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## Shortening of the Slavic long circumflex – *one mora law* in Croatian

### INTRODUCTION<sup>1</sup>

The general reflexes of the Proto-Slavic old long circumflex (\* $\bar{\text{}}$ ) in Croatian have been known for a long time. In monosyllabic and disyllabic words (not counting the final *yers*) it yields Croatian long falling accent (˘), cf. PS \*gōrdь > Croat. *grād* ‘town’ and PS \*zōlto > Croat. *zlāto* ‘gold’. In contrast to this, the old \* $\bar{\text{}}$  is shortened in trisyllabic and polysyllabic words, cf. PS \*s̄ynove > Croat. *sinovi* (: *sīn* < \*s̄ynь) ‘sons’, PS \*p̄orsete > Croat. *prāseta* (: *prāse* < \*p̄orsete) ‘pig’. This is uncontroversial and widely accepted<sup>2</sup>. However, this simplified approach does not really tell us what happens with the ‘inbetween’ cases, i.e. what happens with the words that have three syllables including the *yers*. In these cases, one finds examples which are not really clear at first glance, for instance the preservation of length in cases like *glādno* < \*gōldьno ‘hungry’ but shortening in cases like *mūško* < \*mōžьsko ‘male’ (: *mūž* < \*mōžь ‘man’), or the preservation of length in cases like *būbanj* < \*bōbьnj ‘drum’ but shortening in cases like *vjēčan* < \*vĕčьnj ‘eternal’ (: *vijek* < \*vĕkь ‘age’). It is obvious that some kind of explanation has to be given here since the quoted simple rule about disyllables and trisyllables does not help us here.

I have tackled this problem already in one of my articles (Kapović 2005a: 77–81) and I believe that the explanation given there is basically correct (cf. also Kapović 2008: 13). However, some very important examples have not been discussed in that article and the case of the words like \*mōžьsko has not been properly explained there. Thus, a more detailed approach to the subject is needed as well as careful examination of additional data. That is the purpose of this article.

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<sup>1</sup> I would like to thank Marko Kapović for proofreading the text.

<sup>2</sup> See for instance Дыбо 2000: 18 for this kind of simple explanation.

I have already tried to explain the shortening of pretonic length in Slavic with the help of morae. The claim is that pretonic lengths in Slavic are shortened in front of two or more morae (cf. Kapović 2005a: 101 and Holzer 2007: 74–75). There, the concept of morae is used to explain in which positions pretonic lengths are shortened and in which ones they are preserved. Mora is defined as follows: Slavic originally long vowels (\*a, \*ĕ, \*i, \*u, \*y, \*ę, \*q and diphthongs \*or, \*er, \*ol, \*el, \*ьr, \*ьr, \*ьl, \*ьl) count like two morae<sup>3</sup>, Slavic originally short vowels (\*e, \*o) count as one mora and the *yers*, the ‘reduced’ vowels (\*ь, \*ь) count as half a mora. In this article, I shall try to prove that the shortening of the old long circumflex in Croatian can be explained via the morae concept as well.

#### THE CONDITIONS OF THE SHORTENING OF THE LONG CIRCUMFLEX

Here I shall adduce examples for the long circumflex shortening rule, which point to a variant treatment of the long circumflex in Croatian due to syllabic structure, i.e. to the number of morae after the long circumflex. The examples provided are those with a regular reflex. Words with analogical changes will be dealt with in the following text.

- 1) PS \*mŷ > Northern Čakavian/Kajkavian *mî* we
- 2) PS \*dârь > Croat. *dâr* gift
- 3) \*zôlto > *zlâto* gold
- c) \*bŕbьnъ > *bûbanj* drum
- d) \*mŕžьsko > *mûško* male
- e) \*môldostь > *mlâdost* youth
- f) \*sŷnove > *sinovi* sons

The example of *mî* shows the preservation of the long circumflex in monosyllabic words<sup>4</sup>. Additional examples from the same dialects are *tî* thou, *vî* you. As for Štokavian, one could cite aorist 2nd and 3rd person sg. like *pî* < \*pî ‘drank’ (from *piti* ‘drink’) for the same kind of development. However, these kinds of examples are not really reliable since it is quite certain that their actual Proto-Slavic form was \*pîtь<sup>5</sup> and that the ending \*-тъ was subsequently lost in Croatian (like in the 3rd sg. of the present tense).

<sup>3</sup> Except in the final open syllable where they are shortened (like in \*rŕkâ > \*rŕkâ) and thus count as a short vowel. In traditional accentological approach, all lengths in final open syllables are shortened. However, if one accepts that some lengths are preserved in final open syllables (like Croat. dial. instr. sg. -î < \*-ÿ in *o*-stems), then, of course, those are counted as two morae as well and pretonic length is shortened in front of them.

<sup>4</sup> Standard Croatian (i.e. Neo-Štokavian) *mî* derives from the older form *mî*, which has a secondary accent by analogy to *jâ* (cf. Kapović 2006: 55).

<sup>5</sup> One would expect this secondary ending exactly in a. p. *e*, where the circumflex appears (cf. Дыбо 2000: 304–309).

Examples like *dār* and *zlāto* are not problematic. The long circumflex is always preserved in such examples. The short falling accent in cases like the prefixed 2nd/3rd person aorist like *nāpī* (from *nāpiti* ‘get drunk’) is either regular from the form *\*nāpīть* (which would behave like *\*mōldostь*) or is analogical to *pōpī* (from *pōpiti* ‘drink up’) that has an original short vowel<sup>6</sup>.

Like *dār* and *zlāto*, the reflexes *mlādōst* and *sīnovi* are also not very problematic and here I refer to Kapović 2005a: 80–81. However, a few things need to be discussed. Basically, there is no difference between shortening in *mlādōst* and shortening in *mūško*. In both cases, the long circumflex is shortened in front of one and a half mora (one full vowel + one *yer*), the difference being only in their sequence. Thus, it seems logical to assume that the long circumflex was treated in the same way in both cases. The shortening like *mlādōst* also explains why prepositions, conjunctions and particles that obtain the absolute initial falling accent in the *enclitomena* forms of the mobile accentual paradigm (a. p. c)<sup>7</sup> like *nā glāvu* < *\*nā golvq* ‘on the head’ almost always have “. Forms like *nī bōg* < *\*nī bogъ* behave like *\*mōldostь* and forms like *nā oko* < *\*nā oko* ‘on the eye’ behave like *\*sŷnove*. However, there is one exception – dialectal forms like *zā me* < *\*zā meъ* ‘for me’, *nā te* < *\*nā teъ* ‘on you’ etc.<sup>8</sup> Here, the long falling accent is preserved like in the example *zlāto*.

There are some examples in which there seems to be no shortening of the *sīnovi* type. A case in point would be possessive adjectives ending in *-ov* like *vūkov*, *vūkovo*<sup>9</sup> ‘wolf’s’ or *mūžev*, *mūževo* ‘husband’s’, where one would expect shortening. However, these are easily explained by analogy to the basic nouns *vūk*, *mūž*. Cf. the original shortened forms in dial. forms *kūmovu* (fem. acc. sg.), *kūmovi* (masc. nom. pl.) from *kūm* – *kūma* ‘best man’ in Donja Bebrina in Posavina (Old Štokavian)<sup>10</sup>. In the standard language, the accent is levelled – *kūmov*, *kūmovi* by analogy to *kūm*. See also a place name *Vūkovo Selö* in the Lower Sutla (*donjosutlanski*) Kajkavian/Čakavian dialect<sup>11</sup> and compare it with the usual possessive adjective *vūkovo*. Secondary analogical length of the same type is also seen in the name *Tijēlovo* ‘Corpus Christi’, where the orthography ⟨Tijelovo⟩ itself points to the length. This is analogical to the basic form *tijelo* ‘body’ and the original shortened form can be seen in the alternative form *Tjēlovo*, which is also a very common pronunciation.

<sup>6</sup> The former is a possibility in the case one would refrain from reconstructing the ending *\*-тъ* in these aorist forms.

<sup>7</sup> Forms *a*, *b*, *c* are used for Proto-Slavic accentual paradigms and A, B, C for modern (Croatian) accentual paradigms. A colon (:) is used to indicate the length of modern accentual paradigms (B:, C:).

<sup>8</sup> Cf. Kapović 2006: 43, 80–81.

<sup>9</sup> The feminine form *vūkova* is analogical, in Proto-Slavic it was *\*vuková*, cf. Дыбо 1981: 126.

<sup>10</sup> My data.

<sup>11</sup> ĐGO 2007: 220.

There are more problems concerning examples like \*bŕьbъnъ > *būbanj* and \*mŕ̑žьsko > *müško*. Here we propose that the old long circumflex is regularly maintained in words like *būbanj* (i.e. words having two *yers* after the circumflex) and that it is shortened in all other cases – that is, in all cases that have one full vowel plus a *yer*, two full vowels etc. So the limit of the preservation of length is at two *yers* after the accent, i.e. one mora. Since every *yer* counts as half a mora, two *yers* count as just one mora, so examples like \*bŕьbъnъ are in mora terms the same as examples like \*zŏlto and that is why the length of the circumflex is preserved there. That is also why we posit the *one mora law* that says: Proto-Slavic long circumflex is preserved in Croatian only in front of one or fewer morae<sup>12</sup>.

There are a couple of problems with examples like \*bŕьbъnъ > *būbanj*. First of all, one would expect shortening in the oblique forms of the word. Forms like \*bŕьbъna (gen. sg.) and \*bŕьbъnu (dat. sg.) should yield \*būbnja, \*būbnju, in the same way as \*mŕ̑žьsko yields *müško*. It is obvious that the attested forms *būbnja*, *būbnju* are analogical to the nom/acc. sg. *būbanj*. This kind of levelling is clearly attested in the word *lakat* ‘elbow’. Here, in place of Proto-Slavic \*ŏlkъtъ we find in Croatian two variants: *lăkat* and *lâkat*, both widely attested in various dialects. How did this situation come about? What we expect from the old \*ŏlkъtъ, gen. sg. \*ŏlkъti is Croatian \*lâkat, gen. sg. \*lâkta (with a transfer to *o*-stems). This alternation was then resolved by various dialects generalizing one form or the other<sup>13</sup>. Another clear case of shortening of the *müško* type is the acc. sg. *djěcu* < \*dětъcŏ ‘children’ (cf. *dijete* ‘child’). The nom. sg. form *djěca* has the short syllable by analogy to the forms with the initial accent. As for the form *sŕ̑ce* ‘heart’, I shall not discuss this problematic form here again. There are many indices that point to the Proto-Slavic form \*sŕ̑rdьce and thus to the shortening of the old long circumflex, but this kind of form is problematic in Proto-Slavic (one would expect \*sŕ̑rdьcě). For more cf. Kapović 2005a: 80f and Kapović 2005b.

The main chunk of evidence for different results of levellings in the *lăkat/lâkat* type words comes from \*-ьnъ and \*-ьkъ adjectives. Here, in accentual paradigm *c* one can reconstruct Proto-Slavic forms like: \*gŏlsьnъ – \*golsьnâ – \*gŏlsьno ‘loud’ and \*tĕgъkъ – \*tĕgъkâ – \*tĕgъko ‘heavy’ (cf. Дыбо 1981: 94, 107, Дыбо 2000: 159, 171). Up until now, it has been mostly taken for granted that length is preserved in forms like Croat. *glâsan* – *glâsna* – *glâsno* and *tĕžak* – *tĕška* – *tĕško*. However, according to the one mora law we posited, one would not expect a complete maintenance of length but a complicated set of short/long alternations in various forms of these adjectives.

<sup>12</sup> Actually, by analogy to the *two morae law* (pretonic length is shortened in front of two or more morae), one would expect the name *one and a half morae law*, but this name was not chosen for obvious reasons.

<sup>13</sup> Cf. also the case in Dubrovnik, where *lăkat* is ‘elbow’ and *lâkat* is ‘ell’ (ARj).

In Proto-Slavic, we find<sup>14</sup>:

masc. – neut. – fem.

N. \*gōlsъnъ – \*gōlsъno – \*golsnà

G. \*gōlsъna – \*golsъnŭ

D. \*gōlsъnu – (\*gōlsъnĕ)

A. \*gōlsъnъ – \*gōlsъno – \*gōlsъnŏ

L. \*gōlsъnĕ – (\*golsъnĕ)

I. (\*gōlsъnomъ) – \*golsъnojŏ

n. \*gōlsъni – \*golsъnà – \*gōlsъny

(g. \*golsъnъ)

(d. \*golsъnomъ – \*golsъnāmъ)

a. \*gōlsъny – \*golsъnà – \*gōlsъny

(l. \*golsъnĕxъ – \*golsъnāxъ)

(i. \*golsъnŭ – \*golsъnāmi)

In Croatian, one would expect the following paradigm after the phonetic shortening of the one mora law:

masc. – neut. – fem.

N. \*glāsan – \*glāsno – \*glāsna<sup>15</sup>

G. \*glāsna – \*glasnĕ

D. \*glāsnu

A. \*glāsan/glāsna – \*glāsno – \*glāsnu

L. \*glāsne (\*glāsnu)

I. \*glasnŏm

n. \*glāsni – \*glāsna – \*glāsne

a. \*glāsne – \*glāsna – \*glāsne

The same type of pattern would be expected in \*tēzak – \*tēško – \*tēškā etc. This kind of length alternation was hardly maintainable, so what occurred was that either short or long forms were generalized. In some cases, only the long form is attested (like in *glādan* < \*gōldъnъ ‘hungry’), in others it is just the short form that is attested (like in *vjĕčan* < \*vĕčъnъ or *krĕpak* < \*krĕpъkъ ‘brisk’) and in some cases both

<sup>14</sup> The forms in brackets are the ones that have not been reflected in Croatian. Instead of them, definite endings were taken.

<sup>15</sup> For the preservation of length here, cf. *plāno* < \*polъnŏ (Karović 2005a: 89–90).

forms are present (like in *glāsan/glāsan* < \*gōlsъnъ or *těžak/těžak* < \*tęgъkъ)<sup>16</sup>. Generalizing the length meant maintenance of the a. p. C mobile accent, while generalizing the shortened forms meant a shift to a. p. A (*glāsan* – *glāsna* – *glāsno*).

Here is the exact situation in \*-ъnъ adjectives<sup>17</sup>:

a) only short stem attested

*rēdan* orderly, *slāstan* delicious, *sprāsna* with young (of sows), *ždrēban* with young (of mares)<sup>18</sup>

b) short stem in some dialects, long in others

*bītan/bītan* important, *glāsan/glāsan* loud, *gnjūsan/gnjūsan* dispicable, *krēpan/krijēpan* brisk, *māstan/māstan* greasy (A in Kajk.)<sup>19</sup>, *mīran/mīran* still (A in Kajk.), *prāšan/prāšan* dusty, *sjājan/sjājan* glowy (A in Kajk.), *skrēban/skrēban* caring (A in Kajk.), *snjēžan/snjēžan* snowy, *srāman/srāman* ashamed (A in Kajk.), *strāšan/strāšan* terrifying, *svjēstan/svijēstan* aware, *vjēčan* (Vuk *viječan*), *zrāčan/zrāčan* airy (A in Kajk.), *žūčan/žūčan* bitter<sup>20</sup>

c) only long stem attested

*bijēsan* furious, *būdan* awake, *glādan*, *hlādan* cold, *mrāčan* dark, *zlātan* golden<sup>21</sup>

In the \*-ъkъ adjectives, the end results are slightly different, looking at the numbers of various types of levellings (but there are far fewer examples here than in \*-ъnъ adjectives):

a) only short stem attested

*brīdak* sharp, *dřzak* daring, *krēpak*, *křhak* fragile, *slādak* sweet

<sup>16</sup> In some dialects, combined forms are attested, cf. in Sikerevci (Posavina, Old Štokavian – my data) *těžak* – *těžka* – *těžko*.

<sup>17</sup> For the reconstruction of Proto-Slavic accentual paradigms, cf. Дыбо 1981: 72–107, Дыбо 2000: 154–175. Also, some of the information relevant for the reconstruction of particular accentual types is provided briefly in the footnotes.

<sup>18</sup> Cf. *rēd* – *rēda* order, *slāst* – *slāsti* relish (also \*sōldъkъ ‘sweet’), *prāse* – *prāseta* pig (also Siče in Posavina 3rd sg. *se prasī* farrows), *ždrijēbe* – *ždrēbeta* foal (also Siče in Posavina 3rd sg. *se ždrebī* foals).

<sup>19</sup> In Kajkavian, generalization of the short variant occurs in cases in which it never occurs in Štokavian or Čakavian.

<sup>20</sup> Cf. *bīt* – *bīti* essence (also *bīti* – *bīla* be – was), *glās* – *glāsa* voice, *gnjūs* – *gnjūsa* scoundrel, Slovene *krepīm* (also \*krēpъkъ ‘brisk’), *māst* – *māsti* fat (also Siče in Posavina 3rd sg. *masti*), Kajkavian/Čakavian *mīr* – *mīra* peace (Štokavian *mīra* is secondary), *prāh* – *prāha* dust (also Siče 1st sg. *prašīm*), *sjāj* – *sjāja* glow, *skrēb* – *skrēbi* care, *snijēg* – *snijēga* snow, *srām* – *srāma* shame, *strāh* – *strāha* fear (but *strāšiti* scare), *svijēst* – *svijēsti* consciousness, *zrāk* – *zrāka* air, *žūč* – *žūči* bile.

<sup>21</sup> Cf. *bijēs* – *bijēsa* rage, Siče in Posavina 3rd sg. *budī* awakens, *glād* – *glādi* hunger, *hlād* – *hlāda* shade, *mrāk* – *mrāka* dark, *zlāto* gold.

b) short stem in some dialects, long in others

*mĕk(ak)/mĕk* soft, *pĭtak/pĭtak* drinkable, *iĕžak/iĕžak*, *vĭtak/vĭtak* slim<sup>22</sup>

Various kinds of levellings of shortness/length and various types of double forms in \*-ьнь and \*-ькъ adjectives cannot be explained in any other way than by assuming the existence of the one mora law<sup>23</sup>. Thus these types of adjectives provide valuable additional data for the discussion of the rules for the shortening of the Proto-Slavic long circumflex in Croatian.

#### Literature

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<sup>22</sup> Cf. *pĭti – pĭla – pĕpĭt* ‘drink – drank – drunk’ and *vĭti – vĭla – zävĭt* ‘flutter/wind – folded’. The rest of the \*-ькъ adjectives are reconstructed as a. p. c by Дыбо.

<sup>23</sup> Shortening also occurs in some \*-ьнь and \*-ькъ adjectives that have originally belonged to a. p. b, cf. for instance *grĕšan* ‘sinful’ and *krĕtak* ‘short’. However, this process is not directly connected to the shortenings in the a. p. c and does not undermine our analysis presented here. More on this in Kapović *forthc.*

**A b s t r a c t:** *Shortening of the Slavic long circumflex – one mora law in Croatian.* The article deals with the precise rules for the shortening of the Proto-Slavic old long circumflex in Croatian. The conditions of the shortening are explained in mora terms and a special emphasis is put on the evidence coming from -an and -ak adjectives.

**K e y w o r d s:** Croatian, Proto-Slavic, Slavic, accentuation, shortening, circumflex

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