

# Palatalizations in the Old Novgorod Dialect: Comparing Theory and Data

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## 1. Introduction

### 1.1 Goals

The velar plus front vowel combinations seen in such examples as *kěľě* and *xěřz*, which do not seem to show the effect of the second regressive palatalization, are one of the most distinctive features of the dialect of Old East Slavic spoken in Novgorod. At the same time, the dialect abounds in forms showing the effect of the progressive palatalization, such as *otľcb* and *lice*, as does non-dialectal Old East Slavic. This phonological situation calls for an explanation, and since the data became known to scholars, a great deal of discussion has ensued. The goal of this paper is to examine a representative sample of the theories proposed, and compare their front vowels from step (4) claims with evidence drawn from the birchbark letters, as published in Zaliznjak 2004, and the First Novgorod chronicle. Through this process, I will highlight the serious shortcomings of each of the viewpoints, thereby affirming the need to rework the current theories, or take an entirely different approach in regards to the phenomena.

### 1.2 Basic assumptions and overview

There is no question that the first regressive palatalization occurred in the North Russian dialect area. The effects of the second regressive palatalization are conspicuously absent, and the data relating to the progressive palatalization is mixed—we see the reflexes of *\*k* consistently, but the reflexes of *\*x* and *\*g* are inconsistent. This is potentially problematic because of the general assumption (stated definitively and frequently referenced in Vaillant 1950) that the second regressive and progressive palatalizations are part of one larger process, and overlapped in part or in whole.

The variety of opinions on the matter of the palatalizations in the Old Novgorod dialect can essentially be distilled into two basic groupings: those who view the palatal plus velar combinations as archaisms, and those who view them as innovations. The former implies a very early dialectal split within Proto-Slavic that prevented the effects of the second regressive and the progressive palatalizations from reaching the Old Novgorod dialect; the latter permits the longer unity within Proto-Slavic that had previously been assumed, where the West Slavic second regressive palatalization reflexes of *x* and *g* were the first dialectal divergences within Slavic. The former has to explain how the progressive palatalization, which occurred simultaneously or near-simultaneously with the second regressive palatalization, took place while the second regressive palatalization did not. The latter has the less difficult task of explaining why all the velars from the second regressive and progressive palatalizations were restored, except for *\*k* from

the progressive palatalization.

From these two main theoretical genres, I have chosen the work of Zaliznjak (specifically the relevant section in his 2004 book, along with related articles) as representative of the velars-as-archaisms position, and the work of Bjørnflaten and Sjöberg as representative of the velars-as-innovations position. All of these scholars cite other papers for support, which will be brought in as relevant. In addition, two innovative theories that propose very different explanations will be discussed: Lunt 1981's proposal that the progressive palatalization *preceded* the regressive palatalizations, with relevant implications for the Novgorod dialect, and Vermeer 1986's proposal that a delayed monophthongization caused the absence of the second regressive palatalization reflexes.

Lunt's proposal will be discussed first, as a theoretical isolate that does not fit into the framework used by other scholars to discuss this issue, and for that reason generally not referenced by other scholars as support for their arguments. This will be followed by Vermeer's proposal. Subsequently, I will cover Zaliznjak's stance on the issue, which gives some serious consideration to Vermeer's analysis. Finally, I will discuss the viewpoint opposing Zaliznjak, as expressed by the works of Bjørnflaten and Sjöberg.

### 1.3 Material used

For purposes of my analysis, the majority of my data will come from the Novgorod birchbark letters, as published in Zaliznjak 2004. While Zaliznjak also includes birchbark and parchment letters from other towns, I have chosen to limit the materials to only those from Novgorod proper, to avoid any argument about to what degree anyone town should be considered part of the same linguistic unit. Note that this choice does not eliminate all contentions about dialectal unity or plurality, but a discussion of the two proposed dialect groups within Novgorod will be discussed as part of Vermeer's argument.

To provide additional data, I have turned to the First Novgorod Chronicle, using a digitalized version to more efficiently identify word forms. Both the older recension (the *Sinodal'nyj spisok*) and the various younger recensions (*Komissionnyj*, *Akademiceskij*, and *Tolstovskij spiski*) have been used.

The conditions under which the various materials have reached us necessitate that they be weighted differently, though I believe that each text has enough merit to warrant inclusion, if put in the proper context of the other texts. The birchbark letters, as originals untouched by recopying and revision by future generations, are often treated as closer to the colloquial register of the language, with the exception of those texts marked as Church Slavic. *Sinodal'nyj spisok* is, unfortunately, the earliest copy of the Chronicle we have, dating from the 14th century. With all the chronicles, it must be understood that we are dealing with a different register of the written language with norms that generally tend to preclude some of the specifically Novgorodian dialectal features. Regardless, traits from the scribe or scribes' native dialect have crept into the text. Due to the lateness of the younger recensions, any piece of data is compared with variants in the other three manuscripts, if any exist. One final note to keep in mind: the progressive and second regressive palatalizations were phonological processes. Unfortunately, all available data is in written form, and there may have been writing conventions, even in the colloquial birchbark letters, that obscure what was actually going on in the spoken language.

## 2. Lunt: progressive palatalization preceded regressive palatalizations

### 2.1 Motivating factors

Lunt's 1981 monograph placing the progressive palatalization before the regressive palatalizations was not written as a solution to the phonological problems of the second regressive and progressive palatalizations in the Old Novgorod dialects, but rather as a reconceptualization of the history of Slavic phonology. Lunt was not the first to make this claim—Robert Channon presented the same idea in his 1972 monograph, *On the Place of the Progressive Palatalization of Velars in the Relative Chronology of Slavic*. Other scholars working along the same lines have included Gunner Jacobsson (1973), and Boryana Velcheva (1980). At the beginning of his book, Lunt dismisses Channon's argument as "not fully convincing". (Lunt 1981: 6) Jacobsson's argument in general finds more favor with Lunt, but his proposed etymologies and derivations are considered unacceptable (Lunt 1981: 58). Lunt's specific proposal has been selected for discussion here not only because of his follow-up paper specifically addressing the Novgorod data, but also because of the discourse it stimulated, and the fact that it is the work most frequently cited on the matter of the progressive palatalization preceding the others.

Because the first regressive palatalization unquestionably took place in all of Slavic, including the Old Novgorod dialect, this would imply that there was still a significant degree of unity between the future Slavic languages at that point. If the progressive palatalization occurred before the first regressive palatalization instead of after the second, then the reflexes of the progressive palatalization expressed in the Old Novgorod dialect can be explained as having emerged alongside other early developments shared with non-North-Russian East Slavic, as well as Slavic as a whole.

### 2.2 Lunt's argument

Lunt proposes that the progressive palatalization involved only  $k$  and possibly  $g$ , whereby  $k > k'$  and  $g > g'$ , sub-phonemically. The third velar,  $x$ , which is traditionally included in the progressive palatalization is excluded from consideration on the grounds that it was a "non-apical fricative" instead of a velar, and therefore the palatalization did not apply<sup>1</sup>. This extends to include the first regressive palatalization as well—according to Lunt,  $x$  only participates in the second regressive palatalization. Lunt considers  $s$ ,  $\check{s}$ , and  $x$  variants with different distributions in different parts of the Slavic speech area. This is in lieu of the traditional suggestion that the different reflexes of the velar  $x$  in different languages indicate a late phonetic change. It is also particularly relevant to the Novgorod data, in light of the fact that the most convincing data for the lack (or inconsistent application) of the progressive palatalization involves  $x$  ( $v \check{z}x$ ).

The chronology Lunt suggests can be summarized as follows:

1. Progressive palatalization,  $k > k'$ ,  $g > g'$
2. First regressive palatalization,  $k/k' > \check{c}$ ,  $g/g' > \check{z}$  before original front vowels and  $\check{u}$  [*ll*ega mi e
3. Fronting of back vowels after soft consonants
- 4.

Monophthongization of diphthongs in *ü*

5. Second regressive palatalization of velars,  $k/k' > c$ ,  $g/g' > ž$ , and  $x > š/s'$  before front vowels from step (4)<sup>2</sup>

Lunt refers readers of his article on the evidence from Novgorod to the 1981 monograph for a discussion of *vbx-*. He cites the verbal stem *-smis-aj-* and *vbsb* as the only examples where the progressive palatalization would appear to affect *x*. Lunt attributes the former to late dialectal morphological stem-forming rule, and dismisses the latter on the grounds that a) the progressive palatalization only affected *k* and *g*, b) the etymology is unknown and could have been *\*wix-* or *\*wis-*, and c) these pronouns had “idiosyncratic declensions”, having developed “peculiar innovations along with haphazard rearrangements of old materials.” (Lunt 1981: 36-37)

## 2.3 Explanatory power

The greatest explanatory potential of this theory is essentially limited to resolving one question: if the second regressive and the progressive palatalizations are two sequential and/or overlapping parts of the same process, why is one carried through in the Old Novgorod dialect but not the other? The only particularly relevant aspect of Lunt’s proposal is the basic premise that these two palatalizations were, in fact, different processes, and for that reason the different outcomes are not so troublesome. One could also argue for its potential to explain forms such as *otbci* (OCS loc. sg., instead of expected *\*otbcě*).

Lunt 1989 is particularly emphatic about the fact that this proposal avoids the necessity of analogical replacement for forms like *Asg. \*otbcb*, because the progressive palatalization environment would exist for any stem ending in *\*Cik-/\*-Cig-* (Lunt 1989: 45). While it is desirable to avoid brushing off changes as analogy when they can be found to be part of some regular pattern, the analogy necessary in this instance is not so improbable as to demand a different resolution, particularly in light of the problems Lunt’s resolution does cause.

Lunt’s theory would explain away the relevance of the forms of *\*vbxb*, which he claims are the only instances of the supposed progressive palatalization involving *x* found in the birchbark letters. The change  $x > s$  is the only element of the progressive palatalization that is consistently not realized in the birchbark letters. At the same time, one cannot claim that  $g > ž$  from the progressive palatalization is entirely consistent, which is perplexing if the change is as old as Lunt claims. He offers no explanation for why this might be so. While the reflex of *\*k* is indisputable, even in that case there may still exist archaisms in *-k* (in the form of personal names; see section 3.6). If one were to argue that the progressive palatalization did not take place in relation to *\*g*, it would be possible to claim that influence from the surrounding dialects where the palatalization did occur caused the instances where we do see the reflex *\*ž*. It is more difficult to explain the sporadic *absence* of the reflex *\*ž* in certain examples from the Old Novgorod dialect, and this is not even mentioned; Lunt says explicitly that “the Novgorod evidence for Bdc [progressive palatalization]  $*g > ž$  fits my rule with no exceptions” (Lunt 1989: 41).

## 2.4 Specific problems

Lunt’s proposal, if taken without other evidence and simply as an explanation of the Novgorod data, might be fairly attractive. It appears to address a necessary split between the second regressive and progressive palatalizations, as well as the *\*vbxb* data, and it reduces the reliance upon analogy.

Unfortunately, the only way Lunt's analogy avoidance claim is valid is if you accept that a low back vowel is the historical form at the time of the palatalization of Asg./Gpl. -*ъ* (< \*-*u* < \*-*om*), AcPl. -*y* (\*-*uNs* < \*-*ons*, \*-*āns*), and IPl. -*y* (< \*-*ūs* < \*-*ois*) (Kortlandt 1984: 213). At the same time, a closer look at the data reveals that it is not as supportive of Lunt's theory as he would lead the reader to believe. Furthermore, if viewed in the larger context of Slavic historical phonology, this theory causes more problems than it solves, and for that reason has been generally dismissed by modern scholars. These objections and others have been thoroughly addressed in such papers as Kortlandt 1984, 1987 and more recently, Vermeer 2000; for that reason, the following will discuss specific problems that are relevant for the Old Novgorod dialect.

#### 2.4.1 Basis for separating second regressive and progressive palatalizations

Lunt and Vermeer (2000) take opposing stances on what constitutes reasonable grounds for identifying phonological developments with one another. According to Lunt, the similarity of the environments is the determining factor. He sees the environments for the second regressive and progressive palatalizations as being so different that they point to a "different chronology until that possibility can definitely be ruled out." (Lunt 1987: fn. 19). In contrast, Vermeer believes the homogeneity of the reflexes is more important than the specifics of the environment, and splitting two processes with identical reflexes is a last resort, only if there is no other explanation for the evidence. He states also that splitting the second regressive and the progressive palatalizations necessitates an explanation of "how, when and why the outcomes of the two developments came to merge." (Vermeer 2000: 8). Vermeer does not seem to consider the possibility that the reflexes *c*, *z*, (*s*) could have simply arisen in two different environments through two different processes.

Both positions raise valid points. The truth most likely lies somewhere in the middle. If, in fact, the environments in question had little to nothing in common, it might be reasonable to consider the identical reflexes mere serendipity. When dealing with such subtle processes, it is understandable how one could get bogged down in the very specific details of the phonological environments at hand. However, looking at the situation a bit more broadly, the environments are in fact quite similar: a velar (\**k*, \**g*, or \**x*) in very close proximity to (or directly juxtaposed with) a front vowel. At the same time, while having the same reflexes is not enough grounds to claim that two processes are the same, there are other factors that make this an attractive conclusion.

The specifics of whether the progressive or the second regressive palatalization occurred first are still open for debate, in part because little is at stake in terms of larger repercussions for the chronology of early Slavic phonology. Furthermore, neither point of view challenges the notion of these two palatalizations being part of the same process. On the other hand, placing the progressive palatalization before the first regressive palatalization causes more problems for the overall system than it solves. If the progressive palatalization does not precede the first regressive palatalization (whose chronology relative to the second regressive palatalization is not in question), then the progressive and second regressive palatalization become temporally juxtaposed, and given the identical reflexes and similar environment, it is logical to consider them part of the same process. While it is difficult to deny that the second regressive and progressive palatalizations were realized to different extents in the Old Novgorod dialect, this does not in and of itself warrant separating the processes.

#### 2.4.2 Grounds for excluding \**x*

Kortlandt 1984 objects to Lunt's rejection of the Novgorod *\*vǫxb* forms, claiming the analogy with *sb* is invalid and Lunt's proposal of "peculiar innovations along with haphazard rearrangements" (Lunt 1981: 36) is a way to evade further discourse on the topic. He does not, however, specifically address the grounds for rejecting the velar status of *x*. Lunt's claim that *x* was not a velar at this time, but rather, a non-apical spirant, is tantamount to saying that the RUKI-rule process was incomplete. However, the suggestion that *x*, *š*, and *s* were simply variants of one another until they found their modern distribution (necessary to evade the problem of the different reflexes pointing to a late change) seems to imply that the RUKI-rule did not take place in the way that it has traditionally been described. A possibility for Lunt's conceptualization of the RUKI-rule would have *s* > *x* as per the traditional chronology everywhere except those places where the environment exists for the progressive and regressive palatalizations. In the places environment for the progressive palatalization, the original *s* has "variants" *š* and *x*, and all three survived the long period of coexistence between their development during the Common Slavic era and the emergence of three different dialect regions (West Slavic, East/South Slavic, and the Old Novgorod dialect) where each found favor. This is improbable at best, particularly considering the length of time the three variants would have to coexist, and the fact that their eventual distribution coincides precisely with the reflexes of the velar *x* from the second regressive palatalization. In other positions, the three variants would also still exist through the time of the first regressive palatalization, where in all relevant places the variant *š* would be chosen. Furthermore, the *s* from *k'* does not alternate with *š* or *x*, thereby constituting another problem. The ramifications that necessarily come with denying the velar status of *\*x* are sufficiently complex and improbable that it makes more sense to accept *\*x* as a velar, particularly when the only thing at stake is a theoretical framework that already has other insurmountable problems.

Once *\*x* is admitted into evidence, Lunt's theory begins to unravel in the face of unanswerable questions. If the progressive palatalization of velars (including velar *\*x*) took place very early in Common Slavic, why does it show different reflexes in different regions, which happen to match up precisely with the reflexes of the much-later second regressive palatalization? How did the Old Novgorod dialect preserve the velar for so long?

### 2.4.3 Support from Old Novgorod evidence

According to Lunt's theory, the second regressive palatalization (taken to be the last palatalization of velars to affect the Slavic languages) did not take place in the Old Novgorod dialect, but the progressive palatalization (considered a much earlier process) was realized as expected. The evidence to support the former claim is plentiful, and counterexamples that do display the general East Slavic reflexes of the second regressive palatalization can be attributed to influence from other dialects. In regards to the second claim, Lunt boldly states that "[t]he evidence shows Novgorodian *c* and *k* precisely in the morphemes predicted ... the Novgorod evidence for BdC [progressive palatalization] *\*g* > *z* fits my rules with no exceptions." (Lunt 1989: 41).

An examination of the data, however, tells a different story. There is little doubt that the progressive palatalization took place with *\*k*; while there does exist a sequence *-ika* used in personal names, the origin is unclear, and it could well have arisen after the progressive palatalization was no longer taking place. As for the data involving *\*g*, in fact it does show a number of "exceptions" to Lunt's rules, including *ne lego* (BBL 855, 12th c.), and *[l]ega mi e<sup>3</sup>* (BBL 815, 12th c.) The ethonyms *fręgb* and *jatvęgb* may have originated in the Old Novgorod dialect area as well; alternately, they may have been

borrowed after the progressive palatalization ceased to be in effect. While there are more lexical items displaying the reflex *z* than the velar *g*, the existence of the *g*'s is more difficult to explain if they were supposed to have been eliminated in an ancient change, as opposed to a more recent one. The same problem exists for the data involving *\*x*, only *moreso*—a significant number of examples retain *x*, and as shown above, there are no grounds for omitting this evidence.

## 2.5 Analysis

Lunt's theory promises to explain the difference in the realization of the second regressive and progressive palatalizations in the Old Novgorod dialect, and reduce the amount of analogy necessary to explain nominal paradigms. Unfortunately, reducing analogy requires an unacceptable leap of faith about the persistence of the earlier etymological form of the nominal desinences, and the ramifications of Lunt's approach are both widespread and serious. The omission of *\*x* from the progressive palatalization, and the variety in its eventual regional reflexes demands an explanation, and Lunt is only able to provide a Balto-Finnic tolerance for the fallingly improbably mangled RUKI-rule and some felicitous coincidences in lieu of a justification. Furthermore, with no good grounds to eliminate the Novgorod *\*v z x b* data, and already facing the problem of the inconsistent reflex of *\*g* in that dialect, Lunt's proposal is left without evidential support.

## 3. Vermeer: delayed monophthongization explains the lack of 2nd regressive palatalization reflexes

### 3.1 Motivating factors

Willem Vermeer's theory, as expressed in his 1986 paper "The Rise of the North Russian Dialect of Common Slavic," is an attempt to avoid the problems associated with both major lines of reasoning in regards to the issue of the palatalizations. Kortlandt 1987 considers this theory the best explanation of the facts (Kortlandt 1987: 8); Zaliznjak 2004 also references it as a promising explanation. By claiming the velars as archaisms as opposed to innovations, Vermeer is spared from having to explain the process of reintroduction and the lack of evidence for transitional forms. At the same time, he proposes that the palatalizations did reach Novgorod, but the effects of the second regressive palatalization were not realized because of the late monophthongization of diphthongs. This still does imply a Proto-Slavic split that predates the West/Non-west Slavic split after the second regressive and the progressive palatalizations, but a less absolute one. All of the subsequent Proto-Slavic phonological changes did take place in the dialect, albeit in a different order due, Vermeer suggests, to the sociolinguistic situation in the area, and the high degree of contact and possibly bilingualism with Balto-Finnic.

### 3.2 Vermeer's basic argument

The essence of Vermeer's argument is that the reflexes of the second regressive and the progressive palatalizations are different, due to a delay in the monophthongization of diphthongs in the Old Novgorod dialect. He continues the stance taken in Ševelov 1964 that the second regressive and the progressive palatalizations are overlapping parts of the same larger process. One unavoidable corollary of his theory is the existence of a number of word forms that show the reflex of the progressive palatalization in

the Old Novgorod dialect, where they do not in non-dialectal Old East Slavic. These are cases where a stem-final velar is preceded by a falling diphthong, and the short *i* of the diphthong would trigger the progressive palatalization in the velar in all forms where it was not followed by *ъ* or *ь*. There are no attestations of these forms; Vermeer claims that since they only existed in alternating paradigms, a general leveling took place that in all instances favored the velar.

### 3.3 Balto-Finnic influence whether or not the monophthongization was

Vermeer attempts to explain the delay in the monophthongization by referring to a Balto-Finnic tolerance for the falling diphthongs<sup>4</sup>. Little else is said on the matter in this paper, but he returns to the issue of Balto-Finnic influence in “Notes on Medieval Novgorod Sociolinguistics” (Vermeer 1997). In this later paper, Vermeer identifies two dialects spoken in the Novgorod region: “P”, which carries the distinctive traits associated with the “Old Novgorod” dialect, and “Q”, the “standard” Old East Slavic language. Vermeer wisely identifies these supposed dialects with letters as opposed to names. Some scholars, including Zaliznjak, have referred to these groups as the *Krivič* and the *Slověne*, respectively, but there is no evidence to make a connection between dialects and tribes spoken of in the Chronicles. The attempt to do so is one of the weakest points in these scholars’ arguments, and Vermeer justifiably criticizes them for it. Regardless of the nomenclature used, Vermeer points out that the attestations of the language with distinctive “Novgorodian” traits come from a region where much of the pre-Slavic population spoke Finnic. Zaliznjak mentions the existence of 292 birchbark letters written in Balto-Finnic (Zaliznjak 2004: 20) albeit without reference to the specific location of their excavations, or the time periods involved<sup>5</sup>. It is possible that a period of Finnic-Slavic bilingualism coincided with the time frame in which the rising diphthongs in Slavic would be expected to monophthongize, thereby delaying the process until Finnic bilingualism and influence was lessened through an increase in the Slavic population, and contact with the speakers of non-Novgorod East Slavic.

Vermeer mentions only one of the relevant phonological facts relating to Balto-Finnic. It is true that falling diphthongs were tolerated, and this may have slowed the process of monophthongization. However, velar plus front vowel combinations were even more prevalent in Balto-Finnic, and this likely played a role in the inhibition of the second regressive palatalization, whether or not the monophthongization was delayed<sup>6</sup>. This alone could be considered sufficient reason for the different treatment of the palatalizations, without resorting to a delayed monophthongization.

### 3.4 Different reflexes from second regressive and progressive palatalizations

The proposal of a late monophthongization is designed to explain the different treatment of the reflexes of the second regressive and the progressive palatalizations, which is not a given. Non-dialectal East Slavic had the same reflexes for these two palatalizations, and those who suggest that the unusual velars of the Old Novgorod dialect are innovations can assume the same happened here. Vermeer’s claim of different reflexes is supported by Živov’s study of scribal errors, which suggests that in places where *\*k* would be expected to undergo the second regressive palatalization, the letter *ѡ* is consistently differentiated from *ѣ*. Vermeer interprets this to mean that the scribes spoke /k/ in this position. Živov also claims that *ѡ* and *ѣ* are regularly confused in other positions, including where *\*k* would be expected to undergo the progressive palatalization. Vermeer thus equates the reflex of the progressive palatalization with that of



Proto-Slavic \*č from the first regressive palatalization, and considers this the source of *cokan'e*.

Assuming for a moment the validity of Živov's findings about scribal spelling errors, a question comes to mind: if the second regressive palatalization reflex of \*k in the Old Novgorod dialect was pronounced [k] and consistently spelled ѱ, why are there no attestations of [k] being confused with ѱ elsewhere? There is no shortage of examples in the Old Novgorod dialect showing spelling confusion between two letters representing that which Vermeer considers one phoneme. In reality, there are two phonemes at hand. The "Q" dialect has c, the "P" dialect has k, but they generally know to write c where the standard language has an affricate instead.

At this point in the language's history, it would be more accurate to state that the second regressive palatalization reflex of \*k was pronounced not [k] but [k'], due to allophonic fronting before front vowels. In "Lenition in Common Slavic" (Anderson 1969), Henning Anderson describes the process of palatalization as consisting of two steps: first, allophonic palatalization of the velar and second, as sibilant. Based on the data from the birchbark letters which shows velars instead of palatals in the places where we would expect the second regressive palatalization to occur, it seems that in the Old Novgorod dialect, the assibilation stage did not happen. This functionally means that the second regressive palatalization did not happen.

Živov's data suggests a Novgorodian scribe who is well aware of the differences between his native dialect and non-dialectal Old East Slavic, which forms the basis for the writing conventions he uses. Even if he is not consciously aware of their allophonic ally palatalized nature, he knows that the \*k plus front vowel combinations in his native dialect are to be written as ѱ, but \*k in other environments is to be written as κ. But if ѱ was consistently used to spell /k'/, why would this same letter be involved in *cokan'e*? That is to say, Živov's findings suggest that no *cokan'e* took place when ѱ was used to spell [k'], but ч (/č/) and ѱ (when representing [c] from the progressive palatalization, but not [k']) were regularly confused.

The fact of the matter is, Živov's data is not representative of all the data we find from the Old Novgorod dialect. In the First Novgorod Chronicle, there are two instances of *rěččě* in place of etymologically correct *rěčě*, and *Grěččě* appears once in year 6430 [922] instead of *Grěči*. One could attempt to dismiss these examples on the grounds that they are from the younger recensions of the Chronicles, but the fact that all but *Grěči* are attested in more than one manuscript makes it difficult to justify such a conclusion. Both this data and Živov's data is secondary, in a sense. It is based on the hope that scribes writing manuscripts in a register that should, in theory, preclude the scribes' native dialectal features in favor of a more "standard" variant of the language, would all the same make errors that reflect their dialectal pronunciation. This is a justified assumption given the incidence of *cokan'e* in the Chronicles. It is possible that there was a scribe who had a good awareness of the conventions of the formal style of writing, and the fact that the second regressive and the progressive reflexes of \*k were supposed to be spelled ѱ, but he had an easier time implementing this in regards to the second regressive palatalization. Knowing the etymology of each word affected by the progressive palatalization is out of the reach of even an educated speaker of the language, but knowing where your dialect has a sound combination impermissible in the non-dialectal language is not.

The data from the birchbark letters is less clear. The majority of the data shows κ + и/ѣ, which does support the proposition that the second regressive palatalization of \*k was, in fact, [k']. However, we do

see all the possibilities, including *cokan'e* confusion, with the word *vladyka*: Gen. sg. *u vldkě* (BBL 155), *do vldyčě* (BBL 725); Dat. sg. *vladyčě* (BBL 244), *vladyčě* (BBL 725). Another messy lexical item is *cělovati*, which appears ten times in the Novgorod birchbark letters<sup>7</sup>. In nine of those examples, the reflex of the second regressive palatalization is *c*, but in the tenth we find *č*. One can argue that this word is a set-phrase borrowing from a higher style where the reflex of *\*k* was *c*. A more thorough examination of all the data in the birchbark letters shows that *č* is written for *č* more often than the other way around. Therefore, Živov does seem largely correct, if re-stated less definitively.

### 3.5 Foreign roots and the second regressive palatalization

Vermeer claims that due to the delay in monophthongization of diphthongs, only foreign words that had been borrowed since the first regressive palatalization were affected by the second palatalization. No examples are given. There are very few instances of foreign words with the environment necessary to illustrate this point; most instances involve declensional endings which, according to his theory, are irrelevant because presumably at this point the ending was still a diphthong.

The birchbark letters do show at least one example of a borrowing where a rootinternal velar is followed by a front vowel—but *without* the second palatalization reflexes that Vermeer suggests would be present:

*Kirějev'* (BBL 249). The Novgorod Chronicle shows *Akimъ* in an entry dated 6497 [989]; all three manuscripts agree in this instance. This example is best discarded, however, since it appears in non-dialectal Old East Slavic as well, and must therefore have been borrowed after the second regressive palatalization ceased to be in effect. Nouns would provide more reliable data than proper nouns, however, there are none that appear to fit the necessary specifications.

Both the birchbark letters and the First Novgorod Chronicle have multiple attestations of one foreign root that consistently shows the *\*k > c* reflex of the second regressive palatalization: *cbrkъv-*. However, one should not give this root too much weight as an example of the native development of the Old Novgorod dialect, seeing as it is par excellence a perfect example of a borrowing from the Church Slavic language, where this reflex is already clearly attested.

### 3.6 Progressive palatalization

Vermeer does not address the progressive palatalization particularly thoroughly—it is not as directly relevant to his argument as the issues surrounding the second regressive palatalization.

His data for *\*k* includes the nominal suffixes *-ica* and *-ьcъ*, including *otecъ*. One could argue against him that the *-ica* suffix was a morphological borrowing (although the 20 question of why would need to be addressed), and point to modern Russian dialectal *otěk* as part of a claim that no progressive palatalization took place, either. This would most likely be argued by someone who denies the existence of the second regressive palatalization in the Old Novgorod dialect, on the grounds that the second regressive and the progressive palatalizations were part of the same process, and it makes little sense for one part of a process to affect a dialect, and not the other. There is some intriguing potential evidence relating to the suffix *-ica* that we find looking at Old Novgorodian names. *Mika* and *Uika* are both attested. The origin of the *i* is unclear, which prohibits any definitive claims, but one might argue that these reflect an

original Old Novgorodian suffix *-ika* that was replaced in nouns by the borrowing *-ica*, and preserved as an archaism in these names. However, these names would have to date back to the 7th century, while the progressive palatalization was still active, in order to be relevant, and there is no way to confirm that. Comparing the lexical items showing the progressive palatalization listed in Sevelov 1964 with the data from Novgorod seems to support Vermeer's claim in favor of a normal execution of the progressive palatalization in the Old Novgorod dialect. *Lice* (BBL 536, 750, 732?), *měšec* (BBL 806<sup>8</sup>), *městbce* (BBL 610), *zajacь/Zajacь*<sup>9</sup> (BBL 842, 92<sup>10</sup>) all are present; furthermore, with the exception of the unclear *-ika* suffix mentioned above, there are no examples where we would expect to find the progressive palatalization of *\*k* but do not. It looks like *\*k* palatalized to *c* in the expected positions, and the *k ~ c* alternation before */y/~ь* was leveled in favor of *c*. The evidence is not so straightforward with *\*g* and *\*x*. Vermeer is right to point out the limited number of examples from *\*g*, but I would argue that he may be selling the data short. In regards to *knęcь* he writes that it is one of a series of "borrowings which do not necessarily reflect local developments". (Vermeer 1986: 504) There is no doubt that it was originally a borrowing from Gothic *\*kuningaz*, but Vermeer seems to imply that it was a borrowing from a dialect with widespread use of the progressive palatalization. It is possible that *knęcь*, like other high-style words, spread from the higher style of speech and writing, where norms did not reflect the dialect. On the other hand, *\*kuningaz* was borrowed so early that it essentially was a Proto-Slavic root, and may have developed like any other Proto-Slavic root of that variety in the Old Novgorod dialect. The velar *x* seems to pose a challenge to Vermeer's assertion that the third palatalization proceeded normally in the Old Novgorod dialect, although he never confronts it directly. His analysis of the famous *vъx-* data is limited to stating that it occurred normally, citing Nsg. fem. *\*vъxa-* > *\*vъśa*, but was blocked as expected before the high back vowels *\*ъ* and *\*y*, citing Asg. masc. *\*vъxъ*. Neither of these forms exist in the birchbark letters, nor does his theory account for the data. It is true that there are no examples in *s* + *ъ/y*. On the other hand, we would expect to find *x* only before *ъ/y*, but this is not the case. In addition to the famous Novgorod Chronicle Asg. fern. *vъxu*, attested also in BBL 736a, we find in the birchbark letters: Nsg. masc. *voxъ* (*vъxe*) 351, Npl. masc. *voxe* 670, *voxe* 437<sup>11</sup>, and *voxi* 497, Dsg. masc. *kъ vъxemo* 87, and Ipl. masc. *so vxim[i]* 492. The aspect of these examples worth looking at to explain what is going on is not what *follows* the etymological *x*, but what *precedes* it. With the exception of the Dsg masc. *kъ vъxemo* 87, all examples in *x* that are preceded by a vowel have either *ъ* or *o*, as opposed to the forms in *s* which have *ь*, *e*, or *ě*. *e* and *ě* are frequently confused in the birchbark letters. For the examples with no vowel, we cannot tell, but on the basis of the instances that do have a vowel, it would better explain the evidence to make the claim that the root *vъx-* was reanalyzed by some as *vъś-*, thereby eliminating the necessary environment for the progressive palatalization to take place<sup>12</sup>. This could have happened on an individual—or, more likely, a sub-dialectal—level, as there are no birchbark letters that attest both *vъś-* and *vъx-* variants. This interpretation could salvage Vermeer's claim of regular progressive palatalization reflexes in the Old Novgorod dialect. However, it is unclear what the basis for reanalysis would be. One would expect some phonetic ambiguity if the reanalysis took place on a phonetic basis, and there seems to be no clear reason why one would *a priori* expect morphological reanalysis.

It would be possible to avoid explaining the basis for reanalysis if one were to interpret the facts the other way: that is, suggest that *vǫx-* was reanalyzed as *vǫx-* after the progressive palatalization failed to take place. It seems like an equally likely possibility, in the absence of compelling evidence either way. The one example that would support this proposition, *kǫ vǫxemo* (BBL 87), is from the last quarter of the 12th century, and may thus be too old to reliably reflect the process at hand.

Without some explanation of the *vǫx-* data, Vermeer's claim that the progressive palatalization operated normally in the Novgorod dialect is in serious jeopardy.

### 3.7 Diphthong progressive palatalization

Vermeer acknowledges that delayed monophthongization would result in an additional set of words displaying the progressive palatalization, limited only to the North Russian dialect area. He claims that the standard East Slavic genitive singular *sněga* 'snow' developed as *\*snědža* (< *\*snoidža* < *\*snoiga*). He cites no attested example for this, and none can be found in the birchbark letters or in the Novgorod Chronicle.

The final step in the process, Vermeer claims, was the leveling of palatal-velar alternations in favor of the velars. The palatal reflexes of *\*g* and *\*x* were sufficiently marginal as to be replaced in all cases, leaving them extant only in borrowings. Through omission, he implicitly assumes *knęz* must not reflect local developments, and no explanation is provided for the persistence of the clearly native *v(ǫ/ǫ)x-* forms.

According to his explanation, at least all the *v(ǫ/ǫ)x-* forms should have leveled to *vǫs-*, but that clearly did not happen. In contrast, he mentions that *č* (< *\*k*) was "much more firmly entrenched in the system" (Vermeer 1986: 510) and was therefore maintained and merged with *č*, thus causing *cokan'e*.

There are no recorded attestations of this palatalization caused by monophthongs, and yet, it is necessary for the delayed monophthongization theory to be correct. Vermeer resorts to leveling the velar/palatal alternations that result from the diphthong palatalization in favor of the velar across the board. Such consistent favoring of the velar raises questions, since it is always the minority form in any paradigm, and it appears in different positions in different paradigms.

Vermeer returns to the non-attested example *sněga* in his explanation of the paradigm levelings, citing Asg. *\*sněgǫ*. It is worth examining the entire paradigm for this word, given the diphthong palatalization:

	Singular	Dual	Plural
Nominative	<b>snoigǫ</b>	snoiza	snoizai
Accusative	<b>snoigǫ</b>	snoiza	<b>snoigy</b>

Genitive	snoiza	snoizu	<b>snoigъ</b>
Locative	snoizai	snoizu	snoizaixъ
Dative	snoizu	snoizoma	snoizomъ
Instrumental	snoizom' ( <b>snoigъm'</b> )	snoizoma	<b>snoigy</b>

Note that the diphthong palatalization occurs in the vast majority of the numbers and cases. Of the places where it does *not* take place, the nominative singular and the accusative (in both the singular and the plural) are influential cases. It is not impossible for a minority form to be generalized to the entire paradigm—see the declension of *nebo*, where the nominative and accusative singular stem replaced the oblique stem *nebes-*. Thus, this argument is not in and of itself unreasonable when an example such as *sněgъ* is used.

However, let us look at another example, *rěka*:

	Singular	Dual	Plural
Nominative	raica	raicai	<b>raiky</b>
Accusative	raican	raicai	<b>raiky</b>
Genitive	<b>raiky</b>	raicu	<b>raikъ</b>
Locative	raicai	raicu	raicaxъ
Dative	raicai	raicama	raicamъ

Instrumental	raicojan	raicama	raicami
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It is in the leveling of the  $k \sim c$  alternations that Vermeer's assessment of the progressive palatalization contradicts itself and completely unravels. Claiming that the  $*g$  and  $*x$  reflexes from the monophthongs are so marginal that they are leveled out is consistent with the other data available, if one finds another explanation for the  $v\text{Ł}x$ -evidence. However, it is not possible for the progressive palatalization reflex of  $*k$  to be both maintained (as with *-ica*) and leveled out in favor of  $k$ . Vermeer structures his paper so as to make it appear that there were *three* palatalizations in the Old Novgorod dialect resulting from the second regressive/progressive palatalization process, in order for his contradicting levelings of  $*k$  to go unnoticed by the unobservant reader. However, it is clear from his argument that his diphthong palatalization would have simply resulted in another group of words displaying the progressive palatalization, indistinguishable from the group of words we expect to find with the progressive palatalization. If there are no grounds for distinguishing the subset of words with the diphthong progressive palatalization (those leveled as  $k$ ) from those with the nonnal progressive palatalization (those leveled as  $c$ ), there are certainly no grounds for expecting them to level in different ways.

### 3.8 Analysis

Vermeer's theory of delayed monophthongization is an attractive proposal at first glance. It seems to have greater explanatory power than those theories that claim the second regressive and/or progressive palatalizations simply never reached Novgorod, and it does not require "un-doing" a palatalization through a series of unattested intermediate steps. Unfortunately, the argument leaves questions unanswered throughout the course of the entire paper, and provides no actual attested data, save a number of examples of the suffix *-ica*. Vermeer takes Živov's study at face value, and does not look into the existence of counterexamples. While Živov seems to be largely correct, at least a mention of the counterexamples would be called for, for the sake of thoroughness. We do not consistently see the second regressive palatalization in foreign roots, as Vermeer claims. The one major example of the second regressive palatalization in a foreign root is *cerky*, and it is difficult to argue with the Church Slavic influence in that lexical item. The third palatalization reflexes of  $*k$  generally seem to support Vermeer's claims, but he does an insufficient job explaining the palatal in the  $*v\text{Ł}x$ -data. Finally, it is the progressive palatalization caused by the diphthongs that causes Vermeer's argument to collapse. He claims that  $k \sim c$  alternations leveled as  $c$  generally but  $k$  in the places where the palatalization was caused by a diphthong, although the environments are indistinguishable. This is unacceptable. Vermeer's argument, while innovative, is more a work of imagination than a viable theory supported by data.

## 4. Zaliznjak: Accepting data on face value

### 4.1 Motivating factors

Zaliznjak's work on the Old Novgorod dialect (the latest edition is Zaliznjak 2004) is best known for its thorough description of the various unique phenomena attested. While it would generally be advantageous for such a work to avoid committing to any specific theoretical framework, Zaliznjak's stance on the palatalizations is not simply an agnostic one. For the sake of completeness, he references

works from both competing sides of the issue<sup>13</sup> but his own commentary both within the book and in separate articles points to a firm belief in the face value of the data. For Zaliznjak, the unexpected velars in the Old Novgorod dialect are archaisms pointing to palatalizations that were not realized.

Zaliznjak's approach, by its very nature, eliminates the problem of incongruity between data and theory that other scholars face. This is not to say that it is a definitive solution to the question of the palatalizations in the Old Novgorod dialect, rather, it must be held to a different analysis and standard. Zaliznjak may account for all the data, but how plausible is his explanation? While it is desirable to avoid unnecessarily complex interpretations, the simple interpretation is equally unsatisfactory if it does not adequately explain the data. Zaliznjak's position is inherently awarded some degree of preference on the grounds that it does not *conflict with* any of the data, but it will be examined for the plausibility of its explanation.

## 4.2 Zaliznjak's position

### 4.2.1 Second regressive palatalization

In the section on the second regressive palatalization<sup>14</sup> in Zaliznjak 2004, it is stated that one trait separating the Old Novgorod-Pskov dialect from all other Slavic languages is the fact that the second regressive palatalization did not take place. In the Old Novgorod-Pskov dialect, \**k* in the environment for the progressive palatalization yielded *c* whereas \**k* in the environment of the second regressive palatalization yielded the allophone *k*'.

In order to justify a defense of the face value of the data, one has to be sure that the data reflects the local developments, and are not borrowings preserving the phonological structure of a different language.

Presumably for the sake of thoroughness, Zaliznjak addresses objections leveled against *xěrb* (BBL 130, 'gray cloth') by citing an exact cognate in Old Czech, *šěř*, and addressing the problems with Straxov's analysis that *xěrb* < *gére, gere, gir* (middle Low German) 'wedge-shaped piece of cloth'. In general, however, the Slavic origin of the words showing velars untouched by the second palatalization (*kěř, xěrb, vrb drugěř*) is not in dispute<sup>15</sup>.

The more complex issue Zaliznjak faces is accounting for the examples that do show the reflexes of the second regressive palatalization, of which there are a significant number. It is more difficult to explain the presence of the non-standard unpalatalized velars than it is to explain the presence of the expected reflexes, given the degree of contact with dialects of East Slavic that did undergo the second regressive palatalization. At the same time, a stronger case could be made for the nonimplementation of the second regressive palatalization in the Old Novgorod dialect if criteria with predictive power could be laid out, differentiating the circumstances where one can expect to find palatalized velars.

Zaliznjak has attempted to layout these criteria. He identifies non-realization as the norm for the birchbark letters, in contrast to other types of Novgorodian writing which often display the second regressive palatalization. Per his evaluation, the second palatalization occurs almost exclusively in church-related or official set phrases, such as *Gospodi pomози, vrb Božě, cěuju tє*, etc. (Zaliznjak 2004: 44).

Zaliznjak admits that there are three examples that fall outside of this category: *ucelelrb* (BBL 710, 12th century), *cěna* (BBL 532, 14th century), and *sapozě* (BBL 4, 14th century), but he attempts to provide

an explanation for each. While ideally there would be clear reasons for these abnormalities, Zaliznjak's explanations are not wholly convincing. *Ucelelʒ*, he claims, is from a letter "written in the bookish style," possibly by a professional writer. In fact, the majority of birch bark letter 710 is a list of people and their debts, until the final line: *уцелель ти есмь ѿ пожару и целую тѧ*. (Zaliznjak 2004: 364.) The suggestion of a "professional writer" is based on the grounds that letters 710 and 664, sent from different individuals but part of the same series of communications, display the same handwriting. While this is a reasonable conclusion, it does not follow that "professional writers" always write using the standards of the non-dialectal language; letter 664 begins with *ot dobrošukǫ*. Perhaps a more specific rephrasing would be that *ucelelʒ* appears in a more bookish section of the letter, also possibly influenced by *celuju* (note, without *cokan'e*) later in the same sentence. The "professional writer" aspect is irrelevant. In regards to the two 14th century examples, *cěna* (BBL 532) is dismissed simply as being foreign to the Novgorod dialect, on the grounds that the form *kěna* was found in BBL 247, 11th c. At the same time, this text shows two instances of the characteristically Novgorodian masculine nominative singular desinence *-e* (*ucane*). There is a degree of incongruence there that is not addressed. Zaliznjak claims *sapozǫ* (BBL 4) is of literary origin, and directs the reader to his commentary in Janin 1993 for a justification. The reference, unfortunately, only reiterates that the word is of literary origin, but with the typical Novgorod suffix *-ǫ* instead of non-dialectal *-i*. For support, Zaliznjak points to the Novgorod chronicle, where *sapozǫ* appears in the *Komissionyj spisok*, with *sapogy* in the *Sinodal'nyj spisok*. Both of these examples seem to point to a degree of mixing between the Novgorodian and non-dialectal forms. Zaliznjak's position on these examples indicates a degree of circular reasoning: if a word shows the second regressive palatalization, outside the context of a set phrase, then the letter it appears in must be influenced by the literary or church language, because it has a word that shows the second regressive palatalization. Pragmatic concerns do not factor into this analysis, and due to the extremely low number of examples, these would be difficult at best to determine. In short, while Zaliznjak's explanations are not ideal and the information needed to improve them is not available, the examples in question are marginal in the larger context of the birchbark letters. They do not pose enough of a challenge to Zaliznjak's position on the second palatalization as to demand an explanation. While Zaliznjak himself does not produce any theoretical explanations for the state of the second regressive palatalization, he does mention Vermeer's hypothesis, as discussed above, in a positive light. This endorsement, while misguided, does not ultimately detract from Zaliznjak's point.

#### 4.2.2 Progressive palatalization

Zaliznjak is less committal in regards to the progressive palatalization. He states that it did not take place in regards to *x*, based on the *vʒx-* data. The only instances of *v(ʒ)s-* in the birchbark letters, he states, are found in two church letters (906 and 914), a monastic epistle (605), and in two official or semi-official documents (831 and 870) where the authors were trying to adhere to the norms of the non-dialectal language.

The material for *g* is inconclusive: *ne lego* (BBL 855, 12th c.), *[l]ega mi e* (BBL 815, 12th c.), and *kolobǫgʒ* (BBL 222, 13th c.) are juxtaposed with *kbnǫzu* (BBLs 745, 872, 851) and *userǫzi* (BBL 429, 12th c.) A good argument can be made that *kbnǫzu* is borrowed from the non-dialectal language, on the



grounds that it is a high-style, official word. Zaliznjak provides no definitive statement relating to \*g, stating simply that the data “doesn’t exclude” the possibility that the Old Novgorod dialect lacked the effect of the progressive palatalization. (Zaliznjak 2004: 47)

In contrast to \*x and \*g, Zaliznjak states, the progressive palatalization reflex of \*k “undoubtedly” existed (Zaliznjak 2004: 47). From the earliest letters, one finds examples such as *měsѣcъ*, *sužьdalъcъ*, *otъcъ*, and numerous instances of *-ica*. He offers no theoretical explanation, but again references Vermeer’s proposal as an alternate solution.

### 4.3 Objections to Zaliznjak

Taking the data at face value, with all the resulting ambiguities as to how this data could have developed, is viewed as a last resort. First there is the complex issue of the timing and degree of realization of the progressive palatalization. More fundamentally, though, is the implication that somehow the Old Novgorod dialect split off early from the rest of Slavic, which would disrupt the generally accepted chronology of Slavic phonology.

Specific objections to Zaliznjak’s interpretation of the second palatalization will be discussed in the “zig-zag” evolution section, below, but less-discussed is the progressive palatalization. Zaliznjak cites Bjørnflaten’s suggestion (1983, 1988, 1990) that the forms can be explained by a *s > x* shift, which would produce forms such as \**vъxe*, \**vъxego*, \**vъxeě*. In reality, however, the \**vъx-* forms take hard endings instead of soft endings, and this explanation does not account for that.

### 4.4 Analysis and conclusions

Because Zaliznjak does not propose a theoretical explanation, it is difficult to object to what he says, which essentially amounts to a thorough description with few conjectures. Because his work does not conflict with the data, it remains a viable option. The question that remains is whether the opposing position—that the velars are an innovation—better explains the data. This will be discussed in the following section.

## 5. Sjöberg, Bjørnflaten, Birnbaum, et. al.: “zig-zag evolution” of velars as neologisms

### 5.1 Motivating factors

The debate in the 1980’s regarding the ordering of the progressive palatalization notwithstanding, throughout the 20th and into the 21st century scholars were fairly confident in the chronology of Slavic phonology, relative to the breakup of Common Slavic. The evidence from the Old Novgorod dialect implicitly challenges at least one aspect of that chronology. One possibility is that the predecessor to the Old Novgorod dialect split off from Common Slavic prior to the second regressive palatalization and subsequently experienced its own unique developments. Another possibility, as taken up by Lunt, is that the chronology itself is incorrect. Taking the position that the velars found in the Old Novgorod dialect are innovations as opposed to archaisms moves the discussion away from Common Slavic chronology

and towards the unique chronology of the North Russian dialect area. In doing so, it downplays the relevance of related data from other branches of Slavic, resulting in a much smaller set of data to work with; this makes it more difficult to conclusively prove, or disprove, any claims made under these assumptions.

## 5.2 Overview of the arguments

The arguments against the unpalatalized velars as archaisms can first be broadly divided into two groups: those who accept the validity of the Old Novgorod data, and those who do not. Far more scholars fall into the former category, but enough discussion has been devoted to the second point that it merits at least a brief discussion.

### 5.2.1 Old Novgorod examples as borrowings

This line of reasoning is the quickest way to resolve the question of the palatalizations in the North Russian dialect area in favor of the status quo. That said, the supporting evidence falls heavily in favor of those who accept the relevance of the data (see section 4.2, above.). These arguments are best viewed as overextensions of valid objections to the data used by Gluskina and Stieber, relating to modern dialectal forms. There is a reasonable possibility that the data she cites is in fact derived from later Finnic borrowings, after the palatalizations ceased to be in effect. It is important to keep in mind that the roots with unpalatalized velars that appear in the birchbark letters are not the same roots that Gluskina and Stieber cite from modern dialectal Russian; even if the latter roots are borrowings, it does not mean that the former are. Vermeer 2003's comparison of *xěrb* with Old Czech *šěř* should lay this argument to rest, as it relates to the birchbark letter data.

### 5.2.2 Velars as innovations

This approach, more widely followed by those who object to the notion of unpalatalized velars as archaisms, states that the palatalizations happened as expected, but were "undone" through an elaborate series of changes unique to the North Russian dialect area. The resulting argument is carefully balanced on a series of equivalences in such a way that all parts of the argument must hold, or the entire argument will fall apart. The proposal is laid out as follows:

Zaliznjak posits *\*netęža* for the nominative of the locative form *netęžě* (BBL 247). This is challenged because it is found in Old Church Slavonic as a masculine, with the meaning 'lazy person' instead of 'sickness, weakness', as Zaliznjak translates it in the letter. While this word itself does not appear to be immediately relevant for the question of the second regressive and progressive palatalizations of velars, it forms the crux of Sjöberg's argument against the archaic origin of the velar in *kěľě*, which appears in the same sentence. According to Sjöberg, *netęžě* is the locative of attested Russian dialectal *netjaga*, after having undergone not only the expected second palatalization, but also the clearly attested Pskovian dialectal *šokan'e*, whereby *z' > ž'*. Since *netęžě* shows the effect of the second regressive palatalization, he reasons, *kěľě* must also have undergone this change, followed by another process that undid the effects.

Sjöberg champions Bjørnflaten 1988 as providing the answer to the question of how the velars reappeared, citing the Pskovian sound change *c > t > k*, for such examples as *kedit'*, *kedilka*, *kevka*, and *kep* (Bjørnflaten 1988: 256.) Bjørnflaten also mentions a *s/š > x* change in the Pskov area that resulted

in such words as *pix'mo* and *mjaxo*. He suggests in passing that this might be one way to approach an alternate explanation for the *vɫx-* forms in the birchbark letters, but he chooses not to pursue it, unlike Sjöberg, who adopts it as the argument behind one part of his claim.

### 5.3 Problems with the “zig-zag” evolution

#### 5.3.1 Gvězdъkě

The “zig-zag” hypothesis, at least as discussed by Sjöberg, accounts for the form *gvězdъkě* (BBL St. R. 8) in an insufficient, and ultimately problematic manner. It is dismissed rather quickly through reference to West Slavic, “which even though it has retained the second regressive palatalization, never has palatalized the clusters *kv-* and *gv-*.” (Sjöberg 1990) This only replaces one conundrum with another—albeit one on a smaller scale, but with no fewer ramifications for the history of Slavic phonology. This could be downplayed if one could claim that the *kv/gv* reflexes demonstrate that the Old Novgorod dialect is, in fact, a long-lost branch of West Slavic with significant East Slavic influence. However, the Old Novgorod dialect, where relevant, clearly does *not* show the West Slavic reflexes of the second and third palatalization. As a result, no one has argued in favor of this. If it is agreed, then, that the Old Novgorod dialect is a dialect of *East Slavic*, that underwent the second regressive and progressive palatalizations, albeit with *kv-/gv-* overlooked, as proven typologically possible by West Slavic, this points to an early dialectal split between the Old Novgorod dialect and the rest of East Slavic that needs to be accounted for. This is precisely what the argument against the velars as archaisms seeks to avoid.

#### 5.3.2 Diachronic vs. synchronic

Stepping back from the specific details of the argument, which appear to form a coherent chain of reasoning, one significant flaw in the “zig-zag” evolutionary theory becomes clear: Sjöberg—the staunchest defender of this theory—considers diachronic and synchronic data equally. A review of the recent literature finds frequent reference to the “Gluskina-Stieber” hypothesis, largely equating them with Zaliznjak. This is true, in the sense that Gluskina, Stieber, and Zaliznjak claim that the velars found in dialectal data from North Russia are original and not innovative. But to equate Gluskina-Stieber and Zaliznjak would be misleading: Gluskina and Stieber deal with *modern* dialectal data, whereas Zaliznjak focuses on *historical* dialectal data found in the birchbark letters. Moreover, there is no piece of data that connects the historical and modern—none of the lexemes showing unpalatalized velars in the birchbark letters appear in Gluskina’s or Stieber’s study of the modern dialectal language, and vice versa.

If Zaliznjak is correct, it does not mean that Gluskina and Stieber necessarily are; Björmflaten 1988 examines the possibility that the lexemes in question may be borrowings as opposed to Slavic. Since we cannot tell when these forms were borrowed, it is possible that they were not part of the language during the period when one might expect them to be affected by the second regressive palatalization. If Zaliznjak is incorrect, then the Gluskina-Stieber theory is as well—assuming the lexical items were not later borrowings.

#### 5.3.3 Defining terms: Novgorod-Pskov vs. Novgorod and Pskov

Sjöberg is careful in his wording to consistently refer to the birchbark letters as part of the Novgorod-Pskov dialect. Despite the citation of a passage from Zaliznjak (Sjöberg 1990: 422) clearly stating that the Novgorod-Pskov/North Russian dialect area was not a unified whole, Sjöberg does not factor this subtlety

into his discussion. The active presence of *šokan'e* is a necessary link in his train of reasoning ( $z' > \dot{z}$  to explain *netęžě* from *netęžě*, but there is only evidence to suggest that *šokan'e* was active in some dialects in the western zone of the Novgorod-Pskov dialect area—i.e., those around Pskov. There is no specifically Novgorod evidence to suggest that *šokan'e* was active there, and the phonological reflexes of Novgorod and Pskov are different enough that it cannot simply be assumed. The dangers of such an assumption are illustrated by the reflexes of *\*tl* and *\*dl*, which went to *kl* and *gl*, respectively, in the Old Pskov dialect. Without *šokan'e*, there is no systematic way to get posited *netęžě* from attested *netęžě*, and therefore no evidence in this form to suggest that the second regressive palatalization took place in the Old Novgorod dialect.

### 5.3.4 Cokan'e and Bjørnflaten's restorative sound changes

Bjørnflaten himself states (Bjørnflaten 1988: 79) that Zaliznjak could be correct, even if Gluskina and Stieber are proven incorrect (if the sound changes that produced the velars in the modern dialectal items took place after the birchbark letters) or are proven 38 irrelevant (if the lexical items they examine are shown to be later borrowings.) The former theory is somewhat improbable—the birchbark letters stretch over a period of four centuries, with attested unpalatalized velar forms scattered throughout. While the absolute chronology of the second regressive palatalization is by no means firmly established, it is extremely unlikely that the second palatalization waited until at least the late 15th century to take place. However, let us assume for a moment that this did take place, and sometime after the mid-15th century the palatal velars spirantized to produce the traditionally expected reflexes of the second regressive palatalization. It is important to keep in mind, here, that at least some of these North Russian dialects have *cokan'e*, and the product of the spirantization of  $k'$ , generally written as *c*, would be equivalent to what is generally written as *č*. This poses a problem for Bjørnflaten's proposed series of changes to restore the velar. The series of changes is listed as  $k > c' > t' > k$ . In a *cokan'e* dialect, it is not possible to exclude words with an etymological *č* from participating in this change, since *cokan'e* would have necessarily arisen prior to it. Therefore, we would expect to find forms like *kitat' < čtat'*, but this is not the case. This raises some serious doubts about the legitimacy of Bjørnflaten's series of restorative sound changes.

If we eliminate from consideration the possibility that Zaliznjak may be correct, we can posit that these restorative sound changes took place early in the history of the Novgorod-Pskov dialect. In order to avoid the complications of *cokan'e*, this change would have to predate that development. However, both unpalatalized velars and *cokan'e* are attested from the earliest period of birchbark letters, thus, the timing would have to be pushed back as far as the late Common Slavic era (Zaliznjak 2004: 43). The entire process would have had to take place over a very short period of time, in order for all the developments to occur by the time of the first birchbark letters. Such a necessary early placement of uniquely North Russian phonological developments is contrary to one of the major goals of the “zig-zag” hypothesis, by seeming to show a dialect that split off early from the rest of Slavic.

## 5.4 Summary and conclusion

The explicit goal of the “zig-zag” hypothesis is to retain the traditional chronology of the phonology and dialectal breakup of Common Slavic. The proposals scholars put forth in lieu of Zaliznjak's interpretation

ultimately put them in the same position—in order to explain the restoration of velars in general and *gvědzkě* in specific, they end up positing early developments unique to the North Russian dialects.

The *šokan'e* needed to claim *netě* as proof in favor of the second regressive palatalization is far from a given in the Novgorod dialect proper. An attempt to repudiate the modem dialectal Gluskina-Stieber data without involving Zaliznjak through the use of a later series of sound changes that restored the velar becomes untenable if posited post-*cokan'e*. For this reason, it has to be early, and an early process of velar restoration is impossible to conclusively prove. Transitional forms displaying *t* for *c* that would support it are not attested in the current corpus of data. As an early change affecting only a small dialect region of Slavic, we cannot look to further developments in other languages or dialects for help in reconstructing what happened. While it is also impossible to conclusively disprove, given the reasons underlying the proposal and the lack of evidence, it looks more and more like an ad hoc defense of the status quo than a realistic explanation based on the data. The data does not support the “zig-zag” hypothesis, nor does the “zig-zag” hypothesis adequately explain the discrepancies at hand.

Sjöberg states that accepting the data at face value, as interpreted by, Zaliznjak is “convincing only if [the forms] cannot be explained in any other way.” (Sjöberg 1990: 421).

## 6. Conclusion

### 6.1 Summary

As this paper has demonstrated, none of the three main theoretical approaches that have been used to explain the unpalatalized velars in the birchbark letters adequately account for the data. In the case of Vermeer, the two different directions of leveling in the same environment are enough to completely nullify his argument. While Lunt’s theory does form a coherent, self-contained system, it necessitates unacceptable underlying assumptions, including excluding *\*x* from the progressive palatalization, overlooking the inconsistent reflexes of *\*g*, and viewing the nominal desinences in terms of an unattested “underlying nature.” The proposals put forth by Sjöberg and Bjørnflaten suffer from a lack of evidence: *šokan'e* is a clearly attested feature in Pskov, but not in the Novgorod region Sjöberg focuses on. Bjørnflaten’s concession to Zaliznjak is impossible in the face of modem *cokan'e*, and there is no data to support a very early velar restoration process. Granted, the data does not eliminate the possibility of the velars being palatalized and then restored, but proposing changes that contradict the face value of the data—on the grounds that there is no evidence that they did *not* happen—is a tenuous position.

### 6.2 Conclusions

As I stated in the introduction, my goal with this paper was not to propose a novel explanation for the data. There are legitimate questions relating to the apparent nonimplementation of the second regressive and progressive palatalizations, primary among them ‘why’. I do not purport to have the answers, but I hope that this paper has indicated which directions of inquiry effectively lead to “dead ends” in addressing the questions at hand. I disagree with the extent to which Zaliznjak feels it necessary to connect his argument with the findings of Gluskina and Stieber, and I feel that he shows premature enthusiasm when discussing theoretical proposals, such as Vermeer’s, that support his view of the data.

Regardless of his conclusions, I feel that Vermeer’s starting point—Zaliznjak’s thorough description of the data as it appears—was a good one, and, regrettably, an innovative one, given the scholarly tendency to fit

data into theory, instead of adjusting theory to accommodate data. The former approach has resulted in self-contradiction-recreating the undesirable early dialect divisions, albeit along different grounds. At this point, I feel the only way the scholarly discussion of the palatalizations in the old North Russian dialect zone can progress is by accepting that the data is, in fact, what it is, and working from there.

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## Footnotes

1. Lunt 1981: 38.
2. Schenker 1995: 91.
3. In the Old Novgorod dialect, the letter *e* was frequently written for *ѣ*, even in weak position.
4. Vermeer refers to these diphthongs as “rising” (Vermeer 1986: 509) in keeping with a pitch-based description. The diphthongs in question are rising in pitch, but falling in sonority. In this paper, I refer to them as “falling.”
5. Particularly in light of the amount of attention focused on the presence of Finnic influences in the Novgorod dialect area, it is worth noting that the birchbark letters written in Baltic Finnic number significantly fewer than those written in any other non-Slavic language. The tallies for the other languages: Latin- 488, Greek-552, Lower German-753, although there is no evidence that these are substrate languages in the Novgorod region. (Zaliznjak 2004: 20)
6. The information about Balto-Finnic phonology was provided by Prof. Bill Darden.
7. There is one other instance in Torž. 10
8. Additionally, Torž 7
9. personal name
10. In BBL 842, it is in the context of three hares, with the ending -*ě*. Similarly, BBL 92 shows the locative case, etymologically -*ě* but written there as -*e*. Thus, the second regressive palatalization could be used to account for the reflex *c* here, but since it only makes sense at all to argue against the progressive palatalization if you also deny the existence of the second regressive palatalization, this justification would be unsatisfactory.
11. Or possibly masculine nominative singular, but the point remains.
12. This was first suggested to me by Prof. Daniela Hristova.
13. It is worth mentioning that Zaliznjak excludes works by Lunt, Channon, Jakobsson, and Velcheva that propose an early progressive palatalization as a solution to the Old Novgorod phonological issues.
14. This section is entitled, revealingly, “Lack of the effect of the second regressive palatalization” (Zaliznjak 2004: 41), which points to Zaliznjak’s position from the start.
15. Zaliznjak associates his work with Gluskina and Stieber’s studies on what appear to be unpalatalized velars in the modern dialectal language, which is unnecessary to prove his point. Furthermore, his defense of the legitimacy of their data constitutes the weakest aspect of his case, as there are multiple problems: 1) one can make a very reasonable case (see Bjørnflaten 1988) for the non-Slavic origin of the data, and 2) there is no way to tell when the words were borrowed, as there are no early attestations. It is possible that they were borrowed after the second palatalization ceased to be in effect, and therefore, are not relevant to the question of the second palatalization whatsoever.