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# CYCLICAL SUPPLETION IN SLAVIC: WHAT PRIMING EFFECTS REVEAL ABOUT VELAR ALTERNATIONS IN BOSNIAN, CROATIAN, MONTENEGRIN, SERBIAN

#### Abstract

This paper presents a wug experiment on BCMS, aimed at ascertaining whether priming effects can trigger the mutation of k, g, h > c, z, s upon the addition of the plural morpheme -i (cf. feminine dative -i and imperatival -i) or the retention of the final velar with the addition of the plural allomorph -ovi. The definition of suppletion taken here matches that of Corbett (2007), which defines stem suppletion as suppletion par excellence, in opposition to Mel'chuk (1994), who considers lexical replacement to be suppletion proper. Preliminary results suggest priming can affect choice of allomorph, while also indicating a hierarchy of metalinguistic factors at play in speaker choice, including syllable count, phonological neighborhood effects, among others.

 ${\it Keywords}: {\rm suppletion, morphonology, allomorphy, BCMS, wug \, experiment, \, priming, \, Slavic \, Second \, Palatalization.}$ 

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# 1. Introduction

Suppletion has generally occupied a marginalized position in morphological theory: some have considered it "scandalous" due to its defiance of morphological naturalness (Dressler 1985: 97); others wave a flag of caution, calling it "hostile terrain" (Corbett 2007: 8), due to its inability to be neatly captured through rule-based derivation typical of the predominant, 20th-century generative tradition of linguistics (often due to complex diachronic developments, as in the classic case from English  $go.PRS \sim went.PST$  [Janda & Joseph 2003: 109]). Nonetheless, despite the significant challenges suppletion poses to linguistic theory, both historical and synchronic linguists continue to be drawn to the enigmatic topic.

Recent advances have been made both in terms of the diachronic (Juge 2013) and synchronic approaches to suppletion (see Mel'čuk 1994, which views suppletion to be ideally full lexical replacement; Veselinova 2006; Corbett 2007, which, opposite to Mel'čuk 1994 views stem suppletion as the ideal form of suppletion; and Embick 2010). Still, a unified theory eludes us, as common exhortations for fresh approaches to solving this issue in these recent works include [my emphasis]:

"future work should concentrate on [psycholinguistic] issues as well" (Veselinova 2006: 108);

or:

"[...] the real issue is whether suppletion is a matter of degree, being the end-point of a scale of irregularity [...] One must hope that eventually there will be clear **psycholinguistic** evidence on this issue" (Corbett 2007: 16);

#### and:

"the crucial evidence adjudicating between these theories [of stem alternation] might have to come from **psycho- and neurolinguistic** studies of linguistic representation" (Embick 2010: 34).

In the last decade, linguists have heeded these calls, producing two important "wug" (Berko 1958) or nonce word experiments conducted on Russian vowel  $\sim$  zero stem alternations of the type den'

'day' ~ dnja.gen.sg (Gouskova and Becker 2013) and Russian verb stem palatalization (Kulinich et al. 2016). The results of these experiments resoundingly demonstrate that the respondents performed poorly in the application of stem alternations to nonce words, indicating that the alternation was not a viable grammatical transformation for these speakers. Similar results were found in a wug experiment on Czech plural allomorphy conducted by Bermel et al. (2017), who state: "If we thus ask the question, 'which form should native speakers default to?' there is no clear-cut answer" (ibid.: 4). Although, the results of their experiment more or less confirm this unpredictability, they do note that "stem patterns – representing, possibly, analogical similarity – are critical" (ibid. 16). One specific stem type, velar stems, is at the forefront of stem allomorphy in Slavic due to a phonological development in Late Common Slavic, known as the "Second (Regressive) Palatalization of Velars" (P2) (see Wandl 2020 for a comprehensive review of the topic), formalized phonetically as:  $C[+_{back}] / _{V[-_{back}]} \rightarrow$ The variable application of this change is one of the primary features of Slavic dialectal differentiation. According to Kapović (2008), P2 spread through Common Slavic between 6th-7th cc. resulting in nominal stem allomorphy in South and West Slavic, e.g.: BCMS momak.nom.sg. 'boy' ~ momci.nom.PL 'boys' or Czech¹ kluk ~ kluci (the same change occurs in Polish, Sorbian, and Slovak in West, and in Bulgarian and Macedonian in South, excluding Slovenian). However, the change applied only variably throughout the East Slavic dialects (see Wandl 2020).

<sup>&</sup>lt;sup>1</sup> At the time of the drafting of this article, I recruited a mere 37 respondents for my Czech experiments, and therefore this study will concentrate on my BCMS experiments, which had significantly higher respondent totals (n=179). Czech is occasionally used in a comparative context.

Sg.	Pl.
o-stems Proto-Slavic *bogŭ 'God' Skt. bhágas	Common Slavic *bogi
u-stems *synŭ 'son' Lith. sūnùs	Common Slavic *synove

Figure 1. Before P2

Sg.	Pl.	
* <b>bogŭ</b> 'God'	*bozi	
*synŭ	*synove	

Figure 2. After P2

Sg.	Pl.	
*bogй 'God'	*bodzi ~ bogove(i) in West(South) *bogi in East, OR Loc. sg. $ruk\check{e}$ (cf. Rus dialectal $kel$ -'whole'); but Ukr. $ruk\acute{a}$ ~ Loc. sg. $ruc\acute{i}$	
*synŭ	*synove	

Figure 3. Late Common Slavic

After the completion of P2, the initial consonantal allophony was phonologized, and then later morphonologized at morpheme boundaries, i.e. the phonological rule  $C_{\text{[+back]}} / _{\text{[-back]}} \rightarrow C_{\text{[-back]}}$  stem internally was reinterpreted as only operable at morpheme boundaries as a morphonological rule  $C_{\text{[+back]}} / _{\text{[-+back]}} \rightarrow C_{\text{[-back]}}$  given that the surrounding phonetic environment was not static. This is what many morphologists (namely Greville Corbett [2007]) call "stem suppletion", which may have triggered the spread of the u-stem plurals in -ove (West

Slavic) and -ovi (South Slavic), presumably to eliminate stem variation. Further, evidence from the treatment of borrowings in BCMS, such as Western Rumelian Turkish böbrek>bubreq.NSG – bubrezi.NPL "kidney" demonstrate that the morphophonemic alternation was still operable at the time of the Ottoman invasion of the Balkans (14th century) on borrowed stems.<sup>2</sup> Compare this with the recent English borrowing hotdog into BCMS: hotdog / hotdogovi, blog / blogovi but never \*hotdozi or \*blozi for the plural, suggesting that the alternation is no longer operable on borrowed stems. However, stem variation upon addition of the plural morpheme [-i] still occurs in Slavic (e.g. variant plural forms vukovi 'wolves' ~ vuci, duhovi 'spirits' ~ dusi) and a good account of the situation in BCMS, namely, is sorely lacking. Browne & Alt (2005: 29) make descriptive remarks: "The basic masculine endings are those of *prozor* [nom. pl *prozori*] like most monosyllables and some disyllables, have the "long plural", adding -ov- before plural endings (-ev- after palatals)". Alexander (2006: 38) expands on this:

According to the general rule, monosyllabic masculine nouns add -ov-/-ev-in the plural, and polysyllabic ones do not. There are two sets of exceptions to this rule – monosyllabic nouns which do not add it, and disyllabic ones which do. Some members of the first group, such as monosyllabic nouns denoting nationality names, are predictable; others must simply be learned. The second group contains several disyllabic masculine nouns, usually with fleeting -a in their second syllable. These plurals are not predictable, but must be learned.

Given all this unpredictability encountered in the literature, a psycholinguistic approach, as provided in the present article, is useful in that it concentrates on identifying the strategies native speakers use in deciding whether or not to mutate a velar-final stem for new words (real or invented).

This word was likely imported during the Ottoman conquest of the Balkans, 4-5 centuries after the phonological basis (P2) for the alternation was already lost (in Common Slavic). To offer a trivial example to show what happens with root-internal velars, the Turkish drink raki (imported from Arabic 'araq 'sweat, wine', entered South Slavic as rakija, long after the operation of P2, demonstrating that the alternation was only morphonological in nature.

# 2. Methodology

The study follows closely prior work on stem suppletion in Slavic, namely (as mentioned above): Gouskova and Becker (2013), Kulinich, Royle, and Valois (2016), and Bermel, Knittl, and Russell (2017). However, this is the first work to address the situation in BCMS. and especially using Berko's (1956) "wug" test. In constructing my own wug<sup>3</sup> experiment, my goal was to test whether priming affected speaker response, mirroring the presumption that speaker choice of stem suppletion is dictated by metalinguistic pressures (namely that our speech resembles what we hear and read most frequently). I constructed the questionnaires using the open source online linguistic survey tool *Ibexfarm* (developed by Alex Drummond and unfortunately shut down on Sep 30, 2021), with support for PC, MAC, and their respective tablet/smartphone OS.4 After constructing my experiment, I distributed an invitation link to a number of my native-speaking BCMS academic colleagues: I posted to numerous BCMS language pages on Facebook; and I sent out messages on several Slavic email listserves (including SEELANGS). The survey's initial page (Fig. 4) collected demographic data from BCMS speakers (entered manually by keyboard), providing a breakdown according to hometown, sex, age, and education level. My respondents (n=179; see Fig. 4 for breakdown according to hometown) were then instructed to press the spacebar to fill in the blanks on the next page (Fig. 4).

When citing my wug forms here, in order to distinguish them from native BCMS words, I will denote them with a ♣, e.g. ♣ dork (an actual wug used in my experiments).

<sup>&</sup>lt;sup>4</sup> Fortunately, it is possible to migrate old Ibexfarm experiments to PCIbex, which is hosted by the University of Penn and Jeremy Zehr at: https://farm.pcibex.net/

Dobar dan! Sprovodim istraživanje na jeziku koji je ranije bio poznat kao srpskohrva	ıtski.
Potrebni su mi izvorni govornici da ispune kratki upitnik.	
Upitnik je anoniman, a dobijeni podaci biće korišćeni isključivo u naučne svrhe.	
Da biste učestvovali u upitniku potrebno je da imate najmanje 18 godina.	
Za ispunjavanje upitnika je potrebno između 10 i 15 minuta.	
Upitnik funkcioniše i na mobilnima, samo morate da okrenete ekran horizontalno.	
Izuzetno bih vam bio zahvalan na pomoći!	
Molimo navedite sljedeće informacije:	
Koliko imate godina?	
U kojem ste gradu odrastali? (npr. Beograd, Sarajevo, Zagreb)	
Spol	
$M \circ \check{\mathbf{z}} \circ$	
Da li imate više obrazovanje? (Izaberite "da" čak i ako niste završili studije)	
Da O Ne O	
Na sledećoj stranici pritisnite razmaknicu da biste popunili praznine.	
Hvala vam na učešću!	
→ Click here to continue	

Figure 4. Welcome page/demographic data collection

Belgrade	Bela Palanka	Banja Luka	Backa Palanka	Aranđelovac	Aleksinac
58	1	_ 2	1	_ 1	1
Dubrovnik	Donja Ljubovia	Daruvar	čačak	Cacak	Bijelo Polje
	1	1	1	2	1
Loznica	Leskovac	Kruševac	Kragujevac	Kovacica	Gornji Milanovac
Nova Gradiška	1	niš			Metković
Nova Gradiska	NONE	N1S	Nikšić	Mostar	Metkovic
Ploće	Paraćin	Pančevo	Pancevo	0sijek	Novi Sad
1	Paracini	Paricevo	Pancevo 1	051Jek	NOVI Sau
Ruma	Rijeka	Riejka	Pula	Priboi	Podgorica
1	1	1	1	1	3
Slavonski Brod	Skoplje	Šibenik	Sibenik	Saraievo	Sabac
2	1	2	1	9	1
Trstenik	Travnik	Sremska Mitrovica	Sombor	Sokobanja	Smederevo
1	1	1	1	1	2
Veljevo	Veliko Gradište	Varaždin	Varaždin	Valjevo	Užice
1	1	1	2	2	1
Zadar	Vrnjacka Banja	Vrgorac	Vranje	Vlasenica	Visoko
2	1	1	2	1	1
Zvornik	Zrenjanin	zlatibor	zenica	Zemun	Zagreb
1	4	1	1	1	18

Figure 5. BCMS respondents broken down according to hometown

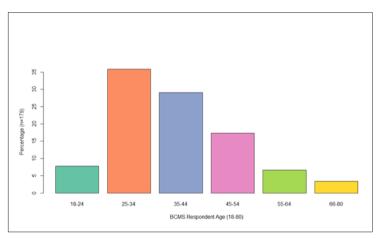


Figure 6. Respondent break-down according to age.

The second page then, only for EG1 and EG2 opens up to a series of blanks and the respondents are required to press spacebar to fill in the blanks (Fig. 7 and Fig. 8)

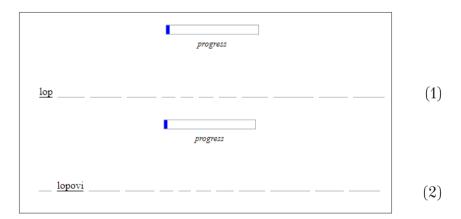


Figure 7. For EG1, two successive screens filling in the blanks with -ovi plurals

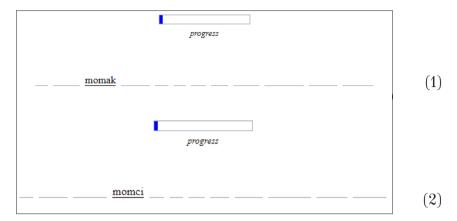


Figure 8. For EG2, two successive screens filling in the blanks with stem-mutated plurals

The idea behind this strategy was to have a Control Group (CG, n=50) simply choose from a list of plural options their preferred variant (with the aim of obviating the Observer's Paradox [Labov 1972: 209]). Unlike Dąbrowska (2008) and Bermel et al. (2017), I do not place my wugs in any sentential context (Fig. 9), therefore removing the respondent's ability to generalize plural endings based on semantic class similarity (see Fig. 9). All respondents have to work with is their innate L1 phonetics/phonotactics/morphonology. Once the respondents were "inside the test", as it were, they were then asked to choose their preferred plural form for 15 wugs (Tab. 1), each created with phonological neighborhood context<sup>5</sup> in mind.<sup>6</sup> This experiment was repeated with two experimental groups primed (as in Fig. 7 and Fig. 8) only for plurals in -ovi (EG1 = 'Experimental Group

<sup>&</sup>lt;sup>5</sup> See Marslen-Wilson's (1987) seminal work on phonological neighborhoods.

We created wugs that obeyed BCMS phonotactics, introducing our task with native words, e.g. *momak* 'boy' ~ *momci*, recently borrowed yet still fairly unfamiliar *milkšejk* 'milkshake', before presenting our wugs. Such a scheme represents a gentle transition from familiar [native words] > unfamiliar [new borrowing] > totally unfamiliar [wugs], with the hope of reducing "wug shock" and keeping the alternation or lack of alternation, depending on the control group priming, active in the mind of the respondent.

1', n=45) and for -ci, -zi, and -si (E2 = 'Experimental Group 2', n=56). The following hypotheses were formulated:

Wugs (total syllables)				
1. milkšejk (2)				
2. dork (1)				
3. storg (1)				
4. blah (1)				
5. krag (1)				
6. plumak (2)				
7. bovog (2)				
8. klesah² (2)				
9. spirobrag (3)				
10. liropih (3)				
11. brepazok (3)				
12. parahog (3)				
13. filosodak (4)				
14. flogisterobag (5)				
15. parahidrotorbak (6)				

Table 1. Invented wugs with syllable count in parentheses

I thank an anonymous reviewer who pointed out that klesah is also the aorist form of klesati 'to carve, cut stone'. However, it is not clear whether this affected speaker choice, as the majority were happy to mutate the final -h regardless of priming group. Interestingly, there was a significant increase ( $X^2$  (1, N = 45) = 7.49, p< .05) in the production of klesahi, without mutation in EG1 primed for -ovi.

(Screen presented after introductory task revealing both plural variants)

Sada vam je predstavljen niz hipotetičkih reči. Prva iz njih: milkšejk. Odaberite oblik množine:

- 1. milkšejci
- 2. milkšejkovi
- 3. milkšejki

(Screen presented after clicking on the preferred plural variant of *milkšejk*)

dork

(Next screen after pressing spacebar)

#### Odaberite oblik množine:

- dorki
- dorci
- 3. dorkovi

Figure 9. Presentation of wugs without any sentential context (instructions only).

The same process was repeated for EG1 and EG2, except that the priming section, where the respondents press the space bar to reveal singular/plural word form pairs was entirely replaced by real words with either -ovi plurals (for EG1) or palatalized velars +[i] (EG2).

Based on the prior research on variant palatalization in Slavic (mentioned above) and what the BCMS handbooks say, the following hypotheses have been formulated:

H1: Respondents in the CG who are not primed for a specific plural allomorph will exhibit higher levels of variation with wug words.

H2: Respondents in the CG (without priming for a variable) will take phonological proximity to existing words into account when forming plurals.

H3: Respondents in EG1 primed for *-ovi* will exhibit a higher preference for pluralizing wug words with *-ovi*.

H4: Respondents in EG2 primed for stem alternation will exhibit a higher preference for pluralizing wug words with -ci, -zi, and -si (< [k]+[i], [g]+[i], and [h]+[i], respectively).

H5: Longer syllable count will cause a dispreference for *-ovi*, which as leading Western BCMS handbooks (Browne and Alt [2005: 29] and Alexander [2006: 38] explain, tends to be preferred for monosyllabic stems, e.g. sg. *vuk/* pl. *vukovi* (cf. however, dialectal/"bookish" pl. *vuci*; sg. *dan* 'day' / pl. *dani*'s).

H6: Speakers will sparingly accept -ki, -gi, -hi, based on dative forms like u Beogradanki 'inside the Beogradjanka (the tallest building in Belgrade)', as opposed to the dispreferred but grammatically correct u Beogradanci (with the expected velar mutation).

#### 3. RESULTS AND DISCUSSION

WUG (! = unexpected preference)	CG (n=50), not primed	EG1 (n=45), primed for -ovi	EG2 (n=56), primed for velar mutation
milkšejk	milkšejkovi = 46 milkšejci = 4 milkšeki = 0	milkšejkovi = 39 milkšejci = 4 milkšejki = 2	milkšejkovi = 52 milkšejci = 4 milkšejki = 0
dork	dorkovi = 34 dorci = 14 dorki = 2	dorkovi = 34 dorci = 7 dorki = 4	dorkovi = 33 dorci = 23 dorki = 0

The second example dan, can be explained through the Late Common Slavic loss of the jers and a subsequent outcome in /a/ for all jers in BCMS (cf. Russian sg. den'/pl. dni). Of course, learners do not typically have access to this diachronic information, so, in the synchronic sense, dani counts as an exception.

storg	storgovi = 35	storgovi = 37	storgovi = 43
	storzi = 11	storzi = 4	storzi = 11
	storgi = 4	storgi = 4	storgi = 2
	1		T
blah	blahovi = 28	blahovi = 26	blahovi = 35
	blasi = 20 (!)	blasi = 15 (!)	blasi = 20
	blahi = 2	blahi = 4	blahi = 1
krag	kragovi = 35	kragovi = 37	kragovi = 47
	krazi = 11	krazi = 6	krazi = 8
	kragi = 4	kragi = 2	kragi = 1
plumak	plumakovi = 2	plumakovi=0 plumkovi	plumakovi = 3
	plumkovi = 3	= 3	plumkovi = 5
	plumaci = 24 (!)	plumaci = 27 (!)	plumaci = 16 (!)
	plumci = 21 (!)	plumci = 13 (!)	plumci = 31 (!)
	plumaki = 0	plumaki = 2	plumaki = 1
	plumki = 0	plumki = 0	plumki = 0
	- 1	-	
bovog	bovogovi = 4	bovogovi = 0	bovogovi = 2
	bovozi = 42	bovozi = 42	bovozi = 53
	bovogi = 4	bovogi = 3	bovogi = 1
klesah	klesahovi = 6	klesahovi = 3	klesahovi = 3
	kleshovi = 6	kleshovi = 4	kleshovi = 8
	klesasi = 18	klesasi = 16	klesasi = 28
	klesi = 14	klesi = 10	klesi = 16
	klesahi = 6	klesahi = 12 (!)	klesahi = 1 (!)
	·	,	
spirobrag	spirobragovi = 6	spirobragovi = 5	spirobragovi = 7
	spirobrazi = 43	spirobrazi = 37	spirobrazi = 48
	spirobragi = 1	spirobragi = 3	spirobragi = 1

liropih	liropihovi = 9 (!)	liropihovi = 5	liropihovi = 10 (!)				
	liropisi = 40	liropisi = 37	liropisi = 46				
	liropihi = 1	liropihi = 3	liropihi = 0				
brepazok	brepazokovi = 6	brepazokovi = 6	brepazokovi = 9				
	brepazoci = 29	brepazoci = 27	brepazoci = 37				
	brepasci = 13	brepasci = 6	brepasci = 8				
	brepaski = 0	brepaski = 0	brepaski = 0				
	brepazoki = 2	brepazoki = 6	brepazoki = 2				
parahog	parahogovi = 6	parahogovi= 4	parahogovi = 9				
	parahozi = 44	parahozi = 40	parahozi = 47				
	parahogi = 0	parahogi = 1	parahogi = 0				
filosodak	filosodakovi = 2	filosodakovi = 0	filosodakovi = 3				
	filosodaci = 39	filosodaci = 33	filosodaci = 39				
	filosoci = 8	filosoci = 8	filosoci = 12				
	filosodaki = 1	filosodaki = 4	filosodaki = 2				
	filosotki = 0	filosotki = 0	filosotki = 0				
flogisterobag	flogisterobagovi = 7	flogisterobagovi = 5	flogisterobagovi = 13 (!)				
	flogisterobazi = 38	flogisterobazi = 36	flogisterobazi = 36				
	flogisterobzi = 2	flogisterobzi =	flogisterobzi = 4				
	flogisterobagi = 3	flogisterobagi = 4	flogisterobagi = 3				
parahidrotorbak	parahidrotorbakovi = 6	parahidrotorbakovi = 2	parahidrotorbakovi = 8				
	parahidrotorpkovi = 0	parahidrotorpkovi = 0	parahidrotorpkovi =				
	parahidrotorbaci = 41	parahidrotorbaci = 35	parahidrotorbaci = 39				
	parahidrotorpci = 1	parahidrotorpci = 3	parahidrotorpci = 7 (!)				
	parahidrotorpki = 0	parahidrotorpki = 0	parahidrotorpki = 0				
	parahidrotorbaki = 2	parahidrotorbaki = 5	parahidrotorbaki = 2				

 $\begin{array}{c} {\rm Table~2.~Results~of~CG,~EG1,~and~EG2~wug~experiments~for~BCMS}\\ {\rm masculine~plural~stem~allomorphy} \end{array}$ 

For H1, respondents in the CG performed as expected, with respondent preferences not contradicting the BCMS handbooks.

For H2, data was inconclusive across all groups.

For H3: Respondents in EG1 chose -ovi at a higher rate when primed with such existing plural forms, only for \*dork (Fig. 10).

For H4: Respondents in EG2 chose to pluralize words with -ci, -zi, and -si (< [k]+[i], [g]+[i], and [h]+[i], respectively) when primed with only such existing plural forms, only for -ci (Figure 10).

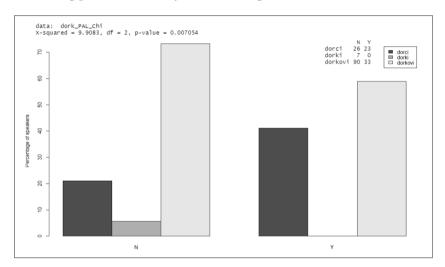


Figure 10. Does priming for velar mutation in the plural increase the selection of  $\Delta dorci$ ?

Although the respondent numbers are not as robust as desired, Bermel et al. (2017) make generalizations on Czech patterns with far fewer respondents (n=32). My numbers are nearly double that for the wug  $\triangle dork$ . When primed with velar-mutated plural stems, my EG2 respondents double the acceptance rate of the velar-mutated plural  $\triangle dorci$ .

H5: For monosyllabic and disyllabic wugs, priming had a dramatic effect on choice of plural variant, only for *♣dork*. Data is inconclusive on speaker preference for other monosyllabic stems, which is ostensibly due

<sup>&</sup>lt;sup>9</sup> Chi-square and p-value both calculated using the R Project for Statistical Computing built-in function.

to constraint ranking of phonological factors (if one takes the Optimality Theoretic approach) or more probable, a hitherto undefined metalinguistic hierarchy involving analogical levelling(s) based on syllable count, phonological neighborhood effects, and fuzzy idiolectal semantics. However, the data clearly demonstrate that velar-mutated stems are preferred for tri-, quadri-, pentasyllabic, and larger stem-roots when forming the plural.

H6: As predicted, speakers do sparingly accept plurals in -ki, -gi, -hi, perhaps in analogy to forms like u Beogradanki 'inside the Beogradjanka (the tallest building in Belgrade)'.

#### 4. Conclusion

The Second Palatalization of velars in Slavic ceased to operate on the phonological level more than a millennium ago, and that while it was still being applied morphonologically during Ottoman times in BCMS, modern BCMS shows variation to how mutation is applied to velar stems for new borrowings (e.g. blogovi and not \*blozi; hotdogovi and not \*hotdozi; but piknik, which has both piknikovi and piknici). What then, causes speakers to continue applying velar mutation to these polysyllabic wugs? The most obvious factor seems to be the stored plural forms for existing BCMS words that are in the phonological neighborhood of these borrowings and my wugs. Interestingly though, depending on how a respondent is primed, their choice can swing to either the polysyllabic -ovi plural or the mutated velar stem. Moreover, it is guite clear that polysyllabic stems choose mutation by default, e.g. \*\*flogisterobazi\*, presumably to keep words shorter. But why do very few respondents accept \*flogisterobagi? What compels speakers to insist on this velar-stem mutation? And who decided that hotdog would take the -ovi plural? My own wug, ♣bovog shows that speakers are still very happy to mutate this stem (if even to avoid the awkward sounding \&bovogovi). There are many unanswered questions from this preliminary investigation, and subsequent experiments should target the structure of \(\dline dork\), \(\dline bovoq\), or even *♣klesah*, which shows a preference for unmutated *♣klesahi* in CG1. In offering a preliminary account, I would suggest that perceived disyllabic forms like hotdog and piknik may be interpreted as bi-elemental compounds<sup>10</sup> and thus only the final element is considered in the pluralization strategy by speakers, with subsequent analogy to (rarely occurring) dog 'dog' (or more likely bog 'god') and šejk 'sheikh'. However, this remains speculative and inconclusive, given the results (see Table 2) for ♣flogisterobazi = 38 vs. ♣flogisterobagovi = 7 (with presumed analogy to bag '(software) bug') in the unprimed Control Group; one would expect the ovi plural in the compound analysis. Moreover, *♣parahozi* is the unanimous choice (87%) by all speakers regardless of priming. And the rare acceptance of forms with -ki, -gi, -hi in possible analogy to u Beogradanki, suggest that the non-mutated short plural in -i is at least a potential outcome. Thus, following from the Neogrammarian tenet that "sound change, in so far [sic!] as it takes place mechanically, takes place according to laws that admit no exceptions" (Osthoff and Brugmann, 1878), such variation cannot be due to synchronically active phonological factors. There appears to be a hierarchy of metalinguistic factors at play here, involving syllable count, phonological neighborhood effects, and fuzzy idiolectal semantics, which should be the target of further investigation.

Finally, in contributing to the theoretical discussion of suppletion, I offer the following. How does a dead diachronic rule (like this velar mutation in Slavic, for instance) remain synchronically viable? For example, why haven't speakers eradicated English  $go \sim went$  type suppletion, especially given the clues for this diachronic development are also long buried? The answer appears to lie in cross-generational language acquisition. Specifically, evidence from child language acquisition studies show that children mimic the speech of their parents by first memorizing irregular forms. But once they infer grammatical patterns, e.g. -ed = PAST, they then generalize the pattern to all applicable contexts. This overgeneralization (hypercorrection) then has to be unlearnt as the child ages in order to meet the expectations of their speech community (Steinberg and Sciarini 2006: 31). This is what I mean by "cyclical" (as in my title): irregular patterns are learnt,

I thank an anonymous reviewer, who shared similar ideas about compounds, for asking for clarification here.

unlearnt, and relearnt within a single generation (directly feeding the cross-generational extension of this cycle). One might ask, why doesn't the child rebel against this irregularity in the third and final stage, in favor of a seemingly more reliable, maximally productive system? One strong factor appears to be statistical preemption (Boyd & Goldberg 2011), which states that "speakers learn not to use a formulation if an alternative formulation with the same function is consistently witnessed" (ibid.: 55). Language is after all, a social phenomenon, and part of being a member of a social group means playing by the same rules (which are often incorporated through these learning cycles, à la the emergent grammar of Hopper 1987).

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# ЦИКЛИЧНЫЙ СУППЛЕТИВИЗМ В СЛАВЯНСКИХ ЯЗЫКАХ: ЧТО ЭФФЕКТЫ ПРАЙМИНГА ГОВОРЯТ О ЧЕРЕДОВАНИИ ВЕЛЯРОВ В БОСНИЙСКОМ, ХОРВАТСКОМ, ЧЕРНОГОРСКОМ, СЕРБСКОМ ЯЗЫКАХ

#### Резюме

В данной статье представлен эксперимент с выдуманными словами (wug experiment) по боснийско-хорватско-черногорско-сербскому (БХЧС) языку, целью которого было выяснить, могут ли эффекты прайминга индуцировать у носителей БХЧС мутацию основного веляра -к, -г, -х > -ц, -з, -с при добавлении морфемы множественного числа -и (ср. женский датив -и и императив -и) или сохранение основного веляра с добавлением алломорфа множественного числа -ови. Принятое здесь определение концепции "супплетивизм" (suppletion) совпадает с определением Корбетта (2007), который определяет супплетивизм основы (stem suppletion) как супплетивизм главным образом, в отличие от Мельчука (1994), который считает лексическую замену собственно супплетивизмом. Предварительные результаты показывают, что прайминг может воздействовать на выбор алломорфа, а также указывают на иерархию металингвистических факторов в выборе носителя, в том числе количество слогов, эффекты фонологического соседства и другие.

*Ключевые слова*: супплетивизм, морфонология, алломорфия, БХЧС, ваг эксперимент, прайминг, вторая славянскаы палатализация