

SUPRASEGMENTAL SIGNALS IN THE DALMATIN BIBLE

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In "Razvoj bohoričice," the final chapter of his book, *Začetki slovenskega knjižnega jezika*, Jakob Rigler gives a short, but quite adequate account of the accent marks used by Jurij Dalmatin in his very important translation of the Bible, both Old and New Testaments. He says in essence that the grave accent is used to render the reduced vowel "ə", the acute accent primarily to mark the Slovene reflex of "ě" and occasionally to indicate some other stressed vowels. This paper examines the employment of these diacritical marks more closely and checks their possible significance for intonation.

It is a known fact that Jurij Dalmatin borrowed the use of these diacritical marks as well as other orthographical conventions from the writings of Sebastijan Krelj, who was familiar with the cyrillic and glagolitic alphabets and sought to capture the distinctions made in these alphabets within the latin alphabet. Krelj used ´ for the Slovene reflex of ě and ` for ə; and these conventions were taken over by Dalmatin, who, however, expanded somewhat their use in his Bible. This Slovene Bible, published in 1584, is the most important of Dalmatin's publications and, together with the works of Primož Trubar, Krelj, and Adam Bohorič played a fundamental role in the creation of the Slovene literary language from a fusion of two central dialects, Upper and Lower Carniolan.

The two accent marks, the acute ´ and the grave ` are both applied very inconsistently to the vocalic graphemes throughout the Bible. I do not consider an accurate count significant; but I would estimate that occurrences with "e" are found on just about every page, occurrences with "a" and "o" are much less frequent, and those with "u" are very rare. The following verses from the Dalmatin Bible, Matthew 10: 12-14, will furnish a brief example of the use of these accent marks as well as of the presence of other graphic peculiarities and various archaisms and dialectal features proceeding from the Dolenjsko or Lower Carniolan dialect. The translation of these verses as well as the various forms cited throughout this paper is from the King James Version of the English Bible.

- 12 Kadar pak pojdete notàr vèno Hif ho, taku teif ti dobru vsdajte.
- 13 Inu aku taif ta Hif ha bo vrejdna, taku bo vaf h myr zhes njo priif hàl: Aku pak nej vrejdna, taku fe bo vaf h myr supet kvam vènil.

- 14 Inu aku vas gdu nebó gori vsel, ni vajhe beššede pošlušhal, taku pojđite vunkaj is tejšte Hifhe ali méšta, inu odtrešite prah od vajhah nug:
- 12 And when ye come into an house, salute it.
- 13 And if the house be worthy, let your peace come upon it: but if it be not worthy, let your peace return to you.
- 14 And whosoever shall not receive you, nor hear your words, when ye depart out of that house or city, shake off the dust of your feet.

In this bit of text we see first of all that the grave accent ` is positioned over the centralized vowel ə as in the forms *notár* (nôter) “in”, *prišhàl* (prišel/prišèl) “came”, *vèrnil* (vrnil) “returned”. On the other hand, the acute accent appears to have been placed over stressed (long) vowels as in *nebó* “will not be” and *méšta* (GS) “city”. Note that the potentially stressed vowel “e” in *odtrešite*, as in *odtrésem* (1 sg.) is not accented because it is not stressed in the imperative (*odtresíte*). Inconsistency is to be noted even in this short passage in the form of *beššede* (besêde), where the stressed long vowel is not accented. We would also expect é in the form *vrejdna* (vrédna), but here we find documented the Lower Carniolan -ei- for an original -ě-. Another Lower Carniolan dialectal feature is the change of -o- to -u- as in *dobru* (dóbro), *taku* (takô), *aku* (àko), *nug* (nôg). Very much the same picture is presented throughout the Dalmatin Bible.

Even in the short passage quoted above we have seen that the use of the accent marks has a more than tenuous connection with the position of stress. The details of this connection will emerge below, but already we have reaffirmed that the acute accent seems to be lodged on stressed vowels, whereas the grave accent may or may not be associated with stress. The first major question to arise is whether either accent mark has anything to do with the rising or falling intonation or the absence of intonation. This is an entirely legitimate question because the two Slovene retractions that greatly increased the number of instances of rising intonations, the first from final short syllables to preceding long syllables and the second from final short syllables to preceding short syllables that were subsequently lengthened and circumflex accents produced both by the advancement of stress and by the lengthening of various short vowels under stress, are all generally assumed to have occurred before the sixteenth century. The answer to the above question is readily apparent from a brief survey of pertinent forms in the Bible. Neither accent has any significance for intonation. The acute accent always occurs with stress and concomitant rising or falling intonation. The vowel “e” offers the best evidence, but note that both “a” and “o” may also be accented with either intonation:

Nouns

vodé (vodê)(N/AP) "waters"
 moké (moké)(GS) "flour"
 Svésde (zvézde)(N/AP) "stars"
 drivéŝŝa (drevêsa)(AP) "trees"
 slatá (zlatâ)(GS) "gold"
 toshbó (tožbó)(IS) "plea"
 veshó (vezô)(AS) "chamber"

Adjectives

cél (cêl)(ASM) "all"
 temmé (temmê)(AP) "dark"
 lépa (lépa)(GSN) "pleasant"
 lévi (lévi)(LSF) "left"

Verbs

tèrpé (trpé)(3 pl.) "are persecuted"
 néŝi (nési)(2 sg.) "art not"
 resouméte (razumêjte)(2 pl. imper.) "understand"
 odtél (otêl)(MS perf. part.) "delivered"
 velá (veljâ)(3 sg.) "shall stand"
 isdá (izdá)(3 sg.) "deliver"
 nebó (nebô)(3 sg.) "shall not"
 isdadó (izdadó)(3 pl.) "deliver up"

The grave accent occurs on stressed syllables under either intonation and on unstressed syllables:

Nouns

Vèrt (vrt)(NSM) "garden"
 Gàrlizo (grlico)(ASF) "turtledove"
 gàrdu (grdo)(NS) "proudly"
 Tèrft (trst)(NSM) "reed"
 odgèrnen (odgrnen)(MS) "uncovered"

Adjectives

mèrtvi (mrtvi)(NPM) "dead"
 gàrdu (grdo)(NS) "proudly"
 odgèrnen (odgrnen)(MS) "uncovered"
 tèrd (trd)(MS) "sore"
 shaloŝtèn (žalosten)(MS) "displeased"
 èrdezhimu (rdêçemu)(DSN) "red"

Verbs

odpèrle (odprle)(FP) "opened"
 reŝtèrganu (raztrgano)(NS) "torn"
 vèrnile (vrnile)(FP) "returned"
 vmèrjem (umrjem)(1 sg.) "die"
 dotèknìl (doteknil)(MS) "touched"
 podpregèl (podprégel)(MS) "saddled"

We conclude then that the acute accent is intimately joined with stress, the grave accent may or may not be linked with stress, and that neither accent gives any selective indication of intonation.

At this point it should be quite clear to the reader that the accent marks have a phonetic and graphemic significance. Most of the examples quoted above involved the grapheme "e", accented with either ´ or ` . The presence of these accent marks over "e" was presumably a device used to distinguish three possible qualities of this grapheme, a practice instituted by Krelj. We have seen that è denotes "ə" and that é renders "e". This means that the symbol "e" without any accent was "ε".

Rigler states that the acute accent denotes merely a stressed vowel and cites a total of nine words where the ´ was over an "e" with the quality of "e". I examined about five hundred pages of the Bible and discovered only two instances where é was equal to "e". Since there are a good many inconsistencies and mistakes in the Bible, I would conclude that the ´ mark was meant to have both a qualitative and a stress value distinguishing the two different pronunciations. Let us now examine the details of Dalmatin's exploitation of these diacritical marks not only in regards to the grapheme "e" but their application to other vowel symbols as well.

We begin with the use of the grave accent to indicate the "ə" pronunciation of the grapheme "e". This is the more consistently applied of the accent marks and, with minor exceptions that will be explained below, is used practically exclusively with the grapheme "e". This centralized vowel è appears in the Dalmatin Bible as a reflex of historical developments in three main environments. In the first place, it appears as a direct reflex of both strong jers (ǰ, b) that were not subsequently lengthened.

Nouns

Lovèc (lôvec) "hunter"
sazhetèk (začétek) "beginning"
Kosèl (kózel) "goat"
Pès (pès) "dog"

Adjectives

pravizhèn (pravíčen) "righteous"
shegèn (žegèn) "blessing"
podobèn (podóben) "like"
brumèn (brúmen) "upright"

Verbs

dotèknìl (doteknìl) "touched"
pàhnìli (pehnìli) "cast"
dàhnìl (dahnìl) "breathed"

In the latter two examples among the verbs the grave accent over the vowel "à" undoubtedly signals the pronunciation variant "ə".

The second instance where ` is applied to e occurs in the Slovene reflex of sonant ǰ where ǰ > ər.

Nouns

pèrǰt (pǰst) "dust"
Tèrnje (trǰje) "thorns"
Mèrtveza (mǰtveca) "dead"

Adjectives

zhetèrti (četǰti) "fourth"
vǰakèrhna (vsàkršna) "every"
ǰkèrbnu (skǰbno) "diligently"

Verbs

vèrsi (vǰzi) "cast"
bo . . . omèrsovala (omrzovála) "shall wax cold"
resdèrła (razdǰrła) "rent in pieces"
tèrpéli (trpéli) "suffer"

The third environment for "è" embraces the so-called "secondary-jers" that developed between final liquids and immediately preceding

consonants. This latter phenomenon has a limited distribution among nouns and short-form adjectives in the nominative singular masculine and is fairly widely found among 1-participles of athematic verbs.

Nouns

Vejtèr (véter) "wind"
 Œtebèr (stebèr) "pillar"
 Ietèr (jéter) "liver"
 vogèl (vôgel) "quarter"

Adjectives

dobèr (dóber) "good"
 modèr (móder) "wise"

Verbs

mogèl (mógel) "can"
 padèl (pâdel) "smote"
 tekèl (tékel) "ran"
 Œedèl (sêdel) "sat"

A particularly interesting manifestation of this è occurs in the syllable pèr- representing the verbal prefix pri- and a few instances of the preposition pri. Here we see the workings of a diffuse-compact reduction in unstressed syllables that was characteristic of the Lower Carniolan dialect and is in the modern colloquial language. This development must have occurred in two stages: first, the diffuse vowel i yielded the compact sound ə and then this latter sound was either lost to leave a sonant -r- producing the usual reflex -ər- or the -rə- complex was easily metathesized into the familiar sequence -ər-:

pèrpelal (pripéljal) "brought"
 pèrgudilo (prigodílo) "came to pass"
 pèrmorava (primórava) "shall compel"
 pèrvèrshenu (privr̂ženo) "added"
 pèr Nebi (pri nebi) "by heaven"
 pèr Murji (pri môrji) "upon the sea coast"

It is quite clear now that the acute accent over the "e" signifies a stressed close "e". This is true whether this "e" maintained its length throughout the history of the language or whether it was an originally long vowel that lost its length but regained its length under stress or whether it was a short e that acquired stress and then was lengthened.

- (1) Original long ē(ě), originally stressed, subsequently shortened, finally re-lengthened:

Nouns

Œéme (séme) "seed", Zhlovéka (človéka)(AS) "man", léjt (lêt)(GP) "years", predéle (predéle)(AP) "rooms"

Adjectives

modréŒha (modrêjša) "more subtle", potreben (potrében) "poor"

Verbs

jémo (jêjmo) "eat", obrésanu (obrézano) "circumcized",
 řédla (sédla) "sat down"

- (2) Secondary long \bar{e} (ě) mostly from various diphthongs, all acquiring the circumflex accent:

Nouns

řnég (snêg) "snow", vék (vêk) "might", řénu (sênu)
 "grass", rézh (rêč) "cause"

Adjectives

cél (cêl) "all", řlép (slêp) "blind"

- (3) Secondary long \bar{e} again mostly from various diphthongs under the neo-acute accent:

Nouns

Séle (zélje) "herb", gréh (gréh) "sin", Péřik (pése)k
 "sand"

Adjectives

béliga (bélega)(GSN) "white"

Verbs

ře sdèrshé (se zdržé) "separate themselves", leshé (ležé)
 "lie", savlékil (zavlêkel) "was long"

(the circumflex accent in the last verbal example is secondary)

- (4) Secondary lengthening of final e under the circumflex accent produced by the advancement of stress:

Nouns

Oucé (ovcê)(AP) "sheep", Pepél (pepêl) "ashes", Volké
 (volkê)(AP) "wolves"

Adjectives

sholté (žoltê)(AP) "yellow", temmé (temmê)(AP) "dark-
 ness"

(in these adjectival forms the circumflex on the long vowel
 is an analogical development)

Verbs

odtél (otél) "delivered"

- (5) Long \bar{e} (ě or ě) that obtained its length in pretonic position and acquired the stress by the Slovene retraction from a final short vowel to a preceding long vowel.

Nouns

gnésdu (gnézdó) "nest", Svésde (zvézde)(AP) "stars",
 řrédi (srédi)(LS) "midst"

Adjectives

lépa (lépa)(GS) "pleasant", lévi (lévi)(LS) "left"

Verbs

vmréti (umréti) "die", oblékla (oblékla) "put upon", odtéla
 (otéla) "deliver"

Long open \bar{e} ($\bar{\epsilon}$) that developed by retraction of the stress from a final short vowel to the preceding short e was accented only rarely in the Dalmatin Bible; and I am assuming that such instances are mistakes, that the original purpose of the accent marks over the e grapheme was to distinguish the three phonetic variants for this symbol.

Shena (žéna) "wife", rezhem (réčem) "say", tebi (tébi)(DS) "thee"
 njemu (njému)(DS) "him", deshela (dežéla) "land"

The same accentual scheme, i.e., the accentuation of the close vowels and the nonaccentuation of the open vowels seems to have been transferred but with less consistency to the grapheme "o" in the Dalmatin Bible. Here we find that the close o bears the acute accent usually in absolutely final position in nouns and verbs.

- (1) Long close "o", the result of contraction of two final syllables with the original stress on the final one:

řmolo (smoló)(IS) "pitch", rokó (rokó)(IS) "hand", ř' brambó
 (brambó)(IS) "armed"

- (2) Long close "o", the result of the advancement of stress to produce secondary circumflex accents:

Kosó (kozô)(AS) "she-goat", řlushbó (službô)(AS) "service"

- (3) Long close "o", the result of the retraction of stress to pretonic length or to a secondarily lengthened short vowel to produce the neo-acute accent:

gredó (gredó)(3 pl.) "go", odpró (odpró)(3 pl.) "openeth"
 poneřsó (ponesó)(3 pl.) "bear", kópati (kópati)(inf) "wash",
 pójti (from poíti)(inf) "pass", hózhem (hóčem)(1 sg.) "will"
 próři (próři)(3 sg.) "asketh"

Long open o (\bar{o}), which is produced by the retraction of the original stress to the preceding syllable with an inherently short "o", does not bear an accent mark:

konez (kónec) "end", řhiroka (řiróka) "wide"
 dobru (dóbro) "good", řramoti (sramóti)(DS) "shame"

Only once did this open \bar{o} turn up with an acute accent, otróke (otróke)(AP) "sons", not enough evidence to claim that the acute accent merely signals the stress.

Words in which various manifestations of a long close "o" are written in the Bible as "u" must be due to the Lower Carniolan dialect where this phenomenon was a regular sound change:

Púla (pôlja)(GS) "field", Modrust (modrôst) "wisdom"
 Gofpud (Gospôd) "Lord", otruk (otrók)(GP) "sons",
 ſe sgudilu (se zgôdilo) "came to pass", ſturila (stôrila) "have
 made",
 úni (ôni)(LS) "this", odúnod (odônod) "thence"

Note that this dialectal feature does not appear when the long close "o" is in absolutely final position: rokó "hand", Kosó "she-goat", poneſsó "bear".

There are three isolated instances where the grave accent was printed over the grapheme "o". This is done consistently in the case of the word kakòr (kákor) "as" and occurs just once in an instrumental singular obrasòm (obrásom) "face" and once in a pronominal form vòbadveih (obadvéh)(LP) "both". These few forms do not constitute sufficient evidence for a significant statement, but it is possible that the grave accent represents a dialectal reduction of unstressed "o". It is a known fact that unstress "o" may reduce to a or u in the Lower Carniolan dialect, and it certainly is reduced to a significant extent in the modern Ljubljana dialect.

Thus far we have emphasized the fact that the acute accent is used quite consistently to distinguish the tense sounds e and o from the lax sounds ϵ and \bar{o} and that this permits the use of two graphemes to distinguish four different sounds. The grave accent allows the symbol e to render the centralized vowel \bar{e} . It is not clear that ò captures some lax vowel sound. When we turn to a consideration of the grapheme "a", we observe that it also displays the acute accent, but only when this vowel appears in absolutely final position. In the case of the vowel "a" we do not have a phonemic qualitative opposition under stress; rather, we are dealing here only with a quantitative opposition. Stressed vowels in open syllables are long, unstressed vowels and stressed in block syllables are short. As is known, stressed "a" in a blocked syllable may be reduced to à in the modern language. It seems, therefore, that since stressed "a" appears frequently in absolutely final position just as do "e" and "o", it too receives the acute accent. It appears wherever there is a final stressed "a":

- (1) In the genitive singular and nominative/accusative dual of those masculine and neuter nouns and adjectives where the advancement of stress occurred:

Nebá (nebâ) "heaven", rodá (rodâ) "generations", leŝŝ á (lesâ) "wood", ŝerzá (srcâ) "heart", uhá (uhâ) "ear" nagá (nagâ)(NDu) "naked"

- (2) In the third singular of verbs with thematic -a where contraction of the disyllabic -àje- has produced a circumflex accent:
ispelá (izpeljâ) "bring out", ŝe posná (se poznâ) "is known"
nehá (nehâ) "not be"
- (3) In the third singular of the verb dati where a neo-acute accent developed on the root vowel:
prodá (prodá) "sell", isdá (izdá) "deliver"

While an "o" with a grave accent is very poorly documented, an "a" with the same accent is found in a fair number of words throughout the Bible. This state of affairs is undoubtedly due to the fact that unstressed "a", particularly, may develop into the lax back mid vowel \hat{a} , rather close acoustically to the sound ə . We have already seen that an "a" may be used instead of an expected "ə" in words like pàrŝt (pŕst), kotàl (kótel), obédàn (obéden), lazhàn (láčen). This phenomenon may be attributed to the close similarity between ə and \hat{a} or to the "a" quality found in the Lower Carniolan reflex of "ə". It seems reasonable to expect also that an etymological "ə" sited between velars or palato-alveolars, on one hand, and a velarized "l", on the other hand, can easily be backed to "à" or to a sound near the quality of "à": rekàl (rékel), mogàl (mógel), ŝhàl (šel), priŝhàl (prišèl). "ə" in the diphthong "ər" seems also to have been similarly affected after velars: gàr̀la (gr̀la), gàr̀du (gr̀do), ŝkàr̀bnu (sk̀rbno), gàr̀mil (gr̀mèl). One isolated example knezhàti (néčisti) "unclean" could be ascribed to dialectal unstressed $i > \text{ə}$ with the latter backed by the influence of the preceding palato-alveolar. Actual occurrences of "à" as it is found in the literary language today are very seldom rendered by "à". I found only four possible examples: kàr (kàr) "right", vŝt̀al (vst̀al) "arose", slif̀hàl (slif̀šal) "hear" and noŝŝezhà (noséča) "bearing".

Probably the most puzzling case involves the graphic symbol "u" that turns up very sporadically only with the acute accent. This accent occurs usually over an etymological "u":

Nouns

úŝta (ústa)(AP) "mouth", od úma (od úma)(GS) "mad",
úro (úro)(AS) "hour", pres úrŝhaha (brez úr̀žaha) "without cause"

Adjectives

neúmnih (neúmnih)(GP) "mad", úŝŝenat (usenj̀at) "of leather"

Verbs

vúčiti (učíiti) "to teach", resúmeli (razuméli) "perceive"
vúpam (úpam)(1 sg.) "hope"

Preposition

ú'vajho deshelo (v vášo dežélo) "in your own land"

And it also is found very rarely over an "u" that developed in the Dolenjsko dialect from a close "o" of various origins:

Púli (pôlju)(LS) "field", bilú (biló) "had been",
úni (ôni)(LS) "this", odúnod (odônod) "thence"

The rarity of the occurrence of this "u" with the acute accent permits only speculation. If all such occurrences represented a stressed "u", it would be easy to conclude that Dalmatin wanted only to render the clear quality of a stressed vowel just as he does in the case of the other vowels accented with an acute accent mark. Several of the accented u's, however, are not stressed and this seems to indicate that there is yet another factor involved. Ramovš points out that after the revision of Dalmatin's manuscript for the Bible Dalmatin consistently used the sign "v" for the sound v, but he used both u and v for the vocalic sound u. When this fact is combined with the fact that most of the accented u's are in initial position in the word if not in the morpheme, a position where there was much confusion between u and v, it appears quite likely that the accenting of the u was a device to indicate the vocalic choice. By the way, it is not at all clear that the spelling vúčiti, vúpam points to a prothetic v- before the following back vowel. It is quite possible that both cited reasons for "ú" are valid: a stressed "u" and disambiguation of u/v in initial position.

We have seen now that the acute accent and the grave accent, both of which are used quite inconsistently in the Dalmatin Bible, have nothing whatsoever to do with the intonations in Slovene. When they are used, they generally have a phonetic significance. It is possible that é, ó play a phonemic role in distinguishing e and o from ε, o without the accent. The symbol á may have a quantitative and qualitative value in denoting the long vowel sound under stress. The symbol u may have a similar value as well as distinguishing between the use of u/v in initial position. The vowel symbols à, è, ò signify reduced forms of these vowels, either ə, à, or similar lax vocalic elements. I doubt that one may glean any more information from these accent marks. The main thesis here is that the acute accent has both a qualitative and accentual value, while the grave accent has only a qualitative value. If my arguments are not convincing, then we can say only that the acute accent denotes stress and the grave accent the sound ə.

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REFERENCES

- Bajec, A., R. Kolarič, L. Legiša, J. Moder, M. Rupel, A. Sovre, M. Šmalc J. Šolar, F. Tomšič, *Slovenski pravopis* (Ljubljana: SAZU, 1962).
- Dalmatin, Jurij, *Biblia* (1584), facsimile reprint (Munich: Rudolf Trofenik, 1976).
- Lencek, Rado, *The Structure and History of the Slovene Language* (Columbus, OH: Slavica Publishers, Inc., 1982).
- Pleteršnik, M., *Slovensko-nemški slovar* (Ljubljana: Katoliška tiskarna, 1894-1895), 2 vols.
- Ramovš, F., *Kratka zgodovina slovenskega jezika*, 1 (Ljubljana: 1936).
- Ramovš, F., "Delo revizije za Dalmatinovo biblijo," *Časopis za slovenski jezik, književnost in zgodovino*, 1 (1918), 115-47.
- Rigler, J., *Začetki slovenskega knjižnega jezika* (Ljubljana: SAZU, 1968) (Razred za filološke in literarne vede, Dela 22, Inštitut za slovenski jezik, 10).
- Svane, G.O., *Grammatik der slowenischen Schriftsprache* (Copenhagen: Rosenkilde and Bagger, 1958).
- Toporišič, J., *Zakaj ne po slovensko / Slovene by Direct Method* (Ljubljana: Slovenska izseljenska matica, 1969).
- Toporišič, J., *Glasovna in naglasna podoba slovenskega jezika* (Maribor: 1978).
- Valjavec, M., "Glavne točke o naglasu književne slovenštine," *Rad JAZU* 132 (1897), 116-213.