

Potsdam Linguistic Investigations

Potsdamer Linguistische Untersuchungen

Recherches Linguistiques à Potsdam

Edited by  
Herausgegeben von  
Edité par

Peter Kosta  
Gerda Haßler  
Lilia Schürcks  
Nadine Thielemann

Roman Sukač (ed.)

## FROM PRESENT TO PAST AND BACK

Papers on Baltic and Slavic Accentology



PETER LANG

Internationaler Verlag der Wissenschaften

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## Editorial

The series *Potsdam Linguistic Investigations – Potsdamer linguistische Untersuchungen – Recherches linguistiques à Potsdam* presents cutting-edge fundamental linguistics research carried out at the University of Potsdam. Its major goal is to publish collection of articles, conference proceedings and monographs on contemporary issues in the fields of Slavic languages and literature, Romance studies, English and American studies, German studies and general linguistics. A special focus of study is the formal, functional and cognitive description of language. The following areas of linguistics will seek to develop their own profile: phonology, morphology, syntax (with special attention to generative syntax), semantics, pragmatics (discourse analysis, speech act theory), sociolinguistics and language contact.

We do not set any theoretical, methodological or geographical boundaries. The series will serve greatly as a forum for young scholars as well as other researchers working in various linguistic fields and frameworks in Potsdam or elsewhere. The indication of Potsdam stands for the crucial importance and outstanding quality of linguistics research at the University of Potsdam. On the other hand, researchers from other Universities with proven excellence of their work are most welcome to publish their doctoral dissertations, habilitation monographs or conference proceedings in this series. The languages of publication are German, English and French.

## Editorial

Die Reihe *Potsdam Linguistic Investigations – Potsdamer linguistische Untersuchungen – Recherches linguistiques à Potsdam* ist eine Plattform für linguistische Forschungen an der Universität Potsdam. Sie publiziert Sammelbände und Monographien zu aktuellen Fragen der zeitgenössischen internationalen Linguistik aus den Disziplinen Slavistik, Romanistik, Anglistik/Amerikanistik, Germanistik und Allgemeine Linguistik. Ein besonderer Schwerpunkt liegt in der formalen, funktionalen und kognitiven Sprachbeschreibung. Darin bilden vor allem die Bereiche Phonologie, Morphologie, Syntax (unter besonderer Berücksichtigung der generativen Syntax), Semantik, Pragmatik (Diskursanalyse, Sprechhandlungstheorie, Geschlechterforschung), Soziolinguistik und Sprachkontakt ihre eigenen Profile.

Wir wollen keine theoretischen, methodischen oder lokalen Grenzen setzen. Deshalb richtet sich die Reihe sowohl an Nachwuchswissenschaftler als auch an Kollegen in Potsdam und außerhalb Potsdams, die in verschiedenen Richtungen, Modellen und theoretischen Ansätzen der modernen Linguistik arbeiten. Der Hinweis auf den Standort Potsdam soll zum einen die herausragende Bedeutung der linguistischen Forschung an dieser Universität signalisieren. Andererseits bedeutet die Nennung nicht, dass ausschließlich Forschungsergebnisse (einschließlich Dissertationen, Habilitationen und Konferenzsammelbände) veröffentlicht werden, die von Linguistinnen und Linguisten an der Universität Potsdam stammen. Die drei Publikationssprachen sind Deutsch, Englisch und Französisch.

## Editorial

La série « *Potsdam Linguistic Investigations – Potsdamer linguistische Untersuchungen – Recherches linguistiques à Potsdam* » représente une plate-forme d'études linguistiques à l'université de Potsdam. Elle publie des recueils et des monographies sur les questions actuelles de la linguistique contemporaine internationale dans les domaines des études des langues slaves et romanes, anglaise et américaine, des langues germaniques et de la linguistique générale. Un point principal de recherche est posé sur la description formelle, fonctionnelle et cognitive de ces langues. Dans ces domaines, on met l'accent sur les profils de la phonologie, morphologie, syntaxe (en tenant compte de la syntaxe générative), sémantique, pragmatique (l'analyse du discours, la théorie des actes de la parole, la recherche sur le genre), la sociolinguistique où la linguistique de contact.

Nous ne voulons pas poser des limites dans la théorie, la méthode et le lieu de recherche. C'est pourquoi la série invite les jeunes chercheurs ainsi que les collègues de Potsdam et des autres universités qui travaillent dans les secteurs de la linguistique moderne. Le titre de la série veut démontrer d'un côté l'excellente qualité de la recherche linguistique à Potsdam sans toutefois exclure les autres. Cela veut dire que nous acceptons et nous invitons les linguistes de Potsdam et de l'extérieur (inclus les thèses de doctorat et d'habilitation et les actes de colloques). Les trois langues de publication sont : l'allemand, l'anglais et le français.

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## **Preface**

This book contains papers presented at the Fifth International Workshop on Balto-Slavic Accentology (IWoBA V), held at the Silesian University in Opava on 7-10 June 2009.

The IWoBA tradition, having traveled to many superb European cities, has now reached the Czech Republic. The Opava meeting produced many compelling and thought-provoking presentations and it is hoped that the present conference volume will contribute to the continuing advancement of our understanding the complexities of Baltic and Slavic accentual phenomena. Thanks go to all the IWoBA participants for their papers. We hope that not only Balto-Slavic accentologists, but also scholars working in the other fields of linguistics, will be take an interest in the papers collected here.

A note of gratitude goes to Prof. Dr. Peter Kosta for accepting this volume for publication in the Potsdam Linguistic Investigations series. Special thanks to Ute Winkelkötter from Peter Lang International Academic Publishers for her advice and help.

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## On the Prosody of Slavic Continuants of Indo-European Verbal Adjectives in -to-, -no-, -lo-

My recent research in the system of the Proto-Slavic finite verb<sup>1</sup> has brought a new perspective on the correlation of prosody and morphology in the rise of paradigmatic classes and minor paradigmatic oppositions as for example in the Rule of N. van Wijk (which will be treated below). Because the non-finites received just peripheral attention, it seemed appropriate to bring up for discussion relevant data concerning the role of prosody in the formation of *-t-*, *-n-*, and *-l-* participles in Slavic according to the current state of knowledge in Indo-European and Balto-Slavic studies.

When reconstructing the system of the Proto-Slavic aorist one is confronted with the necessity to account for such cases of metatony in the 2.-3.sg. as

e.g. S.-Cr. *pī*, *īs-pī*; OCSl *pitъ* < Proto-Sl. *\*pītŭ* ← pre-Proto-Sl. *\*\*pītŭ*  
< IE root aorist *\*péh<sub>3</sub>/pih<sub>3</sub>-* ‘to take a sip/mouthful’ to the IE root *\*peh<sub>3</sub>(i)-* and past participle passive (ppp) e.g. S.-Cr. *pīt*; Slov. *pīt*, *popīt*<sup>2</sup>; Russ. - *'pit(o)*, *pīta*, OCSl *-pitъ/ -pita/ -pito* ‘drunk’ < Proto-Sl. *\*pītŭ* ← pre-Proto-Sl. *\*\*pītŭ* < IE *\*p(e)ih<sub>3</sub>(i)-tó-* (Bezlaj 2: 44; Jaksche 1965: 121; Sadnik 1959: 141-142, 147; Svane 1958: 81; Kiparsky 1962: 348-349).

The phenomenon of the prosodic-morphological opposition of the Slavic past participles with the dental suffix and circumflex, on the one hand, and those with nasal suffix and acute, on the other, is part of the well-known rule formulated by Nicolaas van Wijk (van Wijk 1926). Accordingly:

Circumflex in the root vowel → *-t*-ppp and Ausgang *°tŭ* in the 2.-3.sg. aorist as: e.g. ppp *\*pī-to-*, 2.-3.sg. aorist *\*pī-tŭ* from *piti* ‘drink’

Acute in the root vowel → *-n*-ppp and Nullausgang in the 2.-3.p.sg. aorist e.g. ppp *\*bĕjeno-*<sup>3</sup>, 2.-3.sg. aorist *\*bī* from *biti* ‘beat’

Van Wijk however could not provide his rule with a plausible explanation.<sup>4</sup>

---

1 A sketch of my investigation of the IE background of Slavic aorist classes and present aorist constellations appears in the Proceedings of the 13th International Indo-European Conference in Salzburg in October 2008, a more comprehensive presentation will soon appear in the International Journal of Diachronic Linguistics and Linguistic Reconstruction.

2 Cf. adj. *pīten*, *pītna* ‘drinkable’.

3 The place of the accent is a matter of controversy.

4 He did wrongly assume the corresponding verb stems to possess the same intonation ad initio. (Van Wijk 1926: 286; van Wijk 1923: 42-47; van Wijk 1931: 231-233).

L-participles seemed to comply with the distribution in so far as a clear distinction in the place of the accent in corresponding fem. forms between the 2 groups could be observed, cf:

*l-ppa m.,f.:* OCSl *pilъ, pila*; S.-Cr. *pǐo, pǒ-pio, pila, pǒ-pila*;  
 Čak. *pǒpǐl, popǐlā*; Slov. *píl, popíl*,<sup>5</sup> *pila, popila*;<sup>6</sup> Russ. *pil, píla*

as against

*l-ppa m.,f.:* OCSl *bilъ, bila*; S.-Cr. *bǐo, bǐla, pǒ-bio, pǒ-bila*;  
 Čak. *ubíl, ubíla*; Slov. *bíl, bíla*; Russ. *(po)ʼbil, (po)ʼbila*.

Past participles with an acute root vowel - according to van Wijk's Rule, those with an *-n*-suffix - do not pose a great problem regarding their intonation. Those with a circumflex, however, are rather heterogeneous as to the original root structure and subsequently their prosody. Some of them cannot be explained phonologically, as, for example, *pitъ* 'drunk' illustrated above. It is common knowledge today that a verbal adjective with the laryngeal-final root structure in IE and suffix *\*-to-* as e.g. in *\*p(e)ih<sub>3</sub>(i)-tó-* definitely demands an acute.

In 1958 V. A. Dybo described this prosodic discrepancy in his article '*O drevnejšej metatonii v slavjanskom glagole*', and subsequently in 1961 in '*Udarenie slavjanskogo glagola i formy staroslavjanskogo aorista*'. He focused on the corresponding forms of the 2.-3.sg. aorist, not on those of the participles. Dybo associated such metatony in the aorist forms with Meillet's Law. That is metatony of the type:

e.g. Lith. *sūnūs* - OPr. *soūns* vs. OCSl *\*ʼsýnъ*, (S.-Cr. *sýn*) 'son', OI *sūnūh*  
 'son' = 'the born one' from the root *\*seuH* - 'to bear'

or Lith. *gývas*, Latv. *dzīvs*, Proto-Sl. *\*ʼžívъ* (S.-Cr. *živ*), OI *jīvá*, Lat. *uīuus*  
 '(a)live' < *\*gʷih<sub>3</sub>uó-* 'the one having vitality, viability' to the root  
*\*gʷieh<sub>3</sub>-* 'to live'

and some more, which enabled the class reduction in the system of the noun by eliminating the unproductive declension type. (For Meillet's own formulation and the following discussion, consult Meillet 1902: 195; Meillet 1914: 65-84 as well as van Wijk 1958<sup>2</sup>: 82-94; Bulachovskij 1960: 21-26.)

Two factors played the decisive role in Meillet's analysis: the comparison of the Slavic material with the Lithuanian and the oxytonensis of the corresponding forms in Old Indic (as illustrated above). However the conditions which

5 Likewise n. Slov. *popílo*, Russ. *poʼpilo* and pl. Slov. *popíli*, Russ. *poʼpili*.

6 The first leftward accent shift in Slov. is responsible for the form *pila* < Proto-Slav. *\*pilá*. According to Jaksche (1965: 115) the transition should have been phonetic, because of the circumflex root vowel, whereby the femininum should have been oxytone already in Proto-Slavic. (Cf. Sadnik 1959: 148).

according to Meillet trigger the metatony of the original acute vowel into a circumflex one in such nominals are not applicable to the forms of the 2.-3. sg. aorist and the relevant participle formations. Firstly these categories cannot be one to one compared with those in Lith. For, on the one hand, Baltic does not have any sigmatic aorists (the *-s*-formant has been developed to build a future tense instead); secondly *-tá*-participles have spread largely at the expense of *-n*-participles. Moreover the prosodic structure of the input forms of later Slavic participles is not always unequivocal. Dybo manages to evade this problem by operating with present forms. (As e.g. in 1961: 34).

I discussed the pros and contras of his explanation in my paper for the 36<sup>th</sup> ÖLT (In References under Ackermann 2008). The most important conclusion to be mentioned here is that postulating a common accent paradigm in the proto-language for nominals, showing traces of the metatony of that kind in Slavic as opposed to their Baltic cognates, is rather problematic, since the cases listed by Meillet, go back to various kinetic as well as static accent paradigms in PIE. It is also difficult to account for the Proto-Slavic leftward accent shift, which should have taken place in the framework of this theory. (Against Dybo 1958: 55-62; 1961: 33-38; 1962: 220-225).

Van Wijk in contrast cannot explain ‘durch welche Bedingungen diese Zurückziehung hervorgerufen wurde’. He suspects, however, the existence of 2 stress patterns in IE in such words. (1958<sup>2</sup>: 82, 85-86, 92-93, cf. also Meillet 1924: 333; Bulachovskij 1927: 73, 76-77).

Kortlandt (1975: 10-12, 54-55) tried to explain Meillet’s circumflex, like many other prosodic developments in B-Sl. in the framework of the glottal theory, by means of the late loss of laryngeals, which I cannot support.

Rasmussen (1989: 180, 196) on the contrary, sees Meillet’s law conforming with the general trend in Slavic towards *Polarisierung der Mobilität*. This rather perfunctory formulation has a serious methodological problem, as it focuses on the output context disregarding the input one.

Assuming the existence of one homogeneous mobile paradigm for the B-Sl. words in question (Moscow accentological school) has the drawback of a great number of exceptions and particularities to be accounted for.

Over the last decades the following suggestion has worked its way into a well established theory: many IE attributive adjectives, when used without the corresponding substantive (i.e. absolutely) tended to shift (leftward or rightward) their accent so that a concomitant accentual opposition arose between the adjective used attributively vs. its form in the absolute use. Such adjectives developed, in general, additional semantic independence. (A comprehensive discussion is given in Schaffner 2001: 328-345; Klingenschmitt 1992b: 119;

Panagl 1989: 188-189. See also Bezzenberger 1896: 310-314; Endzelin J. 1913-1914: 107-108; Sadnik 1959: 71).<sup>7</sup>

This accent shift as the concomitant means of word-formation accompanied the process of substantivisation of adjectives, like:

e.g. OI *kṛṣṇá-h* (RV+) adj. 'black' vs. *kṛṣṇa-* (RV+) m. 'black antelope' from the root *\*ker(s)-* 'to be dark' (by means of barytonensis); OI *ásita-h* (RV+) adj. 'black' vs. *asitá-* (AV+) m. 'black serpent' from the root *\*h<sub>2</sub>mes-/ h<sub>2</sub>ṃs-i-* something like 'to be dirty' (by means of oxytonesis):

or the process of morphological differentiation of verbal adjectives:

e.g. OI (RV) *jústa* - adj. 'welcome' vs. (AV) *justá* -adj. 'welcome' from the root *\*ǵe<sub>u</sub>s-* 'taste, enjoy'; whereby in OI concretionization to 'like' took place;

A closer analysis of the forms cited within this theory enabled an observation that mostly IE suffixal formations ending with °ó-, such as *\*-tó-*, *\*-nó-*, *\*-ló-*, *\*úó-* and when substantivised or semantically individualized were generally subject to such an accent shift (mostly barytonensis, rarely oxytonensis), as, for example, in:

OI *pūrṇá-h*, Lat. *plēnus*, OIr. *lán* oxytone vs. Lith. *pilnas* - (3 perhaps <1)<sup>8</sup> adj. Latv. *pīlns*, Proto-Sl. *\*'pьlnъ* > OCSl *plьnъ*, S.-Cr. *pŭn*, Čak. *pŭn*, *punã*, (Novi) *pŭn*, *pŭna*, (Hvar) *pŭn*, *pŭna*, Slov. *pólŋ*, Russ. *'polnyj*, m. *'polon*, n. *'polno*, f. *'polna* adj. 'full' < BSl. *\*pólnos* < *\*pŕh<sub>1</sub>-no-* barytone to *\*pleh<sub>1</sub>-* 'to fill oneself, to become full'. (Skardžius 1935: 57, 150, 164, 175, 171; Buch 1961: 71, 78. Further see Trautmann 1923: 218; van Wijk 1958<sup>2</sup>: 120; Mühlenbach - Endzelin, 3: 216; van Wijk 1958<sup>2</sup>: 91; Illič-Svityč 1963: 74 Rasmussen 1985: 18; Schaffner 2001: 336; cf. Derksen 2008: 426)<sup>9</sup>

In Indo-Iranian one can still easily find both the input and output forms of such an accent shift. In the later attested IE languages, however, only one accent pattern frequently remains: barytone or oxytone. Compare the following:

---

7 Stang 1966: 152ff treats the corresponding cases in Baltic differently.

8 The attested data in Latv. and OLith. speak for the Proto-Balt. barytone stress with subsequent transition into the modern mobile class. See the bibliographical data in the main text.

9 Cf. the phonological explanation by Vaillant (1950: 245), followed by Sadnik 1959: 101-102.

I. Traces of the former substantivisation in:

e.g. Proto-Sl. \**zbrno*, Proto-Balt. \**zírno* < BSl. \**žárno*- ‘corn’ < \**ǵérh<sub>2</sub>-no*- substantivised verbal adj. ‘smth. ground’,<sup>10</sup> to the root \**ǵerh<sub>2</sub>-* ‘grind, grate, make old’.<sup>11</sup> Sl.: S.-Cr. *zřno*; Čak. *zřno*, *zřna* (Vrg.); *zárno*, *zárna* (Hvar);<sup>12</sup> Slov. *zíno*; Čech., Slk. *zrno*; Bulg. *zbrno*, or *zbrno*; ORuss., R.-CSl. *zérno*<sup>13</sup> also second. *zernó*, *zërna* n. ‘corn’ (Kiparsky 1962: 247; Sadnik 1959: 71). Balt.: Lith. *žirnis* (1), Lat. *ziřnis* m. ‘pea’, OPr. *syrne* ‘corn’ (Skardžius 1935: 15; Vasmer I: 454-455 however with the wrong intonation; Trautmann 1923:372; Mühlenbach - Endzelin, 4: 728ff) as against \**ǵérh<sub>2</sub>-no-* in OI *jīrná-h* adj. ‘decomposed, old’, or *jūrná-* adj. denoting the same.

e.g. Proto-Sl. \**dblǵb*, Proto-Balt. \**ilgas* ‘long’ < BSl. \**dálgos* < \**dǵh<sub>1</sub>g<sup>h</sup>-o-* ‘long’ Sl.: S.-Cr. *dǔg*, čak. *dǔg*, slov. *dôlg*, *dôtga*, russ. *’dolgij*, m. *’dolog*, n. *’dolgo*, f. *’dol’ga*, čech. *dlouhý*, slk. *dľhý* ‘long’ (Kiparsky 1962: 270-271; Sadnik 1959: 101-102). Balt.: Lith. *ilgas* (3<1)<sup>14</sup> adj., lat. *ilgs*<sup>15</sup> ‘long’ (Skardžius 1941: 148; Trautmann 1910: 346; 1923: 55; Endzelin 1913-1914: 108; 1971: 169; Bezenberger 1896: 313, 314; Mühlenbach - Endzelin, 1: 705; van Wijk 1958<sup>2</sup>: 91, 120; Illič-Svityč 1963: 75; Rasmussen 1985: 181; Derksen 2008: 133) as against \**dǵh<sub>1</sub>g<sup>h</sup>-ó-* in: Ved. *dīrghá-h*, Gr. *δολιχός* ‘long’ : *δόλιχος* ‘the long horse race track’.

II. Traces of the adjectivisation of a verbal adjective in:

e.g. Proto-Sl. \**starb* ‘old’ < BSl. \**stáros* < \**stéh<sub>2</sub>-ro-* ‘one having a firm stand’ to the root \**steh<sub>2</sub>-* ‘take one’s stand’.( LIV<sup>2</sup>: 590. See also Meillet 1902c-1905: 404). Sl.: S.-Cr. *stār*,<sup>16</sup> ‘old’; Čak. (Vrg.) *stārī*, *stār*, *stārā*, *stāro*; (Hvar) *stôr*, *stārā*, *stāra*; (Orb.) *stār*, *stāra*, *stāro*; Slov. *stār*, *stāra*; Čech. *starý*, Slk. *stary*; Russ. *’staryj*, m. *star*, n. *’sta’ro*, f. *sta’ra* ‘old’ (Belić 1925: 10; summarised in Sadnik 1959: 102-103; cf. also Derksen 2008: 465; Kiparsky 1962: 271) as against \**steh<sub>2</sub>-ró-* in Lith. *stóras* (3)<sup>17</sup> ‘strong, stocky’,<sup>18</sup> or OI. *sthirás* ‘firm, hard, unmovable’.

10 Cf. also OIr. *grán*, Goth. *kairn*, OHG *kerno*, ON *kjarni*, Lat. *grānum*.

11 or from \**ǵerH-* ‘grind, wipe out’. The semantic split of the root doesn’t seem to have taken place in Ilr. (Cf. Kümmel in LIV2: 165).

12 Cited from Derksen 2008: 553.

13 Cf. dial. coll. *zérn*’ f. or else *zerénje* meaning the same.

14 Cf. OLith. adverb *ilgai* (Schleicher 1856-1857, II: 142); Mod. Lith. *ilgaĩ*, or *ilgai* and OLith. toponym *ilginykai*.

15 With the old stem stress.

16 Cf. S.-Cr.dial. *stā-man*, *stā-mna* with the same meaning (Trautmann 1923: 282).

17 Belonged to the 3rd class already in OLith.



(Skardžius 1935: 175, Buch 1961: 71, 116; Fortunatov 1900: 45; Vasmer III: 5 with further bibliography; Holthausen 1948: 284);

A similar, but much younger process of substantivization took place in Proto-Balt. *o-*, *īo-*, *ā-*, *īā*, and *ē-*stems, cf:

Latv. *liēls* adj. ‘big’ (Lith. *Žem. liēlas* ‘big’) and *liēls* ‘shin-bone’ from the IE root *\*lejh<sub>2</sub>-* ‘fade, cease, become thin’ (Schaffner 2001: 329-330; Bezzenberger 1896: 310-314; Endzelin J. 1913-1914: 107-108; Buga 1923: 109).

One should distinguish between the outcome of this late productive morphological metatony in Baltic and the reflexes of earlier oppositional accent shifts, which took place in the protolanguage. The minimal pairs of the latter are recognizable mostly in comparison of several IE daughter languages, cf:

Lith. *ilgas* (3) ‘long’ vs. *ilgis* (2) ‘length’ (with Balt. *métatonie douce*) and OLith. *ilgai* adv. (1), Latv. *ilgs*, Čak., S.-Cr. *dŭg* < BSl. *\*dǎlgos* < *\*d[hg<sup>h</sup>-o-* vs. Ved. *dīrghá-h*, Gr. *δολιχός* ‘long’

As can be seen from some of the examples illustrated above, a large number of cases traditionally explained purely phonologically by means of Hirt’s Law (Hirt 1895: 94, 165-166; Collinge 1985: 81-85)<sup>19</sup> have now received a morphological treatment. This mechanism was demonstrated by Klingenschmitt (1992a) more than a decade ago to account for such cases as:

e.g. Lith. *dūmai*, Latv. *dūmi*, Proto-Sl. *\*dŭmъ* (S.-Cr. *dŭm*), OI *dhūmá-* m. ‘smoke’ = ‘the one smoking’ to the root *\*d<sup>h</sup>ueh<sub>2</sub>-*;

e.g. Lith. *gývas*, Latv. *dzīvs*, Proto-Sl. *\*žŭvъ* (S.-Cr. *živ*), OI *jīvá*, Lat. *uīuus* ‘alive’ = ‘the one possessing the power of life’ to the root *\*g<sup>v</sup>ejh<sub>3</sub>-*;

e.g. Lith. *sūnùs* - OPr. *soūns*, Proto-Sl. *\*sŭnъ*, (S.-Cr. *sŭn*), OI *sūnúh* ‘son’ = ‘the one which was born’ to the root *\*seuH-*.

This account offers better grounds for many single cases with a visible accent shift and those without it in nominals built with *\*-tó-*, *\*-nó-*, *\*-ló-*, *\*-uó-*: namely that the accent mobility occurred as the means of morphological derivation.

Unlike the case with nouns, it is not possible to find in all Proto-Sl. *-t-*, *-n-*, and *-l-* participles traces of unambiguous transition into another semantic category, but it is obvious that accent shifts of that kind should have been an important means of word-formation at some earlier stage of Proto-Slavic. At the same time, the extent of semantic differentiation could not have played the

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18 Cf. stress deviation in Latv. *stūrs* ‘persistent’, which should obviously represent an old stem accent. However the influence of Germ. is also possible.

19 Cf. also the treatment by Garde 1976: 333-334.

decisive role. Undoubtedly the adjectivisation and paradigmatic arrangement of some Proto-Slavic verbal adjectives in the noun system occurred parallel to the grammaticalization of other Proto-Slavic verbal adjectives as participles in the system of the verb. Such (de)verbal adjectives had functioned morphologically and syntactically at the earlier stage of Proto-Slavic as pure nominals. Continuants of the IE *\*-lo-*, *\*-to-*, *\*(e)no-*deverbatives have been then step-by-step integrated in the system of the verb: first they functioned syntactically as nominal predicates in combinations with copula, later gaining morphological independence, which at its extreme yielded the *l*-preterite in the majority of the modern Slavic languages. This phenomenon has been a matter of thorough analysis for R. Večerka (1993: 108; 1996: 199- 214).

Such development of IE *\*-lo-* verbal adjectives, working out closer affinities to the verbal system in Slavic, has parallels in Armenian, as seen in the formation of the preterit participle: Arm. *°eal* < Proto-Arm. *\*°ea-lo* as e.g. in *bereal* ‘born’ built from the aorist stem *ber-e/a-* ‘bear, bring’ < IE root *\*b<sup>h</sup>er-* ‘bear, bring’ and infinitive: Arm. *°l* as e.g. in *go-l* ‘be, exist’ to IE root *\*h<sub>2</sub>ues-* ‘stay’ (Klingenschmitt 1982: 55-59, part. § 5.4. and 5.7.; Meillet 1913: §128); as well as in Tocharian in the formation of gerundives I and II: by means of the Formant *-lle* for sg. nom. m. and *-lye* for obl. sg. m. in Toch. B: e.g. *allek / allyek* ‘other’ and accordingly *-l-* in Toch. A. (See also Klingenschmitt 1994: 335).

The principle of combination of morphological and prosodic means to mark new syntactical roles of earlier verbal adjectives, as demonstrated above, has provided the longed answer for the question ‘durch welche Bedingungen diese Zurückziehung hervorgerufen wurde’ (cf. van Wijk 1958<sup>2</sup>: 85). Peculiar about it is the intonation change, which should have taken place either simultaneously or subsequently. Thus this prosodic development, resembling in its surface structure Meillet’s Law, revealed its logics, namely to maintain the paradigmatic rearrangement of former IE deverbal adjectives, resulting in their receiving a new value, namely that of active or passive participles, and acquiring the valence of the root verb. Its operation in the verbal system can be directly observed, as expected, in the non finite verbal categories:

Proto-Sl. supine < IE *\*tū-stems* (Bulaxovskij 1927);

Proto-Sl. participles < IE *\*°lo-*, *\*°to-*, *\*°(e)no-* verbal adjectives.

e.g. IE verbal adj. *\*pih<sub>3</sub>-tó-* > Pre-Proto-Sl. *\*pī-tū-* (with an acute on the root vowel) > proto-sl. ppp *\* pīb-* (according to Meillet) ‘drunk’ e.g. IE deverbal state adj. *\*pih<sub>3</sub>-ló-* > Pre-Proto-Sl. *\*pī-lū-* (with an acute on the root vowel) > Proto-Sl. past participle active *\*'pīl<sup>h</sup>-* (according to Meillet) ‘having drunk’

The process of morphological rearrangement in the *-t-* and *-n-* participles and their syntactical roles, which started in Proto-Slavic, has been in progress till the very recent times. Some cases illustrating the reanalysis of the deep syntax in participial constructions are cited by Večerka (1993:109), cf.: OČech. *je súzen* (beginning of the 15<sup>th</sup> cen.) as the translational equivalent of lat. ‘iudicatus’ whereby mod. Čech. *jest souzen* would mean ‘iudicatur’.

## Conclusion

This investigation aimed to offer a plausible scenario for the development of IE *-lo-*, *-no-* and *-to-* deverbatives in Slavic. This, as illustrated, occurred to be the result of several developments at different language levels. It involved not only prosody and morphology as traditionally assumed, but also syntax and semantics. This new perspective provided a better context for understanding the operation of Meillet’s Law and subsequently that of van Wijk’s Rule. An important issue was the reconsidering of Meillet’s Law as applied to the process of grammaticalization of Proto-Slavic verbal adjectives. Meillet’s Law which operated in the system of the noun and Meillet’s Law which operated in the system of the verb have common phonological and prosodic environment, but different morphological context and different functions. Thus, it is left open, whether to associate the latter prosodic development with the name of Meillet, which is in fact a matter of convention.

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## On the Accentuation of the Baltic Verb<sup>1</sup>

1. It is generally accepted that verbs with acute intonation in Lithuanian and their counterparts with circumflex in Latvian indicate the Indo-European ‘disyllabic base’ (Trautmann 1923, 40; Beekes 1995, 145), e.g.:

(1) Lithuanian *barù* : *bárti* vs. Latvian *bāru* : *bařt* ‘schelten’ < *\*b<sup>h</sup>orH-*, cf. Old Indic *br̥nāti* ‘droht, schimpft’ < *\*b<sup>h</sup>r-né-H-* (LIV 80);

(2) Lithuanian *delù* : *dilti* ‘sich abnutzen, schwinden’, Latvian *dēlu* : *dīřt* ‘abnehmen, sich verschleissen’ < *\*delH<sub>1</sub>-* : *\*d̥lH<sub>1</sub>-*, cf. Latin *doleō*, *-ēre* ‘schmerzen’ < *\*dolH<sub>1</sub>-éje-* (LIV 114);

(3) Lithuanian *giriù* : *girti* ‘loben, rühmen’, Latvian *dzīruōs* : *dziřtiēs* ‘sich rühmen’ < *\*g<sup>u</sup>rH-je/o-*, cf. Vedic *gr̥nāti* ‘begrüsst, rühmt’ < *\*g<sup>u</sup>r-né-H-* (LIV 210-11);

(4) Lithuanian *kalù* : *kálti* ‘schlagen, stechen’ vs. Latvian *kaļu* : *kaļř* ‘schmieden, (Pferde) beschlagen’ < *\*kolH<sub>2</sub>-*, cf. Greek *κλώω* ‘breche’ < *\*k̥lH<sub>2</sub>-je/o-* (LIV 350);

(5) Lithuanian *malù* : *málti* vs. Latvian *maļu* : *maļř* ‘mahlen’ < *\*molH<sub>2</sub>-*, cf. Luwian *mālhūta* ‘brach’ (LIV 432-33);

(6) Lithuanian *minù* : *minti* vs. Latvian *minu* & *miņu* : *mīř* ‘treten, gerben’ < *\*mnH-*, cf. Middle Breton *monet* ‘gehen’ < *\*monH-eje/o-* (LIV 438);

(7) Lithuanian *pilù*, dial. *piliù* : *pilti* ‘giessen, (aus)füllen, schütten’ < *\*plH<sub>1</sub>-*, cf. Vedic *pūryate* ‘wird voll’ < *\*plH<sub>1</sub>-je-toj-*, Greek *πλήτο* ‘wurde voll’ < *\*pleH<sub>1</sub>-to* (LIV 482);

(8) Lithuanian *vemiù* : *vėmti* vs. Latvian *vēmu* : *veřt* ‘erbrechen’ < *\*uemH<sub>1</sub>-je/o-*, cf. Old Indic *vāmīti* ‘speit aus’, Greek *έμέω* ‘erbreche’ (LIV 680).

2. There is a set of the verbs of this accentological pattern in the zero-grade of the root, extended in *\*-je/o-*, but with external cognates excluding the *seř*-root (cf. Kuryłowicz 1952, 410):

(9) Lithuanian *burìu* : *burti* ‘allerhand Wahrsagerei oder Zeichendeuterei treiben’, Latvian *buřu* & *buřu* : *buřt* ‘zaubern’ (Trautmann 1923, 40). The external comparison confirms the *aniř* reconstruction: Greek *φάρμακον*

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‘magical drink, medicine, healing herb, drug’ <  $*b^h\dot{r}m^o$  (cf. Frisk I, 992-93 after Osthoff; cf. Trautmann, l.c.: ‘Ist die Gleichung richtig, so beruht das balt. Verbum aus zweisilbiger schwerer Basis neben der leichten in φάρμακον’).

(10) Lithuanian *duriù* : *dùrti* ‘to pierce’, Latvian *duŗu* : *duŗt* id. (Trautmann 1923, 52; Pokorny 1959, 207-08; LIV 119-21:  $*dr\text{-}\dot{i}e/o\text{-}$ ).

(11) Lithuanian *kuriù* : *kùrti* ‘to create, found, originate; to make up the fire / kindle, light’, Latvian *kuŗu* & *kùru* : *kuŗt* ‘to kindle, ignite, heat’ <  $*k^u\dot{r}\text{-}\dot{i}e/o\text{-}$ , etc. (Trautmann 1923, 31, 52; Pokorny 1959, 131-32, 641-42; LIV 76-77, 121, 391).

(12) Lithuanian *skiriù* : *skìrti* ‘trennen, teilen, unterscheiden’, Latvian *šķiru* : *šķiŗt* ‘scheiden, trennen, teilen’ <  $*skr\text{-}\dot{i}e/o\text{-}$  (Pokorny 1959, 938-40; Fraenkel 1962-65, 808; Rasmussen 1989, 209, 309:  $*sker\text{-}$ ). Kümmel in LIV differentiates the *seř* root  $*(s)kerH\text{-}$  (p. 558) vs. *aniř* root  $*(s)ker\text{-}$  (p. 556).

Besides the Baltic accentuation the main argument for presence of the laryngeal in the root is based on the Goidelic present verbal stem  $*skara\text{-}$ , attested in Old Irish *scaraid* ‘trennt (sich)’, later remodelled in  $*skar\text{-}\bar{a}\text{-}$  (so Schuhmacher 2004, 46, 576, following Joseph). But it is easier to imagine this scenario in the opposite direction (see Thurneysen 1946, 336, §523 on the correspondence of the Irish weak *a*-verbs to the Latin verbs in  $\text{-}\bar{a}re$ , the Gothic in  $\text{-}on$  or the Greek in  $\text{-}\hat{\omega}v$ ).

The both *seř* and *aniř* verbs in Lithuanian have the same present paradigmas, classified as the thematic conjugation of the  $\text{-}\dot{i}e/o\text{-}$ -class:

**Table 1**

inf.	1 sg.	2 sg.	3 sg. + pl.	1 pl.	2 pl.
<i>gìrti</i>	<i>giriù</i>	<i>giri</i>	<i>gìria</i>	<i>gìriame</i>	<i>gìriate</i>
<i>kùrti</i>	<i>kuriù</i>	<i>kuri</i>	<i>kùria</i>	<i>kùriame</i>	<i>kùriate</i>

3. An agreement with the rule described in §1, i.e. Lithuanian *Ci/ùr...*, Latvian *Ci/uŗ..* <  $*C\dot{r}HC$ , could be attained, if two scenarios with different morphological segmentation are proposed: (i)  $*C\dot{r}H\text{-}\dot{i}e/o\text{-}$  vs. (ii)  $*C\dot{r}\text{-}H\dot{i}e/o\text{-}$ , where the extensions may be identified with the present in  $\text{-}\dot{i}e/o\text{-}$  and the essive in  $\text{-}H\dot{i}e/o\text{-}$  respectively, accepting the classification used in LIV<sub>2</sub> 19, 25; consequently  $*C\dot{r}HC = *C\dot{r}\text{-}H\dot{i}(e/o\text{-})$ , see Blažek 2001-02, 88-89.

**Table 2**

inf.	1 sg.	2 sg.	3 sg. + pl.	1 pl.	2 pl.
*g <sup>u</sup> rH-tei	*g <sup>u</sup> rH-īō	*g <sup>u</sup> rH-īei	*g <sup>u</sup> rH-īot	*g <sup>u</sup> rH-ome	*g <sup>u</sup> rH-īote
*k <sup>u</sup> r-tei	*k <sup>u</sup> r-H <sub>1</sub> īō	*k <sup>u</sup> r-H <sub>1</sub> īei	*k <sup>u</sup> r-H <sub>1</sub> īot	*k <sup>u</sup> rH <sub>1</sub> īome	*k <sup>u</sup> r-H <sub>1</sub> īote

4. In LIV as examples of the essive the Lithuanian verbs of the semithematic class with present in *-i-* and infinitive in *-ėti* are quoted, e.g. the derivative of the apparent *aniť*-root *\*men-* represented by *miniù*, *mini*, *mini* : *minėti* ‘to remember’ (p. 436) which belongs to the *\*-eH<sub>1</sub>-iė/ó*-class (Stang 1966, 362; Hardarson 1998, 323, 334). So the extensions reconstructed in §3 and §4 are in principle compatible, their main difference consists in presence or absence of the thematic vowels. It is possible to conclude: they represent the same grammatical category called the essive whose form differentiates, because characterizes various conjugational classes.

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## The Relative Chronology of East Baltic Accentual Developments

### 1. Introduction

According to Salys (1933), the split between Žemaitian and Aukštaitian dialects originated in the middle of the 15th century. This seems uncomfortably late, cf. Būga's dating of Leskien's law, which was preceded by considerable dialectal differentiation, to the 13th century (1924: XXXIII = 1961: 46ff.). In a series of articles, Girdenis (especially 1991, 1994) has attempted to push the split back in time, arriving at 700 AD as a terminus ad quem. In his opinion, the breaking up of East Baltic into the tribal languages Curonian, Selonian, Semigallian, Latgalian, Žemaitian, and Lithuanian was followed by a period of linguistic convergence (cf. Kortlandt 1977: 325), which in the case of the latter two languages was connected with the formation of a Lithuanian state. Ultimately, Žemaitian came to be perceived as a Lithuanian dialect, to be distinguished from Aukštaitian. At a certain stage, Žemaitian may have shared a number of developments with the neighbouring Prussian and Curonian languages. Zinkevičius (2006), on the other hand, claims that the appearance of Žemaitian was shaped by a Curonian substratum at a relatively late stage. Its development took a new direction as a result of the impact of Curonian.

In this paper we shall discuss the scope and chronology of accentual developments that have taken place from Proto-East Baltic times to present-day Lithuanian and Latvian, while paying special attention to above-mentioned views on the emergence of Žemaitian. I would like to start with the relative chronology devised by Kortlandt (1977), adding some observations from my own publications.

### 2. East Baltic

- Monophthongization of \**ai*, \**ei* to \**ẽ* under the stress. It is likely that at this stage the glottal stop originating from the PIE laryngeals and Winter's law became a vocalic feature.
- Retraction of the stress from prevocalic \**i* and \**-à*. Tonogenesis (cf. Kortlandt 2009).

I assume that the retraction was preceded by the monophthongization in view of examples such as Lith. *ráišioti* 'to tie', *išnáikioti* 'to extinguish', *bráidžioti* 'to wade' (with analogical *ai*, cf. the variant *bradžióti*), Latv. *klaīgāt* : *kliēgt* 'to

screech’, Lith. *káimas* 1/3 ‘village’ vs. *kiēmas* 4 ‘courtyard, farmstead’. If correct, this is another argument against Larsson’s idea that the above-mentioned retractions also operated in Old Prussian (2003, cf. Derksen 2005), where monophthongization did not occur.

- Hjelmlev’s law: originally a tonal assimilation rule proposed by Hjelmlev (1932: 5), which Pedersen (1933: 10) limited to word-forms of three syllables. Kortlandt (1977: 327) further limited the rule, identifying it with Pedersen’s law in order to account for the *métatonie douce* in words such as *aĩntinas* ‘drake’, *ēdaldas* ‘fodder’.

In Derksen 1996 (284-285) I tried to incorporate Hjelmlev’s / Pedersen’s law into a single East Baltic development (cf. the *métatonie rude* in Latv. *ziēmelis* ‘North’, *raĩbala* ‘spotted cow’, etc.), but the fact that Pedersen’s law seems to have been preceded by the Lithuanian lengthening of stressed *e* and *a* renders this problematic.

### 3. Lithuanian

- Diphthongization of  $*\bar{o}$ ,  $*\bar{e}$  to *uo*, *ie* in stressed syllables. The Žemaitian dialects show a different development (see below).
- Lengthening of stressed *a* and *e* in non-final open syllables: *lāpas* ‘leaf’. The long vowels were analogically extended to closed syllables.

According to Kortlandt, this development was limited to the Aukštaitian dialects. It is true that in Žemaitian the lengthening is more restricted, but as such this statement is incorrect. In the West Žemaitian area around Klaipėda lengthening is very rare (cf. Zinkevičius 1983, where Curonian or German influence is suggested), but elsewhere we find lengthening of *e* and *a* in syllables that were stressed prior to the Žemaitian retraction of the ictus, e.g. (coastal Žemaitian) *mēdis* ‘tree’ : Apl. *mèd’ùs*. In the North Žemaitian area, the most important exceptions are:

- No lengthening in forms that were affected by apocope, e.g. *lāps* (*lāpas* ‘leaf’), *nābāks* (*nabāgas* ‘poor person’). This could simply be a matter of relative chronology. Note that the West Žemaitian area, where lengthening is even more restricted, is also the area where the tendency to shorten and eliminate final syllables is particularly strong.
- No lengthening before a synchronically long ending, e.g. *mèd’ōu* Dsg. (with secondary broken tone). We could be dealing here with recent shortening of  $\bar{e}$  and  $\bar{a}$  before a long ending. Lengthening does occur before shortened circumflex endings, e.g. *mēd’u* Gpl.

- Pedersen's law: retraction of the ictus from stressed medial syllables, e.g. the present tense forms *nèveda*, *nebènešu priveda*, *prisimena* (but *prānašas* 'herald, prophet', *nēmiga* 'insomnia').

It is crucial that newly accented *e* and *a* were not lengthened, which shows that this renewed operation of Pedersen's law is recent. Lengthening does occur in East Aukštaitian, but the absence of lengthening in the larger part of the Lithuanian territory is nonetheless significant.

- Saussure's law: stressed non-acute syllables lose the stress to an immediately following acute syllable, e.g. *rankà* 2 (Asg. *rañka*), *ratùs* Apl. (*rātas* 2).

It is clear that Saussure's law was posterior to Pedersen's law because forms such as *negāli*, *nesāko* show that there was still a difference between immobile and mobile verbs with a non-acute root vowel. On the other hand, Saussure's law eliminated the effects of Pedersen's law in the case of an acute root (Saussure 1922: 530).

- Nieminen's law: originally formulated as a retraction of the stress from final *\*-à(s)* (Nieminen 1922). According to Stang (1966: 171), the stress was only retracted onto long vowels and diphthongs.

I distinguish between an East Baltic retraction from *\*-à* and a later retraction from *\*-às*. Forms such as *šaltāsis* 'cold' (Univerbierung after the lengthening of stressed *a*), or the pronouns *anàs*, *katràs* indicate that the retraction can hardly be very old, though it must have been anterior to Leskien's law.

- Leskien's law: shortening of acute final syllables, e.g. *gerà* f. 'good' (adj.) : *geróji* (def. adj.). Acute diphthongs in final syllables (except *\*ie*, *\*ío*) become circumflex in Aukštaitian but not in Žemaitian.

- Retraction of the stress in Žemaitian and neighbouring West and East Aukštaitian dialects. Three areas representing three different stages may be distinguished: (1) retraction from a short ending to a preceding long syllable, (2) retraction from a short ending to a syllable of any quantity, (3) retraction from a short or circumflex ending regardless of the quantity of the preceding syllable. In the Žemaitian part of area (3), the stress is retracted to the first syllable, not to the penultimate syllable as in Aukštaitian. Furthermore, the stress is also retracted from non-acute syllables that had become final as result of apocope. Syllables that lose the ictus retain secondary stress.

- Loss of glottalization in Aukštaitian in stressed and unstressed syllables. Glottalization is preserved under the stress in Žemaitian. In certain North West Žemaitian dialects, tonal distinctions in originally pretonic syllables

testify to the fact that here glottalization was preserved up to the Žemaitian retraction of the ictus.

#### 4. Latvian

- Generalization of mobility in neuter *o*-stems (Derksen 1996: 229-232, 1997).
- Spread of the glottal stop in the *sta*-present of roots ending in an obstruent, a development that is only partly shared with Lithuanian (Derksen 1996: 291-294, forthc.).
- Rise of the sustained tone, i.e. loss of glottalization under the falling tone (in originally stressed syllables) yields a stretched rising tone, e.g. *sēt* ‘to sow’ (Lith. *sėti*), which merges with the metatonical rising tone. Newly stressed glottalized syllables lose glottalization and become falling (Kortlandt 1977: 328, 2009, forthc., Derksen 1996: 231, 1997).
- Levelling of tonal alternations within paradigms (cf. Derksen 1996: 231-232, 1997).
- The stress becomes fixed on the initial syllable. In non-initial syllables the sustained and falling tones merge, while glottalization is preserved as the broken tone (Kortlandt 1977: 328, forthc., Derksen 1996: 229-232, 1997, 2001).
- In initial syllables the falling and broken tones merge in the West, whereas the sustained and falling tones merge in the East (cf. Derksen 1997).

#### 5. Views on the development of Žemaitian:

Girdenis 1994:

1. Fronting of *\*ja(n)* to *\*je(n)*.
2. Loss of *\*j* between C and a front vowel.
3. First reduction of unstressed endings ( $V > V^j$ ).
4. Nasalization:  $-Vn > \bar{V}_c$ .
5. Broadening of *i* to *e*.
6. Narrowing of *\*-ē*.
7. Second reduction of unstressed endings:  $\tilde{V} > \check{V}$ .
8. Broadening of *\*-u* to *-o*.
9. Narrowing of *\*q̄* to *\*q̄*.
10. Leskien’s law.
- [11. Retraction of the stress.]

Zinkevičius 2006:

[Probably before the 13th century:  $*i_a > *e$ . A clear separation between Aukštaitian and Žemaitian on the basis of affricates can only be established from the 15th century onwards.]

1. Broadening of  $i, u$  to  $e, o$ .
2. Loss of short final vowels, reduction of circumflex vowels and shortening of acute endings.
3. Retraction of the stress.
4. Conversion of  $uo, ie$  into  $\bar{u}, \bar{i} / \bar{o}, \bar{e}$  [under Curonian influence].

If  $\bar{u}, \bar{i}$  had arisen before Leskien's law, one would expect the reflexes of acute  $\bar{u}, \bar{i} < * \bar{o}, * \bar{e}$  in final syllables to have merged with shortened  $*\bar{u}, *\bar{i}$  (Zinkevičius 2006: 213) In my view, however, this does not imply that there ever was a stage  $uo, ie$  in the Žemaitian area.

5. [Žemaitian] monophthongization of  $ai, ei$ .
6. Narrowing of  $a, e$  and  $an, am, en, em$ .

I cannot go into the details here, but it seems that Girdenis's well-argued relative chronology is in some respects preferable to the one by Zinkevičius. Now let us consider the overall picture. In Zinkevičius's conception, Žemaitian is basically just another dialect. It is possible to point out several developments that must have preceded Leskien's law, but the same holds true, for instance, for the East Lithuanian raising of  $a, e > u, i$ , which Zinkevičius dates to the 9th-10th centuries. The distinct appearance of the Žemaitian dialects is attributed to a number of late developments connected with a Curonian substratum. Girdenis's view that Žemaitian is an East Baltic tribal language that became a Lithuanian dialect as a result of convergence is appealing, but there seem to be very few old isoglosses separating Žemaitian from Aukštaitian. The characteristic prosodic system of North West Žemaitian in particular can be derived from the stage following Leskien's law. Girdenis arrives at 700 AD as a terminus ad quem for the emergence of Žemaitian, but his conclusion (1994: 179) is merely based on an extrapolation of the *Auslautgesetze* between 1300 (Leskien's law) and 1900 AD and does not carry immediate conviction.

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## Balto-slawische Akzentologie und die germanische Konsonantengemination (Zur Verteidigung von F. Kluges Theorie)

### 1. Einleitung

Die Theorie F. Kluges (s. *F.Kluge*. Die germanische Consonantendehnung. // PBB, Bd. IX, S. 149-186) lautet nach K. Brugmanns Formulierung wie folgendes: 'Zur Zeit der uridg. Betonung wurden im Ugerm. vor haupttonigem Vocal die inlautenden Gruppen *bn, dn, gn*, die aus uridg. *pn phn bhn, tn thn dhn, kn khn ghn* entstanden waren, zu *bb, dd, gg* und weiterhin zu *bb, dd, gg*, in gleicher Stellung auch die Gruppen *bn, dn, gn* = uridg. *bn, dn, gn* zu *bb, dd, gg*. Diese geminierten stimmhaften Mediae wurden dann gleichzeitig mit den uridg. einfachen Mediae zu Tenues, *pp, tt, kk*. Nach Consonanten und langen Vocalen wurde die Geminata vereinfacht.' (*K. Brugmann*. Grundriß der vergleichenden Grammatik der indogermanischen Sprachen, Bd. I, S. 383-384).

Allerdings wurde die Akzentposition, in der die Regel von F.Kluge wirkt, nicht ganz zuverlässig bestimmt, weil es sehr wenige direkte Vergleichen mit Akzentübereinstimmungen gab, und zwar nur einzelne Nomina mit alternativen Bedeutungen:

1. aengl. *frićca* (*friccea*) m. 'Herold, Ausrufer' (< \**preknién-* 'Fragemann') ~ ai. *praśnín-* m. 'Fragesteller'
2. urgerm. \**lukkaz* m. 'пучок волос, локон' [aisl. *lokkr* m. 'Haarlocke'; aengl. *locc* m. 'Locke, Haar', afr. *lokk*; ahd. *loc*] ~ lit. *lūgnas*, -à adj. (4) 'biegsam', aber lit. adv. *lūgnai*.

Im folgenden Fall fehlen Daten zum Akzent, aber eine Verbindung des Verschlußlautes mit *-n-* ist möglich:

3. aisl. *stakkr* m. 'Heuschober' (< \**staknó-s*) ~ lat. *stagnum* n. 'durch Überschwemmung entstandenes künstliches Gewässer, See, Lache; Teich'.

Solche Situation führte dazu, dass man versucht hat, die Theorie von F. Kluge abzulehnen und die germanische Konsonantendehnung mit einer anderen Hypothese zu erklären, nämlich der von der speziellen affektiven Lexik im Indoeuropäischen, die schon ursprünglich durch die Konsonantendehnung charakterisiert war (R. Trautmann, W. Wissmann, A. Martinet). Diese Hypothese basiert auf keinen wirklichen Belegen und stellt in der Tat nur den Verzicht auf die vergleichend-historische Erforschung der germanischen Konsonantendehnung dar.

Die Rekonstruktion des balto-slavischen Akzentsystems ermöglicht es zur Zeit, das für die Erforschung des urgermanischen prosodischen Systems

relevante Material wesentlich zu vergrößern. In Folge der durchgeführten Vergleichung gelingt es, die Akzenttypen von vielen Verben mit der Konsonantendehnung (Oxytona) nachzuweisen, ebenso wie die Akzenttypen von Verben mit der Verbindung ‘Verschlußlaut + -n-’ (Barytona). Im Urgermanischen, ebenso wie im Urslawischen, läßt sich eine Klasse der inchoativen Verben abgrenzen, in der ursprünglich rezessive Wurzel sekundär dominant wurde.

## 2. -na-Verben

Wenn man von den balto-slawischen und kelto-italischen (vor allem lateinischen) Belegen ausgeht, ist es möglich, bei zwanzig urgermanischen Verben, die Geminaten haben, die akzentuelle Valenz ihrer Wurzeln zu bestimmen; diese Valenz war rezessiv. Sechs dieser Verben haben direkte Entsprechungen im Slawischen: Das sind -na-Verben des A.P. *c* (mobile), die aus i.-e. (idgm.) -*neu*-Verben entstanden. Acht germanische Verben haben ihre Entsprechungen in den baltischen primären Verben, was aus der gestoßenen (abgebrochenen) Intonation ihrer Wurzeln im Lettischen hervorgeht. Diese Intonation zeigt den rezessiven Charakter des Akutes auf der Wurzelsilbe. Die rezessive Valenz bei anderen sechs urgermanischen Verben wird durch die Bildung des s-Präteritums im Lateinischen nachgewiesen.

## 3. Germanische Verben, deren slavische Entsprechungen (derivative n-Verben) das Akzentparadigma *c* haben

1. urgerm. *\*bakka-* < *\*bagná-* [asächs. *bakkan* ‘backen’ (Freck., St.P.), ahd. *backan*, mnd. *backen* ~ aengl. *bacan* (*bocon*, *bacen*) ‘backen’; ahd. *bahhan*, *bacchan* (*bachu*; *buoh*, *buochum*; *gibachan*) ‘backen’ ] ~ slaw. *\*bagnǫti*, praes. 1.sg. *\*bāgnǫ*, 3.sg. *\*bagněť* [ukrain. *прибагнути* ‘иметь, возыметь странное желание’ (Желех.), *забагнути* ‘пожелать, захотеть’ (Гринченко) (*бага* ‘жажда’), *забагнути*, praes. 1.sg. -*ну́*, 2.sg. -*не́и* ‘постичь, проникнуть, догадаться, вспомнить’ (Гринченко); ‘осягти, зрозуміти’, tschech. *bahnouti* ‘жаждать, вожделеть’ (Kott I, 42), (*bagnul* : *bagl*), slowak. dial. *bahnút* ‘pragnąć, pożądać, tęsknić’; poln. dial. *zabagnąć* (sie) ‘zachcieć (sie)’] ~ urslaw. *\*bažēti* / *\*bažati*, praes. 1.sg. *\*bāžjǫ*, 3.sg. *\*bažītŭ* [russ. dial. *бажеть*, -*жу́*, -*жишь* ‘очень хотеть, сильно желать чего-нибудь (иногда из прихоти); просить’ Вят., Яросл., Костр. (СРНГ 2: 46); poln. dial. kleinpoln. praes.3.sg. *zabazy śe*, praet. (1-part. n.) *śe...zabaz’iŭo*, *zabazyŭo mi śe* (Kucala 238)]; griech. φάγω ‘rösten, braten’ || Holthausen AEEW 14; Braune 312 (§ 347, Anm.4); Seebold 87-88; Фасмер I, 104-105; Berneker I, 38; Frisk II, 1057.

2. urgerm. \**hikka-* < \**higná-* [aisl. *hikka* ‘schluchzen, stark nach Luft schnappen, unsicher und ruckweise treten, wie mit einem kranken Fuß, stotternd und mit Wiederholungen sprechen’, norw. dial. *hikka*, schwed. *hicka* ‘schlucken haben’, dän. *hikke* ‘einen Schlucken haben’; nd. *hikken*, nl. *hikken* ‘einen Schluckauf haben, schluchzen’ ~ mnd. *hígen* ‘schwer atmen’; aengl. *hígian* ‘спешить, напрягаться, стремиться’] ~ urslaw. \**šīgnōti*, praes. 1.sg. \**šīgnō*, 3.sg. \**šīgnèť* [russ. *сигнуть*, praes. 1.sg. *сигну*, 3.sg. *сигнёт* ‘прыгнуть, скакнуть’; wgruss. *сигануць, -ну, -нёш, -нё, -нём, -няцё, -нуць*]; aind. *šīghrás* ‘скорый, быстрый’] || Фасмер III, 618; WP I, 363; Pok. 542-543; Wißmann 174; Holthausen AEEW 160; Mayrhofer III, 340.

3. urgerm. \**likka-* < \**ligná-* [aengl. *liccian* ‘лизать’, asächs. *likkōn*, ahd. *leckōn* ‘лизать’ ~ got. *bilaigōn* ‘облизывать’; ahd. *lehhōn* ‘лизать’] ~ urslaw. \**lǫznōti*, praes. 1.sg. \**lǫznō*, 3.sg. \**lǫznèť* [russ. *лизнуть*, praes. 1.sg. *лизну*, 3.sg. *лизнёт*; для первичной ступени вокализма ср. skr. *lāznuti*, praes. 1.sg. *lāznēm* ‘лизнуть’; slk. *liznúť* ‘лизнуть, -ёт’ ~ slk. *lízat* ‘лизать’]; lit. *lièžti*, praes. 1.sg. *lièžù* ‘лизать’, интенсив: *laižyti*, praes. 1.sg. *laižaiù* ‘лизать’; le. *lāizūt* ‘лизать’; lat. *lingō, līnxi, līnctum, lingere* ‘леcke’; griech. *λείχω* ‘лижу’, *λυχνέω* ‘лакомлюсь, облизываю’, ‘belecke’; arm. *lizem, lizanem* ‘лижу, пожираю’ || Фасмер II, 494-495; Fraenk. I, 369; WH I, 806; Джаукян 43, 56, 162, 171.

4. urgerm. \**lukka-* < \**lugná-* [aisl. *lokka* ‘locken’; aengl. *loccian* ‘locken, besänftigen’, mnd. *locken*, ahd. *locchōn*, mnd. *locken* (swv.) ‘locken, anlocken, verlocken mit ap.; mit dat. durch Lockspeise, Lockruf anlocken’ ~ got. *liugan* ‘лгать’; aisl. *ljūga*; aengl. *lēozan*, afr. *liāga*; asächs. *liogan*, ahd. *liugan, leogan* ‘lügen’] ~ urslaw. \**lǫgnōti*, praes. 1.sg. \**lǫgnō*, 3.sg. \**lǫgnèť* [russ. *прилгнуть*, praes. 3.sg. *прилгнёт*; bulg. dial. *облъгна* ‘излъга се’ (Долновардарско), *лѡгнувам* ‘лъга по малко, поизлъгвам; измамвам някого да падне’ (Широкопольски район); skr. (XVIv.) *lāgnuti, -ēm* (in einem Volkslied: *Lagneš mi, lagneš kako huda glava, ja ti sam hrabra i od prijē znala* RJA V, 873); slowen. *legniti* (*kedar megne, tedaj legne* C. (Pl. I, 506)) ~ bulg. praes. 1.sg. *лъжа*, dial. *лъга* ‘лъжа’, 2.sg. *лъжеш* (Бургаско); skr. *lāgati*, 1.sg. *lāžēm* (Vuk); slowen. *lāgāti*, 1.sg. *lāžem* ‘lügen’]; lit. *lūgōti* ‘bitten’, le. *lūgt*, praes. 3. *lūdz*, praet. 3. *lūdza* ‘просить; приглашать’ Андронов 2002: 104; *lūgt*, praes. 1.sg. *lūdzu* ‘bitten, flehen, beten’ Mühl.-Endz. II, 517-518 || Orel 250; Fraenk. 389; Feist 334 и 333; БЕР 3: 537, 542; Skok II, 260.

5. urgerm. \**skuppa-* < \**skuþná* [aisl. *skoppa* ‘zum Narren halten’, norw. *skuppa* ‘schütteln, stoßen’, aschwed. *skoppa, skuppa* ‘springen, laufen’ ~ got. *af-skiuban*

‘отвергать’; ahd. *scioban* ‘двигать’; aisl. *skúfa* ‘двигать, толкать’] ~ urslaw. \**skubnōti*, praes. 1.sg. \**skúbno*, 3.sg. \**skubnētē* [russ. dial. *скубнуть* СРНГ 38: 172, 171; ukrain. *скубнути*, *бну*, *неш* (однокр.) ‘дернуть, рвануть’ (Гринченко); tschech. *škubnouti* ‘дернуть’ ~ russ. dial. *скубти*, *скубсти*, *скусть*, praes. 1.sg. *скубу*, 3.sg. *скубѣт*, ukrain. *ску́бсти*, praes. 1.sg. *скубу*, 2.sg. *скубѣш*, (угор.) *ску́бти*, praes. 1.sg. *скубу*, 2.sg. *скубѣш* (Гринченко); bulg. dial. praes. 1.sg. *скубу*, 3.sg. *скубѣ* (Банат), praes. 1.sg. *скубѣм* (Ново Село Видинско); skr. *скўнсти*, praes. 1.sg. *скўбѣм* ‘рвать, дергать, щипать’; slowen. *skúbsti*, praes. 1.sg. *skúbem* ‘rupfen’; atschech. *skústi*, praes. 1.sg. *skubu*; apoln. (XVI-XVII в.) *skuść*, praes. 1.sg. *skubę*; der iterativ Stamm mit der Metatonie: ukrain. *скублю*, praes. 1.sg. \**ску́бле*; bulg. *ску́бя*; poln. *skubać*, praes. 1.sg. *skubię*; lit. *skūbti*, praes. 1.sg. *skumbū*, praet. 1.sg. *skubaū*; *skubėti*, praes. 1.sg. *skubū* ‘спешить, торопиться’; aind. *kṣubhntī*, *kṣubhnāti* ‘качается, дрожит’ || Фасмер III, 660; БЕР 6: 806-807; Стойков 1968; Brückner 498.

6. urgerm. \**strukka-* < *strugnā-* [aengl. *stroccian* ‘streichen’, mhd. *strocken* ‘straucheln’ ~ aisl. *striúka* ‘streichen, abwischen, schnell gehen, sich fortmachen’; ahd. *strúchon*] ~ urslaw. \**strugnōti*, praes. 1.sg. \**strúgnō*, 3.sg. \**strugnētē* [russ. *стругнуть*, *состругнуть*, ukrain. *стругнути*, *гну*, *неш* ‘стругнуть; убежать, умчаться; ударить; отпалить, выкинуть, отколоть штуку, коленце’; skr. *strúgnuti*, praes. 1.sg. *strúgnēm*; slk. *struhnúť* k *strúhat’* (význ.: hovor. expr. ‘robot’, vytvárat’); hovor. expr. ‘udriet’, seknút’, fl’asnút’; hovor. expr. ‘hodit’, šmarit’] ~ aruss. стръгати, praes. 1.sg. стружую, russ. *строга́ть*, *струга́ть*, -аю; skr. *стру́гати*, praes. 1.sg. *стру́жѣм*, slowen. *strúgati*, praes. 1.sg. *strúžem*; tschech. *strouhati*, slk. *strúhat’*]; griech. στρεῦγομαι ‘изнуряюсь, обессиливаю, чахну, худею’; ? le. *strūgāins* ‘полосатый’ (die Dehnung nach Winter-Gesetz ?) || Фасмер III, 779; Trautmann BSW 288-289.

#### 4. Akzentparadigma *c* der ableitenden Verben, laut den Belegen aus dem Lettischen und aus den slawischen Sprachen

7. urgerm. \**brukka-* < \**br̥gnā-* [mnd. *brocken* ‘brocken, zerbröckeln, einbrocken’, mhd. *brocken* ‘brocken, zerbröckeln ~ got. *brikan*, praes. 3.sg. *brikiþ* 2 T 2,5, praet. 3.sg. *brak* G 1,23, -, *brukans* (в part. praet. sg. n. *ga-brukano* 1 K 11,24) ‘κλᾶν, brechen, πορθεῖν, zerstören’; aengl. *brecan*, *bræc*, *bræcon*, *brocen* ‘brechen, zerbrechen, zerreißen, zerstören, unterdrücken; einbrechen, erobern; bersten’, afr. *breka*, *brek*, *brēkon*, *bretsen*; asächs. *brekan*, *brak*, *brākun*, *-brokan*; ahd. *brehhan*, *brah*, *brāhun*, *gibrohhan*] ~ le. *brāzt*, praes.

1. sg. *brāžu*, praet. 1. sg. *brāzu* Kr., Kl., Salisb., Ermes, Muremois, Stockm., C., PS., Warkhof (aber auch *brāzt* Bl., Bächhof, Grüwald); lit. *brržti* ‘wischen, streifen, hingleiten, kratzen, schrammen, ritzen’, ‘оцарапать’; Intensiv: *brōžyti; brėžti*, praes. 1. sg. *brėžiu* ‘чертить; царапать; чиркать’ (in baltischen Sprachen die Dehnung nach dem Winter-Gesetz); lat. *frangō, frēgī, frāctum, frangere* ‘breche, zerbreche; beuge, erschüttere’; aind. (RV X, 68,1) *giri-bhráj-* ‘aus Bergen hervorbrechend’ || Feist 105; WH I, 541; Fraenk. I, 56-57; Holthausen AEEW 33; Seebold 132-135.

8. urgerm. \**bukka-* < \**bugnā-* oder \**bugnā-* [af. *buckia* ‘sich bücken’; mnl. *bocken, bucken* ‘sich bücken, unterwerfen’, ndl. *bukken*; mnd. *bucken* ‘sich neigen, sich bücken’; nhd. *bucken* ‘bücken, sich beugen, sich krümmen, sich schmiegen’, mhd. *bocken* ‘niedersinken, (tr. und refl.) niederlegen’ ~ got. *biugan* ‘κάμπτειν’, ‘beugen’; ahd. *biogan* ~ asächs. *būgan* ‘sich beugen’, mnd. *būgen* ‘beugen, verbiegen, sich biegen, ausweichen; aengl. *būgan*’] ~ lit. *būgti*; le. *būgnums* Mar. ‘Angst, Furcht’ (Endz.-Hauz. I, 257); aind. *bhujāti* ‘biegt’; griech. φεύγειν; lat. *fugere* ‘fliehen’ || EWD I, 167-168; WH I, 556-557; Trautmann BSW 39.

9. urgerm. \**hnippa-* < \**hniþnā-* [aisl. *hnippa* ‘stoßen, stechen’, schwed. *nippa* ‘coire’; mengl. *nippen* ‘kneifen, klemmen’; dt. dial. (bair.) *nipfen* ‘nippen’ (dt. *nippen* ‘пить маленькими глотками’ aus nd.); ndl. *nippen* ‘nippen’] ~ lit. *kniþti*, praes. 1. sg. *kniþù*, praet. 1. sg. *kniþaũ* (praes. < \**kniþnā-*); le. *kniēbt*, praes. 1. sg. *kniēbju*, praet. 1. sg. *kniēbu* ‘kneifen, zwicken’; le. *knaibīt* ‘wiederholt kneifen, zukneifen’; griech. κνίπω, σκνίπτω ‘schaben, schneiden, kneifen’ || Pok. 562; Fraenk. I, 277-278; EWD II, 1171-1172; de Vries 243; Frisk I, 885-886.

10. urgerm. \**wippa-* < \**wiþnā-* [spät aisl. *vippa* ‘schwingen’, isl. *vippa* ‘wippen, schwingen’, norw. *vippa* ‘hin und her laufen, schlingen, flechten’, schwed. *vippa*, dän. *vippe* ‘schaukeln’; mengl. *wippen* ‘zittern, mit den Flügeln schlagen’; mnd., mnl. *wippen* ‘schaukeln’; ahd. *wippþōn* ‘hin und her laufen’ ~ got. *weipan* ‘bekränzen’; mnd. *wīpen* ‘schleudern’] ~ le. *viēbt* ‘sich drehen’; lat. *vibrō, -āvi, -ātum, vibrāre* ‘setze in zitternde Bewegung; bewege mich zitternd’ || de Vries 667; Karulis 1155; WH II, 780; Pok. 1132.

11. urgerm. \*(*h*)*nappa-* < \*(*h*)*nþnā-* [norw. *nappa* ‘pflücken, zapfen, schnappen’, aschwed. *nappa* ‘klemmen, kneifen, erhaschen, hastig greifen, pflücken, sammeln, zerpfücken’] ~ lit. *knóbtī* ‘клевать’, *kniēbtī* ‘щипать’; le. *knābt, ~j, ~a* 3 pers. ‘клевать’, *kniēbt, ~bj, ~ba* ‘щипать’ Андронов 2002: 92;

*knàbt*, ~*bju*, ~*bu* Schujen, *knàbt*<sup>2</sup> Warkl., *knâbt*<sup>2</sup> Dunika, Wandsen, *knàpt* C. 'picken, hacken' Mühl.-Endz. II, 244; griech. κνόπτω 'kratze, kratze auf, walke; zerreiße, zerfleische', '(ο ιερστυι, συκνε) чесать или валять; сечь, истязать' || Falk-Torp I, 754; Fraenk. I, 277; Frisk I, 881-882; Pok. 560-561.

12. urgerm. \**huppa-* < \**hūbná* [aisl. *hoppa* 'прыгать', 'hüpfen, springen, tanzen', schwed. *hoppa*; aengl. *hoppian* (2.cl.); mnd. *hoppen*, mhd. *hopfen*, *hupfen*] ~ ? lit. *kūpėti*, praes. 1.sg. *kūpu*, praet. 1.sg. *kūpėjau* 'sieden, kochen'; le. *kūpēt*, *kvēpt* || de Vries 248-249; Fraenk. I, 325-326; Фасмер II, 235-236; WH I, 312.

13. urgerm. \**duppa-* < \**đubná-* [norw. *duppa* 'tauchen, untertauchen, nicken', aschwed. *doppa* 'tauchen, untertauchen'; ahd. *tupfen* 'lavare', 'waschen, baden, befeuchten' (9.Jh.) ~ got. *daupjan*; aisl. *deypa* 'tauchen'; aengl. *dīepan*; asächs. *dōpian*, ahd. *toufen* 'taufen'] ~ lit. *dūbti*, praes. 1.sg. *dumbù* 'hohl werden, einsinken', le. *dubt*, praes. 1.sg. *dubu*, praet. 1.sg. *dubu* 'hohl werden, einsinken'; lit. *dúobti* 'aushöhlen', le. *dúobt* Schujen, *duōbt*<sup>2</sup> Bauske 'aushöhlen, schrapen Daiben; vertieft werden [?]' || Pok. 267-268; EWD III, 1861; Dybo 2002: 424.

14. urgerm. *wakka-* < \**wagná-* [aisl. *vakka* schw.V. 'umhertreiben'; norw. dial. *vakka*; auch norw. *vanka*, schwed. *vanka*, dän. *vanke*; asächs. *wankōn*, mnd. *wanken*, mnl. *wanken*, ahd. *wankōn* 'wanken, schwanken' ~ aengl. *wincian* 'winken'] ~ lit. *vėngti*, praes. 1.sg. *vėngiu*, praet. 1.sg. *vėngiau* 'избегать (кого-чего), уклоняться, увилить (от чего)', *vingùs* 'gekrümmt'; le. *vaĩgs* 'Wange, Backe, Gesicht, Vorderteil eines Dinges; vorstehende Fläche des Balkens' ~ aind. *vāṅgati* 'hinkt'; lat. *vagus* 'umherschweifend', air. *fān* (< \**uagno-*) 'schief' || de Vries 639; Fraenk. II, 1223.

## 5. Akzentparadigma *c* der ableitenden Verben (nach *s*-Praeterita [perf.] in der lateinischen Sprache)

15. urgerm. \**hnikka-* < \**hñigná-* [ahd. (*h*)*nicken* (9. Jh.), mhd.. *nicken*, mnd. *nicken*, mnl. *nicken* 'beugen, niederdrücken, sich beugen' ~ got. *hneiwan* 'sich neigen'; aisl. *knīga* 'sich neigen, sinken'; aengl. *hnīgan*; asächs. *hnīgan*, ahd. *hnīgan* 'neigen'; ahd. (*h*)*neigen* (8. Jh.), mhd. *neigen*, asächs. *ginēgian*, mnl. *neighen*; ] ~ lat. *cōnīveō* < \**con-cnī(g)ueō*, perf. *cōnīxī* (*cōnīvī*) || Pok. 608; EWD II, 1160-1161; WH I, 261; Feist 265-266.

16. urgerm. \**flakka-* < \**flagná-* [aisl. *flakka* herumstreichen, umherschweifend'; mnl. *vlacken*, nhd. dial. *flacken* 'lodern'] ~ griech. πλῆγνυμι 'schlage', πλάζομαι

umherschweifen'; lat. *plangō, planxi, plangere* 'schlagen; die Hand auf die Brust schlagen, laut trauern' || Pok. 832-833; WH II, 315-316.

17. urgerm. \**stutta-* < \**studnā* [ahd. *irstuzzen* 'wegscheuchen, ins Unglück stürzen', spätes mhd. *stutzen* 'scheu werden (vom Pferd)', eigentlich 'durch Anstoßen gehemmt werden' ~ got. *stautan* 'толкать', aisl. *stauta*] ~ aind. *tudāti*, lat. *tundō, tū(n)sī* (и *tutudī*), *tū(n)sum, tundere* 'stoßen, schlagen' || WH II, 716-717.

18. urgerm. \**tukka-* < \**tugnā-* [mengl. *tukken* 'zusammenraffen, aufschürzen', engl. *to tuck* 'wegstecken, zusammenziehen'; ahd. *zucken* (9. Jh.) 'schnell wegreißen, entreißen', mnd. *tucken* 'zucken, zappeln, zucken machen, rasch ziehen', mnl. *token* 'auflocken, heranholen, ziehen, vorwärtsziehen', *tucken* 'ziehen' ~ ahd. *ziohan* (8. Jh.), mhd. *ziehen*, asächs. *tiohan*, mnd. *tēn, tīen*, mnl. *tien*; got. *tiuhan* 'führen'] ~ lat. *dūcō* (alat. *abdoucit*), *dūxī* (alat. *adouxet*), *dūctum, dūcere* 'ziehen, schleppen, führen, leiten' || WH I, 377-378.

19. urgerm. \**smitta-* < \**smidnā-* oder < \**smiðnā-* [aengl. *smittian* 'funestare, maculare', 'beflecken, anstecken'; mnl. *smetten (smitten)* 'beflecken, besudeln, einen Fleck bekommen'; *i*-Verben: ahd. *smitzen*, mhd. *mitzen* 'abstreichen, beschmieren, beflecken' ~ got. *bi-smeitan* 'bestreichen', *ga-smeitan* 'aufstreichen'; norw. dial. *smīta* 'bestreichen, schmieren', *refl.* 'sich fortschleichen', schwed. *smita* 'schlüpfen, schleichen, schlagen'; aengl. *mītan* 'beschmutzen, verunreinigen', engl. *smite*, afr.. *smīta*; asächs. *bismītan* 'beflecken', mnd. *smīten* 'schlagen, schleudern, schmeißen, werfen', ahd. *smīzan* 'beschmieren, streichen, schlagen', dt. *schmeißen* 'кидать, швырять', *beschmeißen* 'забрасывать (кого-л., что-л. чем-л.); засидеть, загадить (о мухах); süddt. (за)грязнить, (за)пачкать; жарг. обманывать, надувать'] ~ awest. *āmiθnāiti* '(an sich) kommen lassen', *paiti.miθnāiti* '(zurückschicken *sva.*) Laufpass geben, absagen'; lat. *mittō, mīssī, missum, mittēre* 'бросать, метать, кидать, швырять; свергать, сбрасывать; пускать; вводить; ввергать, ставить; посылать, отправлять; пропускать; сопровождать; готовить...'; anscheinend gehören nicht dazu: awest. *miθnāiti* 'weilt, wohnt, bleibt, ist dauernd vorhanden'; lit. *mīsti*, praes. 1.sg. *mintū*, praet. 1.sg. *mitaū* 'sich (er)nähren, von etw. leben, sich durchs Leben schlagen, sein Leben fristen, leben, existieren', 'питаться, кормиться; жить'; le. *smaīdīt* 'schmeicheln' || Feist 95-96; Fraenk. I: 397-398, 459-460; Bartholomae 1105-1106; Pok. 968; Falk-Torp II, 1081; Holthausen AEEW, 302; EWD III, 1545-1546; WH II, 97-99.



20. urgerm. \**sukka-* < \**sugná-* [norw. *sukka* ‘seufzen’, aschwed. *sukka, sokka*, schwed. *sucka*, adän., dän. *sukke* ‘seufzen’ ~ aisl. *súga* ‘saugen’, aengl. *sūgan*; asächs. *sūgan*, ahd. *sūgan*] ~ le. *sūkt*, praes. 3. *sūc*, praet. 3. *sūca* ‘сосать’ Андронов 2002: 189; lit. *suñkti*, praes. 1.sg. *sunkiù*, praet. 1.sg. *sunkiaĩ* ‘цедить, выжимать’ (WH II, 622; lett. *sūzu, sūkt* ‘saugen’); lat. *sūgō, sūxī, sūctus, -ere* ‘sauge’ (air. *sūgim* ‘sauge’, akymr. *dis-sunc-netic* ‘exanclāta’, kymr. *sugno* ‘lactēre’ s. Vendryes De hib. voc. 181 и Pedersen I, 72) || de Vries 560; WH II, 622-623; Fraenk. II, 941 (к √ \**senk-*).

Unten sind die Verben mit der Konsonantendehnung angeführt, bei denen die akzentuelle Valenz der Wurzel nicht bestimmt ist; mir sind jetzt 22 dieser Verben bekannt.

1. urgerm. \**druppa-* < \**drubnā-* [aengl. *droppian* ‘stillare’, mengl. *droppen* ‘tröpfeln’, ahd. *tropfon* ‘distillare’ (Gl. I 342,6), mnd. *droppen (druppen)* ~ aisl. *driiþa* ‘tropfen’; asächs. *driopan*, ahd. *triofan*; aengl. *drēopan*] ~ ? russ. dial. Костром. (Даль) *дербить, бишь* unvollend. tr. ‘чесать, царапать, а также драть, теребить’, *дербятся, бьтся* ‘чесаться, зудеть’; slowen. *drbácati* ‘скрести, грести’; tschech. *drbati* ‘чесать, скрести; драть; трепать’ || ? le. *drupt, drūpu, drupu* intrans. ‘zerbröckeln, zerfallen’, *draiþit* Bl. ‘zerbröckeln’ U.; bulg. *дрънна* ‘дёрнуть’, *дрънам* ‘дергать’; skr. *dṛpnuti*, slowen. *dṛpati*, praes. 1.sg. *dṛpat, dṛpljem* ‘дробить, крошить’; griech. θρῶπτειν ‘zerreiben, zerbröckeln’ || Pok. 274-275; EWD III, 1842; Holthausen AEEW 77; Frisk I, 688-689; Mühl.-Endz. I, 492, 505; Karulis 233-234; БЕР 1: 464; Bezljaj 1: 111, 117; Фасмер I, 499-500, 501. Skok I, 444-445.

2. urgerm. \**dukka-* < \**dugná-* [mnd. *ducken*, mnl. *dūcken*, mhd. frühnhd. *tucken, tücken* ‘eine schnelle Bewegung machen bes. nach unten, sich beugen, ducken’ ~ mengl. *douken, dūken* ‘tauchen’; ahd. *-tūhhan (fir-tūhhan* ‘in Vergessenheit versinken’, *in-tūhhan* ‘eintauchen’), mhd. *tūchen*, Part. Prät. *betochen*, mnd. *dūken*, Prät. *updōk* ] || Pok. 268; EWD I, 314; EWD III, 1788; Onions 292.

3. urgerm. \**duṭta-* < \**duðnā-* [aisl. *dotta* ‘schlummern, schlafen’, ‘vor Müdigkeit nicken’, isl. *dotta* ‘клевать носом, дремать’; afr. *dutten* ‘schlafen, träumen, wackeln’ ~ afr. *dud* ‘Betäubung’] ~ aind. *dddhat-* ‘erschütternd, ungestüm, tobend’, *dúdhih, dudhráḥ* ‘ungestüm, heftig’, *dúdhitaḥ* ‘verworren, trüb, dicht’ || Pok. 264-265; Mayrhofer II, 49.

4. urgerm. \**hაკka-* < \**hægna-* [mnd. *hacken* ‘hacken, die Hände zusammenschlagen’, mnl. *hacken*; ahd. *hackōn* (11.Jh.), mhd. *hacken* ‘hacken, hauen’ ~ aengl. *áhaccian* ‘auspicken’, *tóhaccian* ‘zerstückeln’, afr. *tohakkia*

‘zerhacken’] ~ aisl. *haka* f. ‘Kinn’, aengl. *haca* m. ‘Riegel, Haken’ || EWD II, 624; Pok. 537-538.

5. urgerm. \**h̥nappa-* < \**h̥nabnā* [aengl. *hnappian* (wk. II) ‘dormitare, dormire, obdormire’, ‘schlummern, schlafen’ (engl. *nap* ‘дремота, короткий сон’; ‘дремать, вздремнуть’); mhd. *nappen, gnappen, gnaben* swv. ‘wackeln, hinken’; nhd. *nappen, gnappen, knappen* ‘sich hin und her oder auf und abbewegen, wanken, wackeln, locker sein, nicken (bei Schläfrigkeit), sich bücken, hinken, hupfen’ ~ mhd. *napfen* ‘nicken, einnicken’, nhd. dial. *napfen, gnapfen* ‘sich auf und niederbewegen, nicken, selummern’; ahd. *hnaffēzen, naphezen* ‘dormitare’ (Wißmann, 183), mhd. *nafzen* swv. ‘schlummern’] || Holthausen AEEW, 166; Wißmann, 183; Torp-Falk, 72; Falk-Torp I, 754.

6. urgerm. \*(*h̥*)*nuppa-* < \*(*h̥*)*nubnā-* [norw. *nuppa* ‘zerren, zupfen, greifen, pflücken’, schwed. *noppa* ‘Noppen von Zeug wegnehmen, pflücken, zupfen’; aengl. *hnoppian* ‘pflücken, reißen’; ahd. *aba(h)nuppen* ‘abpflücken’ (um 1000); dt. *noppen текст.* ‘выщипывать узелки (шишки); ткать с узелками’; spätes mhd., mnd., mnl., ndl. *noppen* ‘Gewebe von Noppen reinigen’ ~ got. *dishniupan* (nur part.praes. *dis-hniupands* L 8,29) ‘zerreißen’ (trans.); aschwed. *niupa*, schwed. *nypa* ‘kneifen’; aengl. *āhnēapan* ‘abpflücken’] ~ griech. κνῶν ‘kratze’, le. *knūdu* ‘jucke’ || Falk-Torp I, 770; Wißmann, 174; Holthausen AEEW, 167; EWD II, 1176; Feist 119-120.

7. urgerm. \**klappa-* < \**klabnā-* [aisl. *klappa* ‘schlagen, klopfen, pochen, klatschen, streicheln’; aengl. *clappian*, afr. *klappia*; mnd. *klappen*, mnl. *klappen* ‘klatschen, schallen, schwatzen’, ahd. *klapfōn* ‘klatschen’ ~ asächs. *klapen* ‘klappern’] || Pok. 351; EWD II, 838, 840-841.

8. urgerm. \**kluppa-* < \**kl̥abnā-* [afr. *kloppia* ‘klopfen’, ahd. *clophōn* ‘pulsare’ (9.Jh.), mhd. *klopfen, kloffen* ‘klopfen, pochen’, mnd. *kloppen* ‘klopfen, prügeln, los-, einschlagen’] || EWD II, 855; EWD II, 838, 840-841.

9. urgerm. \**klukka-* < \**kl̥agnā* [aengl. *cluccian* ‘glucken’, *cloccian* ‘glucken, Geräusch machen, lärmern’ (engl. *cluck* ‘кудахтать’); ahd.*cloccōn* ‘klopfen’, mhd. *klucken, glucken* ‘glucken’, mnd. *klucken* ‘klucken, gracillare’] ~ lat. *glōciō, -īre* ‘glucken, von der Henne’, griech. κλώζω, κλώσσω ‘glucke’ || EWD I, 582; WH I, 609, 606.

10. urgerm. \**kratta-* < \**kradnā-* [aschwed. *kratta* ‘kratzen, zerkratzen’; ahd. *krazzōn* (9.Jh.), mhd. *kratzen* ‘kratzen’ ~ aisl. *krota* ‘durch aufgesetzte Figuren schmücken’, norw. *krota* ‘Figuren ausschneiden’, schwed. dial. *krota, kråta*

‘quetschen, langsam arbeiten, in Holz schneiden’] ~ alb. *kruaj* (*gëruahí, kruahí, kruj*) ‘чесать, почёсывать’; (гер.) *geruse, gërese, krus(ε)* ‘Schabeisen’; lat. *grosa* (*cr-* Gl., Schwyzer KZ. 57, 262 A.) f. ‘Schabeisen des Silberarbeiters’ || EWD II, 924-925; WH I, 622-623.

11. urgerm. \**lōkka-* < \**lōgná-* oder < \**lōgná-* [aengl. *lócian* ‘blicken, starren, beobachten; gehören’; asächs. *lōkon* ‘schauen’ ~ ahd. *luogēn* ‘lügen’, ‘высматривать, подкарауливать’] ~ griech. dor. *λωγάω* ‘собираю’, *ἐλώγη· ἔλεγεν* Hes.; toch. AB *lāk-* ‘to see’ || Orel 249; Frisk II, 152; Adams 549-550.

12. urgerm. \**rukka-* < \**rugná-* [isl. *rukka* ‘rückен’(?), schwed. dial. *rukka* ‘wiegen, Schaukeln, rückен’, дän. *rokke* ‘расшатывать, колебать’; aengl. *roccian* ‘wiegen, Schaukeln’; mhd. *rocken* ~ aisl. *rykkja* ‘rückен’, *rugga* ‘wiegen’; ahd. *rücken*] ~ lit. *rėklės* (= *rieklės*) || Pok. 863; Fraenk. II, 729; Wißmann, 176; WP II, 361; Falk-Torp II, 910; Holthausen AEEW, 262; Orel 308.

13. urgerm. \**ruppa-* < \**rubná-* [aisl. *ruppa* ‘rauben, plündern, ausrufen’; ahd. *ropfōn* (11 Jh.), mhd. *rupfen* ‘ausreißen, zupfen, zausen, pflücken’ ~ got. *raupjan*; asächs. *rōpian*, ahd. *roufen* ‘rupfen, ausreißen’] ~ lat. *rubus*, *-ī m.* (f.) ‘ежевичный куст- ежевика’; vgl. lit. *rum̃bas* ‘Narbe am Baum’, le. *rùobs* ‘Kerbe’ || de Vries 454; WH II, 445-446; EWD III, 1380-1381, 1456-1457;

14. urgerm. \**skōppa-* < \**skōbná* [mhd. *schuppen* (14 Jh.) ‘чистить рыбу’ ~ ahd. *scaban* (9. Jh.; *giscaban*, 8. Jh.), mhd. *schaben* ‘kratzen, radieren, scharren’] || EWD III, 1579, 1483-1484.

15. urgerm. \**snatta-* [isl. *snatta* ‘kleine Botengänge machen, herumgehen und schnüpfeln, um etwas zum Essen zu finden’, ‘бегать по пустяковым делам; выискивать (еду), вынюхивать’; норв. *snatta* ‘nach etwas herumschleichen; mausen, naschen’, aschwed., schwed. dial. *snatta* ‘mausen, stibitzen’, ‘стянуть, стащить, стибрить’ ~ mnl. *snappen*] || Falk-Torp II, 1088-1090.

16. urgerm. \**snitta-* < \**snīdná* [ahd. *insnitzen* (11 Jh.), mhd. *snitzen* ‘строгать’ ~ got. *sneipan* ‘ernten’; aisl. *snīða*; aengl. *snīðan*, afr. *snītha*; asächs. *snīðan*, ahd. *snīdan* ‘резать’] ~ ukrain. *снїм, му* [м.]; *снїма, му* f. ‘чурбан, отрубок’ Вх.Зн. 65. Желех.; tschech. *snět!*, *-ti ž.* ‘ветка’.

17. urgerm. \**snuppa-* < \**snuþnǎ-* [norw. dial. *snuppa* 'schnell die Spitze abhauen, abkneifen oder abschneiden'; schwed. *snoppa* 'abschneiden, ein Licht schneuzen'; mhd. *snupfen* '(geräuschvol) Luft einziehen, schnaufen', mnd. *snoppen* 'Nasenschleim ausstoßen, die Nase reinigen' ~ mhd. *snüben* 'schnarchen'] || Falk-Torp II, 1099; EWD III, 1560, 1553-1554.

18. urgerm. \**sūppa-* < \**sūbnǎ-* oder < \**sūþnǎ-* [aengl. *soppian* 'Brot eintunken, einweichen'; ndl. *zoppen*; mhd. *supfen* ~ aisl. *súpa* 'saufen, schlürfen'; aengl. *súpan* 'saufen, schlürfen, trinken, verschlingen', ahd. *sûfan* 'sorbere'] ~ aind. *sunnti* 'preßt aus, keltert' || Holthausen AEEW, 307, 330; Pok. 912-913; de Vries 562; EWD III, 1480-1481.

19. urgerm. \**sputtōn* und \**sputtīan* [aisl. *spotta* 'verhöhnern'; norw. *sputta*, aschwed. *sputta*, *spotta*, schwed. *spotta* 'speien, spucken', adän. *sputte* 'spucken, Speichel aus dem Munde auswerfen'; ahd. *spottōn*] ~ urgerm. \**spūtōn* и \**spūtīan* [aisl. *spýta* 'spucken'; engl. *spüten*; mhd. *spiutzen*, *spützen* 'spucken, speien'] ~ dt. *Spott* m. 'насмешка', *spotten* 'насмехаться, издеваться, глумиться, высмеивать, поднимать ná смех'; ? griech. σπύειν 'verabscheuen' de Vries 537 || Falk-Torp II, 1128, 1137, 1138; EWD III, 1679-1680; de Vries 537, 539.

20. urgerm. \**tikka-* < \**tignǎ-* [norw. dial. *tikka* 'leicht berühren, einen leichten Schlag oder Stoß geben'; ahd. *zeckōn* 'leicht stoßen, reizen', mhd. *zicken* 'leicht stoßen'] ~ ? arm. *tiz* 'Zecke'; mir. *dega* 'Hirschkäfer' || Falk-Torp II, 1259; EWD III, 2009; Pok. 187-188.

21. urgerm. \**twikka-* < \**twignǎ-* [aengl. *twiccian* 'vellicare, carpere', 'ziehen, reißen; pflücken; sammeln, fassen'; ahd. *zweccion* 'carpere'; *i*-Verben: ahd. *zwicken* 'praestringere, vellere' ~ ahd. *zwigōn*, *zwiōn*, *zweiōn*, mhd. *zwīgen* 'rupfen, pflücken'] || Holthausen AEEW, 356, 357; EWD III, 2051.

22. urgerm. \**wappa-* < \**wabnǎ-* [aisl. *vappa* 'mit watschelndem Gang gehen; hin und her bewegen'; engl. *wappen* 'einwickeln', nnd. *wappen* 'auf und nieder bewegen, schwanken' ~ aisl. *váfa* 'schwanken, wanken'] || de Vries 638, 644.

## 6. Verben mit dem nasalen Suffix (-na-) Barytona; Akzentparadigmen *a* und *b* der ableidenden -n-Verben

1. urgerm. \**blēnōna-* < \**blēnōna-* [got. *af-blindnan* 'erblinden' (nur Randglosse *afblindnodedun* в Cod.A zu *af-daubnodedun* 'ἐπρωόθη 2 K 3, 14) 'erblinden')] ~ skr. *blēnuti*, praes. 1.sg. *blēnēm* 'бессмысленно смотреть; тарашить глаза, глазеть', 'starre, staune' (Feist 98); ? le. *bleñst* Karls. 'schwach sehen, [kurzsichtig sein U.], kaum wahrnehmen, schauen, lauern, glotzen, gaffen, spähhen'; vgl. akzentologisch irrelevanten: lit. *blēstis*, praes. 3. *bleñdziasi*, praet. 3. *bleñdėsi* 'хмуриться, покрываться тучами'; le. *bliēzt*, praes. 1.sg. *bliēžu*, praet. 1.sg. *bliēžu* 'Unsinn reden' (für Bedeutung vrgl. auch le. dial. aus kur. *blēntz*, -*žu*, -*zu* Bächh., Lös., *blēnst* PS., *blēnšt*<sup>2</sup>, -*žu*, -*du* Dond., Wandsen, Selg. 'schwach sehen, [kurzsichtig sein U.], kaum wahrnehmen, schauen, lauern, glotzen, gaffen, spähhen'); got. *blinds* adj. 'blind'; aisl. *blindr* adj. 'blind' || Feist 4, 98-99; de Vries 44; Fraenk. I, 47-48.

2. urgerm. \**lifna-* < \**lifna-* [got. *af-lifnan* 'übrig bleiben', 'оставаться'; aisl. *lifna* 'leben bleiben', 'оставаться'] ~ urslaw. \**lǫpnōti*, praes. 1.sg. \**lǫpnō*, \**lǫpnetь* [skr. *прионуту*, praes. 1.sg. *прионēm*; tschech. *lǫpnouti* 'присоединять; шлепать; (экспр.) втираться в доверие', *l* и *l. se* 'прилипать, липнуть', tschech. (alt) *lǫpnouti* 'льнуть', *lǫpnouti* и *lǫpnouti* 'льнуть; хвататься (за что-л.)' (Jungmann II, 296); slk. *lǫpnút* (? , modern *lǫpnút*) 'липнуть; следовать, придерживаться (кого-л., чего-л.), жаждать (кого-л., чего-л.)' (SSJ II, 53, 48) ] aslaw. прильпѣти. || Feist ; ЭССЯ 17: 92-93.

3. urgerm. \**sufna-* < \**sufna-* [aisl. *sofna* (*sofnaþa*) 'in Schlaf fallen, einschlafen'] ~ slaw. \**sъpnōti*, praes. 1.sg. \**sъpnō*, 3.sg. \**sъpnetь* [skr. *уснуту*, praes. 1.sg. *уснēm*; *заснуту*, praes. 1.sg. *заснēm*].

4. urgerm. \**blīkna-* < \**blīgna-* ? < \**blīgna-* [aisl. *blīkna* schw. V. 'bleichwerden', schwed. dial. *blīkna*, *blekna*] ~ lit. *blỹkšti*, praes. 3. *blỹkšta*, praet. 3. *blỹško* 'бледнеть'; urslaw. \**blǫknōti*, praes. 1.sg. \**blǫknō*, 3.sg. \**blǫknetь* [kaschub. *vǫblėknōc*, *zblėknōc* 'spelznać' (PW); russ. *blėknуть*, -*ну*, -*нешь*; ukrain. *blėknuti*, -*ну*, -*нешь*;] || Pok. 156-157, 157; de Vries 44; Fraenk. I, 46; Berneker 63; Фасмер I, 173; ЭССЯ 2: 112-113.

5. urgerm. \**blāikna-* < \**blāigna-* ? < \**blāigna-* [aisl. *bleikna* schw.V. 'blass werden', engl. dial. *blaken* (Flom. Infl. 19) ~ aisl. *bleikr* adj. 'bleich'; aengl. *blac* 'glänzend, hell, blaß', asächs. *blēk*, ahd. *bleih* (8. Jh.) < urgerm. \**blāikaz*; aisl. *blý* n. 'Blei' (< urgerman. \**blīwa*, Noreen 77, 6)] ~ lit. *nu-bliėkti* 'płowiec, tracić

barwe’, urslaw. \**blěknŏti*, praes. 1.sg. \**blěknŏ*, 3.sg. \**blěknety* [poln. *blaknąć* ‘выцветать, блекнуть’] || de Vries 43, 45-46; EWD I: 187.

## 7. Akzentparadigma *a* und *b* der ableitenden Verben (laut den slawischen und lettischen Belegen)

6. urgerm. \**frēhna-* < \**fréhna-* ‘спрашивать’ [got. *fraihnan* ‘fragen’ (praes. 1.sg. *fraihna* L 6,9; praet. 3.sg. *frah* M 27,11; 3.pl. *frehun* M 7,5; part.praet. *fraihans* L 17,20), *ga-fraihnan* ‘erfragen’; aisl. *fregna*; aengl. *friznan* ‘fragen’, asächs. praet. *fragn* ‘frug’, pl. *frugnun* ‘frugen’, *gi-fregnan* ‘erfahren’] ~ urslaw.. \**prosŭti*, praes. 1.sg. \**prosjŏ*, 3.sg. \**pròsity* A.P. *b* || Feist 161-162.

7. urgerm. \**ðrefna-* < \**ðréfna-* oder < \**ðrēbna-* [aisl. *drafna* ‘sich auflösen, finster werden’, isl. *drafna* ‘sich auflösen, vermutern’ ~ aisl. *draf* n. ‘Abfall, Brocken’; aengl. *draef* n. ‘Abfall’; mnd., mnl. *draf* m., n. ‘Treber’; vgl. got. *gadaban* ‘aushauen’ || slav. \**drǫbъ* oder \**drǫbъ*, gen.sg. \**drǫba* > \**drobá*, Akzentparadigma *d* oder *b*, vgl. Дыбо-Замятина-Николаев 1993b, 181-183 || de Vries 80, 79, 83; Feist. 179; Derksen EDSIL 116, 117, 118-119; Фасмер I, 539; БЕР 1: 422-423, 429-430; Bezljaj I, 115-116.

Zu dieser Gruppe gehören mit großer Wahrscheinlichkeit sowohl die *neu-*, als auch die *-nā-* Verben. Sie werden hier zusammengeführt, weil sie alle eine dominante Wurzel haben. Es gibt noch 22 Stämme mit dem Suffix *-n-*. Der Großteil von ihnen gehört dem Gottischen, und wahrscheinlich sind die meisten Inchoative. Ihre Valenz wurde noch nicht bestimmt.

Außer dieser Gruppe sind noch 7 Verben mit dem Suffix *-nā-* belegt, die deutliche inchoative Bedeutung haben. Die Wurzeln dieser Verben haben im Balto-Slawischen eine rezessive Valenz.

## 8. Beispiele, in denen Inchoativa von den rezessiven Verben abgeleitet werden

1. urgerm. \**brukna-* < \**brŭgna-* [got. *us-bruknan* ‘abgebrochen werden’ ~ got. *brikan* ‘brechen, zerstören, kämpfen’; aengl. *brecan*, afr. *breka*; asächs. *brekan*, ahd. *brechan* ‘brechen’] ~ aind. *giri-bhráj-* (RV X, 68, 1) ‘aus den Bergen hervorbrechend’; lat. *frangō*, pf. *frēgī*, *frāctum* ~ le. *brāzt*, praes. 1.sg. *brāžu*, praet. 1.sg. *brāzu* Kr., Kl., Salisb., Ermes, Muremois, Stockm., C., PS., Warkhof (aber auch *brāzt* Bl., Bächhof, Grüwald); лит. *brržti* ‘wischen, streifen, hingleiten, kratzen, schrammen, ritzen’, ‘оцарапать’; интензив: *brōžyti*; *brėžti*, praes. 1.sg. *brėžiu* ‘чертить; царапать; чиркать’ (in baltischen Sprachen die Dehnung nach dem Winter-Gesetz) || Feist 529-530, 105-106; WHI,541; Holthausen AEEW 33; Seebold 132-135.

2. urgerm. \**h̥nīpnā-* < \**h̥nībna-* [got. \**ga-hnīpnan* (die Konjektur für *ga-nīpnan*, s. Feist 195) 'sich betrüben' (только part.praes. *ga-nīpnands* Mc 10,22 'betrübt geworden'); aisl. *hnīpna* 'missmutig sein' ~ aisl. *hnīpa* 'missmutig sein'; aengl. *hnīpian* 'den Kopf hängen lassen'; mnl. *nīpen* 'kneifen'] ~ lit. inf. *knibtī* 'zusammensinken', 'оседать, обрушиваться', praes. 1.sg. *knimbù*, 'sinke zusammen', praet. 1.sg. *knibaũ*; *kneĩbti*, praes. 1.sg. *kneibiù* 'ковырять; клонить, опускать'; le. *kniēbt*, *-bju*, *-bu* 'knetfen, zwicken', *kniēbtiēs* 'zukneifen (die Lippen)', *knaībūt* 'wiederholt kneifen, zukneifen' || Feist 195, 183; Fraenk. I, 277-278; Mühl.-Endz. II, 248.

3. urgerm. \**h̥wapnā-* < \**h̥wábnā-* ? < \**h̥wáþnā-* [got. *af-hwapnan* 'ersticken, erlöschen' (*intr.*) || urslaw. \**kypēti*, praes. 1.sg. \**kýpjo*, 3.sg. \**kypĩt̃*; le. *kúpēt* 'rauchen, dampfen, qualmen, stäuben'; vgl. auch le. *kvēpt* 'qualmen, rauchen, duften, verkommen'; lat. *cūpēre* 'begehren' || Feist 7; WH II, 312; Fraenk. I, 325-326; Фасмер II, 235-236.

4. urgerm. \**h̥nūpnā-* < \**h̥núbna-* [got. *dis-hnūpnan* (nur 3.pl. praet. *dis-hnūpnodedun* L 5,6) 'zerreißen' (*intrans.*) ~ got. *dis-hniupan* (nur part. praes. *dis-hniupands* L 8,29) 'zerreißen' (*trans.*); aschwed. *niupa*, schwed. *nypa* 'kneifen'; aengl. *ā-hnēopan* 'abpflücken' || mit der Konsonantengemination: norw. dial. *nuppa*; aengl. *hnoppian* 'pflücken'; ndl. *nopen* 'zwingen' || lit. *knubu* (?) 'hingebückt'; le. *knubt* 'einbiegen', *sa-knubt* sich krümmen' || Feist 119-120;

5. urgerm. \**weih̥nā-* < \**wéih̥nā-* [got. *weihnan* 'heilig gehalten werden' ~ got. *weihan* 'weihe, heiligen'; afr. *wīa*; asächs. *wīhian*, ahd. *wīhen* 'weihe' ~ der grammatikal Wechsel: aisl. *vīgja*; afr. *wīga* 'weihe'] || Feist 557.

6. urgerm. \**letnā-* < \**lédnā-* [got. *and-letnan* 'abscheiden' ~ got. *letan*, *lailot*, *lailotun*, *letans* 'lassen'; aengl. *lāetan*, *lēt*, *lēton*, *lēten* 'lassen, zulassen'; afr. *lēta*, *lēt*, *lēton*, *lēten* 'lassen, erlassen'; asächs. *lātan*, *lēt (-ie)*, *lēton (-ie-)*, *-lātan* 'lassen, zurücklassen, niederlassen, erlauben'; ahd. *lāzan*, *liaz*, *liazun*, *gilāzan* 'lassen, loslassen, erlassen, erlauben'; griech. *ληθεῖν* · *κοπιῶν* 'ermüden', vgl. lit. *lėisti*, praes. 1.sg. *lėid̃ziu* 'lassen, loslassen, freilassen'; le. *laist* 'lassen' || Feist 50, 329-330; Seebold 333-335; Fraenk. I, 351-352;

7. urgerm. \**luknā-* < \**lúgnā-* [got. *ga-luknan* 'sich verschliessen'; aisl. *lykna* 'sich beugen; sich biegen' ~ got. *ga-lūkan* (praet.3.sg. *galauk* L 3,20; praet.3.pl. *ga-lukan* M 27,66) 'verschliessen'; aisl. *lūka*; aengl. *lūcan*, afr. *lūka*; ahd. *lūhhan* 'schliessen']; cp. aisl. *lokkr*; aengl. *locc*, ahd. *loc* 'Locke'; lit. *láužti*; le. *laužt* || Feist 189-190; Dybo 2002: 426-427.

Da im Gotischen laut dem Wernergesetz die Inchoative mit dem Suffix *\*-nā-* die Betonung auf der Wurzel haben, was auch für das Slawische kennzeichnend ist, kann man bei den entsprechenden Verben im Germanischen dieselbe Metatonie und Akzentimmobilisation auf der Wurzel annehmen, die wir im Slawischen haben.

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## Quantity Patterns of a-stems and o-stems in South-Western Czech Dialects (Especially in the Doudleby Region)

Our contribution should serve as a collection-material basis for the wider discussion on the mutual liaison between intonation expressions of a language quantity with regard to the dialectological practice which has enabled us to record a language situation in Southern Bohemia (incl. Western Bohemia) for lots of years continually; the vocabulary as well as other language levels. Our results stem out only from our local research; our remarks are also aimed at dialectological records (transcription) of utterances of native speakers. Thus we go on with the direct research of the collected verbal material and we contribute to summarizing many items of information on the state of quantity in o-stem and a-stem paradigms in Southern Bohemia (incl. Western Bohemia).<sup>1</sup>

We also follow such positions in the words where (under certain conditions) acute length in South-Western (SW) Czech dialects could have appeared and followed former Proto-Slavic acute. Thus a following question rises: can such a direct mutual liaison between the acute pronunciation and the quantity be documented unambiguously? Can the prints of original acute types of o-/a-stems be documented in South-Western Czech dialects (especially in the Doudleby region)? First of all we are interested in finding a short root vowel or the length in the word; then we are interested in the classification of distinctive features. Because in many cases there can be the secondary length in originally acute syllables. And we do not find anything new here. In connection with this I refer to works of Sukač (for example; 2009, 2011). They concern mainly the liaison between the length and the accent paradigm. We will pay our attention mainly to two-syllable words coming from early Czech, and in which the changes of old length distinctions are reflected mainly in open first syllables. The question of lengthening or reducing of vowels in the stressed syllables was solved by (e. g.) Dybo 1981 or Derksen in 2008. Lengthening of Czech short rising vowels can also be assumed in the West-Slavic context (Polish, the Upper Serbian, Slovak etc.); in original o-/a-stems in the composite type, too. There is an interesting thing and it is the declension after contraction; also in SW dialects we can assume the lengthening of other types, not only nouns; e. g. the ordinal numbers *šistej/sidmej/ vúsmej*<sup>2</sup> (the sixth, seventh, eighth) - in connection with

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1 But not in all cases. We were aimed at the lexical, not phonetic research.

2 We use a rigorously dialectological transcription in our text.

the word-formation development (cf. Utěšený in Cuřín 1986, p. 28; Voráč in Klimeš 1992, p. 74; further also ČJA 5).

The conception different from classical historic phonetics can also be found in Verweij (1994: p. 556), who documents typological reasons for the Czech lengthening of short rising vowels before the shortening of long falling vowels. In a similar way Derksen (2008) supposes the Czech and Serbian lengthening to be the later development (as shown in our example - not only in nouns, but also in some verbs, too: *umí se*/have a wash, wash = imperative sg/ - instead of *umij se*). The stabilizing of the root long vowel is usually presented in connection with the abolition in articulation of *fortis* (connected with the loss of the jers) in the last syllable. The quantity in Nsg. would have to have had compensatory lengthening originating from the loss of jers (a weak jer would have to have followed in the following syllable).

## I. Selected types of nouns in the survey of the quantitative paradigm:

The types of nouns with lengthening of vowels can be documented in these SW types.

### 1. Lengthening and the original Proto-Slavic (PS) root:

We follow the questions of the periodicity of quantitative variations. The next question is if the strengthening appears (a connection with o-vocalism in the root?):

Type of the quantity in the monosyllabic words (o-stems; compare e. g. Utěšený in Voráč 1986, p. 28; Voráč in Klimeš 1992, p. 73es.):

1.1. with original PS root back vowel, with *ú/ou* x *u* in the root:

1.1.1. in the subject word (*plouch* - *pluch*/the plough) our research documents both variations but derived adjectives have the shortened root only: *plužní* (e. g. *kolečka*; plough-dollies).

1.1.1.1. The region near Domažlice: *plouch, plouhu*... (73 speakers).

*Na tahání do plouhu, ne?* (You're doing the ploughing, aren't ya?) Klenčí pod Čerchovem, Domažlice district (otherwise: *plouch, plouhu*).

1.1.1.2. The region near Plzeň - South: *pluch, pluhu*... (29 speakers).

*Pluhem se dělali brázdi...* (The plough made the furrows); Spálené Poříčí (otherwise: *pluch, pluhu*).

1.1.1.3. The Region near Klatovy: *pluch, pluhu...* (37 speakers).

*...tak mňeli takovej pluch...* (...and so they had such a plough...) Nová Víska; Libkov (otherwise: *pluch, pluhu*).

1.1.1.4. The region near Rokycany: *plouch, plouhu...* (17 speakers).

*Ten dělal zase sečki a plouhi a taková vjezi hospodářská...* (He made sowers and ploughs and other farm facilities) Radnice (otherwise: *plouch, plouhu*).

1.1.1.5. The region near Doudleby (in the České Budějovice Region too): *pluh, pluhu...* and *...plouch, plouhu...* .

*takoví jako pluhi (such as ploughs); pluch tedy mňeli jako normální...* (they had a normal plough then) *tak je to jako dvoják, dvojítej pluch...* (so it is such a double plough) ... (42 speakers altogether; e.g. Buková: 7 speakers confirmed the type *plouch, plouchu...*).

*tak bil plouch...*(so it was a plough) ... *a gdešto diš se to sázelo plouhem...* (and when it was sown with a plough)... *protože jel s tím plouhem...*(because he did it with the plough) e. g. Jehnědno - Jamné (otherwise: *plouch, pluhu*)... together 5 speakers.

*stroje zvláštní nebili, bil ten pluch...* (we didn't have any special facilities, just the plough), *vi ste vzadu jako pluch to držel...* (you held it as a plough), *upředu jenom ne prostě jako pluch...* (forward, simply like a plough), *jako pluch to držel...* *doprostřet potom šla ta osa toho pluhu... a ten pluch se takle postrčil...* *ta osa toho pluhu, pluch znáte ne... osa toho pluhu se takle postrčila... tím právě potom tahlo se ten pluch zadu s tíma kolečkama...* *koupil noví pluch obracák...* (he held it as a plough... the beam of the plough was in the middle... and the plough moved this way inside... the beam of the plough, you know... the ploughing was done this way... the back plough with dollies... he bought a new plough which turned the soil upside down).

*to je máte kolečka na plouch...bili pouze plouhi... oral s plouhem tagzvaním lopatáčem...* *lopatáč bil plouch... abi ten plouch házel tu zem do vršku...* (here you are - the plough-dollies... there were ploughs only... he did the ploughing with such a scoop-plough).

- mainly from utterances: Olešnice (otherwise there are following variations: *pluch* and *plouch*, even Npl *plouhi*; but: Gsg *pluhu* x Isg *s plouhem*)... 6 speakers altogether.

1.1.1.6. The Region near Borovany: *plouch*, *pluch* (even: *plúch*)... Gsg *pluhu*... (38 speakers).

*napřed bili dřevjení plouhi*... (first there were wooden ploughs) ...*ať to bili ti pluhi*... (whether there were the ploughs there...) *to bili dva pluhi*... (there were two ploughs there...) *to k tomu mjel vlasně pluch*... (so he had the plough for this, in fact), Borovany (otherwise: it changes *plouch*, *pluch* - *pluhi/plouhi*, but *pluhu*!)

*tam bili třeba* (they may have been there) ...*plúch*... *plouhi ovorávače*... (plough/-s ridgers) Borovany - Růžov (long *plúh* in Nsg and *plouhi* in Npl).

1.1.1.7. The region near Veselí nad Lužnicí:

*Mněli sebou plouch*... (They had a plough with them) *a tadi koukal ten plouch*... (and the plough could be seen here) *tak plouch bil danej na žebříňák*... (so they put the plough onto the rack wagon) *Kolečka plouhu šli za vozem*... (The plough-dollies went after the wagon) *Plouch bil vedenej*... (the plough was drawn) Hamr, also speakers in Veselí nad Lužnicí (Gsg *plouhu*)

1.1.2. sometimes with *ú* x *o*, *ó* in the root; *kúš*... (basket body, bed): Klenčí pod Čerchovem (1 speaker)

1.2. in two-syllable words with a-stems (cf. e. g. Utěšený in Cuřín 1986, p. 28es.; Voráč in Klimeš 1992, p. 73es.):

1.2.1 the type with *y* - *ý/ej* in the root... *ryba* - *rejba* (fish), even Gpl. *ryb?*

1.2.2. the type with front vowel *ě* x *i*: *pína* (froth), *řípa* (sugar/-beet, turnip).

1.2.2.1. in the following variations: *pjena* - *pína* we documented the short form only... (11 speakers).

- The region near Borovany

*tak zbírala povrch tu pjenu*... (so she collected the froth); Borovany - Růžov (*pjena*, not *pína*!)

- The region near Jindřichův Hradec (5 speakers)

*sme seděli jako pjeni za stolem...* (we sat as quiet as mice round the table...) *no ten stál jako pjena dicki...* (he always stood still); Velký Ratmírov (*pjena*, not *pína*!)

1.2.2.2. If we speak of variations: *řepa* - *řípa* (sugar/-beet, turnip), then generally

1.2.3. use of *the type fčela* - *fčila* - *fčála* (honeybee), *sáze* (soot), *káše* (mash):<sup>3</sup>

Variations *fčela* - *fčila* - *fčála* (honeybee) are observed not only with the current basis of changes of the word quantity (especially in Nsg); because originally it was also a suffix (PS *bьčela/wbčela* - perhaps it is a shift from *\*čьbela*; it is an onomatopoeic change of the original root *čьm-*; thus it is also a labial alternation *m* - *b* - *w*/orig. bilabial *u/v*).

Our research: *fčela* (generally) - *fčila* (Soběnov, 1 speaker) - *fčála* (Stachy - 2 speakers, Křemže - 3 speakers); we didn't find (in the collection from our exploration) the types *sáze, káše*.

1.2.4. the situation of *the types douha* (1. rain-bow or 2. stave), *houba* (homonym; muzzle, mouth or mushroom); we didn't find (in the collection from our exploration) these types (the word *houba* here - as the muzzle, mouth; gen. Czech: *huba*)

1.3. The reflection of syllables (in o-/a-stem words) with the original metathesis of liquids, *alternation RěC* < *\*RēC*, *parallelism \*oRC* (in the south of Bohemia); with non-initial *\*oR* or *\*eR* before consonant:

1.3.1. The quantitative types 'TelT':

1.3.1.1. monosyllabic o-stems (m. or f.); e. g. SW type *mlič*, *mličí* (dandelion): generally

1.3.1.2. two-syllable words with a-stem (transformation of the length of stem vowels): type *pleva* /*plíva* (husk; variations *pléva* in Old Czech and today/ *plíva* in South Czech dialects); however, we more often document a shortened form in our research as follows: *pleva* (also Utěšený in Cuřín 1986, p. 28 ; Voráč in

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3 Cf. the quantity of words *láska* (love) / *laskat* (fondle, caress, pet, nurse, toy); then e. g. also Holub 2007, pp. 59 - 60), even *jáhla/jahla* (needle), too (for more details cf. our research near Kamenice nad Lipou in 1990s.)

Klimeš 1992, p. 73); the Region near Strakonice and Blatná (14 speakers): *To mňeli koňe moc rád'i ti plevi...* (Horses liked the husk very much...); *Ti plevi a na to tu melasu...* (husk and molasses together...); Čekanice u Blatné (*pleva*, Gsg + Npl *plevi*, Gpl. *plev*).

1.3.2. The different quantity (short) types 'TorT/ TarT' (disyllabic a-stems): *draha* (Nsg., tracks, trails to pasture; pl. with short vowel - generally; different: *dráhy* (Npl.) - only tracks or trails, unlikely in sg. *vrána* /crow - Gpl *vrán?*, Branišovice; *sláma* /straw - Gpl *slám?*/ Branišovice, Křemže - always 1 speaker, *strána* (side; Gpl *strán?*)... *z druhi strani nad tou řekou ...* (from the other side upon the river)... Branišovice.

## 2. Long vowel at the end of the word (in the suffix):

2.1. less usual suffixes:

2.1.1. use of the word-formation type *sršeň - sršáň - sršín* (hornet):

The state of ending of variations is documented in our later research near villages Doudleby, Soběnov - and in Western Bohemian region; cf. Kloferová 1996, pp. 187 - 191). Therefore we can speak of the current vowel in the suffix, too. Further on we deal with using these types. In the region near the village of Doudleby in the word mentioned above the masculine expressions prevail over the feminine expressions:

a) e. g. the type *sršeň*, m. (Gsg *sršně*) - is common also in the České Budějovice region and in the Doudleby region to speakers belonging to the 'younger' generation (born after 1948)... 24 speakers; e. g. villages Soběnov, Besednice, Ločnice, Todeň, Komařice, Svatý Jan nad Malší, Římov, Hamr, Rozpoutí...

b) the type *sršáň/sršán*, m. (*sršáňe*, sometimes *sršána*) prevails in utterances of older speakers (born until 1940)... 19 speakers... e. g. villages Radostice, Dvorce... Altogether with the word-formation tendency to the following development: *-en (-eň) v -an/-aň*, the following long variation had its own place in Southern Bohemia: *-án/-áň* (except for monophthongization *-én/-éň > -ín/-íň*; cf. sub c); in a similar way also *kořán* (root - botanic), *lupán* (leaf; cf. also Utěšený in Cuřín 1986, p. 28; cf. also comment on suffix *-ál*)

c) the type *sršín*, m. (*sršína*) - is documented very rarely (e. g. 2 speakers in townlet Suchdol nad Lužnicí).



Other similar types (*kořán/root*, *lupán/leaf*) did not we find in our collection; but we found the type *kořání* (spice or rootage; Soběnov, Pusté Skaliny, Ločnice; 1 speaker in every village).

2.1.2. sometimes there are also other forms in suffix, or the declination suffix is not present at all. At the same time we can see the spreading of analogic changes (in Gpl) from Western to Southern Bohemia and then back to the west:

a) without suffix - with lengthening of the quantity: *votáv* (of the aftergrass), *hromád* (of the huddles): the region near Doudleby, Římov, Soběnov etc. - it is present in the eldest generation only.

b) the suffix changes: *housat x housát* (of the goslings); in a similar way *telát* (of the calves); our research: Přeštice region: Čevené Poříčí (2 speakers: *housát*), Klatovy region: Švihov (1 speaker: *telát*).

c) the type *vajíc* (of the eggs), *vovíc* (of the sheep); our research: Sušice region (Rabí: *vovíc*, Stachy: *vajíc*; also Utěšený in Cuřín 1986, p. 29).

2.1.3. it is also questionable how to assume the length of the stem and the length of the suffix in the words of the type 'fisherman'. The variation *rybař* could also be expected in Southern Bohemia. However, our research cannot confirm its occurrence.<sup>4</sup>

2.1.4. other alternations in suffixes:

- feminine forms in Gpl.: *-úch/-uch* (*bratrúch/bratruch* = of the brothers; the research: *našich bratrúch* - Rabí), *-ách* (*stádo kravách*/of the herd of cattle; the research: Velký Ratmírov)
- the suffixes in Lpl.: *-ach/-ách* (*jahodach*/strawberries; frequent), *-ech* (*jahodech* - not in our collection), *-ích* (*vozích*/ wagons; the research in Stachy: 2 speakers).

## II. Different types of the vowel (vocalic) lengthening:

There are following alternations belonging into this group:

1. Differences in stressing the quantity (*dvá kluci x dva hradi* /'two boys x two castles' - later differentiation of animation; generally to west (e.g. Doudleby area: Ločnice, Křemže - always 1 speaker; f. from Radomyšl - 2 speakers),

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4 ... which can more or less be connected with the lexicographical concept of the research which (as said above) was not (a priori) connected with the research of phonetic processes (neither with the systematic recording of quantitative variations, ergo paradigms!)

between Tábor and Bechyně /e. g. Malšice - 1 speaker/... and earlier in the area 'Blata', too).

2. The system of 'family' nouns, which also involves the problem of the length of vowel when expressing possessivity: *bratřín/bratříně, sestřín/sestříně...* /'the son or the daughter of my cousin, even children of two cousins - each other'; but in lexicon it exists as follows: *bratránek x bratranec/* the cousin; e.g. the Doudleby region (cf. also: Holub 2006, pp. 22 - 39).

3. But how could the consecutive (original) w influence the words, in which so called seeming diphthong originated? This influence, however, occurred later (also in SW dialects) during monophthongisation<sup>5</sup> (*děvka, dívka/* the servant girl on the farm, the girl).

In case of the further suffixation (e. g. suffix *-al/-ál* in the Doudleby region: *děvalka, dívalka/* x the small girl) a wide range of meanings of words spread and these words were translated under mutual Slavic and Bavarian/Austrian influence (the suffix *-al* can be connected here not only with the translation mentioned above, but also with the old diminutive Slavic suffix *-el!* Further on cf. DNS 2004, p. 140, 178, or a similar comment on using the suffix *-án/-áň...* as mentioned above). The change *e > a* (*kůžalka/skittle*) and accompanying lengthening of the basis (in the South Bohemian area) is also explained in e. g. Utěšený (in Cuřín 1986, pp. 31-32).

4. In the type *o ňom* (Lsg: of/about him), *o čom* (Lsg: what, about what) there a compensation of the pronominal declension is present according to the type 'ten' /the, ye, that, one, this...). However, on the contrary, this process is documented in the Doudleby region more often in the change *o > e* /e. g. in the village *Sobjenof - Sebjenof* (e. g. also Utěšený in Cuřín 1986, pp. 32-33). In both cases there is the process of the secondary lengthening (*o čóm - o ňóm, Sěbjenof - Sóbjenof*) rather rare (similar cases were documented only in two utterances of the speakers in Soběnov and in Pusté Skaliny; and these utterances were more or less emotive).

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5 On the contrary then there is extensive diphthongization of nouns: *přejkopa* 'foss', *ouvoz* 'hollow'; without diphthongization: the type *vílet / x vejlet* = 'trip'.

### III. The types with an abbreviated vowel (also with the competition of other types):

- in the root: *díjka* (girl; Stachy), Isg. f. *slamou* (straw; generally), Lpl. f. *struhách* (ditches; generally); also cf. the type *draha* (above).
- at the end of the word : *zajíc* ('hare'; Soběnov; today: discussion on etymology).
- the types with reduced vowel (*zedňk...* bricklayer; Radomyšl)
- variation of vocalic quantity in suffixes: example *kost* (bone), *noc* (night), *nit* (thread), *zlost* (anger) x *práce* (work, job) - generally.

IV. The phonetic development of vowels in the Doudleby region is interesting for us in a wider series of events in the South-Western area of Czech dialects; these are specifics of quantity o-/a-stems.

Thus in the Doudleby region we documented these following cases (cf. DNS 2004, pp. 117 - 118; too):

1. the eldest generation group:

1.1 variation of the vocalic quantity typical of SW Bohemia:

a) the old dialectal length: *žádná pína* (no froth); *plouch, ze Sfinů, Sfínech* (from Sviny), *ze Skálin* (from Skaliny); *vidlema* - Ipl. (pitchfork, hayfork/hay-fork, dung-fork, fork, drag, weeding/ ballast/ beet/ agricultural fork)

b) the length in Npl. m. anim. *kluci* (boys), *chlapí* (fellows, chaps)

c) the context with the stem changes:

- the dialectal shortness of nouns in the root: (*se*) *vzalo kus slami* (there was a piece of straw taken); *a naš tata* (and our father)

1.2. the most frequent formative signs in relation to the quantity:

- the suffixes of the nouns:

Dpl.: -om: *šel k Ondrom* (He went to Ondra's family);<sup>6</sup> *a dává je koledníkům* (and he gives them to carollers); *tem koledníkům* (to those carollers); -um: *ale voňi k vánocum zmňeknou* (but they'll get soft by Christmas)

Lpl.: -ách: *seděli po těch kamenách* (they sat on those stones); *a ve chlívách* (and in the cowsheds); *a po večerách* (in the evenings); *v dřevákách* (in clogs,

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6 But unlikely in family appellation /*Jirka/ Novotnejch* (Gpl) alias *Novotnej* (Nsg); in Isg: *jít s Jirkou Novotnejch* (Gpl ) ('to go with Jiří Novotný) x *Novotným* (the ending is congruent with the adjective form).

sabots); - *ich*: *při tech slavnostích* (in the time of celebrations); -*ech*: *ti museli chodit v botech* (these had to go in the shoes)

1.3 the meaning of the suffix -*ál* (*Frantál*... familiar Francis, *Jouzal/Jouzál*... familiar Joseph, *hrnkálek*... mug)

2. the middle generation group:

2.1. metamorphoses of the quantity: the older length (*plíva, slína, kluci*/husk, saliva, boys); the loss of the root: *lekárník* (pharmacist)

3. the youngest generation group:

- the redundant length (*okúrka* /cucumber); shortness (*paňi*/lady)

## **V. Changes of the intonation (cadence, accent):**

In some ways we can also deal (in connection with the quantitative paradigms) with the intonation character of stating the penultimate in the South Western area (to the question of penultimate then cf. Utěšený in Cuřín 1986, p. 33). However, today it concerns mainly the oldest generation group: přízvuk/paroxytonic accent (i. e. the accent on the semifinal, penultimate syllable of the word).

There is still a question how much we can connect some cases of the rise in the last syllable with so-called ‘singing in the region of Plzeň’ (Voráč in Klimeš 1992, pp. 83-84). It is rather complicated to document the (positive) existence of the accent in the pronominal (o-stem) enclitic (*viděl ho*... ‘he saw him’; also Utěšený in Cuřín 1986, p. 33). Sometimes rarely, but also (sometimes) more generally.

### **Remarks:**

The collection of the word material (text record) was implemented in the villages in Southern and Western Bohemia.

In Southern Bohemia these were villages (townlets):

The Doudleby region: Besednice, Branišovice, Buková, Bukvice, Doudleby, Dvorce u Borovan, Hamr u Římov, Jamné, Jehnědno, Komarice, Křemže, Ločenice, Olešnice, Pusté Skaliny, Radostice, Rozpoutí, Římov, Soběnov, Suchdol nad Lužnicí, Svatý Jan nad Malší, Todeň, Trhové Sviny

The Borovany region: Borovany, Růžov

The region 'on the way' from Soběslav to Veselí nad Lužnicí (the region near Soběslav and Veselí nad Lužnicí; so-called 'Blata'/ Marshland): Borkovice, Hamr u Veselí, Sviny, Veselí nad Lužnicí

The Sušice region: Rabí, Stachy

The Třeboň and Jindřichův Hradec region: Suchdol nad Lužnicí, Velký Ratmírov (on the border of South-Eastern Bohemia, so-called Vrchovina or Vysočina/Highlands)

And in Western Bohemia these were the following villages (townlets):

The Domažlice region (so-called 'Chodsko'/ Walker Land): Klenčí pod Čerchovem

The Plzeň - South region: Spálené Poříčí

The region between Klatovy and Přeštice: Červené Poříčí, Libkov, Nová Víska, Švihov

The Blatná region: Čekanice u Blatné

The Rokycany region (the border line of West and Central Bohemia): Radnice

The border line is supposed to be the central stripe of the area located in the cadastral unit: from Železná Ruda to Sušice; f. in the central line (axis): Strakonice - Písek - Tábor - Pelhřimov (e. m. to the border of Central Bohemia). We did the interviews with native speakers born before 1940.

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## Balto-Slavic Mobility as an Indo-European Problem\*

### §1. Background and relative chronology

In a recent long article in *Baltistica* (Jasanoff 2008) I proposed a new explanation for the accentual mobility of Balto-Slavic presents of the type 1 sg. \**u̯eðō* ‘I lead’ : 2 sg. \**u̯edesi*, 3 sg. \**u̯edeti*, etc. (= Sl. \**vědo* : \**vedeši*, \**vedetŕ*, etc.).<sup>1</sup> The goal of the present contribution is to present a more expansive picture - to show, in particular, how the new framework for understanding mobility in verbs translates into a *general* historical theory of mobility, one that uses the same explanatory apparatus to account for the rise of mobility in nouns and verbs alike.

To put this goal in perspective, let us recall that the prosodic system of Proto-Balto-Slavic exhibits two striking new features vis-à-vis Proto-Indo-European. One of these is the accent-independent contrast between ‘acute’ and non-acute long vowels and diphthongs, most commonly realized in the daughter languages as an intonational contrast on accented vowels. Following a practice adopted in earlier publications, I will mark acuteness here by underlining. Thus, e.g., the nom. sg. of the oft-cited BS word for ‘crow’ was \**u̯òrnā*, with two acute syllables, the first accented and the second not; the nom. sg. of the etymologically related word for ‘raven’ was \**u̯ornòs*, with two non-acute syllables, the second accented and the first not. Proto-BS \**u̯òrnā* eventually gave Lith. *várna*, with falling (formerly rising) intonation on the first syllable, and Bosnian-Croatian-Serbian *vràna*, with short falling intonation on the first syllable. Proto-BS \**u̯ornòs* eventually gave Lith. *vařnas*, with rising (formerly falling) intonation on the first syllable, and BCS *vrân*, with long falling intonation on the first syllable. In order to understand developments in the post-BS period, it is essential to remember that acuteness at the BS level was wholly independent of the accent; a word might have as many acute syllables as it had

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\* I am indebted to Michael Flier for his patient advice and assistance while this paper was in the planning stages. In preparing the written version I have found it useful to consult Olander’s recent study of mobility (Olander 2009; henceforth simply ‘Olander’), which was not available to me at the time of the Opava Workshop.

1 I use the standard symbols to mark the Slavic accent; where no confusion would result, forms are cited as they would have appeared prior to the retraction from final yers. For Balto-Slavic preforms I employ the accent signs /ˀ/ and /ˀ̄/, the use of which is explained in §2.

long vowels or diphthongs, but only one accented syllable, which could be acute or non-acute. The phonetic interpretation of the acuteness contrast is debated. Pitch as such is not likely to have been involved; the pitch-related (i.e., intonational) effects associated with acuteness in the historical Baltic and Slavic languages are the result of interactions of acuteness with the accent. A more probable hypothesis is that acute nuclei were originally ‘checked’ vis-à-vis their non-acute counterparts, i.e., provided with a glottal feature similar to a Danish *stød* or Latvian broken tone.<sup>2</sup>

The other major prosodic innovation of Balto-Slavic is a new and distinctive type of accentual mobility in paradigms. Mobile nouns and verbs, which are far more numerous in Balto-Slavic than in any other branch of the IE family, show a ‘bipolar’ stress pattern, with movement of the ictus between the first and last syllables of the word. Thus, e.g., the Lithuanian word for ‘head’ is *galvà* in the nom. sg., but *gálvą* in the acc. sg. and *galvomìs* in the instr. pl.; the Old Russian verb meaning ‘bake’ is *péku* in the 1 sg. pres., but *pečéty* (< \*-etb̥) in the 3 sg. and *pečeté* in the 2 pl. It is characteristic and typical that the mobility of these forms is secondary in IE terms; *ā*-stems like *galvà* and simple thematic presents like pre-Sl. \**peke/o-* had columnar accent in the parent language.<sup>3</sup>

Since the appearance of Stang (1957) and the ascendancy of the Moscow School’s ‘morphological’ approach to BS accentology (see, e.g., Dybo 1981), it has been clear that acuteness and mobility are historically independent phenomena. Prior to Stang’s work, the dominant framework for the study of BS accentology was the so-called ‘classical’ theory, which sought to explain the position of the accent in individual inflected forms through an assortment of intonation-sensitive advancement and retraction rules. Prominent among these rules were Saussure’s Law, by which an acute syllable attracted the accent rightward from a non-acute syllable in Lithuanian and, it was claimed, Slavic; and Hirt’s Law, by which the accent was (according to one interpretation) drawn leftwards by a preceding acute vowel. The desperate inadequacy of this approach, even under the most sympathetic reading of the case for Saussure’s

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2 The ‘glottalic’ reading of acuteness is found as early as Vaillant (1936: 114 f.). Kortlandt (2009: 1) describes the glottalic character of the acute, which he links to the glottalic theory of the PIE stop system, as ‘the central tenet of my accentological theory’. My own (quite different) view of the origin of acuteness, first presented in Jasanoff (2004: 251 f.), is repeated briefly below.

3 The contrary view - that the mobility of vocalic-stem nouns and thematic verbs was inherited from PIE - has had distinguished adherents in the past and continues to have them today, but is no longer remotely tenable from an IE point of view. Cf. Olander (47-8).



Law in Slavic, can be seen from the disorder and confusion of a presentation like Shevelov (1964: 38-80). The prevalent modern view, by contrast, holds that 1) Saussure's Law (e.g., *\*rānkā* > Lith. *rankà* 'hand') was a purely Lithuanian development; 2) Saussure's Law-like effects in Slavic (e.g., pre-Sl. nom. *\*žēna*, acc. *\*žēnŃ* > Sl. *\*ženà*, *\*ženŃ* 'wife') were produced by a wholly different rule, Dybo's Law; and 3) Hirt's Law (e.g., *\*uīh<sub>1</sub>-ró-* > Lith. *vŃyras* 'husband') was triggered by tautosyllabic *\*-VH-* sequences, not by acute vowels or diphthongs. None of the three rules - Saussure's Law, Dybo's Law, or Hirt's Law - played any role in the creation of mobility.

Not only were the advent of mobility and the rise of the acute : non-acute contrast separate post-IE events; it is also clear that the former preceded the latter. The two were separated by Hirt's Law. As seen by Kortlandt (1977: 321-22) and Dybo (1981: 33 ff.), Hirt's Law was responsible for the retraction of the accent onto the stem vowel in the 'heavy' case forms of mobile *ā*-stems, which under the normal rules for mobile stems would properly have been oxytone: cf. PSI. dat. pl. *\*golvām̃* < *\*-āh<sub>2</sub>-mos* < *\*-ah<sub>2</sub>-mōs*, loc. pl. *\*golvāx̃* < *\*-āh<sub>2</sub>-su* < *\*-ah<sub>2</sub>-sū*, etc.<sup>4</sup> Similarly in mobile verbs, where the sigmatic forms of the aorist are in principle oxytone (e.g., PSI. 1 sg. *\*u-merx̃* 'I died'), the accent is displaced one syllable to the left in roots of the structure *\*C(R)VH-* (*\*dāx̃* 'I gave' < *\*dōh<sub>3</sub>-s(o)m* < *\*doh<sub>3</sub>-s(ō)m*). The fact that mobility is older than Hirt's Law means that it is also older than two changes that postdate Hirt's Law - the development of syllabic liquids and nasals (*\*R̥*) to sequences of the type *\*iR* (*\*uR*), and the loss of tautosyllabic laryngeals with compensatory lengthening. The chronological sequence is illustrated by the word for 'full' (Lith. *pīl̃nas*): PIE *\*p̥l̥h<sub>1</sub>-nó-* > *\*p̥l̥h<sub>1</sub>-no-* (Hirt's Law) > *\*pīlh<sub>1</sub>-no-* (*\*R̥* > *\*iR*) > *\*pīl̃-no-* (laryngeal loss).

It was with the last of these developments, laryngeal loss, that the conditions were created for the rise of contrastive acuteness. The loss of laryngeals left the emerging BS dialect cluster (like its neighbor, Proto-Germanic) with three contrasting vowel lengths - short, long, and hyperlong. As detailed in Jasanoff (2004), the 'normal' (bimoric) long monophthongs had three sources: PIE tautosyllabic *\*-VH-* sequences (e.g., Lith. (dial.) *móter-*, Sl. *\*māter-* 'mother'

4 Otherwise Olander (187 ff.), who considers the position of the accent in *\*golvām̃*, *\*-āx̃*, etc. to be original. Olander denies strict bipolarity for Balto-Slavic: for him, the final accent of Slavic dat. pl. *\*.m̃*, loc. pl. *\*.x̃*, instr. pl. *\*.mī*, 3 sg. *\*.t̃*, 2 pl. *\*.t̃*, etc. is due to Dybo's Law, and the final accent of the corresponding Lithuanian forms is due either to Saussure's Law (e.g., instr. pl. *-(i)mīs* < *-(i)mīs*) or to analogy (e.g., loc. pl. (dial.) *-(i)sū*). Olander's preforms in *\*.imos*, *\*.isu*, *\*.eti*, etc. would in my view have been eliminated by Saussure-Pedersen's Law (§4) in the BS period.

< *\*mah<sub>2</sub>-ter-*), PIE short vowels lengthened before a voiced stop (Winter's Law; cf. Lith. *núogas* 'naked' < *\*nog<sup>u</sup>-o-*), and PIE 'organic' long vowels except in absolute auslaut (cf. Lith. *žvėris*, acc. *žvėrį* 'wild animal' < *\*g'h<sub>u</sub>ēr-*).<sup>5</sup> The less frequent hyperlong (trimoric) monophthongs were the reflex of PIE long vowels in absolute auslaut (cf. Lith. *akmuō* 'stone' < *\*-ō*) and of secondary long vowels arising from contraction across a laryngeal hiatus (e.g., Lith. gen. sg. *galvōs* < *\*-ah<sub>2</sub>-es*). The classical BS acute : non-acute contrast arose through a reversal of markedness: the former hyperlongs (marked) were reinterpreted as longs (unmarked), and the former longs (unmarked) were reinterpreted as shortened or 'checked' longs (marked). The assignment of the 'checked' feature (probably glottalization) to bimoric longs was systematic, extending also to cases like *\*pīlno-*, *\*žēnto-* 'son-in-law' (< *\*jēnh<sub>1</sub>-*), etc., where the long vowel was followed by a sonant in the same syllable. When the vowel in such sequences was subsequently shortened by Osthoff's Law (*\*-V̄R-* > *\*-V̇R-*), the 'checkedness' spread to the *\*-VR-* sequence as a whole, producing contrastively acute liquid and nasal diphthongs (*\*pīlnos*, *\*žēntos* vs. non-acute *\*uīlkos* 'wolf', *\*rānkā*; Lith. *pīlnas*, *žėntas*, *vilkas*, *rankà*).

The relative chronology of the establishment of mobility and contrastive acuteness can accordingly be established as follows:

1. advent of bipolar mobility
2. Hirt's Law
3. change of *\*R̄<sub>l</sub>* to *\*iR* (*\*uR*)
4. laryngeal loss/rise of acuteness

The creation of mobility, in its special bipolar form, was a very early development - arguably the earliest identifiable innovation of Balto-Slavic. Let us now consider what this innovation actually entailed.

## §2. The nature of mobility

The phenomenon that we call mobility in Balto-Slavic differs from the mobility traditionally reconstructed for PIE in a number of essential respects, bipolarity being only one of them. Movement of the accent between the two ends of the word, skipping intervening material, is not, strictly speaking,

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5 The Slavic counterpart of Lith. *žvėrį* is *\*zvěrb̄*. Note that the intonational disagreement is regular, a consequence of the descriptive rule that acutes become circumflex in mobile paradigms in Slavic ('Meillet's Law'; see further below).

unknown in PIE; it occurs in nominal stems of the ‘amphikinetic’ or ‘holokinetic’ type, which were characterized by ‘strong’ cases of the structure R(é)-S(o)-D(z) and ‘weak’ cases of the structure R(z)-S(z)-D(é) (e.g., nom. sg. \**u̯eid-u̯os* ‘knowing’, acc. sg. \**u̯eid-u̯os-m̃*, gen. sg. \**u̯id-us-és*, dat. sg. \**u̯id-us-éi*).<sup>6</sup> But it is virtually impossible to see how the PIE amphikinetic pattern, confined to nouns in the protolanguage and moribund in Greek, Anatolian, and Indo-Iranian, could have been generalized to all mobile stems, both nominal and verbal, in Balto-Slavic. In actual fact, BS mobility does not seem to have been based on PIE mobility at all. For simple nominal stems, mobility in Balto-Slavic was determined not by whether the corresponding PIE form was mobile, but by whether or not the inherited nom. sg. was accented on its final syllable.<sup>7</sup> If the nom. sg. of an unmotivated PIE noun or adjective was oxytone, the associated paradigm is mobile in Balto-Slavic, with a characteristic distribution of word-initial and word-final accents (here denoted  $\acute{x} \dots x$  and  $x \dots \acute{x}$ , respectively) that in most cases varies only minimally from stem type to stem type. The accentual ‘curve’ of a mobile nominal stem can be illustrated with the *u*-stem \**sūnu-* ‘son’:<sup>8</sup>

sg	.pl.
nom.x . . $\acute{x}$ (Lith. <i>sūnūs</i> )	$\acute{x} \dots x$ ([ <i>sūnūs</i> ], * <i>synove</i> )
acc. $\acute{x}$ . . $x$ ( <i>sūnu</i> )	$\acute{x} \dots x$ ( <i>sūnus</i> )
gen.x . . $\acute{x}$ ( <i>sūnaūs</i> )	$x \dots \acute{x}$ ([ <i>sūnū</i> ], * <i>synòṽ</i> < *-oṽ)
loc.x . . $\acute{x}$ ([ <i>sūnujē</i> ], PSl. * <i>synù</i> )	$x \dots \acute{x}$ ( <i>sūnusè</i> )
dat. $\acute{x}$ . . $x$ ([ <i>sūnuj</i> ], * <i>synovi</i> ) <sup>9</sup>	$x \dots \acute{x}$ ( <i>sūnūms</i> )
instr.x . . $\acute{x}$ ( <i>sūnumi</i> )	$x \dots \acute{x}$ ( <i>sūnumīs</i> )

The distribution of left- and right-accented forms is almost identical in *i*-,  $\bar{a}$ -, and consonant stems. Individual cases, such as the deviant instr. sg. of  $\bar{a}$ -stems and the interestingly aberrant accentual paradigm of *o*-stems, will be covered at appropriate points in the discussion below.

6 For the notation and an overview of the PIE nominal ablaut-accent types see Meier-Brügger (2002: 203 ff.).

7 So Illich-Svitych (1963), who, however, wrongly attributed the ‘oxytone - mobile’ accent type to PIE itself.

8 Illustrations are from Lithuanian alone unless a more interesting or original form is preserved in Slavic. For reasons of space and focus, the dual is not discussed in this paper.

9 Cf. Olander (173 f.). The direct comparative evidence for \**synovi*, with initial accent, is meager. But since all other dat. sg.’s were accented on the root syllable in Proto-Slavic, there is no reason to believe the *u*-stems were an exception.

The most important group of mobile *verbs* go back to stably root-accented simple thematic presents of the type PIE *\*uédh-e/o-* ‘lead’, *\*pék<sup>u</sup>-e/o-* ‘bake’, etc. Thematic stems containing a suffix or infix (*\*-iē/o-*, *\*-n(C)e/o-*, etc.) were for the most part not mobile in Balto-Slavic; nor were athematic presents other than BS *\*ēd-* ‘eat’ and *\*dōd-* ‘give’, which were mobile in Balto-Slavic but had fixed initial accent in PIE (*\*ēd-* < ‘Narten’ present *\*h<sub>1</sub>éd-mi*, 3 pl. *\*h<sub>1</sub>éd-ŋti*; *\*dōd-* < reduplicated present *\*dódoh<sub>3</sub>-mi* for *\*dédoh<sub>3</sub>-mi*, 3 pl. *\*dédh<sub>3</sub>-ŋti*). Mobility in verbs was manifested in two ways. As in nouns, the accent alternated between the beginning and end of the word according to a prescribed pattern. In addition, the subset of forms with initial accent ‘threw back’ the accent onto an accompanying preverb or preverbal particle. Since only the latter feature is preserved in Lithuanian,<sup>10</sup> the accentual curve for mobile verbs must be drawn up on the basis of Slavic alone. The relevant forms of the present *\*vede/o-*, with and without a preverb, are as follows:

	without preverb	with preverb
1 sg. pres.	ẋ . . x(*vėdŋ)	ẋ . . [x . . x](*dō-vedŋ)
2	x . . ẋ(*vedėši)	x . . [x . . ẋ](*do-vedėši)
3	x . . ẋ(*vedetḅ) <sup>11</sup>	x . . [x . . ẋ](*do-vedetḅ)
1 pl	x . . ẋ(*vedemḅ)	x . . [x . . ẋ](*do-vedemḅ)
2	x . . ẋ(*vedetė)	x . . [x . . ẋ](*do-vedetė)
3	x . . ẋ(*vedotḅ)	x . . [x . . ẋ](*do-vedotḅ)
2, 3 sg. impf. (> aor.)	ẋ . . x(*vėde)	ẋ . . [x . . x](*dō-vede)
nom. sg. ptcp.	ẋ . . x(*vėdy)	ẋ . . [x . . x](*dō-vedy)
gen. sg. ptcp.	x . . ẋ(*vedotjā)	x . . [x . . ẋ](*do-vedotjā)

The *character* of the accent in mobile paradigms is also noteworthy. Two kinds of initial accent have to be distinguished in Proto-Balto-Slavic: 1) the accent that stood on the left-accented forms in mobile paradigms (e.g., the nom. pl. of (non-*o*-stem) mobile nouns or the 1 sg. pres. of mobile verbs); and 2) the accent that stood on the first syllable in other kinds of words, including non-mobile nouns and verbs. The first kind of accent will be called a *left-marginal accent* and will be marked with a grave (ẋ). The second kind of initial accent - and *any* accent that is not a left-marginal accent - will be termed an *in situ accent* and marked ẋ (cf. the usage in the tables above). The reason for distinguishing the two types is the fact, not always sufficiently appreciated, that

10 At least in the finite forms; the present participle is mobile (nom. *vedāš* : acc. *vėdanti*).

11 Whence later *\*vedetḅ* < *\*-etḅ*; cf. note 1.

the left-marginal and *in situ* accents were phonetically and phonologically contrastive in Proto-Balto-Slavic.<sup>12</sup> The contrast is highlighted by three key differences in their treatment in the later languages:

1) In Slavic, Dybo's Law shifted the accent of a non-acute syllable one syllable to the right *in non-mobile paradigms only*. Russ. nom. *žená*, acc. *ženú* (non-mobile) is uniformly accented on the second syllable (PSl. *\*ženà*, *\*ženò*), while *gorá* 'mountain' (mobile) has root-accented *góru* in the acc. sg. (PSl. nom. *\*gorà*, acc. *\*gòrò*). The pre-Dybo's Law acc. sg. forms were *\*žénò* (BS *\*g'énān*) and *\*gòrò* (BS *\*gòrān*), respectively; only the *in situ* accent was subject to the rule.

2) Likewise in Slavic, the two accents had different *intonational* reflexes in acute syllables. Acute vowels with left-marginal accent (i.e.,  $\acute{x}$ ) eventually surfaced with the Slavic falling ('circumflex') intonation (cf. PSl. acc. *\*gólvo* (Russ. *gólovu*) < BS *\*gòluān* (mobile; nom. *\*golūā*)), while acute vowels with *in situ* accent ( $\acute{x}$ ) surfaced with the Slavic rising ('acute') intonation (cf. PSl. acc. *\*vórnò* (Russ. *vorónu*) < BS *\*uòrnān* (immobile; nom. *\*uòrnā*)).<sup>13</sup>

3)  $\acute{x}$  and  $\acute{x}$  also had different reflexes in Latvian. The left-marginal accent on an acute vowel ( $\acute{x}$ ) gave the Latvian 'broken tone' (*galvu* < BS *\*gòluān*), while the *in situ* accent on an acute vowel ( $\acute{x}$ ) gave the Latvian 'level tone' (*vārnu* < BS *\*uòrnān*). The left-marginal and *in situ* acutes fell together in Lithuanian (*gálva*, *várna*).<sup>14</sup>

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12 Separate phonetic and phonological assertions are embodied in this statement. The *phonetic* claim is that the two accents were audibly different, so that a speaker, hearing a form like acc. sg. *\*sūnun* and a form like acc. sg. *\*uiron*, could tell that the first belonged to a mobile paradigm and the second did not. No position will be taken here on the precise phonetic character of the difference, although a better case can be made for a rising *in situ* accent and a falling left-marginal accent than vice versa. The *phonological* claim is that the two accents were represented differently in the Proto-BS lexicon. Here too there is more than one possibility: /' / and /' / could have been distinct prosodic phonemes, or the left-marginal accent could have been a *zero* accent, assigned by rule to the first syllable of unaccented words. The historical account developed below is compatible with either analysis. See further §6.

13 Contrast this interpretation of Meillet's Law (cf. note 5) with the more complicated standard account, according to which acuteness was lost by sound change in unaccented syllables (e.g., pre-Slav. nom. sg. *\*golūā* > *\*golūā*) and subsequently lost by analogy in root syllables (acc. sg. *gólvo* for *\*gólvo*).

14 So in the same vein Young (1994), who localizes the broken tone in 'unaccented' syllables, a term that for him includes the left-accented syllables in mobile paradigms. Putting it in

### §3. Framing the problem

The preceding discussion has tried to show that mobility, in the special BS sense of the term, is a unitary phenomenon. Mobility is robustly present in both Baltic and Slavic, in both nouns and verbs. The nominal and verbal stems that are mobile in Baltic are etymologically approximately the same as the stems that are mobile in Slavic, and different from the stems that were mobile in PIE. The endings that bear the accent in mobile paradigms are the same in both branches, and largely different from the endings that were accented in PIE. The bipolar alternation pattern of mobile paradigms, with the accent moving between the left and right extremities of the inflected word, is likewise common to both branches, and different from the normal form of mobility in PIE. Finally, Baltic and Slavic agree in contrasting the initial accent in mobile paradigms, both nominal and verbal, with the initial accent in non-mobile forms. All these features were firmly in place before three other defining innovations of Balto-Slavic - Hirt's Law, the change of  $*\check{R}$  to  $*iR$  ( $*uR$ ), and the rise of the acute : non-acute contrast.

The creation of mobility, then, must have been both very early and very rapid. The pre-BS linguistic system in which mobility arose still had consonantal laryngeals, three series of tectals ( $*k'$ ,  $*k$ -, and  $*k^h$ -series), and voiceless, voiced, and breathy voiced ('voiced aspirated') stops.<sup>15</sup> While it may have lost the PIE  $*\check{a}$  :  $*\check{o}$  distinction, it retained five long vowels and a full complement of long and short diphthongs, along with a moveable accent and a rich array of morphological categories. It was, in short, a late PIE dialect, and the task of discovering the origin of BS mobility can in this sense be considered an IE problem.

Our search for a solution does not begin in a vacuum. We know that end-accented nouns in nom. sg. (PIE)  $*-is$ ,  $*-us$ ,  $*-áh_2$ , etc. were the locus of

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more neutral terms, one might say that acute vowels received level tone under the unshifted (= *in situ*) accent and broken tone otherwise.

15 The claim that the labiovelars would still have been distinct from the velars is based on words like OPr. *guntwei* 'chase' = Sl. *gъnati*, where the post-Hirt's Law vocalization of  $*\eta$  as  $*un$  must have been triggered by the preceding  $*g^uh$ - (PIE  $*g^uhen$ - 'strike'). Cf. most recently Young (2006), with references. Proof that the voiced stops and voiced aspirates were still separate at this stage comes from the fact that the reduplicated present  $*d\acute{o}d(o)h_3$ - 'give', which eventually became  $*d\acute{o}d(o)h_3$ - by Winter's Law (cf. Lith. *dúod*-, Sl. *dad*-), was assigned to the mobile class on the basis of its *short* initial syllable (like  $*y\acute{e}dhe$ -; see §4 below). Where no confusion would result, the transcriptions used here will be informal.

mobility in (animate) nouns,<sup>16</sup> and that root-accented presents of the *\*uédh-e/o-* type were the locus (or at least *a* locus) of mobility in verbs. A historical theory of mobility will therefore minimally need to include two components:

1) a ‘retraction module’ to account for the nominal forms (e.g., the acc. sg., dat. sg., nom. pl.) with left-marginal accent on the root syllable rather than the suffixal syllable (acc. sg. *\*sū́nun*, etc.), and the compound verbal forms (e.g., the 1 sg. pres.) with left-marginal accent on the preverb rather than the verbal root (PSl. *\*dō-vedo*, etc.);

2) an ‘advancement module’ to account for the ‘heavy’ case forms of nouns (e.g., the dat. pl., loc. pl., and instr. pl.) where the accent is one syllable to the right of its historical location (dat. pl. *\*sū́numòs*, loc. pl. *\*sū́nusù*, etc.), and the verbal forms (e.g., the 3 sg. and 3 pl. pres.) where the accent is two syllables to the right of its historical location (PSl. *\*(do-)vedetb̃*, *\*(do)vedotb̃*, etc.)

The BS ‘toolkit’ contains many real and alleged accent movement rules, most of which (e.g., Saussure’s Law, Hirt’s Law, Dybo’s Law; many others) were too late to have played a role in the origin of mobility. The conspicuous exception, with which any serious discussion of the problem of BS mobility must begin, is the so-called ‘*dū́kter*-retraction’ described by Saussure in 1896 (= Saussure 1896[1922]: 533 ff.)

#### §4. The retraction module: ‘Saussure-Pedersen’s Law’

In a seminal discussion that has been summarized many times over the past century, Saussure noted that the Lithuanian word for ‘daughter’ was accented on the ending where the PIE form had final stress, and on the first syllable where the accent of the corresponding PIE form was word-medial:

nom. sg. <i>duktė́</i>	<	<i>*dhugh<sub>2</sub>-tér</i>
gen. sg. <i>dukterès</i> (OLith.)	<	<i>*dhugh<sub>2</sub>-tr-és</i>
acc. sg. <i>dū́kteri</i>	<	<i>*dhugh<sub>2</sub>-tér-ŋ</i>
nom. pl. <i>dū́kteres</i> (OLith.)	<	<i>*dhugh<sub>2</sub>-tér-es</i>
etc.		

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16 The neuter, like the dual, must await discussion elsewhere.

He inferred that the initial accent of the root-accented forms had been retracted from the following medial syllable, and that mobility had spread analogically from such words to *all* animate nouns with inherited final stress (in our notation, nom. \**goluā*<sub>1</sub>, acc. \**goluān*<sub>1</sub> ⇒ nom. \**goluā*<sub>1</sub>, acc. \**gòluān*; nom. \**gostis* ‘guest’, acc. \**gostin* ⇒ nom. \**gostis*<sub>1</sub>, acc. \**gòstin*; etc.). The result was a framework for explaining the rise of mobility in nouns that still ranks as the most widely accepted approach to the problem of mobility as a whole. As such, it provides the natural point of departure for the analysis advanced here.

The *dùkter*-retraction resisted formulation as a strict sound change in Saussure’s time; Saussure himself was famously unsure what to make of it.<sup>17</sup> For most of the twentieth century, the rule was given a teleological interpretation and codified as ‘Pedersen’s Law’ - an analogical change sometimes confusingly presented as a sound law.<sup>18</sup> In the post-Stang-Dybo period, however, the objections to a purely phonological interpretation have all but vanished. The retraction can now be stated as a Neogrammarian sound change:

**Saussure-Pedersen’s Law (SPL):** The PIE accent was drawn one syllable to the left from a word-internal short open syllable. When the newly accented syllable was word-initial, it received a distinctive left-marginal (falling?) contour:

$$\# \text{ x - } \acute{\text{x}} - \dots > \# \acute{\text{x}} - \text{x} - \dots$$

The left-marginal accent thus emerges as a phonological retraction product, typologically comparable to the Štokavian rising accent(s) (e.g., nom. sg. *vòda* < PSl. \**vodà*; contrast acc. *vòdu* < PSl. \**vòdø*), the late Proto-Slavic neoacute (3 sg. \**mòžetb* < \**možětb*), and (at the subphonemic level) the Vedic Sanskrit *anudāṭṭa* (orthographic *deva-* for *devá-* ‘god’). In all three of these instances, the shifted accent originated as a phonetic anticipation of the historically accented vowel in the next syllable (a rise before a fall, a dip before a rise, etc.). The same must have been true of the left-marginal accent generated by SPL.<sup>19</sup>

17 ‘Il est malheureusement difficile de dire le caractère qu’aurait cette loi, car il y a des obstacles à la transformer en loi phonétique pure et simple’ (Saussure 1896 [1922]: 533, note 1).

18 Cf. Olander (48 f., 210 ff.), with special reference to the role and changing character of Pedersen’s Law in Kortlandt’s work.

19 Kortlandt (2009: 60-61) seems to have misunderstood my position when he objects that ‘[t]he main problem with Jasanoff’s reformulation of Pedersen’s law as a leftward accent



There are many advantages to the formulation of SPL as a sound change. The greatest weakness of Saussure's original theory was that it placed all the responsibility for mobility on words like *\*dukter-*: the comparatively rare and unproductive consonant stems were said to have imposed their mobility on the vastly more common and productive vowel stems.<sup>20</sup> With the *dükter*-retraction recast as a sound law, it is no longer necessary to regard consonant stems as the special locus of mobility in nouns. The accentual curve of mobile nouns (cf. §2) is hardly less at home in *i-*, *u-*, and *ā-*stems than in consonant stems, as can be seen from a side-by-side comparison of the 'light' cases in each declension:<sup>21</sup>

case <sup>22</sup>	accent	<i>i</i> -stems	<i>u</i> -stems	<i>ā</i> -stems	cons. stems
nom. sg. x . . ẋ		*-ís (regular)	*-ús (regular)	*-áh <sub>2</sub> (regular)	*-é(R), *-ó(R) (regular)
acc. sg. ẋ . . x		*-ím (analogical)	*-úm (analogical)	*-áh <sub>2</sub> m > *'-ah <sub>2</sub> m(?) <sup>23</sup> (regular)	*-éRm > *'-eRm (regular)
gen. sg. x . . ẋ		*-éis (regular)	*-éus (regular)	*-áh <sub>2</sub> es > *'-ah <sub>2</sub> es (analogical)	*-(e)Réš (regular)
loc. sg. x . . ẋ		*-éi	*-éu	*-áh <sub>2</sub> i > *'-ah <sub>2</sub> i	*-éR(?) <sup>24</sup>

shift is that we would expect a rising tone on the newly accented syllable, as in SCr. *voda* 'water' < \**voda* . . . , whereas we actually find a falling tone as its Slavic reflex, e.g. in acc.sg. *vödu*.' I am not aware of any typologically grounded reason to believe that a retracted accent would *intrinsically* have favored a rising contour.

20 The point is well made by Olander (50 f.).

21 The 'heavy' cases (i.e., those (usually) marked by an ending of the form \*-(V)CV(C)) will be discussed in §5.

22 For each 'light' case form, the table shows 1) the position of the accent in the shared synchronic BS accent paradigm (§2); and 2) whether the application of SPL to the inherited *i-*, *u-*, *ā-*, or consonant stem ending would have yielded the synchronic accentuation we find (in which case it is marked 'regular'), or whether the accentuation of that particular form is analogical. Thus, e.g., the gen. sg. had final accent in Proto-BS (x . . ẋ); this was phonologically regular in the *i*-stems, *u*-stems (*pace* Olander 171 f.), and consonant stems, but analogical in the *ā*-stems. The dat. sg. had left-marginal accent in Proto-BS (ẋ . . x); this was regular in the *i-*, *u-*, and *ā*-stems, but analogical in the consonant stems.

23 The PIE ending was monosyllabic \*-ah<sub>2</sub>m > \*-ām, with non-syllabic \*-m by the IE syllabification convention known as Stang's Law (unrelated to the Slavic retraction rule of the same name; cf. Mayrhofer 1986: 163 f.). The conjectural reconstruction \*-ah<sub>2</sub>m presupposes an analogical recombination of the stem in \*-ah<sub>2</sub>- with the postconsonantal accusative variant \*-m; weak support for this reanalysis comes from the non-acuteness of the *ā*-stem acc. sg. in Lithuanian (*rañka*, etc.)

	(regular)	(regular)	(analogical)	(regular)
dat. sg. $\acute{x} . . x$	*- $\acute{e}iei$ > *- $eiei$	*- $\acute{e}uei$ > *- $euei$	*- $\acute{a}h_2ei$ > *- $ah_2ei$	*-( $e$ ) $R\acute{e}i$
	(regular)	(regular)	(regular)	(analogical)
nom. pl. $\acute{x} . . x$	*- $\acute{e}ies$ > *- $eies$	*- $\acute{e}ues$ > *- $eues$	*- $\acute{a}h_2es$ > *- $ah_2es$	*- $\acute{e}Res$ > *- $eRes$
	(regular)	(regular)	(regular)	(regular)
acc. pl. $\acute{x} . . x$	*- $ins$	*- $uns$	*- $\acute{a}h_2s$ (< **- $\acute{a}h_2ms$ ) <sup>25</sup>	*- $\acute{e}R\grave{u}s$ > *- $eR\grave{u}s$
	(analogical)	(analogical)	(analogical)	(regular)

Also interesting in connection with these forms are the mobile *o*-stems, which partly maintained their independence vis-à-vis the amalgamated accentual paradigm of the *i*-, *u*-,  $\bar{a}$ -, and consonant stems. Here the conspicuous archaisms are the gen. sg. (e.g., BS \**dròugā* ‘friend’), where the left-marginal accent contrasts with final accent in the other stem types, and the nom. pl. (\**drougòì*), where the final accent contrasts with left-marginal accent in the other stem types. Both \*- $\bar{a}$  and \*- $\acute{o}i$  are in fact phonologically regular: in the gen. sg. the preform was the PIE *o*-stem ablative in \*- $\acute{o}$ - $h_2ad$ , whence \*- $\acute{o}$ - $h_2ad$  (> \*- $\bar{a}$ ) by SPL; in the nom. pl., where \*- $\acute{o}i$  was the replacement of older \*- $\acute{ós}$ , the environment for SPL was not satisfied.<sup>26</sup>

24 The form shown is the endingless locative; the longer form in \*- $eRi$  was probably the source of the archaic and dialectal Lith. dat. sg. *dukteri*.

25 In contrast to the acc. sg. (cf. note 23), there is no justification for positing a recombined disyllabic form (\*- $ah_2ms$ ) in the acc. pl.

26 Of the other *o*-stem forms, the nom. sg. shows secondary retraction in Lithuanian (*draūgas*; Nieminen’s Law); the dat. sg. has left-marginal accent, as in all the other stem classes (*draūgui*, \**drūgu*, analogical for expected \*- $\acute{o}i$ ); and the loc. sg. has analogical root accentuation in Slavic (\**drŭžě*) but retains its original final accent in Lith. *namiẽ* ‘at home’ (< \*- $\acute{o}i$ ). The acc. pl. has the same left-marginal accentuation as other mobile animate nouns (*draugùs* < \**draūgōs* (Saussure’s Law), \**drūgy*) - here, as everywhere outside the consonant stems, analogical. SPL thus gives a much better account of the ‘light’ cases than Saussure’s original formulation or its Pedersen’s Law elaboration. While the latter attributes mobility as a whole to the consonant stems (and makes even these analogical to root nouns), SPL explains the accentuation of most or all of the attested gen. sg., dat. sg., loc. sg., and nom. pl. forms of vowel stems, including the exceptional gen. sg. and nom. pl. of *o*-stems, by sound change. Only the acc. sg. and pl. seem to owe their accentuation mainly or exclusively to the consonant stems. The consistent left-marginal accent of the acc. pl. (\*- $ins$ , \*- $uns$ , etc.) is not, perhaps, too surprising in view of the left-marginal accent of the acc. sg. and nom. pl., especially since the contrasting oblique plural cases are all ‘heavy’ and oxytone (cf. below). But in the acc. sg., where PIE \*- $\acute{im}$ , \*- $\acute{um}$ , \*- $\acute{óm}$  and even unrecombined \*- $\acute{a}h_2m$  (cf. note 23) should all have remained oxytone, the universality of the  $\acute{x} . . x$  pattern is genuinely puzzling. The possibility cannot be

Let us now consider the forms that would have been subject to SPL in the *verbal system*. Verbs are the forgotten category in discussions of the origin of mobility; surveying the literature on the problem, one could easily get the impression that the only mobile words in Balto-Slavic were nouns.<sup>27</sup> Yet mobility is a unitary phenomenon, no less robust in verbs than in nouns, and marked by the same distinctive peculiarities (bipolarity, contrastive left-marginal accent, etc.) in both categories. If SPL, or any similar retraction, was involved in the creation of mobility in nouns, it would almost certainly have played a role in verbs as well.

In thematic presents of the simple root-accented type, an uncompounded stem like PIE *\*uédhe/o-* would have given BS *\*uède/o-*, with initial *in situ* accent. In the presence of a proclitic particle, however, the accent on the root syllable would have shifted leftwards by SPL (*\*do-uédhe/o-* > BS *\*dò-uède/o-*). Stable *in situ* accent in the simplex would thus have contrasted with stable left-marginal accent in compounds.<sup>28</sup>

	without preverb	with preverb
1 sg. pres.	*uédoh <sub>2</sub>	*dò-uédoh <sub>2</sub>
2	*uèdesi	*dò-uèdesi
3	*uèdeti	*dò-uèdeti
1 pl.	*uèdomos	*dò-uèdomos
2	*uèdete	*dò-uèdete
3	*uèdonti	*dò-uèdonti
2 sg. impf. (> aor.)	*uèdes	*dò-uèdes
3	*uèdet	*dò-uèdet
nom. sg. ptcp.	*uèdonts	*dò-uèdonts
gen. sg. ptcp.	*uèdonti-	*dò-uèdonti-

This display is quite different from the system we would be led to reconstruct for Proto-BS on the strength of the synchronic accentual paradigm of mobile

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excluded that a separate rule, or a separate provision of SPL, retracted the accent from final *\*-VN#* sequences.

27 Olander's compendious and extremely useful *histoire de la recherche*, covering over thirty pages of his monograph (14-45), contains more references to nouns and nominal forms than it is convenient to count, but only a single sentence (on p. 22) about verbs.

28 I assume that prior to SPL, compound verbs in Balto-Slavic, including combinations with particles like the negation *\*ne*, put the main stress on the verb proper, as in Germanic (cf. *Go. fra-bàiriþ, du-ginniþ, ni húgjiþ*, etc.).

verbs in Slavic (cf. §2). As we shall see, however, it was almost certainly an intermediate stage along the way to the attested distribution of left- and right-accented forms.

In overview, it can be said that the effect of SPL was to create, *in nuce*, the category of mobility. A mobile paradigm, in the sense we will henceforth use the term, was one in which one or more forms began with a left-marginal accent ( $\acute{x}$ ). In nouns, at least in the ‘light’ cases of *i*-, *u*-,  $\bar{a}$ -, and consonant stems, SPL directly generated the left-marginal accent in more than half the forms surveyed; analogical leveling across stem types did the rest. But SPL also vastly *overgenerated* left-marginal accent in the ‘heavy’ cases (cf. note 21). Thus, e.g., in the *u*-stems, the gen. pl. (\*- $\acute{e}uoHom$ ), loc. pl. (\*- $\acute{u}su$ ), and *m*-cases (e.g., instr. pl. \*- $\acute{u}m\bar{i}s$ , *vel sim.*) ought all to have undergone SPL (\*- $\acute{e}uoH\bar{o}m$ , \*- $\acute{u}su$ , \*- $\acute{u}m\bar{i}s$ ); yet these forms had final accent in Proto-BS (\* $\bar{s}\bar{u}n\bar{e}u\bar{o}n$ , \* $\bar{s}\bar{u}n\bar{u}s\bar{u}$ , \* $\bar{s}\bar{u}n\bar{u}m\bar{i}s$ , etc.). The same was true in the *i*-stems, the consonant stems, and some forms of the *o*-stems.<sup>29</sup> In verbs, where only the compounds of simple thematic presents were mobile, the overgeneration was extreme: SPL produced left-marginal accent everywhere (\* $\bar{d}\bar{o}-\bar{u}e\bar{d}o\bar{h}_2$ , \* $\bar{d}\bar{o}-\bar{u}e\bar{d}e\bar{s}i$ , \* $\bar{d}\bar{o}-\bar{u}e\bar{d}e\bar{t}i$ , etc.; cf. above), yet the actual forms are more often than not oxytone (PSlav. \* $\bar{d}\bar{o}-\bar{v}e\bar{d}\bar{o}$ , but \* $\bar{d}\bar{o}-\bar{v}e\bar{d}\bar{e}\bar{s}\bar{i}$ , \* $\bar{d}\bar{o}-\bar{v}e\bar{d}\bar{e}\bar{t}\bar{v}$ , etc.). These ‘wrong’ retractions were corrected in the next phase in the development of mobility - the advancement module anticipated in §3.

### §5. The advancement module: Proto-Vasil’ev-Dolobko’s Law

In Jasanoff (2008: 364 ff.) I proposed a phonological solution to the overgeneration problem - the problem of too many left-marginal accents in mobile paradigms. The basic claim was that sometime after the operation of SPL, but still very early in the history of Balto-Slavic, the left-marginal accent came to be restricted to words of fewer than four syllables. Longer words, which had perhaps already developed a non-phonemic final secondary stress, underwent a new sound law:

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29 In the *o*-stems, SPL would have been regular in the gen. pl. (if < \*- $\acute{o}Hom$ ), the dat. pl. (\*- $\acute{o}mos$ ), and the remade instr. sg. (\*- $\acute{o}mi$ ; Slavic only), but not in the original instr. sg. (\*- $\acute{o}h\bar{i}$ ), instr. pl. (\*- $\acute{o}is$ ), or loc. pl. (\*- $\acute{o}isu$ ). In the  $\bar{a}$ -stems, SPL would only have been regular in the gen. pl. (\*- $\acute{a}h_2oHom$ ); we shall see below, however, that the rule probably applied analogically in the other ‘heavy’ cases (\*- $\acute{a}h_2su$ , \*- $\acute{a}h_2mos$ , etc.).

**Proto-Vasil'ev-Dolobko's Law (Proto-VDL):** Phonological words of four or more syllables headed by a left-marginal accent became oxytone:

$$\# \acute{x}_1 - x_2 - x_3 - \dots - x_n > \# x_1 - x_2 - x_3 - \dots - \acute{x}_n$$

The name 'Proto-VDL' was inspired by the obvious similarity of this rule to the synchronic morphophonological rule of Slavic known as 'Vasil'ev-Dolobko's Law.' The synchronic Vasil'ev-Dolobko's Law (VDL) applies to strings of clitics and 'enclimena', the Slavic reflexes of BS words headed by a left-marginal accent. The relevant part of the rule states that when an enclimena, either simple (e.g. ORuss. 1 sg. *stvóruju* 'I will make') or complex (e.g., negated *né stvorju*), is followed by an enclitic, the resulting sequence is accented on the last syllable: *stvóruju* + *že* = *stvóruju žè*, *né stvorju* + *že* = *ne stvorju žè*.<sup>30</sup> Since morphophonological processes of this kind are normally the morphologized remains of former sound laws, and since VDL in effect converts overlong strings of the type  $\# \acute{x} - x - \dots - x$  to  $\# x - x - \dots - \acute{x}$ , the hypothesis of a pre-Slavic or BS sound law along the lines of Proto-VDL would seem entirely reasonable. It is important to realize, however, that the motivation for Proto-VDL comes from the distribution of left-marginal and final accents in Balto-Slavic, not the behavior of enclimena in Slavic. Even if a wholly different source were found for VDL - borrowing from Finnic, say - Proto-VDL would still be needed for its role as the advancement mechanism in a general theory of BS mobility.<sup>31</sup>

The specific form of Proto-VDL was suggested by the straightforward correlation of accent placement and word length in mobile verbs:

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30 Example taken from Lehfeldt (2001: 34).

31 Kortlandt (2009: 60) again misses the point when he refers to Proto-VDL as my 'jargon' for Dolobko's Law. Dolobko's Law (= the rightward movement part of Vasil'ev-Dolobko's Law) was a synchronic rule of Proto-Slavic and its early daughters, directly exemplified by productive alternations in attested Slavic languages. Proto-VDL was a hypothetical sound change of the BS period, possibly millennia earlier than the breakup of Proto-Slavic. To identify the two would be like confusing *grammatischer Wechsel*, the alternation seen in Germanic strong verbs (e.g., Old High German *ziohan* - *zōh* - *zugum* - *gi-zogan* 'pull, ziehen'), with Verner's Law, the sound change that gave rise to it.

	pre-SPL	post-SPL		post-Proto-VDL 3 syllables	4 syllables
1 sg. pres.	*do- <u>u</u> édhoh <sub>2</sub>	*dò- <u>u</u> edoh <sub>2</sub>	=	*dò- <u>u</u> edoh <sub>2</sub>	
2	*do- <u>u</u> édhesi	*dò- <u>u</u> edesi	>		*do- <u>u</u> edesì
3	*do- <u>u</u> édheti	*dò- <u>u</u> edeti	>		*do- <u>u</u> edeti
1 pl.	*do- <u>u</u> édhomos	*dò- <u>u</u> edomos	>		*do- <u>u</u> edomòs
2	*do- <u>u</u> édhete	*dò- <u>u</u> edete	>		*do- <u>u</u> edete
3	*do- <u>u</u> édhonti	*dò- <u>u</u> edonti	>		*do- <u>u</u> edonti
2 sg. impf.	*do- <u>u</u> édhes	*dò- <u>u</u> edes	=	*dò- <u>u</u> edes	
3	*do- <u>u</u> édhet	*dò- <u>u</u> edet	=	*dò- <u>u</u> edet	
nom. sg. ptcp.	*do- <u>u</u> édhonts	*dò- <u>u</u> edonts	=	*dò- <u>u</u> edonts	
gen. sg. ptcp.	*do- <u>u</u> édhontĩ-	*dò- <u>u</u> edontĩ-	>		*do- <u>u</u> edontĩ-'

Notational differences aside, the post-Proto-VDL outputs are accentually identical to the quasi-attested Slavic forms in §2 (\*dò-uedoh<sub>2</sub> = \*dò-vedo, \*do-uedesi = \*do-vedesì, \*do-uedeti = \*do-vedetì, etc.).

The accentual curve of prefixed mobile verbs can thus be directly traced to the sequential operation of SPL and Proto-VDL. The pattern, once established, was extended by analogy. Since SPL would not have applied in the absence of a prefix, the corresponding simplex forms ought theoretically to have remained \*uédoh<sub>2</sub>, \*uédesi, \*uédeti, etc., immobile and with *in situ* accent. But a system in which a mobile ‘conjunct’ paradigm (\*uedoh<sub>2</sub>, \*uedesì, \*uedeti, etc.) contrasted with an immobile ‘absolute’ paradigm (\*uédoh<sub>2</sub>, etc.)<sup>32</sup> would have cried out for analogical repair. The chosen solution was the creation of free-standing \*uédoh<sub>2</sub>, \*uedesì, \*uedeti, etc., with mobility imported into the simplex from the compounds.<sup>33</sup> Mobility was also analogically extended from

32 The terms are borrowed from Celtic, where finite verbs have a special ‘conjunct’ form used with preverbs and proclitic particles. Cf. Old Irish 3 sg. *berid* ‘brings’ (absolute) vs. *ní beir* ‘does not bring’, *do beir* ‘gives’ (conjunct).

33 As noted in my 2008 discussion (367, note 52), a close parallel to this development can be seen in the recessive accentuation of finite verbs in Greek. Greek presents of the type *deik-nū-* ‘show’ were originally accented on the suffix in the singular (1 sg. \**deiknūmi*; cf. Vedic Skt. sg. 1 *kṛṇómi* ‘I do’) and on the endings in the plural (1 pl. \**deiknumén*; cf. *kṛṇumáḥ*). In composition, however, the verb proper cliticized to the preverb, giving sequences of the type \**pródeiknūmi*, \**pródeiknumen*, etc. These were eventually subject to the ‘recessive accent rule,’ which advanced the accent to the leftmost position permitted in Greek, the antepenult or (if the final syllable was long) the penult. Compound verbs thereby acquired ‘recessive’ accent (\**pródeiknūmi*, \**pródeiknumen*). This, in a move highly reminiscent of Balto-Slavic, was analogically extended to the simplex (\**deiknūmi*, \**deiknumén* ⇒ \**deiknūmi*, \**deiknumen*).

high-frequency thematic presents like *\*uēde/o-* (+ *\*peke/o-* < *\*pék<sup>e</sup>e/o-* ‘bake’, *\*uēze/o-* < *\*uég<sup>h</sup>he/o-* ‘convey’, *\*bere/o-* < *\*bhére/o-* ‘take’, etc.), where the root syllable was short and open, to cases like *\*uelke/o-* < *\*uélke/o-* ‘drag’ (Lith. *veľka*, *nėvelka*; Sl. *\*vėlkŏ*, *\*velčetb*), where the root syllable was closed and impervious to SPL. Under the influence of roots of the structure *\*CVC-*, all simple thematic presents with historical root accentuation became mobile in Balto-Slavic.

Other morphologically defined groups of presents came to be associated with the *absence* of mobility. In the *-ĭe/o-* presents built to ‘heavy’ roots (e.g., *\*léig<sup>h</sup>-ĭe/o-* ‘lick’, *\*pėik<sup>h</sup>-ĭe/o-* ‘paint, draw’) neither SPL nor (*a fortiori*) Proto-VDL would ever have applied, regardless of whether a preverb was present. Sequences of the type 1 sg. *\*(ne) léig<sup>h</sup>ĭoh<sub>2</sub>*, 3 sg. *\*(ne) léig<sup>h</sup>ĭeti* consequently persisted as *\*(ne) lėižĭoh<sub>2</sub>*, *\*(ne) lėižĭeti*, regularly yielding immobile paradigms in both Baltic and Slavic (cf. Lith. *(ne)liėžia*, ptp. *liėžias*,<sup>34</sup> Russ. *ližú*, *liėšeš’*, etc. (type b)). In another immobile group, the BS inchoative nasal presents of the type Lith. 3 p. *(su-)buńda* ‘wake(s) up’, PSI. 3 sg. *\*(v<sub>bz</sub>-)b<sub>v</sub>(d)nėt<sub>v</sub>* (< *\*b<sub>ud</sub>-n-*) ‘id.’, a slightly different picture unfolded. Here there was tension between the simplex, where SPL generated a left-marginal accent in most of the forms (*\*b<sub>und</sub>eti* ‘mobile’) < *\*bhundhėti*, and the compounds, where the retracted accent was word-internal and hence *in situ* (*\*su-b<sub>und</sub>eti* ‘immobile’) < *\*su-bhundhėti*). As in the *\*uēde/o-* type, the influence of the compounds prevailed, and the attested paradigm is uniformly immobile. So too in the purely Baltic inchoatives in *-sta-* < *\*-sk<sup>e</sup>e/o-* (e.g., Lith. *gimsta* ‘is/are born’, *miršta* ‘die(s)’): the accented thematic suffix gave left-marginal/mobile accentuation in the simplex (*\*m<sub>r</sub><sup>h</sup>(h<sub>1</sub>)šk<sup>e</sup>eti* (*vel sim.*) < *\*m<sub>r</sub><sup>h</sup>(h<sub>1</sub>)sk<sup>e</sup>ét(o)i*) but *in situ* accent in the compounds (*\*Hau-m<sub>r</sub><sup>h</sup>(h<sub>1</sub>)šk<sup>e</sup>eti* < *\*h<sub>2</sub>au-m<sub>r</sub><sup>h</sup>(h<sub>1</sub>)sk<sup>e</sup>ét(o)i*).<sup>35</sup> Again, the compounds carried the day.<sup>36</sup>

34 The nom. sg. of the participle is accented in mobile paradigms in Lithuanian (*-q̃s*, *-ĭs*, *-ėš*; cf. note 10).

35 The prehistory of the Baltic *-sta-* presents, with specific justification of the reconstruction *\*m<sub>r</sub><sup>h</sup>(h<sub>1</sub>)sk<sup>e</sup>é/ó-*, is discussed in Gorbachov (to appear).

36 The *non-mobile* present types just discussed - - the ‘heavy’ *-ĭe/o-* presents, the thematic nasal presents, and the *-sta-* (i.e., *-sk<sup>e</sup>e/o-*) presents - show why the specific formulation of SPL in §4 is important. The rule did not apply to *any* internal syllable, but only to short open ones; this is why we find Lith *nėvedu* and Sl. *nė vedŏ*, but not Lith. *\*nėliežiu* and Sl. *\*nė ližŏ*. The retraction did not automatically project the accent onto the first syllable of the word, but only onto the immediately preceding syllable; this is why we find Lith. *nebuńda* and not *\*nėbunda*. The non-mobility of the nasal and *-sta-* presents also makes it clear why Olander’s effort (194 ff.) to trace mobility to the thematic-vowel-accenting ‘*udāti*-type’ (e.g., Lith. *sukù*, *nėsuku*, *sukāš* ‘turn’ < *\*suk<sup>e</sup>é/ó-*) cannot be correct: stems

Especially interesting is the Slavic treatment of the PIE iterative-causatives in *\*-éjē/o-*. Prior to the contraction of *\*-ejē/o-* to *-ī-* and the other changes that gave the verbs in *-iti* their distinctive formal profile in Slavic, presents like *\*prok'-éjē/o-* ‘ask’ underwent SPL, producing a ‘mobile’ simplex 1 sg. *\*prōsejoh<sub>2</sub>*, 3 sg. *\*prōsejēti*, and ‘immobile’ compounds of the type *\*po-prōsejoh<sub>2</sub>*, 3 sg. *\*po-prōsejēti*. Extrapolating from the way such mobile : immobile differences were resolved in the simple thematic presents (*\*yede/o-*), the nasal presents (*\*bunde/o-*), and the Baltic presents in *-sta-*, one might have expected the pattern of the compounds - in this case immobility - to prevail. And so it did, at least in the majority of cases (cf. Russ. *prošú* and *poprošú*, *prósiš'* and *poprósiš'*, etc.; type b)). But it is notable that in the *-ejē/o-*-presents, unlike the nasal and *-sk'e/o-*-types, the majority of the theoretically expected simplex forms with left-marginal accent would have been tetrasyllabic and hence subject to Proto-VDL (*\*prōsejēsī* > *\*prōsejēsī*, *\*prōsejēti* > *\*prōsejēti*, etc.). Mobility would thus have been more robustly established in the *-iti* verbs than in the nasal and *-sta-*-presents - a fact that may help explain some of the accentological anomalies of this class in the historical languages.<sup>37</sup>

In nouns, Proto-VDL was the main engine for the phenomenon of ‘heavy shift’, the movement of the accent onto the heavy case endings. In many of the relevant forms, as we have seen above (cf. §4), the PIE accent would initially have been driven leftwards by SPL (*\*-úmīs* > *\*-umīs*, etc.). This was notably the case in the gen. pl., where the desinence proper was disyllabic *\*-oHom*.<sup>38</sup>

that accented the second syllable, when not analogically assimilated to the *\*yédhe/o-*-type (as was the case with the *tudāti-*-type), regularly came out immobile.

37 Among these anomalies, I mention only the dialectal BCS pattern *lòmim* ‘break’ (mobile) vs. *pòlomim*, *slòmim* (immobile), which has recently given rise to a controversial exchange in the literature. Kortlandt (2005: 127) claims that the pattern is old, stating that in *pòlomim*, *slòmim* ‘the root vowel received the stress from the prefix as a result of Dybo’s law.’ Kapović (2005: 38 f.) denies this, arguing that *pò-*, *slò-* is an innovation and objecting to Kortlandt’s reconstruction with an accented prefix. Neither position is entirely persuasive. On the one hand, the data cited by Kapović only reinforce the impression that the alternation pattern is proper to *-i-*-presents, from which it spread analogically in some dialects. On the other, Kortlandt’s ‘explanation’ merely transports the problem back to Proto-Slavic. While the matter must be left to specialists, I note that the phonologically regular treatments would have been simplex: *\*lomējēti* > *\*lòmejēti* (by SPL) > *\*lomejēti* (Proto-VDL) > *\*lomīti* > BCS *lòmi* compound: *\*polomējēti* > *\*polòmejēti* > *\*lòmīti* > *\*lomīti* (Dybo) > *\*polòmīti* (Stang) > BCS *pòlomi*. The unexpected *lòmim* : *pòlomim* pattern thus emerges directly from our rules.

38 Despite the aprioristic view that the PIE gen. pl. ‘should’ have ended in *\*-ōm* in consonant stems and *\*-ōōm* in *o-*-stems, the comparative IE evidence (Ved. *-aam*, GAv. *-aam*, Gk. *-ōm*, Gmc. *\*-ōN*) points clearly to a disyllabic ending in *all* stem classes. In Slavic, the



pre-SPL	post-SPL	post-Proto-VDL	
<i>*ghostéjoHom</i>	<i>*gòstejoHom</i>	<i>*gostejoHòm</i>	(PSl. <i>*gostb̃jē̃</i> , [Lith. <i>-iū̃</i> ])
<i>*suHnéjoHom</i>	<i>*sùHnejoHom</i>	<i>*suHnejoHòm</i>	(PSl. <i>*synovē̃</i> , [Lith. <i>-ū̃</i> ])
<i>*golHūáh₂oHom</i>	<i>*gòlHūah₂oHom</i>	<i>*golHūah₂oHòm</i>	(PSl. <i>*golṽē̃</i> , Lith. <i>galvū̃</i> )
<i>*dhugh₂tróHom</i>	<i>*dùkteroHom</i>	<i>*dukteroHòm(?)</i> <sup>39</sup>	(PSl. <i>*đb̃t'ērē̃</i> , Lith. <i>dukterū̃</i> )

The accentual history of the gen. pl. was thus precisely comparable to that of tetrasyllabic verbal forms like 3 sg. *\*do-uedeti* / *\*do-vedet̃* (< *\*dò-uedeti* < *\*do-uedheti*), where the final accent was displaced from left-marginal position by Proto-VDL. Let us now consider whether this explanation can be extended to the other heavy cases.

Unlike the *\*-oHom* of the gen. pl., the endings of the loc. pl. (*\*-su*), dat. pl. (*\*-mos*, *vel sim.*), instr. pl. (*\*-mīs*, *vel sim.*), etc. were monosyllabic; the corresponding inflected forms of a disyllabic *i-*, *u-*, or *ā-*stem (e.g., post-SPL loc. pl. *\*gòstisu*, *\*sùHnusu*, *\*gòlHūah₂su*<sup>40</sup>) would therefore have been too short to trigger Proto-VDL. Not all stems, however, were disyllabic. Even in a consonant stem like *\*dukter-*, an *-i-* is inserted before the consonant-initial heavy endings in both Baltic and Slavic (cf. Lith. *dukter-i-mīs*, PSl. *\*đb̃t'ēr-ē-mi*, etc.). If this vowel was already present at the time of Proto-VDL, then all the heavy case forms of such stems, not just the gen. pl., would regularly have developed final accentuation (*\*dùkterisu* > *\*dukterisù*, *\*dùkterimīs* > *\*dukterimīs*, etc.).<sup>41</sup> But there was another, more important source of ‘long’ forms in the heavy cases, namely, the bulk of nouns and adjectives in which an underlying disyllabic stem was extended by a mobile derivational suffix. Consider, e.g., the case of the derived stem *\*h₂arh₃tlīō-* ‘belonging to the plow’ (> Lith. *arklỹs* ‘horse’; cf. *árklas* ‘plow’). With the establishment and analogical extension of mobility in the pre-Proto-VDL period, such a stem would have yielded a normal mobile paradigm with alternating final and left-marginal accent

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resulting non-acute *\*-ōn* was raised to *\*-ūn* (cf. *\*-ō* > *\*-ū* (> *-y*) in nom. sg. *kamy* ‘stone’). From this emerged a Proto-Slavic nasalized yer (*\*-ē̃*), which, like nasalized vowels generally, was presumably slightly longer than the corresponding oral vowel *\*-ē*. The added milliseconds of length would explain the special prosodic effects of the gen. pl. ending in the individual Slavic dialects (neocircumflex in Slovenian, etc.).

39 Regular only if full-grade *\*-ter-* had already been substituted for *\*-tr-* in the weak cases.

40 The application of SPL would have been analogical in the *ā-*stems; cf. note 29 and note 42 below.

41 It is impossible to date the insertion of the *\*-i-*. Latin, where the consonant stems took on *i-*stem endings very early (cf. dat.-abl. pl. *patribus*, nom. pl. *patrēs* < *\*-ejes*), shows that the spread of *\*-i-* as a union vowel in Balto-Slavic, at least in *r-*stems, need not have postdated the relatively late (post-mobility) merger of *\*-ŋ* and *\*-im* in the acc. sg.

(nom. *\*h<sub>2</sub>arh<sub>3</sub>tliiòs*, acc. *\*h<sub>2</sub>àrh<sub>3</sub>tliiom*, etc.). Included among the forms with left-marginal accent would have been the ‘overgenerated’ gen. pl. *\*h<sub>2</sub>àrh<sub>3</sub>tliioHom*, loc. pl. *\*h<sub>2</sub>àrh<sub>3</sub>tliioisu*, and dat. pl. *\*h<sub>2</sub>àrh<sub>3</sub>tliiomos*, all tetrasyllabic and all eventually subject to Proto-VDL (> *\*-iioHòm*, *\*-iioisù*, *\*-iio mòs*). The oxytone *-iio*-stem forms produced in this way would have been a natural analogical source for *\*-oHòm*, *\*-oisù*, *\*-omòs* in the simple *o*-stems. Such scenarios would also have unfolded elsewhere, including in the *-iia-* and *a-*stems. ‘Heavy shift’ would have had a natural locus in cases like these.<sup>42</sup>

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42 Note that starting from *\*-iios*, with medial accent, would have led to the same result by a slightly different path. It is not surprising that a rule as far-reaching as Proto-VDL would have been followed by a series of major analogical readjustments; as we have seen in §4, a period of consolidation must have followed SPL as well. The complex interplay of sound change and analogy in the history of BS accentuation can be seen in microcosm in the treatment of the endings of the instr. sg., which have thus far not been discussed. The ‘initial settings’ here would have been:

<i>i</i> -stems	<i>u</i> -stems	cons. stems	<i>a</i> -stems	<i>o</i> -stems
<i>*-imi</i>	<i>*-umi</i>	<i>*-Rmi</i>	a) <i>*-aih<sub>2</sub>oh<sub>1</sub></i>	b) <i>*-ah<sub>2</sub>mi</i> <i>*-oh<sub>1</sub></i>

The *i*-, *u*- and consonant-stem forms were replacements of PIE *\*-ih<sub>1</sub>*, *\*-uh<sub>1</sub>*, and *\*-Réh<sub>1</sub>*, respectively; the corresponding *o*-stem ending was *\*-oh<sub>1</sub>*, preserved in Balto-Slavic but eventually replaced by *\*-omi* in Slavic. The *a*-stems show reflexes of two PIE preforms: a) *\*-aih<sub>2</sub>oh<sub>1</sub>* (< *\*\*-áh<sub>2</sub>ih<sub>2</sub>oh<sub>1</sub>*; cf. Ved. *-ayā*), and b) *\*-áh<sub>2</sub>h<sub>1</sub>*, remade to *\*-ah<sub>2</sub>mi* in Balto-Slavic. From *\*-ah<sub>2</sub>mi*, *\*mi* was extended to the longer *a*-stem ending, giving trisyllabic *\*-aih<sub>2</sub>oh<sub>1</sub>mi*. Following SPL, which took *\*-imi*, *\*-umi*, *\*-Rmi* to *\*-imi*, *\*-umi*, *\*-Rmi*, the pattern *x . . x* was generalized, so that *all* instr. sg. forms emerged with left-marginal accent:

<i>*-imi</i>	<i>*-umi</i>	<i>*-Rmi</i>	a) <i>*-aih<sub>2</sub>oh<sub>1</sub>mi</i>	b) <i>*-ah<sub>2</sub>mi</i>	<i>*-oh<sub>1</sub></i>
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The inconveniently long ending *\*-aih<sub>2</sub>oh<sub>1</sub>mi* was now apocopated to *\*-aih<sub>2</sub>oh<sub>1</sub>m*, analogically inducing the same effect in *\*-ah<sub>2</sub>mi* (> *\*-ah<sub>2</sub>m*). On the eve of Proto-VDL the endings would thus have been

<i>*-imi</i>	<i>*-umi</i>	<i>*-Rmi</i> ( <i>*-eRimi?</i> )	a) <i>*-aih<sub>2</sub>oh<sub>1</sub>m</i>	b) <i>*-ah<sub>2</sub>m</i>	<i>*-oh<sub>1</sub></i>
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With the exception of consonant-stem forms of the type *\*dükterimi* (if these already existed), no ‘primary’ instr. sg. forms (*\*göstimi*, *\*sùHnumi*, etc.) would have been directly subject to Proto-VDL. But the disyllabic endings would have induced Proto-VDL in trisyllabic stems, and the analogical extension of this effect (=‘heavy shift’) would have led to the situation that underlies the actual forms:

<i>*-imi</i>	<i>*-umi</i>	<i>*-eRimi</i>	a) <i>*-aih<sub>2</sub>oh<sub>1</sub>m</i>	b) <i>*-ah<sub>2</sub>m</i>	<i>*-oh<sub>1</sub></i>
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For the *a*- and *o*-stem forms, cf. Sl. *\*galvojò* (+ *\*drugomb*; final accent) and Lith. *gálva*, *lángu* (‘window’; left-marginal accent).

## §6. Summary and conclusion

The main claim of this paper, elaborating on Jasanoff (2008), is that mobility in Balto-Slavic is a unitary phenomenon, the product of two simple Neogrammarian sound changes that applied equally to nouns and verbs.

The first of the two rules, Saussure-Pedersen's Law (SPL), states a commonly assumed retraction (Lith. *dùkterį* < *\*duktérin*) in a new way. Details aside, the main novelty of the formulation adopted here is that the phonologically regular output of the rule, when word-initial, is stipulated to have been a distinctive type of accent - the left-marginal accent (*x*) - which by its very presence marked certain forms and paradigms as 'mobile.' Mobility at this early stage was different in detail from what it was to become later. But the phonetic distinctness of the left-marginal accent, which is independently confirmed by its reflexes in the later languages, made it possible for speakers to implement sound laws that applied only to mobile, or only to immobile forms.

It must be stressed that there is no conflict between the *historical* claim that SPL gave rise to a contrastive left-marginal accent and the widely accepted *synchronic* claim that the left-accented forms in mobile paradigms were actually accentless enclinenomena. The latter view, according to which forms like PSl. acc. sg. *\*gólvo* or 1 sg. *\*vèdø* were inherently unaccented and received their initial stress by a default stress assignment process, is very attractive for Slavic, where it receives support from the behavior of the left-marginal accent under Vasil'ev-Dolobko's Law (*\*nà golvø*, *\*na golvø žè*; *\*dð-vedø*, *\*do-vedø žè*). Whether the 'enclinenomenon' analysis can be extended to Proto-(East) Baltic or Proto-Balto-Slavic is less clear; no position has been taken on this question here. But at least for Slavic, and conceivably earlier, it seems likely that the phonetically and phonologically contrastive left-marginal accent of the immediate post-SPL period was rephonologized as a phonetically contrastive *zero* accent. Such phonological events are well documented elsewhere. In Romance, e.g., the position of the Vulgar Latin stress was not fully predictable and had to be lexically marked (cf. *ficatu* 'liver' vs. *plicátu* 'folded'). Modern French retains the stress in its Vulgar Latin position (*foie* vs. *plié*); yet in French, owing to changes in the segmental phonology, the position of the stress is predictable and assigned by a redundancy rule. The phonetic accent remains unaltered, while the phonological accent has been lost.<sup>43</sup>

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43 On the other hand, the picture presented here is *not* compatible with a historical theory that replaces a one-syllable retraction rule like SPL with a general 'loss of accentability' in all words with codas of a given prosodic structure. The latter is Olander's approach (155 ff.

Our second sound change, Proto-Vasil'ev-Dolobko's Law (Proto-VDL), takes its name from the morphophonological rule of Slavic to which it may have been ancestral. Its effect was to move an initial accent three or more syllables rightward - not *any* initial accent, which would clearly be false, but specifically the left-marginal accent of mobile forms. Unlike SPL, which can be regarded as a methodologically refined restatement of Pedersen's Law, Proto-VDL is not a reworking of any older formula, but a genuinely new rule. In the context of a general theory of mobility, its function is to relate the right-accented 'long' forms of mobile paradigms (3 sg. \**do-vedeti*, gen. pl. \**sūneŭōn*, etc.) to the earlier forms with left-marginal accent from which they obviously derive.

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and *passim*), which I hope to discuss in detail elsewhere. Whatever the merits or demerits of Olander's theory on typological grounds, I do not believe it accounts for the data.

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## Accentuation and Quantity

In no other area of linguistics is the demarcation line between typology and history (resp. synchrony and diachrony), on the one hand, and function and form, on the other hand, more uncertain than it is in accentology. Among other things, this is connected with the evolution of Indo-European accentuation, which consisted, largely, in the rearrangement of the correlates of linguistic prominence within different contexts (domains). Since the components of accent/stress (tonic and dynamic) are present in chronologically different systems, it is not always clear if accentual similarity is genetic or typological in nature and if the phenomena in question can be used in comparing languages, which developed (or started to develop at some point) in opposite directions. As a result, superficial similarity tends to be taken for functional affinity, and can be used to compare phenomena which may be different in nature, such as accentual variations of the *zóloto/serebró* ~ *zláto/sérebro* ‘gold/silver’ type in Russian and ‘fifteen rooms ~ Room *fif*teen in English, on the one hand, and *Akzentumsprung* and Verner’s law in the Germanic languages, on the other (see Liberman 1995; 2007).

Accentual variation presupposes the capacity of ‘lifts’ to vacillate between different loci within a certain stretch of speech chain, normally longer than a word. At the same time, it reveals the loci capable (or incapable) of carrying lifts (or functioning as ‘dips’) and, for this reason, to participate in accentual contrast: e.g. *serebró* ~ *sérebro*, but not \**serébro*. That is why, the loci themselves must have certain properties that determine their role in accentual contrast, even if no contrast takes place within the word (as in Germanic, according to Liberman), and the only kind of stress is the sentence stress. (It is only natural to suppose that the locus properties are language specific.)

Practically all of the accentual variation examples in Russian can be accounted for by Anatoly Liberman’s theory of stress as a mark of a positional ‘privilege’ (Liberman 1973; 1982: 25-27). In terms of functional load, the privileged position in Russian can be occupied either by roots, because they are opposed to all other roots in the lexicon, or by post-radical affixes that participate in grammatical oppositions. (Hence, *pozvoníš*’ vs. *pozvóniš*’ ‘you will call’.) Russian words normally have only one stressed syllable contrasting with several unstressed syllables, radical or affixal. In English words, one unstressed syllable (with a schwa) may contrast with one or two morphologically determined stressed positions (primary and secondary stress), plus the position of tertiary stress characterized by an unreduced vowel (see

Kingdon 1958, Cygan 1971). Word-stress here also relies on morphological structure, but it is complicated by the rules of syllabification. These, in turn, affect the structure of morphemes and, most importantly, the boundaries between and within them. Like the other Germanic languages, English has both closed and open syllables, depending on the type of syllable cut (for details, see Kleiner 1997), and well-defined word boundaries, which do not admit resyllabation, except in some rare cases (linking *r*, *a name - an aim*). In Russian, syllables are open, at least potentially; therefore resyllabation is practically obligatory, both within the word and at word boundaries. In this respect, the principles of organization of speech chain, both segmental and suprasegmental, are totally different in English and in Russian, although the latter may be comparable to ancient Indo-European languages, possibly including the Germanic of the time of Verner's law.

At first glance, the variation of the place of stress, as in Old Icelandic (skaldic poetry) *'konung ~ ko'nungum* 'king (nom. sg. and dat.pl.)', is not unlike *serebró ~ sérebro*. The situation is more complicated, however, since a similar *Akzentsumsprung* occurs within a syllable, as suggested by such forms as Modern English *choose* and *four*, presumably < Old English (dialectal) *cēosan* /keósan/ and *fēower* /feówer/, vis-à-vis /kéosan/ and /féower/ in other OE dialects. This is obviously different from *serebró ~ sérebro*, but similar to the variation of diphthongoidal reflexes of \*/o/, viz. /u̯o/ and /u̯o:/ (falling and rising respectively), which survive in one patois of Vologda region. The variation reflects traces of musical stress, the domain of which is a syllable rather than a word (Paufošima 1985). It should be noted that in the dialect in question the 'distribution of intensity in the diphthong (either on its first or second element - Yu.K.) is retained in different sections of the phrase, irrespective of *sentence prosody*' (Paufošima 1985: 97; italics mine - Yu.K.).

A similar reflex of long /o/, with similar accentual properties, is to be found in the Čakavian dialect of Serbo-Croatian. The vowel carries a falling tone and alternates with a short monophthong: *b<sup>h</sup>ôs* 'barefoot (masc. sg.)' ~ *bòsa* (fem. sg.) ~ *bòsi* (masc. pl.), etc.; cf. long, rising- ~ short-vowel alternation in *dūh ~ dūga* 'long, far (masc. sg. vs. the other forms)' (Kalsbeek 1998: 130, 138, 431).

Many years ago, analyzing accentual variation in such forms as *kràva, kràvu* (short) vs. *krâv* (long falling) 'cow (nom. and acc. sg., gen. pl.)' or *brādà, brâdu, brâde* (long falling) vs. *brád* (long rising) 'beard (nom., acc. sg., nom. pl., gen. pl.)', Paul Garde defined the Čakavian situation as 'mora-counting' (Garde 1968: 148-150).

The notion of mora is very controversial. It is usually defined as 'a half of a syllable', which sometimes leads to understanding the mora as a 'unit' within its boundaries, like the segmental constituents of a syllable or the syllable itself.

According to I.M. Tronskij, for example, in Latin ‘the boundary between the morae (of a syllable - Yu.K.) ... is either within the vowel, between its morae, if it is long, or between the elements of a diphthong, or else, if the vowel is short, between the vowel and the consonantal element closing it’ (Tronskij 1960: 61). In this approach, no instrument of divisibility is necessary, if we know that the language is mora-counting, for example, from stress rules, as in Latin, or pitch movement, as in Greek, cf. ‘Greek accentual system, opposing two kinds of stress, acute and grave, on different parts of a sound, is the best indication that long vowels are bimoric’ (Tronskij 1962: 4).

According to Liberman, divisibility of a syllable nucleus is a basic condition of mora-counting, an instrument of divisibility in the Germanic languages being *stød*, as in Danish. Therefore Danish is regarded as a mora-counting language; and vice versa, the Old Germanic languages that were mora-counting must have had *stød* dividing long nuclei into two parts (Liberman 1982: 56-58, 308). S.D. Kacnelson also reconstructed *stød* for Proto-Germanic, but only as a syllable-accent; he believed that ‘divisibility of a syllable ... is not enough to regard a language as mora-counting’, because ‘mora-counting presupposes that each of the morae can function as a peak of syllable stress’ (Kacnelson 1966: 121).

The idea of the two aspects of mora-counting, viz. the divisibility of the syllable and accentual contrast of its parts, goes back to Trubetzkoy. According to him, the peak can be either on a monomoraic syllable or on the first or second mora of a bimoric syllable (Trubetzkoy 1939: 186). Divisibility is more important in this hierarchy, since pitch changes can be in short syllables, as in some of the Štokavian dialects, which are not mora-counting. On the contrary, in mora-counting languages, a long (bimoric) nucleus can be marked by one type of stress only, as in Danish, etc. (Trubetzkoy 1939: 187, 191). In connection with Danish, Trubetzkoy remarks that the *stød* correlation can take place only in languages with the *prosodic* gemination correlation (typical of mora-counting), where, in turn, *stød* is related to quantity distinctions (Trubetzkoy 1939: 195). Therefore quantity of a certain type is the basis of both ‘mora-counting’ and its suprasegmental ‘accompaniment’ (accentuation).

Divisibility is not an unambiguous notion, both from the point of view of quantity domain and the units discerned within it (allegedly, ‘morae’). Trubetzkoy’s ‘zweimorige *Silbe*’ suggests that the former is a syllable. At the same time, he speaks about the ‘Merkmale, ... welche die Wertung der langen Silbenträger als zweimorig und folglich die Wertung des Gegensatzes zwischen langen und kurzen Silbenträgern als prosodische Geminierungskorrelation beweisen’ (Trubetzkoy 1939: 181); cf. also ‘phonologisch sind ... die ‘langen’ *Vokale* zweimorig’ vs. ‘zweimorige *Silbe*’ (Trubetzkoy 1939: 177, 186; italics mine - Yu.K.).



Such non-discrimination between bi-moric syllables and syllable-nuclei (i.e. vowels) has become typical of prosodic analyses of languages not necessarily referred to as ‘mora-counting’, but which have some ‘distinctive no paragraph indentation length’<sup>1</sup> and accentuation that, in its form, is reminiscent of pitch movement within a syllable, e.g. Standard Serbo-Croatian. In the latter, Carlton T. Hodge (1958: 43) analyzes long vowels as ‘double, or geminate’, while G.L. Trager (1940: 31) remarks specially that ‘long vowels cannot be analyzed as double vowels’. Likewise, Tronskij’s ‘morae’ include parts of syllable nuclei (long vowels, diphthongs) on the one hand, and consonants which belong to a syllable, on the other; cf. also ‘stress... on different parts of a *sound*’ (see above). If, however, ‘quantity’ is to be discerned from ‘length’, it should be expected that its domain belongs to a sphere other than phonemics. In this connection, Kacnelson makes an important observation that ‘a necessary pre-requisite of mora-counting is the possibility of accentual variation on the morae of a long syllable or a complex of two short syllables equal to a long one’ (Kacnelson 1966: 52).

As a ‘constructive unit’, the syllable was used in Greek and Latin metrics: two short (open) syllables (/C)VCV/ count as one syllable, long by nature (/C)V:-/) or position (/C)VC-C/), so spondee (-- --) can replace dactyl (- ◡ ◡), and tribrach (◡ ◡ ◡) replaces trochee (- ◡) or iamb (◡ -). The same device (‘resolution’) was used in Old Germanic poetries. But poetry is not the only source to determine the equality of different kinds of syllables. In the Old Germanic languages, the three prosodic structures were responsible for segmentation into units of rhythm, cf. Gothic *dō-meis* ‘judges’ (/CV:-/), *wan-deis* ‘turns’ (/CVC-C/), both equal to *miki-leis* ‘praises’ (/CVCV/).<sup>2</sup> The same kind of linguistic resolution is Latin *bōvīs*, the genitive of *bōs* ‘bull’ and Čakavian *krâv* ~ *krâva* (see above).

A similar formula of rhythmic segmentation in Greek, Latin and Gothic suggests that the wealth of accents, as in Čakavian may, in principle, have characterized certain stages of these languages as well. About Greek musical stress we know by pure chance, from notated texts. This situation is unique, because accentual notations in other written traditions, for example, Old High German Otfrid or Tatian require interpretation, which is seldom unambiguous. The nature of Latin stress at different periods has been subject to controversy; most probably the question will remain open. It is not impossible, however, that

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1 I will abstain from discussing those theories, which define *mora* as ‘Something of which a long syllable consists of two and a short syllable consists of one’ (McCawley 1968: 57).

2 A hyphen denotes a boundary of rhythmic segmentation, which determined the *-ij-* ~ *-ji-* alternation, known as Sievers’s law (for details see, Kleiner 1999).

Gothic *miki-* (in *miki-leis*), for instance, had some sort of *Akzentumsprung*, *miki-* ~ *miki-*, as in OE /kéosan/ ~ /keósan/ or in modern Scandinavian dialects with so-called ‘level stress’, as in *flugu* ‘fly’, either /’flugu/, or /flu-’gu/,<sup>3</sup> or else in *’konung* ~ *ko’nungum*, where the rhythmic segmentation requires a boundary after the heavy second syllable.

This bears directly on the problem of the nature of *mora* and its relation to *syllable* and its constituents. As Liberman has suggested discussing OGmc *Akzentumsprung*, ‘each mora of an Old Germanic bimoric vowel could be used as the locus of sentence stress, according to the requirements of syntax and rhythm. ... [A] word like *stān* ‘stone’ had two variants: *stāan* and *staán*’ (Liberman 1995: 207). Here, ‘bimoric’ are vowels, which in this case are also biphonemic. By definition, a sequence of two vowels is disyllabic. If, however, one of the two syllables in the sequence becomes stressed ‘according to the requirements of rhythm’, the variation does not differ principally from that of *Makbét* ‘Macbeth’ and *Ledi Mákbet Mcenskogo ujezda* ‘Lady Macbeth of Mtsensk District’<sup>4</sup> in Russian. Russian has no quantity distinctions, but can one speak about distinctive ‘quantity’ in a language where long segments are invariably a combination of phonemes?

Analytic treatment of a segment requires a boundary within it, either a morpheme boundary, cf. Latvian *nēsmu* = *ne#ēsmu* ‘(I) am not’, or a syllable boundary, Latvian *tēvs* [tēus] ~ *tē-vi* ‘father’ (nom. sg., pl.); this is similar to Gothic *maujos* (gen.) ~ *mawi* (nom.) ‘a girl’ and *tau-jan* ‘to do’ ~ *ta-wida* (pret.); cf. also *us-keinan* (with <ei> for /i:/) and *us-ki-ja(nata)* ‘to grow’ (inf. and p.p.). A boundary can separate a syllable with a long nucleus (long by nature) into two short syllables, as in Gothic (*us-*)*ki-ja(nata)* or Lithuanian *lýti - li-ja* ‘pour - poured’. Simultaneously, it divides the nucleus into two distinct segments, vocalic and consonantal.

The bearers of suprasegmentals belong with the syllable, as its vocalic and consonantal constituents, cf. Lithuanian *káltas* ‘chisel’ ~ *kaĩtas* ‘guilty’, or Latvian *kuĩs* ‘will thrash’ and *kũs* ‘thrashing barn’.

The analysis of diphthongs (resp. digraphs at older stages) relies on the same principle, viz. the presence and absence of boundaries in biphonemic combinations and monophonemic diphthongs, respectively, cf. Jadranka Gvozdanovič’s discussion of the reflex of the originally long Ijekavian \*ě in /li-ēm/ [ljiēm] *lijem* ‘pour (1 pres. sg.)’ with a morpheme boundary, and /riék-a/ [rjiéka, rjiéka, riéka] *rijeka* ‘river’, within a morpheme (Gvozdanovič 1980: 115-116).

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3 Besides, both syllables can be unstressed.

4 The title of a story by Nikolay Leskov.

This procedure could probably be used in the analysis of Čakavian [ʰo] < \*/ō/ discussed by Janneke Kalsbeek (see above). She compares it with the reflex of long \*/ê/ = [i̯e] which also carries a falling tone. The latter ‘is not distinct from the realization of an etymological sequence of short *i* and *e*’ so that ‘[i̯ie] in *va oštar̩je* ‘in the pub’ sounds exactly like [i̯ie] in *dv̩ê* ‘two’ fem.’ (Kalsbeek 1998: 34). For this reason, [i̯e] is interpreted as a biphonemic combination (rather than a diphthongal *phoneme*). Although no etymological sequences of short [u] and [o] occur in Kalsbeek’s material, she analyzes [ʰo] < \*/ō/ in a similar fashion, by analogy with *e* = /i + e/, i.e. as /u + o/ (ibid.).

A similar situation takes place in the Germanic languages: the reflexes of Gmc \*/ō/ are monophthongal /ō/ in Gothic, Old Icelandic and Old English, and /uo/ Old High German, cf. OE *blōwan*, OHG *bluohan* ‘to blossom’. In OHG, *ō* varies with *uo*, *armuotī* ~ *armōī* ‘poverty’; so does *ū*, *cuoniowidi* (Gothic *kūnawida*) ‘fetters’. It is an indication of the biphonemic nature of *uo*, but not *ō*, since the OHG vowel system includes at least one ‘pure’ long vowel (*ā*). In this context, the ‘long monophthong ~ diphthong’ variation looks similar to /V:/ ~ /VCV/ in the case of resolution (cf. OE (dialectal) *brōþor* ~ *bērōþor* ‘brother’). The same applies to diphthongs, as in *cēosan* and *fēower*. (This suggests that the function of the consonant dividing short syllables in /VCV/ is mostly prosodic.) Long vowel *phonemes* are indispensable for ‘mora-counting’ prosody because they function as nuclei in those syllables (‘long by nature’) which are prosodically equal to resolved sequences.

No boundary dissects OE /a:/ into two separate ‘elements’ (its analytic treatment is based on the alleged *Akzentumsprung*, which, in turn, follows from its analytic treatment). Likewise, nothing suggests that a syllable, long by nature, or its nucleus, in Latvian *mā-te* ‘mother’ should be regarded as /VV/. That quantity is syllabic, in Latvian follows from the process referred to as ‘quantity preservation’ by Anna Daugavet (2009). It consists either in dropping a potentially syllabic segment that would make the syllable overlong (*tēvs*) [t̩ɛ̯vs] > *tēs*, *vējš* > *vēš* ‘wind’, *saimnieks* > *saimieks* ‘master’, *lielc* > *liec* ‘big’, *viens* > *vens* ‘one’, *dēls* > *dēls* ‘son’), or in vowel lengthening in a diphthong as a result of the loss of syllabicity by the resonant (*bērns* < *berns* ‘child’), or else in the insertion of a syllabic element in /V:CC/ with a simultaneous shortening of the first vowel, which creates a /VCV/ sequence: *vārna* and *var<sup>a</sup>na* ‘crow’. The latter is a typical example of resolution, different from vowel epenthesis, as in Russian, *fil’im* (*fil’m*) ‘film’, *pil’imēni* (*pil’menī*) ‘meat dumplings’, which is not connected with syllable quantity.

Paul Garde represents bimoric sequences, *krāv* and *brád*, as *kr’aav* and *bra’ad* (Garde 1968: 151-152). This is similar to Liberman’s representation of Old English *stān*: *stáan/staán* (see above). But in Garde’s notion, mora is ‘une

fragment de *syllabe*' (Garde 1968: 15; italics mine - Yu.K.), rather than a vowel. Hence, accentual contrast in 'mora-counting languages' is created by 'une mouvement de l'accent ... d'un fragment de syllabe à un autre' (Garde 1968: 14). Since this contrast is possible not only within long syllables, but also in their disyllabic equivalents, a 'fragment' can, itself, be a (short) syllable (as in OE /ke-osan/ or Go. *mi-ki-*). But in syllables long by nature the movement is between 'la 1re et la 2e partie de la syllabe' (Garde 1968: 148), which does not imply (rather, excludes) clear-cut (i.e. linguistically determined) boundaries between the two 'parts'. The accentuation of such a syllable as a whole looks like sentence intonation, which does not depend directly on segmentation of a (grammatical) sentence into words. No coincidence, 'les syllabes longues sont *intonables*', according to Garde (1968: 149). Therefore the term 'syllable intonations', used in Baltic studies, seems to be not only convenient, but also justified phonologically.

Phonological segmentation does not yield units other than syllables and their constituents. Longer stretches of speech chain contain words and morphemes, their exponents also participating in accentual contrast. The mora has no linguistically determined (right and left) boundaries, therefore it cannot be regarded as a linguistic unit, or a linguistic 'reality', like a syllable. Regarded as a fragment (*moitié*) of the latter, 'mora' can be a convenient technical term (as in Paul Garde's classical work and in his other publications on the subject). It is not by chance probably that speakers of Greek and Latin, the 'model' mora-counting languages, did not use either the notion or the term 'mora', describing both quantity and accentuation in terms of syllables.

The decline of the prosodic state known as 'mora-counting' is also connected with syllables and their ability to make up rhythmic units, either by themselves (/CV:-/, /CVC-C/) or in combination with other syllables (/VCV/). The latter was lost in the Germanic languages (with few exceptions), due to the apocope of word-final (morphological) elements, cf. *\*sagijesi/\*sagijeti* > *\*sokijisi/\*sokijipi* > Go. *sōkeis/sōkeip*. This led to the shift of syllable boundaries and the shift of stress, with its fixation, ultimately, on the root-syllable ('right to left movement' in both processes).

In Swedish and Norwegian, this has resulted in the rise of long root syllables, the peak of quantity being either on the vowel, /V:C/, or the consonant, /VC:/ ('syllable leveling'), and in the opposition of two 'accents' (Acc. I and II) in them. Acc. I and Acc. II. are associated with mono- and disyllabicity, respectively, cf. e.g. 'and 'duck' (I), and 'ande 'spirit' (II). It is not impossible that the two accents were inherited from the previous stage, which discerned syllable intonations. (Phonetically, Acc. II resembles Serbo-Croatian 'long rising accent' (Nikolaeva 1996: 33).) This may mean that the Gmc opposition of

the TÖRT : TÓRT type became Sw., Norw. 'TOR#(OT) (as in 'and-en, def. form, with Acc. I) : `TORO#T ('ande-n, def. form, with Acc. II). Unlike the second syllable of the TÓROT (< TÓRT), that of the Gmc \*TORO(#T) had no privilege<sup>5</sup> conducive to the 'left-to-right movement', as in Russian *goróx* 'pea' (vs. *górod* 'town'), the domain of both the one- and the double-peaked accent (Acc. I and Acc. II, respectively) being the first syllable.

In ESl, /VC-C/-syllables (long by position) became destroyed by pleophony which may have been responsible for quantity loss.<sup>6</sup> Traces of it, however, seem to have remained in Russian stress, which is quantitative phonetically (see Zlatoustova 1956). If one understands the stress-length relationship as 'lengthening under stress', the problem of the source becomes immaterial both synchronically and diachronically. But if the same be approached from the opposite end, viz. that 'length *is* (the correlate of) stress', the source of this phonetic trait becomes as important as that of pitch or intensity. In connection with the latter, V.A. Dybo discusses the replacement of Indo-European musical accent by (dynamic) stress 'as a result of the phonologization of the dynamic contour due to the loss of pitch distinctions' (Dybo 1981: 10). Concerning phonologization, T.M. Nikolaeva remarks, '[P]honologization of unstressed lengths is possible in those languages, where length is not the leading trait of stress. <...> It is for this reason that length is not predominant in the expression of stress in Czech and Slovak, as well as in German' (Nikolayeva 1996: 29).

In Czech, length has become a paradigmatic distinctive feature. In German, as in the other West Germanic languages, it manifests itself in the 'correlation of syllable cut'. In Russian, after the loss of both pitch and quantity distinctions, the original length of the nucleus of the /CV:/ syllable ('long by nature'<sup>7</sup>) may have become generalized, being subject to variation, depending on positional prominence, which is perceived as 'stress' or its absence.

In Russian, length plays a certain role in folk poetry, where text is inseparable from melody, as in *častuška*. Trubetzkoy's comment on this is as follows: 'Since both ancient Greek and Russian folk poetry are based on the combination of text and melody, stresses (lifts) and quantitative distinctions (length and shortness)

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5 For instance, it has no opposition of the two types of syllable, /V:C/ : /VC:/.

6 Of the Germanic languages, quantity distinctions disappeared in Yiddish, which, too, must have been the result of the loss of closed syllables (see Kleiner and Svetozarova).

7 Russian vowels are 'long' phonetically compared not only to short vowels in those languages where length and shortness depend on the type of syllable (English), but also languages with no distinctive length/quantity. Hence, 'Russian accent' both in English words like *city* [si:-ti] (the first stressed syllable made open and the vowel made long), but also in languages where vowels in open syllables have remained short as originally in /VCV/ (Albanian or Greek).

play a certain role in both. But in Greek metric, quantitative distinctions and stress are determined by text and melody respectively, while in Russian folk poetry it is vice versa, text determines stresses, while length and shortness are determined by melody' (Trubetzkoy 1987: 371-372). In this context, the 'morae' in Trubetzkoy's of folk poetry meter (together with beats (*takty*) consisting of 'di-morae') have nothing to do with those used in the description of quantitative metrics.

Paradoxically enough for a language without distinctive quantity, division of the syllable into smaller 'portions' may have a certain grammatical function, e.g. in vocatives having no morphological markers, cf. *Vas'a-a!* or *Maksi-im!*. Here the 'final component of the tonal structure is fixed on the last post-tonic syllable. <...> The stressed vowel becomes double-nuclear, with a glottal catch or an amplitude break between the components, i.e. if a post-accentual syllable is missing, it is created artificially by drawing the stressed syllable' (Janko 2008: 99). This kind of accentuation is based on divisibility of the nucleus (or even the syllable), but the *moitié* of the syllable (or the nucleus) that appears in this case has no functional value whatsoever.

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## West Slavic Accentuation

At the time of the earliest reconstructible dialectal divergences, which belong to the Late Middle Slavic period of my chronology (stages 7.0-8.0 of Kortlandt 1989a, 2003, 2008), the West Slavic languages represented the most conservative part of the Slavic dialects (cf. Kortlandt 1982b: 191 and 2003: 231). They did not share the early simplification of \*ś, which had arisen from the second palatalization of \*x, to *s* in South and East Slavic (7.3), e.g. OCS *sěrbъ* ‘gray’, *vьsbъ* ‘all’, *vьsa*, *vьsěxbъ* versus Polish *szary*, *wsz-*, Czech *šerý*, *vš-*. The Pannonian dialect of the Kiev Leaflets belonged to the South Slavic area at this stage. The West Slavic languages also did not share the palatalization of the clusters \*kw, \*gw, \*xw to *cv*, *(d)zv*, *sv* in South and East Slavic (7.4), e.g. OCS *cvětbъ* ‘flower’, *(d)zvězda* ‘star’, nom.pl. *vьbsvi* ‘magicians’ versus Polish *kwiat*, *gwiazda*, Czech *květ*, *hvězda* (cf. Vaillant 1950: 56). Moreover, the West Slavic languages did not share the loss of \*t and \*d before *l* in South and East Slavic (7.5), e.g. SCr. *jěla* ‘fir’, *mòliti se* ‘to pray’ versus Polish *jodła*, *modlić się*, Czech *jedle*, *modlit se*. This development affected central Slovak (cf. Krajčovič 1975: 30) and the dialect of the Kiev Leaflets, but did not reach the northern dialects of Slovene (cf. Greenberg 2000: 37) including the dialect of the Freising Fragments, nor some northern Russian dialects (cf. Vaillant 1950: 89).

The spirantization of the ungeminated voiced affricate *dz*, which had arisen from the second palatalization of \*g, to *z* in the larger part of the Slavic territory (7.7) did not reach the Lekhitic languages (Polish, Pomoranian, Polabian), nor some of the Bulgarian dialects, e.g. OCS loc.sg. *no(d)zě* ‘foot’, Polish *nodze*, Czech *noze* (cf. Vaillant 1950: 50). This is the oldest isogloss that cuts the West Slavic area into two parts. The spirantization of the voiced velar stop *g* to *ɣ*, later *h* in a part of the languages, affected Czech and Slovak, Upper Sorbian, the western dialects of South Slavic (cf. Greenberg 2000: 140), and southern East Slavic, e.g. OCS *gora* ‘mountain’, Czech *hora*. This is the earliest development which has its center in the West Slavic area. It may have spread slowly from west to east. The retraction of initial *je-* to *o-* and of *ju-* to *u-* (7.10) was limited to East Slavic, e.g. Russian *ózero* ‘lake’, *útro* ‘morning’, Polish *jezioro*, *jutro* (cf. Kortlandt 2006). The dissimilation of the phoneme /j/ in the word \*tjūdĵ- ‘foreign’ (7.11) was limited to Serbo-Croatian *tûđ* and Slovene *tûj* and to the Pannonian dialect of the Kiev Leaflets and did not affect West Slavic, e.g. Polish *cudzy*, Czech *cizí*.

The metathesis of liquids (7.12) preceded the rise of the new timbre distinctions (7.13) in South Slavic and Czecho-Slovak. It was accompanied by

lengthening in South Slavic, including central Slovak (cf. Krajčovič 1975: 30) and the dialect of the Kiev Leaflets. The lengthening also affected the rest of Czecho-Slovak except word-initially, where the metathesis was early and affected all Slavic languages. The apparent Common Slavic lengthening under the acute tone in word-initial position is a consequence of the fact that the glottal stop was still a segmental phoneme at the time of the metathesis, e.g. Russian *rálo* ‘plough’, Czech *rádlo* < \**ar?dla*, but Ukr. *rilljá* ‘field’, Cz. *role* < \**arlbja?*, with Early Slavic loss of the pretonic laryngeal evidently preceding the initial metathesis. Since the territory where *-tl-*, *-dl-* were preserved is larger than the area where we find West Slavic *ro-*, *lo-* for South Slavic *ra-*, *la-*, leaving a transitional belt from western Carinthia through central Savinja and western Slovakia to Orava and back to the south, I am inclined to date the initial metathesis with lengthening in South Slavic before the loss of *t* and *d* before *l* (7.5). On the other hand, the preservation of the initial cluster after the metathesis in SCr. *dlijěto* ‘chisel’ suggests the converse chronology for the metathesis in non-initial position. Thus, I tentatively reconstruct the following chain of events: (1) lengthening before tautosyllabic resonants in South Slavic, (2) word-initial metathesis, (3) lengthening before tautosyllabic resonants in Czecho-Slovak, (4) loss of *t* and *d* before *l* in South and East Slavic, (5) non-initial metathesis in South Slavic and Czecho-Slovak, (6) rise of the new timbre distinctions, (7) lengthening under the stress before tautosyllabic resonants in Polish and Sorbian, (8) non-initial metathesis in Polish and Sorbian, (9) Dybo’s law (8.7), e.g. Polish *bruzda*, Upper Sorbian *brózda*, Cz. Slk. SCr. *brázda* ‘furrow’. All of these developments preceded the loss of the acute tone (9.2) and the more recent lengthening of short rising vowels in Czech *kráva* and Upper Sorbian *kruwa* ‘cow’ (10.6), cf. Slovak *krava*, Polish *krowa*. The early simplification of palatals (7.3, 7.4) can perhaps be identified chronologically with the stages (1) and (2) reconstructed here and the development of syllabic liquids with stage (5).

The rise of the new timbre distinctions (7.13) is the crucial pivot in the development of the Slavic vowel system. As a result of the early loss of glottalization in pretonic and post-posttonic syllables with compensatory lengthening of an adjacent vowel, e.g. in inst.sg. \**sūnumi* < \**su?numi* (5.3), glottalized vowels were limited to stressed and immediately posttonic syllables, where they had the timbre of the corresponding long vowels. When glottalization was lost without compensatory lengthening in posttonic syllables at a later stage (7.13), the timbre distinctions between the short vowels and the acute ‘long’ vowels became phonemically relevant, e.g. \**wýdra* ‘otter’, \**s’bto* ‘hundred’. This development was clearly more recent than the metathesis of liquids in South Slavic and Czecho-Slovak (7.12) but earlier than the non-initial

metathesis in Polish and Sorbian, e.g. Czech *kráva*, Slovak *krava*, Polish *krowa*, Upper Sorbian *kruwa* ‘cow’, with secondary lengthening in Czech and Upper Sorbian (10.6).

As a result of the rise of the new timbre distinctions, the quantitative oppositions in pretonic syllables were rephonemicized as timbre differences, e.g. \**glawá* ‘head’, \**igá* ‘yokes’. All pretonic vowels of this stage are reflected as short vowels in the historical languages, e.g. Czech *ruka* ‘hand’ < \**rǫká*, *jazyk* ‘tongue’ < \**jězykь*, *chladný* ‘cold’, *těžký* ‘heavy’, *suchý* ‘dry’, SCr. *jèzik*, *hlàdnī*, *těškī*, *sùhī*, also *dùžnik* ‘debtor’, *gràdskī* ‘urban’, *rùčnī* ‘hand-’, *rùčnik* ‘towel’. The length in SCr. *rúka* was introduced from the barytone forms such as acc.sg. *rúku*, while the original short vowel was preserved in the oblique plural form *rúkama*. Long vowels in posttonic syllables were not shortened, e.g. \**òsnowā*, inst.pl. \**žènamī*, where the long final vowel is reflected by the neo-circumflex tone of Slovene *osnōva*, *ženāmi* (10.9). The alternation between short pretonic and long posttonic vowels in paradigms with mobile stress was removed by the generalization of the long vowel in Serbo-Croatian and the short vowel in West Slavic, e.g. SCr. *gòlūb* ‘pigeon’, *žèlūd* ‘acorn’, *làbūd* ‘swan’, *òblāst* ‘region’, Czech *holub*, *žalud*, *labuť*, *oblast*. The absence of neo-circumflex in Slovene *pámet* ‘intellect’, where accentual mobility was lost and the acute prefix was generalized (cf. Kortlandt 2005: 128), shows that this language sided with its West Slavic neighbors here. The long vowel was retained everywhere if it did not alternate with a short vowel, e.g. SCr. *mjēsēc* ‘month’, *pènēz* ‘coin’, *jàstrēb* ‘hawk’, *pāūk* ‘spider’, Czech *měsíc*, *peníz*, *jestřáb*, *pavouk*. These words had fixed stress on the laryngealized vowel of the first syllable. All languages have a short vowel in a suffix which contained a laryngeal, e.g. SCr. *bogat* ‘rich’, *srđit* ‘angry’.

The raising of the low nasal vowels *a*, *ä* to *ɤ*, *ɛ* in South Slavic, e.g. OCS *nesy( )* ‘carrying’, *xvalę* ‘praising’, Old Russian *nesa*, *xvalja* (7.14), affected the dialect of the Kiev Leaflets and the dialect of the Freising Fragments but did not reach the northwestern dialects of Slovene. It also did not reach the West Slavic area, as is clear from Czech *nesa*, *řka*, Old Polish *rzeka* ‘saying’ (written *reca* in the Kazania Świątokrzyskie).

As a result of the prothesis, when the hiatus between a word-final and a word-initial vowel was filled with a glide which was \**j* if at least one of the vowels was front and \**w* if the preceding vowel was back and the following vowel was rounded (7.1), word-initial \**j*- lost its status as a phoneme /j/ and became a feature of the following vowel, e.g. OCS *ěsti* = *jasti* ‘to eat’, *ěxati* = *jaxati* ‘to ride’, Lith. *ėsti* versus *jóti*. At a later stage (7.15), the phoneme /j/ was lost after consonants with compensatory lengthening of the following vowel (Van Wijk’s law), e.g. \**píšē* ‘writes’ < \**-sje*, \**wòlā* ‘will’ < \**-lja?*. This development

introduced new long vowels in posttonic syllables, such as *\*-ē* and *\*-ā* beside *\*-e* in *\*d̂bne* ‘days’ and *\*-a* in *\*žēna* ‘woman’. Under the stress, acute vowels were now indifferent with respect to length, e.g. *\*gorá* ‘mountain’, *\*igá* ‘yokes’, and yielded short rising vowels at a later stage (9.2), e.g. Slovene *drvà* ‘firewood’. While the distinction between a short unstressed nasal vowel and a long nasal vowel under the stress was preserved in Slovene gen.sg. *lípe* ‘lime-tree’, *goré* ‘mountain’, and in SCr. nom.acc.pl. *glāve* ‘heads’, gen.sg. *glāvē*, Susak gen.sg. *sestrè* (b) ‘sister’ versus *vodiè* (c) ‘water’, endings which did not occur under the stress were shortened in the whole Slavic territory and length was generalized in the unstressed nom.acc.pl. ending of Slovene *lêta* ‘years’, similarly Slovak *mestá* ‘cities’, *dievčatá* ‘girls’, *srdcia* ‘hearts’, Posavian *vrimená* ‘times’, *imená* ‘names’, *ramená* ‘shoulders’, *telesá* ‘bodies’, inst.pl. (*sa*) *sinoví* ‘(with) sons’, Czech dial. *chlapý* ‘fellows’, *vratý* ‘gate’, *cestamí* ‘roads’, *namí* ‘us’, Slovincian *xlùopī*, *břegamí* (cf. Kortlandt 2009).

More new long vowels arose after the loss of intervocalic *\*j* from contractions in posttonic syllables (8.1), e.g. Czech gen.sg. *nového* ‘new’, Čakavian (Novi) *pítā* ‘asks’, Bulg. *píta*, cf. Čak. *kopā* < *\*kopā(j)e* ‘digs’, Bulg. *kopāe*, Old Polish *kopaje*, Carpathian (Ublja) *byvā<sup>u</sup>*, *bývaš*, *bývat<sup>’</sup>*, *byvā<sup>’</sup>eme*, *byvā<sup>’</sup>ete*, *byvā<sup>’</sup>ut<sup>’</sup>* (cf. Broch 1900: 106), with non-initial stress as a result of Dybo’s law (8.7), retraction of the stress according to Stang’s law (9.3) from *\*-āšb* and *\*-āt<sup>b</sup>* but not from medial syllables, and restoration of the thematic vowel in *\*-ā(e)me*, *\*-ā(e)te* on the analogy of *\*kopāje-*, also inst.sg. *\*žēnō* versus *\*gorōǫ*, with final stress from Dybo’s law in Slovene *goró* and Slovak *horou* < *-ōu*, dial. *-óv* (cf. Stang 1957: 62, Krajičovič 1975: 44, Pauliny 1990: 64). The uncontracted forms were partly restored after the rise of new /j/, which was early in East Slavic and late in West Slavic (cf. Kortlandt 2006).

New long rising vowels originated from the retraction of the stress from final jers (8.2), e.g. Slovene gen.pl. *gór* < *\*gorǫ* ‘mountains’, *dán* < *\*d̂bny̅* < *\*d̂bny̅* ‘days’, Polish *raq* < *\*rǫkǫ* ‘hands’, Slovincian *mjóun* < *\*ymény̅* < *\*ymeny̅* ‘names’. Pretonic jers in inner syllables could not receive the stress, e.g. Slovene gen.pl. *óvǫc* < *\*owǫcb̅* ‘sheep’, *dánǫs* < *\*d̂bny̅sb̅* ‘today’, Russian dat.pl. *détjam* < *\*dět̅m̅* ‘children’ (with *-jam* for Old Russian *-em̅*). The new length was subsequently introduced analogically in original stem-stressed gen.pl. forms, e.g. Slovene *kónj*, which was originally homophonous with the nom.sg. form *kónj* ‘horse’. While the phonetically regular short root vowel has been preserved in Polish *pę̅t* ‘fetters’, *blot* ‘marshes’, Czech *krav* ‘cows’, *děl* ‘works’, Slovincian *lāt* ‘years’ (my transcription, cf. Dunaj 1966: 37f., Trávníček 1935: 263f., Lorentz 1903: 262), the analogical lengthening affected Old Polish *lyaath*, *ottychmyaasth*, dial. *lāt*, *dotyxc̅as*, Slovincian *potróus* of *pùotros* ‘mushroom’, *remjóun* of *rémjǫ* ‘arm’, *votročóut* of *vùotročǫ* ‘boy’. Conversely we find

analogical shortening in Slovincian *raċk* instead of *\*róuċk*, Polish *raċk* < *\*rōċkŃ*, and in Polish *imion*, as opposed to Slovincian *mjóun* < *\*ŃmenŃ* of *imja* < *\*Ńmeċ* ‘name’ (c). Slovincian has preserved the phonetically regular short vowel in the suffix of *jāgnjqt* ‘lambs’ (a) and *cielqt* ‘calves’ (b), where Polish has analogical length (cf. Kortlandt 1978b: 283). In Czech, the long vowel in the gen.pl. form of the mobile accent paradigm has been eliminated from the literary language except for the archaic remnant *dokořán* ‘wide open’. In central Slovak, length was generalized in the gen.pl. form, as it was in South Slavic, but at a later stage it was lost after a long vowel in the preceding syllable, e.g. in *záhrad* of *záhrada* ‘garden’.

After the rise of new *\*ē* and *\*ō*, raising of *ě* from *\*ä* to *\*ie* (8.3) affected the whole Slavic territory with the exception of the Lekhitic and eastern South Slavic areas, the latter including the dialect of the Kiev Leaflets, where *ě* merged with fronted *\*ä* < *\*a* after palatalized consonants (cf. Schaecken 1987: 32, 101), e.g. Polish *biały*, Slovak *biely*, SCr. *bijelī* ‘white’, KL acc.pl. *srŃdŃcŃ* (2×) = *srŃdŃca* (1×) ‘hearts’. As a result of the merger of palatal fricatives (8.4) and clusters (8.5) *\*ś*, *\*ść*, *\*ždź*, *\*šč*, *\*ždž* to *š*, *šč*, *ždž*, the West Slavic reflexes of the first and the second palatalization of *\*x*, *\*sk*, *\*zg* and of the clusters *\*stj* and *\*zdj* are identical (cf. Vaillant 1950: 48-51 and 70f.). The second simplification of palatals *\*ć*, *\*dź* to *c*, *dz* in West Slavic (8.6) and the subsequent spirantization of *dz* to *z* in Czech and Sorbian yielded new isoglosses, further differentiating West Slavic from South Slavic and separating southwestern West Slavic from Slovak and Lekhitic, e.g. Czech *mez(e)*, Upper Sorbian *mjeza*, Polish *miedza*, Slovak *medza*, SCr. *měđa* ‘boundary’. The spirantization also seems to have affected the Pannonian dialect of the Kiev Leaflets, e.g. *dázŃ* ‘give!’, *takoze* ‘also’, dat.pl. *tuzŃmŃ* ‘strange’, but this is probably a deceptive feature of the orthography (cf. Oblak 1896: 108, Schaecken 1987: 90-92). The inst.sg. ending of the *u*-stems *-ŃmŃ* was generalized in the paradigm of the *o*-stems in North (West and East) Slavic, including the dialect of the Kiev Leaflets (8.9). It replaced *-a*, which has been preserved in OCS *vbčera* ‘yesterday’ and can be identified with Lith. *-ù* < *\*-o?*. The rise of the South Slavic ending *-omŃ* requires the continued existence of the nom.sg. ending *\*-os* and must therefore be dated to an earlier stage.

According to Dybo’s law (8.7), rising vowels lost the stress to the following syllable, if there was one, e.g. *\*ženà* ‘woman’, *\*osnòwā* ‘base’. Newly stressed long vowels received a falling tone, e.g. *\*wolâ* ‘will’. Final jers had lost their stressability (8.2) and therefore could not receive the stress, e.g. Slovene *kōnj* < *\*kōŃŃ* ‘horse’. Acute (broken, glottalized) vowels did not lose the stress, e.g. *\*wýdra* ‘otter’, *\*dýmŃ* ‘smoke’, which kept fixed stress throughout the paradigm. Dybo’s law restored distinctive vowel length in pretonic syllables, e.g. *\*nāròdŃ* ‘people’, *\*q̄tròbā* ‘liver’. It was obviously posterior to the rise of

the new timbre distinctions (7.13), Van Wijk's law (7.15), the contractions in posttonic syllables (8.1), and the retraction of the stress from final jers (8.2). After Dybo's law, short falling vowels in monosyllables were lengthened (8.8), e.g. SCr. *bôg* < \**bògъ* 'god', *kôst* 'bone' < \**kòstъ*, *dân* 'day' < \**dônъ* < \**đnъ*. This development, which was apparently Common Slavic, eliminated the pitch opposition on short vowels, which had become confined to monosyllables (not counting final jers) as a result of Dybo's law.

Loss of the acute (broken, glottalic) tone yielded a short rising contour (9.2), e.g. *dýmъ* 'smoke', *gorà* 'mountain'. This development was more recent than the lengthening of short falling vowels in monosyllables (8.8) because it reintroduced a pitch opposition on short vowels in polysyllables and thereby eliminated the motivation for the latter. After the loss of the acute, the stress was retracted from long falling vowels in final syllables, not counting final jers (9.3), e.g. \**w'òļa* 'will', Russian dial. *vôlja*, Czech *vůle*, Slovak *vôľa*, Slovene *vôlja*, SCr. *vôlja*. This is Stang's law. The long vowel was shortened, except in Lekhitic, where traces of length remain, e.g. Old Polish *wolã* (cf. Stang 1957: 57). The newly stressed vowel received a rising tone. The stress was not retracted from medial syllables, giving rise to such alternations as Russian (*Pëtr*) *kúrit* versus (*vulkan*) *kurítsja* 'smokes', similarly *sádit* versus (*solnce*) *sadítsja* 'sets'. Long falling vowels in medial syllables were shortened, e.g. SCr. *zdrāvī* 'healthy' < \**sъdrāwī* < \**sъdrāwī*, *pòvratak* 'return' < \**powrātъkъ* < \**pòwrātъkъ*, *zأسلۇžان* 'deserving' < \**zأسلۇžъnъ* < \**zأسلۇžъnъ*, *zgràda* 'building' < \**sъgrādā* < \**sъgrādā*, Slovene *zgràda* (with neo-circumflex at stage 10.9). While jers in medial syllables could receive the stress as a result of Dybo's law, they could no longer receive the stress as a result of Stang's law. This gave rise to an alternation between the originally (pre-Dybo) pretonic short vowel of Czech *sukno* 'cloth' < \**sukъnò* < \**sukъno*, also *humno* 'threshing-floor', Slovak *humno*, SCr. *krzno* 'fur', and the long vowel from the plural \**súkъna* < \**sukъnā* < \**sukъnā* (with analogical length as in *mestá*) in Slovak *súkno*, SCr. *súkno*, *gúmno*, also *křzno* (cf. Kortlandt 2005: 127). It also accounts for the retraction of the stress to the prefix in older and dialectal Russian *nájdet*, *pójdet*, *podóždet*, *podójdet*, SCr. *pòčnēm*, *òtmēm*, *pòđēm*, *zàprēm*, Bulg. *dójda*, *zájda*, *òpra*, *póčna*, Slovak *zачneš*, *zатneš* (cf. Stang 1957: 115f.), also *pójdeš*.

After Stang's law, long falling vowels were shortened (9.4), e.g. Czech *mladost* 'youth', acc.sg. *ruku* 'hand', SCr. *mlādōst* 'youth', gen.sg. *prāseta* 'sucking-pig', also *sъce* < \**sъrdъce*, Slovene *srcê* 'heart'. The shortening did not affect monosyllables in Slovene and Serbo-Croatian and the first syllable of disyllabic word forms in the latter language, e.g. SCr. *bôg* 'god', *prāse* 'sucking-pig', acc.sg. *rūku* 'hand'. The dialect of the Kiev Leaflets sides with Serbo-Croatian in this respect (cf. Kortlandt 1980). The rounded nasal vowels \**o*, \**o̥*

were raised to \**u*, \**ü* in Serbo-Croatian, Sorbian, Czecho-Slovak, and East Slavic (9.6). At the end of the Late Proto-Slavic period, the nasal vowels lost their nasalization in East Slavic and Czecho-Slovak, and later elsewhere except in Lekhitic. The rise of the palatalization correlation probably started in Lekhitic and spread to the other North Slavic languages. The jers merged in Serbo-Croatian, Slovene and West Slavic, with the exception of Polabian and central Slovak. While they were preserved as a separate phoneme /ə/ in Slovene, they merged with \**e* in the larger part of West Slavic. Short rising vowels were lengthened in Russian, e.g. dial. *kôń* < \**kôňb* < \**kòňb* ‘horse’ versus *bog* < \**bôgь* ‘god’, where the vowel was shortened. Short vowels were lengthened in monosyllables in Ukrainian, e.g. *kiń* < \**kôň* < \**kòňb*, and similarly in Upper Sorbian, e.g. *kón*.

In Slovene, falling vowels lost the stress to the following syllable, where the newly stressed vowel received a long falling tone (10.7), e.g. *okô* ‘eye’, *mladôst* ‘youth’, acc.sg. *rokô* ‘hand’, also *stô* < \**s̆to* ‘hundred’, as opposed to *kdô*, SCr. *tkô* ‘who’ with final stress as a result of Dybo’s law. Stressed short vowels were lengthened and received a falling tone in Slovene before a non-final lost jer (10.8) and before a long vowel in the following syllable (10.9), e.g. *bîtka* ‘battle’, *lêta* ‘years’, *osnôva* ‘base’, inst.pl. *ženâmi* ‘women’. This is the so-called neo-circumflex. Stressed short vowels in non-final syllables were lengthened and received a rising tone in Slovene (10.11), e.g. *lêto* ‘year’, *vôlja* ‘will’. This development, which was more recent than the rise of the neo-circumflex, did not reach the easternmost dialects of the language. The common view that the epenthetic vowel in *vozâl* ‘knot’ and *rebâr* ‘slope’ received the stress as a result of the progressive accent shift (Ramovš 1936: 55, Jaksche 1965: 39, Kortlandt 1976: 2, Greenberg 2000: 107) must be corrected, as Babik has recognized (2005: 108). These analogical forms replace \*(*v*)ôzâl < \*ôzľ (a), like (*v*)ôgâl ‘coal’ < \*ôglb (cf. Derksen 2008b: 385, 388), and *rêbâr* (Valjavec) < \**rêbrь* (b) beside *rêbâr* (Pleteršnik) with the rising tone of gen. *rêbrî* < \**rebrî* < \**rêbrî*, as in *vôlja* ‘will’. Thus, we have first retraction of the stress from final jers (8.2), e.g. gen.pl. *ôvâc* < \*ôvьcb < \*ovьcb ‘sheep’, *dânâs* < \**dъnъsb* < \**dъnъsb* ‘today’, dat.pl. \**lûdъmb* < \**lûdъmb* ‘people’, then analogical introduction of the falling tone from other barytone case forms in \*ôvьcb and \*lûdъmb and the accent shift yielding *ovâc* and *ljudêm*, and finally neo-circumflex in *rêbâr* < \**rêbrь*, followed by the analogical accent shift in *rebâr* when the word adopted the mobile accent pattern of *lakât* ‘elbow’ < \*ôlkьtb and *nohât* ‘nail’ < \*nôgьtb, also (*v*)ogâl (Pleteršnik) ‘corner’ < \*ôgьlb (c), Latin *angulus*.

In Czech and Upper Sorbian, short rising vowels in open first syllables of disyllabic word forms were lengthened unless the following syllable contained a

long vowel (10.6), e.g. Cz. *kráva* < \**krāwa* < \**krāwa*, *vůle* < \**vōla* < \**w<sup>h</sup>òla*, *psáti* < \**p̥sàti* < \**p̥sàti* ‘to write’, USo. *kruwa* < \**krōwa* < \**kròwa* < \**kórwa*, Cz. gen.pl. *krav*, inst.pl. *kravami*. This development was evidently more recent than the loss of pretonic jers. The outdated view that that the acute was preserved as a long vowel in Czech cannot be correct for four reasons. First, we find a quantitative alternation in the paradigm of Czech *kráva* ‘cow’, which has a short root vowel in inst.sg. *kravou*, gen.pl. *krav*, dat.pl. *kravám*, inst.pl. *kravami*, loc.pl. *kravách*, similarly *kámen* ‘stone’, gen.sg. *kamene*. This points to lengthening of a Proto-Slavic short rising \**à* in an open first syllable of disyllabic word forms which was blocked by a long vowel in the following syllable. Second, the same lengthening is found in *kůže* ‘skin’, *koží*, *koži*, *kožím*, *kožemi*, *kožích*, also *můžeš* ‘you can’, which never had an acute root vowel. Third, the same lengthening is found in trisyllabic word forms where a jer was lost in the initial syllable, e.g. *lžíce* ‘spoon’, *lžici*, *lžic*, *lžícím*, *lžicemi*, *lžících*, also *psáti* ‘to write’, *psal* ‘wrote’, *psaní* ‘writing’, *spáti* ‘to sleep’, supine *jdi spat* ‘go to sleep’. This puts the lengthening after the loss of pretonic jers. Fourth, the Czech lengthening cannot be separated from the one in Upper Sorbian *kruwa* < *krōwa* ‘cow’, which shows that it was more recent than the metathesis of liquids. As Verweij has pointed out (1994: 556), the Czech lengthening must have preceded the shortening of long falling vowels (9.4).

The so-called neo-acute is a heterogeneous category, encompassing all kinds of Proto-Slavic rising vowels. The oldest long rising vowels arose at the end of the Early Middle Slavic period (6.10), e.g. Slovak *tráva* ‘grass’, *národ* ‘people’, *útroba* ‘intestines’, also *pýtať sa* ‘to inquire’, *miešať* ‘to blend’, *stúpať* ‘to mount’. These vowels remained long when they lost the stress to the following syllable in accordance with Dybo’s law (8.7). More recent long rising vowels arose from the retraction of the stress from final jers (8.2), e.g. gen.pl. *nôh* ‘feet’, *rúk* ‘hands’, also *niesol* ‘carried’ < \**nesl̥b̥*, 2nd sg. *nesieš* < \**nesěšb̥*, later from the retraction of the stress from long falling vowels in final syllables (Stang’s law, 9.3), e.g. *vôľa* ‘will’, 2nd sg. *můžeš* ‘can’, *pôjdeš* ‘will go’, also *pýtaš*, *miešaš*, *stúpaš*, then from the retraction of the stress from non-final jers, e.g. *rúčka* ‘penholder’, *dcérka* ‘little daughter’, and finally from the lengthening of short rising vowels in Czech *kráva* and Upper Sorbian *kruwa* (10.6). Other long vowels originated after the loss of final jers, e.g. Czech *bůh* ‘god’, *dům* ‘house’, *kůň* ‘horse’, *nůž* ‘knife’.

Original (pre-Dybo) pretonic long vowels were shortened when the new timbre distinctions arose (7.13), e.g. Czech *chladný*, *těžký*, *suchý*, *ruka*, *ruční*, *ručník*, *humno*, *sukno*, Polish *sędzia* ‘judge’. Long vowels which became pretonic as a result of Dybo’s law (8.7) remained long, e.g. SCr. *národ* ‘people’, *zákon* ‘law’, *trúba* ‘trumpet’, *zábava* ‘fun, party’, *tráva* ‘grass’, *trávní* ‘grassy’,



*trávník* ‘pasture’, *bíljelí* ‘white’, *půtník* ‘traveler’, Czech *bílý*, *poutník*, *tráva*, *trávní*, *trávník*, *národ*, *zákon*, *trouba*, *zábava*, *útroba*, Polish *wątroba* ‘liver’. The long vowels of Czech *plátno* ‘linen’, *vlákno* ‘fibre’, Slovak *sukno* ‘cloth’ were taken from the plural (cf. Kortlandt 2005: 127). At the end of the Late Proto-Slavic period, posttonic long vowels were shortened before an original long vowel in the following syllable in West Slavic, e.g. Czech *peníz* ‘coin’, pl. *peníze* ‘money’, gen. *peněz*, dat. *peněžům*, inst. *penězi*, loc. *peněžích*, Polish *pieniądz*, *pieniądze*, gen. *pieniędzy* < \*-ī, inst. *pieniędzmi* < \*-mī replacing \*-y̆.

The short vowel of Czech *havran* ‘raven’, *labuť* ‘swan’, *paměť* ‘mind’, *kaprad* ‘fern’, *jabloň* ‘apple-tree’, SCr. *gāvran*, *lābūd*, *pāmēt*, *pāprāt*, *jāblān*, which originally belonged to accent pattern (a), shows that these words adopted mobile stress at an early stage. This is clearly proven by Russian *lébed* ‘swan’ < \**lo-* < \**ol-*, with *-e* < \**-o* before a soft labial as in dat.loc. *tebé* < *tobě* ‘you’ and *tepér* < *topьpo* ‘now’ and with loss of the glottal stop in the pretonic reflex of \**ol-* as in Czech *role* ‘field’ < \**rolbjà* < \**rolbja*, as opposed to *rádlo* ‘plough’ < \**ōr?dlo*, Ukr. *rilljá* versus *rálo*. The accentual mobility in this word is evidently older than the early metathesis of liquids (7.12), after which long vowels in pretonic syllables were shortened (7.13), e.g. in the oxytone case forms of Czech *labuť* and *paměť*. The rise of accentual mobility was more recent than the rise of distinctive tone (6.10) because we would otherwise expect *lo-* in Czech, as in *loket* ‘elbow’. Thus, we can date this analogical rise of accentual mobility to the Late Middle Slavic period, following the generalization of accentual mobility in the masc. *o*-stems without an acute root vowel, as in SCr. *zúb* ‘tooth’, Gr. *γόμφος* ‘bolt’ (6.9). It appears that medial *-lo-*, *-ro-* is also the phonetic reflex of \**-ol-*, \**-or-* in pretonic syllables in Czech *jabloň* and Slovene *práprot* (also *práprat*) ‘fern’, SCr. *pāprāt*. When posttonic \**-rā-* was substituted for pretonic \**-ro-* in the oxytone case forms of Czech *havran* and *kaprad*, the pretonic long vowel was automatically shortened because new pretonic long vowels did not arise before Dybo’s law (8.7). Slovene preserved the original accent pattern (a) in *gāvran* (with neo-circumflex at stage 10.9) beside accent pattern (c) in *gavrān* (with accent shift at stage 10.7) and lost the accentual mobility in *pāmet*, *práprot* and *jāblan*, probably under the influence of derivatives where the mobility never arose. My view that pretonic long vowels were shortened while posttonic long vowels were preserved in Proto-Slavic is corroborated by such derivatives as Czech *pekař* ‘baker’ (c) versus *rybář* ‘fisherman’ (a). Note that Serbo-Croatian has preserved the quantitative distinction between different vowels in suffixes, e.g. *-at*, *-av*, *-ica*, *-ina* versus *-ār*, *-īk*, *-īn*, *-īna* (cf. Dybo 1968). Serbo-Croatian has preserved a trace of the original shortening of pretonic long vowels (7.13) in the numerals *děvet* ‘nine’

and *děset* ‘ten’, where oblique cases had final stress (cf. Stang 1957: 88), and generalized posttonic length elsewhere.

A long time ago I proposed a sound law (1975: 5f., 1989a: 45, 2005: 117) according to which the stress was retracted from final open syllables of disyllabic word forms unless the preceding syllable was closed by an obstruent in Late Balto-Slavic (4.4), e.g. Lith. gen.sg. *viľko* ‘wolf’, dat.sg. *viľkui*, *gálvai* ‘head’, SCr. gen.sg. *vũka*, dat.sg. *vũku*, *glãvi*, *pĩlo* ‘(it) drank’, aorist 3sg. *něse* ‘carried’, as opposed to Lith. gen.sg. *aviẽs* ‘sheep’, gen.pl. *vilkiũ* < \*-om, nom.sg. *galvà* < \*-a?, Russian gen.sg. *desjati* ‘ten’, nom.sg. *golová* ‘head’, *pilã* ‘(she) drank’. The retraction did not operate in polysyllabic word forms, e.g. Lith. inst.sg. *sũnumi* ‘son’, adv. *akisũ* ‘before one’s eyes’. The retraction was more recent than the loss of final \*/d/ (3.7), as is clear from Lith. *viľko* and SCr. *vũka*, *něse*. The stress was regularly retracted from final vowels, as in SCr. *pĩlo*, and diphthongs, as in Lith. *viľkui*, *gálvai*, SCr. *vũku*, *glãvi*, but not from syllables which ended in a fricative, a nasal, or a laryngeal, as in Lith. *aviẽs*, *vilkiũ*, *galvà*. It follows that word-final nasals and laryngeals were still ordinary consonants at this stage. The retraction was more recent than Hirt’s law (4.1), according to which the stress was retracted if the vowel of the preceding syllable was immediately followed by a laryngeal, because the accentual mobility in Russian *dalã*, *dãlo* ‘(she, it) gave’ must have arisen at this stage (4.4) and presupposes an earlier end-stressed paradigm. If the word had contained a full grade root vowel \*/o? at the time of Hirt’s law, retraction of the stress would have prevented the rise of accentual mobility. Thus, we have to assume that the full grade replaced an earlier zero grade between stages 4.1 and 4.4. The retraction was probably more recent than Winter’s law (4.3), according to which (in my formulation) the Indo-European preglottalized stops dissolved into a glottal stop and a voiced obstruent, because the laryngeal feature of the preglottalized stops apparently merged with the reflex of the Indo-European laryngeals between stages 4.1 and 4.4. This can be deduced from the retracted stress of Russian *ẽla* ‘(she) ate’, *sẽla* ‘(she) sat down’, which must have arisen from an analogical extension of Hirt’s law, cf. *grýzla* ‘gnawed’, *strígla* ‘cut’, present 3pl. *edjãt*, *gryzũt*, *strigũt*. The stress was not retracted in the latter forms because they were trisyllabic and had final stress at the stage under consideration. The retraction in *ẽla* and *sẽla* cannot have been phonetic in view of Lith. *ẽdãs* ‘eating’ and *duodãs* ‘giving’. The analogical retraction in *ẽla*, *sẽla* must have been earlier than the phonetic retraction in *pĩlo*, *dãlo* because the stress was not retracted in *pilã*, *dalã*. In particular, it must have been earlier than the introduction of full grade in the root syllable of the latter form.

The retraction of the stress from final open syllables of disyllabic word forms was blocked by a final obstruent in the preceding syllable, e.g. Russian *neslá*,

*nesló* ‘carried’. Rick Derksen has rightly concluded that this sound law generated a class of oxytone nouns in stem-final -CCo-, e.g. Lith. *-stas*, *-klas*, Slavic *-dlo* (1995: 166, 1996: 96-128, 229-232, for Slavic 2009a, 2009b). These oxytone nouns belong to accent patterns (2) in Lithuanian and (b) in Slavic with loss of an original acute in the root, e.g. Lith. *aũkštas* ‘floor’, *tiñklas* ‘net’, Polish *żądło* ‘sting’. After the pretonic acute was lost in Early Slavic (5.3), the end-stressed neuters escaped the shortening of pretonic long vowels (7.13), evidently because the accent had been analogically retracted at that time. This analogical retraction of the stress can be dated to the Late Middle Slavic period because it evidently affected Cz. Slk. *dláto* < *\*dolbtò* ‘chisel’, SCr. *dlijèto* (with secondary *e*-grade), Prussian *dalptan*, but did not reach Cz. *vědro*, Slk. *vedro*, SCr. *vjèdro* < *\*wědrò* ‘bucket’, where the pretonic long vowel was regularly shortened (but Montenegrin *vijèdro*, cf. Derksen 2008b: 518). The final accentuation of these neuters is supported by the reduced vowel in OCS *žbzľb* ‘staff’, Russian *žezl*, SCr. *žèzlo*, Cz. Slk. *žezlo*, where original pretonic *\*e* was raised to *\*i* at stage 7.9 (cf. Kortlandt 1985).

The alternation between acute tone (a) and mobile stress (c) in SCr. *kràsti* ‘to steal’, present *krádē-*, Czech *krásti*, *krade-*, preterit *kradl* < *\*krádlb* resulted from Hirt’s law (4.1) and the alternation between desinential (b) and mobile (c) stress in SCr. *trésti* ‘to shake’, *trésē-*, Czech *třásti*, *třese-*, *třásl* < *\*tręslb* from the absence of retraction from final open syllables to a preceding closed syllable (4.4) followed by the retraction of the stress from final jers (8.2). Similarly, we have a short vowel in Slovak *mohol* < *\*mòglb* (b) ‘could’, which has original root stress, but a long vowel in *niesol* < *\*nésľb* < *\*nesľb* (c) ‘carried’, Polish *niósł*, also *rósl* ‘grew’ < *\*róslb* < *\*rostľb*, Slovak *rástol*, and Old Czech *šél*, Slovak *šiel* ‘went’ < *\*šbdlb* < *\*šbdlb* (cf. Bulaxovskij 1953: 26), where the stress was retracted from the final jer. This account has been challenged by Zbigniew Babik (2007), who claims that *mohol* must have replaced earlier *môhol* because the latter form is attested in three peripheral Slovak dialect areas. The argument is mistaken because the analogical length in *môhol* is a trivial development whereas the alleged analogical shortening in *mohol* is quite unmotivated. The analogical introduction of length in *môhol* was supported not only by the other verbs of the same flexion class such as *niesol* ‘carried’ and *piekol* ‘baked’ but also by the present stem *môže-*, which is not the case with *nesie-*, *pečie-*, *rastie-*. Conversely, the length in *\*bôdol* ‘pricked’ was eliminated on the analogy of the frequent model *mohol*, as happened in Czech *rostl* on the analogy of *kradl* etc.

At the end of the Late Proto-Slavic period, there was a distinction between short *\*ò*, e.g. in Slovene *kònj* ‘horse’, long *\*ō* from the retraction of the stress from final jers (8.2) and from the lengthening of short falling vowels in monosyllables (8.8), e.g. in gen.pl. *gór* ‘mountains’, analogically also *kónj*, and

in *bôg* ‘god’, *kôst* ‘bone’, and diphthongal *\*<sup>u</sup>ò* from Stang’s law (9.3), e.g. in *vôlja* ‘will’, 2nd sg. *nôsiš* ‘carry’, Slovak *vôla*, 2nd sg. *môžeš* ‘can’, *pôjdeš* ‘will go’, cf. Rumanian *coaă* ‘bark’ < Slavic *\*k<sup>u</sup>ôža* ‘skin’. In Czech and Slovak, *\*<sup>u</sup>ò* was shortened to *\*ò* before a long vowel in the following syllable, as in *nosíš*, where the long vowel was restored on the basis of the other accent classes, e.g. *baviš* ‘amuse’ (a), *budiš* ‘wake up’ (c). After the raising of *ě* from *\*ä* to *\*ie* (8.3), e.g. in Czech *vědro* ‘bucket’, Slovak *biely* ‘white’, and the rise of new diphthongal *\*<sup>i</sup>è* from Stang’s law (9.3), e.g. in Slovene *stélja* ‘litter’, 2nd sg. *čëšëš* ‘comb’, *\*ô* and *\*ie* tended to develop in parallel fashion, either by diphthongization of *\*ô* to *uo* (as in Czech and Slovak) or by monophthongization of *\*ie* to *ē* (as in Slovene), while *\*<sup>u</sup>ò* merged with *\*ò* in Serbo-Croatian and Polish and with both *\*ò* and *\*ó* in Russian. The monophthongization of *\*ie* to *ē* did not reach the northern and western dialects of Slovene, where the distinction between *\*ie* and *\*ē* has been preserved as *iē* versus *iĕ* in the dialect of Soča (cf. Greenberg 2000: 171, Kortlandt 2003: 230). In Kajkavian, the *ĕ* from *ě* merged with the new front vowel which developed from the jers.

Long falling vowels were mostly shortened (9.4), e.g. Czech *kost* ‘bone’, *květ* ‘flower’. As a result, tonal distinctions were lost in North Slavic. After the loss of final jers, new long vowels developed before devoiced obstruents in Polish, e.g. *bóg* ‘god’, *mógl* ‘could’, and similarly in eastern Slovak. I cannot accept the hypothesis that the lengthening in such instances as Czech *kůň* ‘horse’, *stůl* ‘table’, *nůž* ‘knife’, Slovak *kôň*, *stól*, *nôž* is the result of phonetic conditioning (cf. Van Wijk 1916: 328, Nonnenmacher-Pribić 1961: 94, Verweij 1994: 518) because the number of counter-examples is prohibitive. More probably, the long vowel was adopted from the case forms where the accent had been retracted as a result of Stang’s law, viz. loc.sg. *\*kôni*, inst.pl. *\*kôni*, loc.pl. *\*kônix*, and from gen.pl. *\*kôň*, Slovene *kônju*, *kônji*, *kônjih*, *kônj*, so as to yield a regular alternation between stressed *\*ô* and unstressed *\*o* in the paradigm. After the retraction of the stress in gen.sg. *\*koňa*, dat.sg. *\*koňu*, inst.sg. *\*koňem*, nom.pl. *\*kôni*, acc.pl. *\*koňe*, dat.pl. *\*koňem*, and perhaps after the shortening of *\*<sup>u</sup>ò* to *\*ò* before the new long case endings in gen.pl. *-ôv*, *-í* and loc.pl. *-iech*, *-ich*, the paradigm could be further regularized by generalization of the short root vowel, a process which has been going on in historical times, e.g. Czech *skot* ‘cattle’, Old Czech *skót*.

The pattern with a long vowel in the nom.sg. form and a short vowel in the other cases spread to the other accent classes, e.g. Cz. Slk. *mráz* ‘frost’ (a), Czech *sníh* ‘snow’, *hnůj* ‘dung’, *dům* ‘house’, *sůl* ‘salt’ (c). Interestingly, half of the Slovak examples with a long vowel listed by Nonnenmacher-Pribić (1961: 93) have an initial labial consonant: *bób* ‘bean’, *ból* ‘grief’, *bôr* ‘pine’, *môj*

‘my’, *pôst* ‘fasting’, *vól* ‘ox’, *vôz* ‘car’, similarly Czech *bůh*, *můj*, *půl*, *půst*, *vůl*, *vůz*. Since SCr. *bóg*, *ból*, *bôr*, *pól*, *pôst*, *vôz* belong to accent pattern (c), it appears that \**ô* is the phonetic reflex of Proto-Slavic long falling \**ô* after labial consonants in Czech and Slovak. Counter-examples are *bod* ‘point’, *boj* (but Old Czech *bój*) ‘fight’, *bok* ‘flank’, *moc* ‘power’, *most* ‘bridge’, *pot* ‘sweat’, *vosk* ‘wax’, where the short vowel of the oblique case forms may have been generalized. In Slovak we never find *ô* for Proto-Slavic \**ô* after other consonants, e.g. *dol* ‘mine’, *dom* ‘house’, *hnoj* ‘dung’, *loj* ‘suet’, *sol* ‘salt’, *kroj* ‘costume’, *roj* ‘swarm’, *stroj* ‘machine’ for Czech *důl*, *dům*, *hnůj*, *lůj*, *sůl*, dial. *kruj*, *ruj*, *struj*, in contrast with Slovak *kôň* ‘horse’, *kôš* ‘basket’ (Old Czech *kóš*), SCr. *kônj*, *kôš* (b). The diphthongal character of Slovak *ô* was lost after the initial cluster in *dvor* ‘yard’, *svoj* ‘one’s own’, *tvój* ‘your’, *tvorca* ‘creator’, cf. Czech *dvůr*, *svůj*, *tvůj*, *tvůrce* (cf. Nonnenmacher-Pribić 1961: 94, Verweij 1994: 515). The long vowel of Slovak *dážď* ‘rain’, Czech *děšť*, Polish dial. *děśc* (cf. Topolińska 1968: 77) has a different origin: it represents the type where the stress was retracted from a final jer after a consonant cluster, viz. \**dǫždzǫ* < \**dǫsǫdjǫ*, like Slovak *niesol*, Polish *niósł* ‘carried’ < \**neslǫ* (cf. Derksen 2009b).

Now we turn to Sorbian. Schaarschmidt dates the devoicing of \**r* after *p*, *t*, *k* (1997: 41f.), e.g. in Lower Sorbian *pši* ‘at’, *tši* ‘three’, *kšidlo* ‘wing’, *pšosys* ‘to ask’, *tšawa* ‘grass’, *kšuska* ‘pear’, Upper Sorbian *při*, *tři*, *křidlo*, *prosyć*, *trawa*, *krušwa*, before the metathesis of liquids, e.g. in LSo. *prose* ‘piglet’, *trěš* ‘to rub’, *krowa* ‘cow’, USo. *proso*, *trěc*, *kruwa*, where the devoicing did not take place. The argument does not hold because the metathesis left a reduced vowel before the resonant, as is clear from the vocalization of nonsyllabic prepositions in Old Polish, e.g. *we błocie* < \**wb̥ b̥lotě* ‘in the swamp’, like *we śnie* < \**wb̥ s̥nĕ* ‘in one’s sleep’ (cf. Stieber 1958: 60, Nahtigal 1961: 14). The assibilation of devoiced \**r* can be dated to a later stage (cf. Schaarschmidt 1997: 105f.). The threefold tonal distinction of Late Middle Slavic was preserved under the metathesis of liquids, e.g. acute in Upper Sorbian *radlo* ‘plough’, *dróha* ‘road’, *brěza* ‘birch’, *blóto* ‘swamp’, *klóda* ‘block’, *mlěc* ‘to grind’, rising tone in *brózda* ‘furrow’, *črjóda* ‘crowd’, (dial.) *mlóko* ‘milk’, falling tone in *lochc* ‘elbow’, *hród*, gen. *hroda* ‘castle’, *wrjós*, gen. *wrjosa* ‘heather’, *drjewo* ‘wood’, *črjewo* ‘gut’, *zloto* ‘gold’, pretonic short vowel in *rosć* ‘to grow’, *drohi* ‘dear’, *wrota* ‘gate’, *broda* ‘beard’, *hlowa* ‘head’, *wlec* ‘to drag’, *wrjećeno* ‘spindle’, also *runy* < (dial.) *równy* ‘even’ < \**rowb̥ny* < \**rowb̥ny̆*, cf. Polish *droga*, *brzoza*, *bloto*, *kloda*, *bruzda*, *łokieć*, gen. *grodu*, *wrzos*, *zloto*, *drogi*, *wrota*, *broda*, *głowa*, *równy*, Slovak *radlo*, *draha* (cf. Nonnenmacher-Pribić 1961: 74, 79), *breza*, *blato*, *klada*, *mleť* (cf. Nonnenmacher-Pribić 1961: 68), *brázda*, *črieda*, *mlieko*, *lakeť*, *hrad*, *vres*, *drevo*, *črevo*, *zlato*, *drahý*, *brada*, *hlava*, Czech *rádlo*, *dráha*, *bříza*, *bláto*, *kláda*, *mlíti*, *brázda*, *třída*, *loket*, *hrad*, *zlato*, *drahý*, *vrata*,

*brada*, *hlava*, *vléci* (with recent lengthening), *vřeteno*. While Upper Sorbian shared the Czech lengthening of the old acute, Lower Sorbian has only preserved earlier length, e.g. *grěch* ‘sin’, *mězga* ‘sap’, *žrěbje* ‘foal’, dial. *brūzda* ‘furrow’, *brūžnja* ‘barn’, *wobrósi* ‘turns around’, but *droga* ‘road’, *brjaza* ‘birch’, *bloto* ‘swamp’ (cf. Schaarschmidt 1997: 49), Slovak *hriech*, *miazga*, *žriebä*, Polish *obróci*. Lower Sorbian also did not share the Upper Sorbian lengthening in monosyllables as found in *bóh* ‘god’, *měd* ‘honey’, *pěc* ‘stove’, *nóc* ‘night’, *kón* ‘horse’, *nóz* ‘knife’, which did not affect the jers, e.g. *rož* ‘rye’, *woš* ‘louse’, *wjes* ‘village’, *džen* ‘day’ (cf. Schaarschmidt 1997: 57).

The relative chronology of the earliest Sorbian developments has recently been examined by Rick Derksen (2008a). While the word-initial metathesis of liquids clearly preceded the rise of the new timbre distinctions (7.13) in all Slavic languages, as did the non-initial metathesis in South Slavic and Czechoslovak (7.12), the latter development evidently followed the rise of the new timbre distinctions in Sorbian and Polish, e.g. *\*kьrōwa* < *\*kōrwa* ‘cow’, *\*bьrōzda* < *\*bōrzda* ‘furrow’, *\*lōkьtь* < *\*ōlkьtь* ‘elbow’. These developments were followed by the retraction of the stress from final jers (8.2), e.g. in gen.pl. *\*gōrь* ‘mountains’, and by Dybo’s law (8.7), e.g. in *\*bьrōzdà*, *\*wolâ* ‘will’. The loss of the acute (9.2) yielded a short rising tone, e.g. *\*kьrōwa*, *\*gorà*, and Stang’s law (9.3) eliminated long falling vowels in non-initial syllables, as a result of which new rising vowels arose, e.g. *\*w<sup>u</sup>ōla*. Toward the end of the Late Proto-Slavic period, the jers merged and the palatalization correlation became phonemically relevant. Up to this stage, there probably was no structural difference between Sorbian and its Lekhitic neighbors. In the 10th and 11th centuries, however, Sorbian adopted a number of developments from Czech, where they may be dated one or two centuries earlier: the denasalization of the nasal vowels, the raising of *ě* from *\*ä* to *\*ie*, the merger of the jers with *\*e*, the spirantization of *dz* to *z* and of *g* to *γ*, and the lengthening of short rising vowels in disyllabic word forms.

At the end of the Late Middle Slavic period, there were five nasal vowels (cf. Kortlandt 2003: 221): *\*ȯ*, *\*ō̇* < *\*jȯ*, *\*ȧ* < *\*-onts*, *\*ā̇* = *ε̇*, and *\*ĕ̇* < *\*-jons*, e.g. Czech *nesa* ‘carrying’ < *\*nesȧ*, *koně* ‘horses’ < *\*konĕ̇*. While *\*ā̇* and *\*ĕ̇* merged into *ε̇* in South Slavic, the latter vowel lost its nasal feature and merged with *ě* in North Slavic, evidently after the raising of *ě* from *\*ä* to *\*ie* (8.3) but before the raising of *\*ȯ*, *\*ō̇* to *\*u̇*, *\*i̇* (9.6). When *\*ā̇* and *\*u̇* were denasalized in Czechoslovak and East Slavic, they yielded *\*ā* and *\*u*, respectively, e.g. Slovak *pät* ‘five’, *pút* ‘pilgrimage’. In Czech, the front vowel merged with *ě* in *pět* but with *a* in *pátý* ‘fifth’. In Upper Sorbian, where *ě* had evidently been raised at an early stage, *\*ā* merged with *e* in *pječ* and with *a* in *pjaty*, whereas the Lower Sorbian merger of *\*ā* with *ě* in *pěs* and *pěty* suggests a somewhat

later date for the raising (cf. Schaarschmidt 1997: 55). The argument is not cogent because Czech *pět* and Slovak *piaty* point to a diphthongized pronunciation of *\*ä*, which was therefore more likely to merge with *ě* than with *e*. If we start from an early system with *\*<sup>i</sup>ē* for *ě* and *\*<sup>i</sup>ē* < *\*<sup>e</sup>ä* for *ē*, as in the Slovene dialect of Soča, the latter vowel may have merged with the former in the north but with palatalizing *\*e* in the south. However this may be, it appears that the isogloss between Upper and Lower Sorbian dates from this period. The Upper Sorbian lengthening in monosyllables preceded the merger of *\*e* with the reflex of the nasal vowel, as is clear from *pěc* ‘stove’, *měd* ‘honey’ versus *pječ* ‘five’, *rjad* ‘row’. It also preceded the merger of *\*e* with the reflex of the jers, e.g. *wjes* ‘village’, *džen* ‘day’.

Unlike Schaarschmidt (1997: 75f.), I think that the preservation of the palatal feature in Polish *wilk* ‘wolf’, *wierzch* ‘top’ and the vocalization in *dlugi* ‘long’, *stup* ‘post’ suffice to prove the earlier existence of syllabic resonants in this language (cf. Topolińska 1989: 62). In a similar vein I assume syllabic resonants to account for the multifarious reflexes of *\*br*, *\*br̥*, *\*bl*, *\*bl̥* in the central dialects of the Sorbian languages but retention of the original jers in the peripheral areas with *e*-vocalism. I have suggested that the rise of syllabic resonants can be dated to the same period as the metathesis of liquids (2003: 232). It has nothing to do with the rise of epenthetic vowels after the loss of the jers. Unlike Derksen (2008a: 132), I agree with Verweij (1994: 556) that the lengthening of short rising vowels in disyllabic word forms in Czech and Upper Sorbian (10.6) must be dated before the general shortening of long falling vowels (9.4) which eliminated the distinctive opposition between rising and falling tones in North Slavic. Thus, I arrive at the following emendation of Derksen’s chronology (l.c.) for Upper Sorbian: (10) lengthening of short rising vowels, (11) shortening of long falling vowels, (12) lengthening in monosyllables, (13) split of *\*ä* < *\*ä̃* into *je* and *ja*, (14) merger of the jers with *e*, (15) labialization of short *e* after palatalized consonants, (16) diphthongization of *\*ē* and merger with *ě*, (17) labialization of *e* < *\*v̥* (cf. Schaarschmidt 1997: 111). I think that the long vowel in *rót* ‘mouth’, *són* ‘dream’, *wrjós* ‘heather’ is analogical.

Outside the Čakavian area, all South and West Slavic languages retracted the stress from final syllables under various conditions. In Bulgarian, the stress was retracted from a final short vowel to a preceding open syllable (cf. Kortlandt 1982a). In Serbo-Croatian, the stress was retracted earlier from a final than from a non-final syllable, earlier from an open than from a closed syllable, earlier from a short than from a long vowel, and earlier to a preceding long than to a preceding short vowel (cf. Ivić 1958: 105). In Slovene, the stress was retracted from a final short vowel to a preceding long vowel, and later also to a preceding

short vowel (cf. Kortlandt 1976: 6f., Greenberg 2000: 120, 143). In the Pannonian dialect of the Kiev Leaflets, the stress was retracted from a final open syllable (cf. Kortlandt 1980). In Polabian, the stress was retracted from a short vowel in a final syllable (cf. Kortlandt 1989b). In Slovincian, the stress was retracted first from a final syllable to a preceding long vowel, then from a final syllable in polysyllabic word forms and analogically from medial syllables in paradigms with fixed stress, and later from a final short vowel in disyllabic word forms (cf. Kortlandt 1978a: 77). As a result, final stress in Slovincian was almost limited to disyllabic word forms with a short vowel in the first syllable and a long vowel or final consonant cluster in the second (cf. Kuryłowicz 1952), e.g. *cenjáu* ‘shadow’, *dobàk* ‘livestock’, *nocní* ‘nocturnal’, inst.pl. *vosmí* ‘axes’, loc.pl. *vosàx*, from where it spread to *koscaní* ‘bony’, *raqamí* ‘hands’, *břegamí* ‘banks’, etc. The same distribution is found in northern Kashubian (cf. Lorentz 1925: 92-105, Topolińska 1961: 108, 277). Since southern Kashubian has word-initial stress, like Czech and Slovak, this raises the question whether Polish developed penultimate stress by generalization after sharing the Pomoranian retractions or secondarily after a period with initial stress shared with its western and southern neighbors, as is usually assumed (e.g. Stieber 1958: 44).

The principal question regarding the fixation of the stress on the initial syllable in West Slavic languages is whether it resulted from successive retractions of the stress toward the beginning of the word or from the development of an original delimitative accent which became the primary stress in the course of time, perhaps under German or Hungarian influence. There are several indications that the latter view is correct. First of all, the Pannonian dialect of the Kiev Leaflets has a long vowel in *plānъ* ‘captivity’ and *světŷ* ‘holy’ but a short vowel in gen.sg. *tālese* ‘body’, which is in agreement with Serbo-Croatian *plijen*, *svēt*, *tjeles-*, also non-initial stress in inst.sg. *tvoéĭ* (2×), gen.pl. *tvoíxъ* (2×) ‘your’, 2nd sg. *veselīši* ‘gladden’, imp. *zaščítí nŷ* ‘protect us’, *sъtvorí nŷ* ‘make us’, *utvrđí nŷ* ‘confirm us’, but initial accentuation in *všemogŷ*, *všemogŷi* ‘almighty’, pl. *dóstoini*, *dóstoiny* ‘worthy’, inst.sg. *óbrazъmъ* ‘image’, loc.sg. *īnokosti* ‘wandering’, all of which are polysyllabic, rather complex words. It seems probable to me that these are the earliest examples of the initial accentuation which we find in Slovak (cf. Kortlandt 1980). They cannot have arisen from a phonetic retraction of the stress.

The accentual system of the Kiev Leaflets is strongly reminiscent of the Podravian dialects discussed by Hamm (1949, cf. also Ivić 1952) and Klaić (1936), which incidentally have an inst.sg. ending *-em* instead of South Slavic *-om* and preserve original *šč*, *žď*. In these dialects, which did not share the neoštokavian retraction of the stress, there is a long falling vowel in *grād* ‘city’, *prāvda* ‘justice’, *lāďica* ‘little ship’, *niskē* ‘low’, gen.pl. *svatōvā* ‘wedding



guests', a long rising vowel in *pīšem* (= *pīšem*) 'I write', *smejāla* (= *smejāla*) 'she laughed', *krāl̄j je došo* (= *krāl̄j*) 'the king has come', and a short vowel in *stolīca* (= *stolica*) 'chair', *plātīti* (= *plātīti*) 'to pay', *rūkà me boli* (= *rūkà*) 'my hand aches'. When a phrase ends in a syllable with a long rising or short vowel, the last word receives initial stress with a falling tone on a long vowel, e.g. *žèna* 'woman', *àntūn* 'Anthony', *došo je krāl̄j, boli me rūka*, where the accent of *rūka* stands for a falling tone followed by a trace of the original final stress: *rūkà*, similarly imp. *pīši* = *pīš̄i* for *pīš̄i* 'write', *krādi* for *krād̄i* 'steal', *pīsmo* for *pīsmō* 'letter', also *mūškārāc* for *muškārāc je dōšo*, *ali cīgānka je kázāla* 'the man came but the gypsy woman said' and *svīrāće tām̄burāš* for *tām̄burāš će svīrāti* 'the mandolinist will play', with the main stress on the initial syllable of the word. Klaić emphasizes the difference between gen.sg. *sěl̄jāka* for *sel̄jākà* (b) 'peasant' and *cīgānka* (a) and between *ù Beničānce* for *u Beničāncè* (b) 'to B.' and *u Šljīvošēvce* (a) 'to Š.'. It is clear that the initial accentuation did not arise from a phonetic retraction of the stress but developed as an autonomous word-initial boundary signal.

A similar system with double accentuation is found in southern Polish dialects around Nowy Targ and in the Polish and Slovak dialects along the river Orava (cf. Topolińska 1961: 86-89). These dialects can have both initial and penultimate stress co-occurring in the same word, e.g. *Ždžar na Spiszu òpsadzòne* 'planted', *zàrobila* '(she) earned'. Here again, the double accentuation points to two different origins of the stress, the initial accent reflecting a boundary signal and the penultimate accent originating from a general retraction of the stress from final syllables. The similarity with the systems of the Kiev Leaflets and the Podravian dialects can hardly be accidental.

In Polabian we find the following developments (cf. Kortlandt 1989b, also Kuryłowicz 1955 and Lehr-Splawiński 1963). The stress was retracted from a short vowel in a final syllable and a newly stressed short vowel in an open syllable was lengthened, e.g. /t'òsā/ 'scythe' < \**kosà*, /t'āmā/ 'darkness' < \**tāmà*, /voisèk/ 'above' < \**vysòkь*, /zàrāl/ 'saw' < \**zbrālь*, where /ā/ and /ē/ represent reduced vowels. The stress was not retracted from a long vowel, e.g. gen.pl. /būd'ūv/ 'gods' < \**bogóvь*, where the vowel of the final syllable was not reduced. After the retraction of the stress, all vowels were reduced to /ā/ and /ē/ when the preceding syllable contained a long vowel, e.g. /kraidlē/ 'wing' < \**krīdlò*, /vil'ā/ 'will' < \**vólja*, /bjolē/ 'white' < \**bāl'ьjь*, fem. /bjolā/ < \**bālaja*. Acute and circumflex vowels were short, e.g. /zaitū/ 'grain' < \**žito*, /paivū/ 'beer' < \**pīvo*, /jaid'ū/ 'yoke' < \**ǰьgo*, /sāpol/ 'slept' < \**sěpalь*, without vowel reduction in the final syllable. While the retraction of the stress clearly preceded the loss of jers in initial syllables, pretonic jers were subsequently lost, e.g. /celā/ 'bee' < \**bьcelà*, /cerā/ 'yesterday' < \**vbьcerà*, /srebrū/ 'silver' < \**srьbrò*.

However, the evidence also points to fixation of the stress on the initial syllable of polysyllabic word forms, where the vowel was never reduced, e.g. /risetě/ 'sieve' < \*rešetò, /slüvesä/ 'words' < \*slovesà, /t'ül'onai/ 'knees' < \*kolàni, /zil'ozü/ 'iron' < \*želàzo, but was rather lengthened under the stress, as is clear from the vowel reduction in the second syllable of /komănâi/ 'oven' < \*kàmeny, /jod'ädâi/ 'berries' < \*jågody, /citvârü/ 'four' < \*čëtvero, /vå xläde/ 'in the cool' < \*vǔ xoldä. The lengthening did not take place before a long vowel in the following syllable, e.g. /jauzaină/ 'dinner' < \*jũžina, /zojjačã/ 'hares' < \*zàjēce, but it did in /vistäraicã/ 'lizard' < \*jǎšcerīca, /aid'älonã/ 'done' < \*ùdälãnoje. The fixation of the stress on the initial syllable forestalled the loss of the jer in /pasinaicã/ 'wheat' < \*pǔšenica but not in /celã/ 'bee' and /cerã/ 'yesterday' and must therefore have been more recent than the retraction of the stress in the latter words. As in the case of the Kiev Leaflets and the Podravian, Slovak and Polish dialects cited above, the rise of initial accentation in polysyllables was an autonomous development and did not result from a phonetic retraction of the stress in Polabian.

For Slovincian I have established the following relative chronology (1978a: 77f.): (1) retraction of the stress from a final syllable to a preceding long vowel, (2) retraction of the stress from a final syllable in word forms of more than two syllables, which gave rise to the accent patterns of *nagùota* 'nakedness', acc. *nàgotq* (cf. Dybo 1968: 162) and *jìezoro* 'lake', pl. *jezùora*, (3) analogical retraction of the stress in those forms of polysyllabic words with fixed stress on the syllable preceding the ending where the mobile type stressed the initial syllable, giving rise to the accent patterns of *robùota* 'work', acc. *rùobotq* and *kùolano* 'knee', pl. *kolàna*, (4) retraction of the stress from short vowels in final open syllables, e.g. *rãka* 'hand', *pùola* 'fields', *pjila* '(she) drank', *bàla* '(she) was', (5) rise of final -à < \*-àla, e.g. *nabrà* '(she) gathered', *darovà* '(she) gave', and rise of final stress in such forms as *břegami* 'banks', (6) analogical retraction of the stress in such forms as *přiepjila* '(she) spent on drinking', (7) generalization of accentual mobility in the *l*-participle of stems in -i-, -a-, -nq-, (8) analogical retraction of the stress in case forms of polysyllabic *a*-stems. This chronology can be compared with the following list of isoglosses from south to north which divide the Kashubian linguistic area into two (cf. Topolińska 1961: 277): A. generalized initial accentuation in the south, B. mobile stress in *cèlę* 'calf', pl. *celęta, rëmję* 'arm', pl. *remjona* in the north, C. mobile stress in *dàrąję* 'I give', 2nd sg. *darąješ, pòmogę* 'I help', 2nd sg. *pomòžęš* in the north, D. mobile stress in *gòdzana* 'hour', inst. *godzãno, kòsasko* 'scythe handle', pl. *kosaska* in the north, E. mobile stress in *robòta* 'work', acc. *ròbotę* in the north, F. mobile stress in *mòřal* 'harassed', fem. *mořàla* in the north, G. final stress in such adjectives and adverbs as *nocni* 'nocturnal', *koscani*

‘bony’, *fčorá* ‘yesterday’ in the north, H. final stress in *cežá* ‘weight’, *rolá* ‘field’ in the north, J. mobile stress in imperatives such as *cigńi* ‘pull’, pl. *cigńita* in the north, K. mobile stress in *šukál* ‘sought’, fem. *šukàła*, *cignól*, fem. *cignèła*, *daròwał*, fem. *darovàła* in the north. It appears that the accentual developments spread from the north to the south: the isoglosses B-F originated from the analogical retraction of the stress in polysyllabic words (3), G-J from the retraction of the stress from final short vowels (4) and the accent shift to final long vowels (5), and K from the generalization of accentual mobility in the *l*-participle (7). It follows that the fixation of the stress on the initial syllable of the word did not result from successive retractions of the stress but was an autonomous innovation which came from the south and interrupted the developments which spread from the north. We may therefore assume that at an earlier stage initial accentuation was general in Małopolska, Silesia and Wielkopolska but did not reach Pomerania. Since the penultimate stress of modern Polish can easily be explained by phonetic retractions of the stress from a final syllable to a preceding long vowel (1), from a final syllable in word forms of more than two syllables (2), and from final short vowels (4), without the analogical extensions found in Slovincian and northern Kashubian, it is attractive to assume that it represents the original Mazovian system and that it spread with the rise of Warsaw as a center of Polish culture. If this is correct, there was an old isogloss separating southwestern Polish, which like Czech and Slovak had adopted initial accentuation, and northeastern Polish, where accentual mobility may have been preserved until the stress was fixed on the penultimate syllable.

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## Concerning New Štokavian Retraction

Croatian has a two-way pitch accent. When a syllable is stressed, it may take either a rising or a falling tone. Depending on the quantity of syllable, the tone may be either short or long. That makes a total of four tonic combinations:

1. short vowel with falling tone: *pěci* ‘to cook’;
2. short vowel with rising tone: *pèro* ‘feather’;
3. long vowel with falling tone: *měso* ‘meat’;
4. long vowel with rising tone: *médo* ‘teddy bear’.

Such a system is said to be New Štokavian. Standard Croatian and Serbian both are New Štokavian based languages. Additionally there are two other combinations, namely:

5. long vowel with flat tone: *vodě*, Gsg. ‘water’;
6. short vowel with heavy tone: *dubīna* ‘depth’.

These appear only in dialects. In standard language long vowel with flat tone (*vodě*) equals short vowel with a rising tone on preceding syllable plus a remaining length on the original syllable (*vòdē*). Short vowel with heavy tone (*dubīna*) appears most obviously in Dubrovnik dialect. In standard language it equals short vowel with a rising tone on the same syllable (*dubina*). In terms of articulation heavy tone in Dubrovnik dialect is in fact a glottal stop: [ḍubʔiŋa] and likewise *vručīna* [vruʃʔiŋa] ‘heat’, *dobrōta* [ḍobrʔoʦa] ‘goodness’, *ljepōta* [ʎepʔoʦa] ‘beauty’ etc.

Existence of heavy tone has been much neglected. It was first noticed by Stjepan Ivšić (v. Finka (1977)) who satisfied himself by pointing out only that heavy tone was more abrupt than regular falling tone on short syllable (hence the ‘heaviness’). Its glottal articulation went unnoticed and it was universally seen as an entirely synchronic and irrelevant aberration *a posteriori* in regard with rising tone on short syllable. Investigation of its origin in this paper has led me to dismiss such notions.

New Štokavian as compared with Old Štokavian is characterized by a pair of rising tones. We have already mentioned cases like *pèro* ‘feather’ and *médo* ‘teddy bear’. Rising tones come from falling when they are retracted either from last or middle syllable. In other words retraction by and large affects a. p. *b* whereas a. p. *a* and *c* are affected to a somewhat lesser extent. Although retraction has been going on from ca. 14<sup>th</sup> century to present time, transformation from Old to New Štokavian is not a complete one. There are still Old and Middle Štokavian dialects. Besides, retraction affected neighboring

Čakavian dialects as well. Islands of Korčula and Lastovo have an entirely New Štokavian accent system although in every other aspect they are Čakavian.

The course of retraction can roughly be sketched by looking into present Middle Štokavian dialects. Generally the stress is easier retracted to a long syllable. This is why we may find retracted *rúka* ‘arm’ and unretracted *zorà* ‘dawn’ within the same system. When it does retract to a short syllable the stress is generally easier retracted from the opened syllable. Again this is why we may find retracted *zòra* and unretracted *jezi̋k* ‘tongue’. Finally the stress is easier retracted from the end of the word. This is why we find retracted *zòra* and unretracted Gsg. *jezi̋ka*.

I shall focus on Dubrovnik dialect which contains four regular New Štokavian tones (*pě̋ci*, *pèro*, *mě̋so*, *médo*) and a regular length (3pl. *pèkū*, Gpl. *pérā*, *mēsā*, *médā*). It also contains heavy tone (*dubīna*). In terms of synchrony heavy tone appears only in middle syllable followed by a short syllable: *dubīna* whereas Gsg. *dubīnē*. There is an additional aberration *i.e.* the coexistence of forms such as *zòra* and *zóra*. The latter is somewhat archaic and it appears only in first syllable followed by a short syllable: *zóra* whereas Gsg. *zòrē*.

It should be clear at this point that short rising tone is being eliminated for some reason. It is substituted with a heavy tone in the middle and with a long rising tone in the first syllable. Those wishing to establish a course of retraction should ask themselves why is that.

Attempts to solve this matter without looking into the its history (cf. Brozović (2005) usually end up claiming that the two aberrations are allotones of short rising tone. In a way this is true as their distribution is indeed complementary. Their origin however tells a different story. Some help in expounding it can be obtained from Ardelio Della Bella's dictionary (cf. Ligorio (2008)). Though it contains bundles of misleading mistakes, *Dizionario* offers a clear cut of the state in AD 1728 since it is accentuated through out. By the time it was printed, most of the retraction in Dubrovnik dialect was carried out.

We must assume that retraction started in 1400's on entirely Old Štokavian grounds: a falling tone on short and long syllable and a flat tone on long syllable, all distributed as they pleased. Length was by and large pretonic. The first to retract was Old Štokavian short falling from an opened and then closed last to a long first syllable: *rūkà*, *nāròd* ‘people’ yielded *rúka*, *národ*. The outcome was two-folded: firstly, a new tone had arisen and secondly, elimination of pretonic length had started. Seeking to maintain balance, system then generated new pretonic length: *zorà* was analogically lengthened to *zòrā* to compensate for *rūkà*-type which had finished retracting. But this was clearly a wrong move as retraction immediately absorbed *zòrā*-type too. This is why we get *zóra* instead of *zòra*.



After it had finished with disyllabic, retraction moved on to polysyllabic words. First to retract was again Old Štokavian short falling from an opened and then closed last to a long middle syllable: Gsg. *počētkà* ‘beginning’, *počētāk* yielded *početka*, *početak*. This created a younger layer of long rising tone and continued to eliminate pretonic length. At this point the system presumably understood that creating yet another layer of length wouldn't do any good since it would only generate more rising tones. It needed something that wouldn't disturb the balance any further, a kind of old and new solution so it came up with heavy tone. It is acoustically almost identical with Old Štokavian short falling except for the fact that it is not the tone but rather a glottal stop. This is why we get *ježīka* instead of *ježika*.

Short rising tone wasn't generated until long tones began retracting: *sestrē*, *vodē* yielded *sèstrē*, *vòdē*. Their retraction brought chaos into the system since it resulted not only in another rising tone but also in new layers of posttonic length. This is why we get *dubīna* and Gsg. *dubinē*, *zóra* and Gsg. *zòrē*.

From the course of retraction it would seem that the two aberrations (*dubīna*, *zóra*) were generated before the genesis of the short rising tone which they substitute. Calling them allotones is therefore incorrect with respect to the chronology. Insisting on it is rather like ‘putting one's shoes and socks’ instead of ‘socks and shoes’ and thus a clear case of ὄστρον πρότερον.

## Summary

This is a paper about New Štokavian accent shifts and how to fit them in a time queue. Relying on data from the area of Dubrovnik, it tackles with rising tones and their allotones redefining them as true tones as a result of insight provided by chronological pursuit.

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## Über den Silbenakzent in Juraj Križanićs Dialekt

Juraj Križanićs Texte, die auf seinem čakavisch-kajkavischen Dialekt des 17. Jahrhunderts beruhen, sind bereits mehrmals in die Rekonstruktion des urslavischen Akzents miteinbezogen worden, da das in ihnen reflektierte Akzentsystem äußerst archaische Züge trägt. Die eigentlichen prosodischen Merkmale dieses Dialektes sind aber bisher noch nicht befriedigend untersucht worden. Das von Križanić verwendete komplizierte System von Akzentzeichen besaß lange keine eindeutige Interpretation, wodurch eine genauere Einsicht in die prosodischen Erscheinungen, die sich hinter diesen Zeichen verstecken, verhindert wurde. Die vorhandenen Studien kommen häufig zu widersprüchlichen Ergebnissen, was teilweise auf deren beschränkte Berücksichtigung der vorhandenen Daten zurückgeführt werden kann. Wir haben nun eine durchgängige Untersuchung Križanićs Hauptwerke (*Izkazanje* [GI], *Objasnjenje* [OV], *Politika*) durchgeführt und können somit eine vollständige Rekonstruktion vorlegen.

Bei der Rekonstruktion des Silbenakzentsystems Križanićs verfolgen wir folgende Ziele:

- 1) klarzustellen, wie viele phonologische Töne es hatte;
- 2) einen Eindruck davon zu gewinnen, welche phonetische Realisierung (Kontur) diese aufwiesen;
- 3) das syntagmatische Verhalten der Wortintonationen festzustellen, d.h. ob sie in gewissen Kontexten variieren konnten.

All dies wäre ohne Križanićs eigene Bemerkungen kaum möglich. In *Izkazanje* und *Objasnjenje* werden vier prosodische Zeichen benutzt, die er wie folgt erklärt [OV: 57°]:

1. <sup>^</sup> : »**Високиѣ** влак гласниѣу подвѣгает на високо́: и провлáчит на до́лго; кáкот, Бóг, Прáвда, Господáръ«;
2. <sup>-</sup> : »**Дóлгий** провлáчит на до́лго: али неподвѣгает на високо́; кáкот, Глубѣйна, Зелени́на, Нáрод«;
3. <sup>'</sup> : »**Скóрий** подвѣгает на високо́: али непровлáчит на до́лго; кáкот, Чúдо, Вели́ко, Прáвити«;
4. <sup>`</sup> : »**Једна́кий** нити подвѣгает, нити провлáчит. Зачѣм и нé по властѣности почи́таете бити вла́ком; него пáче знáком небѣтја трѣх јстинних влакóв: и знáчит, же она рѣч, над којеју óн јест написан, нѣмает ни́једного вла́ка: и же всѣ нѣе склáди једна́ким и нé рáзличним провлѣчѣнјем јмајут бѣт изречени; кáкот, Слободá, Беретè, Ногà, Водà«.

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1 Der Autor dankt Florian Wandler (Wien) für einige Beobachtungen und für seine Hilfe bei der sprachlichen Korrektur.

Über die Stellung und Distribution der Zeichen schreibt Križanić:

1. »Једнакӣя вл̄а̄к на јед̄ином кра̄јном скл̄ад̄ѣ мо̄жет бӣт пост̄ављен. [...] не зн̄а̄чит јно, неже ост̄алих вл̄а̄к̄ов неб̄ӣтје. А то̄ и без вс̄аког вл̄а̄ка мо̄жетсе разум̄ѣт. Р̄азв̄ѣ вь н̄ѣкоих Двојезн̄ачних р̄ѣч̄ѣх, ради разл̄уче̄ња, не̄ безд̄ѣлно мо̄жет се пӣсат се̄ вл̄а̄к једна̄кӣя; ка̄кот, М̄ѣсто, М̄ѣсто : ка̄ко, ка̄ко : Т̄ими, Тими : М̄ймо, Мимо : Ра̄ди, Ради«

{dasselbe in *Izkazanje* [GI: 194]:

»А то̄ и без вс̄аког зна̄мена мо̄жетсе разум̄ѣт. Развӣ вь нӣких двојера̄зумних рич̄ѣх, зарад разл̄уче̄ња, не̄ безд̄ѣлно мо̄жетсе напӣсат се̄ Једна̄кӣя вл̄а̄к. Ка̄кот, Locus мӣсто, Pro, uel Loco : мӣсто Quomodo, Ка̄ко, Sicut, Како : Т̄ими, Quidem Тими«);

2. »Д̄олгӣя вл̄а̄к, аще јест̄ с̄ам јед̄ӣн на једно̄я р̄ѣчи: лӣше на Прикра̄јном скл̄ад̄ѣ јма̄ет м̄ѣсто; ка̄кот, Зеленӣна«;

3. »Аще бӯдут два̄ д̄олга̄ја: на кра̄јном и Прикра̄јном скл̄ад̄ѣ сто̄ја̄т; ка̄кот, Једна̄кӣм, че̄рн̄ӣм«;

4. »Ащели бӯдет Д̄олгӣя и Ск̄орӣя: на вс̄аком м̄ѣст̄ѣ мо̄гут сто̄ја̄т ; ка̄кот, За̄ба̄ва, Прӣлӣчними«;

5. »Вис̄окӣя и Ск̄орӣя ве̄зд̄ѣ јма̄јӯт м̄ѣсто«.

In den Definitionen der Akzente lassen sich mehrere Besonderheiten beobachten. Erstens, unterscheidet Križanić zwei dichotomische Merkmale »подвӣга̄ет на високо̄« (also Höhe) und »провл̄ачит на до̄лго« (Länge), die vorhanden sein (+) oder fehlen (–) können (s. Tabelle 1).

Tabelle 1

Zeichen		Höhe	Länge	
			–	+
	<i>visokij</i>	+		+
–	<i>dolgij</i>	–		+
	<i>skorij</i>	+		–
'	<i>jednakij</i>	–		–

		Länge	
		–	+
Höhe	+	'	–
	–	\	–

Zweitens, teilt er uns nichts über die prosodischen Eigenschaften selbst, d.h. über deren Phonetik, mit. Während die Beschreibung »подвӣга̄ет на високо̄« keineswegs buchstäblich (als eine Kontur) verstanden werden muss, bezeichnet das zweite Merkmal (Länge) zweifellos lange Vokale.

Drittens, ist zu berücksichtigen, dass diese Definitionen lediglich Križanićs akustische Eindrücke und nicht irgendein phonologisches Verhalten wiedergeben. Dies folgt aus der Beschreibung des *jednakij*-Akzents, welcher durch das Fehlen der beiden eben besprochenen Merkmale definiert ist, was als phonologische Unbetontheit interpretiert werden kann. Diese Interpretation muss aber nicht die einzig mögliche sein: Beispiele wie »слобо̄да, бере̄те, но̄га,

вода» sind ganz offensichtlich nicht phonologisch unbetont. Was soll nun also die Phrase »*нимаєт нїједного влѧка*« eigentlich bedeuten? Križanić selbst gibt uns die Antwort darauf: »*всї нѧєє склѧди једнѧкїм и нѧ рѧзлїчнїм провлѧчѧнем јмајут бїт изречени*«. Unsere Schlüsse vorwegnehmend, können wir dies mit anderen Worten folgendermaßen wiedergeben: *keine der Silben tritt als der einzige Akzentgipfel hervor*. Unserer Meinung nach ist es möglich, dass Križanić mit diesem Zeichen Wörter kennzeichnete, in denen, zumindest seinem subjektiven Empfinden nach, mehrere Silben prosodisch *gleich* ausgesprochen wurden und er es daher als *jednakij* bezeichnete. Trotzdem kann man eine echte (phonologische) Unbetontheit in einigen Fällen nicht ausschließen. So zum Beispiel in zweideutigen Wörtern wie *місто* 'locus' ~ *місто* 'pro, uel loco' (vgl. »*Крѧв, мѧсто Кѧрв*«). Dies bedeutet, dass die jeweiligen Klitika im Redestrom keinen Akzent tragen.

In *Izkazanje* und *Objasnjenje* fällt sofort auf, dass das *jednakij*-Zeichen sich mit dem *skorij* und dem Fehlen eines Zeichens abwechselt, und zwar nur auf der letzten Silbe (*jednakij* kann übrigens anderswo nicht stehen). Bezüglich des Fehlens des *jednakij* auf der letzten Silbe erklärt Križanić: »*и без всѧкого влѧка мѧжетсе разумѧт*«, d.h. die Variation *jednakij* ~ [kein Zeichen] ist keine echte Alternation, sondern kennzeichnet dieselbe Erscheinung<sup>2</sup>. Praktisch wird aber dieser Endakzent nur dann graphisch ausgelassen, wenn die vorletzte Silbe ein *dolgij* trägt<sup>3</sup>. Die Distribution *jednakij* ~ *skorij* scheint auf den ersten Blick zwar zufällig aufzutreten, doch zeigt eine eingehendere Analyse, dass sie unter gewissen Bedingungen ganz regelmäßig ist. Um diese Regelmäßigkeit zu ermitteln, muss man mehrere Parameter einführen:

1) die Anzahl der Silben eines Wortes: (a) Einsilbigkeit bzw. (b) Mehrsilbigkeit,

2) die Quantität der vorletzten, d.h. in diesem Fall vortonigen, Silbe (bei mehrsilbigen Wörtern): ob diese (a) kurz oder (b) lang ist,

3) der reflektierte urslavische Akzent: (a) der alte Akut, (b) der kurze Neoakut, (c) der kurze Akzent (aus verschobenem Akzent im AP *b* oder aus verkürztem Endungsakzent entstanden),

2 Vgl. in derselben Erklärung *разумѧт* ohne Zeichen.

3 A. Peco [PECO 1971] blieb diese Tatsache noch verborgen. Er vergleicht die verschiedenen Akzentzeichen Križanićs mit denjenigen der Serbokroatischen (neoštokavischen) Schriftsprache, was ihn zu keinen neuen Schlüssen führt und aus unerfindlichen Gründen dazu zwingt, der von Belić bereits 1914 geäußerten Meinung, dass Križanićs System eine »štokavska akcentuacija koja je poprimila odlike najprogresivnijih štokavskih govora« darstelle, beizupflichten. Diese Idee, die später von anderen Forschern als nicht sehr wahrscheinlich angesehen wurde, scheint ihren Ursprung im Unverständnis der durch Križanićs Akzentzeichen wiedergegebenen phonologischen Erscheinungen zu haben. Insbesondere, gelingt es Peco nicht, in Križanićs *dolgij*-Zeichen (vgl. Pecos Beispiele *rūka*, *jednāko*) eine alte vortonige, für die Mundarten mit »alter Akzentuierung« typische, Länge zu erkennen.

4) die Stellung im Satz: (a) isoliert, d.h. vor einer Pause (darunter in Wortliste), (b) vor einem anderen Wort (d.h. im Redestrom).

Mehrsilbige Wörter mit langer vorletzter Silbe verhalten sich wie folgt:

aus kurzem Akzent: \*xъrvāī:

vor einer Pause:

»...Рўсјани, Болгáри, Хервāти, Сѣрби, Грѣки...«,

»...Болгáри, Сѣрбљани, и Хервāти : и овѣ трѡи...«,

aber auch (selten; logische Hervorhebung):

»...изглашāње : и сице говорѣт Хервāтѣ. Али по небрижѣнју...«;

nicht vor einer Pause:

in der Regel, vor einer betonungslosen Silbe:

»...въ онѣх мѣстех: гди Хервāтѣ на кончѣне...«,

»Још Хервāтѣ велѣт и сице...«,

»А Хервāтѣ би рѣкли на ЕЦ...«,

während vor einer betonten Silbe:

»...А Сѣрбљани пáк и Хервāти тáко сут изгубѣли...«,

»...Рўсјани пáк, и Хервāти льўбет рѣзво...«,

»...Хервāти мáло знадўт об тѣх...«,

aber auch (selten) vor einer betonungslosen Silbe:

»Рўсјани чáсто, а Хервāти всегдá, творѣт...«,

»Вь јменнѣкѣ Хервāти велѣт...«,

»...кѣ, Хервāти би рѣкли, От горѣ мáле...«;

aus altem Akut: \*pīsāľ:

vor einer Pause:

»и он неби крѣво пѣсал...«,

nicht vor einer Pause:

»А ктѡ би вездѣ пѣсал Јхѡта.«

Obwohl diese Distribution nicht sehr deutlich ist, lässt sich hier eine Tendenz zur Verwendung des *skorij* vor einer betonungslosen Silbe (also nicht vor einer Pause), besonders vor einem Klitikon, beobachten. Vor einer Pause fehlt das Akzentzeichen praktisch immer, was wir so interpretieren, dass es sich in dieser Stellung einfach um eine Variante des *jednakij* handelt, da, wie oben bereits erwähnt, die Variation *jednakij* ~ [kein Zeichen] keine echte Alternation darstellt. Betrachtet man nun das *skorij* als Grundzeichen, so ist dieser Endakzent einer phonetischen Veränderung unterworfen, was als eine volle Neutralisierung in der Stellung nach einer langen vorletzten Silbe aufgefasst werden kann.

Mehrsilbige Wörter mit kurzer vorletzter Silbe können sowohl ein *skorij* als auch ein *jednakij* tragen:

aus kurzem Akzent: \*lakomōstь:

vor einer Pause:

»Но пра́во реци́, [...] Лакомòст, Скүпост...«,  
»Големòст. Знакомòст. Лакомòст, Нимота́.«,

nicht vor einer Pause:

»Лакомòст, и гньйв, бя́ше вь ньём велик.«,  
»Какот, Гньйв и Лакомòст бя́ху вь ньём велика́.«,

aus kurzem Neoakut: \*živòť:

vor einer Pause:

»Ов гра́д. Живòт, Ми́р.«,  
»Члови́чскиь живòт : внòжих члови́ков живòт.«,  
»Чрез вьс живòт.«,

nicht vor einer Pause:

»Реци́, Живòт пришèстного, или гредущего вьба́.«,  
»Реци́, Лва́на живòт боли́т.«

Wie die angeführten Beispiele bezeugen, tragen diese Wörter im Redestrom lediglich das *skorij* und vor einer Pause am häufigsten das *jednakij*. Es handelt sich also um einen syntaktischen Akzentwechsel, oder, genauer gesagt, um eine Veränderung des Endakzents einer Taktgruppe (Akzentwort). Wenn unsere Interpretation des *jednakij*-Zeichens, die auf Križanićs Erklärung beruht, dass er damit das Fehlen eines einzigen Akzentgipfels kennzeichnete, richtig ist, können wir daraus schließen, dass phonologisch endbetonte Wörter mit kurzer betonter Silbe im Redestrom (d.h. auch vor Klitika) der Akzentgipfel auf der letzten Silbe tragen, während in isolierter Stellung oder vor einer Pause ein Wechsel, der wahrscheinlich in einer Umverteilung des Akzentgipfels über die letzten beiden Silben besteht, stattfindet. Weiters lässt sich beobachten, dass diese Umverteilung bei langen vorletzten Silben häufiger geschieht, d.h. dass lange Silben den ersten Teil des Akzentgipfels »lieber« hinüberziehen, weshalb wir diesen Wechsel als »teilweise Zurückziehung« bezeichnen können. Offensichtlich ist dabei, dass die Umverteilung (oder der Verlust) des Akzentgipfels nur in mehrsilbigen Wörtern möglich ist. Andere Beispiele (vor einer Pause): Substantive mit flüchtigem Vokal: *ота́ц, ловьц, коньц*; andere Substantive: *облòст, големòст, питомòст*, Adjektive: *ширòк, далèк, висòк*; passive Partizipien: *творèн, говорèн, прочтèн*. Aber:

aus altem Akut: \*jezŭkь:

vor einer Pause:

»...какот, Лрост, Л́-|зеро, Лòка́ти, Лутро, Лязи́к.«,  
»...по пра́вде зва́т се [...] Дри́вни лези́к, Пьрво ти́м: жежe...«,  
»...и ти́м разли́чно и мьрзко казьт лези́к. Кт...«,

und auch (häufiger):

»...налпа́че се чини́т по обзòру на Грьческиь лези́к.«,  
»...лязи́ци; какот, Грьческиь лязи́к, Жидòвскиь лязи́к.«,  
»...незна́жет чи́ст Слови́нскиь лези́к.«,

nicht vor einer Pause:

- »...бо јест учиньено да језик наш сѣь...«,  
»...јеже сѣь кнѣйжнѣ језик вно́го подобнѣи јест...«,  
»...же сѣьм Ру́скии јазик на трѣ́је јест раздѣльен...«

Auf dieselbe Weise verhalten sich *вели́к* ~ *велик*, *члoвѣ́к* ~ *члoвѣк* und andere Wörter mit altem Akut: sie können fakultativ das *skorij* behalten. Suffixableitungen mit altem Akut im Suffix erscheinen im Satzzusammenhang vor einer Pause oder in Wortlisten in der Regel mit dem *skorij*, vgl. Substantive: *роджа́ь*, *держáь*, *дити́щ* (neben *дѣтищ*, *кнежищ*); Adjektive: *брада́т*, *глава́т*, *бога́т*, *бата́ст*, *трака́ст*, *бледи́в*, *ложли́в* (neben *ложѣв*); *серди́т*, *очи́т*; Infinitive: *води́т*, *говори́т* (neben *смотри́т*); *l*-Partizipien: *води́л* (aber auch häufig *водѣл*).

Einsilbige Wörter vor einer Pause kennen diese Neutralisierung nicht: in dieser Stellung (z.B. in Wortlisten) treten sie nur entweder mit dem einem oder mit dem anderen Akzentzeichen auf, vgl. *са́н*, *крово́*, *во́л*, *со́м*, *до́ждь*, *ко́нь*, *ко́ш*, bzw. *бра́т*, *мра́з*, *би́ч*, *ра́ј*, *пти́щ*, *зми́ј*, *хли́б*, *ма́л*, *вла́х*, *ле́х*, *ца́р*<sup>4</sup>. Es ist leicht zu erkennen, dass die Wörter mit *jednakij* zum AP *b* (*\*sòтъ*, *\*soma*), während die mit *skorij* zum AP *a* (*\*rǎъ*, *\*rǎja*) gehören. Die Vermutung, dass Križanić auf diese Weise auf die Stellung des Akzents in den obliquen Kasus hindeuten wollte (vgl. *ко́ньà* aber *бра́та*), bestätigt sich nicht, da es sich hierbei um eine Erscheinung handelt, bei der sich einsilbige bzw. mehrsilbige Wörter voneinander unterscheiden: mehrsilbige Wörter mit altem Akut (wie *јези́к* ~ *језѣк*) können das *jednakij* tragen (besonders vor einer Pause), einsilbige (wie *бра́т*) jedoch nicht. In diesen einsilbigen Wörtern findet naturgemäß keine Akzentzurückziehung statt, da keine vorletzte Silbe vorhanden ist, auf die der Akzent fallen könnte.

Beispiele für einsilbige Wörter:

aus altem Akut: *\*xlěbъ*, *\*brǎтъ*, *\*bŭti*:

vor einer Pause:

- »На всѣ́ десет мужѣ́ь јест дѣ́л једен хли́б...«,  
»...на негласни́ци тонки́ : кѣ́ бра́т...«,  
»Сѣ́це ја процѣ́ньахи го́дно би́т...«,

nicht vor einer Pause:

- »Кнѣ́йги пи́сца : Хли́б тѣ́ги : Удѣ́ље со́лз...«,  
»О́в бра́т мо́ь дра́г...«,  
»...и пи́шет, ка́ко ли́плѣ би́т сѣ́дит...«

So verhalten sich alle einsilbigen Wörter mit altem Akut, während die Wörter mit kurzem Neoakut den vorher erwähnten Akzentwechsel aufweisen:

aus kurzem Neoakut: *\*zǎlъ* > [zàl]:

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4 Darauf weist W.A. Dybo hin [ДЫБО 1968: 221].

vor einer Pause:

»Зол: Горши, и Гóри.«,

nicht vor einer Pause:

»...нара́в до́бер и́лити зо́л она́ сто́је́т во́ Јзкернику.«

Zu beobachten ist weiters, dass Križanić in den wenigen Fällen, in denen einsilbige Wörter einen urslavischen kurzen, durch Verschiebung von einem schwachen Jer entstandenen Akzent im AP *b* tragen, nur das *skorij* schreibt, vgl. *злóст* < \*зьлóсть (vor einer Pause: »На злóст. На́ срамоту«). Dies zeugt, unserer Meinung nach, davon, dass dieser verschobene Akzent mit dem alten Akut identisch ist, während der Reflex des kurzen Neoakuts eine andere Kontur trägt.

Die Benutzung des *skorij* bzw. des *jednakij*-Zeichens ist sowohl von der Qualität des Vokals, vgl. *бра́т*, *бра́та*, aber *сан*, *сна́* (solche Beispiele sind natürlich nicht sehr zahlreich), als auch vom Akzentparadigma, vgl. *ма́л*, *ма́ла* (AP *a*), aber *но́в*, *но́ва* und *ло́ш*, *ло́ше*, unabhängig. Diese kurzen Adjektive sind sekundär vom AP *b* zum AP *a* übergegangen, ohne den alten Akzent zu ändern.

Unsere Analyse zeigt, dass Križanićs Mundart »teilweise« Zurückziehungen kannte, die mehrsilbige Wörter vor einer Pause betrafen, während einsilbige Wörter in dieser Stellung alten Akut und verschobenen kurzen Akzent (als *skorij* reflektiert) bzw. kurzen Neoakut (*jednakij*) ganz gut unterschieden<sup>5</sup>.

Wenden wir uns nun den übrigen Akzentzeichen, *visokij* und *dolgij*, zu, die an keinen syntaktischen Wechseln teilnehmen. Wie oben bereits erwähnt, kann dem *dolgij*, unter gewissen syntaktische Bedingungen, ein Endakzent (*skorij*) folgen, was bedeutet, dass das *dolgij* keinen phonologischen Akzent kennzeichnet, sondern lediglich phonetisch als Betonung anklingen kann, wenn die nächste Silbe ihren Akzentgipfel verliert. Das ganze Zeichensystem gestaltet sich demgemäß wie folgt (s. Tabelle 2).

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5 J. Hamm [HAMM 1974] sagt nichts über den Wechsel der kurzen Akzentzeichen und vermutet, dass das *skorij* einen Akzent kennzeichnete, der »moglo biti " ili ` , koji su se u Gramatici (i, prethodno, u Križanićevu govoru) bili slili u jedno«. Diese Ansicht vertraten alle jugoslawischen Forscher, obgleich sie, wie unserer Meinung nach klar zu ersehen ist, durch die Vernachlässigung der Akzentuierung einsilbiger Wörter zustande kam. Umso merkwürdiger ist diese Tatsache, da V.A. Dybo diesen Wechsel bereits 1968 beobachtet hat.



Tabelle 2: die Distribution der Akzentzeichen

Silbe ↓		Silbe bei Križanić ⇔		kurze			lange	
		urslav. Akzent ⇔		alter Akut	kurzer	kurzer Neoakut	Zirkumflex	langer Neoakut
		Stellung ↓						
betonte	nicht letzte			skorij			visokij	
	letzte in mehrsilbigem Wort	nach Kürze	nicht vor Pause					
			vor Pause	skorij (jednakij)	jednakij			
		nach Länge	vor Unbetontheit	skorij (kein Zeichen)				
			vor Betonung vor Pause	kein Zeichen				
	einsilbiges Wort	nicht vor Pause		skorij	skorij			
vor Pause		jednakij						
unbetonte							dolgij	

Diese Interpretation stößt jedoch auf eine Schwierigkeit. Im Lichte unserer Überlegungen erscheint Križanićs Beurteilung russischer Aussprache sehr merkwürdig [OV: 56°]: »Татарский бо и Турский языкъ чысто ужйваетъ Влѣка Тяжкого или Еднѣакого на послѣднемъ складѣ: и тоже обрѣтается и въ рускоѣ бесѣдѣ; какот, Москва, Ока, Глава, Рука: мѣсто, Москва, Ока, Глава, Рука«<sup>6</sup>. Es ist nicht klar, warum Križanić der Endakzent in diesen russischen (kurzsilbigen) Ortsnamen nicht gefiel, umso mehr, da er, wie wir gezeigt haben, mit *jednakij* eine »teilweise« Zurückziehung kennzeichnete. Hierin lassen sich möglicherweise falsche etymologische Annahmen erkennen<sup>7</sup>. Andererseits, können uns die angeführten »unrichtig« ausgesprochenen, da für Križanić langsilbigen, Gattungswörter *глава*, *рука* bei der Rekonstruktion behilflich sein. Neben der isolierten Betonung *глѣва*, *рука* behalten diese Wörter den Endakzent im Redestrom, vgl. »Пишутъ Глѣва, Горѣ« [GI: 135]. Es ist möglich, dass Križanić die russische endbetonte Aussprache (*глава*) gerade in isolierter Stellung zuwider war, da in dem von ihm gesprochenen Dialekt hier ein doppelgipfelter Akzent auftrat, d.h. eine Zurückziehung (*глѣва*). Daraus lässt sich schließen, dass Križanić den durch *dolgij* gekennzeichneten Ton in isolierter Stellung als einen selbständigen Akzent auf der vorletzten Silbe und nicht als eine Variante von *dolgij* plus *skorij* aufnahm. Er verstand wahrscheinlich nicht, dass diese Varianten syntaktisch verteilt waren, und der Akzent der isolierten Form muss daher für ihn der Grundakzent gewesen sein. All dies lässt uns vermuten, dass das *dolgij* ohne *skorij* eine eigene ausgeprägte

6 Doch in *Izkazanje* schreibt er nur *Москва* [GI: 28]. Dort aber ist dieses Wort beweglich: *Москва, Москвѣ, Москву*.

7 Dies kann vielleicht durch den Unterschied zwischen der Kontur des russischen und Križanićs eigenem Endakzent erklärt werden (V.A. Dybos mündliche Mitteilung). Dennoch ist es unklar, warum Križanić diesen russischen Akzent *jednakij* (auch *tjažkij*) nannte.

Kontur hatte, die diesen Akzent vom anderen langen Akzent, dem *visokij*, klar unterschied (eine Schreibung wie \**glāva* war daher sicherlich ausgeschlossen). Križanićs Dialekt hatte also zwei lange Akzente, von denen einer seine alte Stelle behielt und der andere zurückgezogen, also nicht phonologisch, war.

Was den durch *visokij* bezeichneten Akzent betrifft, so ist dessen phonetische Interpretation naturgemäß schwierig, da uns Križanić nichts Konkretes über ihn mitteilt (abgesehen davon, dass er lang ist). Die Grundfrage, die sich die Erforscher des Akzentsystems von Križanić stellten, ist, wie viele Intonationen – eine oder zwei – hinter dem *visokij* steckten<sup>8</sup>. Einige von ihnen neigten zu der Annahme, dass Križanić seinen eigenen steigenden »čakavische Akut« bzw. fallenden »Zirkumflex«, absichtlich oder nicht, in den Texten vereinigte<sup>9</sup>.

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8 M. Moguš [MOGUŠ 1974] schreibt: »...da li se ›visokij vlak‹ odnosio na starohrvatski akut (˘) ili na dugosilazni naglasak (˘), teško je decidirano reći. Mislim da je taj naglasak mogao značiti ili ˘ ili ˘ jer i kod jednog i kod drugog treba [sic] ›glasnicu vozdvigájet na visokó ... i provláčit na dólgo, nedoduše jednako, ali dosta slično...‹ Er vermutet, dass dieses Zeichen sowohl in *bôg*, *mûž*, *grád*, *sîn*, als auch in *králj*, *grîh*, *prāvda*, *gospodār* eine Aussprache «s dugosilaznim naglaskom» wiedergibt, und dass sich folglich der »čakavische Akut« im betreffenden Dialekt mit dem langen fallenden Akzent vereinigt hat. Umso merkwürdiger ist es dann, dass Moguš dem *dolgij* zwei (!) phonologische Werte zuschreibt. Er führt hier: »*kněže* (pored *kněže*), *mômče* (pored *mômče*)«, wo das *dolgij* (*kněže*) »izuzetno« eine fallende Intonation wiedergeben soll (neben dem gewöhnlicheren *kněže*), an. Moguš hat hier jedoch übersehen, dass diese Formen zu zwei verschiedenen Wörtern gehören, vgl.: »*Ко пѣтому љѣзру пристѣжет љмена ниједѣнска* [...] *Ј која се кончѣт на Е* [im Nominativ!]: *а въ љзернику* [d.h. im Genitiv] *љмáју прѣрáсток ТА: кѣ, Брáвче, брáвчѣта: Дѣжле, Гѣсе, Дѣте, [...]* *Кнѣже, Козлѣ, Коньчѣ, Кѣре, Мѣмче, Ослѣ*«, usw., wo Križanić über Substantive auf \*-e (zur Bezeichnung von Jungtieren usw.) spricht, während *kněže* der Vokativ von *kněz* ist, vgl.: »*По Рѣску, и по Хервáтску, љменник мѣжет стојáт въ мисто зовника: кѣ, ѿ кнѣз Богдáн буди милостив: въ мисто: ѿ кнѣже Богдáне*«. Was die Form *mômče* betrifft, ist sie unseres Wissens in Križanićs Texte überhaupt nicht vorhanden.

Hamm [HAMM 1974] vermutet im Gegensatz zu Moguš, dass das *visokij* (˘) eine Intonation bezeichnete, die »artikulacijski jamačno nije bilo jednako štokavskom ˘ nego više čakavskom (ili staroštokavskom) ˘ ili ˘ «, was ihn dazu veranlasst, die Aussprache *prāvda*, *gospodār* und »u enklizi« *bôg*, *ženě* zu rekonstruieren. Das *dolgij* (–) bezeichnet für Hamm eine betonungslose Länge, d.h. »u enklizi«: *rūkã*, *nãrod*, doch rekonstruiert er hier in isolierter Stellung einen fallenden Ton: *rûka*, *nãrod*. Diese phonetische Interpretation der Kontur ist natürlich arbiträr und wird durch seine folgende Bemerkung, dass »već iz njegove se stilizacije može nazreti da mu je bila misao da ad usum lectoris svoj politonijski sistem zamijeni pozicionim i kvantitativnim i da – ostajući na troakcenatskoj osnovi – sva razlikovanja prenese na bazu kvantiteta i samo *jedne* (silazne, dugosilazne) intonacije« (gibt es also drei phonetisch lange Intonationen?), noch nebelhafter. Auch S. Težak [TEŽAK 1996] vertritt diese merkwürdige Ansicht.

9 S. Težak [TEŽAK 1996] spricht von Zurückziehungen von der letzten Silbe, die in Križanićs Zeit begonnen hätten und schon damals »zibunjavati onoga tko želi odrediti taj

Dass Križanić die betonten langen Intonationen sehr gut unterscheiden konnte, folgt aus seinen »serbischen«, d.h. aus irgendwelchen (neo)štokavischen Dialekten stammenden, Beispielen, vgl. »По Сѣрбску, вножйинниѣ јзкерник во внојих јменех, всіих прѣтворов (:опріч четвѣртого:) творйтсе на А, зъ Дѡлгим зѡвлѡком: сѣце, от овіих Брѣта, ових Крѡльѡ, ових Кѡнѡ, ових рѣба, ових овѡца, ових кѡза, ових лѣта, ових лѣца, ових врѣмѣна: тих кнѣза, тих господѡра, тих мисѣца. А нѣкогда и на ОВА, или ЕВА : тѣх волѡва, другѡва: тих врачѣва, сужнѣва. Али сѣцево изрикѡнје јест сказно, и негодно наслидовѡнју« [GI: 24]. Diese zweifellos betonten Silben (*рѣба*, *кѡза*) mussten eine besondere Intonation aufweisen, wofür Križanić gerade das *dolgij* Zeichen gewählt hat. Unterschied er die langen betonten Intonationen nicht, so hätte er ganz gewiss das andere Zeichen, das *visokij*, benutzt. Diese »serbische« Intonation muss natürlich seinem eigenen *dolgij* nicht identisch gewesen sein, das, wie oben bereits erwähnt, nur die erste Hälfte des zweigipfeligen Akzents trug. Ebenso ist es bemerkenswert, dass die Akzente von *кѡнѡ*, *врѣмѣна* bzw. *рѣба* mit demselben Zeichen bezeichnet werden, vgl. hierzu das heutige schriftsprachliche Srbkr. *kónjā*, *vreménā* mit neuer steigenden Intonation, aber *ribā* mit dem Reflex des Neozirkumflex. Dies könnte bedeuten, dass sich in diesem neoštokavischen Dialekt die Intonationen von *ribā* bzw. *konjā* nicht voneinander unterschieden.

Ein anderes Argument gegen die Nichtunterscheidung der langen betonten Intonationen bei Križanić ist, dass, wie bereits gezeigt wurde, Križanić die kurzen Intonationen unterschied, was Hamm und Moguš nicht bemerkten. Phonologisch gesehen hätte Križanićs Dialekt, nach unserer Interpretation, also zwei kurze und eine lange Intonation.

Ein besonderes Problem stellt weiters Križanićs Gebrauch von zwei *dolgij* Zeichen nacheinander dar. Er selbst teilt uns mit, dass dies lediglich auf den letzten zwei Silben eines Wortes möglich ist. Dies kommt nur in vier oder fünf morphologischen Stellungen vor, in denen, wenn die vorletzte Silbe kurz ist oder wenn es sich dabei um einsilbige Wörter handelt, immer das *visokij* verwendet wird (s. Tabelle 3). Dies sind die einzigen Stellungen, in denen zwei lange Silben überhaupt möglich sind. In allen anderen Positionen ist diese Situation

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sustav [der Silbenakzente]« könnten, was Križanić, »kome je uho bilo naviknuto na silaznu intonaciju« (warum?) angeblich dazu zwingen musste, alle Intonationsunterschiede unberücksichtigt zu lassen. Diese Überlegungen sind uns vollends unklar, da Križanić gerade zwei lange phonetische Intonationen beschreibt: *visokij* »гласниџу подвѣгает на високо́: и провлѡчит на до́лго; кѡкот, Бѡг, Прѡвѡда, Господѡр«, *dolgij* »провлѡчит на до́лго: али неподвѣгает на високо́; кѡкот, Глубѣйна, Зелѣйна, Нѡродж«. Was aber noch merkwürdiger ist, sagt Težak selbst, dass »stari akut (*sūša*, *mġatim*) [...] već u Križanićevo vrijeme na dijelu DOR [Dubrovnik-Ozalj-Ribnik] zamijenjen dugosilaznim naglaskom«, also ist der Vorwurf, dass Križanić seine zwei langen Intonationen nicht unterschieden habe, nicht nur unbegründet, sondern auch ganz und gar unlogisch.

durch das Gesetz von Križanić geregelt [ОСЛОИ 2011]. Das *visokij* Zeichen ist offenbar nach einer Länge unzulässig, woraus sich eine tonale Veränderung ergibt, die wieder als eine Umverteilung der Akzentgipfels verstanden werden kann.

Tabelle 3: zwei Längen nacheinander

Form	Wortart	Länge	Kürze/Einsilbigkeit
gen.sg.f. <sup>10</sup>	Sub. auf -a-	<i>р̄ӯк̄ē</i>	<i>жен̄ē</i>
	Adj.	<i>др̄а̄г̄ē</i>	<i>доб̄р̄ē</i>
gen.pl.f.	Sub. auf -a-	<i>пр̄ӣч̄ӣн̄</i> <sup>11</sup>	<i>ч̄ер̄т̄ӣн̄</i> <i>в̄ӣн̄</i>
instr.sg.f. <sup>10</sup>	Sub. auf -a-	<i>гл̄āv̄ō̄м̄</i> <i>р̄ӯк̄ū</i>	<i>зем̄ль̄ō̄м̄</i> <i>зем̄ль̄ū</i>
	Pron. (Adj.?)	?	<i>сво̄ј̄ū</i> <i>вс̄ū</i>
instr.sg.m.	Adj.	<i>ч̄ēr̄н̄ӣм̄</i>	<i>доб̄р̄ӣм̄</i> <i>з̄л̄ӣм̄</i>

Križanićs prosodisches System kann also wie folgt repräsentiert werden (s. Tabelle 4; phonologisch bedeutungstragende Akzente sind durch Fettdruck hervorgehoben).

10 Diese Beispiele werden nur als Illustration »kroatischer« Formen angeführt und kommen nie in der Autorensprache vor.

11 Es gibt nur zwei solche Fälle (und zwar nur mit der Form *пр̄ӣч̄ӣн̄*), die beide in *Objasnjenje* vorkommen, während in *Izkazanje* nur die Schreibung *пр̄ӣч̄ӣн̄* vorhanden ist. Die Länge des Präfixes ist auch instabil, vgl. *пр̄ӣч̄ӣна* (*Objasnjenje*) bzw. *пр̄ӣч̄ӣна* (*Izkazanje*). Davon schließen wir, dass dieses Wort für Križanić wahrscheinlich nicht gebräuchlich war und dass dessen Schreibung das Ergebnis einer bewussten Entscheidung war.

Tabelle 4: Die phonetischen und phonologischen Akzente

Zeichen	phonetische Kontur vor einer Pause		phonologische Wert	unseres Kennzeichen
<i>skorij</i>	kurzsteigend (?)		<b>kurzsteigend</b> (?)	ó
<i>jednakij</i>	mehrsilbige Wörter	die zweite Hälfte des zweigipfeligen Akzents		
	einsilbige Wörter Klitika	kurzfallend (?) unbetonte Kürze		
<i>visokij</i>	langfallend (oder eben?)		<b>betonte Länge</b>	ō
<i>dolgij</i>	vor einem <i>skorij</i>	unbetonte Länge	unbetonte Länge	ō
	vor einem <i>jednakij</i> oder keinem Zeichen	langsteigend – die erste Hälfte des zweigipfeligen Akzents		

Es gab demzufolge vier phonetische Intonationen (zwei kurze und zwei lange, die Križanićs Diakritika entsprechen), die drei phonologische Akzente realisierten, deren Alternationen sich auf einfache Änderungen bringen lassen (s. Tabelle 5; zwei Akzentzeichen stellen zweigipfelige Akzente dar).

Tabelle 5: Wechselregeln im Redestrom

Wort	vor einer Pause		nicht vor einer Pause <sup>12</sup>	
ó →	ó	<i>бра́т</i>	ó	<i>бра́т</i> <i>зо́л</i>
ò →	ò	<i>зо́л</i>		
σó →	σó	<i>бога́т</i>	σó	<i>бога́т</i> <i>члoвѣк</i> <i>живо́т</i>
	σò →	<i>члoвѣк</i> <i>живо́т</i>		
ōó →	ōó	<i>пи́сал</i>	ōó	<i>напи́сал</i>
ōō →	ōō	<i>гла́вoм</i>	ōō	<i>ру́кy</i>

Allem Anschein nach befand sich die in Križanićs Texten wiedergegebene Mundart im Anfangsstadium einer Zurückziehung des Endakzents in Akzentwörtern. Man kann vermuten, dass zuallererst die Zurückziehung auf die langen vorletzten Silben vor einer Pause stattfand (→ *пи́сал*), da in dieser Position fast keine Abweichungen bestehen. Im Redestrom haben kurze Endakzente ihre Stelle beibehalten, haben sich aber völlig neutralisiert (*бра́т* wie *зо́л*, *члoвѣк* wie *живо́т*). Lange Endakzente ändern sich nach kurzer Silbe

12 Für Wörter mit langer vorletzter Silbe: auch (häufig) vor unbetonter Silbe.

(*жешѣ*) nicht, und nach langen Silben findet eine teilweise Umverteilung des Akzentgipfels statt (*пѣкѣ*).

Wir kommen also zu einem interessanten Ergebnis: die Akzentneutralisierungen finden sowohl vor einer Pause, als auch im Redestrom statt. Die Resultate sind hierbei jedoch in einigen Fällen verschieden, d.h. sie verändern auf verschiedene Weise das, was wir als »phonologischen Akzent« bezeichnet haben, der ein früheres Stadium (vor Zurückziehungen und Neutralisierungen kurzer Endakzente im Redestrom) widerspiegelt. Eine solche Lage scheint instabil gewesen zu sein und führte daher später zu einer Vereinfachung des Akzentsystems.

Die heutigen čakavisch-kajkavischen Mundarten auf dem Gebiet des von Križanić gesprochenen Dialekts folgen in vieler Hinsicht dem in seinen Texten wiedergegebenen Zustand. S. Težak [TEŽAK 1996] kommt zum Schluss, dass Križanićs Mundart den heutigen Mundarten von Ozalj (»osobito govorima Husja i Kobilića«) am ähnlichsten ist. Dort existieren drei Akzente (langsteigender, kurzfallender und langfallender). Der langfallende Akzent ist nach einer Zurückziehung des kurzen Endakzents entstanden, vgl. *ótac*, *vóda* (mit Verlängerung), *glubína*, wobei jedoch in Kobilić keine Zurückziehung stattfand, vgl. *otàc*, *ocà*. Die übrigen Akzente behalten deren alte Stelle, vgl. *kolèno*, *kopàli*, *vodê*, *kopâm*. In einigen Mundarten (Kamanje) ist auch vortonige Länge sporadisch zu hören, vgl. *zàstòra*, *pokāzàla*. Die Zurückziehungen in ozaljischen Mundarten finden normalerweise nur dann statt, wenn dem Wort keine Klitika folgen, vgl. *kúpil*, aber *kupìl bi*; *bérem*, aber *berèm ju*; *kósmat*, aber *kosmăt je*, was Križanićs Alternationen sehr ähnelt (wenn man die Längung außer Acht lässt).

Das wichtigste Ergebnis unserer Untersuchung ist das Vorhandensein zweier verschiedener kurzer Akzente bei Križanić, eine Vermutung, die auf A.V. Dybo zurückgeht. Die komplizierte phonetische Situation, die durch die Zurückziehungen und teilweise Neutralisierung der nichtzurückgezogenen Akzente entstanden ist, hat frühere Forscher an einer richtigen Interpretation des vorliegenden Materials gehindert. Unsere Schlüsse stehen im Widerspruch zur in der Serbokroastistik vorherrschenden Meinung, dass sich die alten kurzen Akzente in allen Dialekten mit »alter Akzentuierung« vereinigt haben, die offenbar revidiert werden muss. Der rekonstruierte urslavische kurze Neoakut spiegelt sich also unmittelbar in Križanićs Texten wider.

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## Akzentuierung der altpreußischen suffigierten Verba

### I. Einleitung

§ 1. Außer der Akzentologie ist die altpreußische Verbalmorphologie wahrscheinlich das am stärksten umstrittene Thema der altpreußischen Sprachwissenschaft überhaupt. Es gibt mehrere ganz unterschiedliche Interpretationen des apr. Verbalsystems, einige davon (z.B. ENDZELIN 1944: 153-199; STANG 1942: 98ff.; 1966: 309ff.; SCHMID 1963: 4-32; MAŽIULIS 2004: 72-90) mehr oder weniger traditionell, während andere mehr oder weniger innovativ sind (z.B. KORTLANDT 1987; 1998; KAUKIENĖ 1998; 2004: 169ff.<sup>1</sup>; OSTROWSKI 1994; SMO CZYŃSKI 2005: 413-489). Das wichtigste morphologische Problem, das mit den suffigierten Verba verbunden ist, ist die Interpretation der sogenannten halbthematischen Präsensstämme. Mit dem Terminus 'halbthematisch' hat Ch. S. Stang die Präsensstämme mit den Stammauslauten *-i* (*i*-Stamm, vgl. Präs.3. apr. *turri* : lit. *tūri*) und *-ā* (*ā*-Stamm, vgl. Präs.3. apr. *perbānda* [*< \*perbāndā*] : lit. *bañdo*) benannt. Dem traditionellen Denken nach existierten solche Präsensformen sowohl in den ost- als auch in den westbaltischen Sprachen und unterschieden sich formell von Präsensformen der sekundären (mit den Suffixen abgeleiteten) thematischen Verba mit den Stammauslauten *-ija* (*ija*-Stamm, vgl. apr. *cixtia* : lit. *kriks̄tija*) und *-āja* (*āja*-Stamm, vgl. apr. *maitā* [*≤ \*maitāja < \*maitājā*] : lit. *kapója*). Manche Baltisten stellen die Existenz des Unterschieds zwischen den halbthematischen und sekundären thematischen Verba im Altpreußischen in Abrede. Z.B. interpretieren Ostrowski und Smoczyński die Formen wie *turri*, *perbānda* als apokopierte suffigierte Formen und verbinden die traditionellen *i*- und *ija*-Stämme in einer Klasse - der *ija* Klasse, d.h.: *turri* (*< \*turija*) = *cixtia*<sup>2</sup>; respektiv werden die traditionellen *ā*- und *āja*- Stämme als eine *āja*-Klasse interpretiert, d.h.: *perbānda* (*< \*perbāndāja*) = *maitā* (*< \*maitāja*). Dagegen leugnet Kaukienė die *ja*-Apokope in Verba wie *maitā* und interpretiert die traditionellen *ā*- und *āja*- Stämme als eine *ā*-Klasse, obwohl die traditionellen *i*- und *ija*- Stämme von ihr nicht in einer Klasse verbunden werden. Wegen der Dürftigkeit des belegten Materials kann keine der oben genannten Hypothesen für die alleinige richtige Interpretation gehalten werden. Nur die sekundären

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1 Vgl. Kritik: Mažiulis 2000; Palmaitis 2000.

2 = auch *milē* [*mīlej*] *< \*milija*. Zur umstrittenen Theorie, dass die Schreibung *<ē>* im Auslaut den Diphthong [*ei*] = */ij/* darstellt, s. Smoczyński 1997.



(d.h. die echten suffigierten) Verba sollten das Objekt des vorliegenden Aufsatzes sein, aber mit Rücksicht auf die Schwierigkeiten der morphologischen Interpretation der belegten Verbalformen werden auch mögliche Beispiele der Verba mit halbthematischen Präsensstämmen in der folgenden Untersuchung in Betracht gezogen.

§ 2. Den Kern des Systems der Formbildung der apr. Verba machen zumindest zwei Hauptformen aus: der Präsensstamm und der Infinitivstamm. Sie können formell identisch (z.B. Präs.1.Pl. *waitiā-mai* : Inf. *waitiā-t*) oder unterschiedlich sein (z.B. Präs.3. *auschaidē* : Inf. *auschaidī-twei*; Präs.1.Pl. *kīrdī-mai* : Inf. *kīrdī-twei*). Da man wegen der Dürftigkeit des belegten Materials einen einzelnen Präteritumstamm nicht feststellen und ein genaues Bild der Formbildung der apr. Verba nicht gewonnen werden kann, werden Partizipien des Präteritums in der folgenden Untersuchung den Infinitivstammformen zugeordnet (zumindest in allen belegten Fällen unterscheidet sich Akzentuierung der Partizipien des Präteritums von der des Infinitivs nicht, vgl. RINKEVIČIUS 2009: 185-187). Es wird auch vermutet, dass die Akzentuierung des Imperativs den Akzent der Präsensstammformen widerspiegeln sollte (vgl. Imp.2.Pl. *kīrd-ei-ti* = Präs.1.Pl. *kīrd-i-mai* ≠ Inf. *kīrd-ī-twei*). Mit allgemeinen Worten können die zwei oben erwähnten Stämme einfach Flexions- resp. Infinitivstamm genannt werden (vgl. SMOCZYŃSKI 2005: 434). Mit der Annahme, dass Präfixe im Altpreußischen keinen Einfluss auf die Akzentuierung der suffigierten Verba hatten (vgl. schon TRAUTMANN 1910: 200; auch RINKEVIČIUS 2009: 208f.; vgl. auch den Zustand im Gegenwartslitauischen: STUNDŽIA 1995: 146f.), werden präfigierte Verba in der folgenden Untersuchung den nicht-präfigierten Verba gleichgestellt. Zu den generellen Prinzipien zur Feststellung der betonten Silben und der Akzentparadigmen der apr. Nomina, welchen auch in diesem Aufsatz gefolgt wird, s. in RINKEVIČIUS 2006; 2009: 63-112.

## II. Akzenttypen

### 1. Beweglicher Akzent

§ 3. In manchen belegten Fällen unterscheiden sich die oben genannten verbalen Hauptstämme akzentuell. Präsensstammformen sind wurzel-, Infinitivformen aber suffixakzentuiert:

- Präs.1.Pl. *kīrdimai*, Imp.2.Pl. *kīrdeiti* (neben *kīrdijiti* 2x, wo <ij> wahrscheinlich nicht die Vokallänge, sondern den Diphthong des Imperativsuffixes darstellt) : Inf. *kīrdītwei*, *kīrdīt*;
- Präs.3. *lāiku* 3x, *erlāiku*, *etlāikusin*, *islāika* (vgl. auch *polaiiku*), Präs.2.Sg. *islāiku*, 1.Pl. *lāikumai* 3x, *polāikumai* (aber vgl. *enlaikūmai* - Druckfehler?), 2.Pl. *enlāikuti*, Imp.2.Pl. *lāikutei* : Inf. *laikūt*, *erlaikūt*

2x, *polaikūt, preilaikūt* 4x, Part.Prät.Akt. *islaikūns*, Part.Prät.Pass. *laikūts* (→ *aulāikings*);

- Präs.3. *perbānda* : Subst. *perbandāsnan* (← Inf. \**perbandā-*);
- Präs.2.Sg. *gīwu*, Präs.2.Sg. [Fut.3?, vgl. SMOCZYŃSKI 2005: 158] *gīwasi* (neben *giwassi* 2x) (aber Part.Präs.Akt. [Gerund.] *giwāntei*) : Inf. *giwīt* (vgl. auch die Belege mit unklarer Akzentstelle: Präs.3. *giwa* 4x, *giwe*, Präs.1.Pl. *giwammai* 2x, *giwemmai*).

§ 4. Es ist nicht glaubwürdig, dass dieselbe Akzentbewegung auch von den Belegen Opt. *isrāikilai* : Part.Prät.Akt. *isrankūns*, Part.Prät.Pass. *isrankūt* (vgl. auch Imp.2.Sg. *isrankeis*, Subst. *isranckīsnan*) dargestellt werden könnte. Die Schreibung *isrāikilai* ist auf jeden Fall fehlerhaft. Das Graphem <i> wird traditionell als irrigerweise anstatt *n* verwendeter Buchstabe interpretiert, und das Wort wird zu \**isrānkilai* korrigiert (ENDZELĪNS 1943: 185; MAŽIULIS PKEŽ 2: 47). Hinwieder könnte das <i> hier auch überflüssig sein, und <ā> könnte die Lautverbindung *an* darstellen. Im letzten Fall würde die Akzentstelle des Worts unbekannt sein, und diese Interpretation passt mehr mit den Formen *isrankūns*, *isrankūt* zusammen, weil alle diesen Formen wahrscheinlich den Infinitivstammakzent widerspiegeln sollten. Für die Emendierung direkt zu \**isrankilai* s. BEZZENBERGER 1907: 111; TOPOROV PJ 3: 83.

§ 5. Auch kaum mit der fraglichen Akzentbewegung sind die Formen Imp.2.Sg. *mijlis* (neben Präs. *milē* : Inf. *milijt*, s. § 14) und *teīks* (neben Part.Prät.Akt. *teikūns*, s. § 15b) verbunden, die möglicherweise Relikte der nicht-suffigierten Verba widerspiegeln.

§ 6. Die ersten drei oben genannten Verba (*kīrdimai* : *kirdīt*, *lāiku* : *laikūt*, *perbānda* : \**perbandā-*) haben die halbthematischen Entsprechungen im Litauischen, vgl. *girdi* : *girdėti*, *laiko* : *laikyti*, *baņdo* : *bandyti*. Zu diesem Typ könnten theoretisch auch andere Entsprechungen der ostbaltischen halbthematischen Verba gehören, deren Infinitiva mit Längenstrich auf der Suffixsilbe und deren Präsensformen ohne Längenstrich belegt sind (möglicher Wurzelakzent des Präsensstamms könnte wegen der Kürze des Wurzelvokals in der Orthographie nicht dargestellt werden), z.B. *turri* : *turrīt*, *bia* : *biātwei*, *posinna*<sup>3</sup> : *posinnāts* (s. Beispiele in § 15b), vgl. lit. *tūri* : *turėti*, *bijo* : *bijoti*, *žino* : *žinoti*. Im Litauischen wird diese Bewegung des Akzents traditionell durch die Wirkung des Gesetzes von Saussure-Fortunatov erklärt. Zu den Versuchen, den Suffixakzent des Infinitivs im Altpreußischen auf gleiche Weise zu erklären, siehe in VAN WIJK 1924; BONFANTE 1932). Im Litauischen unterliegen die *ā-*

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3 Den Akzent auf der Wurzel könnte indirekt die Reduktion des Stammauslautvokals in der Form Präs.1.Pl. *posinnimai* darstellen, vgl. Rinkevičius 2009: 78, 182; Smoczyński 2005: 38.

stämmigen Verba mit dem Infinitivstamm *-yti* (d.h. die Verba des Typs *móko* : *mókyti*, der im Altpreußischen augenscheinlich nicht belegt ist) völlig dem Gesetz von Saussure-Fortunatov (s. STUNDŽIA 1995: 127). Die lit. *ā*-stämmigen Verba mit dem Infinitivsuffix *-oti* (d.h. die Verba des Typs *sáugo* : *sáugoti*, zu dem auch die apr. Entsprechungen des Typs lit. *móko* : *mókyti* gehören konnten, vgl. apr. *laikūt* : lit. *laikýti*, apr. *pebandāsnan* : lit. *bandýti*) unterliegen dem Gesetz in heutiger Sprache nur teilweise (s. STUNDŽIA 1995: 128f.), aber solche Verba mit dem nach der akutierten Wurzel akzentuierten Suffix wie *ieško* : *ieškóti* sind offensichtlich sekundär, vgl. alit. *iészkot* u.ä. bei Daukša (die absolute Mehrheit der Belege), lett. *iēškāt* (vgl. auch ursl. *\*jbskāti* Ap. b, s. DERKSEN 2008, 214). Also ist es nicht möglich, anhand der Angaben der ostbaltischen Sprachen zu verneinen, dass die *ā*-stämmigen Verba, die für die baltische Innovation gehalten werden müssen, ursprünglich nur Barytona waren, und dass der Suffixakzent ihrer Infinitiva als das Ergebnis des Gesetzes von Saussure-Fortunatov interpretiert werden kann. Trotzdem mussten beide Akzentparadigmen (Barytona und Mobilia) für die lit. *i*-stämmigen Verba (mit dem Infinitivsuffix *-ėti*), die wahrscheinlich mit den sl. *i/ě* Verba zu verbinden sind, ursprünglich charakteristisch sein. Die mobilen Verba hatten wahrscheinlich den Suffixakzent im Infinitivstamm auch vor der Zeit des fraglichen Gesetzes (z.B. lit. *sédėti*, alit. *sedét* DP : lett. *sēdēt*, neben *sēst*<sup>4</sup>). Der Suffixakzent der Verba mit nicht-suffigierten *a*-stämmigen Präséntia (z.B. *móka* : *mokėti*, *gieda* : *giedóti*) könnte auch mit der ursprünglichen Mobilität zusammenhängen (vgl. den Brehton<sup>5</sup> der Wurzeln in lett. *mācēt*, *dziēdāt*). Im Urslavischen wurden die Infinitiva der Mobilia auch suffixakzentuiert (s. DYBO 1981: 213f., 230-245; 2000: 537-541).

§ 7. Da der verbale Suffixakzent schon vor der Zeit, in der das Gesetz von Saussure-Fortunatov gegolten hat, existierte (z.B. in mobilen Verba [s.o.] und in suffigierten Ableitungen von mobilen Grundwörtern [s. DYBO 1981: 201]) und da die Realität der Geltung dieses Gesetzes im Altpreußischen fragwürdig ist (vgl. RINKEVIČIUS 2009: 85-89), kann der Suffixakzent der oben genannten apr. Infinitiva nicht nur als das Ergebnis des Gesetzes von Saussure-Fortunatov, sondern auch als die Darstellung der ererbten Akzentmobilität erklärt werden, obwohl es nicht einfach ist, die konkreten belegten Verba des fraglichen Akzenttyps mit der alten Mobilität zu verbinden: zur ursprünglichen Barytonierung der *i*-stämmigen Verba *kirdīt*, *turrūt* vgl. alit. (Daukša) *girdis* 1x, *túrīs* (zahlreiche belegte Beispiele). Die Mobilität der *ā*-stämmigen Verba (z.B. apr. *laikūt*, *perbānda*, *biātwei*, *posinnāts*) zu postulieren ist mit Rücksicht auf

4 Aber vgl. ursl. *\*sědq* Ap. a. (s. Dybo 2000: 351).

5 Den Stoßton, laut Endzelin 1899.

die Situation in den ostbaltischen Sprachen (s.o.) sehr gewagt, aber zumindest im Fall von *biātwei* könnte sie von lett. *bītiēs* bezeugt werden. Andererseits zeigt lett. *zīt, pazīt* die vermutliche Barytonierung des Verbums *posinnāts*.

§ 8. Durch die alte Mobilität könnte der Suffixakzent des Infinitivs *giwīt* erklärt werden. Die Wurzel dieses Worts ist sowohl in den ostbaltischen (vgl. lett. *dzīt, dzīvuôt*, Adj. *dzīvs*), als auch in den slavischen (vgl. ursl. *\*živŏ*, Adj. *\*živъ* Ap. c, s. DYBO 2000: 287; DERKSEN 2008: 562) Sprachen schwach und zudem akutiert (also für Erklärung des Suffixakzents durch das Gesetz von Saussure-Fortunatov nicht passend), aber es ist nicht klar, ob die die Akzentbewegung darstellenden Formen *gīwu*, *gīwasi* und *giwīt* einer Klasse zugeordnet werden können, d.h. ob der Suffixakzent in diesem Fall nicht von der Wortbildung vorherbestimmt ist. Z.B.: wenn die Infinitivform *billīt* zu dem selben Typ wie *milē* : *milijt* (vgl. *giwe* : *giwīt*) gehört und von den Präsensformen *gīwu*, *gīwasi* zu trennen ist, kann ihr Suffixakzent völlig unabhängig von der Akzentkraft des Grundworts sein (vgl. das Barytonon *mīlai* [s. RINKEVIČIUS 2009: 105] neben dem suffixakzentuierten *milijt*). Das Verbum würde in diesem Fall den in der fraglichen Klasse dominierenden (möglicherweise den einzigen möglichen) Suffixakzent automatisch erhalten (s. §27). Wenn *gīwu*, *gīwasi* : *giwīt* zu einer Klasse gehören (z.B. dem Typ lit. *móka* : *mokėti* oder dem Typ lit. *móko* : *mókyti*), könnte der Suffixakzent auch mögliche Reste der alten Mobilität widerspiegeln.

§ 9. Also existierte im Altpreußischen zweifellos der Typ der Verba (möglicherweise nur halbthematischen) mit dem von der Wurzel (im Präsensstamm) auf das Suffix (im Infinitivstamm) springenden Akzent, aber es ist nicht möglich, die Ursachen dieser Akzentbewegung deutlich festzustellen.

## 2. Wurzelakzent

§ 10. In allen übrigen Fällen, wenn beide verbalen Hauptformen mit klarer Akzentstelle belegt sind, stimmt ihre Akzentuierung überein. Mit dem Wurzelakzent in beiden Stämmen sind drei Verba belegt:

- Präs.1.Sg. *dīnckama*, *dīnkama*, *dīnkaumai*, *dinkauimai*, Präs.2.Pl. *dīnkauti* : Inf. *preidīnkaut* (→ Subst. *dīnkausnan*, *dinckausnan*);
- Präs.3. *wūkawi* : Part.Prät.Akt. *perwūkauns*;
- Präs.1.Sg. *schlūsi*, Präs.1.Pl. *schlūsimai*, *perschlūsimai* Präs.2.Pl. *schlūsiti* : Inf. *schlūsitwei* (→ Subst. *schlūsikai* usw., *perschlūsisan*).

§ 11. Möglicherweise gehört hier auch das Verbum Präs.3. *polijcki*: Part.Prät.Akt. *polikins*, wenn die letzte Form zu *polikiuns* zu berichtigen ist (vgl. ENDZELĪNS 1943: 231; MAŽIULIS PKEŽ 3: 318).

§ 12. Vgl. auch den Wurzelakzent in den mehr oder weniger offensichtlich suffigierten Verba, von denen nur einer von zwei Hauptstämmen mit klarer Akzentstelle belegt ist:

a) Präsensstamm:

- Präs.3. *dīlinai* (vgl. Part.Präs.Akt. *dīlants*, Subst. *dijlan*, *dīlnikans*)
- Präs.3. *erkīnina*;
- Präs.3. *erschwāigstinai*, *poswāigstinai* (vgl. Part.Prät.Akt. *erschwāistiuns*; Subst. *swāigstan*);
- Präs.3. *kūmpinna* (vgl. Inf. *kumpint*);
- Präs.1.Sg. *podrūktinai* (vgl. Adv. *drūktai*, Adj. *drūktawingiskan*)
- Präs.2.Sg. *tūlninai*, Imp.2.Pl. *tūlninaiti*;
- Präs.3. *wēraui*;
- Präs.2.Sg. *sātuinei*;

Eine endgültige Liste solcher Formen kann man nicht aufstellen, denn wegen fehlender Belege der Infinitivstammformen ist nur subjektive morphologische Interpretation der Präsensformen möglich. Vgl. einige wurzelakzentuierte Präsensformen des vermutlichen (!) *i*-Stamms (theoretisch könnten sie auch zum Typ des beweglichen Akzents gehören, vgl. §§ 3-9):

- Präs.3. *grikisi*, Präs.1.Pl. *grikimai* (vgl. Inf. *grikaut*, s. § 25);
- Präs.1.Pl. *mēntimai*, *epmēntimai*;

usw.;

b) Infinitivstamm:

- Part.Prät.Pass. *enkērminints* (neben *enkermenints*) (vgl. Subst. *kērmens*, Adj. *kērmenskai*);
- Part.Prät.Pass. *empjrint* (vgl. *empjreisku*);
- Inf. *epdeiwūtint* (vgl. Adv. *deiwūtai*, Subst. *deiwūtisku*);
- Inf. *ermīrit*, *pomīrit* (→ Subst. *pomijrisnans*);
- Part.Prät.Akt. *erschwāistiuns* (vgl. Präs.3. *erschwāigstinai*, *poswāigstinai*; Subst. *swāigstan*);
- Inf. *līgint*, *līginton*;
- Part.Prät.Akt. *pūdauns*;
- Part.Prät.Pass. *scrīsits*, *scrijsits*;
- Part.Prät.Akt. *skijstinnons*, Part.Prät.Pass. *niskijstints* (vgl. Adj. *skijstan*, Subst. *skīstieskan*);
- Inf. *smūnint* (vgl. Imp.2.Sg. *smuninai*) (vgl. Subst. *smunents*, Adj. *smūnenisku*);
- Inf. *ūlint*.

§ 13. Der Wurzelakzent wird auch in deverbale Nomina bewahrt, vgl. *schlūsimai*, *perschlūsimai* → *schlūsnikai*, *perschlūsisan*; *pomīrit* →

*pomijrisnans*. Wenn man das Grundverbum der Substantiva *lūbeniks, salūbsna* für das suffigierete Verbum (d.h. \**salūbī-*) hält (vgl. ENDZELIN 1944: 67), kann der Wurzelakzent auch für dieses Verbum konstatiert werden.

### 3. Suffixakzent

§ 14. Es gibt sechzehn belegte Verba mit dem Suffixakzent sowohl in den Präsensstamm- als auch in den Infinitivstammformen:

- Präs.3. *auschaudē*: Inf. *auschaudīwei, auschaudijt* (→ Adj. *auschaudīwings*, Subst. *auschaudīsnan*, vgl. auch Subst. *auschautenīkamans, āuschautins*);
- Präs.3. *billā*, Präs.1.Pl. *billēmai*, Imp.2.Pl. *billūtei* : Inf. *billīt, billīt, billīwei, billīwei* (neben *billit, billitwei*), Part.Prät.Akt. *billūns*, Part.Prät.Pass. *billūton* 20x, *billīcon, perbillūton* (vgl. auch Präs.1.Sg. *billi* 3x, *bille* 1x, Präs.2.Sg. *emprīkinbli*, Präs.3. *bille* 2x, *billi* 2x : Prät. 1. Sg. *billai*, Prät.3. Sg. *billa* 4x, *billē, billāts* 4x, *bilats* : Part.Prät.Pass. *billiton* 2x, Part.Präs.Akt. *niaubillīntis*) (→ *billīsna*);
- Präs.3. *dergē* : Part.Prät.Akt. *dergēuns* (die Schreibung <ē> statt des erwarteten *ī* lässt zweifeln, ob diese Form den Akzent des Infinitivstamms darstellt);
- Präs.1.Sg. *druwē* 6x (neben *druwe* 2x), Präs.2.Sg. *druwē* 3x, *druwēse* 2x, Präs.3. *druwē* 3x (neben *druwe* 2x), Präs.1.Pl. *druwēmai*, Präs.2.Pl. *druwētei* : Inf. *druwīt* 3x (vgl. auch Part.Präs.Akt. *nidruwīntin*) (→ Adj. *druwīngin*, Subst. *nadruwīsnan, podruwīsnan*);
- Präs.3. *dwigubbū* : Inf. *dwibugūt* (lies *dwigubūt*) (→ Subst. *perdwibugūsnan*);
- Imp.2.Sg. *endirīs* : Inf. *ni endeirīt, endyrītwei* (vgl. auch Prät.3. *endeirā*) (→ Subst. *endirīsna*);
- Präs.3. *enwackē, preiwackē*, Präs.1.Pl. *enwackēmai, enwackēimai* : Inf. *wackītwei* (vgl. auch *perweckammai* - nicht-suffigierete Form?, s. § 28) (→ Subst. *powackijsnan*);
- Präs.3. *maitā* : Inf. *maitātunsin* (neben *pomaitat*) (→ Subst. *maitāsnan*);
- Präs.3. *milē* (neben *mile* 2x), Imp.2.Pl. *milijti* (<ij> kann auch den Diphthong des Infinitivsuffixes darstellen, vgl. *kīrdeiti* : *kirdijti*) : Inf. *milijt* 12x, Part.Prät.Akt. *milijuns*, Part.Prät.Pass. *milijtai* (vgl. auch Imp.2.Sg. *mijlis* - vielleicht ein Relikt des barytonen *i*-Stamms?);
- Präs.1.Sg. *paskulē, paskollē*, Präs.3. *poskulēwie* : Inf. *poskulīt, paskulītton* (vgl. auch Imp.2.Sg. *poskuleis*; Part.Präs.Akt. *skellānts* 2x,

*schkellānts, skellants*, Nom. Pl. *skellāntei, skellāntai*; Subst. *skallīsnan*);

- Präs.3. *peisāi* (neben *peisai*) : Part.Prät.Pass. *peisāton, popeisāton* (vgl. Part.Prät.Akt. *popeisauns*);
- Part.Prät.Akt. *peldūns*;
- Part.Prät.Akt. *pertennūns*;
- Präs.3. *quoitē, quoitā, poquoitēts*, Präs.1.Pl. *quoitāmai*, Präs.2.Pl. *quoitēti* : Opt. *quoitīlai* 3x, *quoitīlai* (neben *quoitilai*), *quofilaisi* (2.Sg.), *quoitīlaiti* (2.Pl.), Part. Prät. Akt. *poquoitūns*, Part. Prät. Pass. *poquoitūton* (→ *poquoitisnau* [lies *poquoitisnan*]) (vgl. auch Verb *quoi*, Subst. *quāits*, Adj. *niquāitings*);
- Präs.2.Sg. *segēsei*, Präs. 3. *seggē, segē* (neben *segge* 6x), Präs.1.Pl. *seggēmai* 2x, Präs.2.Pl. *seggētei* 3x, *segijtei, seggūta, seggēti*, Part.Präs.Akt. *warguseggētins* : Inf. *seggūt* 4x, *segīt, siggīt* (neben *seggīt, siggīt*) (→ Subst. *segisna, dīnkausegīsnan, labbasegīsnan* usw.);
- Imp.2.Sg. *signāts* (lies *signāis*?) : Inf. *signāt* (neben *sigginat* 2x), Part. Prät. Akt. *esignāuns*, Part. Prät. Pass. *esignāts, absignātai* (Nom.Pl.), Opt. *esignāsi* (vgl. Prät.3. *signai, ebsgnā* [Präs.3.?, vgl. VAN WIJK 1918: 147; ENDZELIN 1944: 180]) (→ Subst. *esignāsnan*);
- Präs.3. *stallā, stallē* (neben *stalle* 2x, *stalli*), *perstallē* 2x (neben *perstalle*), Präs.1.Pl. *stalēmai*, Präs.2.Pl. *stallēti* : Inf. *isstallīt* (vgl. auch Part.Prät.Akt. *stallīuns*) (→ Subst. *stalīsnan, perstallīsnas*);
- Präs.1.Pl. *waitiāmai* : Inf. *waitiāt* (neben *waitiat*), Part.Prät.Akt. *nowaitiāuns* (vgl. Präs.3. *enwaitia*, Part.Präs.Akt. *waitiaintins*).

§ 15. Vgl. auch die suffixakzentuierten Verba mit nur einem belegten Hauptstamm:

a) Präsensstamm:

- Imp.2.Sg. *engraudīs*;
- Präs.3. *kaltzā, kelsāi* (→ Subst. *kalsīwingiskan*, Adv. *kaltzīwingiskai*);
- Präs.1.Pl. *klausēmai* (vgl. Imp.2.Pl. *klausieiti*, Inf. *klausiton*, Part.Prät.Akt. *klausīuns*) (→ Subst. *klausīweniki*, Adj. *klausīwings*, Subst. *poklausījsnan*);
- Präs.3. *perweddā*;
- Präs.3. *popaikā*, Präs.1.Pl. *aupaickēmai* (vgl. *paikemmai* - nicht-suffigierte Form?);
- Präs.3. *wargē*;

b) Infinitivstamm:

- Inf. *biātwei* 10x, *biātwi* (vgl. Präs.3. *bia*) (→ Subst. *biāsnan*);
- Part.Prät.Pass. *enkaitītai, ankaitītai*;

- Part.Prät.Pass. *entensīten*, *entēnsīts* (lies *entensīts* ?);
- Part.Prät.Akt. *ernertūuns* (vgl. Präs.1.Pl. *ernertimai*);
- Inf. *etwinūt*, Part.Prät.Pass. *niwinūton*, *niebwinūts*;
- Part.Prät.Akt. *isrankūuns*, Part.Prät.Pass. *isrankūt* (vgl. auch Imp.2.Sg. *isrankeis*, Opt. *isrāikilai* [s. § 4]) (→ Subst. *isranckīsnan*);
- Part.Prät.Pass. *kabūuns*;
- Inf. *kakīnt* (neben *kackint*) (vgl. Imp.2.Sg. *kackinnais*);
- Part.Prät.Akt. *klantūuns*, *klantūwuns*, *perklantūuns*, Part.Prät.Pass. *perklantūts* 2x, *perklantūton*, *perklantūt* (vgl. Präs.1.Pl. *klantemmai*, *perklantemmai* - vielleicht nicht-suffigierte Formen?, s. auch § 28) (→ Subst. *klantīsnan*, *perklantīsnan*);
- Inf. *laukīt* (Imp. *laukijti* - Schreibung <ij> kann auch den Diphthong des Infinitivsuffixes darstellen, vgl. *kīrdeiti* : *kirdijti*);
- Inf. *madlīt* (neben *madlit* 6x, *madlitwei*, *madliton*) (vgl. Präs.1.Sg. *madli* 5x, Präs.3. *madli* 2x, Präs.1.Pl. *madlimai* 12x, Imp.2.Pl. *madliti*) (→ Subst. *madlisna*);
- Opt. *musīlai* (vgl. Präs.1., 2., 3. Sg. *massi* 12 x, Präs.1.Pl. *massimai*) (→ Adj. [Adv.?] *musīngin*);
- Inf. *pallaiptsītwei* (neben *pallaipsitwei*) (vgl. Präs.3. *pallapse*) (vgl. Subst. *pallapsaey* KI, KII);
- Inf. *popeckūt* 2x, *popekūt* (neben *popeckut*) (vgl. Präs.3. *popeckuwi*);
- Part. Prät. Pass. *posinnāts* (vgl. Inf. *ersinnat* 2x, *posinnat*, Präs.1.Sg. *posinna* 4x, Präs.3. *posinna*, Präs.1.Pl. *ersinnimai*, *posinnimai*, Präs.2.Pl. *ersinnati*), s. auch § 6;
- Part. Prät. Akt. *teikūuns* 4x, *teikūnus*, *enteikūuns*, *poteikūuns*, Part. Prät. Pass. *enteikūton* (vgl. auch Prät.3. *teikū* [neben *teiku* 2x], Imp.2.Sg. *teīks* [nicht-suffigierte Form?]) (→ Subst. *teikūsnan*, *enteikūsna*);
- Inf. *turrītwei*, *turīt* (neben *turrit*), Opt. *turīlai* 4x, *turrīlimai* (1.Pl.) (vgl. Präs.1., 2., 3. Sg. *turri* 43x, *turei* 17x, *turrei*, *ture*, Präs.1.Pl. *turrimai* 19x, Präs.2.Pl. *turriti* 3x).

§16. Ein Teil dieser Verba mit den Suffixakzentuierten Infinitivstammformen und unbelegten (oder mit unklarer Akzentstelle belegten) Präsensstammformen (zuerst die vermutlichen halbthematischen Verba, z.B. *turri* : *turrīt*, *bia* : *biātwei*, *posinna*: *posinnāts*) könnte theoretisch auch zum Typ des beweglichen Akzents gehören (s. § 6).

§17. Da der Suffixakzent der Grundverba in abgeleiteten Nomina normalerweise bewahrt wird (*auschaidītwei* → *auschaidīwings*, *auschaidīsnan*; *billītwei* → *billīsna*; *druwē*, *druwīt* → *druwīngin*, *nadruwīsnan*, *podruwīsnan*; *dwibugūt* → *perdwibugūsnan*; *wackītwei* → *powackijsnan*;



*maitātunsin* → *maitāsnan*; *poskulīt* → [?] *skallīsnan*; *seggūt* → *dīnkausegīsnan*, *labbasegīsnan*; *signāt* → *ebsignāsnan*; *isstallīt* → *stalīsnan*, *perstallīsnas*; *teikūuns*, *enteikūuns* → *teikūsnan*, *enteikūsna*; *kaltzā* → *kalsīwingiskan*; *klausēmai* → *klausīweniki*, *klausīwings*, *poklausijsnan*; *biātwei* → *biāsnan*; *isrankīt* → *isranckīsnan*; *klantūuns* → *klantīsnan*, *perklantīsnan*), kann man vermuten, dass zumindest ein Teil der folgenden Verba auch suffixakzentuiert sein könnte:

- Präs.3. *mukinna* 3x, Imp.2.Pl. *mukinaiti*, Part.Prät.Akt. *mukinnons*, Part.Prät.Pass. *mukints*, Inf. *mukint* 4x (→ Subst. *mukīnsnan*)
- Präs.2.Sg. *polaipinna* 2x, Prät.1.Sg. *laipinna*, Part.Prät.Akt. *polaipinnons* 2x, Part.Prät.Pass. *polaipinton* (→ Subst. *polaipīnsnan*);
- Prät.3. *lasinna*, Part.Prät.Akt. *lassīnuns* (lies *lasinnuns* ?) (→ Subst. *polasīnsnan*);
- Präs.3. *rickawie*, Imp.2.Pl. *rikauite* (→ Subst. *rickaūsnan*).

§ 18. Die Grundverba der folgenden Nomina waren wahrscheinlich auch zumindest im Infinitivstamm suffixakzentuiert: *apsergīsnan*, *epwarrīsnan* (*epwarrīsnan*), *ernaunīsan* (lies *ernaunīsnan*?), *lailīsnan*, *pominīsnan*, *potaukīsnan*, *powartīsnan*, *prewerīsnan* (vgl. auch *prewerīngiskan*), *senskrempūsnan*, *tuldīsnan*, *weldīsnan* (vgl. auch *weldūnai*, *draugiwaldūnen*, aber *sendraugiwēldnikai*).

### III. Suffixe

#### 1. Suffix -in-

§ 19. Die Mehrheit der Verba mit dem Suffix *-in-* ist mit dem Wurzelakzent (Grundstammakzent) belegt:

- Präsensstamm: *dīlinai*, *erkīnina*, *erschwāigstinai*, *kūmpinna*, *podrūktinai*, *tūlninai*, *sātuinei*;
- Infinitivstamm: *enkērminints*, *empijrint*, *epdeiwūtint*, *smūnint*, *līgint*, *ūlint*, *skijstinnons*.

§ 20. Der Suffixakzent ist einzig im Verbum Inf. *kakīnt* und in den drei Verbalabstrakta *mukīnsnan*, *polaipīnsnan*, *polasīnsnan* belegt.

§ 21. Aufmerksamkeit muss auf den Akut des Suffixes in tautosyllabischer Stellung (vgl. lit. *auginti*) und die Kürze des Suffixvokals in heterosyllabischer Stellung (vgl. lit. *augina*) gerichtet werden, und deswegen kann die große Menge der Wörter, die ohne Längenstrich belegt sind, nicht überraschen. Zumindest ein Teil solcher ohne Längenstrich belegten Formen könnte suffixakzentuiert sein (besonders wichtig sind die Verba mit der zirkumflektierten oder einen Langvokal enthaltenden Wurzel, wo das Fehlen des Längenstrichs Nicht-Wurzel-Akzentuierung indirekt darstellen kann):

- tautosyllabische Stellung (meistens Infinitivstamm): *ainangeminton*, *auskandints*, *bebbint*, *enkausint*, *enlaipints* (*polaipinton*; vgl. *laipinna*), *ensadints* (*ensadinton*; vgl. *saddina*), *etbaudints*, *glandint*, *gallintwey* (*pogalint*), *iakint*, *isklaitints*, *ismaitinton* (*ismatint*; vgl. *maitā* : *maitātunsin*), *kittawidintunsin*, *mukint* 4x (*mukints*, *ismukint*, *pomukints*; vgl. *mukīnsnan*; Wurzelsvokal ist lang, vgl. lit. *mókyti*, let. *mácîť*), *pertengninton*, *poaugints*, *pobaiint*, *pogadint*, *pogattawint* (*pogattewinlai*, *pogattawints*, *nipogattawints*), *pobrendints*, *potaukinton* 2x, *powaidint*, *sklaitint* (*isklaitints*; vgl. Formen mit Längenstrich: Adj. *schklāits*, Subst. *schlāitiskan* 2x, Adv. *schlāitiskai*, Adj. *schklāitewingiskan*), *spartint* (*pospartint*), *swintint*, *teisint*, *tickint*, *walnennint*, *walnint*; Deverbativa: *auskandinsnan*, *dirbinsnan*, *ensadinsnan*, *kanxtinsnan* (vgl. Subst. *kānxtin*, Adv. *kānxtai*), *perwaidinsnan*, *pobrandinsnan*, *potaukinsnas*, *sklaitinsnan* (s.o., s.v. *isklaitints*); *laimintiskai* (vgl. Adj. *laeims* KI);

- heterosyllabische Stellung (meistens Präsensstamm): *auginnons*, *auskandinons*, *bebbinnimai*, *brewinnimai*, *buwinanti*, *erpilninaiti*, *etbaudinons*, *isrankinna*, *klumstinai*, *laipinna* (*laipinnons*, *laipinnans*, *enlaipinne*, *polaipinna* 2x, *polaipinnons*; vgl. *polaipīnsnan*) *lasinna*, *laustineiti* (vgl. Subst. *lāustingins*, *lāustingiskan*), *mukinna* 3x (*mukinaiti*, *mukinnons*; s.o., s.v. *mukint*), *pobanginnons*, *pertengginons*, *preistatinnimai*, *saddina* (*seddina* [Verwechslung der Buchstaben <a> : <e> in möglicherweise unbetonter Silbe?], *ensadinons*), *spartina*, *swintina* 2x (*swintinai*, *niswintina*), *taukinnons* (*potaukinnons* 2x), *tickinnimai* (*potickinnuns*), *waidinna* (*powaidinne*, *powaidinnei*, *powaidinneiti*, *enwaidinnons*); Deverbativa: *mukinnewingins*, *enwertinnewingi*.

§ 22. Alle vier belegten suffixakzentuierten Verba sin wahrscheinlich Deverbativa. Der Wurzelakzent ist sowohl bei den Deverbativa (z.B. *erkīninai*, *kūmpinna*, *ūlint*) als auch bei den Denominativa belegt. Im letzten Fall war der Wurzelakzent sowohl in den Ableitungen von Barytona (z.B. *dīlinai* ← *dijlan*<sup>6</sup> [wenn nicht vom Verbum *dīlants* abgeleitet, s. unten], *tūlninai*<sup>7</sup>; *sātuinei*<sup>8</sup>; *līgint*<sup>9</sup>; möglicherweise auch *skijstinnons* ← *skijstan*<sup>10</sup>) als auch in den

6 Vgl. ursl. \**dělo* Ap. a (Derksen 2008: 103); auch apr. *dīlnikans* ← *dijlan* - der Wurzelakzent in der Ableitung mit dem bl.-sl. starken Suffix (s. Rinkevičius 2007; 2009: 113-116).

7 Vgl. lit. *tūlas* 1, 3 (in Texten von M. Daukša fast nur Ap. 1: Nom.Pl. *tūli*, *tūli*, Gen.Pl. *tūlos*, Gen.Pl. *tūtų* [aber *tūlų* 1x, *tūh* 1x], Dat.Pl. *tūliemus* usw.).

8 Vgl. lit. *sótūs* 1, 3, 4 (bei Daukša nur Nom.Pl. *sótūs*, vgl. auch Subst. *sótis*), lett. *sāts*, ursl. \**syťb* Ap. a (Derksen 2008: 484).

9 Vgl. lit. *līgus* 1, 3 (1 bei Daukša, z.B. *līgus*, Gen.Pl.Fem. *līgios*, Dat.Sg. *līgam'*, Gen.Pl. *līgių* usw.), lett. *lidzs*.

Ableitungen von *Mobilia* (z.B. *enkērminints* ← Nom.Sg. *kērmens*, Gen.Sg. *kermenes* [s. RINKEVIČIUS 2006: 210, 213; 2009: 103f., 107]; *podrūktinai* ← \**drūkta-*, vgl. lett. *drūkts*, aber *drūktawingiskan*) möglich. Mir Rücksicht auf die Menge der belegten Fakten kann man nicht behaupten, dass alle apr. denominalen Verba wurzelakzentuiert waren, aber man muss bemerken, dass der Suffixakzent auch bei den gegenwartslitauischen Denominativa auf *-inti* nicht häufig ist (s. STUNDŽIA 1995: 137f.; MIKULĖNIENĖ, PAKERYS, STUNDŽIA 2008: 257-261). Um Motive der Distribution zwischen den wurzel- und suffixakzentuierten Deverbativa genau festzustellen, ist das belegte Material nicht genügend. Wenn man das Wort *dīlinai* für ein Deverbativum hält, könnte der Wurzelakzent mit der Barytonierung des Part.Präs.Akt. *dīlants* verbunden werden (vgl. RINKEVIČIUS 2009: 184). Der Hypothese, dass der Suffixakzent in den Grundverba der Substantiva *polaipīnsnan*, *mukīnsnan* von der Akzentschwäche der Wurzel abhängig war, widersprechen die Akzentuierung des mobilen Substantivs *pallaips* : *pallapsaey* (Fehlen des Längenstrichs in der zirkumflektierten Wurzel, vgl. lit. *liēpti*, und akzentuierte starke Endung des Nom.Pl.Mask; s. RINKEVIČIUS 2006: 208; 2009: 97, 108, 166) und der Brechton in der Wurzel von lett. *mācēt* (der Akut dieser Wurzel bezeugt, dass der Suffixakzent zumindest in diesem konkreten apr. Wort durch das Gesetz von Saussure-Fortunatov nicht erklärt werden kann, vgl. auch lit. *mókyti* : *mokinti*) nicht.

## 2. Suffix *-au-*

§ 23. Der Wurzelakzent ist bei fünf mehr oder weniger klaren Verba mit dem Suffix *-au-* belegt. Zwei von ihnen haben den Akzent auf der Wurzel in beiden Hauptformen: *dīnkaumai* : *dīnkaut*; *wūkawi* : *perwūkauns*. Das Verbum *wēraui* ist nur durch die Präsensform belegt. Den Wurzelakzent in der Infinitivstammform bezeugt das Partizip *pūdauns*, aber man darf nicht vergessen, dass dieses Verbum nicht nur das Suffix *-au-* (vgl. *wūkawi* : *perwūkauns*), sondern auch das Suffix *-ā-* (vgl. *waitiāmai* : *nowaitiāuns*) enthalten kann. Das Verbum mit der akzentuierten Wurzel (Grundstamm) wird auch vom abgeleiteten Substantiv (*redde-*)*wijdikausnan* (vgl. *widekausnan*) widergespiegelt.

§ 24. Verba mit dem akzentuierten Suffix *-au-* sind direkt nicht belegt, aber die Akzentuierung des Substantivs *rickaūsnan* zeigt, dass das Verbum *rickawie* (*rikauite*) zu dieser Klasse gehören könnte.

§ 25. Das Suffix ist akutiert (vgl. *rickaūsnan*, auch lit. *uogáuti*), deshalb ist es möglich, dass es zumindest in einigen ohne Längenstrich belegten Beispielen

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10 Vgl. ursl. \**čīstь* Ap. *a*, lett. *šķīsts*, aber auch *šķīsts*.

akzentuiert sein könnte, vgl. *gerdant* (*gerdaus, engerdaus, gerdawi, pogerdawie, preigerdawi*), *grikaut* 3x (vgl. unten, s.v. *grikausna*), *murrawuns, neikaut, pastauton, sengidaut, surgaut* (*persurgau*); abgeleitete Nomina: *dinkausan* (vgl. *dīnkaumai : dīnkaut*), *grikausna* 2x (*grikausnan* 4x, vgl. oben, s.v. *grikaut*), *kariausan, podingausnan, preddikausan, reckenausnan; dūsai-surgawingi*. Besonders glaubwürdig ist der Suffixakzent im Verbum *grikaut* (auch im Subst. *grikausna*), dessen Wurzelvokal lang ist, aber in keiner von 9 Belegen durch Längenstrich bezeichnet ist<sup>11</sup>. Die suffixakzentuierte *au*-Ableitung *grikaut* ist wahrscheinlich vom Verbum *grikisi* (*grikimai*) (mit dem Wurzel- oder dem beweglichen Akzent), das zu einer anderen morphologischen Klasse gehört, zu trennen. Zu verschiedenen morphologischen Klassen gehören wahrscheinlich auch die Verba Inf. *sengidaut* (Akzentuierung unbekannt; Präsensstammformen unbelegt) : Präs.3. *sengjidi* (Wurzelakzent in der Präsensform; Infinitivstammformen unbelegt).

§ 26. Grundwörter aller drei mehr oder weniger klaren Denominativa (sowohl wurzelakzentuierten, vgl. *dīnkaut* [wenn nicht direkt aus poln. *dziękować*, woran die Akzentuierung zweifeln lässt, vgl. MAŽIULIS PKEŽ 1: 204f.], *wjydikausan*, als auch suffixakzentuierten, vgl. *rickaūsnan, grikaut* [s.o.]) können ganz zuverlässig für Barytona gehalten werden, vgl. *dīnckun* (< poln. *dzięka*), \**vīdik-* (wurzelakzentuierte Ableitung mit dem starken Suffix, vgl. RINKEVIČIUS 2007; 2009: 117-119), *rīki, grīkai* (s. RINKEVIČIUS 2006: 212; 2009: 104). Die Akzentuierung des Verbums *wēraui* konnte vom dt. *währen* (vgl. MAŽIULIS PKEŽ 4: 230) vorherbestimmt werden. Derivation des Worts *wūkawi* ist nicht klar (vgl. MAŽIULIS PKEŽ 3: 276 vs. PKEŽ 4: 267 - Akzentparadigma ist in beiden Interpretationsmöglichkeiten nicht klar).

### 3. Suffix *-ē-* (Präs.) / *-ī-* (Inf.)

§ 27. Alle klaren Verba dieses Typs haben den Akzent auf dem Suffix:

- in beiden belegten Hauptstämmen: *auschādē : auschādītwēi : auschādīsnan; billēmāi : billīt : billīsnā; druwē : druwīt : nadruwīsnā; seggē : seggīt : seggīsnan; stallē, perstallē : isstālīt : stallīsnan; enwackē, preiwackē : wackīt : powackīsnā; milē : milīj; paskulē : poskulīt; quoitē : poquoitītōn* (vgl. *poquoitīsnan*); *klausēmāi : poklausījnsan*;

- zumindest im Präsensstamm: *aupaickēmāi, budē, dergē, wargē*;

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11 Vgl. Subst. Gen.Sg. *grīkas*, Dat.Sg. *grīku*, Akk.Sg. *grīkan*, Nom.Pl. *grīkai*, Gen.Pl. *grīkan* 6x, *grijkan* 4x (*grīkan* 1x), Akk.Pl. *grīkans* 16x, *grijkans* 3x (*grīkans* 1x), Nom.Sg. *grīkenix*, Akk.Sg. *grīkenikan* - das Verhältnis zwischen den Belegen mit bzw. ohne Längenstrich ist 35: 2.

§ 28. Es ist nicht möglich, zu diesem morphologischen Typ gehörende Verba, deren Präsensformen unbelegt sind, festzustellen, weil das Infinitivsuffix <ī> mehrdeutig ist. Das Suffix kann sowohl aus dem \*ī, als auch aus dem \*ē stammen; außerdem können Verba mit Infinitivsuffixen beider Herkunft verschiedene Präsensstämme haben (vgl. §§ 30-45). Ganz glaubwürdig könnte das Verbum *pallaipsīwei* zu dieser Klasse gehören (vgl. die Präsensform ohne Längenstrich *pallapse*, derer Wurzel anhand der Orthographie wahrscheinlich unakzentuiert ist, d.h.: <laps-> = /laips-/; s. auch § 22). Möglicherweise passt auch Part.Praet.Pass. *perklantīs* (Subst. *klantīsan*) hier. Die belegte Präsensform dieses Verbums *klantemmai* (*perklantemmai*) erinnert an das Wort *paikemmai*, das auch die Variante *aupaickēmai* hat<sup>12</sup> (vgl. auch *perweckammai* : *enwackē* : *wackīt*). Wenn die Wörter *klantemmai*, *paikemmai* zur fraglichen Verbalklasse gehören würden, könnten sie auch den Typ des Wurzelakzents (oder des beweglichen Akzents) bei Wörtern mit dem fraglichen Suffix bezeugen. Das Verhältnis zwischen *klantemmai* und *perklantīs* würde dann an die nominalen Dubletten wie *pomettewingi* (glaubwürdiger Wurzelakzent, s. RINKEVIČIUS 2009: 134) : *pometīwingi*; *powargewīngiskan* : *wargē* erinnern (vgl. *ibid.*, S. 137). Aber man darf nicht vergessen, dass die fraglichen Präsensformen auch als Verba der anderen morphologischen Klassen (z.B. des *a-*, *īa-*, *i-* usw. Stamms) interpretiert werden können. Es können noch die folgenden, ohne Längenstrich belegten Präsensformen der Verba mit dem Infinitivsuffix *ī-* erwähnt werden: *giwe* 1x (neben *gīwu*, *giwa* 4x, *giwammai*, *giwemmai* [vgl. *klantemmai*]); *giwīt*; *ture* 1x (neben *turri* 43x, *turei* 17x, *turrei*, *turrimai* 19x, *turriti*) : *turīt*. Der Stammauslaut ist hier durch den Buchstaben <e> dargestellt, aber diese Darstellung muss nicht notwendig den Vokal *ē* bedeuten. Theoretisch könnte zur fraglichen Verbalklasse auch das ohne Längenstrich belegte Verbum *waidleimai* (wenn man annimmt, dass *ei* < \*ēīa) gehören.

§ 29. Also ist es fast nicht möglich, die Existenz der wurzelakzentuierten Verba des fraglichen morphologischen Typs zweifellos zu begründen. Der Suffixakzent wurde sowohl für Verba mit zweifellos oder vermutlich schwachen Grundstämmen (z.B. *pallaipsīwei* ← Subst. *pallapsaey* [s. § 22]; *auschaidītwei* ← Verbum \**ausau-* → *āuschautins* → *auschautenīkamans* [s. RINKEVIČIUS 2007; 2009: 113-116]; möglicherweise auch: *druwīt* ← *druwis* → *druwīngin* [falls kein Deverbativum mit Beibehaltung des suffixalen Akzents des Grundverbums]; *perklantīs* ← *klantemmai* [?], vgl. ursl. \**kl̥nō* Ap. c [s. Dybo 2000: 268]), als auch für zumindest ein Verbum mit starker Wurzel (z.B. *mīlijt* ← *mīlai* [s. RINKEVIČIUS 2009: 105]) konstatiert.

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12 Wenn <ē> hier nicht /em/ darstellt (vgl. van Wijk 1918: 135).

#### 4. Suffix *-ā-* (Präs.) / *-ī-* (Inf.)

§ 30. Alle klar belegten Verba mit diesem Suffix (Suffixen) haben genaue Entsprechungen mit dem Suffix *-ē-/-ī-* (s. §§ 27-29), deswegen können sie für eine Subklasse (möglicherweise nur orthographische) der oben genannten Klasse gehalten werden. Der sekundäre Ursprung des Vokals *ā* im Auslaut des Präsensstamms wird durch Fehlen der Lautentwicklung *ā > ū* (nach *k*) im Wort *popaikā* (wenn man nicht zu *popaikū* [TRAUTMANN 1910: 405], *popaika* [BERNEKER 1896: 215t.; VAN WIJK 1918: 135; SCHMID 1963: 30], *popāika* [WIJK, *ibid.*; KORTLANDT 1987: 106] oder *popaiku* [MAŽIULIS PKEŽ 3: 326] korrigiert) bestätigt. Da diese Verbalklasse auch Wörter, die mit den Verba mit dem Suffix *-ē-/-ī-* nicht verbunden sind, enthalten kann (z.B. vermutete Entsprechungen des Typs lit. *móko* : *mókyti*), werden die fraglichen Verba unter Vorbehalt als eine einzelne Klasse interpretiert.

§ 31. Alle mehr oder weniger sicheren Beispiele haben Suffixakzent, der bei drei Verba sowohl in den Präsensstamm- als auch in den Infinitivstammformen belegt ist: *billā* : *billīt* : *billīsna* (vgl. Präs. *billēmai*); *qouitāmai* : *poqouitīton* (vgl. Präs. *quoitē*, Subst. *poquoitisnan*); *stallā* : *isstallīt* : *stallīsnan* (vgl. Präs. *stallē*). Das Verbum *popaikā* ist nur durch eine Präsensform belegt, aber die Entsprechung *aupaickēmai* lässt es zu, es in dieser Klasse einzureihen. Weniger zuverlässige Beispiele für diesen morphologischen Typ könnten die Präsensformen *kaltzā* (vgl. Adj. *kalsīwingiskan*, wo der Suffixvokal auch sekundär sein kann, vgl. RINKEVIČIUS 2009: 131), *perweddā* (s. auch § 34) sein.

§ 32. Theoretisch könnte zu dieser Klasse auch das Verbum *giwa*, *gīwasi* : *giwūt* (vgl. *giwe*; übrige Beispiele s. § 3) gehören. In diesem Fall wäre es das einzige Beispiel für ein solches Verbum mit dem beweglichen Akzent. Mit Rücksicht auf die Verschiedenheit aller belegten Formen dieses Verbums und die Kompliziertheit ihrer Interpretation muss diese Vermutung ganz vorsichtig beurteilt werden.

#### 5. Suffix *-ā-* (Präs. und Inf.)

§ 33. Belegt ist ein Verbum solchen Typs mit dem beweglichen (von der Wurzel auf das Suffix springenden) Akzent *perbānda* : *perbandānsnan*. Mit Rücksicht auf die Kürze des Wurzelvokals und die traditionellen morphologischen Interpretation könnten auch die Verba *bia* : *biātwei* und *posinna* : *posinnāts* hierher gehören (obwohl die Form Präs.1.Pl. *posinnimai* mit dem reduzierten Stammauslaut auch den kurzen Stammauslautvokal zeigen könnte, vgl. den Typ lit. *gieda* : *giedóti*) (s. § 6).

§ 34. Vier Verba sind mit dem Suffixakzent in beiden Hauptstämmen belegt: *maitā* : *maitātunsin*; *waitiāmai* : *waitiāt*; *peisāi* : *peisāton*; *signāts* (Imp. \**signāis*?) : *signāt*. Möglicherweise gehören auch die suffixakzentuierten Präsensformen *kaltzā*, *perweddā* zu dieser Klasse (aber nicht zur Klasse der Verba mit dem Suffix *-ā/-ī-*) (vgl. § 31).

§ 35. Zweifellos wurzelakzentuierte Verba mit dem Suffix *ā-* sind nicht belegt. Unter Vorbehalt könnte das Partizip *pūdauns* (das theoretisch auch das Suffix *-au-* enthalten kann, s. § 23) als solches Verbum interpretiert werden. Die Vermutung, dass das Wort Präs. *pīdai*, *perpīdai* für ein suffigiertes Verbum gehalten werden kann (vgl. SMO CZYŃSKI 2005: 265), ist wegen der fehlenden Belege des suffigierten Infinitivs zu gefährlich<sup>13</sup>.

§ 36. Analyse der Akzentuierung dieser Verba ist von ihrer morphologischen Interpretation abhängig. Wenn man dem traditionellen Denken, dass es im Altpreußischen zwei verschiedene Präsensklasse (*ā*-Stamm, z.B. *bia*, *perbānda*, und *āīa*-Stamm, z.B. *maitā*, *peisāi*) gab, folgt, muss man bemerken, dass der bewegliche Akzent nur bei Verba mit *ā*-Präsensstamm belegt ist, aber der unbewegliche Suffixakzent nur (aber nicht notwendig) für *āīa*-Stamm charakteristisch sein könnte. Wenn man alle oben genannten Beispiele zu einer Klasse, z.B. nur dem *ā*-Stamm (KAUKIENĒ) oder nur dem *āīa*-Stamm (OSTROWSKI, SMO CZYŃSKI) (vgl. §1), einordnet, muss man schlussfolgern, dass zumindest zwei Akzenttypen in dieser Klasse existieren könnten: der bewegliche Akzent und der Suffixakzent. Der dritte Typ (der unbewegliche Wurzelakzent, z.B. *pūdauns*) kann nur vermutet werden. Das gilt auch für die Verba mit den Suffixen *-ū-* und *-ī-* (s. §§ 38-45).

§ 37. Für Untersuchung des Verhältnisses zwischen der Akzentuierung fraglicher Verba und den Akzenteigenschaften der Wurzeln (Grundstämme) (d.h. den Akzentparadigmen der Grundwörter) sind die belegten Angaben nicht genügend. Die direkte Verbindung von apr. *peisāton* mit ursl. \**pisjō* Ap. *b* (s. DYBO 1981: 210; 2000: 384f.; DERKSEN 2008: 430) ist wegen der zu unterschiedlichen Wortbildung dieser Verba nicht möglich. Das Akzentparadigma des slavischen Worts ist von der Struktur des Präsensstamms vorherbestimmt (alle *je*-stämmigen Präsensstämme mit konsonantischen Wurzelauslauten waren im Urslavischen Barytona (d.h. Ap. *a* und *b*, s. DYBO 1981: 203ff.; 2000: 377-396). Zur Akzentuierung der traditionellen halbthematischen Verba s. §6.

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13 Vgl. den belegten nicht-suffigierten Infinitiv *pīst*. Zum Verhältnis *pīdai* : *pīdīmai* vgl. *po-gaunai* : *po-gaunīmai*; *eb-immāi* : *immīmai* neben den nicht-suffigierten Infinitiven *pogaūt*, *īmt* usw.

## 6. Suffix *-ū-*

§ 38. In der Mehrheit der belegten Fällen stammt der Vokal des Suffixes *-ū-* aus *ā* nach labialen und velaren Konsonanten (vgl. ENDZELIN 1944: 38; MAŽIULIS 2004: 17f.). Deswegen könnten die Wörter mit diesem Suffix zusammen mit Verba mit dem Suffix *-ā-* besprochen werden, aber wegen der Existenz solcher Wörter wie *etwinūt* müssen sie in synchronischer Untersuchung separat analysiert werden. Es gibt nur einige belegte Verba mit dem Suffix *-ū-*, und ihre Akzentuierung unterscheidet sich im Wesentlichen von den Verba mit dem Suffix *-ā-* nicht. Nur ein belegtes Verbum (*lāiku* : *laikūt*) gehört zum Typ des beweglichen Akzents und nur ein Verbum (*dwigubbū* : *dwibugūt*) hat den unbeweglichen Suffixakzent. Der Suffixakzent ist auch in folgenden Formen belegt: *popeckūt*, *etwinūt*, *teikūuns*; wahrscheinlich auch Prät.3. *poglabū*.

## 7. Suffix *<-i->* (Präs.) / *-ī-* (Inf.)

§ 39. Einige Verba mit dem Infinitivsuffix *-ī-* (*<-ī->*, *<-i->*) haben in Präsensformen den Stammauslaut, der durch den Buchstaben *<i->* im Text dargestellt wird. Alle diese Wörter werden hier, ohne auf die nicht immer klare morphologische Interpretation einzugehen, zusammen besprochen.

§ 40. Ein Beispiel ist zweifellos mit dem beweglichen Akzent belegt: *kīrdimai* : *kirdīt*.

§ 41. Manche Wörter sind mit dem Suffixakzent im Infinitivstamm, aber ohne Längenstrich in den Präsensformen belegt. Da der Wurzelvokal meistens kurz ist, ist zumindest in einigen von den folgenden Verba der bewegliche Akzent theoretisch möglich, vgl. *madli* : *madlīt*; *massi* : *musīlai*; *billi* (neben *billēmai*, *billā*) : *billīt*; *stalli* (neben *stallē*, *stallā*) : *isstallīt*; *turri* (neben *ture*): *turīt*; *ernertimai* : *ernertūuns*.

§ 42. Der Suffixakzent ist im Verbum Imp. *endirīs*: Inf. *endeirīt* (vgl. Prät. *endeirā*) belegt. Genauso wurde wahrscheinlich auch das Verbum Imp. *engraudīs* (vgl. Adj. *engraudīwings*) akzentuiert.

§ 43. Der Wurzelakzent in den beiden Hauptstämmen ist durch das Verbum *schlūsi* : *schlūsitwei* (vgl. auch die Ableitungen *schlūsnikai*, *perschlūsisnas*) bezeugt; zumindest im Infinitivstamm - auch durch das Partizip *scrīsits*. Beide diese Verba sind Entlehnungen. Es ist möglich, dass die Entlehnung (oder Ableitung von der Entlehnung) *grīkimai* auch zu dieser Klasse gehören könnte (vgl. auch das Barytonon *grīkai* [s. RINKEVIČIUS 2006, 212; 2009: 104]), wenn



ihr unbelegter Infinitiv das Suffix *-ī-* enthalten würde<sup>14</sup>. Möglicherweise wurde auch das Verbum *polijcki* : *polikins* (lies *polikiuns*?, s. § 11) so akzentuiert. Die anderen wurzelakzentuierten Präsensformen mit dem durch <i> dargestellten Stammauslaut und unbelegtem Infinitiv (z.B. *erlāngi*, *sengijdi*,<sup>15</sup> *auschpāndimai*, *mēntimai* usw.) müssen sehr vorsichtig beurteilt werden, weil sie auch nicht-suffigierte Verba oder zumindest Verba mit anderem Präsensstamm widerspiegeln können.

§ 44. Ohne Längenstrich ist das Verbum Präs.1.Sg. *crixtia* (Imp.2.Pl. *crixteiti* : Inf. *crixtitwi*, Part.Prät.Pass. *crixtits* 5x) belegt. Mit Rücksicht auf: a) die Tatsache, dass das Wort entlehnt ist (vgl. § 43); b) die Kürze des Wurzelvokals; c) das hinreichend regelmäßige (6x) Fehlen des Längenstrichs in Infinitivstammformen (d.h. den wahrscheinlich betonten kurzen Wurzelvokal neben dem unbetonten langen Suffixvokal); d) die Akzentuierung der litauischen Entlehnung *krikštyti*, kann man vermuten, dass der Akzent in diesem Wort auf der Wurzel stehen könnte. Besonders überraschend ist die anomale Akzentuierung der abgeleiteten Nomina *crixtisnā* (das mobile Ap., vgl. auch *crisisnālaiskas*): *crisissennien* (der vermutliche feste Suffixakzent statt des früheren mobilen Akzents, s. RINKEVIČIUS 2008; 2009: 144-152). Wenn man annimmt, dass das Wort aus dem urslavischen Dialekt relativ früh entlehnt wurde (vgl. TOPOROV PJ 4: 192f.; MAŽIULIS PKEŽ 2: 279), ist es nicht unmöglich, dass die Entlehnung auch ihre mobile Akzentuierung (vgl. aru. *крьст-* Ap. *c*, s. ZALIZNJAK 1985: 140) ins Altpreußische mitgebracht haben könnte.

## 8. Infinitivsuffix *-ī-* und ungewisse Präsensform

§ 45. Manche Verba, die mit dem Infinitivsuffix *ī-* belegt sind, können nicht eindeutig einer der oben genannten morphologischen Klassen zugeordnet werden, weil ihr Präsensstamm unbekannt ist. Die Beispiele für wurzelakzentuierte Verba dieses Typs sind: *pomīrit* (vgl. Subst. *pomijrisnans*), *erschwāistius*; suffixakzentuierte Verba: *enkaiūtai* (*ankaitūtai*), *entensīten*, *isrankūns* (vgl. § 4), *kabiūns*, *laukū<sup>16</sup>*, *pertennūns* 3x; auch die Grundverba dieser Ableitungen: *apsergīsnan*, *epwarīsnan*, *ernaunīsan*, *pominīsnan* (vgl. Part.Prät.Akt. *aumīnius*), *potaukīsnan*, *powarīsnan*, *prewerīsnan*, *tuldīsnan*,

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14 Das Wort *grikimai* ist von *grikaut*, das wahrscheinlich suffixakzentuiert wurde (s. § 25) und zu einer anderen morphologischen Klasse gehört, zu unterscheiden.

15 Vgl. *sengidaut* und das Verhältnis *grikimai* : *grikaut*, s. § 25 und Fußnote 14.

16 Vgl. Imp.2.Pl. *laukijiti*, wo <ij> nicht notwendig die betonte Länge, aber möglicherweise auch den Diphthong des Imperativsuffixes darstellt, vgl. *kīrdeiti* : *kirdijiti*.

*weldīsnan*; möglicherweise auch *pometīwingi*, *rettīwingiskan*. Überhaupt unbekannt ist die Akzentstelle der Partizipien *esbentliuns*, *etwiriuns*.

#### IV. Schlussfolgerungen

Im 3. altpreußischen Katechismus sind drei Akzenttypen der suffigierten Verba belegt:

- der bewegliche Akzent (Wurzelakzent im Präsensstamm vs. Suffixakzent im Infinitivstamm);
- der Wurzelakzent (in beiden Stämmen);
- der Suffixakzent (in beiden Stämmen).

Der bewegliche Akzent könnte nur für Verba mit halbthematischen Präsensstämmen charakteristisch sein.

Nur Wurzel- und Suffix- Akzenttypen sind bei Verba mit den Suffixen *-in-* und *-au-* belegt.

Bei Verba mit den Suffixen *-ē-/ī-* und *-ā-/ī-* sind nur suffixakzentuierte Formen belegt. Der Wurzelakzent ist in dieser Klasse nur vermutlich.

Bei Verba mit den Suffixen *-ā-*, *-ū-*, *-i-/ī-* sind alle drei Typen mehr oder weniger zuverlässig belegt, aber die verhältnismäßig kleine Menge der belegten Beispiele und Schwierigkeiten ihrer morphologischen Interpretation lassen die Distribution der Akzenttypen nicht deutlich feststellen.

Die Abhängigkeit der Akzenttypen von den Akzentparadigmen der Grundwörter kann wegen der Dürftigkeit des belegten Materials nicht überzeugend begründet werden.\*

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## The Role of Sonority and Quantity in the Morphophonemic Development of Stress in Common Slavic Masculine Barytona (AP *a*) in Balkan Slavic Dialects

### 1. History of the question (Bulaxovskij on Acute and Neo-acute masculine stems in Bulgarian)

The central and most complex issue in the historical accentuation of masculine nouns in Balkan Slavic (BkSl) dialects with free stress (i.e., Bulgarian, Eastern Macedonian, and Torlak) is determining under what circumstances stress was assigned to the stem or the desinence in the definite singular form, (cf. Bg *rákьt* vs. *градьт*). The morphological framework for this particular form (in which the characteristic article was derived from a post-posed demonstrative, cf. \**ракь-тъ*) was already in place at the time of the earliest recorded OCS texts, such as the *Codex Marianus*, in which we find evidence for the existence of a prototype of the definite article (cf. *rodosь* Mt. XI, 16 < \**rodь-sь*, where the strong back *jer* yields *-o-*, as can be observed sporadically in documents of western provenance, see Ягич 1883/1960:430). Such a chronology is also indicated by the fact that the desinence of the masc. df. sg. vowel agrees with the reflex of the strong (back) *jer* in the majority of Balkan Slavic dialects (the chief exception being those dialects in which *-o(t)* has spread from neighbouring dialects, as in parts of western Bulgaria and Aegean Macedonia, or in which *-o* represents a particular development, as in the Mizija dialects of Bulgarian). One is thereby justified in projecting the modern data onto a diachronic plane which may have still retained significant elements of the inherited Common Slavic prosodic system (and such appears to be the working assumption of accentologists who have treated the BkSl data thus far). Further, it is natural to assume that this post-posed demonstrative originally acted as an enclitic, thus (in traditional terms) ‘attracting’ the stress from the root if the latter contained a CSI *circumflex* intonation (Stang’s APc), or (as expressed in morpho-accentual terms), if the root contained a *recessive* morpheme (cf. \**можь-тѣ* > *можь-т(ѣ)* > Bg *мъжьт*, \**родь-тѣ* > \**родь-т(ѣ)* > Bg *родьт*). This anticipated distribution was first established for Bulgarian by Kul’bakin (1907: LXVIII), who observed that nouns with reflexes of the CSI ‘falling’ intonation in Serbian regularly exhibit an accent shift in the definite singular form (cf. the so-called ‘закон переноса ударения на следующий слог в болгарском’, e.g. Bg *брегьт* ~ Sb *брѣгъ*, etc.). The concept was developed in detail (but without reference to Kul’bakin) by both Bulaxovskij (Булаховский 1921) and Kodov (Кодов 1930)

(who credits Valjavec with observing a ‘certain regular correlation’ between root and desinential stress in the df. sg. of masc. nouns and the intonation of corresponding stems in Slovenian, see Кодов 1930:39). Among nouns with CSI *long* root vocalism, Kodov (1930:44-45) adduces 28 examples with comparative evidence (e.g., *брегѣт*, *видѣт*, *гладѣт*, etc.) and 18 without (e.g., *мирѣт*, *срамѣт*, etc.). This view was further confirmed by Illič-Svityč (Иллич-Свитыч 1963:109-110), who also cited analogous data from Middle Bulgarian as a criterion for distinguishing the reflexes of AP *b* from those of AP *c*, inasmuch as the former characteristically exhibited stress retraction, while the latter did not (cf. instr. sg. *прѣстомь* - *моужемь*, dat. pl. *рабом* - *градѣ[м]* from *O Pis'menexъ*, 15<sup>th</sup> c., by Konstantin Kostenečski).

Both Bulaxovskij and Kodov further observe that the consistent behaviour of circumflex stems contrasts with the more variable accentuation of masc. nouns with long root vocalism from the other accentual paradigms (cf. respectively *acute* stems such as *\*rǎkъ*, *\*mǒrзъ* > Bg *ракѣт* vs. *мразѣт*, and *neo-acute* stems such as *\*bĕrstъ*, *\*sŏdъ* ‘iudicium’ > Bg *брѣстѣт* vs. *сѣдѣт*). It is nouns of this type (and in particular the *acute* stems) which are the chief focus of our discussion here.

With regard to acute stems (Stang’s AP *a*), both scholars agree that barytonesis is the anticipated (and regularly attested) outcome. Thus, Kodov cites (with comparative evidence) --*братѣт*, *грахѣт*, *дѣмѣт*, *зѣтѣт*, *клинѣт*, *купѣт*, *макѣт*, *прагѣт*, *ракѣт*, *сватѣт*, *хлябѣт*, *хрянѣт*, and (without comparative evidence) -- *югѣт*, *плѣхѣт*, *хрѣтѣт*, *лукѣт*, *влахѣт*. Nonetheless, it is admitted that ‘exceptions’ do occur (as ‘отклонения’, Kodov cites *плачѣт*, *мразѣт*, *градѣт* ‘hail’, as well as ‘dialectal’ *дѣмѣт*, *прагѣт*).

Whereas Kodov makes almost no attempt to explain these irregularities (with the exception of *градѣт* ‘hail’, which he rather unconvincingly surmises may be due to ‘analogy’ with *градѣт* ‘town’, see Кодов 1930:41), Bulaxovskij expends a considerable amount of ingenuity in searching for sources of lexico-semantic analogy for several of these items. Some of these comparisons are at least plausible (cf. *\*mǒrзъ* > *мразѣт* as per circumflex *хладѣт*, *\*grǎdъ* > *градѣт* as per *снегѣт*, see Булаховский 1921/1980:478), others less so (cf. *\*plǎčъ* > *плачѣт* ‘perhaps’ as per *смехѣт*). On the other hand, the case of *часѣт* < *\*čāsъ* (in which reflexes of AP *a* predominate in South Slavic) is explained on the basis of the ‘probable’ acquisition of falling intonation by analogy to circumflex stems with oxytonesis in the loc. sg. (as per Russian *в часу*), although no corresponding Bulgarian locative expression is cited. In a later study, Bulaxovskij (Булаховский 1959/1980:400) proposes fresh examples of semantic analogy, cf. *гневѣт* as per *ядѣт*, *дѣмѣт* as per *домѣт* (‘можно

догадываться’), whereas the ‘relatively frequent’ dialectal *прагѣт* is attributed to the nearly homonymous *прахѣт* (this last, rather unconvincing example is more in the spirit of Kodov’s approach to the problem).

In the case of long *neo-acute* masc. stems (cf. Stang’s AP *b*), Kodov (tacitly) and Bulaxovskij (explicitly) both assume that the expected outcome for the Bulgarian df. sg. is barytonesis.<sup>1</sup> Kodov cites this regular reflex in several nouns (cf. *бръстѣт, дрянѣт, дялѣт, кральѣт, кѣтѣт* < \**кѣтъ, плаицѣт, пѣтѣт* < \**рѣтъ, стѣлпѣт, храмѣт, хрѣстѣт, хѣлмѣт*) and points out three common exceptions (‘общобългарски отклонения’): *сѣдѣт* ‘judicium’, *трудѣт, умѣт* (curiously enough, Kodov omits the widely attested and etymologically sound *грехѣт*). He further observes that dialectal deviations in this class are ‘extremely rare’ (‘много рядко’)<sup>2</sup> and that in Bulgarian as a whole, exceptions in stems with *short* vocalism are almost non-existent (Kodov has in mind here stems with *-o-* or *-e-* root vowel, since roots with simple *jer* vowel are frequently end-stressed, cf. *дѣждѣт, сѣнят*).

This small difference in the behaviour of etymologically long and short (non-*jer*) *neo-acute* stems is of considerable importance. It is one of the distinguishing characteristics of masc. nouns of AP *b* in BkSl, in contradistinction to both acute stems of AP *a* (which in the standard interpretation are uniformly long) and circumflex stems of AP *c* (which exhibit relatively consistent desinential stress, regardless of root vocalism, cf. Bg *родѣт, сокѣт* as per *мъжѣт, рѣбѣт*). This difference in the accentuation of long and short masc. *neo-acute* stems had in fact already been seized upon by Bulaxovskij in his earlier article (1921/1980: 480), where he notes the absence of a consistent reflex in the *long neo-acute* stems (‘приходится прежде всего констатировать отсутствие единства в отражении старого ударения (интонации)’), cf. *пѣтят, ключѣт* ~ *лекѣт, сѣдѣт* ‘judicium’), a distribution which contrasts with the relatively ‘strict’ barytonic df. sg. forms of the short stems (cf. *коият, бобѣт, колѣт, попѣт*, etc.). In order to explain the occasional presence of desinential stress in these long *neo-acute* stems, Bulaxovskij (cf.), proposes analogy with the accent paradigm of *long circumflex* roots (cf. *брегѣт, врагѣт, градѣт* < \**gordѣ*) at a period in the prosodic evolution of early Bulgarian when intonational

1 This behaviour would be consistent with that of strong *jers* in medial position in the definite forms of the *neo-acute* adjectival stems, cf. \**bělъ-ъ* > Ru *бѣлый* vs. fem. \**bělā* > *белā*, neut. \**bělō* > *белō*.

2 It is noteworthy that the only exception cited by Kodov is *брестѣт* (Miletič 1903:103), which originates from Preslav in the Šumen Mizija dialect region of Northeast Bulgaria. In addition to its distinctive *-o* df. sg. desinence, this dialect type is remarkable for an unusually high incidence of end stress in nouns which are typically barytonic in the rest of BkSl (see Schallert 1993:404).

distinctions were lost, but phonemic quantity was still relevant (thus, *grěxǐt* by analogy with *kvasǐt*, following the development *\*grěx : \*kvās > grěx = kvās*). As Bulaxovskij notes, this behaviour provides indirect evidence that Bulgarian comported itself in accordance with the general South Slavic development, whereby length was retained under the reflexes of the *circumflex* (cf. BCS *mûž, mûža*) and the *neo-acute* (cf. BCS *sûd, sûda*), but lost under the *acute* (cf. BCS *răk, răka*). On this view, early Bulgarian would have had a prosodic system similar to that of Old Štokavian, where the shortening of the old acute and the merger of the neo-acute with the circumflex intonations led to a system with a two-fold quantitative distinction. As an analogical process, this change in the behaviour of neo-acute stems was far from regular.

## 2. A phonologically based account of mobile stress in masculine acute stems in Balkan Slavic

Bulaxovskij's treatment of 'exceptional' end stress in the masc. df. sg. of long *neo-acute* stems appears convincing in the comparative context of other South Slavic prosodic systems and has remained unchallenged by scholars since. On the other hand, his attempt to explain the occasional presence of desinential stress in *acute* stems on an item-by-item basis is on the whole rather unconvincing. Although several of the lexico-semantic parallels Bulaxovskij adduces are ingenious, other key examples are left undiscussed and the overall impression is somewhat atomistic.

An attempt to provide a more systematic account of the behaviour of CSI masc. barytona in BkSl was presented in Schallert (1993) and Шаллерт, Николаев (1993). Based on an exhaustive analysis of the dialect data,<sup>3</sup> as well as a review of the available Middle Bulgarian accented texts (see OCA, ACCЯ), this research demonstrates that the development of desinential stress in the case of some barytonic *acute* roots of AP *a* is not as random as would appear, but is instead grounded in quantitative proportion and morphophonemic analogy similar to the kind which Bulaxovskij has already proposed for neo-acute stems, except that in the case of the acute roots the conditioning features are segmental, rather than prosodic. The collective evidence of the dialects is summarized with

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3 The full network of regional dialects which underlie the findings in Schallert (1993) and Schallert (ms.) consists of approximately 135 geographically distinct entities, some represented by a single village (or small town), others by more than a dozen. The data were taken from a wide variety of sources, including all available publications, the archives of the Macedonian Dialect Atlas (Skopje), the Bulgarian Dialect Atlas (Sofia), and the Bulgarian Semasiological Dictionary project (Sofia), unpublished dissertations and *diplomni raboti*, and the author's own fieldwork.



statistical data in Table 1 (below). This evidence indicates that the incidence of end stress is greater among original barytona whose stems exhibit greater phonological sonority, as defined primarily in terms of consonantal auslaut and secondarily in terms of root vocalism. With respect to auslaut, this correlation is observed in stems which terminate in voiced stops and various continuants (fricatives, liquids, nasals), e.g., *\*dym-ŷt*, *\*morzŷ* > *\*mraz-ŷt*, *\*grad-ŷt* vs. *\*kŷp-ŷt*, *\*rŷk-ŷt*. With respect to root vocalism, the effect occurs in stems which contain a low root vowel (either original *-a-* or the same vowel when derived by liquid metathesis (cf. *\*plač-ŷt* vs. *\*bič-ŷt*,<sup>4</sup> or *\*gad-ŷt* vs. *\*plŷg-ŷt*). The incidence of secondary mobile stress is highest where the two sonority features co-occur (cf. *\*gadŷt*, *\*gradŷt*, *\*mŷorzŷ* > *\*mrazŷt*, *\*čŷasŷt*). This trend is manifested both in terms of the number of stems affected and in terms of the consistency with which such stress is manifested in any given lexeme. Although one does find consistently mobile stress in some stems with sonorous auslaut and less sonorous vocalism (cf. *\*dymŷt* and *\*tŷlŷt*), the proportion of *variably* stressed nouns is greater in this phonological class (cf. *\*plŷgŷt* ~ *\*plugŷt*, *\*jŷgŷt* ~ *\*jugŷt*) relative to the first class (cf. only *\*pŷŷrgŷ* > *\*prŷgŷt* ~ *\*pragŷt*), and the number of *barytonic* outcomes is even more disproportionate (cf. *\*klŷnŷt*, *\*xlŷbbŷt*, *\*xrŷnŷt* vs. only *\*vŷlŷxŷ* > *\*vlŷxŷt*).

The observed association of elevated levels of mobile stress with more sonorous root structure in etymologically barytonic masc. stems can be explained on the basis of analogy. Since higher sonority is typologically associated with greater intrinsic duration, the presence of this quantity-enhancing feature could have led to the reinterpretation of such barytonic stems as *long*, and thus susceptible to analogy with *long* (circumflex?) stems at an early stage when quantity was still a feature relevant to the development of BkSl accentuation. It is important to note that while Bulaxovskij's explanation of mobile stress in etymologically long neo-acute stems is based exclusively on the assumption of the presence of a Štokavian-like system, the explanation presented here for similar behaviour on the part of acute stems, while consistent with the same assumption, does not depend upon it, but rather provides indirect evidence for its existence, since the partial correlation of length with mobile stress can only obtain in such a historical context.

Still, the possibility that quantity-based analogy led to the introduction of mobile stress in *barytonic* masc. nouns in BkSl gives rise to the question as to the possible relationship of this development with the one proposed by Bulaxovskij for long *neo-acute* stems, which is also based on quantity. In fact, a

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4 Cf. Sn *bič*, *biča*; Čak. Novi *bič*, *\*biča* Белич 1909: 208; Vrgada *bič*, *biča* Jurišić 1973; Štok. *bič*, *biča*.

satisfactory analysis of this potentially complex issue would entail further comparison with the distribution of stress and phonological structure in BkSl masc. nouns of *all* the CSI accentual paradigms. Since the presentation of such an analysis would exceed the limits of the present study, we limit ourselves here to the following observations, which are also based on a detailed study of the BkSl dialect data.

First, the incidence of desinential stress in long neo-acute masc. nouns of AP *b* with more sonorous auslaut is similar to that observed in acute stems (e.g., \**děl-ŭt*, \**grěx-ŭt*, \**sŏd-ŭt*, and probably \**um-ŭt* vs. \**glŭst-ŭt*, \**kŏt-ŭt*, \**pŏt-ŭt*, \**pŏrst-ŭt*, \**skŭt-ŭt*, \**ščŭt-ŭt*, \**šŭp-ŭt*), although the comparative paucity in AP *b* of masc. stems with voiced-final auslaut combined with *TorT* or *a-* root vocalism impedes comparison of the degree of correlation in the highest sonority class (the poorly attested \**korljь* is the only exception, whereas the remaining small number of stems with suitable root vocalism all terminate in voiceless-stops, cf. \**plást-ŭt*).

Second, the majority of the masculine stems of AP *c* (and AP *d*, if one accepts this reconstruction) with long root vocalism which are attested in Balkan Slavic also belong to the two higher sonority classes (on the order of 75% for both AP's). Since the anticipated reflex in the BkSl masc. df. sg. of the enclinal nom.-acc. sg. form in *both* of these proto-paradigms is desinential stress, it is thus conceivable that, for all its plausibility, the partial correlation of sonority with mobile stress in etymological barytona (and perhaps also neo-acute stems) is not conditioned strictly by sub-phonemic length, but rather by segmental analogy induced by nouns from AP *c* and *d* (although it is virtually impossible to separate the quantitative and segmental factors).

Third, although there is no evidence for a phonologically based distribution of stress in masc. nouns of AP *c* (where the incidence of mobile stress is quite high in all sonority classes), a somewhat moderated sonority correlation is observable yet again among nouns of AP *d*, except that here extremely low rates of mobile stress are comparatively rare, other than in the lowest sonority class (cf. chiefly nouns with \**ŏ* root vowel and voiceless stop auslaut, such as \**prŏtь* > *nrŭtъm*, \**sŏkь* > *cъkъm*, and \**pŏrь* > *nъnъm*).<sup>5</sup>

Returning to our discussion of the acute stems, we draw the reader's attention to Table 1, in which the data for masc. barytona in BkSl are structured according to two parameters, viz. synchronic reflexes and the sonority of the given stem.

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5 Note, however, that there is also sporadic evidence for AP *a* in Čakavian, cf. Vrgada *pŭp*, -*a* Jurišić 1973:175.

With respect to synchronic reflexes, any given regional or local dialect can exhibit one of three possible outcomes, viz. root stress, variable stress, or desinential stress (e.g., \*bratъ, 54-4-2 = 54 dialects with root stress, cf. brátъt; 4 dialects with variable stress, cf. brátъt ~ bratъt; and 2 dialects with desinential stress, cf. bratъt).

With respect to intrinsic sonority, each stem can be assigned to one of *four* phonological classes, based upon the respective sonority features of the root vocalism and consonantal auslaut, as defined in terms of intrinsic duration. Here we arbitrarily demarcate the following boundaries within the relevant continua: high (H) root sonority = [a]-vocalism, low (L) root sonority = any other vocalism; high (H) auslaut sonority = voiced stop or any continuant (including fricatives, but excluding affricates), low (L) auslaut sonority = voiceless stops. Combining these two pairs of contrasting features, we obtain four classes, which can be presented in order of increasing sonority as follows (where *root* sonority is indicated with the *first* sign and *auslaut* with the *second*): lowest sonority (LL, e.g., \*kōt-), lower sonority (HL, e.g., \*rak-), higher sonority (LH, e.g., \*dym-), highest sonority (HH, e.g., \*grad-). In point of fact, of the two kinds of sonority, that which is found in auslaut seems to be the predominant factor (as well as historically anterior). This difference is reflected in the distinction we observe between ‘lower’ (LL, HL) and ‘higher’ (LH, HH) gradations. The behaviour of stems terminating in a palatal glide (\*krājъ, \*rājъ) warrants treatment as a separate category, since it appears that any compensatory affect associated with the loss of the final *jer*’ was subsequently annulled when the resulting long diphthong was shortened (in order to avoid a hyper-moraic formation). If this is the case, then the development was distinct from that of Štokavian (cf. krāj, krāja, rāj, rāja).

**Table 1: Distribution of accentual classes over sonority classes in masc. df. sg. in BkSl dialects (AP a)**

Sonority class		Mainly root stress	Variable stress	Mainly end stress
<i>Root</i>	<i>Auslaut</i>	0-25% end stress	25-75% end stress	75-100% end stress
L	L	*bičъ /B, 13-0-3	*bukъ, 9-6-12---	
		*bričъ /B, 9-0-0	*klekъ, 0-1-1	
		*kupъ, 14-1-3	*lukъ, 47-11-15	

		* <i>rupь</i> (?), 7-0-0	* <i>pъrčь</i> B?, 12-4-7	
		* <i>xъrtь</i> , 6-0-1		
L	L	* <i>zъtь</i> , <sup>6</sup> 75-7-10		
H	L	* <i>bratь</i> , 54-4-2	* <i>torь</i> , 19-4-21	* <i>plačь</i> , 1-0-15
		* <i>makь</i> , 10-1-3		
		* <i>rakь</i> , 22-0-0		
		* <i>svatь</i> , 40-0-2		
(H)	j	* <i>krajь</i> , 72-6-5	---	----
		* <i>rajь</i> , 17-1-1		
L	H	* <i>klinь</i> , 24-1-5	* <i>jugь</i> , 8/9-3-16	* <i>belнь</i> , 0-0-1
		* <i>xlěbь</i> , 101-2-1	* <i>kurь</i> , 2-0-1	* <i>dymь</i> , 0-0-23
		* <i>xrěнь</i> , 6-0-2	* <i>plugь</i> , 30-3-23	* <i>kruxь</i> , 0-0-2
		* <i>židь</i> B 1-0-0	* <i>větrь</i> , 50-9-19	* <i>tylь</i> D?, 0-0-33
				* <i>zěvь</i> C?, 1-0-8
H	H	* <i>volxь</i> , 14-0-0	* <i>porьgь</i> , 41-3-17	* <i>čadь</i> (?), 0-0-2
		(* <i>gabrь</i> , 20-1-2)		* <i>časь</i> (D?), 0-0-65
				* <i>dolнь</i> , <sup>7</sup> 0-0-1
				* <i>gadь</i> , 2/3-1-10
				* <i>gradь</i> , 0-0-24
				* <i>gorxь</i> , 3-1-20
				* <i>morzь</i> , 2-1-37
				* <i>žalbь</i> , 1-0-4

6 A CSI *i*-stem (as such, it may have exhibited a greater proclivity, as yet unexplained, for barytonic stress in BkSl, cf. \**zvěрь*, 14-1-3, despite CSI AP *c* and AT ‘C’ in MdBg, see OCA 208).

7 A CSI fem. *i*-stem. The development of secondary masc. gender in BkSl here is comparatively rare.

**Commentary.** If one excludes poorly attested lexemes (such as \**čadъ*, \**dolnъ*, \**žalbъ*), then the core of highest sonority nouns with mobile stress consists of \**gad-*, \**grad-*, \**grax-*, \**mraz-*, and \**čas-* (if we are to accept the variant AP *a* as the common South Slavic point of departure for this last stem). Both \**gabrъ* and \**větrъ* exhibit disyllabic stem structure in the large majority of BkSl dialects and as such are subject to particular localized developments, which generally tend to favour barytonesis.

If the presence of quantity is relevant to the prosodic development of acute masc. stems in BkSl (a branch of South Slavic), then it is natural to ask at what stage in the evolution of Bulgarian and (Eastern) Macedonian this factor played a role. This question can be viewed from two possible perspectives, viz. textual and typological-comparative.

Textually, the comparatively limited BkSl evidence points to the possible existence of two chronological strata. The first of these strata was observed by Nikolaev (see Шаллерт, Николаев 1993:125-126) and is defined by the evidence of Middle Bulgarian texts<sup>8</sup> (in particular those of the Търново school [Търн.] and of Konstantin Kostenečski [Konst.]), in which sporadic indications suggest that the reanalysis had already occurred in certain stems with final voiced stop or continuant (cf. \**gadъ* [Търн., Konst.] OCA 192, \**gradъ* [Konst.] АССЯ 126, \**židъ* [Търн.] OCA 191, \**dymъ* [Търн.] OCA 192; note that for \**židъ* the extremely limited modern dialectal data contradict or reverse the development reflected in the Търново cycle). Traits reflecting partial assimilation to AT (Accent Type) ‘C’ include proclisis in enclinal forms (such as the nom.-acc. sg.) and desinential stress in orthotonic forms (such as the *o*-stem instr. sg. and dat. pl. The stem \**časъ* (with its final voiceless fricative) still exhibits AT ‘A’ (fixed root stress) in the Търново texts (despite the overwhelming presence of end-stress in the modern dialects and Literary Bulgarian), but displays an oxytonic instr. sg. in one of Konstantin Kostenečski’s texts. On the other hand, \**plačъ* (with its final voiceless affricate) exhibits steadfast barytonesis in all texts, despite the predominance of end stress in the modern dialects. The relevant data are as follows:

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8 The Търново texts are: Zogr. (Сборник слов и житий, 14с., Zographensis monastery library, № 171), Grig. 1703 (second fragment from the file ‘Отрывки из трех южнославянских сборников слов и поучений’, полуустав XV в., ГБЛ, отдел рукописей, Ф. 87, № 1703). The text representing the ‘system’ of Konstantin Kostenečski is: Sb. (Сборник слов и житий, 15с., Zographensis monastery library, № 151). For details, see OCA 166-170.

\**časъ* > **Тѣмн.** (see OCA 190 for extensive data attesting to consistent AT ‘A’ in Тѣмново texts); **Konst.** (chiefly AT A, but cf. instr. sg. *часо*<sup>9</sup> Sb. 277a, *часо*<sup>9</sup> Sb. 281b).

\**дуть* > **Тѣмн.** nom.-acc. sg. *не дымъ* Zogr. A25b, instr. *дымомъ* Zogr. E397b. ‘Mixed’ AT (OCA 192), cf. contrast between desinential stress in instr. sg. (as in the reflex of AP c) and the failure to exhibit proclisis in a potentially enclitomenal case form (as in the reflex of AP a).

\**gadъ* > **Konst.** gen. pl. (*o*-stem) *угадъ*, but cf. also: *уо[т] гадъ*; gen. pl. (*u*-stem) *угадовъ*, acc. pl. *гады*, instr. pl. *гады*;<sup>9</sup> **Тѣмн.** dat. pl. *гадомъ* Zogr. B54a ~ *угадомъ* Zogr. E427a, loc. pl. *о...у” гадω[x]* Zogr. A64b(!). Proclisis in the *o*-stem gen. pl., oxytonesis in the *u*-stem gen. pl., oxytonesis (after proclitic) in dat. pl., and secondary proclisis in loc. pl. form.

\**gradъ* > **Konst.** nom.-acc. sg. *у” гра[д]* Sb. 42a. Proclisis.

\**pláčъ* > **Konst.** instr. *плáче[м]* Sb. 18a, *плáче[м]* Sb. 20b, 37b, *плáче[м]* Sb. 81b, instr. *сб плáче[м]* Sb. 19a, 34a, 275a, *сб плáче[м]* Sb. 287b, instr. *уплáче[м]* Sb. 81b, *уплáче[м]* Sb. 284a, loc.-dat. *по плáчу же* Sb. 34a; **Тѣмн.** dat. *да не къ плáчу* Grig. ! 1703 6, instr. *плáчемъ* Zogr. A3b, B340a, E397b, loc. *въ...плáчу* Zogr. E167a. Consistent barytonesis in all instr. sg. forms.

From this limited textual evidence, we may surmise that the process of assimilation to the reflexes of AP c began first in barytonic stems terminating in a voiced stop or continuant, then spread to those with final voiceless fricative (and low vocalism?), and only later affected those with final voiceless affricate (when combined with low vocalism).

The second textual stratum is defined by the Bulgarian Damascenes (vernacular texts of the 17-18 cc. whose morphological structure closely resembles that of Modern Bulgarian).<sup>10</sup> In texts of this type we continue to observe evidence for the previous acquisition of enclitomenal properties in nouns of AP a with voiced auslaut (in this instance, all continuants), cf. **Svištov Dam.** df. *мръзо* 444, *от мразотъ* 493 (Милетич 1923); **Ljubljana Dam.** df. *за тилътъ* 80b (Агриров 1895); **Trojan Dam.** от *димовете* 308a (Иванова 1967) (although not absolute, the correlation of desinential stress in the df. pl. with desinential stress in the df. sg. is common in modern EBg and the Damascenes). In addition (and in contradistinction to most of the MdBg

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9 Due to an oversight on the part of the author, the citations for the relevant passages from the ACCЯ electronic data base file for this lexeme were omitted (but not deleted!) during a second round of compilation.

10 Our data are drawn from texts of East-Central Bg provenance (cf. the so-called *Koprivštica*, *Ljubljana*, *Tixonravov*, and *Trojan Damascenes*), as well as the *Svištov Damascene* (the only text representing the so-called *o*-Mizija dialect of Northeast Bg).

evidence), a stem with voiceless fricative auslaut, such as \*časъ, already exhibits more consistent evidence for assimilation to the mobile stress type<sup>11</sup>, cf. **Koprivštica Dam.** df. sg. *часъть* 299a (Милетич 1908); **Ljubljana Dam.** df. sg. *часъть* 2b, 9b (Агриров 1895); **Tixonravov Dam.** *часъть* 183a, 183 (Демина 1971); but cf. also **Svištov Dam.** df. sg. *и когѣ замина́ часотъ* 180a (Милетич 1923). Whereas the consistent mobile stress of this stem in the Central Bulgarian Damascenes matches the pattern of the corresponding modern dialects, the barytonic form in the *Svištov Damascene* is unexpected in view of the evidence of modern Mizija dialects.

To summarize, the available early textual evidence indicates that the assimilation of barytonic stems to AT ‘C’ began prior to the 14-15cc. (cf. MdBg) and had spread to all relevant phonological (sonority) classes (albeit not in all of the currently affected dialect regions) by the second half of the 17c. (cf. Central Bg Damascenes).

Typologically, the BkSl data invite comparison with Štokavian reflexes of the CSI acute in forms such as *krâj*, *krâja*. If length in these nom.-acc. forms is conditioned by segmentally enhanced compensatory lengthening (by which the shortened acute was re-lengthened, or perhaps sheltered, before nasal stops and the palatal glide, in compensation for the weakening of the final *jer*), then the Štokavian phenomenon is itself datable to the period of the fall of the *jers* (such is the carefully constructed argument proposed in Timberlake 1983a, b). If on the other hand the restoration of length in *krâj* is purely segmental in origin, then the chronology is unclear. As we have just seen, the MdBg textual data provide some fragmentary evidence that the process of assimilation to the reflexes of AP *c* on the part of nouns of AP *a* predates the 14<sup>th</sup> century. Of course, if our interpretation of the BkSl data is correct, then the segmental range of features which favoured a length correlation in BkSl is far broader than the more narrowly conditioned Štokavian phenomenon. In this respect, the BkSl phenomenon appears to bear a closer typological resemblance to some Čakavian systems, which exhibit a wider gamut of stem-final consonants associated with secondary length, cf. the South Čakavian dialect of Hvar, where [compensatory?] lengthening occurs before sonorants and voiced obstruents both finally and internally, e.g., \**râjъ* > *rôj*, *dîd*, \**môrзъ* > *mrôz*, vs. *mâk* (Timberlake 1983b:296) or even a more extreme case such as the one represented by the dialect of Sali on Dugi Otok, where secondary length can occur before any obstruent, albeit typically in variation with brevity, cf. *brât/brât*, *brâta* (as per the notations of Budovskaja) АСЯ 107.

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11 Unfortunately, the noun \**placъ* is not attested in the df. sg. in our Damascene data.

## 1. Sample Balkan Slavic dialect corpus (\*rakъ, \*gorxъ)

As a sample illustration of the modern BkSl dialect evidence, we select two nouns from AP *a*, both of which are regularly indicated as barytonic in the sources for Literary Bulgarian, but only one of which (\*rakъ) is consistently root-stressed in the dialects (cf. 22 attestations, in the second column in Table 1), whereas the other (\*gorxъ) exhibits mobile stress in the large majority of attested dialects (20 out of 24 attestations, in the fourth column in Table 1). Following liquid metathesis, the two stems would have had nearly identical root structure (cf. \*rak-, \*grax-) and would have shared the sonority-positive feature of low root vocalism (-a-), but the former would have ended in a voiceless stop, whereas the latter would have terminated in a voiceless fricative continuant (cf. sonority classes HL and HH, respectively).

The purpose of this particular contrastive exercise is not to lead the reader to the manifestly false conclusion that we are dealing with an exceptionless phonologically determined distribution, but rather to illustrate that the evidence of Literary Bulgarian is in some cases insufficient for the formulation of an accurate and complete account of the facts.

### \*gorxъ A ‘beans; peas’

**NORTHWEST:** Lom [Lom] *гpaъ* Тодоров 1936:222. Mobile stress in 1 dialect.

**SOUTHWEST:** Blagoevgrad [Sem., St.Kr.] *гpaх*, *гpaхо* Стоилов 245;

**Sandanski.** [Rak.] *гpaх*, *гpaхо* Стоилов 245; **Dupnica** [Bobosevo] *гpaх*, \**гpaо* Кепов 1936:20; [Bobov Dol] *гpaх*, *гpaо* Войнова 1977:53; **S.Maleševo** [Smojmirovo] *гpaо* AFN 1990 (lexeme termed untypical by informant, cf. rather *боб*). Barytonesis in 2 dialects (3 including S.Maleševo) ~ mobile stress in 1 dialect.

**CENTRAL:** Makocevo [Makocevo] *гpaх*, *гpaа*(sg.t.) Стоянов 1972:249; **Loveč** [Loveč town] *гpaхът* Цонев 1937:49; **Pirdop** [Smolsko] *гpaх*, \**гpaа* Кънчев 1968:55; [Zlatica] *гpaх*, \**гpaха* Христова-Джановска 1977:50; **Pleven** [Pel., Pord.] *гpaъ* BDA-NW:76; **Sliven (Ukraine)** [Korten] *гpaхъ* Зеленина 1981:81; **Teteven** *гpaхé* Стойчев 1915:80. Barytonesis in 1 dialect (Loveč) ~ mobile stress in 5 dialects .

**RUP • W.Rup:** Razlog (81) [Babek] top. *Гpaхо*, *Гpaо* Вехов 1987:231; [Elešnica] top. *Гpaхо*, *Гpaо* Попов 1979:99. Variable stress in Razlog toponyms.

• **Rhodope:** Arden [Drenka] *гpaхán* (2x) AFN 1997; [Oreхovec] *гpaхъc* Субашиев FN; **Delčevo** [Jan.] *гpaхъ* ‘Pisum sativum’ Стоилов 2000:244 ~



*гра́хъ* 245; **Devín** [Buj.] *грахо́* BDA-SW 130, *грахо́с* 130, 133; [Mugla] *граха́* Стойков 1971:50; **Smoljan** *грахо́аm* Шишков 1904:100; **Široka Ljka** [Gela] *грах* Соболев 2001:266, 321, 370, 376, 375, *грахън* 266, 321, 375 (3x), 437, *ид грахън пакъас'ен* 370, *грахъ* 376; **Zlatograd** [Zlatograd town] *за грахъm* (бедни) Иванов 1978:72. Mobile stress in 6 dialects.

• **Pavlikjan: Banat** *гра, грай, грах, грахъ* Стойков 1968:59; [Bešenov] *гра, грахъ* Стойков 1967:183. Mobile stress in 1 dialect.

• **E.Rup: • S.Thrace: Gjumurdžina** [Sar.] *гръхъ* Бояджиев 1991:59; **Ksantija**. [Enikjkoj] *граh* (sg. = end stress, pl. = root stress) Витанова 1985:251 (could be from \**grěxъ*, cf. *дран* < \**др'ан* < \**dergnъ*, especially since pl. may be attested, whereas \**gorxъ* is far more commonly attested only in the sg.) **N.Thrace: Malko Tьrnovo (Ukraine)** [Staryj Krym] *гръхъm* Булаховский 1955:134. Mobile stress in 3 dialects (excluding Ksantija [Enikjkoj]).

**Rup summary:** Variable stress in 1 dialect (Razlog *o*-dialect) ~ mobile stress in 10 dialects.

**PERIPHERAL O-DIALECTS:** • **Mizija: Sьrt** [Kjulevča.] *грахо́* AFN 2000; **Sьrt (Ukr.)** [Kriničnoe.] *граў, грао́* Журавлев 1955:57 **Fakija: Odrin (Ukr.)** [Ternovka.] *грао́* Зеленина 1955:119. Mobile stress in 3 dialects.

**LITERARY BULGARIAN: ПРБКЕ** *грахъm, грахове* 92; **РСБКЕ** *грахъm* (sg.t.) I:202; Consistent barytonesis (unlike the majority of attested Central dialects, except Loveč).

*Balkan Slavic distribution.* A stem of the Balkan Slavic 'mobile' accentual class, cf. mobile stress in 20 dialects ~ variable stress in 1 dialect (Razlog) ~ barytonesis in 3 (perhaps 4) dialects (Southwest, Loveč), as well as Literary Bulgarian. There is a striking contrast between systematic barytonesis in the sources for Literary Bulgarian and the mobile stress found in all attested dialects with the exception of Loveč (as described by Conev), a dialect which played a relatively significant role in the formation of Literary Bulgarian. Perhaps additional barytonic forms would be found in the poorly attested Northwest dialects, or in Central dialects located to the east of Loveč (for which we still lack evidence regarding the accentuation of \**gorxъ*). For a roughly analogous contrast between the stress attested in Literary Bulgarian and the dialects, cf. \**gadъ* (another stem of AP *a* with *-a-* root vocalism). The barytonic variants in Razlog *o*-dialect toponyms appear to form a continuum with the root stressed forms attested in Southwest *o*-dialects, which are situated to the immediate west, northwest, and southwest of Razlog. In this regard, the desinentially stressed forms from Dupnica (situated towards the eastern edge of the Southwest zone) and the remaining Razlog toponyms may form a bridge with the mobile stress pattern which predominates in Central and Rhodope dialects.

**Comparative Slavic data.** Sn. *gràh*, gen. *gráha*; Čak. [Novi] *gràh*, gen. *\*gràha* Белич 1909:208; [Vrgada] *gràh*, -a Jurišić 1973:63; Štok. *gràx*, gen. *gràxa*; Ru. *goròx*, gen. *\*goròxa* / *\*goròxy*. Consistent reflexes of AP *a*.

### *\*rakъ* A

**TRANSITIONAL:** Burel *rákъt* ‘cancer’ Любенов 1993:111; Kjustendil Kraište [Gor.] *rákəʔt* ‘cance’ Sobolev 1998:2; N.Timok *rákъt* Станојевић 1911:411. Barytonesis in 2 dialects.

**NORTHWEST:** Lom [Lom] *rák*, -a Тодоров 1930:33. Barytonesis in 1 dialect.

**SOUTHWEST:** Blagoevgrad *рак*, *\*ráko* Стоилов 1905:186; Dupnica [Boboševo] *рак*, *\*ráko* Кепов 1936:20; Gorno Pole *рак*, *\*ráko* Котов 1962:47; Samokov (35) *рак* ‘болестта’, *\*ráko* Вакарелска-Чобанска 2005:168, *рак*, *\*ráko* 169; [Sam.] *ráko* Тодоров 1936:223. Barytonesis in 4 dialects.

**CENTRAL:** Botevgrad *ráka* Попиванов 1930:9; Čijšija (Ukr.) *рак*, *rákъt*, *ráци*, -*ти* Стоянова 1997:46; Grebenci *ráкъ* Кочев 1969:53; Loveč [Loveč town] *ráкъt* Цонев 1937:50; Panagjurište *рак*, *\*ráka* Гарибова 1987:81; Sliven (Ukr.) [Гвърдica] *ráкъ* Стойков 1955:23; Teteven *ráka* Стойчев 1915:81. Barytonesis in 7 dialects.

**RUP: • E.Rup: • S.Thrace: Asia Minor** [Мандър] *рак*, *\*ráкъ* Цанова 1985:173; Dedeagač [Dervent] *рак*, *\*ráкуt* Бояджиев 1979:21; N.Thrace: Asenovgrad [Češnegirovo] *рак*, *\*ráka* Попгеоргиев 1907:432. Strandža: *ráкъt* Горов 1962:27. MalkoTърново (Ukr.) [Старј Крум] *ráкъt* Булаховский 1955:132. Barytonesis in 5 dialects.

**PERIPHERAL O-DIALECTS: • Mizija: Grebenci** *ráкъ* Кочев 1969:53 (variation between the -*o* and -*ъ* endings is attested, see BDA-NE, Map 169); Sърт [Kjulevča] *рак*, *ráкō* ‘cancer’ AFN 2000 • Zagorci: Kotel [Žeravna] *рак*, *\*ráкъ* Бърдарова 1976:86 • Solun I [Suxo] *ráku* Mačeki 1936:95; Solun II [Visoka.] *ráкуt* Mačeki 1936:95. Barytonesis in 3 dialects.

**Literary Bulgarian:** РСБКЕ *ráкъt*, *ráци* ‘Astacus fluvialis; Cancer pagurus’ 3:85; ПРБКЕ *рак*, *ráкъt*, *ráци*.

*Balkan Slavic distribution.* A stem of the Balkan Slavic ‘barytonic’ accentual class, cf. root stress in 22 dialects (25 including Transitional), as well as Literary Bulgarian. Note, however, that data are lacking for Banat and Raduil (Samokov), which are 2 of the 3 dialects exhibiting mobile stress in the case of *\*mákъ* (the third such dialect, however, is that of Solun, which shows root stress for *\*ráкъ*). Also unattested are the SW dialect of Maleševo and the W.Rup dialect of Razlog (the only dialects reporting mobile stress in the case of *\*rajъ*), as well as Šumen-Sърт and the Fakija dialect of Čanakča (in which we find

exceptional examples of mobile stress in a small number of other typically ‘barytonic’ stems).

**Common Slavic reconstruction.** **Čak.** III [Vrgada] *ràk*, -a Jurišić 1973:177; **Štok.** *ràk*, gen. *ràka*; **SWCz.** [Chod.] *rák*, gen.-acc. *ràka* Hruška 1907:80; **Ru.** *рак*, gen. *рака*.

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## Home-made Western Slavic Vowel Length

### 1. Introduction

In traditional accounts, Western Slavic vowel length is derived from Common Slavic (CS) length, stress and intonation: acute (Stoßton) intonation is supposed to produce long reflexes, while circumflex intonation (Schleifton) is responsible for modern short vowel. CS intonation is a reconstructed feature of the language that is based on the evidence from Eastern Slavic stress and Southern Slavic stress/tone/length. Since there is no match between reconstructed acute/length and circumflex/shortness, various additional mechanisms are needed in order to derive the correct result: a good deal of analogy, but most importantly metatony. Metatony was adapted to Slavic by Lehr-Splawiński (1917, 1918, 1923) on the basis of Baltic alternations (Saussure's Law); it reverses the intonational value, i.e. turns acute into (neo)circumflex and circumflex into (neo)acute. There is no basis for deciding when exactly metatony applies, except the result that one needs to achieve.

Below I argue that quantity in Western Slavic inflectional and derivational paradigms is home-made: it has got nothing to do with any property of CS, let alone metatony. That is, quantity in inflectional and derivational paradigms is the result of a *synchronic* regularity where synchronic does not mean 'present-day'; rather, it refers to a (morpho-)phonological process that occurs when speakers produce inflected or derived forms in the course of a grammatical derivation. This derivation may be carried out today or have taken place some centuries ago: it is synchronic whatever the stage of the language at which it applies. And in any event it owes nothing to CS vowel length, stress or intonation.

On the other hand, quantity in lexically recorded base forms is different: synchronic activity is not responsible for the contrast between, say, Czech *být* 'to be' and *byt* 'flat (apartment)'. The quantity of lexical items may thus well be due to diachronic developments based on Common Slavic. Unfortunately, though, currently available accounts are not successful in predicting modern quantity from CS properties. Regarding vowel length in inflectional and derivational paradigms, I argue that there is a simple regularity, and that the nature of this regularity is templatic in the Semitic sense.

The road map is as follows: section 2 recalls the traditional intonation-based apparatus and shows that it fails to predict Western Slavic quantity in lexically recorded base form. Section 3 explains what a template is (in Semitic and



elsewhere), while section 4 briefly discusses the list of templatic categories in Czech and then focuses on one particular paradigm, iteratives.

A final remark is in order before delving into the demonstration. While the title of the article makes a claim about Western Slavic, data discussed will be only from Czech. I believe that the Western Slavic claim is sound, even though it is true that the situation outside of Czech still needs to be looked at through the templatic lens. I am aware of some Slovak evidence (concerning vowel-final prefixes) that goes the templatic way. Elsewhere (i.e. in Polish, Sorbian and Kashubian), the situation is of course obscured by the absence of distinctive vowel length in the modern idioms: quantity can only be recovered through secondary (and partial) reflexes in vowel quality.

## **2. Quantity in lexically recorded base forms: diachronically predictable?**

### **2.1. Why intonation is believed to condition Western Slavic quantity.**

By the end of the 19th century, scholars had established a correspondence between quantity in certain Czech paradigms and prosodic properties of other Slavic languages (see for example the overview of the early literature in Trávníček 1921b). Eastern Slavic and Serbo-Croatian evidence as well as the related Baltic prosody call for the existence of two different intonations for the Slavic mother tongue, that is ‘acute’ (also known as ‘rude, rising, German *Stoßton*, Czech *ražený*, French *rude*’) and ‘circumflex’ (also known as ‘soft, falling, German *Schleifton*, *gedehnt*, Czech *tažený*, *padavý*, French *doux*’). The former appears as ‘ $\sim$ ’ in Serbo-Croatian transcriptions and produces stress on the second part of pleophonic words in Russian, while the latter is noted ‘ $\wedge$ ’ in Serbo-Croatian and provokes stress on the first part of pleophonic words in Russian.<sup>1</sup>

Given this overall comparatistic picture, let us take a closer look at a particular fragment thereof. Table 1 below shows CS words that instantiate the pattern CVLCy<sub>r</sub>, i.e., where the root-vowel is stressed, short and followed by a liquid-obstruent cluster plus a yer. The length of the Czech reflexes of these words can be predicted according to intonation: if the CS root vowel had acute intonation (i.e. produces stress on the second vowel of the Russian pleophonic cognate), it appears as a long vowel in Czech; in case it bore circumflex

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1 The cross-Slavic evidence and the segmental effects which are commonly related to intonation in various Slavic languages are reported in all textbooks, e.g., Carlton (1991:186ff), Garde (1976:197ff), Bethin (1998:121ff), Panzer (1991:324ff).

intonation (witnessed by stress on the first vowel of Russian pleophonic words), the Czech reflex has a short vowel.

1.	CS	Serbo-Croatian	Russian	Czech
	* <i>morzъ</i>	<i>mráz</i>	<i>moróz</i>	<i>mráz</i>
	* <i>gorchъ</i>	<i>grách</i>	<i>goróch</i>	<i>hrách</i>
vs.				
	* <i>golsъ</i>	<i>glás</i>	<i>gólos</i>	<i>hlas</i>
	* <i>bergъ</i>	<i>sloven. brég</i>	<i>béreg</i>	<i>břeh</i>

Following this method, Jagić (1894) established three laws concerning the reflexes of CS long vowels in Czech. They appear under 2 below.

## 2. Jagić's Laws

- a. a CS tonic long vowel remains long if its intonation is acute
- b. a CS tonic long vowel is shortened if its intonation is circumflex
- c. a CS pretonic long vowel remains long whatever the intonation of the following tonic vowel

Leaving aside 2c, it was obvious that both other laws suffer numerous counter-examples, to the extent that it is not clear whether there are more examples that follow the rules than there are examples that disobey them.

This is what Trávníček (1921a,c) demonstrates. Unlike most other investigators who talk about generalizations on the basis of a handful of words and are therefore unable to evaluate the proportion of counter-examples, he provides more representative evidence. Trávníček's corpus is made of a total of 28 words with a CS tonic long root vowel that bore acute intonation, and which therefore should come out with a long vowel in Czech according to Jagić's first law. Nine words indeed are long (*cíp, dým, dřik, klín, pláč, ráj, sýr, stír, týn*), but 13 have a short reflex (*bratr, čas, děd, had, hněv, jih, kraj, laz (Lazy), pluh, rak, rys, směr, (staro)svat*). Finally, six words possess long vowels in Nsg, but short vowels in oblique cases (Nsg *hrách* - Gsg *hrachu; chléb, mák, mráz, práh, vítr* alike). On the other hand, he has controlled 76 words with a CS tonic long root vowel and circumflex intonation, which should produce short reflexes in Czech according to Jagić's second law. The vast majority indeed obeys (67 reflexes

appear with a short vowel<sup>2</sup>), but there are also eight long items on record (*bloud, řád, smích, šíp, troud, vír, žár, žír*), and one word is of the alternating kind (Nsg *snih*, Gsg *sněhu*).

## 2.2. Metatony is supposed to explain the counter-examples: the case of CVC-yer roots

The question is thus how Czech short reflexes from CS acute, and long reflexes from CS circumflex intonation can be explained. This is where Lehr-Splawiński (1917, 1918, 1923) and metatony enter the scene. It is obvious that the original pattern of CS vowel length was discountenanced by the loss of yers in word-final position. Some case markers happened to be yers: stems that appear in modern Slavic languages with a zero marker in Nsg and Asg (masculines and feminines), as well as in Gpl of o-neuters and a-feminines, fall into this category. Let us take advantage of the evidence from Gpl forms hereafter (other yer-final categories are systematically worked through in the literature, e.g., Shevelov 1964:534ff, Garde 1976:221ff, Stang 1957:167ff, Lamprecht 1987:145ff).

Lehr-Splawiński observed that CS words which end in a yer fall foul of Jagić's predictions. Traces thereof can be found all over Western Slavic. In Slovak for example, root vowels lengthen in those Gpl forms whose case marker used to be a yer: Nsg *žena, kytica, ulica, palica, fabrika* vs. Gpl *žien, kytíc, ulíc, palíc, fabrik* 'woman, bunch (of flowers), street, stick, factory' and so forth (e.g., Rubach 1993:144ff). Old Czech exhibits the same alternation, e.g. Nsg *strana, duša, pata, ruka* vGpl *strán, dúš, pát, rúk*, see for example Vážný (1963:59).<sup>3</sup>

Since everybody took for granted that Western Slavic length is a function of CS intonation, Lehr-Splawiński interpreted the Jagić-disturbing influence of yers as a secondary effect of original intonation: the overt incidence of yers was

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2 Items on this list are *běh, běs, blesk, blud, brav, brus, břeh, cep, člen, čin, člun, dar, dluh, dub, duch, druh, hlad, hlas, hrad, hnus, chlad, chlap, jed, jek, jez, kněz, kruh, kus, kvas, květ, lep, les, lesk, luh, luk, měch, mlat, mrak, muž, plaz, ples, prach, prut, rub, sad, sled, sluch, smrad, stan, strach, střep, sud, svět, svrab, syn, trup, vaz, věk, vlak, vlas, vrah, (ha)vran, vřed, vřes, znak, zrak, žleb*.

3 The modern language actually shows the reverse pattern: Nsg - Gpl *kráva - krav, rána - ran, díra - děr, lípa - lip, léto - let, jméno - jmen, louka - luk, moucha - much, mouka - muk* and so forth. The new regularity, which is far from covering the entire lexicon though, may be described as Closed Syllable Shortening. As a matter of fact, it was already present in Old Czech, where both patterns (i.e. shortening and lengthening in Gpl) cohabitated: Nsg *čiešě, mřížě* vs. Gpl *čěš, mříž*, cf. Komárek (1969:84).

recast in intonational terms. The idea that the loss of yers had intonational consequences is also fed by the obvious fact that stress had to move back into the root when word-final stressed yers were lost. According to Lehr-Splawiński, this stress-retraction then caused a change in the intonation of the root-vowel. On account of the similarity with a well-established process in Baltic (Saussure's 1896 Law, further detail for example in van Wijk 1958, Petit 2004), he called this modification metatony. Its properties are displayed under 3 below.

3. metatony according to Lehr-Splawiński (1917, 1918, 1923)
  - a. acute > neo-circumflex /  $\_ \_ C_1$ -yerprovokes shortening
  - b. circumflex > neo-acute /  $\_ \_ C_1$ -yerpreserves original length

That is, intonations were flipped around when stress was retracted from a former yer: original acute becomes 'new circumflex', while former circumflex turns into 'new acute'. The effect of the new intonations is the same as the one of their original peers: (neo-)acute favours length, whereas vowels under (neo)circumflex influence fall prey to shortening.

Isn't it problematic, though, to make a general case on the evidence of a mere sub-paradigm? Recall that only those stems should change intonation (and hence quantity) which bore suffix stress, i.e. where the final yer was stressed in CThis, however, is not the case at all: while Slovak *ruka* - *rúk* 'hand Nsg, Gpl' is indeed a root that had suffix stress in CS (cf. Russian *ruká*, i.e. CS Gpl \**ruk-ь*), Slovak *kniha* - *knih* does not fall into this paradigm. This item was stressed on the root vowel, as witnessed by Russian *kníga*, i.e. CS Gpl \**kníg-ь*. In the face of root-accented items where 'neo-acute' is irregular, practitioners of metatony therefore invoke analogy, no matter whether the 'regular' pattern covers 80%, 50% or 30% of the evidence (but proportions are not available anyway since the discussion of the evidence is not corpus-based).

More counterevidence just leads to more analogy: there is another fact that does not match metatony. Recall that Jagić's laws only concern vowels that were long in CS. Hence only long vowels should be affected by metatony and the influence of neo-acute. The fact is, however, that Western Slavic does not care for the CS length of the root-vowel at all: lengthening occurs in Gpl with either CS long or short vowels. An example for the latter is Old Czech *voda* - *vód* 'water Nsg, Gpl'. Here again, analogy is invoked (e.g. Garde 1976:223).

If one were to look at the overall body of evidence that is related to metatony without preconception regarding intonation, the diachronic event that underlies the Western Slavic alternation at hand (i.e. in Gpl of a-feminines and o-neuters)

boils down to a simple description: the loss of a final vowel causes the bisyllabic item CVC-*yer* to lengthen its root vowel. CS stress, quantity and alleged intonation are entirely irrelevant. An impartial descriptivist would probably conclude on a simple case of compensatory lengthening. This is indeed what Rubach (1993:144ff) comes up with in his synchronic analysis of Slovak, and what Kavitskaya (2005:117ff) proposes in a diachronic perspective. Anticipating on section 3, the generalization may also be stated in templatic terms: genitive plurals must weigh (at least) two moras; if one disappears in diachronic evolution, the other must take on its weight and hence lengthen.

### **2.3. There is no metatony in Western Slavic, and perhaps there is no metatony in Slavic at all**

Until the 50s-60s, relevant work thus shares the assumption that Western Slavic quantity exclusively depends on CS intonation and its various subsequent modifications that are embodied by Lehr-Splawiński's metatony.<sup>4</sup> This tradition is still found in more recent textbooks (e.g. Lamprecht et al. 1986:35ff, 79f, Carlton 1991:186ff, Bethin 1998), where 'neocircumflex' and 'neoacute' are often treated as if they had the status of an observational fact.

Since the 50s, however, the scope of metatony was substantially depleted in a growing body of literature: many alternations in various Slavic languages that were formerly interpreted as somehow conditioned by intonation were shown to be language-specific and entirely unrelated to intonation in general, and to metatony in particular. This is the result of work by Kuryłowicz (1952, 1968), Stang (1957), Sadnik (1959), Nonnemacher-Pribić (1961), Shevelov (1964:563f), Kortlandt (1975) and others. Some voices such as Stang (1957:21) and Garde (1976:IX) deny the existence of metatony in Slavic altogether. Well documented overviews of the post-war development are provided for example by Kortlandt (1978a,b), Garde (1976) and Lunt (1963).

Whatever the general Slavic status of metatony, Šaur (1995) shows in a finely argued overview of the study of Czech quantity that the notion of metatony was abusively extended to languages such like Czech. He concludes that Czech

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4 This is the conclusion of Šaur (1995). Older work that focuses on (Common) Slavic intonation in order to explain Czech quantity includes Trávníček (1912, 1921a,b,c, 1925,1935:249ff), Černý (1897-1900), Pedersen (1905), Sedláček (1910), van Wijk (1922,1958), Belić (1928), Komárek (1969:73ff,82ff), Vážný (1963:59f), Bulachovskij (1953), Vaillant (1950:258).

quantity is entirely unrelated to any kind of metatony: every single paradigm that shows an alternation in vowel length needs to be studied in its own right.

More recent accounts of Western Slavic quantity that reject metatony while continuing to derive vowel length from CS intonation have to struggle with the old counter-examples that obscure eventual generalizations. Since Stang (1957) and Dybo's Law (Dybo 1968, 1981), the evidence is looked at in the light of so-called accentual paradigms (A, B and C). In order to come to grips with Western Slavic quantity, this approach is supplemented with a number of secondary and intonation-independent processes such as open syllable lengthening (Kortlandt 1975, 2009 for the *kráva* paradigm for example), the aforementioned compensatory lengthening (for cases such as Nsg *dŭm* - Gsg *dom-u*, e.g. Feldstein 1978) or Dybo's Law (Halle 2001). Also, dialectal evidence is more seriously considered in recent work than it was before, and this is certainly a promising track to follow (Holub 2004).

All this work, however, follows the classical assumption according to which Western Slavic quantity is basically derivable from the prosodic properties of Common Slavic, even if secondary processes need to be taken into account. Also, all matters related to quantity are supposed to be concerned by this analysis, i.e. quantity in lexically recorded base forms as much as in inflectional and derivational paradigms. I argue below that only the former can be due to diachronic evolution and possibly to prosodic properties of Common Slavic. The latter is the result of synchronic grammatical activity that imposes a templatic restriction on its result; it is completely unrelated to any CS property.

## **2.4. Quantity in lexically recorded forms vs. forms that are the result of grammatical activity**

It is one thing to try to understand why Czech *řád* 'row' has a long, but Czech *vlas* 'hair' a short vowel. Since vowel length is distinctive in Czech, this contrast must be recorded in the lexical makeup of the two words and therefore cannot be the result of a synchronically active phonological operation. A diachronic solution is the obvious way to go in this case, especially if the CS input was identical (a tonic long root vowel with circumflex intonation in our example).

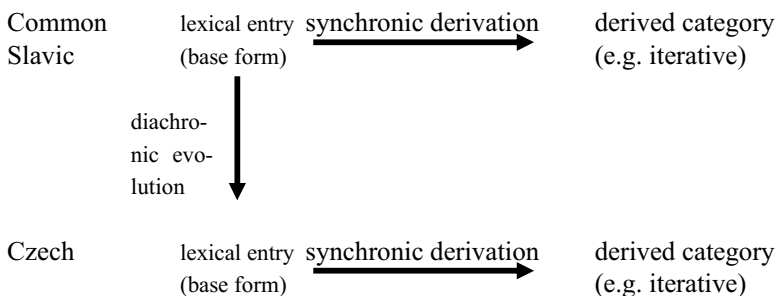
It is another thing, though, to wonder why there is quantity variation within a given derivational or inflectional paradigm. Derived categories are the result of a grammatical operation based on a lexical item. That is, they are not stored in the lexicon, except when they are fossilized. Fossilization is precisely the process whereby a derived category becomes a lexical entry in its own right, which

typically produces a semantic drift: the meaning of the new lexical entry may evolve independently of the item that was once its base form. For example, Czech *hlídat* ‘to guard, to keep watch’ is obviously related to *hledět* ‘to watch, to stare’. Although it does not mean ‘to watch often’, it is an iterative based on *hledět*: *hlídat* presents all formal signs of regular iterative formation (vowel lengthening, change of verbal class 3 *-ět* to 5 *-at*, on which more below), and it is not difficult to see how ‘to watch often’ can come to mean ‘to guard, to keep watch’. *Hlídat* is thus an ‘old’ iterative of *hledět*, which has become a lexical entry in its own right.

This means that the genesis of typical Czech and Slovak length alternations that are related to a specific paradigm (infinitive - non-infinitive, iterative - non-iterative, diminutive - non-diminutive etc.) is necessarily synchronic. Synchronic in this context means that the alternations are the result of grammatical computation that was once synchronically active or is still active today. It follows that the properties of derived categories (iteratives, diminutives etc.) cannot be defined by diachronic evolution: there is no point in comparing CS iteratives to Czech iteratives because the latter are not derived from the former through diachronic evolution - they are derived from a non-iterative.

Table 4 below depicts the synchronic and diachronic relationship between base and derived forms.

4. there is no diachronic relationship between CS and modern derived forms



In sum, the diachronic perspective is sound when one wants to know about the vowel length of lexically recorded items. The quantity of derived categories in inflectional and derivational paradigms, however, is unrelated to diachronic evolution: it is the result of a synchronic process that produces iteratives on the basis of non-iteratives, a Gpl on the basis of a stem (or the Nsg) etc.

The ‘everything-is-diachronic-and-prosodic’ attitude has produced poor results in the field of Czech quantity, and this is explicitly acknowledged by a number of authors (see also further discussion in Scheer 2003).<sup>5</sup> We will see below that the synchronic perspective on quantity in inflectional and derivational paradigms produces a more interesting picture where alternations are due to a templatic restriction on derived categories.

### 3. What is a template?

Templates are a descriptive category from Semitic grammar (and other systems with non-concatenative morphology). They enforce the association of a given morpho-semantic category with a certain consonantal and/or vocalic volume (which is calculated in terms of the number of vocalic/consonantal items). For example, a Classical Arabic root is made of at least three consonants. So-called sound verbs (or trilaterals) such as  $\sqrt{ktb}$  ‘to write’ incarnate as *katab-a* ‘he has written’ (root-internal vowels carry morphological and/or grammatical information: diathesis, aspect, verb classes). So-called weak verbs (or bilaterals), on the other hand, are one consonant short. This lack is repaired by either reduplicating the second consonant (so-called deaf verbs, e.g.,  $\sqrt{md} \rightarrow \textit{madad}$  ‘to extend’), or inserting a glide ( $\sqrt{rm} \rightarrow \textit{ramay-}$  ‘to throw’). The relevant generalization was formulated (after Arabic grammarians of the 9<sup>th</sup> century) by McCarthy (1979) as the Template Satisfaction Principle: in our example, the three consonantal positions that the template contains must be filled.

Traditionally, templatic structure is thought of as a typological feature of Semitic (or Afro-Asiatic). Beyond the classical evidence regarding minimal word constraints and the like that was the focus of Prosodic Morphology (McCarthy and Prince 1996, Downing 2006), recent work has evidenced the existence of templatic activity in genetically unrelated languages. Cases in point

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5 Typical statements are: ‘Velká část případů není zcela jasná. Otázku dlužení původních krátkých samohlásek nelze dosud považovat za uspokojivě rozřešenou.’ [a great deal of cases is not really clear. For the time being, there is no satisfactory solution for the lengthening of formerly short vowels] (Komárek 1969:74). ‘Naše současné znalosti o stavu staročeské kvantity jsou velmi kusé.’ [our present knowledge of Old Czech quantity is very incomplete] (Komárek 1969:82s). Trávníček (1921b:223) says that ‘la théorie de la quantité en tchèque n'en est encore qu'à ses débuts.’ [the theory of Czech quantity is only in its infancy], and concludes correctly that ‘il est impossible de rendre compte de la quantité en tchèque moderne en remontant directement aux alternances de l'accent en slave commun.’ [it is impossible to account for Modern Czech quantity by directly appealing to stress alternations in Common Slavic] Trávníček (1921b:210).



are Portuguese (Brandão de Carvalho 2003), German (Bendjaballah and Haiden 2003a,b), Ndebele (Bantu, Hyman and Inkelas in press) and Czech (see below). Finally, templatic activity has also been identified in (first) language acquisition, including in cases where templates are absent from the adult target (and hence from the stimulus that children are exposed to): Macken (1979, 1996), Wauquier-Gravelines (2003), Vihman and Croft (2007).

Templatic activity does not appear to be predictable across languages: it is a parametric possibility that languages may or may not make use of. Even though it is a typical feature of Semitic, it is not true that all Semitic languages are clearly templatic. Nor is it true that only Semitic languages can be templatic (see the non-Semitic examples quoted). No other typological features have been found either to systematically cluster with templaticity.

Finally, the study of templatic languages thus far has not revealed any systematic or necessary bond between a given morpho-semantic category and its being templatic: there is no apparent reason why Czech iterative verbs and infinitives are templatic but, say, I-participles are not. The same holds true for the nature of templatic restrictions: whether two or three moras are minimally or exactly required is not something that can be predicted at our current level of understanding.

## **4. Templatic activity in Czech**

### **4.1. Templatic categories**

Templatic structure in Czech has been evidenced for a number of grammatical categories: detailed studies are available for hypocoristics and the suffix *-ař/-ář* (Bethin 2003), iteratives (Scheer 2003, 2004a,b), infinitives (Caha and Scheer 2008), infinitive vs. supinum (Old Czech, Ziková and Karlík 2009) and V-final prefixes (Scheer 2001a). General discussion of templatic activity in Czech can be found in Scheer (2001a,b, 2003, 2004a,b).

In Czech, the instrument of templatic restrictions is vowel length (consonants or consonantal properties are never modified). Vowel quantity is distinctive, and since templaticity is about counting an overall volume, it is useful for the sake of description to distinguish long and short vowels in the following way: the latter count as one vocalic unit, while the former weigh two units. Czech also features syllabic consonants, which count as short vowels. I refer to these units of vocalic measure with the traditional term *mora*. Note that the use of this term is purely descriptive and pre-theoretical.

## 4.2. Iteratives must weigh exactly three mora

For the sake of illustration, let us consider the case of verbs with iterative meaning. Deriving an iterative from a non-iterative produces both iterative lengthening (*sad-i-t* - *sáz-e-t* ‘to plant’, *skoč-i-t* - *skák-a-t* ‘to jump’, changes in vowel quality are irrelevant here) and iterative shortening (*ciť-i-t* - *-ciť-ova-t* ‘to feel’, *vyš-i-t* - *-vyš-ova-t* ‘to elevate’). What does this depend upon? The critical observation is that iterative lengthening only occurs in classes 3 (thV=*e*) and 5 (thV=*a*), while iterative shortening is only found in class 6 (thV=*ova*).<sup>6</sup> The thematic element of the lengthening classes 3 and 5 weighs one single mora, while the shortening class 6 has a 2-mora thematic element. In other words, lengthening occurs with short thematic elements, while shortening is observed with long thematic elements.

All iterative derivations thus conspire to produce a constant weight of 3 $\mu$ : short inputs must lengthen when associated to a one-mora thematic element (/CVC-V-t/  $\rightarrow$  [CVVC-V-t]<sub>3 $\mu$</sub> ), while long inputs must shorten when concatenated to a two-mora item (/CVVC-VCV-t/  $\rightarrow$  [CVC-VCV-t]<sub>3 $\mu$</sub> ). On this count, no modification of length should be needed when the concatenation of the lexical ingredients meets the 3 $\mu$  restriction in the first place. This is indeed the case: long roots with a short thematic element do not shorten (*máv-nou-t*  $\rightarrow$  *máv-a-t* ‘to wave’), and short roots with a long thematic element do not lengthen (*tlač-i-t*  $\rightarrow$  *-tlač-ova-t* ‘to press’).

Finally, note that the templatic restriction ‘iteratives must weigh exactly three morae’ really depends on the iterative character of the item: non-iteratives can freely weigh more or less than 3 $\mu$  (2 $\mu$  *dělat* ‘to do’, 5 $\mu$  *telefonovat* ‘to telephone’).

## 4.3. Regularity of the phenomenon: a corpus-based study

In order to see to which extent the templatic generalization concerning iteratives covers the Czech lexicon, I have established a corpus of 247 non-iterative - iterative pairs. The complete list of these pairs appears in Scheer

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6 ThV is shorthand for thematic vowel. Czech infinitives fall into 6 classes that are defined by the thematic vowel (-t is the infinitive marker): 1 zero (*krás-ø-t* ‘to steal’), 2 -nou- (*tisk-nou-t* ‘to print’), 3 -e- (*lež-e-t* ‘to lie’), 4 -i- (*pros-i-t* ‘to beg’), 5 -a- (*děl-a-t* ‘to do’), 6 -ova- (*kup-ova-t* ‘to buy’). While the input of the iterative derivation may come from any class, its output only produces verbs in the three classes mentioned, i.e., 3, 5 and 6.

(2004a:235f), and the appendix at the end of this article provides a more detailed and numerically informed overview of the record.

The overall picture by and large confirms the regularity of the phenomenon: 228 out of 247 pairs (92,3%) obey the templatic restriction. The numeric detail is shown under 5 below ( $X>3$  means that an iterative was derived in verb class 3 on the basis of a verb that belongs to some other verb class).

5. non-iterative	iterative			$\mu$ iterative	nb	example
	$X>3$ -et, -ěť	$X>5$ -at	$X>6$ -ovat			
short stem	lengthening			$3\mu$	49	<i>sadit - sázet</i>
CVC		lengthening			55	<i>skočit - skákat</i>
			no variation		58	<i>čistit - čist'ovat</i>
long stem	no variation			$3\mu$	3	<i>hlásit - ohlášet</i>
CVVC		no variation			7	<i>mávnout - mávat</i>
			shortening		56	<i>cítit - cit'ovat</i>

228

counter-examples

non-iterative	iterative			$\mu$ iterative	nb	example
	$X>3$ -et, -ěť	$X>5$ -at	$X>6$ -ovat			
short stem	no lengthening			$2\mu$	-	<i>sedět - sedat</i>
CVC		no lengthening			13	
long stem	shortening			$2\mu$	2	<i>vrátit - vracet</i>
CVVC		shortening			4	<i>šlápnout - šlapat</i>

19

Finally, there are some interesting triplets that need to be mentioned.

6.	derivation	4: non-iterative	3/5: iterative	6: double iterative
4 > 3 > 6	<i>a-á-a</i>	<i>sadit</i> <i>hodit</i>	<i>sázet</i> <i>házet</i>	<i>-sazovat</i> <i>-hazovat</i>
4 > 5 > 6	<i>a-á-a</i>	<i>skočit</i>	<i>skákat</i>	<i>-skakovat</i>

In these cases, regular iterative lengthening occurs when a short root like *hod-it* ‘to throw’ (class 4) is combined with a short thematic element in order to yield *ház-et* (class 3). The lengthened iterative may then undergo a second iterative formation, which is made in class 6 with the long thematic element *-ova-*, and the result respects the iterative template as well: *(vy)-haz-ovat* ‘shortens back’ to original lexical shortness in order to meet the 3μ restriction.

#### 4.4. Is the templatic restriction on iteratives still active in Modern Czech?

The 19 counter-examples fall into two categories: either a lexically short root does not lengthen where it should (i.e. when it is joined with a short thematic element: *sedět - sedat*), or a lexically long root shortens even though its thematic element is short (*vrátit - vracet*, *šlápnout - šlapat*). Interestingly, all counter-examples are too light (2μ): there are no cases on record where an iterative produces 4μ results (i.e. a lexically long root combining with *-ova-t* without undergoing shortening).

Even if they represent only 7,7% of the total number of pairs, the existence of 19 counterexamples is challenging. One interpretation is that the iterative formation which imposes a templatic restriction is not active anymore in present-day Czech. In this perspective, the massive body of templatic iteratives is the result of a process that was active at some earlier stage of the language, and whose results are lexicalized today. Lexical items are not subjected to templatic restrictions, and this is how non-templatic iteratives can come into being: their vowel length is freely determined and freely evolves.

On this count, the lexicalization of the iterative disrupts the derivational relationship between the base form and the iterative and therefore allows for quantity modifications in iteratives that are not licensed by the iterative template. The same holds true for modifications on the meaning side: recall that there are cases like *hledět* ‘to watch, to stare’ - *hlídat* ‘to guard, to keep watch’ which bear all properties of an iterative derivation (lengthening of a short root when combined with a short thematic element), except that the meaning is not iterative: ‘to guard, to keep watch’ is not ‘watching repeatedly/ customarily’. It is obvious, though, how ‘watching repeatedly/ customarily’ can become ‘to

guard, to keep watch’ through semantic drift. Table 7 below shows a number of this kind of fossilized iterative pairs where the disruption of the derivational link between the base form and the iterative may have been at the origin of a semantic drift.

7. fossilized iterative pairs without synchronic iterative relationship

a. CVC with lengthening

base	‘iterative’	gloss base	gloss ‘iterative’
<i>hledět</i>	<i>hlídat</i>	to watch, to stare	to guard, to keep watch
<i>kalit</i>	<i>kálet</i>	to confuse, to trouble, to make unclear	to soil, to tarnish, to shit, to evacuate excrements
<i>kazit</i>	<i>pře-kážet</i>	to damage, to spoil	to hinder, to get in the way, to hamper
<i>kulit</i>	<i>koulet</i>	to roll	to roll
<i>ležet</i>	<i>léhat</i>	to lie (be in a lying position)	to like to lie, normally lie
<i>patřit arch</i>	<i>pátrat</i>	to look at: ‘patřit tváří tvář to face death	to inquire, to look for

b. CVC without lengthening

base	‘iterative’	gloss base	gloss ‘iterative’
<i>mihnout se</i>	<i>mizet</i>	to glimpse, to slip	to disappear, to dwindle
<i>chybit</i>	<i>chybět</i>	to be mistaken, to make a mistake	to miss, to be absent
<i>stavit</i>	<i>stavět</i>	to inhibit, to stop, to constipate	to build

Both sound and meaning may thus show the traces of the free evolution of lexical items whose derivational bond with the original base form was disrupted.

One may further try to inspect recently formed iteratives in order to see whether they show templatic behaviour. It is hard to come by examples because the only productive verb class seems to be class 6 *-ova-* (*telefonovat, faxovat* etc.), and we would need a long non-iterative root in order to see whether predicted shortening really occurs. However, class 5 *-a-* also appears to be marginally productive: *klik-nout* (class 2) ‘to click (computer)’ is a relevant candidate whose iterative is *klikat* (class 5). On templatic assumptions, *\*klikat* is expected, which suggests that there is no templatic restriction on iterative derivation in present-day Czech anymore. But of course there is no point in

drawing general conclusions regarding a grammatical system on the basis of one single example.

## 5. Conclusion

This article has argued that Czech, and in fact Western Slavic quantity alternations in inflected and derived forms are home-grown: they owe nothing to Common Slavic quantity, stress or intonation. Rather, they are the result of templatic restrictions on derived forms that are imposed by synchronic computation (where ‘synchronic’ refers to online activity, not to the modern language: a derivation that was carried out by Old Czech speakers is also synchronic).

Derived/inflected forms of CS and, say, Modern Czech entertain no diachronic relationship at all: in both stages of the language, a form such as the 3<sup>rd</sup> person singular of a verb is derived from a base form (say, the stem), which is recorded in the lexicon. Diachronic evolution affects lexical items, i.e. stems and morphemes, but not derived forms such as the 3<sup>rd</sup> person singular of a verb.

On the other hand, the quantity of base forms which serve as the input to derivations that impose templatic restrictions may well be the result of diachronic evolution. Unfortunately, attempts to establish diachronic generalizations in order to predict the quantity of modern base forms from their CS ancestors have not really proven successful thus far. It is not the case that reconstructed intonational properties of CS (acute and circumflex) allow us to lawfully derive quantity in modern Western Slavic languages. Metatony, the traditional crutch, is out of business altogether. It may be hoped that dialectal, i.e. non-normalized evidence, will help to establish relevant diachronic regularities.

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## Appendix

### X > 3 -et, -ět

a. short stems: CVC

1. regular: iterative lengthening

derivation	alternation	simple	iterative	number
1>3	i-í	pít	píjet	3
2>3	i-í	minout	míjet	1
3>3	e-í	hledět	-hlížet	1
	o-á	vonět	-vánět	1
4>3	a-á	sadit	sázet	10
	e-í	jezdit	-jíždět	2
	ě-í	dělit	-dílet	1
	i-í	klidit	-klízet	1
	o-á	hodit	házet	22
	u-ou	pustit	pouštět	6
	y-ý	myslit	-mýšlet	1
				49

2. counter-examples: no iterative lengthening  
no cases on record

### X > 3 -et, -ět

b. long stems: CVVC

1. regular: no iterative shortening

derivation	alternation	simple	iterative	number
2>3	í-í	-bídnout	-bízet	1
4>3	á-á	hlásit	-hlášet	1
	ou-ou	trousit	-troušet	1
				3

2. counter-examples: iterative shortening

derivation	alternation	simple	iterative	number
4>3	á-a	vrátit	vracet	1
	í-i	svítit	-svěcet	1
				2

**X > 5 -at**

a. short stems: CVC

1. regular: iterative lengthening

derivation	alternation	simple	iterative	number
1>5	e-é	lézt	-lézat	3
	e-í	mést	-mítat	1
	o-á	moci	-máhat	1
	ø-í	dřít	-dírat	10
2>5	i-í	všimnout si	všímat si	6
	y-ý	poskytnout	poskýtat	2
	e-í	zapomenout	zapomínat	6
	e-ý	vyslechnout	vyslýchat	1
	a-á	chladnout	-chládat	2
	o-á	-hodnout	hádat	1
	e-ou	poslechnout	poslouchat	1
	ø-í	pnout	-pínat	10
	2/3>5	e-é	lehnout, ležet	léhat
3>5	e-é	letět	létat	1
	i-í	vidět	vidat	1
	ě-í	běžet	-bíhat	1
	y-ý	slyšet	slýchat	1
4>5	o-á	skočit	skákat	2
	u-ou	mluvit	-mlouvat	1
5>5	ø-í	-slat	-sílat	3
				55

2. counter-examples: no iterative lengthening

derivation	alternation	simple	iterative	number
2>5	a-a	padnout	padat	2
	i-i	plivnout	plivat	1
	y-y	chytnout	chytat	1
	e-e	seknout	sekat	5
	ě-ě	běžet	běhat	1
	o-o	bodnout	bodat	2
	u-u	puknout	pukat	1

**X > 6 -ovat**

a. long stems: CVVC

1. regular: iterative shortening

derivation	alternation	simple	iterative	number
2>6	á-a	-přáhnout	-přahovat	4
	í-i	líznout	-lizovat	2
	í-e	říznout	-řezovat	1
	ý-y	dýchnout	-dychovat	1
2/4 > 6	ou-u	stoupnout, -stoupit	-stupovat	1
3>6	á-a	sázet	-sazovat	3
4>6	á-a	chválit	-chvalovat	11
	í-i	stínit	-stiňovat	10
	í-ě	navštívit	navštěvovat	1
	ou-u	-loučit	-lučovat	14
	ú-u	úžit	zužovat	1
	ý-y	výšit	-vyšovat	4
5 > 6	á-a	skákat	-skakovat	5
				58

2. counter-examples: no iterative shortening

no cases on record

**X > 6 -ovat**

b. short stems: CVC

1. regular: no iterative lengthening

derivation	alternation	simple	iterative	number
1>6	i-i	řinout se	-řinovat se	3
	e-e	dechnout	-dechovat	1
	ø-y	hnout	-hybovat	1
2/3> 6	i-i	křiknout, křičet	-křikovat	1
2/4> 6	y-y	chytnout, chytit	-chycovat	1
4>6	a-a	tlačit	-tlačovat	15
	e-e	černit	-čerňovat	7
	ě-ě	měřit	-měřovat	4
	i-i	čistit	-čist'ovat	6
	o-o	hostit	-hošt'ovat	9
	o-a	lomit	-lamovat	1
	u-u	ručit	-ručovat	3
y-y	sytit	-sycovat	4	
				56

2. counter-examples: iterative lengthening

no cases on record

## Some Remarks on Accentual (Neo)mobility in Lithuanian

The alternation of stress between the first and the last syllables of a word with the skipping of the intermediate syllables is a common feature of the Baltic and Slavic mobile accent paradigm, which is characteristic both of vocalic and consonantic nominal stems, e.g. Lith. *vākaras-vakaraĩ*, Rus. *ˈveč̣er-več̣eˈra* ‘evening’, Lith. *duktė̃-dùkteri*, Rus. *ˈdoč̣eri-doč̣erˈja* ‘daughter’ (see e.g. Stang 1957 [1965]: 175ff. with further references). Putting aside various hypotheses concerning the origin of Balto-Slavic paradigmatic mobility (for a detailed treatment, see Olander 2009: 1-52 with further references), in this article I address the issue of accentual mobility and neomobility in Lithuanian.

The spread and development of the mobile accent paradigm is to be approached as a significant feature of Lithuanian accentuation. The accent pattern in question has spread to polysyllabic declinable words, mostly (a) suffixed or prefixed derivatives, and (b) compounds, e.g:

a) (substantives) standard Lith. *traukinỹs-tráukiniĩ* 3<sup>a</sup> ‘train’ (: *tráukti* ‘pull, draw’), *pátiekalas-patiekalaĩ* 3<sup>4b</sup> ‘dish’ (: *patiěkti* ‘serve’); (adjectives) Old and dial. Lith. *apvalũs, -i-ãpvaluĩ, -ia* 3<sup>b</sup> ‘round’, *nuoširdũs, -i-núoširdũ, -džiã* 3<sup>a</sup> ‘sincere’, Daukša’s *atžagarũs, -i-ãtžagarũ, -ia* 3<sup>4b</sup> ‘refractory’ (Skardžius 1935: 148), standard Lith. *ãtpakalias-atpakaliã* 3<sup>4b</sup> ‘backward’; (numerals) *keturi-kėturios* ‘four’, *šešeri-šėšerios* ‘six’, *vieneri-vienerios* ‘one’; pronoun *keleri-kėlerios* ‘several, some’;

b) *bulviakasỹs, -ẽ-bùlviakasĩ, -ę* 3<sup>4a</sup> ‘potato-digger’ (: *bùlvė* ‘potato’ + *kàsti* ‘dig’), *jaunavedỹs, -ẽ-jáunavedĩ, -ę* 3<sup>4a</sup> ‘(bride)groom, bride’ (: *jáunas, -ã* ‘young’ + *věsti* ‘marry’), *akmentašỹs, -ẽ-ãkmentašĩ, -ę* 3<sup>4b</sup> ‘stone-cutter’ (: *akmuõ-ãkmeniĩ* ‘stone’ + *tašỹti* ‘cut’), *geležgalỹs-gėležgalĩ* 3<sup>4b/</sup> *gelžgalỹs-gėlžgalĩ* 3<sup>a</sup> ‘piece of iron’ (: *geleẓ̌is-gėlėẓ̌ĩ* ‘iron’ + *gãlas* ‘piece, bit’), etc.

In the opinion of some leading specialists in the field, it was Saussure’s Law that triggered changes in the accentuation system of Lithuanian (cf. Girdenis 1972; Dybo 1981, etc.). As regards the changes in the mobile accent pattern, they most probably resulted in the so-called neomobile<sup>1</sup> accent paradigm with a stress alternation between the last and the penultimate syllables of a polysyllabic word. Since this type of stress movement was alien to Lithuanian it was customarily replaced by a fixed or traditional mobile accent pattern in substantives (cf. Girdenis 1972: 70, Stundžia 1991: 84). Cf. e.g. the development of the accentuation of some *i*-stem nouns: Daukša’s *krikščionis-*

1 The term *neomobile* (accent paradigm, accent/ stress pattern) is taken from Young 1983.

*krikščioni* 3 (Skardžius 1935: 121ff.) → standard Lith. *krikščionis* 1 (see Kalnius et al., LKRŽ, DLKŽ<sup>1-4</sup>, etc.). Some remnants of neomobility can be found in the southern and eastern dialects: e.g. *ligonis* 3 ‘patient’, *velionis* 3 ‘deceased’ (see LKŽ<sup>c</sup>), *Palionis* 3 (→ standard Lith. *ligónis*, *veliónis*, *Paliónis* 1). In the standard language, the remnants are found only in the class of *nomina propria*: cf. *Anykščiai-Anykščius* 3 (town) < *Anykščiai-Anykščius* 3<sup>b2</sup>; *Bačkónys-Bačkonims* 3 (village) < *Bačkonys-Bačkonims* 3<sup>b</sup>; *Lazduonà-Lazduona* 3 (river) < *Lazduonà-Lazduona* 3<sup>b</sup> (see VŽ<sup>c</sup>).

Besides instances of remnants in substantives, the new accent paradigm is also found in:

*u*-stem adjectives (see Young 1983), e.g. *įdarbūs-įdarbū* 4 ‘skillful’ (circumflex metatony, cf. *dárbas* 3 ‘job’) < *įdarbūs-Anykščiai-Anykščius* 3 < *\*iñdár|bus-iñdárbuñ* 3<sup>b</sup>;

and *i*-stem numerals *septyni-septynis* 3 ‘seven’ (< *\*septĩnĩ-1septĩnĩs* 3<sup>b</sup>), *aštuoni-aštuonis* 3 ‘eight’ (< *\*aštõnĩ-1aštõnĩs* 3<sup>b</sup>), and *devyni-devynis* 3 ‘nine’ (< *\*devĩnĩ-1devĩnĩs* 3<sup>b</sup>).

In these two subsystems (especially in the first one) the class of neomobilia has not been replaced by equivalents following other accent patterns: on the contrary, it has grown and become entrenched mostly because of analogical processes. E.g. *\*1aštuñtas-aštuñta* (*\*aštuntas-aštuntà*) 3<sup>b</sup>, *apvalūs-āpvalū* 3<sup>b</sup> have developed into *aštuñtas-aštuntà* 4 ‘eighth’, *apvalūs-apvālu* 4 by analogy with *aštuoni-aštuonis* and *įdarbūs-įdarbū*. According to Friedrich Kurschat, polysyllabic adjectives in *-us*, *-i* were stressed in the same way as the disyllabic adjective *gražūs*, *-i* 4 ‘beautiful; nice’ in 19<sup>th</sup>-century Lithuanian as spoken in Eastern Prussia (Kurschat 1876: 227, § 820); exceptions to this rule included *pakilūs*, *atlaidūs*<sup>3</sup>, *nuolaidūs*, *privalūs*, *raskažnūs*, and *apskritūs*, which followed traditional mobility (i.e. accent paradigms 3<sup>b</sup> or 3<sup>a</sup>). Remnants of traditional accentual mobility in polysyllabic *u*-stem adjectives can also be found in 20<sup>th</sup>-

2 The variant *Anykščiai-Anykščius* 3b really exists in the dialect of the Anykščiai area, but is to be interpreted as restored one (see footnote 3).

3 In accordance with Sausure’s Law, the adjective *atlaidūs*, *-i* 3b ‘lenient’ (not recorded in LKŽe!) is to be interpreted as an example with restored traditional mobility: i.e. *\*atlāidūs-atlāiduñ* > *\*atlāidūs-atlāiduñ* (Sausure’s Law) > *atlaidūs-Anykščiai-Anykščius* 3 > *atlaidūs-atlāidu* 4 (circumflex metatony) → *atlaidūs-ātlāidu* 3b (restoration of traditional mobility): cf. corresponding examples from the class of substantives, e.g. *pagerklỹs-pāgerklĩ* 3b ‘(place) under one’s throat’ (: *gérklė*, *gerklė* ‘throat’), *pakalnė-pākalnė* 3b ‘foot of a mountain or hill’ (: *kálnas* ‘mountain; hill’), see LKŽe; *Anykščiai-Anykščius* 3b (alongside the codified form *Anykščiai-Anykščius* 3), see Vanagas 2008: XXIV, LXXXIII.



century dictionaries and handbooks of standard or written Lithuanian, and namely in the works of Jonas Jablonskis (see Vidžiūnas 1997: 168ff.) as well as NdW 1-5, LKRŽ, DLKŽ<sup>1</sup> (see in detail Pakerys 1994: 369ff.). Ever since the 1950s, traditional mobility has gradually disappeared from the class of polysyllabic *u*-stem adjectives in the standard language: cf. the recommendations by Adelė Laigonaitė (1959: 57, footnote 1) and LKG (1: 544), according to which all polysyllabic *u*-stem adjectives have to follow the 4<sup>th</sup> accent paradigm. There is no trace left of traditional accentual mobility of polysyllabic *u*-stem adjectives in either the second edition of the *Dictionary of Modern Lithuanian* (DLKŽ<sup>2</sup>, 1972) or Laigonaitė 1978, etc. (cf. Young 1983). Some remnants of the traditional accentual mobility of polysyllabic *u*-stem adjectives can be found only in dialects: cf. East Lith. *nuoširdūs-núoširdų* 3<sup>a</sup> ‘sincere; cordial’, *nuotakūs-núotakų* ‘inclined, sloping’ (see LKŽ<sup>e</sup>).

In addition to the above-mentioned accentual neomobility with the alternation of stress between the last and the penultimate syllables of declinable polysyllabic words, there also exists another type of new mobile accent paradigm that alternates stress between the final and the antepenultimate syllable in tetrasyllabic compounds and suffixed derivatives: cf. traditional Lith. *mobilia jaunavedỹs*, *-ė-jáunavedį*, *-ę* 3<sup>4a</sup>, *akmentašỹs*, *-ė-ākmentaši*, *-ę* 3<sup>4b</sup>, *pātiekalas-patiekalaĩ* 3<sup>4b</sup> and neomobilia *jaunavedỹs*, *-ė-jaunāvedį*, *-ę* 3<sup>b</sup>, *akmentašỹs*, *-ė-akméntaši*, *-ę* 3<sup>a</sup> (dial. *akmentašỹs*, *-ė-akmeñtaši*, *-ę* 3<sup>b</sup>), (colloq.) *patiekalas-patiekalaĩ* 3<sup>b</sup> (on this phenomenon see Stundžia, Mikulėnienė 1989; Pakerys 1994: 296ff.; Vitkauskas 2004). It seems that this type of neomobility is unaffected (at least directly) by Saussure’s Law<sup>4</sup>, and it’s rise in compounds<sup>5</sup> may have connection with changes in the accentuation of fixed stress determinative compounds, namely (a) with the growing tendency to stress the connecting vowel *-a-*, as well as (b) with the shift of stress from the initial to the adjacent syllable in the first disyllabic component of a compound, cf. a) *bulviākasis* 1 (← *būlviakasis* 1) ‘season when potatoes are dug out’ and *bulviākasi-bulviakasỹs* 3<sup>b</sup> (← *būlviakasi-bulviakasỹs* 3<sup>4a</sup>) ‘potato-digger’; b) *vandėnmatis* 1 ‘water-meter’ (: cf. *vādenį-vanduō* ‘water’) and *vandėnneši-vandennešỹs* 3<sup>a</sup> ‘water-carrier’ (← *vādenneši-vandennešỹs* 3<sup>4a</sup>).

4 It seems that Saussure’s Law triggered this type of neomobility in three suffixed numerals, namely *septyneri*, *septynerios* 3a ‘seven’, *aštuoneri*, *aštuoneros* 3a ‘eight’, and *devyneri*, *devynerios* 3a ‘nine’ (cf. the first type of accentual neomobility in numerals *septyni*, *aštuoni*, and *devyni* 3).

5 The spread of neomobility to the group of suffixed and prefixed tetrasyllabic derivatives is a topic of future research.

Tetrasyllabic compounds that follow accent paradigm 3<sup>b</sup>, which sometimes is only a variant of traditional paradigms 3<sup>4b</sup> or 3<sup>4a</sup>, are characteristic of NdW 1-5, Kalnius et al., LKRŽ, e.g. *laiškanešỹs*, -ẽ 3<sup>b</sup> ‘postman’ (NdW, KALNIUS et al.), *ugniagesỹs* 3<sup>b</sup> ‘fireman’ (Kalnius et al., LKRŽ), 3<sup>4b</sup>/ 3<sup>b</sup> (NdW); *pilvapeņỹs*, -ẽ 3<sup>b</sup> ‘glutton’ (NdW 3), *vaikažudỹs*, -ẽ ‘infanticide’ (NdW 5). It is not clear from Kurschat 1883 which type of mobility applies to some rare tetrasyllabic compounds such as *ožkamelžẽ*, -ẽš ‘milker of goats’ (according to LKŽ<sup>c</sup> they are defined in terms of traditional mobility)<sup>6</sup>.

DLKŽ<sup>1</sup> (1954) restored traditional accentual mobility in tetrasyllabic compounds, but left with some exceptions including *vaikagalỹs* ‘urchin’, *dešragalỹs* ‘piece of sausage’, *karnagalỹs* ‘piece of bast’, *naujakurỹs*, -ė ‘(new) settler’ (all follow accent paradigm 3<sup>b</sup>), and DLKŽ<sup>2</sup> (1972) was even more radical in leaving *naujakurỹs*, -ẽ 3<sup>b</sup> as the only example of neomobility. Vytautas Vitkauskas (see LKTŽ<sup>1</sup>, 1985) was the first in post-war Soviet Lithuania who codified neomobility as a variant of traditional mobility in all tetrasyllabic compounds except *naujakurỹs*, -ẽ 3<sup>b</sup>. Such codification that corresponded to actual usage was followed by DLKŽ<sup>3-6(3c)</sup>, and BLKKŽ<sup>1,2</sup> (see dictionary on CD).

It seems that the life of the neomobile accent paradigm of compounds will be short - this is due to the fact that in colloquial and, occasionally, standard Lithuanian it is ousted by the fixed stress accent pattern: cf. DLKŽ<sup>4-6(3c)</sup> *akmentašỹs-ākmentašĩ* 3<sup>4b</sup>/ *akmentašỹs-akméntašĩ* 3<sup>a</sup>/*akméntašis* 1.

## Conclusion

The development of Balto-Slavic accentual mobility in polysyllabic declinable words has resulted in two types of neomobility in Lithuanian. The first type is characterized by the alternation of stress between the last and the penultimate syllables in polysyllabic words and has spread to *u*-stem adjectives and some numerals. The second type, alternating stress between the last and the antepenultimate syllables in tetrasyllabic words, has spread to compounds, some suffixed and prefixed substantives and numerals. It seems that the origin of the first type of accentual neomobility directly follows from Saussure’s Law, while the second type of accentual neomobility may have arisen due to analogical processes, except in the numerals *septynerì*, *septynerios*; *aštuonerì*, *aštuonerios*;

6 It seems that the suffixed derivative *nuodėgulỹs-nuodėgulĩ* ‘firebrand’ (alongside the fixed stress variant *nuodėgulis*) is the only clear example of the second type of neomobility in Friedrich Kurschat’s works (see KURSCHAT 1876: 168, § 579).

*devyneri*, *devýnerios* (3<sup>a</sup>), which follow neomobile accent paradigm because of Saussure's Law<sup>7</sup>.

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## Moravian Quantitative Paradigms

### 1. Introduction

When we compare West Slavic quantitative reflexes of former APa disyllabic forms, as in \**kōrva* > Czech *kráva* ‘cow’, Slk *krava*, USorb *kruwa*, Pol. *krowa*, we can observe the root length only in Czech and Upper Sorbian. Especially Czech length used to be interpreted as the reflection of old acute. Acute length should have been preserved here and shortened elsewhere in Slavic territory. Such an explanation (originating deep in the prehistory of Balto-Slavic accentology) is still being used although the data contradict it.<sup>1</sup>

The root length in Czech *kráva*, *lípa* ‘lime-tree’, *hlína* ‘clay’, etc., can easily be explained by Kortlandt's *Czech lengthening rule* stating that ‘short rising vowels in open first syllables of disyllabic word forms were lengthened unless the following syllable contained a long vowel’.<sup>2</sup> The lengthening of a short rising root vowel in an open first syllable of disyllabic forms is blocked by a long vowel in the following syllable, as in Dpl *krávám* or Lpl *krávách*.

Quantitative alternation can sometimes be observed in zero-forms such as the Gpl of a-stems, like *kráva-krav*, *hlína-hlín*, *slína-slín* ‘saliva’, Slovak *krava-kráv*, *hlína-hlín*, *slína-slín*.. Apart from the classical explanation of metatony in Gpl, the most logical explanation is the one by Kortlandt. According to Kortlandt, the stressed yer in the Gpl of APc forms of \**gorb* ‘mountain’ type was retracted yielding length of the preceding syllable, as in Old Czech *hór*. Analogically, the length could have been extended into the Gpl of stem-stressed forms, as in Slovak *kráv*, Silesian dialects *kruw*.<sup>3</sup>

The length in other paradigmatic cases, e.g. Isg *krávou* or Lpl *krávách*, which could be seen as a breaking of Kortlandt's lengthening rule, is usually explained as doublets (*krávou/kravou*; *krávách/kravách*) due to analogical development.<sup>4</sup> The same *deus-ex-machina* explanation together with the relics of original quantity applies to *brána-bránou* ‘gate’ (former APb/c), Old Czech *strána-?stránou* ‘side’ (APc), also in Nsg Old Czech has doublets such as *ryba/rýba*

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1 Recently e.g. Kapović 2005:77, Carlton 1991:195, Bethin 1998. Acute is still being interpreted as a rising intonation or H tone as an autosegment, although Kortlandt showed in many papers that acuteness means glottalization.

2 Kortlandt 1975:19.

3 Kortlandt 1983:15, see also his paper in this volume.

4 Also Kapović 2005:77, Carlton 1991:195.

‘fish’ (former APa), *pila/píla* ‘saw’, *voda/vóda* ‘water’ (APc). The obvious complications are South-Western Czech forms such as *pína* ‘foam’, *plíva* ‘chaff’, *slína*, which are former APa and we should posit analogical shortening in standard forms *pěna*, *pleva*, *slina*. On the other hand, South-Western Czech *strána*, *zejma* ‘winter’ would be considered as analogically lengthened. The problematic development of the brevity of APa forms in the Moravian territory *lipa*, *sila* ‘power’, *krava*, *klada* ‘beam’. *sliva* ‘plum’, etc., is usually interpreted as *the Moravian brevity* and considered a secondary development without taking its possible primacy into account.<sup>5</sup>

Should analogy explain the transposition of length, it might be surprising why we do not find the leveling of former o-stem paradigms with vowel-zero alternation in Nsg-Gsg *kůň-koně/\*\*kúně* ‘horse’; *nůž-nože/\*\*nůže* ‘knife’ (both former APb). On the other hand, one could point to analogical leveling of *kůl-kůlu* ‘stake’ (former APb) but it remains a mystery why the analogy skips the same structures *stůl-stolu/\*\*stůlu* ‘table’ (also former APb).

I argue that *Kortlandt’s Czech lengthening rule*, retraction of stress from final syllables and compensatory lengthening lead to the later rise of quantitative paradigms and the emergence of West-Slavic rhythmicity - which is observed not only in Slovak but also in Czech and elsewhere in West Slavic.

## 2. QPs

Quantitative paradigms (QPs) can be described as a regular distribution of quantity in paradigms. QPs in West Slavic developed from Proto-Slavic accentual paradigms and contain the relicts of accentual paradigms (pretonic length, short nuclei) and newly developed quantitative innovations

QPs were already hinted at by Verweij (1994), but his description of West Slavic quantity (limited to Czech and Slovak) remained on atomization and mostly unsuccessful explanation of separate case forms.

The original idea of QPs should therefore be connected with Feldstein (2008), who showed that each nonderivate belongs to a QP according to two key paradigmatic cases. Basically, the principle concerns the distribution of quantity between the forms where the endings alternate between vowel and zero. For disyllabic a-stems the key cases are Nsg-Gpl *kráva-krav*; for (formerly disyllabic) o-stems: Nsg- Gsg *mráz-mrazu* ‘frost’.

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5 E.g. ČJA 5: I consider *Kortlandt’s lengthening rule* valid for Czech dialects only. The use and misuse of Czech data (e.g., Kapović) from the standard variety only leads to the misunderstanding of Czech quantitative patterns.

I modified Feldstein's QPs in Sukač (2009) and proposed the following terminology. Nouns can be quantitatively distributed between alternating and constant paradigms (this is the basic Feldstein's idea). Alternating paradigms can be QPA1<sub>(zero short)</sub>, Cz. *kráva-krav* or QPA1<sub>(zero long)</sub> Slk. *krava-kráv*, Cz. *mráz-mrazu*. There are two constant paradigms QPC1<sub>(zero long)</sub> - Cz. *hlína-hlín* and QPC2<sub>(zero short)</sub> - Cz. *slína-slín*. All nouns of that types<sup>6</sup> since Old Czech, Old Slovak up to modern Czech and modern Slovak including dialects, neologisms and borrowings, are quantitatively distributed among the above-mentioned paradigms.<sup>7</sup> The historical changes (e.g., Kortlandt's lengthening rule, restoration of pretonic length due to Dybo's law (e.g., Cz. *tráva* 'grass'), lengthening of monosyllables (*bůh* 'god', *kůň* 'horse')) triggered the quantitative distribution in paradigmatic cases. Later, in the separate Czech and Slovak development, the nouns dispersed and migrated in quantitative paradigms. This is the reason we find quantitative doublets in Old Czech, unexpected length and the aberrant development in South-Western Czech dialects.<sup>8</sup>

### 3. Rhythmicity

West Slavic rhythmicity is traditionally connected with Slovak where the existence of neighboring long syllables is prohibited, e.g., *krásny* 'beautiful', *pekný* 'nice'.

Some authors have recently observed rhythmicity in Czech derivational morphology (Bethin 1998, Bethin 2003, 2003a, Scheer 2001, 2003, 2004). It was shown that Modern Czech shows the regular distribution of quantity in disyllabic domain<sup>9</sup> in certain morphological categories (agentive nouns, hypocoristics, deverbal nouns). Old Czech supports those results. I showed that

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6 Feminine a-stems (disyllabic in Nsg) and formerly disyllabic o-stems (in Nsg).

7 I have discussed the feminine a-stems in Sukač (2009).

8 For example *\*plůgь* 'plough' (APA) is reflected as short in standard Czech: *pluh*. The Gsg is also short *pluhu* so the noun belongs to QPC(zero short). South Western Czech area shows not length in Nsg *plouch* but also variation of Gsg: *plouch-plouhu* (Domažlice and Rokycany area), short forms *pluch-pluhu* (Plzeň and Klatovy area), the variation between two constant paradigms in the same area *pluh-pluhu*, *plouch-plouhu* (Doudleby) and even alternating paradigms *plouch*, *plůch*, *pluch-pluhu* (Borovany area). Instead of analogical development which explains everything but basically nothing, I would propose that *pluh* simply travels between quantitative paradigms in those areas. I thank Zbyněk Holub for permitting me to use his fieldwork data.

9 Bethin 1998.

the disyllabic domain also operated in some Old Czech derivates (e.g. nouns with *-(a)nie/(á)nie, -ář/-ář* suffixes).<sup>10</sup>

Czech derivative rhythmicity (Bethin 2003, Sukač 2011) can be observed in hypocoristics such as *Káťa-Katka, Fráňa-Franta*<sup>11</sup> and in derivates: *ryba* > [*rybář*] ‘fisherman’ - *ry[barík]* ‘kingfisher’, [*perník*] ‘gingerbread’ - *per[nikář]* ‘gingerbread maker’.<sup>12</sup>

Kortlandt’s Czech lengthening rule is actually a perfect description of rhythmicity, so the lengthening of *kráva* (historical) is the same as in *Káťa* (new). Both the rule and the retraction of stress from Gpl as *hora-hór*, compensatory lengthening and lengthening of monosyllables of the type *bůh, dům* ‘house’ lead to the rise of QPs.

Concerning the Moravian QPs, the so called *Moravian brevity* refers to the short Nsg of a-stems and o-stems of former APa (*hlina, lipa, sila, hrach* ‘pea’, *mak* ‘poppy’ *prah* ‘threshold’, *jama* ‘pit’, *klada, para* ‘vapour’, *rana* ‘stroke’, *skala* ‘rock’, *šťava* ‘juice’, *misa* ‘dish’, *sila*). There are no strict isoglosses for all examples:<sup>13</sup>

• Nsg: *hrách-hrach* Šumperk-Boskovice-Brno-Mikulov (North-South);  
QPC1<sub>(zero long)</sub>; *hrách-hráchu* (Western part of Czech territory), QPC1<sub>(zero long)</sub>/

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10 Scheer (2003, 2004 and also in the paper in this volume) proposes that Czech quantitative patterns are dependent on template structure. Apart from the fact that Scheer considers all the Czech quantity as secondary, he mixes classical accentology with post-Stang developments and incorrectly provides metatonic explanations to current trends. The reason that Czech historical grammars did not follow the development in accentology and remained on a metatony-like approach from 1920s does not mean that the historical explanation of the origin of Czech (and West Slavic) quantity must be totally rejected. It is obvious that *kráva* and *tráva* are quantitatively identical synchronically but different diachronically, that *národ* ‘nation’ has old length due to the Dybo’s law, and that the trimoraic activity contradicts with the derivatives like *trávníkář* ‘lawnkeeper’, *dávání* ‘giving’, etc. Assuming that Czech derivates are precisely trimoraic, Scheer’s only valid examples are Czech disyllabic iteratives and infinitives which can be explained in other way.

11 The first syllable is open and long: *Káťa*. If the first syllable is closed, the resulting form must be short because the coda is considered moraic.

12 The brackets show the bisyllabic domain which is active in certain derivates (and non-derivates). Inside the domain, the total syllable weight is maximally three moras. The position of the domain changes through derivational process. As the domain is active only in certain derivates, a pure rhythmic law has never been described for Czech. Cases like *rybníkář* ‘ichthyologist’, *perníkář, dávání* and in paradigmatic forms *krávám, krávách* mean that the domain here ceased to operate, so what we observe now are doublets.

13 Moravian data are taken from ČJA 5 and especially from Bartoš 1886, 1895.



QPA1<sub>(zero long)</sub> *hrách-hráchu/hrachu* (Louny-Roudnice-Plzeň), QPC2<sub>(zero short)</sub> *hrach-hrachu* Morava (ČJA 5:219);

• Nsg: *kráva* Czech dialects, Moravian dialects; *krava* - Southwestern Moravia-Southwestern Czech dialects, Silesia *krava*, Czech-Polish dialects *krova*);

• QPC1<sub>(zero long)</sub> *kráva-kráv* Boskovice area (Haná), Moravian-Slovak area (Bartoš), otherwise QPA1<sub>(zero short)</sub> *kráva-krav* or QPC2<sub>(zero short)</sub> *krava-krav* - *slama* Czech, Moravian, Silesian territory.

#### 4. General characteristics of Moravian QPs:

1. there is an old layer of substantives - the same QPs as in Czech dialects: *nůž-noža, réba-réb*

2. secondary QP: - rising+shortening: *dyšč-dyšča* 'rain' (Přerov), *chlib-chliba* 'bread' (Blansko)

- neoalternation - *dům-duma* (Blansko), *kuň-kuňě* (Tišnov)

- neoconstant QPs - *nůž-nůža* (Drahany)

3. fluctuation of words between paradigms on the dialect area, e.g., Haná: Ivančice *kuň-koňa*, Tišnov *kuň-kuně*, Blansko *kuň-kuně*, Slavkov-Bučovice *kuň-koňa*.

The Moravian territory also shows the relicts of derivative rhythmicity: Kunštát: *učitel* 'teacher' x *přítel* 'friend'; Boskovice (Haná): *kominář* 'chimney-sweeper', *košíkář* 'basket-maker', *Tónik* x *Toneček*, *Frantik-Francek*; Karlovice (Valaš) : no rhythmicity in hypocoristics : *Liba*, *Toňik*, *Kača*, *Jara-Jarka* but still in *-ář* substantives: *kominář*, *košíkář*; Zlín area: *kázání* 'preaching' x *malování* 'painting', *lék* 'medicine': *lekař* 'doctor', *drát* 'wire': *dratař* 'wiredrawer'

Transitional Czech-Moravian dialects which have the western border Hlinsko - H.Brod - Pelhřimov - J. Hradec, show isoglosses of Kortlandt's lengthening rule: *bříza-březa* 'birch', *síla-sila*, *lípa-lípa*, *hřiva-hřiva* 'mane', *vrána-vrana* 'crow', *hlína-hlína* 'clay'...

There are different isoglosses for TORT forms and i-forms:

- *kláda-klada*, *vrána-vrana* - along old Czech-Moravian provincial boundary

- *kráva-krava* - only in SW part of Moravia + SE part of Czech

- *hlína-hlína* type - broader isoglosses in the Czech-Moravian border

The long Gpl of a-stems (QPC1<sub>(zero long)</sub>) can be observed in *kroup* 'grain of barley', *houb* 'mushroom', *louk* 'meadow', *boud* 'hutch', *dír* 'hole', *brán* in the Central Czech-Moravian Highland and the southern borderline of the SE Cz dialects.

## 5. Summary

1. Kortlandt's rules<sup>14</sup> trigger quantitative changes in paradigms and derivatives; rise of QPs already in Old Czech *slina/slína-slín*, *strana/strána-strán*, *kniha/kniha-knih* 'book';

2. Moravian quantity developed partially separately separately.

Evidence:

a). Strict Czech-Moravian isoglosses of lengthening;

b) Probably separate development of the whole South-Western Czech area:

- Maximal concentration of lengths in SW Czech dialects e.g., *riřj* 'swarm', *kůř* 'basket', *ruřh* 'horn', *slína*, *plouh* etc.;

- Maximal concentration of long Gpl a-stems in SE Czech dialects (ČJA 4)

c) Large amount of quantitative variations;

d) No obvious influence from the East (Slovak), e.g., no QPA1<sub>(zero long)</sub>; paradigm for a-stems (*krava-kráv*), lack of paradigmatic rhythmicity for derivatives (as in Slovak);

3. I argue that West Slavic (not only Czech and Slovak) quantitative patterns can be: rhythmicity: paradigmatic/derivative; and QPs, which are fully developed when phonological length exists; in dialects and languages lacking quantity contrasts the QPs are reflected as a timbre distinction (Polish).

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## The Accentuation of *\*a-/\*ja*-stems in East Russian Dialects

This article is a description of accentuation of simplex *\*a-/\*ja*-stems in a number of East Russian dialects located in the northern, central and southern parts of European territory of Russia. In these dialects, unlike standard Russian, in accented syllables there is an opposition of two *o*-phonemes, *narrow* and *wide*, transcribed as / $\text{uo}$ / and / $\text{o}$ / in this paper. Their phonetic realizations are not discussed here; it should only be mentioned that each of the phonemes is represented by a number of allophones which are slightly different in the dialects and dependent on the position in the phrase and phonetic environments (for details see Vysotskij 1969; Paufoshima 1973; Kasatkin 1999). Two *o*-phonemes in Russian dialects continue CSI. *\*o*, *\* $\text{b}$*  and in certain cases *\*e*, *\* $\text{b}$* . The last three vowels are usually reflected as / $\text{o}$ /, and *\*o* - as / $\text{uo}$ / under the 'autonomous' stress (= in orthotonic wordforms) or / $\text{o}$ / - under the 'automatic' stress (= in enclitomena-forms). The rule of distribution of two *o*-phonemes has been formulated by L.L. Vasiljev (1929) and A.A. Shakhmatov (1914) in terms of syllabic intonations and reformulated by A.A. Zalizniak (1978). It is usually illustrated by vocalization of the roots of *\*a-/\*ja*-stems.

Dialectal accentual paradigms of *\*a-/\*ja*-stems are regarded here as developments of Old Russian a.p. reconstructed in Zalizniak 1985; in certain cases it was necessary to take into account CSI. reconstruction (OSA 1993). The accentual reconstruction in this class of nouns presents a problem especially when the roots with short vowels are concerned, and their accentuation is also variable within a dialect or even within an idiolect. As an intervening stage between the manuscripts used by A.A. Zalizniak for ORu. accentual reconstruction and the present-day dialectal systems, examples from the poetry of the XVIII-XIX cc. taken from N.A. Es'kova's dictionary (2008) are adduced; unfortunately, this dictionary includes only the cases of deviation from the present-day standard Russian accentuation.

This collection of data also illustrates some innovations in accentuation of *\*a-/\*ja*-stems that belong to the history of Russian language, such as rise of root stress in N(A)pl. forms of a.p. B and of a variant of a.p. B characterized by columnar root stress in plural. Vocalization of *\*a-/\*ja*-stems in most cases supports accentual reconstruction; the deviations from original vocalization, i.e. in accordance with the cases that do not follow Vasiljev - Shakhmatov rule, are mostly caused by analogy; it is decisive for interpretation of time and origin of the later shifts of stress in certain grammatical forms.

**1. Data.** This article is based on the data of the following dialects.

North Russian: *Arzúbixa* and *Zlóbixa* (Xarovsk distr., Vologda reg.; data were gathered during the expeditions in 2002 and 2003) - *Ar*; *Íxalica* and *Pan'kóvo* (now Mezhdurechje distr., Vologda reg.) - *Ix*, *Pan'k* (if the latter is different from *Ix*) (Broch 1907).

Middle Russian: *Pustoshá* (Shatura distr., Moscow reg.; former *Vlagimirskaja gubernija*; data were gathered during the expeditions in 1992, 2002-2004) - *Pu*; *Léka* (Shatura dist., Moscow reg.; former *R'azanskaja gubernija*) - *Le* (Shakhmatov 1914); data from *Le* are analyzed together with South Russian data.

South Russian: *Novosélki* (Rybnoje distr., Riazan' reg.) - *Nov* (Ton'shin 1912; data gathered by Ton'shin are also taken from Vasiljev 1929; they are marked 'Ton.' to distinguish them from those gathered by M. Tolstaja and me in 2006); *Borshevóje* and *Lip'ahí* (Skopin distr., Riazan' reg.) - *Bor*, *Lip* (Savinov 2008); *Hnilúsha* and *Voskresénovka* (Zadonsk distr., Lipeck reg.), *Vérxn'aya Kolybél'ka* (Xlevnoje reg., Lipeck distr.) - *Zd* (Trost'anskij 1916; data gathered by the expedition of Institute of Russian language to Hnilusha and Voskresenovka in 2007 are marked 'Hn'). The article is based mainly on the material from *Ar*, *Pu* and *Nov* gathered with the help of questionnaires.

**2. Accentual paradigms of \*a-/\*ja-stems** in the dialects are shown in the following table (*korúova* 'cow', *kozá* 'goat', *vdová* 'widow', *železá* 'gland', *golová* 'head');

	A	B			C
Sg. N.	<i>korúova</i>	<i>kozá</i>	<i>vdová</i>	<i>železá</i>	<i>golová</i>
G.	<i>korúovy</i>	<i>kozý</i>	<i>vdový</i>	<i>železý</i>	<i>golový</i>
D.-L.	<i>korúove</i>	<i>kozíe</i>	<i>vdovíe</i>	<i>železíe</i>	<i>golovíe</i>
A.	<i>korúovu</i>	<i>kozú</i>	<i>vdovú</i>	<i>železú</i>	<i>gólovu</i>
I.	<i>korúovoj</i>	<i>kozúoj</i>	<i>vdovuój</i>	<i>železuój</i>	<i>golovuój</i>
Pl. N.	<i>korúovy</i>	<i>kozý</i>	<i>vduovy</i> <i>skóby</i>	<i>žel'ózy</i> <i>skóvorody</i>	<i>gólovy</i>
G.	<i>korúov</i>	<i>kuos</i>	<i>vduov</i> <i>skop</i>	<i>žel'ós</i> <i>skovoróut</i>	<i>golúov</i>
D.	<i>korúovam</i>	<i>kozám</i>	<i>vduovam</i> <i>skóbam</i>	<i>železám</i> <i>skovorodám</i>	<i>golovámi</i>
L.	<i>korúovax</i>	<i>kozáx</i>	<i>vduovax</i> <i>skóbax</i>	<i>železáx</i> <i>skovorodáx</i>	<i>golováx</i>

The shape of accentual paradigms and vocalization of morphemes are simplified in the table. It is necessary to add the following details.

(1) In North Rus. *Ar* dialect, accentual curve of Dsg. form of *zimá* ‘winter’ (a.p. C) differs from that of Lsg. form: Dsg. *zíme*, Lsg. *zimjé*. The same is attested in the neighboring *Ix* dialect: Dsg. *g zíme*, *k stórone* ‘side’, Lsg. *o zimjé*, *na storonjé* (Broch 118). This difference between Dsg. and Lsg. forms of *zimá*, *storoná*, *reká* ‘river’ is attested in many North and West Russian dialects.

(2) In Isg., the accented ending *-/uoj/* (*sestruój* ‘sister’, a.p. B, *golovuój* ‘head’, a.p. C, with \*o > /uo/) is generalized to soft and former soft stems (*dušuój* ‘soul’, *sem’juój* ‘family’, *zeml’uój* ‘ground, earth’ where /uo/ replaces the reflexes of \*e) in Middle Russian *Pu*, *Le* and in South Russian *Nov*, *Bor*, *Lip*, *Zd* dialects. In North Rus. *Ar*, *Ix* dialects, the accented ending of Isg. is *-/oj/* (*sestrój*, *golovój*). Here wide *o* may be explained by influence of Isg. ending of \*o- and \*u-stems *-/om/* < \**ьмь* (*stolóm* ‘table’) or rather by shift of stress: \**golovojú* > *golovóju* - which primarily had occurred in a.p. *c* and later was generalized to a.p. *b*. L.L.Vasiljev cites examples like *рукою* ‘by hand’, *со мною* ‘with me’ from two Russian manuscripts of the XVI c. and considers them to reflect the original accentuation of Isg. (1929, 138-139). Cf. accentuation of \*i-stems of a.p. *c* in a number of South-East Rus. dialects: Isg. *lašadjú* ‘horse’, *os’an’jú* ‘autumn’. Thus *-/oj/* in North Russian and *-/uoj/* in South Russian dialects may be different developments of the following original system:

Isg., a.p. *b*: *-/úju/* (hard stems) / *-/éju/* (soft stems), a.p. *c*: *\*/ojú/* / *\*/ejú/* > *-/óju/* / *-/éju/*.

(3) The accentuation (and vocalization of the roots with \*o) in plural forms is to some extent ‘idealized’ in the table.

(a) Subtype B *kozá*, Asg. *kozú*, Npl. *kozý*, Dpl. *kozám* (‘goat’) is represented by few words, see 4.3.1.

(b) In North Russian, subtype B *vdová*, Asg. *vdovú*, Npl. *vdóvy*, Dpl. *vdóvam* ‘widow’ is represented by a single word *semjá Ar* ‘family’ (with variable accentuation in the plural: Npl. *sémji*, D-Ipl. *sémjam* ~ *semjám*). Most of the nouns of a.p. B and C have stress on the ending in the plural forms of oblique cases: *Ar* - D-Ipl. *osám* ‘wasp’, *rekám* ‘river’, *travám* ‘grass’, *železám* ‘gland’, Lpl. *rekáx*, *traváx* (a.p. B); D-Ipl. *borodám* ‘beard’ *kosám* ‘scythe’, ‘braid’, *nogám* ‘foot, leg’, *rukám* ‘hand, arm’, *slegám* ‘long stick’, Lpl. *nogáx*, *golováx* ‘head’, *goráx* ‘hill’ (a.p. C); Lpl. *gređadáx* ‘bed’ (for plants), D-Ipl. *kopnám* ‘haycock’, *ofc’ám* ‘sheep’; *Ix*: - D-Ipl. *žonám* ‘wife’, *gorám*, Lpl. *goráx* (a.p. B), D-Ipl. *dušám*, Lpl. *dušáx* ‘soul’ (a.p. C) (Broch 118). Root stress in N(A)pl. forms of a.p. B represented by a single example with disyllabic root *želiózy Ar* ‘gland’; (all the other examples of a.p.B have monosyllabic roots) differs from

that of a.p. C (*gólovy* ‘head’, *bórody* ‘beard’ *pólosy* ‘stripe, field’, etc.). Thus a.p. B and C tend to unification in plural, which is proved by vocalization of the roots of the nouns that belong to them, see 4.2 and 4.3.2.

(c) In Middle and South Russian, root stress in the plural oblique forms of both a.p. B and C is represented by a considerable amount of examples:

*Pu* - Dpl. *vdúovam* ‘widow’, Ipl. *žmónami* ‘wife’, *blóxami* ‘flea’, *sosnámi* ‘pine-tree’, *pilámi* ‘saw’, *polámi* ‘flap’, *sl’ozámi* ‘tear’, Lpl. *v m’ozáf* ‘boundary’ (a.p. B); Dpl. *čjénam* ‘price’, *pə dušám* ‘soul’, *gúbəm* ‘lip’, *stópəm* ‘foot’, Ipl. *bərodámi* ‘beard’, *bəronámi* ‘harrow’, *pəlosámi* ‘stripe’, *semjámi* ‘family’, *kosámi* ‘scythe’, ‘braid’, Lpl. *v rukáf* ‘hand’, *stópəf* ‘foot’; *Nov* - Dpl. *hrózam* ~ *hrazám* ‘thunderstorm’, *pa z’v’ózdəm* ‘star’, *s’t’jénəm* ~ *s’t’enám* ‘wall’, *vdavám* ‘widows’; Ipl. *kósəm’i* ~ *kasám’i* ‘scythe’, ‘braid’, *zə kazám’i* ‘goat’, *nórəm’i* ~ *narám’i* ‘hole’, *nazr’ám’i* ‘nostril’, *asám’i* ‘wasp’, *p’íləm’i* ‘saw’, *s palám’i* ‘flap’, *skabám’i* ‘door handle’, *s’estrám’i* ‘sister’, *slezám’i* ‘tear’, *snaxám’i* ‘son’s wife’, *žánám’i* ‘wife’; Lpl. *v z’v’ózdəx*, *nə kazáx*, *na m’óžəx* ‘boundary’ (a.p. B); Ipl. *v’ósnəm’i* ~ *v’esnám’i* ‘spring’, *nahám’i*, *pəlasám’i*, Dpl. *pə z’imám* ‘winter’ (a.p. C).

In N(A)pl. a.p. B and C are not opposed in case of polysyllabic root: *Pu* *gólavn’i* ‘charred log’, *skóvrady* ‘pan’ (both words with variable B~C accentuation), *Nov* *pólasy* ‘stripe’ (a.p. B) - *bórady* ‘beard’, *stórany* ‘side’, etc. (a.p. C). On the contrary, a group of nouns of a.p. B with monosyllabic roots yielded columnar stress in the plural forms, with root vocalization /uo/, most clearly seen in the dialect of *Pu*, see 4.3.3, 4.3.4.

3.1. The lists of simplex nouns that belong to three accentual paradigms in the dialects in question are given below. Several types of complex *\*a-/\*ja*-stems (synchronously simplex, those with suffixes *\*-j-*, *\*-bv-*, *\*-bc-*, *\*-bn(j)-*, *\*-bx-*) and some relatively old loan-words are included into the lists. Geographical notes in the lists of nouns are given if a word is represented only in one dialect or in a small group of dialects, or if a word belongs to different a.p. in different dialects; they are omitted if the accentuation is the same in all the dialects.

Local variants of accentuation of *\*ja*-stems and of a certain group of *\*a*-stems (a.p. A in one group of dialects : a.p. B or C in the other; see Zaluzniak 1978, 50-51 on accentuation of nouns of ‘*vol’a*’ group) are included into the lists of different a.p.; they are *čášča* *PuNov* (A) : *čáščá* *Ar* (B) ‘thicket’; *túča* *ArPuLe* (A) : *tučá* *Hn* (B) ‘black cloud’; *xvúója* *Ar* (A) : *xvojá* *PuNov* (B) ‘needles’; *syósna* *ArIxNov* (A) : *sosná* *PuNov* (B) ‘pine-tree’; *vúólixa*, *ólxa* (new variant, see 4.1. on root vocalism) *Ar*, *vúól’xa* *Ix*, *úól’xa* *Le* (A) : *ol’xá* *Nov* (B), *Pu* (B/C) ‘alder-tree’; *slína* *Ar* (A) : *sl’uná* *PuNov* (B) ‘slobber’; *spína* *Ar* (A) : *spiná* *PuNov* (C), *Hn* (B) ‘back’.

The lists of a.p. B and C include some words with variable accentuation. Four nouns which are a.p. B everywhere except *Zd, Lip, Nov* (where they belong to a.p. C) are included into the list of a.p. B. All of them belong to ORu. a.p. *b* (Zalizniak 1985, 135): *kazná* ‘treasure’, *reká* ‘river’, *travá* ‘grass’, *svin’já* ‘pig’. Some nouns that belong to a.p. B in *Nov* and to a.p. C elsewhere are included into the list of a.p. C: *kosá* ‘scythe’, *kosá* ‘braid’, *kozá* ‘goat’, *polosá* ‘stripe, field’, *ščeká* ‘cheek’ (all of them belong to ORu. a.p. *c*: Zalizniak 1985, 138). All the other nouns with variable accentuation are given in a separate list.

**A.p. A:** *bába* ‘woman; wife’, *bán’a* ‘bath, bath-house’, *ber’óza* ‘birch’, *besjéda* ‘talk’, *búr’a* ‘storm’, *cérkva* ‘church’, *čága* ‘polypore’, *čášča PuNov* ‘thicket’, *duól’a PuNovLeZd* ~ *dól’a Ar* ‘part; fortune’, *doruóga* ‘road, way’, *dról’a Ar* ‘darling’, *dúra* ‘fool’, *glína* ‘clay’, *gríva* ‘mane’, *grúda Ar* ‘heap’, *grýža* ‘rupture’, *íva* ‘willow’, *jágoda* ‘berry’, *jáma* ‘hole’, *jjéza Ar* ‘food’, *kápl’a* ‘drop’, *káša* ‘porridge’, *kl’úkva* ‘cranberries’, *kníga* ‘book’, *kobýla* ‘mare’, *koluóda* ‘log; trough’, *koruósta* ‘scab’, *koruóva* ‘cow’, *kostér’a Ar* ‘boon’, *kuóža* ‘skin; rind’, *krýsa* ‘rat’, *krýša* ‘roof’, *kúča* ‘heap’, *lápa* ‘foot; hand; claw’, *láva Ar* (usually pl.) ‘small bridge’, *l’ága Ar* ‘swamp, wet place’, *lípa* ‘linden’, *luóvl’a* ‘catching, hunting’, *lúža* ‘puddle’, *malína* ‘raspberries’, *mer’óza* ‘seine, trap net’, *mjéra* ‘measure’, *moruóka ArPu* ~ *moróka Nov* ‘hassle, a lot of trouble’, *múka* ‘torture’, *múxa* ‘fly’, *níva* ‘field’, *nuóša* ‘something. carried on one’s back’, *núda* ‘bore’, *pára* ‘pair; couple’, *pár’a Ar* ‘stewed food’, *piéna* ‘froth, scum’, *pláta* ‘pay, fee’, *poluóva* ‘chaff’, *pórča Ar* (~ *pórcyja Pu*) ‘evil curse’, *pr’áza* ‘yarn’, *rána* ‘wound’, *riépa* ‘turnip’, *roguóža* ‘bast mat’, *ruóšča* ‘grove’, *róza Hn* ‘rose’, *rózga ArLeNov* ‘rod, twig’, *ruóža Ix* ‘ugly face’; *róza Zd* ‘erysipelas’, *rýba* ‘fish’, *sáza* ‘soot’, *sjéra Ar* ‘tar’, *síla* ‘strength’, *slína Ar* ‘slobber’, *soluóma* ‘straw, thatch’, *soruóka* ‘magpie’, *suóсна ArIxNov*, (Gsg. *Ix suósen*) ‘pine-tree’, *spína Ar* ‘back’, *stája* ‘flock, pack; part of a cattle-shed’, *stúpa* ‘mortar’, *stúža* ‘frost’, *svát’ja BorLip* and *sváxa Nov* ‘mother of son’s wife or of daughter’s husband’, *svekróv’ja Bor* ‘husband’s mother’; *svobuóda* ‘freedom’, *šéja* ‘neck’, *šúba* ‘fur coat’, *t’ága* ‘draught’, *tejiéga* ‘cart’, *íina* ‘mud’, *t’óšča* ‘wife’s mother’, *t’uóta Ar* ‘aunt’, *túča ArPuLe* ‘black cloud’, *vérba ArPu* ‘pussy-willow’, *viékša Ix* ‘squirrel’, *viéra* ‘belief’, *víc’a Ar*, *vuól’a* ‘freedom; outdoors’, *vuólixa* ~ *ólxa Ar* ~ *vuól’xa Ix* ~ *uól’xa Le* ‘alder-tree’, *voruóna* ‘crow’, *xvuója Ar* ‘needles of a fur-tree or a pine-tree’, *žába* ‘frog’, *žíla* ‘vein’, *žópa* ‘bum’.

**A.p. B:** *badjá Ar* ‘tub’, *bedá* ‘misfortune’, *bloxá ArPu* ‘flea’, *boloná Pu* ‘talker, tattler’, *čašča Ar* ‘thicket’, *čeredá Ar* ‘turn’, *čertá Pu* ‘line’, *čumá Pu* ‘plague’ (curse), *desná ArPu* ‘gum (in mouth)’, *dežá NovHn* ‘dish to make dough’, *dirá Ar* ~ *dyrá Pu* ‘hole’, *drestvá ArPu* ‘pebbles’, *dugá ArPu* ‘arc; shaft-bow’, *glístá Ar* ‘helminth; worm’, *gospožá Pu* ‘dame; lazy woman’, *iglá*



‘needle’, *igrá* ‘play’, *ikrá Pu* ‘calf’, *ikrá Ar* ‘roe, spawn’, *iskrá Pu* ‘spark’, *jedá* ‘food’, *kabalá Ar* ‘a folded piece of birchbark or paper with signs on it that a wizard hands out to help to find cattle or people lost in the forest’, *kazná Nov(B) Zd (C)* ‘treasury’, *kočergá* ‘poker’, *konopl’á* ‘hemp’, *korá PuNov* ‘rind, bark’, *krasá* ‘beauty’, *krupá* ‘barley’, *kumá* ‘gossip’, *kvašn’á ArPu* ‘dish to make dough’, *lebedá Ar* ‘goose-foot’, *lisá* ‘fox’, *luná* ‘moon’, *mglá* ‘haze’, *mezdrá* ‘flesh side of hide’, *mordvá PuNov* ‘Mordvinian’ (a person; people), *muká* ‘flour’, *nozdr’á* ‘nostril’, *nuždá* ‘need’, *Oká* (river) *Nov*, *ol’xá Nov(B) Pu(B/C)* ‘alder-tree’, *osoká Nov* ‘carex’, *pčelá ArPu* ‘bee’, *petl’á Pu* ‘loop’, *pilá* ‘saw’, *plitá* ‘slab; stove’, *reká ArPuNov(B) Lip (C)* ‘river’, *sestrá* ‘sister’, *skam’já Nov* ‘bench’, *slezá PuNov* ‘tear’, *sl’uná PuNov* ‘slobber’, *slugá* ‘servant’, *sosná PuNov* ‘pine-tree’, *sotoná Ar* ‘devil’ (also curse), *soxá PuNov* ‘wooden plough’, *spiná PuHn* ‘back’, *straná* ‘country’, *strelá ArPu* ‘arrow; lightning’, *strujá Ar* ‘spurt; stream’, *struná* ‘string’, *stupn’á Nov* ‘foot’, *sud’já* ‘judge’ *svečá* ‘candle’, *sveklá* ‘beet’, *svin’já ArPu(B) Nov(C)* ‘pig’, *toloká Nov* ‘collective help in work’, *toská Ar* ‘grief; pain; agony’, *travá ArPuNov(B) ZdLip(C)*, *trubá* ‘pipe; chimney’, *truxá PuNov* ‘dust’, *tučá Hn* ‘black cloud’, *vdová ArPuNov* ‘widow’, *verstá* ‘verst, mile’, *vetlá Pu* ‘white willow’, *volxvá Pu* ‘wizard, witch’ (also curse), *xvojá PuNov* ‘needles’, *zvezdá* ‘star’, *zmejá* ‘snake’ (also curse), *žará* ‘heat’, *železá ArPu* ‘gland’, *žená* ‘wife’.

ORu. a.p. *b* is reconstructed for the following words from this list: *bedá*, *čeredá*, *čertá*, *dugá*, *glistá*, *gospožá*, *igrá*, *kazná*, *krasá*, *krupá*, *luná*, *mordvá*, *muká*, *Oká*, *osá*, *reká*, *sestrá*, *slugá*, *sosná*, *sotoná*, *straná*, *svečá*, *travá*, *trubá*, *vdová*, *zmejá*, *žená*; ORu. a.p. *b* (with deviations to *c*): *strelá*, *svin’já*, *zvezdá* (Zalizniak 1985, 135); CSI. a.p. *b*: *korá* (OSA, 13); ORu. a.p. *c*: *iglá*, *slezá*, *soxá* (Asg. \**íglu*, \**slézu* are not attested in the poetry of the XVIII-XIXth cc., while Asg. *sóxu* was still in use at that time, see Es’kova 2008); variable accentuation (*b/c*) in ORu.: *bloxá*, *pčelá*, *pilá* (Zalizniak 1985, 135-136, 138; according to Es’kova 2008, initial stress in Asg. of these words is not attested in the XVIII-XIXth cc.). Deviation from ORu. a.p. *b* is attested in three nouns with long root vowel which belong to a.p. C only in *Zd*, *Lip*: *kazná*, *reká*, *travá*, and in one noun in *Nov*: *svin’já* (cf. Asg. *svín’ju* in the poetry of the XVIII-XIX cc.: Es’kova 2008); this must be a local south-eastern tendency.

**A.p. C:** *borodá ArPuLe* ‘beard; chin’, *boroná ArPu* ‘harrow’, *borozdá ArPuNov* ‘furrow’, *cená* ‘price’, *cevcá Ar* ‘wooden spool’, *doská ArPu* ‘board, plank’, *dušá ArPu* ‘soul’, *golová* ‘head’, *golovn’á Pu(B/C)* ‘charred log’, *gorá ArIxPuNov* ‘hill’, *izbá* ‘village house; room in village house to live in’, *kosá Nov(B/C) ArIxPuLeHn (C)* ‘braid’, *kosá Nov(B) ArPuLeHnZd(C)* ‘scythe’, *kozá NovPu(B) ArPu (C)* ‘goat’, *kroxá Ar* ‘crumb’, *nogá* ‘leg+foot’, *ostrogá Ar* ‘fish-spear’, *ovcá ArPu* ‘sheep’, *p’atá Ar* ‘heel’, *polosá Nov(B) ArPu(C)* ‘stripe;

field', *porá* 'time', *ruká* 'hand+arm', *sem'já* *Pu* 'family', *seredá* *Ar* 'Wednesday; middle', *sredá* 'Wednesday', *skovorodá* *ArLe(C) Pu(B/C)* 'pan', *skulá* *Pu* 'cheek-bone', *slegá* *Ar* 'long stick', *slobodá* *ArPu* 'part of a village', *spiná* *PuNov* 'back', *stená* *ArPu(C) Nov(B)* 'wall', *storoná* *ArPuZd* 'side', *stroká* *Pu* 'line', *sudn'á* *Pu* 'wide bench for dishes', *ščeká* *Nov(B) ArPu(C)* 'cheek', *vesná* *ArNov(C) Pu(B/C)* 'spring', *vodá* 'water', *zeml'á* 'ground', *zimá* 'winter', *zolá* *PuNov* 'ash'.

In the list of *\*a-/\*ja*-stems that belong to a.p. C in the dialects, ORu. a.p. *c* is reconstructed for the following words: *borodá*, *boroná*, *cená*, *doská*, *dušá*, *golová*, *gorá*, *izbá*, *kosá*, *kosá*, *nogá*, *p'atá*, *porá*, *ruká*, *sem'já*, *seredá*, *sredá*, *slobodá*, *stená*, *storoná*, *stroká*, *ščeká*, *vodá*, *vojná*, *zeml'á*, *zimá*, *zolá*; ORu. a.p. *c* with deviations to *b*: *kozá*, *ovcá*; ORu. a.p. *b/c*: *kroxá* (Zalizniak 1985, 135-136, 138). Initial stress in Asg.: *kózu*, *óvcu*, *sém'ju*, *stróku* attested in the poetry of the XVIII-XIX cc. corresponds to the final stress of these Asg. forms in the present-day standard Russian (Es'kova 2008).

Deviations from ORu. a.p. *c* are found in *Nov*, where a number of nouns of ORu. a.p. *c* with short root vowels belong to a.p. B: *kosá* 'braid', *kosá* 'scythe', *kozá*, *ščeká*, and also *stená* with originally long root vowel. Npl. *kozý* is the evidence of a.p. B variant in *Pu* dialect.

Nouns with variable accentuation (B/C): *golovn'á* *Pu(B/C)* 'charred log', *grozá* *ArNov(B) Pu(C)* 'thunderstorm', *gubá* *Ar(B/C)* 'lip; chin; toadstool', *Pu(C)* 'lip'; *kopná* *Pu(B/C)* 'haycock', *lozá* *Ar(B) Pu(B/C)* 'rod', *metlá* *PuNov(B) Ar(C)* 'broom', *mežá* *Ar(B) Pu(B/C)* 'boundary', *norá* *Ar(C) Pu(B/C) Nov(B)* 'hole', *osá* *ArIxNov(B) Pu(B/C)* 'wasp', *polá* *Pu(B) Nov(B/C)* 'flap', *rosá* *ArNov(B) Pu(B/C)* 'dew', *skobá* *PuNov(B) ~ skopá* *Ar(C)* 'crampon; (door) handle', *skovorodá* *ArLe(C) Pu(B/C)* 'pan', *smolá* *ArNov(B) Pu(B/C)* 'tar', *snoxá* *PuNovBor(B) Ar(C)* 'son's wife', *sová* *Pu(B) Ar(C)* 'owl', *stopá* *Pu(B/C)* 'foot', *tropá* *Ar(C) Pu(B/C)* 'path', *vesná* *ArNov(C) Pu(B/C)* 'spring', *vojná* *ArNov(B) Pu(B/C)* 'war', *zor'á* *Ar(B) Pu(B/C)* 'sunrise'.

The nouns of this list can be divided into the following groups.

(1) a.p. B~C variation in *Pu* (: a.p. B elsewhere).

(a) ORu. a.p. *c* is reconstructed for *golovn'á*, *grozá* (but CSL. a.p. *b*, OSA, 13), *kopná*, *lozá*, *rosá*, *skovorodá*, *smolá* (but CSL. a.p. *b*, OSA 13), *vesná* (Zalizniak 1985, ib.); CSL. a.p. *c*: *stopá*, *zor'á* (OSA 13). Initial stress in Asg.: *vésnu*, *grózu*, *zór'u*, *lózu*, *rósu*, *stópu* is attested in Russian poetry of the XVIII-XIX cc. (a.p. *c*), it corresponds to final stress of these Asg. forms in contemporary standard Russian (Es'kova 2008).

(b) CSL. a.p. *b* is reconstructed for *polá* (OSA 13), but cf. *pólu* in Russian poetry of the XVIII-XIX cc. (Es'kova 2008); in the dialects, variation in *polá* is slightly different from that in other words of group (1).

(c) ORu. a.p. *b* is reconstructed for *osá, vojná* (Zalizniak 1985, ib.); ORu. a.p. *b/c* variation: *mežá*; neither *mežá*, nor *osá, vojná* are known as a.p. *c* nouns in the XVIII-XIXth cc. (Es'kova 2008).

(2) a.p. B/C variation in *Pu* : a.p. C in *Ar* (a.p. B in *Nov*).

(a) Here belong *norá* and *tropá* (with ambiguous accentual reconstruction; cf. *Asg. nóru* in the XVIII-XIX cc.: Es'kova 2008); *skovorodá* (ORu. *c*).

(b) a.p. B/C variation in *Pu* : a.p. C in *Ar, Nov*. ORu. a.p. *c* is reconstructed for *vesná* (Zalizniak 1985, 138), also cf. *věsnu* (Es'kova 2008).

(c) a.p. B in *Pu(Nov)* : a.p. C in *Ar* correspondence is found in the group *metlá, snoxá* (ORu. a.p. *b/c* variation: Zalizniak 1985, 135), *sová* (OSL. a.p. *b*: OSA, 13); none of them is known as a.p. *c* noun in the poetry of the XVIII-XIXth cc. (Es'kova 2008).

(3) *Gubá* belongs to a.p. *a* in ORu. (Zalizniak 1985, 132).

Groups (1a), (1b) and (2a), (2b) are most likely to be late developments of ORu. a.p. *c* (perhaps, except *polá*), while groups (1c) and (2c) - developments of ORu. a.p. *b*. Thus in the dialect of *Nov* a big number of a.p. *c* nouns have developed a.p. B, while *b > C* change occurs only twice in words with originally long root vowel. Such development is also observed in standard Russian, but the dialect of *Nov* appears to be more archaic in this respect. In *Pu* and *Ar* the ambiguity of a.p. *b* and *c* has developed in a big number of words with originally short root vowels. Judging from the fact that the most of the nouns with variable accentuation should be originally a.p. *c*, it may be concluded that *Pu* dialect has undergone the same accentual tendency as standard Russian and *Nov*, preserving the original a.p. *c* accentual curves as variants, and involving some a.p. *b* nouns into the same pattern of variation.

(4) **Accentuation and root vocalization.**

4.1. Most of *\*a-/\*ja*-stems of **a.p. A** are characterized by *\*o > /uo/*; this phoneme corresponds to acute in the roots of *\*TORT* structure (*doruóga*, etc.) or to neo-acute (*duól'a, kuóža, luóvl'a, nuóša, roguóža, ruóšča, ruóža, vuól'a, vuólixa, suósna, xvúója*, etc.). A case of *\*e > /uo/* in *t'úóta* 'aunt' is known in all the dialects in question; the reasons of this development are not quite clear.

(There are some other cases of development  $*e > /uo/$ , such as *t'úóplyj* 'warm', *žuóny* 'wives', *pšuónnyj* 'millet', allowing for different explanations.)

The cases of  $*o > /o/$  in  $*a-/*ja$ -stems of a.p. A can be explained as vocalization of words borrowed from standard language (perhaps also from substandard 'city' language): *dról'a*, *dól'a*, *róza*, *róža* ('erysipelas', opposed to their own *ruóža* 'ugly face'), *ól'xa* (this example may be a contamination of local *wuólixa* and standard *ol'xá*).  $/o/$  in *rózga* 'twig', attested in all the dialects and manuscripts, is explained by A.A. Zalizniak (1985, 177) as a vocalization of a 'bookish' word. Cf. explanations by informants showing that bookish *rózga* has local correlations in the dialects: *víc'a* <  $*větca$  in *Ar - rózgoj steogáli rabuów*, *a u nás víc'oj nastęogájut* 'rózga-twig had been used to beat slaves, but we beat with a víc'a-twig'; and *pálka* in *Nov - U nás pálka zam'jesta rózgi* 'we have got stick instead of rózga'.

This explanation of  $/o/$  in the roots of nouns with columnar root stress is supported by similar vocalization of the most part of relatively new loan-words (borrowed from European languages through standard Russian): *avtóbus* 'bus', *kilómetar* 'kilometer', *kolidór* 'corridor', *dóllar*, *kóledž* 'college', *fudból* 'football', *nóty* (musical) 'notes', *bóty* 'boots', also *cytromón* (medicine) (but *škóla* ~ *škuóla* 'school', *Le puóčta* 'mail'). The same is attested in toponyms borrowed from Finno-Ugrian languages: *Vólogda*, *Vóžega*, *Pól'a*, *Lójga*, and in some proper names coming from Church Slavonic: *Anatólj* / *Natólj* (with diminutive *Tól'a*), *Estól'ja* (with dim. *Estólk'a*, < ChSl. *Eustólia*), *Zója* (with dim. *Zójk'a*), *Sófja* (< ChSl. *Sofía*; dim. *Són'k'a*), cf. also diminutives *Róma* (*Román*), *Kól'a* (*Nikoláj*). In the most part of the earliest borrowings from Church Slavonic with columnar root stress  $/uo/$  in the root is attested: *Jaguórij*, *Jaguór* (< ChSl. *Geórgij*), *Ovduót'ja* (< ChSl. *Eudokía*), dim. *Opruós'a* (< ChSl. *Eufrosínia*), *Ontuón* (< ChSl. *Antónij*), *Praskuóvja* (< ChSl. *Paraskéva*); they could have entered colloquial Russian when automatic and autonomous stresses were phonetically different. (Dialectal/colloquial forms of proper names, different from the corresponding Church Slavonic in accentuation, preserve the accent they had in ORu. period, see Uspenskij 1969.) In the other old church-slavonicisms  $/o/$  is found, cf. *apóstol* 'apostle', *ikóna* 'icon', *Nikóla* (st. Nicholas and the day of his memory).

Phoneme  $/o/$  is an unmarked member of the opposition  $/uo/ : /o/$ , concluding from the vocalization of the most of the 'new' loan-words. Furthermore, the speakers of these dialects, independently of their educational level, identify phoneme  $/o/$  with the letter 'o' and add that in the alphabet there is no letter for  $/uo/$  (Arzubixa, Leka) (they say that it is impossible to write down *stuow* 'table' as they pronounce it, for the lack of letters for  $[uo]$  and  $[w]$ , but it is easy to write down their *son* 'dream' or *stolý* 'tables'.)

4.2. In all the dialects *\*a-/\*ja*-stems of **a.p. C** are characterized by accent mobility and by two types of reflection of accented *\*o* in the roots.

(a) In the nouns with *\*TORT* root structure and nouns with disyllabic roots, two *o*-phonemes are distributed in accordance with the rule: *\*o* (in orthotonic forms: Gpl.) > /uo/, *\*o* (in enclitomena forms: Asg., N-Apl.) > /o/.

North Rus. *Ar* - Asg. *bórodu*, N-Apl. *bórody*, Gpl. *boruót*; Asg. *bóronu*, N-Apl. *bórony*, Gpl. *boruón*; Asg. *bórozdu*, Npl. *bórozdy*; Asg. *pod gólovu*, *c'érez gólovu*, *gólovu-tu*, N-Apl. *gólovy*, Gpl. *goluón*; Asg. *pólosu*, *ná polosu*, N-Apl. *pólosy*, Gpl. *poluós*; Asg. *stóronu*, N-Apl. *stórony*, Gpl. *storuón*; Apl. *Slóbodu* (name of a village); *Ix* - Asg. *bórodu*, Asg. *gólovu*, Npl. *gólovy*, Gpl. *goluón*; Npl. *skóvorody*, Gpl. *skovoruoót* (Broch 117).

Middle Rus. *Pu* - Asg. *bóradu*, N-Apl. *bórady*, Gpl. *boruót*, Ipl. *bərodámi*; Asg. *bórənu*, N-Apl. *bórəny*, Gpl. *boruón*, Ipl. *bəronámi*; Asg. *bórəzdu*, N-Apl. *bórəzdy*, Gpl. *boruós*; Asg. *na góləvu*, *ób gələvu*, N-Apl. *góləvy*, Gpl. *goluoóf*; Asg. *góləvn'ú* ~ *gəlovn'ú*, Npl. *góləvni*, Gpl. *gəloven'*; Asg. *póləsu*, N-Apl. *póləsy*, Gpl. *poluós*, Ipl. *pəlosámi*; Apl. *slóbədu*, N-Apl. *slóbədy*, Gpl. *slobuót* 'part of a village'; Asg. *na stórənu*, N-Apl. *stórəny*, Gpl. *storuón*; Asg. *skóvrədu* ~ *skəvrodu*, N-Apl. *skóvrədy*, Gpl. *skəvoruoót*.

South Rus. *Le* - Asg. *bóradu*, Npl. *bórady*; Asg. *góləvu*, Npl. *góləvy*; Asg. *skóvrədu*, Npl. *skóvrədy* (Shakhmatov 181); *Nov* - Npl. *bórəzdy* Ton.; Gpl. *baruódə* Ton.; *Bor* - Asg. *hóləvu* 184, *Lip* - *v hóləvu* 184; *Zd*: Asg. *hóləvu Hn*; Asg. *stóranu Hn*; Npl. *stórəny* 137, Gpl. *staruón* 63.

Similar distribution of *o*-phonemes is attested in a part of monosyllabic roots.

North Rus. *Ar* - Asg. *góru*, *góru-tu*, Npl. *góry*, Gpl. *guór*; Asg. *nógu*, N-Apl. *nógi*, Gpl. *nuók*; Asg. *skópu-tu*, N-Apl. *skópy*, Gpl. *pét skuóp*; Asg. *póru*, Gpl. *puór* ~ *pór*; *Ix* - Npl. *góry*, Gpl. *guór*; Npl. *nógi*, Gpl. *nuók*; Asg. *kósu*, Npl. *kósy*, Gpl. *kuós* 'scythe'; *Pan'k* - Npl. *kózy*, Gpl. *kuós* 33; Gpl. *puór* (Broch 33, 117).

Middle Rus. *Pu* - Asg. *nógu*, *na nógu*, Apl. *pód nəgi*, Gpl. *nuók*, Dpl. *nogám*; Asg. *nóru* (~*norú*), N-Apl. *nóry* ~ *nuóry*, Gpl. *nuór* ~(*nor*); Asg. *póru*, Gpl. *do tјéx puór* 'by that time; so high'.

South Rus. *Nov* - Asg. *nóhu*, *ná nəhu*, Npl. *nuóhi*, Apl. *pód nəhi*, Gpl. *s nuóx*; Asg. *nuóhu*, Npl. *nuóhi*, Gpl. *nuóx* Ton.; *Zd* - Asg. *u nóhu Hn*, Npl. *nóh'i Hn*; Asg. *nóhu*, Npl. *nóhi*, Gpl. *nuóx* 158; Asg. *vódu* 156, Gsg. *vuót* 49; Asg. *póru Hn*, Gpl. *puór Hn*.

Two exceptions of the distribution of /o/ and /uo/ should be specially pointed out. In *Nov* dialect, /uo/ in Asg., N-Apl. forms of *nogá* is attested both by Ton'shin in the beginning of the XXth c. and by our expedition in the beginning of the XXIth c.; in *Pu*, /uo/ is a variant in N-Apl. *nóry* (~ *nuóry*). These cases

may be connected with consonant environment. The reflection of automatic stress in Apl. is proved by *Nov pód năhi*.

(b) In a part of the monosyllabic roots, accented \*o > /o/ is attested in all the forms with accented root including Gpl., where it results from the tendency to unify the phonemic representations of morfemes.

North Rus. *Ar* - Asg. *kósu*, N-Apl. *kósy*, Gpl. *kós* (both homophones); Asg. *kózu*, Apl. *kózy*, Gpl. *kós*; Asg. *nóru*, N-Apl. *nóry*, Gpl. *nór*; Apl. *sóvu*, Npl. *sóvy*, Gpl. *sov*; *Ix* - Npl. *kózy*, Gpl. *kos*; Gpl. *por* (Broch 33); also /o/ in former enclitomena-forms: *Ar* - Npl. *sóxi*, Asg. *pó vodu*, *v vódu*, Asg. *óstrogu*, Npl. *óstrogi*.

Middle Rus. *Pu* - Asg. *na Krásnu Góru* (topon.), *ná gəru*, Npl. *góry*, Gpl. *gór*; Asg. *pod grózu* ~ *pód grəzu*, Npl. *grózy*, Gpl. *grós*; Asg. *kósu*, N-Apl. *kósy*, Gpl. *kós*, Ipl. *kosámi*; Asg. *kózu*, Npl. *kózy*, Gpl. *kós*; Asg. *stópu* ~ *stopú*, Npl. *stópy*, Gpl. *stóp*, Dpl. *stópəm*, Lpl. *stópəf*; Asg. *stróku*, N-Apl. *stróki*, Gpl. *strók*; Asg. *zór'u*, N-Apl. *zóri*, Gpl. *zór'*; Asg. *lózu*, Npl. *lózy*, Gpl. *los*; Asg. *ósu*, Npl. *ósy*, G-Apl. *os*; Asg. *rósu*, Npl. *rósy*, Gpl. *ros*; Asg. *trópu*, N-Apl. *trópy*, Gpl. *trop*; Asg. *vójnu*, Npl. *vójny*, Gpl. *vóin*; /o/ is attested only in former enclitomena-forms: Asg. *kópnu* ~ *kopnú*, Npl. *kópny*; Asg. *smólu* ~ *smolú*; Asg. *vódu*, Npl. *vódy*; Asg. *zólu*.

South Rus. *Le* - Asg. *f póru*, Gpl. *pór* (Shakhmatov 181); *Nov* - Gsg. *is kas'jé*, *n'jét kas'jé*, Asg. *kósu*, *za kósu* ~ *zá kəsu*, Isg. *kasuój*, Lsg. *f kas'jé*, N-Apl. *kósy*, Gpl. *b'es kós*, *kasám'i* 'scythe'; Asg. *vódu*, Gpl. *vót*; Asg. *góru*, Gpl. *gór*; Asg. *pólu*, Npl. *póly*, Gpl. *pól* Ton.; Asg. *rósu*, Npl. *rósy*, Gpl. *rós* Ton.; *Zd* - Asg. *póru*, Gpl. *pór Hn*; /o/ is attested only in former enclitomena-forms: *Le* - Asg. *kósu*, Npl. *kósy*; Asg. *nógu*, Npl. *nógi* (Shakhmatov 181); *Nov* - Asg. *zólu* Ton.; Npl. *hóry*; *Bor* - Asg. *nóhu*, *vódu*, Npl. *nóh'i*, *kósy* 184; *Zd*: Asg. *kósu*, *na kósu*, Npl. *kósy* 'scythe'; Asg. *kóznu* 'treasury' (in the last example /o/ replaces \*a in *kazná*).

4.3. Unlike a.p. A and C of \*a-/\*ja-stems, which in general preserve their original accentual curves in Russian, **a.p. B** has developed into at least three subtypes by changes in accentuation of plural forms: (1) some words preserve the original columnar accentuation; (2) most of the words have developed root stress in N(A)pl.; this new accentuation is attested in the manuscripts of the XIV-XVIIth cc., but original stress on the ending in N(A)pl. prevails at this time (Zalizniak 1985, 286-287) and later, as it is seen in the poetry of the XVIII-XIXth cc. (Es'kova 2008); (3) in some dialects columnar root stress in plural yielded.

4.3.1. Few nouns belong to **a. p. B**, subtype 'kozá, Npl. *kozý*, Dpl. *kozám*' in the dialects of *Ar*, *Ix*, *Pu*. Most of them have disyllabic stems and/or stems that end in clusters. Unlike all the other \*a-/\*ja-stems, they often add the endings -

/ʉoʋ/ or -ej/ in Gpl. In *Pu* dialect, some nouns with stems that end in a single consonant, with expressive pejorative semantics are included into this subtype (*boloná, čumá, gospožá*).

*Ar* - Npl. *badjǐ, glistý, kvašní*, Gpl. *kvašněj ~ kvašón*; *Pu* - Npl. *boloný, čumý, gospožý, kočargǐ, konoplǐ, mordvý, nozdrǐ, sudjǐ, volxvý*, Gpl. *mordvǔof, nosdrěj, volxvǔof*, but *suděj*, with zero ending.

Besides these examples, in *Pu* and *Ix* some Npl. forms with *CVC* stem structure are occasionally attested with final stress; these may be considered to be archaic, independent of morphonological or semiotic factors: *Pu* - *kozý, travý*; *Ix* - *snoxǐ* (Broch 34), *s'ostřý, žoný* (Broch 118). On vocalization of the root in Gpl. see below.

4.3.2. In North Russian *Ar, Ix* dialects subtype B 'vdová, Asg. *vdovú*, Npl. *vdúovy*, Dpl. *vdúovam*', with columnar root stress in plural, has not developed (it is represented only by one word, see 3.1), and subtype B 'železá, Asg. *železú*, Npl. *želiózy*, Gpl. *želiós*, Dpl. *železám*' predominates. Thus in North Russian a.p. B and C in most cases become identical; tendency to unify a.p. C and B of *\*a-/\*ja-*stems in plural is proved by similar vocalization of their roots.

(a) In case of *\*TORT* root structure, the shape of accentual paradigm (with stress shifted from the ending to the previous syllable in N-Apl.) differs from that of a.p. C: *Ar* - Nsg. *železá*, Asg. *železú*, Npl. *želiózy*, Gpl. *želiós*, Dpl. *železám* (a.p. B); cf. Npl. *gólovy, bórody*, etc. (a.p. C).

(b) Monosyllabic roots with *\*o* show two types of vocalization, as in a.p. C: 'true a.p. C' type of vocalization: *Ar* - Asg. *rosú*, Npl. *rósy*, Gpl. *ruós*; Asg. *wdovú*, Npl. *wdóvy*, Gpl. *wdúow* (but Npl. *wdúovy*, Gpl. *wdúow* in Zlobixa dialect; vocalization of the accented root may be influenced by more frequent *uduówka* 'widow', a word of traditional vocabulary). Vocalization in *Ar*: Asg. *žonú*, Npl. *žoný*, Gpl. *žón* (/ʉo/ replaces *\*e*) allows for different explanations, cf. *Ix* - Npl. *žóny*, Gpl. *žón* (Broch 34).

'analogical a.p. C' type of vocalization: *Ar* - Asg. *grozú*, Npl. *grózy*, Gpl. *grós*; Asg. *zorjú*, Npl. *zóri-ti*, Gpl. *zór*; Asg. *nozdrjú*, Npl. *nózdri*; Asg. *osú*, Npl. *ósy*, Gpl. *os*; *Ix* - Npl. *ósy*, Gpl. *os* (Broch 38); also Npl. *snoxǐ*, Gpl. *snóx* (Broch 34), with /o/ < *\*b*.

4.3.3. In Middle Russian *Pu* dialect we find both accentuation and vocalization of the root different from the other dialects: both subtypes B 'kozá, Asg. *kozú*, Npl. *kozý*, Dpl. *kozám*' and 'vdová, Asg. *vdovú*, Npl. *vdúovy*, Gpl. *vdúof*, Dpl. *vdúovam*' are quite frequent in this dialect, and /ʉo/ vocalization in plural forms becomes a characteristic feature of a.p. B.

(a) Two nouns with \**TORT* root structure vary between a.p. B and C: *gəlovn'á*, Asg. *gólavn'u* ~ *gəlovn'ú*, Npl. *gólavn'i*, Gpl. *gəlovn'ə*; *skəvrodá*, Asg. *skóvrədu* ~ *skəvrodu*, Npl. *skóvrədy*, Gpl. *skəvoruót*.

(b) Subtype B *kozá*, Asg. *kozú*, Npl. *kozý*, Dpl. *kozám* includes 11 nouns and two cases of archaic accentuation among them; but the most of examples are conditioned morphonologically and/or semantically, see 4.3.1.

(c) Subtype B *vdová*, Asg. *vdovú*, Npl. *vdúóvy*, Gpl. *vdúóf*, Dpl. *vdúóvam* is characterized by /*uo*/ < \**o*; \**e* (after formerly soft palatals); sometimes \**ɔ*, \**ɔ* (after sonorants): *vdová*, Asg. *vdovú*, Npl. *vdúóvy*, Gpl. *vdúóf*, Dpl. *vdúóvam*; *žoná*, Asg. *žonú*, Npl. *žúony*, Gpl. *žúón*, Ipl. *žúónami*; *bloxá*, Asg. *bloxú*, Npl. *blóxi*, Ipl. *blóxami* (with \**ɔ* > /*o*/); nouns with /*uo*/ in the root of Npl. and Gpl. forms, Dpl., Ipl., Lpl. forms are not attested: *zoriá*, Asg. *zoriú*, Npl. *zuóri*, Gpl. *zuór'*; *snoxá*, Asg. *snoxú*, Npl. *snuóxi*, Gpl. *snuóx*; *pčolá*, Asg. *pčolú*, Npl. *pčúóly*, Gpl. *pčúól*; and also a noun with a.p. B/C variation: *norá*, Asg. *norú* ~ *nóru*, Npl. *nuóry* ~ *nóry*, Gpl. *nuór*.

(d) Subtype B *polá*, Asg. *polú*, Npl. *póly*, Dpl. *polám* is represented by words both with accented /*uo*/ (< \**o*; \**ɔ* after sonorant), at least in Gpl. form, and /*o*/ of different origin in the root: *sosná*, Asg. *sosnú*, Npl. *suósny*, Gpl. *sošjón*, Ipl. *sosnámi*; *polá*, Asg. *polú*, Npl. *póly*, Gpl. *pól* ~ *puól*, Isg. *polámi*; *sl'ozá*, Asg. *sl'ozú*, Npl. *sl'úózy*, Gpl. *sl'úós*, Ipl. *sl'ozámi*; *soxá*, Asg. *soxú*, Npl. *sóxi*, Gpl. *sóx*, Ipl. *soxámi*; *nozdríá*, Asg. *nozdríu*, Npl. *nózdri*, Lpl. *v nozdr'áf*; nouns with accented /*o*/ < \**o* in the root in N(A)pl., Gpl., their Dpl., Ipl., Lpl. forms are not attested: *kopná*, Asg. *kopnú*, Npl. *kópny*; *skobá*, Asg. *skobú*, Npl. *skóby*; *sová*, Asg. *sovú*, Npl. *sóvy*, Gpl. *sóf*; all the nouns with a.p. B/C variation, with accented /*o*/ < \**o* in the root, belong to this subtype: Npl. *gólovní*; *lózy*, *rósy*, *skóvrody*, *trópy*, *vójny*, see 4.2; words with other root vowels: Apl. *m'ozú*, Npl. *m'ózy*, Lpl. *v m'ozáf*; Asg. *pilú*, Npl. *píly*, Ipl. *pilámi*.

4.3.4. In South Rus. dialects, \**a*/\**ja*-stems of a.p. B have much in common with those in *Pu* dialect, but subtype B '*vdová*, Asg. *vdovú*, Npl. *vdúóvy*, Gpl. *vdúóf*, Dpl. *vdúóvam*' is represented less consequently in them than in *Pu* dialect.

(a) A single noun with \**TORT* root structure in plural is accentuated as a noun of a.t. C: *Nov - palasá*, Asg. *palasú*, Npl. *pólasy*, Gpl. *palúós*.

(b) Accented \**o* (sometimes also \**e* after formerly soft palatals, \**ɔ*, \**ɔ* after sonorants) > /*uo*/ in the root is represented in at least *Nov*, *Zd*, by two or three words in each; such vocalization is not obviously connected with the accentuation of oblique cases in the plural.

Root /*uo*/ in pl. forms: *Nov* - Npl. *vdúóvy*, Gpl. *vdúóf* Ton.; Gpl. *žúón* Ton. ~ in recently gathered data: *vdavá*, Asg. *vdavú*, Npl. *vdóvy*, Gpl. *vdóf*, Dpl.



*vdavám*; *žaná*, Asg. *žanú*, Npl. *žóny*, Gpl. *žón*, Ipl. *žaná*m*'i*; *snaxá*, Asg. *snaxú*, Npl. *snúóxi*, Gpl. *snúóx*, Ipl. *snúóxami*; *Zd* - Npl. *snúóxi*, Gpl. *snúóx*, Ipl. *snaxá*m**, cf. frequently used *snúóška*; Npl. *sl'ózy*, Gpl. *sl'uos* 42.

Root /o/ in pl. forms: *Nov* - *grazú*, Npl. *grózy*, Gpl. *gros*, Dpl. *grózam* ~ *grazám*; *kasá*, Asg. *kasú*, Npl. *kósy*, Gpl. *kós*, Ipl. *kósam'i* 'braid'; *káza*, Asg. *kazú*, Npl. *kózy*, Gpl. *kós*, Ipl. *kazám'i*, Lpl. *kazáx*; Asg. *narú*, Npl. *nóry*, Gpl. *nór*, Ipl. *nóram'i* ~ *narám'i*; *nazr'á*, Asg. *nazr'ú*, Npl. *nóZR'i*, Ipl. *s nazr'ám'i*; *asá*, Asg. *asú*, Npl. *ósy*, Gpl. *ós*, Ipl. *asá*m**; Npl. *ófcy*; Asg. *palú*, Npl. *póly*, Ipl. *s palám'i*; Asg. *rasú*, Npl. *rósy*; Asg. *skabú*, Npl. *skóby*, Gpl. *skóp*, Ipl. *skabám'i*; Asg. *sl'azú*, Npl. *sl'éózy*, Gpl. *sl'éós*, Ipl. *sl'ezám'i* (\**b* > /o/); Asg. *saxú*, Npl. *só*x*'i*, Gpl. *so*x**; Npl. *ščóki* (\**e* > /o/); Npl. *vójny*; Npl. *zór'i*; Npl. *žóny*, Gpl. *žon*, Ipl. *žaná*m*'i*; cf. Npl. *kózy*, Gpl. *kos* Ton.; Npl. *grózy*, Gpl. *gros* Ton. Npl. *skómji* Ton. (/o/ replaces *a* in *skamjá*); *Zd* - Npl. *žóny Hn* (\**e* > /o/); Npl. *snó*x*'i Hn* (\**ɸ* > /o/); *Le* - Npl. *sl'ózy*, Gpl. *sl'os* (\**b* > /o/); *Lip* - Npl. *pč'óly* 189 (\**e* > /o/).

The interpretation of root vocalization of the nouns that belong to a.p. B is based on the following observations. Phoneme /uo/ is represented in the roots of nouns of a.p. B with rare exceptions that allow of explanation by phonetic environment (such as *Nov* Asg. *nógu* / *nuógu*, Npl. *nuógi*, Gpl. *nuók*, a.p. C; *Pu* Asg. *noru* ~ *nóru*, Npl. *nuóry* ~ *nóry*, Gpl. *nuór*, a.p. B/C). A.p. B/C variation in the nouns with /uo/ is represented by a single example, while the nouns with /o/ in the root often show a.p. B/C variation, which in certain cases discussed above (3.1) should be regarded as late development of accent mobility. The maximum list of a.p. B nouns with /uo/ in the plural is limited and constant (this is by the way shown by my experience in *Pu*, where it was checked up three times); the minimum lists in *Zd* and *Nov* include only words of the maximum list. This allows to conclude that /uo/-vocalization of \**a*/\**ja*-stems in the plural has developed in a.p. B and it was later limited by spread of /o/-vocalization.

/uo/-vocalization of the plural forms of \**a*/\**ja*-stems of a.p.*b* should be primarily connected with columnar root stress in plural. In *Pu*, in the plural, neutral \**o*/\**jo*-stems of a.p.*b* have also developed columnar stress on the last root syllable, together with /uo/-vocalization: *dəlotuó*, Npl. *doluóty* 'chisel'; *govnuó*, Npl. *guóvny*, Ipl. *guóv*n*əmi* 'excrement' (also curse); *pəlotnuó*, Npl. *poluómy*, Gpl. *poluó*t*in* 'linen'; *rišotuó*, Npl. *rešuóty*, Gpl. *rešuót*, Ipl. *rešuótəmi* 'sieve'; *coluó*, Npl. *cuóly*, Ipl. *cuóləmi* 'mouth' (of a stove); cf. a.p. *c*: Nsg. *slóva*, Npl. *slová*, Gpl. *sluóf* 'word'; Nsg. *póle*, Npl. *poliá*, Gpl. *puól* 'field'. It can be supposed that /uo/ in the roots of \**a*/\**ja*-stems and neutral \**o*/\**jo*-stems of a. p. *b* indicates the early formation of columnar root stress in the plural.

Nevertheless it couldn't have appeared earlier than \**e* > *o* (before hard consonants) and perhaps \**Tlɛt* and \**TnɛT* structures behaved identically with

\**Plot*, \**TnoT*. But the evidence of \**TьrT* > *TrцoT* development under the autonomous stress in *Pu* is extremely limited: the only \**krьtь* > *krцot* 'mole' (a.p. B).

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## Main Conclusions of My Prosodic Research

The object of my prosodic research (done in the 1950s and the 1960s) was:

(a) an analysis of the sources of long vowels and/or continuants of long vowels on the Lekhitic (Polish-Pomeranian) territory;

(b) reconstruction of the history of Polish paenultimate stress-stabilization. Thus, the existing hypotheses concerning Common Slavic prosodic system were the starting point, and not the target of the research. Actually, the Polish-Pomeranian facts have little relevance for the Common Slavic reconstruction.

My main conclusions were as follows:

ad a) Besides the three ‘canonical’ sources of Polish-Pomeranian long vowels (direct continuation of the Common Slavic situation, compensatory lengthening in the word-final syllable before weak yers and vowel contraction) there are many examples of long vowels due to morphological levelling. Open stay questions (1) whether for some word classes we can speak of categorial lengthening, and (2) what was the relative chronology of the leveling - were that the long vowels themselves, or their continuants that expanded (after the loss of the phonological quantity).

Open stays also the question whether there are cases of compensatory lengthening in internal syllables before a syllable with weak yer (cf. examples as Kash. *owies*, *polec*, (*paz*)*nokiec* (all with lengthened ‘o’). or the *-vka*-series). It is difficult to distinguish between the two questionable categories: the results of the leveling and the possible internal lengthening.

ad b) It seems improbable (as have hypothesized some Polish authors at the time) that the primary Polish stress-stabilization was as in Czech, i.e. initial and not paenultimate. It is also improbable that there was - in Polish stress history - a period of the consistent syntagmatic stress of the type: *da'ję mu, now'ý rok*, etc) Such a stress placement - if not conventionally normalized and/or - in some cases - lexicalized, is *ex definitione* optional.

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1 Due to the rising interest in the development of West Slavic prosodic patterns, we asked prof. Topolińska for a brief summary of her research. We are grateful that prof. Topolińska kindly contributed to our volume.

There is (was?) a relatively large territory along the Polish/Czech and Polish/Slovak linguistic border where both the initial and/or the paenultimate word stress can be heard - I would say that it is not the result of Polish/Czech or Polish/Slovak interference, but a *residuum* from the time after the loss of oxytonic stress, when (a) the two other most frequent stressed syllables (initial and paenultimate) were both prosodically marked by the high frequency of long vowels and (b) the two different expanding tendencies (initial and/or paenultimate stabilization) did not overtake that border territory.

My main 'prosodic' works are as follows:

- = *Z historii akcentu polskiego od wieku XVI do dziś*, Ossolineum 1961, 5 - 288.
- = *Stosunki iloczasowe polsko-pomorskie*, Ossolineum 1964, 5 - 127.
- = 'Zakres i chronologia tzw. wzdłużenia zastępczego w językach zachodniślówiańskich', *Beiträge zur sorbischen Sprachwissenschaft*, Bautzen 1968, 75-84.
- = *A Historical Phonology of the Kashubian Dialects of Polish*, Mouton 1974 .  
(with Bozhidar Vidoeski and Irena Sawicka)
- = *Polski ~ Makedonski. Gramatika konfrontacija, 2. Prozodija*, MANU, Skopje 1999, 7 - 179.

## Late Accent Shifts and Fixing of Stress in West Slavic

This paper is an attempt to explain in detail the history of fixing of stress in West Slavic by placing it in context of Polabian and Kashubian developments.<sup>1</sup> The processes which have led to rise of all the different West Slavic accent systems are: retraction of final stress to long vowels in penultimate syllables: *xvāl'i* > *xv'āli* followed by shortening of new pretonic long vowels in penultimate syllables: *l'ūbit(i)* > *l'ubit'*, retraction of stress from short vowels in final syllables: *vol'a* > *v'ola*, lengthening of penultimate vowels carrying a retracted stress or preceding a syllable with a long vowel in Lekhitic: *prin'osī* > *przēn'ōsi* and retraction of stress from short vowels in paroxytones in Kashubian: *prin'ošq* > *prz'ēnoszę*.

Forms reconstructed on the basis of Polabian and various Kashubian dialects described by Lehr-Spławiński (1913) and Lorentz (1927) reveal an accent system where paroxytones were much more numerous than in any later Kashubian dialect. Therefore, rather than to postulate an intermediate initial-stress stage in Old Polish (Lehr-Spławiński 1913, 1923), it is preferable to derive Polish penultimate stress directly from that early system, by assuming that Old Polish had never gone through the extensive phonological and analogical retractions in paroxytones which would result in initial stress of South Kashubian.

For the analysis of the data, two correspondences are crucial. Penultimate stress in Slovincian (Isg *niedz'elq* 'Sunday', *-'ota*) and a reduction in the final syllable in Polabian (*nidelǎ*, *-ötǎ*) indicate a formerly long vowel in the final syllable or an earlier retraction of final stress. Recessive stress in Slovincian (*ž'elazo* 'iron') and unreduced vowel in Polabian (*zil'ozü*) indicate an old paroxytone with both the tonic and the posttonic vowel short.

### 1. Penultimate length

Final stress was retracted to long vowels in penultimate syllables (Kuryłowicz 1952:8). When that happened, final stress could no longer follow a penultimate syllable with a long vowel. When stress reappeared in such a position due to

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1 I am very grateful to Professor Frederik Kortlandt for his valuable criticism of the first draft of this paper. Because I did not follow his advice in every point and made later additions, the responsibility for this text is, of course, mine.

analogy, contraction, apocope, or a borrowed stressed ending, the long vowel in the pretonic penultimate syllable was shortened.

Stressed endings, such as those of collectives in *-bj-*, or adjective *-ny*, caused shortening in Polish *tysięcy* ‘thousands’ (< *tysēci* for Gpl *týsēc̣y*), *tysięczny*, Ipl *pieniędzmi* ‘money’, Czech Dpl *peněžům* (cf. Kortlandt 2005:128, explained differently). Through apocope and contraction, antepenultimate syllables with long vowels became penultimate and penultimate stress became final: *trāv'ojq* > *trāv'q* > *trav'q* > Slovincian *traw'a* ‘grass’, *l'ūb'iti* > *l'ūb'it'* > *l'ub'it'* > Slovincian *lēbic* ‘to like’ (*a* < *a*, *ô* [ɔ] < *ā*, *ē* [ə] < *i*, *u* after coronals, otherwise *u*, *ū* > *u* and *i*, *ī* > *i*).

Imperatives with a long stem vowel and retracted stress restored final stress analogically to forms with a short stem vowel and unretracted stress, such as *nos'i* ‘carry’, and shortened the pretonic long vowel: *k'ūpi* > *kūp'i* > *kup'i* ‘buy’, Czech *kup* (3sg *koupí*). In Polabian, some of these imperatives dropped the ending instead: *vor* < *vār* ‘cook’, *draz* < *drūž* ‘help’, but *drazē* < *dr'ūži* or *druž'i*, *ricē* < *reč'i* ‘tell’. These forms are based on the interpretation of spellings such as <treise> and <ritze> by Lehr-Splawiński (1929:219); in Polański and Sehnert (1967) none of the imperatives have the ending.

After the subsequent retraction from final short vowels, the new feminine a.p. c (*gl'ova*, *gl'ov'ojq*, *gl'ov'ōm*, *gl'ov'ami* ‘head’) differed in stress from the new a.p. b (*tr'āva*, *trāv'ojq*, *tr'āvom*, *trāv'ami* ‘grass’) only in DLpl (and, less importantly, in Gdu). When these cases assumed final stress in both paradigms, the long stem vowel was shortened: *trāv'ōm* > *trav'ōm* (more examples in Lorentz 1903:254-5). The corresponding masculine paradigms did not merge since stress differed also in Lsg in *-u*, Gpl (*-ów*), and Ipl (*-y*).

## 2. Retraction of final stress

Stress was retracted from all final syllables with a short vowel: *gl'qb'oḳ* ‘deep’ > Polabian *gl'qbĕk*, Slovincian *gl'ėbok*. In Slovincian, stressed Lpl *-ach* appears to be an exception, but the final stress may be very well analogical to the forms in *-ėch*. On the other hand, retraction in *l'ēbic* < *l'ub'it'* cannot be explained as analogy. Final stress remains in Kashubian on long Lsgm and Gdu *-u*, oblique plural endings (outside Slovincian only Gpl), prefixed monosyllabic infinitives with a long stem vowel, case endings of feminines in *-ô* and of oxytone adjectives. Other instances of final stress result from contraction, leveling, or analogy: Isgf *traw'a* < *trav'ojq* (but *'osq* < *'osbjq* ‘axle’, cf. Kuryłowicz 1955:4), comparative *starzé* < *star'ėje* ‘older’, *rozs'ôc* < *rozs'ĕjat* ‘sow’ (cf. Polabian

*sijot*), *por'enk* 'morning' after *por'enku*, *niežew'y* 'lifeless' after *žew'y* (cf. Kortlandt 1978:76 about prefixed adjectives).

The conditions of the retraction are sometimes obscured by vowel length in borrowed endings. Stress could be regularly retracted from Dsgm *-u*, only later was the ending replaced by Lsgm *-ū* (cf. Kortlandt 1975:36). The contracted endings of feminines in *-bj-* were added to a few *ja*-stems: *pr'ócô* 'work', *w'olô* 'will' (Lorentz 1927:616), making them appear as exceptions to Stang's law which entailed shortening of the final vowel: *vòl'ă* < *vol'â* < *vòl'ā* < *vòlja*. Another apparent exception to Stang's law, *now'y* 'new' rather than the expected *nòvy*, carries the accent of trisyllabic or indefinite forms (*nov'ego*, *nov'o*).

### 3. Retraction from long vowels

In Polabian, final stress was regularly retracted from long vowels as well: *roĳāv* 'sleeve', *klübĕk* 'hat', *ne-mās* 'you are no to' (Czech *rukáv*, *klobouk*, *nemáš*), *rül'ă* 'plowed field' (Slovincian *rol'ô*), *nibās* 'was not' < *ne bĕaše*, *vlāsĕ* 'hair, Ipl' < *vlos'y* (based on the interpretation of <wlassa> in Lehr-Spławiński 1929:169). Because *o* and *a* are almost never reduced, there is no sign of retraction in *sistdišot* 'sixty' and in *zimā* < *zemj'ô* < *zemj'ejô* 'ground', although it probably did take place. Nasal vowels were reduced only if they had been denasalized (Lehr-Spławiński 1929:37), e.g. in unstressed Isgf ending: *toĳă* < *t'ôĳejô* 'cloud', *nidelă* 'week' < *ned'ĕl'ejô* (contraction rather than apocope took place in these forms because final *-e* > *-ĕ*). The ending *-üv* is not susceptible to reduction either: *büd'üv* < *bog'ôv* 'gods', *gřexüv* < *gr'ĕxov* 'sins'. In the latter form, reduction should have been caused by the inherited long stem vowel, not a vowel lengthened after a retraction. The final stress resulting from Dybo's law would have been retracted from borrowed *-ôv* according to Stang's law, or, if restored later, by the long vowel in the penultimate syllable.

In Slovincian, oxytones with a long vowel in the last syllable have their stress retracted to the penultimate syllable if they are polysyllabic but not if they are disyllabic (cf. Kortlandt 1975:35, 1978:77). Assuming that old rising tones had become falling, as in New Štokavian, and the word final sequence was L.F#, the Slovincian innovation appears to involve a realization of this sequence as L.H.L in words which are long enough. Yet, this change is somewhat unusual, since retraction from final syllables with long vowels in New Štokavian or Polabian does not depend on the number of syllables in a word. Perhaps the process actually involved a retraction from both short and long final vowels of disyllabics, as in Polabian, and a progressive shift of a retracted accent from initial syllables to originally long vowels in final syllables. First, retraction produced a rising tone: L.H > L.H.L (*na*) *pol'ū* > (*na*) *pólū* 'in a field'. When

posttonic syllables were later shortened LH.LL > LHL.L, the LHL contour would spread leftward if there was a preceding syllable L.LHL.L > L.HL.L *na pôlu* or to the right in disyllabic words LHL.L > L.HL *polû*. This hypothesis is based mostly on the assumption that Polabian and Kashubian were evolving together at the time.

The Slovincian tones described by Lorentz (1903:15-16) cannot be of help in clarifying this issue since they appear to be of recent origin, and, for that reason, are not taken into account or transcribed here. They do not reflect the retractions, e.g. a short protracted tone is found on *o* (spelled <œ> by Lorentz) in both *w'ola* 'ox' < *volà* and *b'oga* 'god' < *bôga*. They are also fully predictable, the falling accent ('der scharfe Ton') on inherited long vowels, the protracted accent ('der dehnende Ton') on short vowels (Lorentz 1903:169-170, 1927:601). Tone/vowel length depends partially on syllable structure (Lorentz 1903:106-7). Originally long vowels are extra-long in open syllables: <řêkâ> = *rzé:ka*. Otherwise, pure vowels are long, whatever their original length: <brât>=*brat* 'brother', <řék> = *rzék* 'river, Gpl'. Vowels in diphthongs are shortened (the length of the whole syllable nucleus is thus preserved): a long stem vowel is shortened in <trâpvã> = [trɔw-va] < *trā-va* but not in <χvjîlä> = [xv'i:la] < *xvîla* 'while', a reflex of short *ě* is marked as short when a diphthong in <ńezielã>=*niedz'ela* and as long when a plain vowel in <kolănã>=*kol'ana* 'knees'.

In some cases, retraction of stress from long vowels had taken place much earlier and is due to Stang's law. A.p. b nouns retracted stress from borrowed a.p. c long-vowel endings and after Stang's law had shortened these vowels, long-vowel endings were borrowed again (cf. Slovene *kônju* in Kortlandt 1975:18). When stress was later retracted from short-vowel endings as well, it became fixed in the whole paradigm. It remains fixed in masculines in *-ɛkɛ* and *-ɛcɛ* (Lorentz 1903:172-3) and in those a.p. b nouns with a short stem vowel which have not acquired secondary mobility (*grosz* 'penny', *sostra* 'sister', more in Kuryłowicz 1952:6-7). Retractions in Gpl of neuters in *-et*, e.g. *c'elɛt* 'calves', and in masculine l-participles (*n'osél* < *nòsil* < *nosil* < *nòsīl* 'carried') are also due to Stang's law. In words such as *posl'égôcz* 'servant', stress is not actually retracted, but rather the word is derived from a barytone base: *posl'üg(a)+āč*; such is the case of Polabian *roĳāvaičã* 'glove' < *roĳ'āvicā* from *roĳ'āv-*, where stress had been retracted to the stem in the base (vs. Russian *rukav'ica* from unstressed *roĳāv-* and a stressed suffix).



#### 4. Retractions limited to Polabian

In Polabian, stress could be retracted to a jer and such a jer would not be lost: *dāvo* < *dъv'a* ‘two’, *kātū* < *кѣt'o* ‘who’, *sād'āl* < *сѣd'ѣlb* ‘have done’, *sāmātonā* < *сѣm'etana* ‘cream’ (Slovene *smētana*), unlike jers in pretonic syllables, that is odd-numbered syllables counting from the end: *celā* < *бѣ.čela* ‘bee’, *srebrū* < *сѣ.rebro* ‘silver’, *cimě* < *хѣ.tjemy* ‘we want’, *clāvāk* < *čѣ.lověкѣ* ‘man, human’, *dvemo* < *dъ.věma* ‘two’, *törě* < *въ.torъ jъ* ‘other’, *cerā* < *въ.čera* ‘yesterday’ (cf. Lehr-Splawiński 1929:130, Kortlandt 1989:167). Although in later Polabian stress was shifted to the last full vowel of a word (Kortlandt 1989:169), earlier all feet were left-headed: *end''el* ‘angel’ < German *'engel*, *srebr'ū* < *sr'ebro*. Jers could also be protected by secondary stress: *p'asi.n'aičā* < *pъšen'ica* ‘wheat’ and could be restored through analogy: *catiñě* < *čѣ.těňje* ‘counting’ after *catě*.

Stress could be retracted not only from word-final but also from foot-final syllables: *l'üpā.t'aičā* < *lop'a.ticā* ‘peel, shovel’, *'aipā.deně* < *up'a.denъje* ‘falling away’, *p'ūd ně.bišām* < *pod+n'e.bešm* ‘in the open air’, *s'āmā.t'onā* < *сѣm'e.tanā* ‘cream’. Since Polabian vowel reduction is caused by a preceding long vowel, lengthened under a retracted stress (Kortlandt 1989:166), the reduction in the second syllable must be caused by a long vowel in the initial syllable. Reduction in these words cannot be due to after-shift syncope, or it would appear also in words such as *joliūvaičā* < *j'alovica* ‘heifer’ or *mötüvaidlě* < *motov'idlo* ‘spinning winder’. Polabian *lostěvaičā* ‘swallow’ cannot be derived from *lostovaičā*, because *o* < *a* and *ě* < *o*; the difference must go back to *l'astavica* and *last'ovica*. The latter form, like its Slovincian counterpart *jask'ulěca*, and like Polabian *řokāvaičā*, follows the pattern of words derived with an unstressed suffix from a base carrying a retracted stress.

Polabian also reduced short vowels in posttonic middle syllables: *jod'ādāi* < *j'agody* ‘berries’, *no gārde* < *n'a gordě* ‘at the castle’, *niběšo* ‘sky, heaven’ < *n'ebesa*, Dpl *gresnārūm* ‘sinners’ < *gr'ěšnarōm* and analogically in *sā tābq* ‘with you’, *no věbe stārne* ‘both ways’ < *na obe storně*, cf. *vibe storne*, but *varxnūmě* < *вѣрхнѣnōmu* ‘Lord, Highest’, *zojācā* < *z'ajēcě*, *podesā* ‘was falling’ < *p'adēaše* with the middle vowel long, *no gorde*, *rāminai* ‘arms’ < *r'ameni* with a full vowel restored (cf. Kortlandt 1989:168-9). This reduction is actually due to syncope rather than a preceding long vowel, because stress alone does not cause lengthening (no reduction in *jomo* ‘hole’ < *j'ama*, *joliūvaičā* < *j'alovica*).

#### 5. Retraction from penultimate syllables

In Kashubian, stress was subsequently retracted from short penultimate syllables: *kob'yla* > *k'oběla* ‘mare’, unless there was a long vowel in the final

syllable: *kôz'anié* ‘sermon’, *przën'osi* < *prin'osī* ‘brings’, *wątr'oba* < *otr'obā* ‘liver’, or stress was retracted from the final syllable: *ser'ota* < *serot'a* ‘orphan’, *Slow'inca* < *Slowinc'a* ‘Slovincian man’, *woz'ika* < *wozik'a* ‘cart’ (but *w'ozika* in Slovincian). Retracted stress could be distinguished probably by a rising intonation, as in some other Slavic languages (cf. 10.10, 10.12 in Kortlandt 2005). Retraction from penultimate syllables was, at least at first, phonological, since there is no model for retraction in *prz'ënoszę* (vs. 3sg *przën'osi*) or *'otrocze* ‘child’ (vs. Gsg *otr'oczica*; Kashubian <ę> = [ã]). The restrictions can be combined in a rule which forbids retraction from a long vowel, whatever the source of length; cf. Lehr-Splawiński’s rule that neoacute and neocircumflex are not retracted (1923:179). At the time of this retraction, contraction had already taken place in *trāv'ojq* > *traw'q*, but not in feminine l-participles: *d'oda* < *dod'alā* ‘added’, *s'edza* < *sëd'ělā* ‘sat’ (but *darow'a* < *darov'alā* ‘made a gift’).

Since stress once retracted is not retracted further, the words with recessive stress must be old paroxytones. In Slovincian this includes prefixed present forms: 1sg *prz'ënoszę*, feminine l-participles: *prz'ëniosla* ‘brought’, and imperatives: *n'apiszë* ‘write’, which are to be derived from *prin'ošq* < *prinošq*, *prin'esla*, and *nap'iši* rather than \**prinoš'q*, \**prinesl'a*, and \**napiš'i*. Further evidence comes from full-vowel Polabian forms such as imperative *aiplot* ‘pay’ for *aiplotai* < *upl'ati*, aorist *aipaustaix* ‘dropped’ < *up'ustix*, infinitive *prepict* ‘roast’ < *perp'ekti*, and l-participle *zoblōdāl* ‘has gone astray’ < *zabl'ōdil*. All these examples follow the pattern of prefixed a.p. c verbs with stress shifted forward from the prefix (Ebeling 1967:585). Unprefixed forms show the regular reduction: imperative *ricë* < *reč'i* (but *herric* ‘say’ < *her-r'eč'i*). In *aiplot'ai-mā* ‘pay me’, *prailüz'āl-sā* ‘has become accustomed’ (and Slovincian *pisz'ë-mie* ‘write me’) stress is retracted from a stressed enclitic (but a.p. a *vibāsāl-sā* ‘has hanged himself’ < *obv'ēsīlb-së*). In Slovincian, this pattern was extended to plural imperatives: *napisz'ëce*, where stress must be retracted from the final syllable, since original penultimate stress would have been retracted to the initial syllable (cf. word-final devoicing in spite of joint spelling in Polish *jedzmy* ‘let’s eat’, Mańczak 1983:121). Modern Polish *dobr'anoc* ‘good-night’, *Wielk'anoc* ‘Easter’, *jeż'eli* ‘if’, and dialectal and Middle Polish *boj'ę się* ‘I am afraid’, *równ'a się* ‘equals’, *zrobil'ismy* ‘we did’ (rather than Standard *b'oję się*, *r'ówna się*, *zrob'ilišmy*) can also be traced to retraction from enclitics.

## 6. Sources of length

Penultimate length was the direct cause of both the reduction in Polabian (Kortlandt 1989:166) and the blocking of retraction in Slovincian. This length may be inherited: *zojācā* < *zāĵēcē* ‘hares’, may arise from retraction of stress:

*roĳă* < *roĳà* ‘hand’ (Kortlandt 1989:166), from contraction: *sădě* < *sŕj̃bde* ‘came down’, or may be compensatory after shortening of a long posttonic vowel: *divăĳ* ‘stag’ < *dŕivăĳb*, Dplf *vaikăĳ* ‘city’ < *v’ik-ōm* vs. Dsgf *vait’e* < *v’ik-ě*, *storă* ‘old’ < *st’ară* < *stăraja* vs. *storo* ‘last quarter moon’ < *stăra*, *aipaustăs* ‘he was dropping’ < *upŕstěăs(e)* vs. *aipaustăl* < *upŕstil*, *pŕ d’olě* ‘after work’ < *po dělŭ* vs. *no d’olŭ* < *na dělŭ*, (cf. Slovene *brātu* < *brătŭ* in Kortlandt 1975:18). Because Polabian generalized *-ā* in feminine polysyllables, this type always has a reduced ending: *molaină* ‘raspberry’ and *t’übălă* ‘mare’ continue *mal’inā* and *kob’ylā* (for *malīna*, *kobŕla*, Slovene *malīna*, *kobīla*; on *-a/ā* v. 5.3 in Kortlandt 2005).

In a number of words, Polabian failed to lengthen the original short vowels *e*, *o*, *ь*, *ъ* under a retracted accent: *vib’od* < *ob’ědъ* ‘breakfast’, *Văstrŕiv* Wustrow < *ostr’ovъ* (Slovene *ostròv*), *t’ŭmau* ‘to whom’ < *kom’u*, *dăvo* < *dŕv’a*, *kătŭ* < *kŕt’o*, *perŭ* ‘feather’ < *per’o*, *sedlŭ* ‘saddle’ < *sedl’o*, *nŕvo* ‘new moon’ < *nov’a*, *mane* ‘me’ < *mŕně* (also *mană*), *văgord* ‘garden’ < *og’ordъ* (also *văgărd*), *vătain* ‘fence’ < *ot’ynъ* (also *vătěn*), *pŭdraug* ‘companion’ < *podrugъ* (*pědraug* in Polański and Sehnert reflects delabialization rather than reduction), *săpot* ‘to sleep’ < *sŕp’at’* (also *săpăt*). Although according to Lehr-Spławiński (1929:112-114, 1963:75) stress is not retracted in words with these vowels in the pretonic syllable, preservation of jers in some of them indicates that a retraction had taken place. According to Micklesen (1986:375), there was indeed no retraction in Gsg *vălo* ‘ox’ < *vol’a* although an analogical retraction, indicated by a reduced vowel, did take place in *vădă* ‘water’ < *vod’a*. It is possible, however, that the retraction took place in both words, and then, when a.p. b and c merged, *vòda* conformed to feminines where a different stem vowel had been lengthened by retraction, e.g. *roĳă* < *r’ĳka* < *roĳà*, while *vòla* followed the available pattern of masculines with a short circumflexed vowel. Thus, not the retraction but the reduction is a result of analogy.

Vowel lengthening in initial penultimate open syllables under an inherited rising tone, acute or neoacute, is found in Czech and Upper Sorbian (10.6 in Kortlandt 2005). In the other West Slavic, old acute had apparently lost its rising intonation even in that position and only neoacute is lengthened in Slovak and Polabian (e.g. in *t’ŭză* < *kŕza* ‘skin, hide’ and *vil’ă* ‘will’ < *vŕl’a*). There is hardly any evidence for this process in Slovincian, except possibly *sukno* ‘cloth’ (< *sŭkno*, since short *u* > *ě*, after the plural form *sŭkna* < *sŭkna* < *suknă* < *sukŕnă*, Kortlandt 2005:127), though this may be a loan from Polish, where *ŭ*, *u* > *u*. In Polish vowels are regularly lengthened under a rising tone only before voiced consonants in syllables closed after loss of a jer: Nsgf *nŕzka* < *nŕzka* ‘leg’. Lengthening did not take place in unstressed syllables: Gsgm *rożka* ‘croissant’ < *rożbka*, under acute: *wędka* ‘fishing rod’ and Old Polish *gębka*

‘sponge’, or in open syllables under neoacute: *wola*, *koża*. In Polish *dziesiątka* ‘a ten’, *gołąbek* ‘pigeon’, *rączka* ‘hand’, Slovak *desiatka*, *holúbok*, *rúčka*, the vowels were long in the first place; they alternate with vowels shortened under a falling tone: *dziesięć*, Npl *gołębie*, *ręka*, *desat’*, *holub*, *ruka* (cf. 7.13 and 9.4 in Kortlandt 2005). Similarly, the vowel in Polish *mówi* ‘says’ is not lengthened but derived from a diphthong (*mɔlv-*).

In many cases, length is analogical: Czech *kopytko* ‘hoof’ (Slovincian *kop’ëtko*), Slovincian *d’obytczë* ‘farm animal’ < *doby̯tczë* (cf. *dob’ëtk* < *dobytk-*), Polish *stópka* ‘foot’, *rózek* ‘horn’ (cf. older *rożek* ‘croissant’). Polish *żłóbek* ‘manger’ (but *żłobek* ‘daycare’) is probably based on regular Lsg *w żłóbk* with neoacute, while the length in *ósm* ‘eighth’ appears to originate from the retraction from a final jer (cf. 8.2 in Kortlandt 2005) in the short form *ósm* < *osm̃* (cf. Russian oxytone *vosm’oj*, cf. Slovincian *pouw’osmë* < *pol̃ osm’y* Gsgf ‘seven and a half’).

In two types of Polish words, old length is not reflected in vowel quality. In a small number of words, short *o* standing before *r* developed into *ó*: *pióro* ‘feather’, *góra* ‘mountain’, *skóra* ‘skin’, *który* ‘which’ (Długosz-Kurczabowa and Dubisz 2006:126). Probably the raised allophone of *o* standing after a labial or a velar (or a cluster with one; cf. Lower Sorbian *pólo* ‘field’, *kóza* ‘goat’) was reinterpreted as the open pre-*r* allophone of inherited *ó* (cf. Stieber 1973:86). In Czech *péro* ‘feather’ the long vowel is of different origin: it is borrowed from the plural form with neoacute (*péra* < *pěra* < *perá* < \**pěra*). On the other hand, long *ó* merged with *o* before nasals: *żon* < *žeñ* ‘wives’, *imion* < *imeñ* ‘names’, *dom* ‘house’ < Old Polish *doom*, Czech *dům*, Dpl *-om* < *-óm*, preserved in Slovincian.

Since penultimate stress in Slovincian is not retracted (unless analogically) from vowels in syllables closed after loss of a jer (Lehr-Spławiński 1913:394), even if the vowel has a short-vowel quality (e.g. *kop’ëtko*, *ë* < *ÿ*), it is possible that after vowel quality distinctions had been established, the remaining short vowels were lengthened in this position (cf. lengthening before every lost jer in Upper Sorbian, Schaarschmidt 1997:57). It is also possible, however, that *kop’ëtko* follows a generalized pattern, cf. *zôr’enko* ‘grain’ with unretracted stress on an epenthetic vowel.

Since old long vowels did not merge in Slovincian with newly lengthened vowels (*glov’a* > *gl’owa* not \**gl’ówa*), quality distinctions between long and short vowels must have appeared before the lengthening. A parallel can be drawn with Slovene, where vowels lengthened after the most recent retraction (*róka* ‘hand’) are more open than old long vowels (*móka* ‘flour’). Polish and Kashubian accent systems separated when Polish lengthened all stressed penultimate vowels: Polish *kobyła* (like Slovene *kobila* but not Slovincian

*k'oběla*); this process prevented further retraction from penultimate syllables. Penultimate lengthening is generally absent outside Lekhitic: Czech and Slovak *starý, hlava* < *glavà* (but in Novohrad-Gemer Slovak *nôžik* < *nožik* 'knife', Pauliny 1963:269). In Polish, it must be dated to between 1440, when Jakub Parkoszwic marked phonemically long vowels in both stressed and unstressed syllables, and 1512, when Stanisław Zaborowski referred to phonemic length as a thing of the past. First direct evidence for penultimate stress and vowel lengthening under accent in Polish comes from Grzegorz Knapski's 1621 dictionary (under *rymopis*, quoted in Topolińska 1961:121).

## 7. Role of analogy

The rise of initial stress system in South Kashubian must have involved stress retraction in a much greater number of words than that where phonological retraction was possible. While leveling was an important mechanism in generalizing initial stress, it is quite unlikely that a whole paradigm could be leveled to one initially stressed form. In fact, initial stress was leveled on the penultimate syllable if there were few initially stressed forms: *rob'otę* 'work' after *rob'ota*, *podar'ęję* 'I will make a gift' after *podar'ęjesz*, *wes'oto* 'joyfully' after *wes'oly* (Lehr-Splawiński 1913: 424, 430-1, 432).

Mobility of *pekarb* 'baker', evident from shortening of the suffix vowel in Czech *pekař* (Kortlandt 1975:30), was extended to all disyllabic formations in *-ār'*, early enough to cause shortening of this suffix in pretonic penultimate syllables (*k'arczmôrza* 'innkeeper', *karczm'arzu*). These nouns could not have belonged to a.p. b at the time since it produced a different paradigm (Central Kashubian *woz'ik* 'cart', *woz'ika* < *voz'ik*, *vozik'a*).

After retraction of stress to the stem in polysyllabic base forms (*\*gospod-ōm* > *\*gosp'od-ōm*) removed stress from suffixes in derived words (*gosp'od-ār'* 'householder'), Kashubian generalized unstressed variants of some other suffixes, such as *-ôcz*, *-ôk*, and, only in Slovincian, *-ik*. At first, nouns with these suffixes had columnar stress. Then, some proparoxytone columnar paradigms (*przëj'acela* 'friend') developed analogical paroxytone forms such as Lsg *przëjac'elu*, when, after the retraction of penultimate stress, proparoxytone accent was reinterpreted as retracted (Kuryłowicz 1955:12-13, Baerman 1999:121). Loss of tone distinctions between retracted and nonretracted stress would aid this process. The vowel in *-ôcz*, *-ôk* was not shortened (Lorentz 1903:242-3) because after the stress retraction to the long vowel in the suffix these nouns had never had final stress again. Final stress had been analogically restored only in words in *-ār'* because final stress in the mobile paradigm was not retracted to the short-vowel suffix: *karczmārzu* after *piekarzu*. Stress in

*bog'óczu* 'rich man' is not retracted, but analogical to already retracted stress in *karczm'arzu*.

In Slovincian and South Kashubian, stem-penultimate non-initial stress could be retracted to the initial syllable, analogically to initial stress of disyllabic mobile stems (*g'ospodôrza* after *k'arczmôrza*). Thus, Slovincian *dar'owôl*, *darow'a(la)* and Central Kashubian *poc'ignął* 'pulled', *cz'erwi'eniela* 'was red' are regular and old, while Slovincian *p'ocignón* and *cz'erwienia* are analogical to initially stressed *c'ignón* and *st'arza* 'grew old' < *st'arzela* < *star'êla*.

When stress was retracted from penultimate syllables, the nominative of feminines in *-ā* was not affected: *wątr'oba* from *qtr'obā*. The new paradigm could either level the nominative to other cases: *w'ątroba* to *w'ątrobë*, or follow the paradigm of former oxytones: *wątr'oba*, *wątr'obë*, *w'ątrobę* after *ser'ota*, *ser'otë*, *s'erotę*. Some words follow both patterns.

Analogical retraction took place in a number of word types which, due to early or late penultimate length, were not susceptible to phonological retraction. Feminines in *-ĕkā* derived from nouns with recessive accent often retract their accent as well (Kuryłowicz 1955:13-14): *k'arczmôrka* analogically after *k'arczmôrz*, *g'alązka* 'bough' after *g'aląz*; those without an obvious counterpart do so less often: *pom'yłka* 'mistake', derived from a verb, *gospod'ôrka* 'homestead', not a feminine counterpart of *gosp'odôrz* 'householder'. Similarly, neuter diminutives may have stress of the base: *c'elątko* after *c'elę* (in Slovincian, Lorentz 1903:199, but elsewhere *cel'ątko*, Lorentz 1927:612). Irregular initial stress was borrowed by South Kashubian verbs in *-ĭ-* from verbs in *-ĕ-*: *prz'ĕnosi* after *p'omoże* 'will help', by infinitives with two prefixes from infinitives with an epenthetic vowel: *d'opomoc* 'to help' (< *do-po-m'oc*) after *r'ozerwac* 'tear apart' (with analogically stressed prefix for regular *roz'erwac* < *roz-e-rw'ac*), by neuters in *-ęt-* with a long middle vowel from those with a short vowel: *d'obytczę* after *'otroczę*, by Lsg forms of disyllabic neuters in *-ęt-* from the a.p. a: *c'elĕcu* after *j'agnicu* 'lamb'. Analogically to monosyllabic prefixed a.p. b verbal nouns like *wch'od-* 'entrance' (< *vъходъ* by Dybo's law), also unprefixed a.p. c forms have fixed their stress (Kortlandt 1975:35, 1978:78).

Although in Slovincian the l-participle of verbs in *-i-*, *-nq-*, and *-a-* shows mobility which appears analogical to the a.p. c, non-Slovincian neuter and plural forms *pis'alo*, *pis'alĕ* (with stress probably borrowed from the passive participle) and Central Kashubian prefixed forms *poc'ignął*, *nap'isól* show that old mobility could not have been the model here. The Slovincian paradigm *n'osĕl*, *nos'ĕla*, *n'osĕlo*, *n'osĕlē* is rather a result of regular retraction in *n'osĭl* (with neoacute), *nos'ilā*, *nos'ilo*, *nos'ili* (all from *nòsĭl-*). Feminines have penultimate stress wherever the ending was long *-ā*: *nos'ĕla* < *nos'ilā* < *nòsilaH*, but if it

alternated with short *-a* in unprefixated forms, short *-a* was generalized: *prz'ėniosla* < \**prin'esla* for \**prin'eslā* < *prineslaH* because of *neslā* < *neslāH* (but always *-ā* in (*na*)*pisalā*, and, rather exceptionally, in *nabr'a* < *nabr'alā* 'gathered'). Central Kashubian *poc'ignęła*, *dar'owala* probably show levelling to masculine *poc'ignęł*, *dar'owól* rather than retraction.

Since lengthening of penultimate vowels is absent outside Lekhitic (Czech *robota* 'labour', *telata* 'calves', Slovak *tel'atá*), most paroxytones could have retracted their stress in a simple phonological process, and probably earlier than in Kashubian. Still, it is hard to explain, without a recourse to some sort of analogy, how stress was retracted from old long vowels in middle syllables.

## 8. Relative chronology

The following relative chronology may be accepted for West Slavic.

(1) Stang's law removes stress from long vowels in final syllables of a.p. b: *nòsil* 'carried', *òt'com* 'fathers'. Long-vowel endings are later restored.

(2) Lengthening of rising tones: Czech *kráva* 'cow', *vůle* 'will'. In Polish, only compensatory lengthening after loss of jers: *n'ózka*.

(3) Loss of old tone distinctions.

(4) New rising tone from retraction of stress to long vowels in penultimate syllables: *kūp'i* > *kúpi*.

(5) Shortening of new pretonic long vowels in penultimate syllables: *l'ūb'it'* > *l'ub'it'*.

(6) Retraction of stress from short vowels in final syllables and rise of a short rising tone: *l'ub'it'* > *l'ùbit'*.

(7) Analogical mobility in *tr'āva*, *trāv'ōm* (after *gl'ova*, *glōv'ōm*) and shortening of the stem vowel: *trāv'ōm* > *traw'óm*.

(8) Retraction of stress in remaining oxytones: Polabian *røk'āv* > *r'økāv*, Kashubian *brzeg'ū* > *brzègū*.

(9) New oxytones from contraction: *star'ėje* > *star'ē* (but in Polabian *m̃n'ėje* 'less' > *m̃n'ěj* > *manāj*). Length still reflected by quality in Slovincian *starzė*. Shortening of new pretonic long vowels: *trāv'ō* > *trav'ō*.

(10) Rise of qualitative distinctions between long and short vowels. Later lengthening does not affect vowel quality.

(11) Lengthening of the short rising tone in Lekhitic: *sirōt'a* > *sirōta* > *ser'ōta*.

(12) Compensatory lengthening of stressed vowels after shortening of posttonic vowels in Lekhitic: *prin'osī* > *przyn'ōsi*. This length prevents further retractions in Slovincian.

(13) Shift of initial rising tone to formerly long vowels in final syllables after double lengthening (in Kashubian only): *brzègû* ‘shore’ > *brzégû* > *brzèègu* > *brzegû*.

(14) Reduction, followed later by the progressive shift in Polabian: *gl'ōva* > *gl'āvā*, *j'ama* > *jom'o*. Lengthening of short vowels in penultimate syllables in Polish: *przynōszę* (in late 15<sup>th</sup> century). Retraction of stress from short penultimate syllables in Kashubian: *prz'ėnoszę*.

(15) Contraction in Slovincian l-participles. The retraction from penultimate syllables had already taken place: *d'oda* < *dod'ala*.

(16) Secondary mobility of derived words such as *gosp'odōrz*.

(17) Analogical retractions leading to rise of fixed initial stress in South Kashubian.

Although somewhat different in details and very different in chronology, these processes are generally similar to those of Slovene (in 10.7-10.12 in Kortlandt 2005): progressive accent shift, rise of a long falling tone from loss of jers and from shortening of posttonic long vowels, lengthening of stressed vowels in non-final syllables, retraction to long penultimate syllables, and retraction from short final vowels.

## 9. Paroxytonesis in Proto-Lekhitic

Although extensive mobility of Slovincian gives an impression of a very archaic dialect, stress systems of other Kashubian dialects cannot be derived from that of Slovincian. Many Slovincian paradigms have none (*jask'ulëca*) or very few (*przėn'os-i-*, *prz'ėnoszę*) initially stressed forms. Leveling in Slovincian would have produced a stable columnar stress system, similar to that of Central Kashubian, one in which there is no reason for paroxytones to adopt initial stress or for initially-stressed words to adopt paroxytone stress. Moreover, levelling in Slovincian paradigms such as *g'ospodōrz*, *gospod'arzu* or *p'ocignón*, *pocign'e* could not have produced Central Kashubian *gosp'odōrz* or *poc'ignql*.

Comparison of Polabian and Kashubian shows that retraction of stress from penultimate to antepenultimate syllables was limited to Kashubian and thus was not a common Lekhitic process. Therefore, rather than to assume that this process took place in Old Polish, gave rise to fixed initial stress, and was later reversed, as Lehr-Spławiński proposes (1913, 1923), it is preferable to assume that it did not take place in Old Polish at all. Free stress is not automatically fixed on the initial syllable, but instead the process depends on the kind of retractions of penultimate stress in a given language. Conversely, the place of stress indicates past retractions. Antepenultimate stress of Standard Macedonian is a result of a retraction of stress by one syllable, similar to that in New



Štokavian (Mazon and Vaillant 1938:81). Lack of stress retraction from penultimate syllables correlates with penultimate stress of nouns in Prizren Serbian, described by Remetić (1996), as well as penultimate stress of all words in Korčë Macedonian. Polish belongs with the latter type.

Since many if not most Kashubian proparoxytones are derived from paroxytones, before the retraction from penultimate syllables paroxytones must have been the most common type. In some words penultimate accent appears to be a Lekhitic innovation: Slovincian *niewiedz'ëca* 'she-bear' (New Štokavian *mèdvjedica* < *medv'ëdica*), *ull'ëca* 'street' (Russian *'ulica*), *mac'ëcha* 'stepmother' and Polabian *moc'exã* (Russian *m'ačëxa*). Nevertheless, it is unlikely that Proto-Kashubian had stress fixed on the penultimate syllable. For example, antepenultimate stress in Lsg *j'agnicu* and gerund *starz'ejačë* 'growing old' cannot be derived from penultimate stress in view of *korz'eniu* 'root' and *nies'qčë* 'carrying', which show no retraction. Stress before the penultimate syllable must be reconstructed for Proto-Lekhitic at least for the following categories: a (reduced) number of original a.p. a proparoxytones (*t'ëšinców* 'thousands'), barytone forms in mobile paradigms (*pi'ekôrza*), words derived with unstressed suffixes (Gsg *posl'ëgôcza*) and words with disyllabic endings in columnar paradigms (*n'osimë* 'we carry').

## 10. Syncope in Polish

Among various arguments raised in support of initial stress in Old Polish is the supposed posttonic syncope (Grappin 1944:67, Stieber 1973:73). The examples include: *wielki* 'great, big' < *wieliki*, *jedna* 'one' < *jedzina* 'only', *každy* 'every' < *kalizdy*, Gsg *gospodna* 'Lord' < *gospodzina*, *Raław* < *Radoław*, *Każmierz* < *Kazimierz*, *albo* 'or' < *alibo*. Actually, the correlation between fixed initial stress and syncope is quite doubtful. According to Mańczak (1983:16-21, 1998:81-84), Polish syncope, rare as it is, was caused not by any particular type of accent but rather by frequent use of a particular word. According to Topolińska (1961:106), reduction in unstressed syllables occurs in Kashubian only in those dialects whose stress is free and not in those where stress is initial.

Deriving of *každy* from a form with *-li-* seems to be quite arbitrary (v. the etymology in Boryś 2005:225-6). Old Church Slavonic *jedъna* and Polabian *vilt'ë* < *vel-ik-ъ jъ* (cf. *glōbūt'ë* 'deep' < *glōb-ok-ъ jъ*) show that the loss of the vowel cannot be ascribed to fixed initial stress, since neither language had it. Although Kuryłowicz (1955) does postulate initial stress for Polabian, this is unlikely since in such a case the initial jer would have been preserved not only in *dãvo* < *d'ъva* but also in *srebrü* < *\*s'brebro*, while *jod'ădai* < *jagody* and

*t'ūlonai* 'knees' < *kolēni* would show the same stress and reduction pattern. In many cases syncope can be ascribed to accent following the lost vowel rather than preceding it: *wieliki'ego* > *wielkiego*, *Radosl'awa* > *Račława*, *alib'o* > *alb'o* (Belarussian *al'b'o*). Loss of the middle vowel in *alibo* may also result from contamination by *abo* or apocope in *ali* (as in *takže* < *tak+že* vs. archaic *takož*, where apocope and not syncope had taken place). Pretonic syncope is the preferred explanation especially in case of compound names such as *Račława*, since stress stood on the second element (-*slaw*-) when it was still mobile (cf. Russian *Rostisl'av*-) and after it became fixed on the penultimate syllable, while stress on the initial syllable is purely hypothetical. Moreover, since vocatives of personal names influence the whole paradigm, and in fact the palatalization in *Kazimierz* (for *Kazimier*) comes from the vocative (Mańczak 1983:44-5, 49), it may be assumed that syncope in *Kaźmierz* results from the stress pattern in the old vocative *Kazimi'erze*.

The reduction in *gospodna* < *gosp'odzina* (and *gospodnie* < *gosp'odzinie*) was caused by antepenultimate rather than initial stress; *gazda* 'householder', borrowed back into various Slavic languages from Hungarian (Boryś 2005:157), shows what initial stress would have done to this stem. The interpretation of this form is not easy, as it appears to be the only one whose old stress can be reconstructed with relative certainty. The stress here follows the Kashubian rule (cf. *gosp'odórza*): it is retracted from the ending to the stem in a polysyllabic base and persists in a derived word. Although imparisyllabic paradigms with oxytones could develop penultimate stress as soon as final stress was retracted: *roķ'ami*, *r'ōka* < *roķ'a* or *gospodz'ina*, *gosp'odzin* < *gospodz'in* (cf. Macedonian *r'ibar*, *rib'aro*, *ž'ena*, *žen'ata* in Mazon and Vaillant 1938:81), the stress of *gospodna* suggest that in Polish the process was not that direct.

## 11. Problems with Mucke-Lehr-Spławiński theory

According to Mucke (1891:148-9), penultimate stress of Polish must have developed from secondary penultimate stress which arose beside initial main stress in eastern Lower Sorbian and, presumably, Old Polish. Lehr-Spławiński (1913, 1923) adopts this hypothesis, rejects the 1880 theory by Roman Brandt that Polish stress results from retraction of final accent and subsequent neutralization of tones, and concludes that initial stress of South Kashubian and of Polish dialect of Podhale is a peripheral archaism of Old Polish origin.

The last claim is problematic because foreign influence is always a possibility in case of border dialects. The possibility of Slovak origin of initial stress in Podhale is usually rejected because the adjacent Slovak dialects of today have penultimate stress (Lehr-Spławiński 1913:450, 1923:178, Pauliny

1963:270). Yet, it is possible that in the past those dialects had initial stress (Mańczak 1983:25), especially in view of consistent influx into the area of Polish immigrants (Małecki 1938), whose foreigners' Slovak could have replaced the original dialect. Moreover, if initial stress is of Slovak origin, it is more likely to have come from Slovak substratum rather than from a surviving neighboring dialect. Similarly, Polish influence cannot be excluded for eastern Lower Sorbian, if Stieber (1934:91) is right in proposing a Polish-Sorbian dialect continuum surviving at least till the 15<sup>th</sup> century. Schaarschmidt (1997:88) excludes Polish influence only because he presumes that Polish had initial stress at the time when penultimate stress appeared in Lower Sorbian, that is, in his opinion, in the 14<sup>th</sup> century. Finally, Kashubian stress may be of exclusively Pomeranian origin, as Mańczak (1998:76) believes, and, if so, it cannot be considered evidence of what Old Polish accent was like.

Another difficulty lies in superficial description of the nature of stress. While Mucke (1891:148), Stieber (1934:70) and Schaarschmidt (1997:87) write of penultimate stress in eastern Lower Sorbian, Ščerba (1915:35-37) claims that native speakers recognized as accent the tonal peak on the initial syllable rather than the penultimate dynamic stress so well perceived by foreigners. A true secondary stress usually does not stand on a syllable next to the one carrying main stress: Slovincian *ni'eprzĕjac,ela* GAsg 'enemy' (Lorentz 1927: 642), Lower Sorbian *n'a blid,ø* 'on(to) the table' (Ščerba 1915:36-7), English *s'econdary*. The hypothesis that secondary stress stood on penultimate syllables only in four-syllable words and three-syllable words shifted their stress analogically (Stieber 1973:74) is incompatible with Mańczak's (1983:44) rule that shorter words influence longer words. If the secondary penultimate accent mentioned by Mucke was well perceived by foreigners but hardly at all by native speakers, it is unlikely that native speakers would reinterpret it as the main accent, and the argument loses a major premise.

Finally, there is a question of chronology. Ščerba (1915:186-7) believes that the secondary penultimate stress in Lower Sorbian, more pronounced among young people (p. 36), is a new phenomenon with no importance for the history of West Slavic accent. He ascribes penultimate stress to the influence of German prefixed verbs and prepositional phrases. Topolińska (1961:113-114) allows the possibility that in South Kashubian initial stress may be quite recent, since enclaves of paroxytonesis survive well within South Kashubian territory. In fact, fixed initial accent could have appeared when speakers used to fixed penultimate stress applied frequent but not universal initial stress of Central Kashubian to all words indiscriminately. Initial accent may be an innovation even in Czech. Romportl (1954, 1958), following a 1934 theory by Bohuslav Havránek, considers the high tone found on some penultimate syllables in

archaic southwestern Czech dialects to be a remnant of penultimate accent. While theoretically this penultimate accent could have been a local innovation once, it can also go back to Old Czech and then fixed initial stress cannot be established with certainty even for Old Czech, much less for all non-peripheral West Slavic.

There is evidence that initial stress in Podhale is not of Old Polish origin. Since in that dialect, as in Standard Polish,  $\tilde{a} > \epsilon > eN$ , and in the dialects lying directly north this change has not taken place, Polish must have been brought to Podhale from areas lying further north (Małecki 1928:36 n.3, 1938:33). Since this change can be dated to early 16<sup>th</sup> century (though perhaps earlier in Greater Poland, Stieber 1973:79-81) and at that time Polish stress was apparently penultimate, since 16<sup>th</sup> century poetry is based on paroxytonesis (Klemensiewicz 2007:292), it is very doubtful that initial stress was brought to Podhale by those 16<sup>th</sup> century settlers. Intensive settlement in the 16<sup>th</sup> century is confirmed by historical research (Rafacz 1935:69-70).

Partial chronology may be established for Kashubian as well. Kashubian is considered by many a separate language from Polish, but the reasons for this view are mostly non-linguistic. The typical Pomeranian features: *lo < el*, *ar < or*, *ou < ɔl, ɔl*, e.g. in *mlóko* ‘milk’, *parse* ‘piglet’, *wouk* ‘wolf’ (Polabian Gsg *mlākā*, *porsq*, *vāuk*), even in the archaic Slovincian are receding before Polish features, e.g. *groch* ‘peas’, *krowa* ‘cow’, *dlugi* ‘long’ (but cf. place name *Dougie Jezoro*, Lorentz 1903:90). After  $\epsilon$  became *i* before palatalized consonants (*pęć* ‘five’ > *pinc* but *pęć* *jb* ‘fifth’ > *piąty*), other instances of nasal vowels developed as in Old Polish:  $\epsilon$  and  $\varrho$  merged into  $\tilde{a}$  in the 14<sup>th</sup> century and then long  $\tilde{a}$  was rounded to  $\tilde{o}$  in the 15<sup>th</sup> century. Then, in early 16<sup>th</sup> century,  $\tilde{a} > \epsilon$  in Polish but not in Kashubian. Also, until the late 15<sup>th</sup> century both Polish and Kashubian distinguished between long and short *i* and *u*, a contrast lost in Polish soon thereafter.

These similarities seem to lead to the suspicious conclusion that Polish and Kashubian had been evolving in common when Pomerelia was under the rule of the Teutonic Order (1308-1454) and then separated about the time when Pomerelia was won back by Poland after the Thirteen Years’ War (1454-1466). It is more likely, then, that Polish features of Kashubian actually evolved in Poland and were brought to Pomerelia in late 15<sup>th</sup> century and that a language shift to Polish took place after that time. If this is true, Polish stress had not yet been quite fixed. The Kashubian-only retraction from penultimate syllables would have to be somewhat later, and the center of this process would not be in Poland, as Lehr-Spławiński proposes (1923:191), but rather within the Kashubian territory. It is also possible, however, that Polish stress was

penultimate at the time and the Polish element in Kashubian was transformed to conform to stress rules of the substratum (cf. Mańczak 1998:76).

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## Winter's Law and Baltic Ablaut

Among apparent counterexamples to Winter's Law in Balto-Slavic are a number of Baltic roots with a short high vowel, such as Lith. *dubùs* 'hollow, concave' (IEW 267: \**dheu-b-* 'tief, hohl'), Lith. *ligà* 'illness' (IEW 667: \**leig-* 'dürftig, elend; Krankheit, schlechtes Ergehen'), Lith. *svidùs* 'shiny, glossy' (IEW 1042: \**sueid-* 'glänzen, schimmern'). Werner Winter himself does not comment on these, since he limited his survey to roots of the shape *Te/oT* (Winter 1978: 444). The material supporting Winter's law for roots with high vowel (*Ti/uT*) was first presented by Shintani (1985: 280ff.), who notes the above-mentioned forms as exceptions (ibid. 283-284).

Shintani 1985, Rasmussen 1992, Matasović 1995, and Holst 2003 have all suggested limitations to Winter's law, at least in part to account for examples such as the above. Some of these are contradictory: while Shintani limits the operation of Winter's law to unstressed syllables, Holst restricts it to stressed syllables. But as I have argued recently (Young 2008), the most productive approach in accounting for apparent exceptions among *Ti/uT* roots lies not in restricting the operation of the law, which must be extended to Albanian as well (Hamp 1998: 322), but in appreciating the role of ablaut in the Baltic verb.

One of the striking features of the Baltic verbal system is its use of ablaut to mark diathesis (see especially Arumaa 1958, Karaliūnas 1987, Petit 1999: 85ff.). In a once highly-productive type of diathetic marking, a verbal base with transitive meaning came to be characterized by a full-grade *īa*-present (and *ē*-preterit, with full grade extended by analogy to the infinitive), while a base with intransitive (often inchoative) meaning shows an *a*-present (and *ā*-preterite) with reduced grade of the root. In addition, present-tense obstruent stems with long root vocalism show an *-st-* suffix, while short stems have a nasal infix; the tone of the resulting mixed-diphthong syllable is circumflex.<sup>1</sup> Resonant stems in *r*, *l*, *j*, *v* also show the infix in the present tense, with acute syllables (preserved in the infinitive) undergoing *métatonie douce*. Typical examples of semantically-

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1 Acute obstruent stems with an inherited (pre-Baltic) infix which do not belong to the intransitive-inchoative class retain their tone and typically generalize the infix throughout the stem. A classic example is the transitive Winter's law base *jūngti*, *jūngia*, *jūngė* 'to join, unite, yoke' (LIV2 316 \**īeug-* 'anschirren'), adjusted to the *īa*-conjugation (Stang 1942: 120); the expected acute is also found in the secondary full-grade *īa*-transitive *jāugti*, *jāugia*, *jāugė* 'to yoke'. Another such example, with acute by Winter's law, is *rėžti*, *rėžiu*, *rėžiau* 'straffen, recken', refl. *rėžtis*, *rėžiuos*, *rėžiaus* 'exert oneself, strain oneself' (LIV2 304 \**h<sub>3</sub>reg-* 'gerade richten, ausstrecken').



related diathetic pairs formed on this basis are (Lith.) *keĩsti, keĩčia, keĩtė* ‘to change (tr.)’ : *kĩsti, kiĩnta, kiĩto* ‘to change (intr.)’; (Lith.) *raũkti, raũkia, raũkė* ‘to wrinkle (tr.)’ : *rũkti, ruũka, rũko* ‘to wrinkle (intr.)’; *kėlti, kėlia, kėlė* ‘to raise’ : *kilti, kỹla* (i.e. *kỹla* < \**kiĩla*), *kilo* ‘to rise’.

The Baltic intransitive verbs, especially those that signal entry into a state, are often closely associated with a *u*-stem adjective (the direction of derivation may go either way): (Lith.) *irti, ĩra* (~ *irsta*), *iro* ‘disintegrate, fall apart’ : *irũs* ‘friable, crumbly’; *lipti, liĩpa, lipo* ‘to stick (intr.)’ : *lipũs* ‘sticky’ (cf. *lipaĩ* ‘glue’); *rũpti, ruĩpa, rũpo* ‘become coarse, rough; become covered in pockmarks’ : *rupũs* ‘coarse, rough’; *skũbti, skũmba, skũbo* ‘to hurry’ : *skubũs* ‘urgent, pressing’, *skubà* ‘haste’; *sliĩti, sliĩnda, sliĩdo* ‘become slippery’ : *slidũs*, Latv. *slids* ‘slippery’; *kĩbti, kiĩba, kiĩbo* ‘to stick to, cling to’ : *kibũs* ‘sticking, adhesive’, *kabiũs* ‘sticky’. As the latter example shows, the adjective may differ apophonically from the corresponding verb. The *o*-grade of the root was productive at one time for *u*-stem adjectives, which continue, in part, the Indo-European  $\varphi\omicron\varrho\varsigma$  type (Vanags 1994: 46). However, there is a tendency for the vocalism of the verbal stem to influence that of the associated adjective: while *kibũs* may be old, it may equally well be an innovation, adjusted to the root vocalism of the verb. This is clearly seen in (dial.) *degũs* ‘which burns easily’ (: *dėgti* ‘burn’), competing with the inherited *o*-grade *dagũs* of the same meaning (Vanags 1994: 34-35).

Now there are a number of demonstrably acute (laryngeal or Winter’s law) intransitive verb stems with a high root vowel followed by an obstruent that show, contrary to expectation, a combination of circumflex nasal-infixed present and short-vowel preterit, with the latter extending to the infinitive and derived nominals such as the *u*-stem adjectives just considered. Examples with external cognates include:

Lith. *grũsti, gruĩnda, grũdo* ‘grow sad, grieve’, and associated adjective *grudũs* ‘(emotionally) moving’; Arumaa 1958: 133 notes the ‘auffällige Kürze’ of these forms. The original acute (IEW 460 \**ghrēu-* : *ghrāu-* : *ghrū-* ‘scharf darüber reiben, zerreiben’) is preserved in the *-st-* inchoative *grũĩti, grũĩsta, grũĩdo* of the same meaning, a metaphorical extension of the transitive *grũĩti, grũĩdžia* ‘pound’ (LEW 173).

Lith. *knĩbti, knĩmba, knĩbo* ‘become limp, droop’, adjective *knibũs* ‘droopy’. Gorbachov 2007: 203 connects the Lithuanian verb with Gmc. \**hnipniđ* of ON *hnipnar* ‘droops’, to \**kneib-*, inchoative \**knimb-é-*, as an example of ‘multiple two-way correspondences between Germanic and Slavic, or Germanic and Baltic’ (202). Since this is a Winter’s law environment, we expect an acute, which is in fact found in the Latvian full-grade transitive *kniēbt, kniēbju, kniēbu* ‘pinch, nip, tweak’. The corresponding Lith. *kniēbti, kniēbia, kniēbė* ‘peck, pick’

shows (secondary) circumflex, while the variant *kneĩbti*, *-ia*, *-é* also shows the acute infinitive *knėibti*.

Lith. *rižti*, *rýža* (*\*riñž-*), *rižo* ‘sich sträuben, zu Berge stehen (vom Haar)’, to the above-mentioned *\*h<sub>3</sub>reǵ-* ‘gerade richten, ausstrecken’ (LIV<sup>2</sup> 304) of *režtis*, *režiuos*, *režiaus* ‘exert oneself, strain oneself’, with acute by Winter’s law.<sup>2</sup> The Winter’s law acute is also seen in the corresponding reduced-grade form (refl.) *rýžtis*, *-iuos* ‘resolve, decide, make up one’s mind’, representing *\*riñž-* < *\*h<sub>3</sub>rñǵ-* (SEJL 512-13; according to Smoczyński, who does not accept Winter’s law, the acute here has no historical justification). The acute is also undoubtedly present in the East Latvian (Vestiena) *rēzēt<sup>2</sup>*, *-ēju* ‘starr aufrichten: *zirgs galvu rēzē*’ (MEVe) (falling tone here reflects both original level [acute] and circumflex), and in Latv. *ruôza* ‘mountain ridge’ < *\*ranž-ā-* (SEJL 513). The ‘i’ of *rižti*, *rižo* is secondary, from the vocalization of the syllabic infix of the present tense stem as ‘in’: *\*h<sub>3</sub>rñǵ-* > Baltic *\*riñž-*.

Lith. *skìsti*, *skiñda*, *skido* ‘get worn out, fall apart’. Although Lithuanian lacks an associated *u*-stem adjective *\*skidrùs*, Latvian shows *šķidrùs* ‘thin’, which should (according to the emerging pattern) be seen as a Baltic remaking in zero grade, rather than a direct cognate of Gr. (Hes.) σκιδάρως ‘thin, slender’. The expected acute (this is a Winter’s law form: LIV<sup>2</sup> 547-8: *\*sk<sup>h</sup>eid-* ‘spalten, abtrennen, zerreißen’) is found in the corresponding transitive *skiesti*, *skiedžia*, *skiedė* ‘dilute, water down’, Latv. *šķiēst*, *šķiēžu*, *šķiēdu* ‘verstreuen; schneiden, reißen’, and in the *-st-* inchoative *skýsti*, *skýsta*, *skýdo* ‘liquify’, Latv. *šķist*, *šķistu*, *šķīdu* ‘dissolve, melt; fall to pieces’.<sup>3</sup>

Lith. *strigtì*, *striñga*, *strigo* ‘stick, sink deeply into’, adjective *strigùs* ‘liable to get stuck (in the throat)’, Latv. *strigt*, *striēgu<sup>2</sup>* (dial.: Aizpute) = *striegu* (Būga 1959: 312) < *\*stre-ñ-g-*, *strigu* ‘stecken bleiben; втыкаться, вонзаться’ (MEVe). If the *str-* (rather than *sr-*) onset is original, as suggested by the fact that the ‘t’ is found in Slavic as well (*\*stręg-* of Pol. *zastrząc*, etc., with generalized nasal), then the correlation with Latin *strigāre* is warranted (see LIV<sup>2</sup> 604 under 2.*\*streig-* ‘eindringen, stecken bleiben’) and we have an

2 Albanian also shows the effects of Winter’s law for this base: *rron* ‘continue, persist (=stretch out in time), 3 SG. PRES.’, with the *o* representing *\*ē*: Eric Hamp (personal communication).

3 Smoczyński (SEJL 563) treats the acutes in these forms as secondary, based on the present *skýsta*; this in turn is modelled on *sta*-presents formed from *sej* roots. From the neostem *skýst-* < *skýsta* we get *skýstas* ‘liquid, thin’, *šķists* ‘chaste, pure’, OPr. *skijstan* ‘clean’, *skīstai* ‘innocent’. Since Smoczyński’s analysis ultimately relies on *\*skīd-* from *\*skind-*, he must reject the traditional etymological connection between *skýstas* and Slavic *\*kīstь* of ‘чистый, etc.’. The *o*-grade appears in Russ. (etc.) *цѣлю́*, *цѣдуть* ‘strain, filter’, Lith. *skáidyti* ‘separate, divide, decompose (into component parts)’.

example of Winter's law. Smoczyński (SEJL 609) agrees that the etymon is PIE \**streig-* and adduces OHG *strihhan* (LIV<sup>2</sup> 603 shows the separate entry \**streig-* 'streichen'). The expected acute is found in the transitive *strięgti* (~ *strięgti*) 'to thatch' ('make stick in'). Kortlandt 1975: 63 includes the related SCr. *strěha*, etc. (\**stroig-s-*) among Slavic roots with laryngealized vowels. Lith. *streįgti*, *streįgia*, *streįgė*, 'stick in, thrust in', with refreshed *e*-grade, is (secondarily) circumflex.

Lith. *tùkti*, *tuñka*, *tùko* 'grow fat', Latv. *tukt*, *tùk*, *tuka* 'to swell', with short base spread to the associated adjectives Lith. *tukùs* ~ *tuklùs* ~ *tukrùs* ~ *tuknùs* 'fat', Latv. *tukls* 'corpulent'. The original acute (LIV<sup>2</sup> 639: \**teuh<sub>2</sub>-* 'schwellen, stark werden') is preserved in Lith. *taukaĩ* 'fat' (acc. pl. *táukus*) and Latv. dial. (Ērgeme) *tùkt*, *tùkst*, *túka* (EIV III: 573) 'to swell' and in Latv. *tùks* 'swelling'.<sup>4</sup>

The following roots have no external cognates, but since the patterns are similar to those above, the primacy of an acute base (which has no other motivation) can be assumed:

Lith. *gniūžti*, *gniūžta* (\**gniū-ñ-ž-+st-*), *gniūžo* 'shrink, shrivel, contract' and its corresponding adjective *gniūžùs* 'easily compressed' to the acute base seen in transitive *gniáužti*, *gniáužia*, *gniáužė* 'squeeze, clutch, press'.

Lith. *ižti*, *įžta* (\**i-ñ-ž-+st-*) (var. *iñžta*), *ižo* 'crack, split (of ice, etc.)'. Among derivatives are *ižùs* 'friable', *ižas* ~ *ižà* 'first, thin ice on water'. There is an acute in the corresponding transitive *ėižti*, *ėižia*, *ėižė* 'to hull, pod, shell' (but also secondary circumflex in *eįžti*, *-ia*, *-ė*; *iėžti*, *-ia*, *-ė*) and in the Latv. *aīza*, *aīza* (but also *àiza*).

Lith. *šiūšti*, *šiūšta* (\**šiu-ñ-š-+st-*), *šiūšo* 'to stand erect, to bristle up', adjective *šiūšùs* 'causing a shudder, fear', to the transitive acute base *šiaušti*, *šiaušia*, *šiaušė* 'to ruffle, dishevel, tousle'. The acute is preserved in *šiūšti*: *mán kúnas šiūšta* 'Es überläuft mich ein Schauer': LEW 979, which is formed by adding the *-st-* suffix to the base *šiūš-*.

Lith. *trūkti*, *truñka*, *trùko* 'to last' and adjective *trukùs* 'prolonged'; Latv. *trukt*, *trùk*, *truka* 'zusammenfahren, erschrecken'. The original acute is found in Lith. *trūkti*, *trūksta*, *trūko*, with semantic differentiation: 'be lacking'. Corresponding to both forms is the transitive *tráukti*, *tráukia*, *tráuķė* (Latv. *traūkt* and, with secondary circumflex, *tràukt*) 'pull': SEJL 682-3.

Latv. *zùst*, *zùdu* (\**zu-ñ-d-*), *zudu* 'disappear, vanish, die away' (Lith. *žùsti*, *žùšta*, *žùvo* 'to kill' [=žudýti] is semantically irregular in being transitive, and

4 According to Smoczyński (SEJL 662, 693), the acute here is secondary, after the *-st-* presents. Similarly, LIV2 641 (?). \**teuk-* 'stark/fett werden, schwellen') notes 'doch ist der Akut des lit. Wortes [*táukas*] wohl sekundär, vgl. lett. *tàuks* 'fett' . . .'. LIV2 gives no motivation for the 'secondary' acute.

forms an irregular past tense), to the acute stem of similar meaning Lith. *žúti*, *žúva* (*žu-ñ-v-*), (dial. *žústa*, *žúna*), *žuvo* ‘perish’. The appearance of acute in this base is apparently primary, while the short root of *žusti* and *žudyti* (the regular causative: ‘kill’) parallels the shortening in causatives from other bases which are clearly acute: *pjudyti* (alongside *pjudyti*) to *pjauti* ‘cut’ (SEJL 466: \**piuh<sub>2</sub>-C-*), *kliudyti* (alongside Latv. *kļūdītiēs*) to *kliūti* ‘touch, hit, etc.’ (SEJL 298: \**kleuH-*, \**kluH-*).

The appearance of unexpected short root vocalism and circumflex nasal infixation in the above obstruent stems may be explained by analogy to intransitive resonant stems with acute root vocalism (necessarily of laryngeal origin), which show, in addition to circumflex infixed presents, short preterits. Smoczyński (2003 and SEJL, *passim*) explains the short vocalism of the preterit as resulting from the regular loss of a laryngeal in prevocalic position: (*pra*)*vimti*, (*pra*)*vimsta*, with the alternative form *pravýma* (\**pra-vi-ñ-m-*), (*pra*)*vimo*, inchoative to *vémti* ‘throw up’: \**uemh<sub>1</sub>-*: SEJL 734; *žvilti*, *žvīla* (\**žvi-ñ-l-*), *živilo* ‘sparkle, glitter, glisten’ and adjective *žvilūs* (= *žvilgūs*) ‘brilliant, sparkling, glittering’: SEJL 796: PIE \**ǵul̥H-C*; *irti*, *ýra* (= \**i-ñ-r-*; also *iñra*, *irna*, *irsta*), *iro* ‘disintegrate, fall apart’, adjective *irūs* ‘friable, crumbly’: SEJL 224: \**h<sub>2</sub>rH-* to LIV<sup>2</sup> 271 \**h<sub>2</sub>erH-* ‘sich auflösen, verschwinden’; *kilti*, *kýla* (= \**ki-ñ-l-*), *kilo* ‘rise’, adjectives *kilūs* ‘rising upward’, *iškilas* ‘salient, prominent’: LIV<sup>2</sup> 349: \**kelH-* ‘auffragen, hochragen’.

Loss of laryngeal in prevocalic position is also assumed by Rasmussen (1999b: 546) to account for the *métatonie douce* of the infixed nasal syllables in acute resonant stems: ‘A regular nasal present from a root \**kelh-* would be \**k<sub>l</sub>-né-h-ti*/\**k<sub>l</sub>-n-h-énti*, i.e., when thematicized, a Balto-Slavic \**kinl-n-e-ti* with no trace of the old laryngeal. When the nasal element was now moved to the position before the final consonant of the *synchronic* root (as in the type *lipti limpa* ‘climb’), \**kinla* changed to \**kinla*, still with a short semi-diphthong and therefore a circumflex tone.’ Smoczyński (SEJL 678) suggests a similar development for *tilti*, *týla* (~ *tilsta*), *tilo* ‘grow quiet, die away (of noise), abate (of wind)’: \**tīla* < \**tīñla*, metathesized from \**tīñna* < \**til-n-H-a* < PIE \**t<sub>l</sub>-n-H-V-* (infix stem of reduced grade \**t<sub>l</sub>H-*); cf. LIV<sup>2</sup> 621: \**telH-* ‘still werden’.

Recalling the close association between *u*-stem adjectives and intransitive verbs, we now see the pattern into which Shintani’s *dubūs* (: *dūbti*, *dumbā*, *dūbo* ‘cave in’; in greater detail Young 2008: 207); *svidūs* (: *svīsti*, *sviñda*, *svido* ‘zu glänzen beginnen’; acute in Latv. *svīst*, *svīstu*, *svīdu*: Fraenkel 952), and the apparently deverbal *ligā* (to *liēgti*, *ligti* ‘be ill’; see Young 2008: 209ff.) fall. It is the same pattern as Lith. *grūsti*, *gruñda*, *grūdo* : *grudūs*; *knibtī*, *knimba*, *knībo* : *knibūs*; *skīsti*, *skiñda*, *skīdo* : Latv. *šķīdrs*; Lith. *strīgti*, *striñga*, *strīgo* : *strīgūs*; *tūkti*, *tuñka*, *tūko* : *tukūs*; *gniūžti*, *gniūžta* (\**gniū-ñ-ž-+st-*), *gniūžo* : *gniūžūs*; *ižti*,

ŷžta (\*i-ñ-ž-+st-), ižo : ižùs; ižas ~ ižà; trùkti, truñka, trùko : trukùs. As we have seen, this pattern, which involves not just acute bases by Winter's law, but laryngeal acutes as well, is best explained by appealing to the complex ablaut relations of the Baltic verb. These relations may be reflected in Slavic as well: Gorbachov 2007: 203 notes Slavic \*slžnetī of Cz. *slzne* 'will slip' to the root \*sleig- (LIV<sup>2</sup> 566-67 'schmieren, glatt machen'), inchoative \*sling-é-, cf. Gmc. infix *slinkan* 'slink, crawl'.

Associated with this reduced grade verbal base is the *u*-stem adjective OCS *slbzьkь* 'schlüpfrig' < \*slig-*u*-. A deverbative noun with reduced grade (the pattern is the same as for Lith. *ligà*) is seen in *slbza* 'tear'.

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# Formalization of Grammar in Slavic Languages

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This book assembles the contributions of the Eighth European Conference on Formal Description of Slavic Languages (FDSL VIII) which took place from 2<sup>nd</sup> to 5<sup>th</sup> December 2009 at the University of Potsdam. The concern was to bring together excellent experienced but also young scholars who work in the field of formal description of Slavic languages. Besides that two workshops on typology of Slavic languages and on the structure of DP/NP in Slavic were organized.

*Content: Aleš Bičan: Structure of Syllables in Czech · Małgorzata Ćavar: Merger of the Place Contrast in the Posterior Sibilants in Croatian · Ondřej Ševčík: Features of Common Slavic Ablaut Alternation · Natalya Klyueva / Petr Homola / Ondřej Bojar: Towards a Rule-Based Machine Translation System between Czech and Russian · Zhanna Glushan: On Animacy and Unaccusativity · Elena Gorishneva: Inductive vs. Non-Inductive Generics in Russian and Bulgarian · Beata Trawiński: A Compositional Semantics for Comitative Constructions · Andrei Antonenko: Binding by Phases: Principle A in Russian · Steven Franks: Dynamic Spell-Out as Interface Optimization · Elena Gorishneva / Ilse Zimmermann: Wh-words and the Indefinite Particle -to in Russian · Hana Gruet-Skrabalova: Czech questions with two wh-words · Gašper Ilc: Optionality of the Genitive (of Negation) in Slovene · Katarzyna Janic: On Development of Antipassive function: What do Australian and Slavonic Languages have in Common? · and more*



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The Fifth International Workshop on Balto-Slavic Accentology took place in 2009 at the Silesian University in Opava (Czech Republic). This volume contains papers presented at the workshop. The papers treat thematically various aspects of Baltic and Slavic prosodic development as well as provide synchronic descriptions of individual Baltic and Slavic languages and their dialects.

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