

RISE AND DEVELOPMENT OF SLAVIC ACCENTUAL PARADIGMS

FREDERIK KORTLANDT

It appears that the complexity of Slavic historical accentology is prohibitive for most non-specialists in the field. It may therefore be useful to approach the subject from a number of different angles in order to render it more accessible to a wider audience. In the following I shall discuss the separate accent paradigms and their development from the Late Balto-Slavic system, which is structurally similar to that of modern Lithuanian, up to the end of the Proto-Slavic period, when the system resembled what we find in modern Serbo-Croatian. The numbering of the stages 1.0 through 10.12 is the same as in my earlier publications (1989, 2003, 2005, 2006a, 2008b).

For the rise and development of the accentual system up to the end of the Balto-Slavic period I may refer to my discussion (2006b, 2008a) of Olander's dissertation (2006). It resulted in a system of four major and two minor accent types. The major types are the following:

- (1) Paradigms with fixed stress on an acute syllable.
- (2) Paradigms with fixed stress on a non-acute syllable.
- (3) Paradigms with accentual mobility between an acute radical syllable and the ending.
- (4) Paradigms with accentual mobility between a non-acute radical syllable and the ending.

At this stage, "acute" and "non-acute" stand for the presence versus absence of a glottal stop after the syllabic nucleus. When the accent was on the ending, it was on the final syllable of the word form unless it had been retracted to a preceding acute syllable in accordance with Hirt's law (at stage 4.1 of my chronology), e.g. in Lith. dat.pl. *galvóms* 'heads', Slovene *goràm* 'mountains' < *-àʔmus < *-aʔmùs.

In East Baltic, several retractions of the accent yielded rising and falling tone movements with different results in the separate dialectal areas (cf. Kortlandt 1977 and 2008a). While Latvian eventually fixed the stress on the initial syllable of the word, Lithuanian generalized accentual mobility between initial and final syllables in paradigms (3) and (4) and shifted the stress from a non-acute to a following acute syllable (Saussure's law), giving rise to new types of accentual

mobility in paradigms (2) and (4). Glottalization was eventually preserved in originally pretonic syllables in Latvian and under the stress in Žemaitian.

After the end of the Balto-Slavic period, the glottal stop was lost in pretonic and post-posttonic syllables with compensatory lengthening of an adjacent vowel in Early Slavic (at stage 5.3), e.g. **galwàʔ* < **golʔwàʔ* ‘head’, **àpsnawā* < **òpsnowaʔ* ‘base’, inst.sg. **sūnumi* < **suʔnumi* ‘son’, inst.pl. **gènaʔmīh* < **gènaʔmiʔs* ‘women’, cf. Lith. *galvā* (3), *sūnumi* (3), Slovene *osnōva*, *ženāmi* (with Dybo’s law at stage 8.7 and neo-circumflex at stage 10.9, see below). On the analogy of the end-stressed forms, the radical glottal stop was eliminated in barytone forms of paradigms with mobile stress (3), e.g. acc.sg. **gālwo* < **gòlʔwān*, **sūnu* < **sūʔnun*, SCr. *glāvu*, *sīn* (with a falling tone at stage 6.10 and metathesis at stage 7.12), cf. Lith. *gālva*, *sūny* with preservation of the acute. This is Meillet’s law (stage 5.4). As a result, accent type (3) merged with accent type (4) in Slavic, so that we now have three major accent types:

- (a) Paradigms with fixed stress on an acute syllable.
- (b) Paradigms with fixed stress on a non-acute syllable.
- (c) Paradigms with accentual mobility between the (non-acute) root and the ending.

At a later stage the glottal stop, which had now been preserved in stressed and first posttonic syllables only, became a tonal feature of stressed syllables, comparable to the Latvian broken tone, and was lost without compensatory lengthening in posttonic syllables (stage 7.13). As a result, the timbre distinctions between the short vowels and the acute “long” vowels became phonemically relevant and the quantitative differences in pretonic syllables were rephonemized as timbre distinctions, e.g. **glawā*, **žèna*, **òsnowā*, **glawāmi*, **žènamī*, **òsnowāmī*. The resulting alternation between short and long vowels in unstressed stem syllables and endings was largely eliminated by generalization of either the short or the long vowel in the separate dialectal areas.

In Late Proto-Slavic, the acute (broken, glottalic) tone was lost, yielding a short rising contour (stage 9.2), e.g. **glawā*, **glawāmi*, pre-Slovene **glāwā*, **glāwāmī*, pre-Russian **golowā*, **golowāmi*. This development was more recent than the East Slavic pleophony (stage 9.1) because the acute in Ukrainian *moróz* ‘frost’ < **-orò-* < **-òr-* remained distinct from the long rising tone in gen.pl. *holív* ‘heads’ < **-oló-* < **-ól-*. At a later stage, the stressed vowel of **jèzýkǔ* < **jèzýkǔ* ‘tongue’, which is faithfully preserved in Czech *jazyk* and SCr. *jèzik*, was analogically lengthened in gen.pl. **jèzýkǔ*, yielding SCr. *jèzíkā* with retracted stress as a result of Stang’s law (stage 9.3, see below). The analogical lengthening was more recent than Stang’s law in Čakavian (Novi) gen.pl. *suséd* ‘neighbors’, *kolèn* ‘knees’, where the retraction of the stress did not take place. The short rising vowel which arose from the acute was lengthened under certain conditions in

Czech and Upper Sorbian (stage 10.6) and in Slovene (stages 10.8, 10.9 and 10.11) and northwest Čakavian (cf. Vermeer 1982, 1984), also before tautosyllabic resonants elsewhere in Serbo-Croatian, e.g. *krâj* ‘end’, *stârac* ‘old man’, gen.sg. *krâja*, *stârca*.

Paradigms with fixed stress on a non-acute syllable (b) remained essentially unchanged up to the end of the Proto-Slavic period except for the operation of Dybo’s law (stage 8.7) and Stang’s law (stage 9.3). The major development before these accent shifts was the generalization of accentual mobility in masculine *o*-stems which were stressed on a non-acute root vowel (Illič-Svityč’s law, stage 6.9), e.g. SCr. *zûb* ‘tooth’ < acc.sg. **zôbu*, earlier **zôbu*, cf. Greek γόμφοϛ ‘bolt’. As a result of this development, which may not have reached some of the Čakavian dialects (but cf. Langston 2007, Kortlandt 2007), underived masc. *o*-stems with a non-acute root vowel are original masculines if they belong to accent paradigm (c) but original neuters if they belong to accent paradigm (b). Original stem-stressed neuter *o*-stems joined the masculine gender in the singular in Balto-Slavic times already (cf. Kortlandt 2008c, in fine) but evidently preserved their distinct plural forms in the separate branches of the family, like Italian *l’uovo fresco* ‘the fresh egg’, pl. *le uova fresche*.

According to Dybo’s law (stage 8.7), paradigms with fixed stress on a non-acute syllable (b) shifted the stress to the following syllable, e.g. **ženà* < **žèna*, **osnòwā* < **òsnowā*, also **nāròdъ* < **nároďъ* ‘people’, **ôtròbā* < **ôťrobā* ‘liver’, **sôpòrŷ* < **sêporŷ* ‘quick, slow’ (cf. English *in (good) time*), **sêdrāwŷ* < **sèdrāwŷ* ‘healthy’, SCr. *spôri*, *zdrāvī*. Acute and falling vowels did not lose the stress to the following syllable, e.g. inst.pl. **glawāmi*, acc.sg. **glāwŷ*, pre-Russian **golwāmi*, **gôlwŷ*, later *golovāmi*, *gólou*. It follows that the vowels which lost the stress in accordance with Dybo’s law were distinctively rising. Dybo’s law was therefore more recent than the rise of distinctive tone movements (stage 6.10), which was more recent than Illič-Svityč’s law (stage 6.9) because it eliminated the identity of most case forms of (b) and (c) masc. *o*-stems on which the latter was based. Dybo’s law did not shift the stress onto final jers because these had lost their stressability at an earlier stage. This is clear from the fact that the retraction of the stress from final jers (at stage 8.2) gave rise to new long rising vowels, e.g. Slovene gen.pl. *gôr* < **gorъ* ‘mountains’, *dán* < **dъnъ* ‘days’, Polish *rąk* < **rŷkъ* ‘hands’, skipping the medial jer in Russian dat.pl. *détjam* < **dětъmъ*, loc.pl. *détjax* < **dětъxъ* ‘children’, Slovene gen.pl. *ôvác* < **owъcъ* ‘sheep’, also *dánas* < **dъnъsъ* ‘today’, whereas the root vowel remained short in (b) nouns such as *bòb* ‘bean’, *kònj* ‘horse’, SCr. *bôb*, *kònj*, with later analogical lengthening in the gen.pl. form (cf. Kortlandt 1975: 13-19 and 1978b: 282-286). It follows from these examples that both the retraction of the stress from final jers and, consequently, Dybo’s law were more recent than the rise of the new timbre distinctions (stage 7.13).

At the time of Dybo's law, posttonic long vowels represented not only original (Balto-Slavic) non-acute long vowels and diphthongs (cf. Kortlandt 2005: 114), but also long vowels in post-posttonic syllables where a laryngeal had been lost with compensatory lengthening (stage 5.3), vowels which were lengthened to compensate for the loss of a preceding *j (Van Wijk's law, stage 7.15), and new long vowels from contractions in posttonic syllables (stage 8.1), e.g. *òsnowā, inst.pl. *žènamī, *wòlā < *wāljaʔ 'will', 3rd sg. *píšē < *péisje 'writes', *pýtā < *pýtaje 'inquires', gen.sg. *nòwēgo < *nòwajego, inst.sg. *nòwým̃ < *nòwyim̃ 'new', cf. Old Polish *wolā*, SCr. *píšē*, *pītā*, Czech *nového*, *novým*. Long vowels which received the stress as a result of Dybo's law became falling, e.g. *wołā, *píšē, *pýtā, *nový, *sodrāw̃y. These long falling vowels were subsequently eliminated by Stang's law (stage 9.3). New long falling ("neo-circumflex") vowels arose in Slovene by lengthening of short vowels under the stress before a non-final weak jer and before a long vowel in the following syllable (stages 10.8 and 10.9), e.g. *bitka* 'battle', *osnōva* 'base'.

According to Stang's law (stage 9.3), the stress was retracted from long falling vowels in final syllables, not counting final jers. The newly stressed vowel received a rising tone, e.g. Russian dial. *vólja*, Czech *vůle*, Slovak *vôla*, Slovene *vólja*, SCr. *vòlja* (with lengthening at stages 10.4, 10.6 and 10.11 in the separate languages). Weak jers in medial syllables had lost their stressability at this stage and could not therefore receive the stress (cf. Stang 1957: 115f.). Long falling vowels in non-final syllables were shortened, e.g. SCr. *zdrāvī* 'healthy', *pòvratak* 'return' < *powrātək̃ < *pòwrātək̃, *záslužan* 'deserving' < *zāslūžñ < *záslūžñ, *zgrāda* 'building' < *sogrādā < *sogrādā, Slovene *zgrāda* (with neo-circumflex at stage 10.9). At this stage, paradigms of type (b) such as *wòlā, *osnòwā, *q̃tròbā, *sogrādā, *nāròd̃, *powrātək̃, *zāslūžñ, *sopòr̃y, *sodrāw̃y can be reclassified as (a) if the latter is redefined as paradigms with fixed stress on the stem while (b) and (c) represent different types of accentual mobility between the stem and the ending, being the result of Dybo's law and reflecting Balto-Slavic accentual mobility, respectively.

Paradigms with original (Balto-Slavic) accentual mobility between the root and the ending (c) extended the mobility so as to include prefixes and proclitics (Pedersen's law, stage 6.10) as well as enclitics (Dolobko's law, stage 7.2). Retraction of the stress within the initial syllable yielded a falling tone movement, thus giving rise to a tonal distinction on non-acute syllables, e.g. *zq̃b̃ 'tooth' (c), *kòst̃ 'bone' (c), *s̃yñ 'son' (c) versus *pòt̃ 'way' (b), *kònj̃ 'horse' (b), *d̃ym̃ 'smoke' (a), Slovene *zq̃b̃*, *kòst̃*, *s̃iñ*, *pòt̃*, *kònj̃*, *dim̃*. Retraction of the stress from final jers yielded new rising long vowels (stage 8.2), e.g. Slovene gen.pl. *gòr̃* < *gor̃, *dáñ* < *d̃ñ, *óṽac̃* < *ow̃bc̃, *dáñas̃* < *d̃ñbs̃. After Dybo's law, new falling long vowels arose from the lengthening of short falling vowels in monosyllables (stage 8.8), e.g. SCr. *bòg* 'god', *kòst̃* 'bone', *dâñ* 'day' (c), as opposed to *kònj̃* 'horse', *pàs* 'dog' (b), Slovene *bòg*, *kòst̃*, *dâñ*, *kònj̃*, *pàs*. After Stang's law, long falling vow-

els were shortened (stage 9.4), e.g. Czech *mladost* < **mlâdostb* ‘youth’, acc.sg. *ruku* < **rôkq* ‘hand’, also SCr. *sŕce* < **sŕrdbce* ‘heart’, except in Serbo-Croatian mono- and disyllabic word forms such as *bôg* and *rûku* and Slovene monosyllables. Falling vowels in polysyllabic word forms lost the stress to the following syllable in Slovene (stage 10.7), e.g. *okô* ‘eye’, *mladôst* ‘youth’, acc.sg. *rokô* ‘hand’. The newly stressed vowel received a falling tone here.

Apart from the four major Balto-Slavic accent types mentioned above, there were two minor accent types:

- (5) Paradigms with post-radical accentuation and an acute derivational suffix.
- (6) Paradigms with post-radical accentuation and a non-acute derivational suffix.

Type (5) comprises original *iH*- and *uH*-stems, e.g. Lith. *vilké* < **wilkiŕ-aŕ*, Russ. *volčica* < **wilkiŕ-kaŕ* ‘she-wolf’, Lith. *liežūvis* < **-ùŕ-io-*, Russ. *jazyk* < **-ùŕ-ko-* ‘tongue’, Vedic *vrkîs*, *jihvâ* (cf. Kortlandt 1997). This is the origin of the Slavic “dominant” suffix **-bj-* < **-iH-* in abstracts, collectives and possessive adjectives, where Dybo’s law shifted the stress from the suffix to the ending (cf. Dybo 1968: 181-191, 1981: 152-170, Kortlandt 2008a). When the laryngeal was followed by a consonant, as in Russ. *volčica* and *jazyk*, the paradigm joined accent type (a). Other paradigms belonging to type (5) originated from Hirt’s law, e.g. Lith. *taukúotas* ‘greasy’, *kraujúotas* ‘bloody’ < **-òŕtos*, with fixed stress on the “dominant” suffix (cf. Endzelynas 1957: 96, Dybo 1968: 195, 1981: 174).

Type (6) is represented by paradigms which escaped the Late Balto-Slavic retraction of the stress from final open syllables in disyllabic word forms to the initial syllable unless the latter was closed by an obstruent (stage 4.4 of my chronology), either because the retraction of the stress was blocked by an intervening consonant cluster or because the stem was polysyllabic, e.g. Slovak *niesol* < **neslŕ* < **neslò* ‘carried’, as opposed to *mohol* < **mòglŕ* (b) ‘could’, Lith. *sidãbras* ‘silver’, *vainikas* ‘garland’, *aviniñkas* ‘sheepfold’, SCr. *sŕebro*, *vijènac*, *dùžnik* ‘debtor’, gen.sg. *vijènca*, *dužníka*. Here belong the Balto-Slavic end-stressed neuter *o*-stems established by Derksen (2004), where the East Baltic retraction of the stress which can now be called Derksen’s law gave rise to metatony (cf. Derksen 1996: 103, 126, 230f.) and the analogical retraction of the stress in Late Middle Slavic merged the paradigm with accent type (b), e.g. Prussian *dalptan*, Czech *dláto*, SCr. *dlijèto* ‘chisel’. The analogical retraction of the stress evidently did not take place in Czech *vědro*, SCr. *vjèdro* < **wědrò* ‘bucket’, where the pretonic long vowel was shortened (stage 7.13), but it did in Montenegro *vi-jèdro* (cf. Derksen 2008: 518), yielding another early isogloss in South Slavic (cf. Kortlandt 2003). As a result of Dybo’s law (stage 8.7), accent type (b) joined the end-stressed type, so that the distinction between the original type (6) and the regular type (b) can only be inferred from the quantitative difference between

Slovak *niesol* and *mohol* or between Czech *vědro* (where the pretonic vowel was regularly shortened) and *dláto* (which joined accent type (b) before the shortening) and from the “dominant” character of the suffixes **-bc-*, **-bstvo*, **-ik̆̂* < **-eiko-* and adjectival **-in̆̂* < **-eino-* (but not nominal **-ina* < **-einaŕ*) in Slavic (cf. Dybo 1968: 213, 1981: 190). The suffixes **-ica* < **-iŕ-kaŕ*, **-ina* < **-iŕ-naŕ* and adjectival **-at̆̂* < **-oŕto-*, **-aŕto-* (e.g. **m̆oŕžat̆̂*, **ženat̆̂* ‘married’) belong to the original type (5).

It will be clear from the foregoing that most historical laws of Slavic accentuation are applicable to no more than a single accent paradigm. This is a consequence of the fact that the accent paradigms are characterized by specific tonal features: glottalization in the stem is limited to accent type (a) and falling (or low) tones in initial syllables are limited to accent type (c) while all other stressed vowels are rising (or high) up to the end of the Proto-Slavic period. At that time, the falling tone spread to the right in Slovene: HL > HH in *k̆ost* and HLL > HHL > LHL in *ok̆o*, *mlad̆ost*, *rok̆o* (stage 10.7), while the rising tone started lowering: LH > LL in *p̆ot* and *k̆onj*. The system where the “falling” tone is high and the “rising” tone is low is actually attested in the western Carinthian dialect described by Tijmen Pronk (2008, cf. also Greenberg 2007). In Serbo-Croatian, the falling tone was preserved while the rising tone remained high and started spreading leftward: LH > HH > HL in *p̆ut* and LLH > LHH > LHL in *r̆uka*. Several intermediate stages of this development are attested in the dialects.

I cannot follow Greenberg’s suggestion (2007) that the Proto-Slavic acute was preserved as a low-pitched long vowel in Slovene because the rise of the (high-pitched) neo-circumflex (my stages 10.8 and 10.9) evidently preceded the lengthening of the original acute vowels (my stage 10.11), which did not reach the dialects of Prekmurje and Prlekija and yielded a (low-pitched) “rising” tone, and because non-laryngealized short rising vowels underwent the same development as the original acute vowels (cf. already Kortlandt 1976), e.g. *b̆itka*, *l̆eta* ‘years’, *osn̆ova*, inst.pl. *žen̆ami* (where glottalization was lost at stage 7.13), sg. *l̆eto*, *v̆olja*. Moreover, the lengthening in *br̆eza* (a) ‘birch’ cannot have preceded the retraction of the stress in *zv̆ezda* (b/c) ‘star’ because the latter word shows the regular outcome of long **ě* under the stress and the former has a different reflex in the northern Slovene dialects (cf. Kortlandt 1976: 6f., Greenberg 2000: 128). The lengthening in *l̆eto* and *br̆eza* can be dated to the 13th or 14th century.

The realization of the fact that the falling tone in initial syllables was limited to and therefore determined by accent type (c) is the kernel of the Stang revolution in Slavic accentology. It was Dybo who first realized that the origin of accent type (b) presupposes a tonal feature which was neither acute nor falling (cf. Kortlandt 1978a: 74). This feature can be identified with the Lithuanian circumflex tone, which is rising. The essential part of my own contribution (1975) is the integration of these findings into a coherent chronology. The identification of the non-acute non-falling tone as rising enables us to understand the accent

shift to the following syllable (Dybo's law) and the assumption that it yielded a falling tone on long vowels explains the following retraction of the stress (Stang's law). These two developments are limited to accent type (b) and explain both the place of the stress and the tone of the stressed syllable in their entirety. They have nothing to do with either the falling tone in initial syllables or the retraction of the stress from final jers, both of which were limited to accent type (c).

It is important to realize that the rising tone is presupposed by and therefore older than Dybo's law and did not originate from a retraction of the stress. It follows that Matasović's proposal (2007: 117) that Dybo's law can be dated to the 6th century and that the accent shifted to any following syllable and was subsequently retracted from word-final jers is mistaken. Note that his theory does not explain the short vowel of Slovene *kònj* (and SCr. *kònj*), as distinct from gen.pl. *gór* < **gorò*, *óvác* < **owbcò*. It is clear from the distribution of SCr. *kòleda*, *kònoba*, *lìgnja*, *lòcika*, *plòča*, *pògača*, *pòlača*, *ràža*, *ràka*, *rùsalje*, *vřtača*, *vřtal*, *žàkan*, *Cètina*, *Kùpa*, *Pěča*, *Plòče*, *Pòlača*, *Pòstira*, *Pròmina*, *Ràša*, *Sùsak* (a) versus *ko-lòbār*, *ljúlj*, *mír*, *òcat*, *òltār*, *ràčūn*, *vřč*, *vřt*, *Brâč*, *Hvâr*, *Křk*, *Làbīn*, *Nàdīn*, *Nīn*, *Nòrīn*, *Òmīš*, *Plòmīn*, *Rīm*, *Skràdīn*, *Sòlīn*, *Trīlj*, *Trògīr*, *Vīr*, *Vīs*, *Žnjān* (b) that the accent pattern of these words was determined by the presence versus absence of a following syllable at a stage when final jers did not count any more. The HL coda of the original Romance words was evidently more similar to the acute tone before a final *-a but to the rising tone before a final *-u, which was shorter. It is probable that the words *vīno*, *Dúmno*, *Dúvno*, *Dráva*, *Sáva* belong to an older layer of borrowings and that *Crēs* < *Crepsa*, *Mljèt* < *Melta* < *Meleta* and *Ràb* < *Arba* became masculines at a more recent stage.

While the development of stress and tone was relatively simple, vowel quantity is a quite different matter. The crucial point of reference in the development of vocalic quantity is the rise of the new timbre distinctions (stage 7.13), as a result of which the number of possible short and long vowels increased dramatically. I have identified this development with the loss of the acute (i.e. of glottalization) without compensatory lengthening in posttonic syllables, which gave rise to new short vowels with the timbre of earlier long vowels, e.g. in **žèna* < **žènaʔ*. New long vowels in posttonic syllables were created by Van Wijk's law (stage 7.15) and by the early contractions (stage 8.1) and in stressed syllables by the retraction of the stress from final jers (stage 8.2) and by the lengthening of short falling vowels in monosyllables (stage 8.8), e.g. **wòlā* < **wàljaʔ*, 3rd sg. **píšē* < **péisje*, gen.pl. **górō* < **gorò*, **dónō* < **dōnò*, acc.sg. **dōnō* < **dōnō*, **kōstō* < **kōstō*. As a result, endings could now have three different quantities, e.g. nom.sg. **žèna*, **gorá*, **wòlā*, **òsnowā*, similarly in the neuter nom.acc.pl. ending, where Slovene generalized length in *lěta* (a) 'years' with *-ā for phonetically regular short *-a but preserved the short ending in *drvà* < **drōvā* (c) 'firewood' because length was incompatible with glottalization at the time of the lengthen-

ing, cf. also Slovak *mestá* ‘cities’. We find a long nasal vowel under the stress in Slovene gen.sg. *gorě* (c) but a short nasal vowel posttonically in *lípe* (a) ‘lime-tree’, similarly in SCr. gen.sg. *glávě* ‘head’ versus nom.acc.pl. *glāve* (c). This difference became phonemic as a result of Dybo’s law (stage 8.7), which reintroduced long unstressed nasal vowels and short nasal vowels under the stress. The original distribution has been preserved in Susak gen.sg. *vodiè* (c) ‘water’ versus *sestrè* (b) ‘sister’.

Quantitative alternations in case endings were largely eliminated between Van Wijk’s law (stage 7.15) and Dybo’s law (stage 8.7). The paradigm of Slovene *kònj* (b) shows that length was suppressed in the gen.sg., dat.sg., inst.sg., nom.pl., dat.pl. and acc.pl. endings, all of which were unstressed in the accentually mobile paradigm (c), while length was preserved in the loc.sg., inst.pl. and loc.pl. endings, which have length and final stress in *na brégu* (c) ‘ashore’ (with later retraction as in *zvézda*), *možmí*, *možéh* (c) ‘men’ (cf. Stang 1957: 69-74, Kortlandt 1975: 13-19), cf. also *pri orêhu* (a) ‘near the nut-tree’, inst.pl. *râki*, loc.pl. *râkih* (a) ‘crabs’ with neo-circumflex reflecting posttonic length. Original length has been preserved in inst.pl. *stabrí* ‘pillars’, *kostmí* ‘bones’, Posavian (*sa*) *sinoví* ‘(with) sons’, Czech dial. *chlapý* ‘fellows’, *vratý* ‘gate’, *cestamí* ‘roads’, Slovincian *chlüopī*, *břegamí* (cf. Van Wijk 1924: 597, Bulaxovskij 1925: 88, Stang 1957: 38), also in Kajkavian loc.sg. *nočí* ‘night’, *pečí* ‘stove’, *kostī* < *-í (cf. Vermeer 1984: 380), and was generalized in trisyllabic neuter nom.acc.pl. forms in Čakavian and Posavian, e.g. *vrímená* ‘times’, *ímená* ‘names’, *ramená* ‘shoulders’, *telesá* ‘bodies’, also Slovak *dievčatá* ‘girls’, *srdcia* ‘hearts’.

Thus, rising vowels originated first by contrast with falling vowels as a result of Pedersen’s law (stage 6.10), then as a result of the retraction of the stress from final jers (stage 8.2), then as a result of Stang’s law (stage 9.3) and finally by the retraction of the stress from non-final weak jers (stage 10.3). Dybo’s law must be dated after the first two and before the last two of these developments. It must also be dated after the rise of the new timbre distinctions (stage 7.13), Van Wijk’s law (stage 7.15), and the early contractions (stage 8.1) because these gave rise to new long vowels in posttonic syllables which received a falling tone as a result of Dybo’s law, e.g. **woļā*, **pīšē*, **pýtā*, **nový*, SCr. *vòlja*, *pīšē*, *pītā*, *nòvi* with retraction of the stress in accordance with Stang’s law. This chronology is at variance with the one proposed by Holzer (2005), who dates Dybo’s law before all of these developments. Holzer’s reasoning is primarily based on the word *lòcika* ‘lettuce’ (2005: 47), which belongs to accent pattern (a) and is therefore irrelevant (see above). The absence of Dybo’s law in SCr. *nā glāvu* < **nā glāvŏ* (with shortening at stage 9.4) adduced by Holzer (2005: 49f.) is a consequence of the falling tone on the initial syllable and shows that Dybo’s law is more recent than the rise of a tonal distinction (at stage 6.10). The falling tone in **woļā* and **pīšē* required by Stang’s law shows that Dybo’s law was more recent than Van Wijk’s law because lengthening in **woļjà* and **pīsjè-* (thus Holzer 2005: 51f.) would un-

doubtedly have yielded a rising tone on the second syllable. Moreover, the analogical shortening in gen.sg. **koŋà* and dat.sg. **koŋù* must have taken place after Van Wijk's law but before Dybo's law (see above). Holzer's claim (2005: 54) that Dybo's law preceded the retraction of the stress from final jers is disproved by the quantitative distinction between e.g. Slovene *kònj* (and SCr. *kǝnj*) < **kǝŋb* and gen.pl. *gór* < **gorǝ* (see above). Holzer's claim (2005: 56) that Dybo's law preceded the shortening in SCr. *tràvama* (b) is correct because this form is analogical after *rùkama* (c), where the phonetic shortening preceded Dybo's law (cf. Kortlandt 2006a: 37). Kapović's "Zwei-Moren-Gesetz" cannot be maintained and must be abandoned (cf. Kortlandt 2005: 126-129 and 2006a: 36).

Leiden University

REFERENCES

- Bulaxovskij, Leonid A.
1925 "Akcentologičeskie ètjudy (Addenda et corrigenda)". *Južnoslovenski Filolog* 5, 83-92.
- Derksen, Rick
1996 *Metatony in Baltic* (Leiden Studies in Indo-European 6). Amsterdam-Atlanta: Rodopi.
2004 "The fate of the neuter *o*-stems in Balto-Slavic". Paper read at the meeting of the Indogermanische Gesellschaft in Cracow, October 2004.
2008 *Etymological dictionary of the Slavic inherited lexicon*. Leiden-Boston: Brill.
- Dybo, Vladimir A.
1968 "Akcentologija i slovoobrazovanie v slavjanskom". In: V.V. Vinogradov (ed.), *Slavjanskoe jazykoznanie: VI meždunarodnyj s'ezd slavistov, Praga, 1968*, 148-224. Moskva: Nauka.
1981 *Slavjanskaja akcentologija*. Moskva: Nauka.
- Endzelynas, Janis
1957 *Baltų kalbų garsai ir formos*. Vilnius: Valstybinė politinės ir mokslinės literatūros leidykla.
- Greenberg, Marc L.
2000 *A historical phonology of the Slovene language*. Heidelberg: Winter.
2007 "Phonetic evidence for the development of the "acute" tone in Slavic". In: Mate Kapović and Ranko Matasović (eds.), *Tones and theories: Proceedings of the International Workshop on Balto-Slavic Accentology, Zagreb, 75-87*. Zagreb: Institut za hrvatski jezik i jezikoslovlje.
- Holzer, Georg
2005 "Zur relativen Datierung prosodischer Prozesse im Gemeinslavischen und frühen Kroatischen". *Wiener slavistisches Jahrbuch* 51, 31-71.
- Kortlandt, Frederik
1975 *Slavic accentuation: A study in relative chronology*. Lisse: Peter de Ridder. [also accessible at www.kortlandt.nl]
1976 "The Slovene neo-circumflex". *The Slavonic and East European Review* 54/1, 1-10.

- 1977 “Historical laws of Baltic accentuation”. *Baltistica* 13/2, 319-330.
- 1978a “A history of Slavic accentuation”. *Lingua* 44, 67-91.
- 1978b “On the history of the genitive plural in Slavic, Baltic, Germanic, and Indo-European”. *Lingua* 45, 281-300.
- 1989 “Od praindoevropskog jezika do slovenskog (fonološki razvoj)”. *Zbornik za Filologiju i Lingvistiku* 32/2, 41-58; [English edition: “From Proto-Indo-European to Slavic”, www.kortlandt.nl]
- 1997 “Baltic *ē*- and *ī/jā*-stems”. *Baltistica* 32/2, 157-163.
- 2003 “Early dialectal diversity in South Slavic II”. In: Jos Schaecken, Peter Houtzagers, Janneke Kalsbeek (eds.), *Dutch contributions to the Thirteenth International Congress of Slavists, Ljubljana: Linguistics* (Studies in Slavic and General Linguistics 30), 215-235. Amsterdam-New York: Rodopi.
- 2005 “From Serbo-Croatian to Indo-European”. *Wiener slavistisches Jahrbuch* 51, 113-130.
- 2006a “On the relative chronology of Slavic accentual developments”. *Wiener slavistisches Jahrbuch* 52, 25-41.
- 2006b “Balto-Slavic accentual mobility”. *Baltistica* 41/3, 359-369.
- 2007 “Miscellaneous remarks on Balto-Slavic accentuation”. In: Mate Kapović and Ranko Matasović (eds.), *Tones and theories: Proceedings of the International Workshop on Balto-Slavic Accentology, Zagreb*, 229-235. Zagreb: Institut za hrvatski jezik i jezikoslovlje.
- 2008a “Accent retraction and tonogenesis”. In: Thomas Olander (ed.), *Proceedings of the Second International Workshop on Balto-Slavic Accentology, Copenhagen* (Studies in Slavic and General Linguistics 00), 000-000. Amsterdam-New York: Rodopi.
- 2008b “Slavic historical morphology: Nominal paradigms”. In: Peter Houtzagers, Janneke Kalsbeek, Jos Schaecken (eds.), *Dutch contributions to the Fourteenth International Congress of Slavists, Ohrid: Linguistics* (Studies in Slavic and General Linguistics 00), 000-000. Amsterdam-New York: Rodopi.
- 2008c “Balto-Slavic phonological developments”. *Baltistica* 43, 00-00.
- Langston, Keith
2007 “Common Slavic accentual paradigm (d): A reevaluation of evidence from Čakavian”. In: Mate Kapović and Ranko Matasović (eds.), *Tones and theories: Proceedings of the International Workshop on Balto-Slavic Accentology, Zagreb*, 121-150. Zagreb: Institut za hrvatski jezik i jezikoslovlje.
- Matasović, Ranko
2007 On the accentuation of the earliest Latin and Romance loanwords in Slavic. In: Mate Kapović and Ranko Matasović (eds.), *Tones and theories: Proceedings of the International Workshop on Balto-Slavic Accentology, Zagreb*, 105-119. Zagreb: Institut za hrvatski jezik i jezikoslovlje.
- Olander, Thomas
2006 *Accentual mobility: The prehistory of the Balto-Slavic mobile accent paradigms*. Diss. Copenhagen.
- Pronk, Tijmen C.
2008 *The Slovene dialect of Egg and Patschach in the Gailtal, Austria*. Diss. Leiden.
- Stang, Christian S.
1957 *Slavonic accentuation*. Oslo: Universitetsforlaget.
- Van Wijk, Nicolaas
1924 “Über einige langvokalische Endungen des Slovakischen”. *Slavia* 2, 596-598.

Vermeer, Willem R.

- 1982 "On the principal sources for the study of Čakavian dialects with neocircumflex in adjectives and *e*-presents". In: A.A. Barentsen, R. Sprenger, M.G.M. Tielemans (eds.), *South Slavic and Balkan Linguistics* (Studies in Slavic and General Linguistics 2), 279-341. Amsterdam: Rodopi.
- 1984 "On clarifying some points of Slavonic accentology: The quantity of the thematic vowel in the present tense and related issues". *Folia Linguistica Historica* 5/2, 331-395.