

AGAINST LENGTH-DETERMINED TONE ASSIGNMENT IN SERBO-CROATIAN

Surface realization of stress in the Neo-Stokavian dialect of Serbo-Croatian is known (Browne & McCawley 1973, Inkelas & Zec 1988 (following Jakobson [1937] (1962)), Langston 1997, Zec 1999, Zec & Zsiga 2010, etc.) to depend on the underlying tone assignment: stress appears on the syllable preceding the high tone (henceforth, H) if one is available and to the H-bearing syllable otherwise. Since a phonological word may lack a underlying H, in the absence of a lexically specified H, H is assigned to the first syllable (1a). When a toneless word is preceded by a preposition, H surfaces on the preposition (1b).

- (1) glaav- ‘head’ + -u ‘ACC’
 a. gla^Havu (in traditional SC representation, henceforth trad., *glāvu*) ‘head.ACC’
 b. u^H glaavu (trad. *ù glāvu*) ‘into a/the head.ACC’

Whereas the traditional view has been that individual morphemes can be specified as bearing an H on a particular syllable (Jakobson [1937] (1962), Browne & McCawley 1973), Inkelas & Zec 1988 and Zec 1994, 1999 argue that tone placement is (partly) predictable: if a stem or a suffix is associated with an H, its placement claimed to depend on the length of the stem-final vowel (2): a long stem-final vowel renders the stem post-accenting, as illustrated in (3). While Inkelas & Zec 1988 apply (2) only to words with no pre-linked tones, Zec 1994 argues for the general absence of pre-linked tones in Serbo-Croatian: a morpheme can be specified to bear a floating H but its position is determined by the generalization in (2).

- (2) H is assigned to the first syllable of the suffix, if the preceding syllable is long, and to the last syllable of the base otherwise
- (3) a. junaak^H ‘hero’ + -a ‘GEN’ → junaaka^H (trad., *junáka* ‘hero.GEN’)
 b. junaak^H ‘hero’ + -0 ‘NOM’ → juna^Hak (trad., *jùnak* ‘hero.NOM’)
 c. maram^H + -a ‘NOM’ → mara^Hma (trad. *màrama* ‘headscarf.NOM’)

(2) presupposes that (a) a systematic stem-final H is only possible if the stem-final vowel is short and (b) a systematic post-stem H is only possible with a long stem-final vowel. Langston 1997 argues that (a) is incorrect and there exist “hundreds” of native post-accenting stems with a short stem-final syllable (4). We complement this objection with its mirror image: there also exist many native stems with a constant H on a long stem-final vowel (5).

- (4) a. bo^Hb/boba^H (trad. *bòb/bòba*) ‘bean.NOM/GEN’ masculine
 b. mu^Hdrac/mudraca^H (trad. *mùdrac/mudràca*) ‘wise man.NOM/GEN’
 c. borba^H/borbu^H (trad. *bòrba/bòrbu*) ‘battle.NOM/ACC’ feminine
 d. poljana^H/poljanu^H (trad. *poljàna/poljànu*) ‘meadow.NOM/ACC’
 e. čelo^H (trad. *čèlo*) ‘forehead’, gospodstvo^H (trad. *gospòdstvo*) ‘reign’ neuter
- (5) a. cr^H:v/cr^H:va (trad. *cr̂v/cr̂va*) ‘worm.NOM/GEN’ masculine
 b. vu^H:k/vu^H:ka (trad. *vùk/vùka*) ‘wolf.NOM/GEN’
 c. sla^H:st/sla^H:sti (trad. *slâst/slâsti*) ‘sweetness.NOM/GEN’ feminine
 d. ka^H:p/ka^H:pi (trad. *kâp/kâpi*) ‘drop.NOM/GEN’

We conclude that the empirical generalization underlying (2) is incorrect and follow Inkelas & Zec 1988 and Langston 1997 in assuming that Serbo-Croatian morphemes may be underlyingly accented (bearing a pre-linked H), unaccented (toneless) and post-accenting (bearing a floating H). With this inventory, we can account for the three accentual patterns of Serbo-Croatian verbs discussed in Zec 1994 and illustrated in Table 1 (adapted from Simonović 2022), where the infinitive form and the present-tense 3sg form are both representative of broader regions of the paradigm. As Table 1 shows, verbs formed with the thematic suffix *-i-* may exhibit H on the stem both in the infinitive and in the present tense, may retain it after the stem or may exhibit variation (the same is true for verbs formed with the thematic suffix *-a-*). The imperative form,

differing from the present-tense form only in the length of the post-stem vowel, does not trigger retraction.

Table 1: Serbo-Croatian CVC imperfective verbs in the *i/i* class (basic types)

	post-stem lomiti ‘break.IPFV’	retraction moliti ‘pray.IPFV’	stem-final nuditi ‘offer.IPFV’
INF	lomi ^H ti (<i>lòmiti</i>)	moli ^H ti (<i>mòliti</i>)	nu ^H diti (<i>nùditi</i>)
IMP.2SG	lomi ^H (<i>lòmi</i>)	moli ^H (<i>mòli</i>)	nu ^H dì (<i>nùdi</i>)
PRES.3SG	lomi ^H i (<i>lòmī</i>)	mo ^H lii (<i>mòlī</i>)	nu ^H dii (<i>nùdī</i>)

We will show that the variable pattern is only indirectly linked to the length of the post-stem vowel. First we assume that the theme vowel introduces a floating H. An accented stem would then yield the pattern with a systematic H on the stem and an unaccented one, the systematic post-stem H. However, when the stem itself is post-accenting, the present-tense suffix (a mora, following Simonović 2022) creates an illicit configuration (6c): a long vowel with two H tones is known to be prohibited (Inkelas & Zec 1988, Langston 1997, Zec 1999, Zec & Zsiga 2010, etc.). We propose that (6c) is repaired by a leftward tone shift. Since in a word with more than one H the leftmost one wins (cf. Langston 1997), the infinitive suffix does not create any issues.

- (6) a. mol-i b. mo-li c. *mo li
- $\begin{array}{c} \mu \quad \mu \\ \diagdown \quad \diagup \\ H \quad H \end{array}$
 $\begin{array}{c} \mu \quad \mu \quad \mu \\ \diagdown \quad \diagup \quad \diagup \\ H \quad H \end{array}$
 $\begin{array}{c} \mu \quad \mu \quad \mu \\ \diagdown \quad \diagup \quad \diagup \\ H \quad H \end{array}$

We will argue that this approach is superior to previous proposals. Both Zec 1994 and Langston 1997 account for the three-way contrast in Table 1 by assuming vowel-before-vowel deletion (Jakobson 1948) triggered by vowel-initial inflectional suffixes in the present tense (7): the H of the deleted vowel is relinked to the stem-final vowel. Conversely, Simonović 2022 links H retraction to the fact that the theme vowel is lengthened in the present tense, and introduces a parochial constraint prohibiting the assignment of H to long theme vowels.

- (7) a. pev-a^H-aam → pev-~~a~~^H-aam → pe^Hv-aam ‘sing-TH-PRES.1SG’
 b. vol-e^H-iim → vol-~~e~~^H-iim → vo^Hl-iim ‘love-TH-PRES.1SG’
 c. misl-i^H-iim → misl-~~i~~^H-iim → mi^Hsl-iim ‘think-TH-PRES.1SG’

We will show that all three approaches require questionable stipulations and do not explain the other patterns, most notably those of athematic verbs, where the variable paradigm exhibits the opposite behavior (Table 2), or of *-nu/-ne-* verbs, where the systematic post-stem H pattern is not available. We will argue that the segmental present-tense suffix *-e-* appearing in consonant-final conjugation classes does not create the illicit configuration in (6c).

Table 2: Serbo-Croatian CVC imperfective verbs in the C-final class

	post-stem peći ‘bake.IPFV’	“reverse retraction” plesti ‘knit.IPFV’	stem-final jesti ‘eat.IPFV’
INF	peći ^H (<i>pèci</i>)	ple ^H sti (<i>plèsti</i>)	je ^H sti (<i>jèsti</i>)
PRES.3SG	peče ^H e (<i>pècē</i>)	plete ^H e (<i>plètē</i>)	je ^H dee (<i>jèdē</i>)
stem	<i>-pek-</i>	<i>-plet-</i>	<i>-jed-</i>

Finally, we will address the accentual contrast observed by Simonović 2022 between passive past participles and event nominals, also arguing for a structural solution.