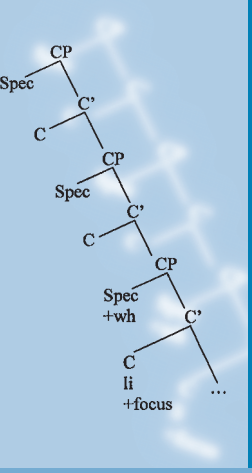

Potsdam Linguistic Investigations

Potsdamer Linguistische Untersuchungen

Recherches Linguistiques à Potsdam

Edited by
Herausgegeben von
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From Present to Past and Back

Papers on Baltic and Slavic Accentology

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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 serie « *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 des 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 coté 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.

Contents

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.

Roman Sukač
Department of Czech Language and Library Sciences
Silesian University in Opava

Tobias Scheer

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-Spławiński (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 ' ̏ ' in Serbo-Croatian transcriptions and produces stress on the second part of pleophonic words in Russian, while the latter is noted ' ^ ' in Serbo-Croatian and provokes stress on the first part of pleophonic words in Russian.[1]

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 CVLCyer, 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

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
**morzъ*	*mrȁz*	*moróz*	*mráz*
**gorchъ*	*grȁch*	*goróch*	*hrách*
vs.			
**golsъ*	*glâs*	*gólos*	*hlas*
**bergъ*	*sloven. brêg*	*béreg*	*břeh*

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, dřík, 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[2]), 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 *sníh*, 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-Spławiński (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-Spławiński 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, fabrík* '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).[3]

Since everybody took for granted that Western Slavic length is a function of CS intonation, Lehr-Spławiński interpreted the Jagić-disturbing influence of yers as a secondary effect of original intonation: the overt incidence of yers was

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, mřiežě* vs. Gpl *čěš, mřěž*, 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-Spławiński, 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-Spławiński (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-ъ́*), Slovak *kniha - kníh* does not fall into this paradigm. This item was stressed on the root vowel, as witnessed by Russian *kníga*, i.e. CS Gpl **knígъ*. 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-Spławiński's metatony.[4] 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

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, 1925,1 935:249ff), 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 *dům* - 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).

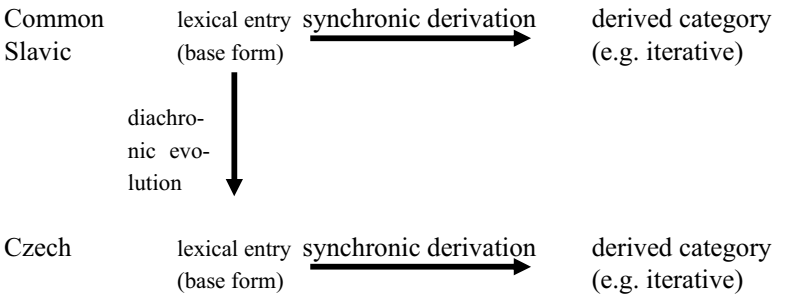
It is another thing, though, to wonder why there is quantity variation within a given derivational or inflectional paradigm. Derived categories are the result of a grammatical operation based on a lexical item. That is, they are not stored in the lexicon, except when they are fossilized. Fossilization 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).[5] 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 triliterals) such as √*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 biliterals), on the other hand, are one consonant short. This lack is repaired by either reduplicating the second consonant (so-called deaf verbs, e.g., √*md* → *madad-* 'to extend'), or inserting a glide (√*rm* → *ramay-* 'to throw'). The relevant generalization was formulated (after Arabic grammarians of the 9th 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

5 Typical statements are: 'Velká část případů není zcela jasná. Otázku dloužení 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, l-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 - s**á**z-e-t* 'to plant', *sk**o**č-i-t - sk**á**k-a-t* 'to jump', changes in vowel quality are irrelevant here) and iterative shortening (*c**í**t-i-t - -c**i**t'-ova-t* 'to feel', *v**ý**š-i-t - -v**y**š-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*).[6] 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 3μ: short inputs must lengthen when associated to a one-mora thematic element (/CVC-V-t/ → $[CVVC\text{-}V\text{-}t]_{3\mu}$), while long inputs must shorten when concatenated to a two-mora item (/CVVC-VCV-t/ → $[CVC\text{-}VCV\text{-}t]_{3\mu}$). On this count, no modification of length should be needed when the concatenation of the lexical ingredients meets the 3μ restriction in the first place. This is indeed the case: long roots with a short thematic element do not shorten (*máv-nou-t* → *máv-a-t* 'to wave'), and short roots with a long thematic element do not lengthen (*tlač-i-t* → *-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 3μ (2μ *dělat* 'to do', 5μ *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

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			µ iterative	nb	
	X>3 *-et, -ět*	X>5 *-at*	X>6 *-ovat*			example
short stem CVC	lengthening				49	*sadit - sázet*
		lengthening		3µ	55	*skočit - skákat*
			no variation		58	*čistit - čist'ovat*
long stem CVVC	no variation				3	*hlásit - ohlášet*
		no variation		3µ	7	*mávnout - mávat*
			shortening		56	*cítit - cit'ovat*
					228	

counter-examples

non-iterative	iterative			µ iterative	nb	
	X>3 *-et, -ět*	X>5 *-at*	X>6 *-ovat*			example
short stem CVC	no lengthening				-	
		no lengthening		2µ	13	*sedět - sedat*
long stem CVVC	shortening				2	*vrátit - vracet*
		shortening		2µ	4	*šlápnout - šlapat*
					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	*a-á-a*	*sadit*	*sázet*	*-sazovat*
			hodit	*házet*	*-hazovat*
	4 > 5 > 6	*a-á-a*	*skočit*	*skákat*	*-skakovat*

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'
hledět	*hlídat*	to watch, to stare	to guard, to keep watch
kalit	*kálet*	to confuse, to trouble, to make unclear	to soil, to tarnish, to shit, to evacuate excrements
kazit	*pře-kážet*	to damage, to spoil	to hinder, to get in the way, to hamper
kulit	*koulet*	to roll	to roll
ležet	*léhat*	to lie (be in a lying position)	to like to lie, normally lie
patřit arch	*pátrat*	to look at: 'patřit tváří tvář smrti'	to inquire, to look for to face death

b. CVC without lengthening

base	'iterative'	gloss base	gloss 'iterative'
mihnout se	*mizet*	to glimpse, to slip	to disappear, to dwindle
chybit	*chybět*	to be mistaken, to make a mistake	to miss, to be absent
stavit	*stavět*	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, **klíkat* 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 3rd 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 3rd 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	1
3>5	e-é	letět	létat	1
	i-í	vidět	vídat	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	-černňovat	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