cognitive load in the visual world: The facilitatory effect of gaze						
18:00 – 18:30	Lela Ivaz (Basque Center on Cognition, Brain and Language), Albert Costa (Center of Brain and Cognition, Universitat Pompeu Fabra/ Institució Catalana de Recerca i Estudis Avançats) & Jon Andoni Duñabeitia (Basque Center on Cognition, Brain and Language): Won't get fooled again? Lie perception in native and non-native languages						

Wh-word koliko 'how much/how many' fronting

Nina Ilić Matijević (University of Novi Sad)

Whereas multiple wh-fronting on the clausal level has long been noted (Rudin, 1988; Bošković, 1997, 1998; Horváth, 1998; Stjepanović, 1998), multiple wh-fronting on the NP/DP level has gained interest recently (Mišmaš, 2014). This paper looks into the nature of the wh-word *koliko* 'how much/how many' fronting, focusing on its movement within an NP/DP, in order to get a better understanding of the nature of wh-movement and the structure of the Serbian NP/DP. Even though Serbian is a multiple wh-fronting language (Rudin 1988; Bošković 1997, 1998; Stjepanović 1998), multiple wh-fronting in a DP/NP is not always allowed (1b). Mišmaš (2014) proposes that wh-words move to the SpecDP because of the definiteness feature. Once this feature is checked, no other wh-word is allowed to move to this position. However, having more than one wh-word at the left edge of a DP/NP is allowed provided that the highest wh-word is *koliko* 'how much/many' (2, 3). This combination is also attested in Slovenian (Mišmaš 2014).

- 1) a Marijin beli telefon je ukraden Marija-Poss-Nom white-Nom phone-Nom be-3sg.stolen-3sg.part. 'Maria's white phone has been stolen'
 - b *Čiji koji/ *Koji čiji telefon je ukraden?
 - ' whose-Nom which-Nom/ which-Nom whose-Nom phone-Nom be-3sg. stolen-3sg.part. *Whose which/*Which whose phone has been stolen?'
- Koliko kojih telefona je ukradeno?
 how many which-Gen phones-Gen be-3sg. stolen-3sg.part.
 'How many of which phones have been stolen?'
- 3) ?*Kojih koliko telefona je ukradeno?
 which-Gen how many phones-Gen be-3sg. stolen-3sg.part.
 *Which how many phones have been stolen?'

Mišmaš (2014) argues that *koliko* 'how much/many' can be fronted because it does not carry a definiteness feature. On her analysis, the wh-word *koliko* 'how much/many' would have to be above DP, which is contra Stanković's (2014, 2015) account of the Serbian DP. Following Caruso's model of split DP (2012), Stanković argues that cardinal numbers are placed in CardP, which can take a lower or a higher position than DP. When CardP is lower than DP, the phrase is definite; when it is higher, the phrase is indefinite. This model can be used to explain the ungrammaticality given in (3). Since the information about the number of phones is new in the discourse, only the indefinite reading is available.

Selected references:

- Mišmaš, P. (2014). An Argument for Wh-fronting in the Slovenian DP. In L. Veselovská and M. Janebová (eds.), *Nominal Structures: All in Complex DPs* (pp. 175–186). Olomouc: Palacky University.
- Stanković, B. (2014). Arguments for a DP Analysis of Serbo-Croatian Nominal Expressions. In L. Veselovská and M. Janebová (eds.), *Nominal Structures: All in Complex DPs* (pp. 29-48). Olomouc: Palacky University.

Won't get fooled again? Lie perception in native and non-native languages Lela Ivaz¹, Albert Costa^{2,3} & Jon Andoni Duñabeitia¹ (¹Basque Center on Cognition, Brain and Language, Donostia, Spain, ²Center of Brain and Cognition, Universitat Pompeu Fabra, Barcelona, Spain, ³ICREA, Institució Catalana de Recerca i Estudis Avançats, Barcelona, Spain)

Lies are an everyday occurrence in our society, yet we are notoriously bad at recognizing them. Lie detection is a complex task with typically low accuracy rates (e.g., Bond & DePaulo, 2006) and generally governed by different heuristics. The most common heuristic is the truth bias - perceivers' belief that most statements are truthful (e.g., Vrij & Baxter, 1999). In the current study we explored how perceivers' lie detection performance (Duñabeitia & Costa, 2015) and the truth bias are modulated when individuals perceiving and producing lies are native or non-native speakers of the language. Native and non-native participants listened to auditory statements (produced by native and non-native speakers) and judged them for their truthfulness. Native-speaking perceivers of non-native speakers' statements showed the poorest lie detection performance. Results also showed a significant truth bias of similar magnitudes across all groups. These findings speak to the universality of some mechanisms that govern lie detection, while also highlighting important differences as a function of nativeness.

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An RNN-based declination generator for Serbian Aniko Kovač (Sarlaand University)

The aim of this project was to develop a model of declination generation for Serbian capable of automatically generating the full paradigm – plural and singular forms in 7 cases – of Serbian nouns belonging to either of the 4 declensional classes, and being of feminine, masculine, or neuter grammatical gender. State-of-the-art approaches to declination generation rely on either hand-crafted finite-state transducers or machine learning models based on string or character transduction (Faruqui et al., 2016). While the former carry limitations such as having a long developmental process resulting in a complex but fragile system limited to one language, the latter have been successfully applied on a number of languages simultaneously (c.f. Sutskever et al., 2014 for English and French; Faruqui et al., 2016 for German, Spanish, Finnish, Dutch, and French). Developing a machine learning model for Serbian carries the challenge of a highly flective language with a limited availability of (annotated) lexical resources. Because of this, this project shows a neural network-based architecture trainable on a small dataset of annotated word-form base-form pairs supplemented by raw unannotated data. Two variants of the model are presented a) a modified version of Karpathy's (2016) Char-RNN with prediction correction by interpolation from the neural network built on the annotated lexicon, and b) a modified version of Faruqui et al.'s (2016) encoder-decoder model in which the output LSTM is replaced by a declinator LSTM interpolated by Karpathy's Char-RNN.

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Faruqui, M., Tsvetkov, Y., Neubig, G., and Dyer C. (2016). Morphological Inflection Generation Using Character Sequence to Sequence Learning. In *Proceedings of the 2016 Conference of the North American Chapter of the Association for Computational Linguistics: Human Language Technologies* (pp. 634-643). San Diego, CA: Association for Computational Linguistics. Retrieved from https://arxiv.org/pdf/1512.06110v3.pdf.

Karpathy, A. (2016). *Char-RNN* (commit 6f9487a) [Source code]. Retrieved from <u>https://github.com/karpathy/char-rnn</u>.

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Serbo-Croatian complementizer DA as an accusative case marker

Peđa Kovačević (University of Novi Sad)

In this talk, I will try to apply a general approach to verbal argumenthood developed in Kovačević (2014) to the issue of clausal complements. This approach assumes (i) that there is no DP in Serbo-Croatian (SC) (Bošković 2008, a.o) and (ii) that case suffixes are morpholigically realized Theta Role signals present on nouns as they enter the derivation. However, it runs into difficulties with respect to clausal arguments because they do not carry case suffixes essential for Theta Role assignment. A possible way to solve this problem would be to assume that the SC complementizer DA is in fact an accusative case marker.

To account for DA as an accusative marker is plausible, I will rely on Pesetsky and Torrego's (2004) Tense and Case Identity thesis. On their view, T^o always moves to C^o to check a strong uT feature. Crucially, this uT feature can also be checked by a nominative subject moving to Spec CP explaining the optionality of the complementizer *that* in such constructions, suggesting that nominative case and tense are actually the same entities.

DA complementizer in SC points to a structural link between the vP domain, T domain and C domain as it can appear in three different positions (Todorović and Wurmbrand 2015). One can, thus, assume that like English *that*, SC DA moves to C. Crucially, unlike English *that* which originates in T, DA actually originates in v (Todorović and Wurmbrand 2015). As v is associated with the accusative, accusative case marking on DA is a logical possibility.

(1) and (2) illustrate the empirical advantages of this approach. (1) shows that in SC, unlike in English, there is no *that* trace effect. This makes sense if the nominative marked *wh* element is capable of checking the uT feature in English but not in SC. (2) shows that in SC infinitives can freely function as non-finite clausal subjects while DA + present structures (otherwise in virtually free variation with infinitives) need to be impersonalized using the SE morpheme. It is known that the SE morpheme has the function of switching off the subject position (presumably Spec vP), but the consequence is also that the verb no longer tolerates an accusative NP in the VP complement position (2c).

In sum, treating DA as an accusative case marker might be conceptually plausible and it could also shed some new light on some puzzling syntactic phenomena in SC.

- (1) a. Ko si rekao da bi otišao kući? who are said that would went home "Who did you say would go home?" b. *Ko si rekao bi otišao kući? who are said would went home "Who did you say would go home?" c. Who did you say would go home? d. *Who did you say that would go home?
- (2) a. Učiti je mudro. study.INF is wise "To study is wise."
 - b. Da *(se) uči je mudro. DA SE study is wise "To study is wise"
 - c. Da *(se) uči engleski je mudro. DA SE study English.NOM is wise "To study mathematics is wise"

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Bošković, Ž. (2008) What will you have, DP or NP? *Proceedings of NELS* 37, 101-114. **Kovačević**, P. (2014). A Very Minimal Syntax: On the Relationship of DP, Scrambling and Case. (Master's thesis, University of Novi Sad). **Pesetsky, D. &Torrego** E. (2004). Tense, case and the nature of syntactic categories, *The Syntax of Time*, Cambridge, Mass.: MIT Press,495-538. **Todorović**, N. & Wurmbrand, S. (2015). (In)Finite possibilities of 'da': Restructuring the tense and aspect domains. *Workshop on aspect in embedded clauses*, ZAS, Berlin.

Covert modality in Serbian

Aleksandra Mirković (University of Novi Sad)

In this talk I will discuss the constructions with covert modality in Serbian. Covert modality defined as a modality that is not reliably associated with any overt lexical item (Bhatt 2006). What indicates the presence of such covert elements is the effect they have on their environment. In English, covert modality in present in wh-infinitival complements, infinitival relative clauses, as shown in (1) and (2), but also in purpose clauses, the *have to* construction and the *is to* construction (Bhatt 2006).

- Tim knows [how to solve the problem]. (Tim knows how one/he could/should solve the problem)
 Jane found [a book to draw cartoons in] for Sara.
- (Jane found a book for Sara one could/should draw cartoons in) (Bhatt 2006)

As far as Serbian is concerned, there has not been much discussion (nor description) of the in the literature. In this talk I will argue that not only these constructions are present in Serbian as well, but also that they are in the line (in most cases at least) with the analysis proposed by Bhatt (2006). The modal reading occurs only in few specific contexts, as shown in (3) and (4).

- (3) Ovo je jako lepo mesto za videti. this is very nice place ZA see.inf 'This is a very nice place to be seen'.
- (4) Šta reći?what say.infWhat to say? (What one should/must say?)

Even though za + infinitive constructions, as in (3), are deemed ungrammatical in Serbian (cf. especially Klajn 2004), native speakers employ them freely and quite frequently. I will argue that za+infinitive constructions are legitimate equivalents of English infinitival relatives. Based on the syntactic behavior of za, I will show that there are multiple reasons for za to be analysed as an infinitival complementizer which serves as the locus of modality. Unlike English, however, for most speakers za-subject infinitival relatives are only marginally acceptable. I will focus on the constraints that occur in such instances and suggest that they boil down to the (still) puzzling nature of the external argument of Serbian infinitives. Finally, I will address the issue why wh-infinitives are possible as matrix questions in Serbian, but not in English.

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Neurolingustic Studies on Article-Noun Gender Agreement Processing in Italian: An Electrophysiological Approach Srđan Popov (University of Groningen)

Gender is an inherent (lexical) nominal feature in a number of languages. It is usually classified as either semantic (e.g., people and animals that have gender in the extralinguistic world) or syntactic ('randomly' assigned). The aim of this study is to investigate how syntactic and semantic gender are processed in real time (both auditorilly and visually) by means of eventrelated potentials (ERPs)

Studies with people with aphasia have shown that the distinction between syntactic and semantic gender plays a role in language production. More specifically, syntactic gender is accessed through the word's lexical-grammatical information (lemma), whereas semantic gender can be accessed either through the lemma or lexical semantics. The possibility to access the gender feature through multiple routes enables people with aphasia to access semantic gender more easily than syntactic gender (Vigliocco & Zilli, 1999). However, electrophysiological studies on syntactic-semantic gender distinction in comprehension have been less conclusive (see Molinaro, Barber, & Carreiras, 2011). Gender comprehension is understood as a formal process that elicits syntactically-related language correlates, such as the P600 and LAN. Semantic gender, in addition, is expected to elicit a semantically-related component (N400), provided that lexical semantics is indeed tackled when semantic gender is processed (Barber, Salillas, & Carreiras, 2004).

So far, the N400, as well as any overt sign of accessing lexical semantics, have failed to be consistently elicited. However, none of the previous studies measured the effect on the noun, which is the source of the gender information. The current study employed a sentence processing paradigm with article-noun mismatch in Italian (e.g., la_F treno_M), with the noun being marked for either syntactic or semantic gender. The study was conducted both as a listening and a reading experiment.

As expected, the experiments elicited the P600 in both conditions, indicating that gender processing is a syntactic process. Even though the N400 was not elicited in the semantic gender condition, the amplitude of the P600 was larger for semantic than syntactic gender. This effect is interpreted as the integration of syntactic and semantic information in the P600 phase. In addition, the larger P600 is also interpreted as a sign of increased repair and reanalysis processes in semantic gender. Finally, another syntactically-related component (LAN) was obtained in the reading modality only, demonstrating that methodological factors, such as the presentation modality, have to be taken into account when interpreting ERP results.

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Cognitive load in the visual world: The facilitatory effect of gaze

Mirjana Sekicki & Maria Staudte (Saarland University)

The surprisal of a linguistic unit is shown to be dependent on the predictability of that unit given its preceding context (Hale, 2001) – including not only the previous linguistic context, but also elements of the visual context (e.g., Altmann & Kamide, 1999; Kamide et al., 2003). Our present work examines gaze, as an inseparable part of the visual context in situated communication, and considers its influence on the cognitive load required for processing linguistic material. We hypothesized that the gaze cue, as a visual pointer, helps constrain the set of possible targets and thus, by increasing the predictability of the cued object reduces the surprisal induced by its linguistic referent.

A series of three eye-tracking experiments in the Visual World Paradigm are set out to examine the questions of whether gaze is considered as part of the context determining the predictability of the subsequent referent, and whether differences in cognitive load can be detected on the cue itself. We manipulated the existence of the gaze cue - *Congruent-Reliable Gaze*, and its congruency with the previous linguistic context - *Incongruent-Reliable Gaze*. We made use of the Index of Cognitive Activity (Marshall, 2000; 2002) as a measure of cognitive load, in addition to the traditional eye-movement analysis that helps reveal any patterns of anticipation of potential target objects.

Our results show that the gaze cue is considered as a valuable cue in the prediction making process, which subsequently helps reduce the surprisal of a linguistic referent, this being true even when the referent noun is not congruent with the previous linguistic context. In addition, we saw that considering the gaze cue is not costly as such, but nevertheless leads to increased cognitive load when the gaze cue is incongruent with the previous linguistic context and thus, surprising. We are currently running the *Congruent-Unreliable Gaze* study that manipulates the reliability of the gaze cue, i.e. its congruency with the following linguistic referent, and will provide insight into whether more cognitive load is required at the linguistic referent as an effect of it being preceded by an unreliable gaze cue.

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Acquisition of word order in Hungarian and the information status of arguments

Livia Šagi (University of Novi Sad)

Free word order languages like Hungarian pose an interesting issue when the acquisition process is considered. The flexibility of ordering information is a strategy to signal the topic and focus in utterances (e.g. É. Kiss, 2004; Sarma, 2003). Therefore, the ordering of constituents belongs to the domain of pragmatics and it poses the question whether children resort to the default underlying word order of the language in the early stages of acquisition or they are aware of the information structure of said language from the beginning and use its strategies correctly.

This study aims to examine if children acquiring Hungarian as their first language use all possible word order variants and develop their pragmatic skills simultaneously with morphosyntax. The second goal was to investigate children's preferences when ordering arguments based on their information status (new or old in the discourse). To address the first question data from the Child Language Data Exchange System (CHILDES) database were retrieved from thirteen informants between the ages 2;0 and 4;1. The results of the study support the initial hypothesis that Hungarian children use different kinds of word order to mark pragmatic information even when they just start constructing sentences. However, they have a significant preference for the default word orders of the language. Another analysis was conducted to see how children assign arguments to new and old referents in two-constituent sentences. The language production of ten 3-year-olds and ten 4-year-olds were examined from CHILDES. The results, although not statistically significant, indicate that children prefer the new to old ordering of arguments based on the referents' discourse status. The major weakness of the study is that the corpora examined in these studies were gathered with other goals in mind, and therefore are not best suited for analyses such as these.

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Morpho-syntax of nominalizations: licensing and case

Anja Šarić (University of Frankfurt am Main)

In this talk, I discuss the morpho-syntactic properties of Serbian nominalizations such as (1), specifically, the licensing of argument structure and the mechanisms behind case assignment.

 (1) ispitivanje kvaliteta vode istaknutih stručnjaka examination quality.GEN water.GEN prominent.GEN experts.GEN 'the examination of the water quality by the prominent experts'

In the GB/Minimalist framework, the assignment of case goes hand in hand with the licensing of argument structure (the Case filter/visibility condition). In (1), *kvalitet vode* is a complement of the noun *ispitivanje*, which both theta-marks and case-marks it in its designated position. The agent argument - *istaknuti stručnjaci* - is assigned case in the upper DP layer. The issue with the standard case/licensing analysis of (1) is the apparent lack of the DP projection in an articleless language like Serbian (e.g. Bošković, 2008), which then makes the assignment of case to *istaknuti stručnjaci* problematic.

In this talk, by divorcing licensing from case, I entertain the alternatives to case assignment to the agent, without postulating the DP layer. For licensing of argument structure I resort to the Distributed Morphology framework. I follow Alexiadou (2009) in assuming that nominalizations are category neutral roots, augmented by both verbal and nominal functional layers, which are, among other things, responsible for licensing of argument structure. Serbian nominalizations show morphological evidence for the presence of verbal functional layers such as AspectP and VoiceP, which is responsible for introducing the external argument (Bašić, 2010).

The assignment of case is discussed within the framework of Pesetsky (2013), whereby nouns are 'born genitive', i.e. they are category neutral roots to which a categorizing morpheme is added, creating the nominal form traditionally referred to as genitive. I also address the case issue within the framework of Dependent Case Theory (Marantz, 1991; Baker, 2015), whereby genitive is the unmarked case which gets assigned to any noun within the nominal domain, which hadn't got case otherwise. Finally, I compare the case patterns in Russian nominalizations (Rappaport, 1998) to that of Serbian and offer an account for the observed differences.

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The No-Reference Hypothesis: Syntax-phonology mapping in a fully modular system

Dragana Šurkalović (Oslo and Akershus University College of Applied Sciences)

This presentation investigates the interface of syntax and phonology in a fully modular view of language. The central premise is that language is divided into discrete modules: syntax, phonology and semantics. These modules are independent of one another and unable to see into each other. The presentation addresses three issues for modularity: (i) phonology can see edges of syntactic constituents (Selkirk 1995 et seq, Truckenbrodt 1995 et seq), (ii) phonology distinguishes between lexical and functional elements in syntax (Selkirk 1995 inter alia), and (iii) phonology recognizes Information Structure marking features, such as Focus and Topic (Féry & Samek-Lodovici 2006 inter alia). The presentation argues that it is possible to derive these effects of syntactic structure on prosodification without referring to that structure in the phonological computation, contra Prosodic Phonology (e.g. Selkirk 1995, 2011). Furthermore, it explores the effects of the Multiple Spell-Out Hypothesis, more specifically, the spell-out-ateach-merge view of MSOH (Epstein and Seely 2006, Marvin 2002, Newell 2008) and 'syntaxall-the-way-down approaches', specifically Nanosyntax (Starke 2009 inter alia), on the phonological computation. The No-Reference Hypothesis (Surkalovic 2016) is presented as the solution. It states that phonological computation needs to proceed in phases, parallel to those in syntax, in order to achieve domain mapping while maintaining an input to phonology consisting of purely phonological information. The presentation provides an explicit account of how the outputs of different phases get linearized wrt each other, providing arguments that spell-out does not proceed in chunks but produces cumulative cyclic input to phonology. An analysis is provided, using data from English, Kayardild and Ojibwa, showing how prosodic domains can be derived from phases by phonological computation being faithful to the prosodification output of the previous phase. The analysis is formalized by introducing Phase-Phase Faithfulness constraints to Optimality Theory as the chosen computational model (Prince and Smolensky 1993, McCarthy and Prince 1993).

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Atypical interpretations of temporal forms in Serbian

Neda Todorović (Utrecht Institute of Linguistics)

This talk discusses atypical uses of traditional temporal forms in Serbian, e.g. uses of past tense (1) and present tense forms (2) in future-oriented contexts or uses of future forms in past contexts (3). It will be shown that all temporal forms in Serbian display non-deictic uses, i.e. their uses are not restricted only to time that precedes or follows the Utterance Time, respectively. It will be argued that such distribution can be systematically captured if these forms lack Tense Phrase altogether, instead resorting to Aspect Phrase; the latter, unlike the former, does not introduce the deictic component (Klein 1994, Pancheva 2003, *i.a.*), capturing thus the wider array of uses of these forms in the language.

(1)	Ako nas	uhvate,		nastrac		smo.			
	if us	if us catch.3.pl.pres.		suffer-part. a		are			
	'If they catch								
(2)	Kupujem	kuću	sutra.						
	buy.impf.1.sg	g.pres house	tomor	row					
	'I am buying	g a house tomoi	rrow.'						
(3)	Jovan je (pre	mesec dana)	rekao	da	će	se do		prvog	marta
	Jovan is before month day		said	that	will	SE until		first	March
	prijaviti	za stipen	diju.						
	apply.inf.	for schola	ırship						
	Sad je	već	petnae	sti	(mart)		i	još	ništa.
	now is already		fifteen	en (Marc		h)	and	still	nothing
	'A month age	o, Jovan said th	at he wo	ould app	oly for a	schola	rship by	/ March	1. It's
	March 15 tod	ay, and he still	hasn't (a	applied	for a sc	holarsh	ip).		

Selected references:

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Pancheva, Roumyana. 2003. The Aspectual Makeup of Perfect Participles and the Interpretations of the Perfect. In *Perfect Explorations*, ed. by Artemis Alexiadou, M. Rathert, and Arnim von Stechow, 277–306. Mouton de Gruyter.

Focus in Serbian: Empirical evidence Aleksandar Živanović (University of Novi Sad)

The aim of this paper is to provide an account of focus in the Serbian language and thus make a contribution to this insufficiently explored theme. Focus is a cross-linguistic phenomenon which implies the existence of alternatives relevant for understanding of linguistic expressions (Krifka 2008). Focus can be coded both syntactically and phonologically. In addition, various types of focus have been proposed to exist, and the literature often proposes oppositions such as broad vs. narrow focus, new information vs. contrastive, and so on (cf. the overview in Krifka 2008). The aim of this paper is to investigate how different types of focus are realized phonologically. In a production experiment (based on the one presented in Jun and Kim 2007), involving simple sentences with a focused element in different syntactic positions elicited by the standard question-answer method, I focus on the role of fundamental voice frequency and intensity as phonological cues for a focused expression. The measurements obtained in the experiment clearly show that the most reliable marker of focus is not necessarily the highest F0 value of the word in focus (as it has been hypothesized), but the greatest difference in F0 which occurs within this word. Focus placement has an effect on F0 value of the rest of the sentence. Narrow focus on the constituent reduces the difference in F0 within subsequent constituents in the sentence that are not in focus. If the word in focus occurs more towards the end of the sentence, the difference in F0 between the syllables of the preceding words is also lower that it is the case with neutral focus. The most significant change in F0 within words is caused by contrastive focus. Intensity did not prove to be useful in indicating focus.

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