## Two Despirantization Processes in Sorbian Gunter Schaarschmidt University of Victoria

The earliest Slavic dialects of Indo-European did not possess the spirant x in their phoneme inventories. While the sound [x]may have occurred very early as an affective variant in onomatopoeic forms, the phoneme /x/ eventually developed in the sixth or fifth century B.C. from Indo-European \*s in the position after i, u, r, or k, if not before a stop; cf., after i: Russian vexa 'stake, landmark' (where e < e < \* 0i), Old High German wisk 'wisp of straw', English whisk; after u: Russian uxo 'ear', Gothic auso; after r: Russian verx 'top', Old Indian vársma 'height, top', Lithuanian viršůs 'top'; after k: Russian lox-mot'ja 'rags', Polish lacerate. The environment after k is in fact the major source of occurrences of initial x in Slavic, with k itself having elided, i.e., \*ks>\*kx>x.<sup>1</sup>

In medial and final position, x has remained fairly stable in Slavic, with the exception of certain Slovenian dialects in which the replacement of x by  $[k^c]$  and [kx] is no doubt due to the influence of Upper German dialects (Isacenko 1939:37-38). Initial x is often subject either to despirantization, resulting in [k] or the aspirated  $[k^c]$ , or to replacement by /f/, particularly in the initial cluster xv-. Despirantization occurs mainly in West Slavic, while replacement is more typical of both East Slavic and South Slavic.

<sup>&</sup>lt;sup>1</sup> For other sources of initial x in Slavic, see Shevelov (1965: 134-36). In this article, all italicized forms refer to either orthographic literary forms or recorded dialect material; asterisked forms are Proto-Slavic reconstructed items; and forms in square brackets are given when the orthography deviates from the phonetic shape of items. In phonetic transcription, the apostrophe stands for palatalization, e.g., [s'], while the superscript [<sup>c</sup>] stands for aspiration.

In Sorbian, despirantization occurs in two variations. In Upper Sorbian, any initial x has been despirantized, while in Lower Sorbian only x before a consonant has been subject to this process.<sup>2</sup> The purpose of this article will be to examine the relationship between these two processes in terms of their chronology and conditioning. The scope of this investigation does not allow a detailed discussion of the probable causes for despirantization in Sorbian and other West Slavic languages. These causes can only be hinted at in the course of this study and must be left for a future treatise on the subject.

In the contemporary phonological system of Upper Sorbian, the phoneme /x/ has an allophone  $[k^{C}]$ , i.e., a strongly aspirated k, which occurs in morpheme-initial position. Thus, the orthographic forms *chodžić* 'to walk', *chěža* 'house', and *wuchod* 'exit; east' are pronounced  $[k^{C}odžič]$ ,  $[k^{C}ejža]$ , and  $[uuk^{C}ot]$ , respectively. Before the sonorants r and l, x is replaced by the unaspirated [k], cf. [klěp]*chlěb* 'bread'; [kribjet] *chribjet* 'back; spine'; [klěu] *chlěw* 'pigsty'.

In Lower Sorbian, x is preserved before vowels, cf. *chojźiś* 'to walk'; *chyža* 'hut'; and *wuchod* 'exit; east'. Before consonants, x is replaced by k: *klew* 'stable'; *kmjel* 'hop'; *kśen* 'horse-radish'; *kśebjat* 'back ; spine'.

<sup>&</sup>lt;sup>2</sup> We are assuming, in the form of a working hypothesis, that Upper and Lower Sorbian are genetically related and traceable back to a single ancestor, i.e., Old Sorbian. This view is by no means generally accepted in view of the small number of specifically Sorbian innovations as compared with the other languages of the West Slavic branch, i.e., Polish, Czech, Slovak, and the extinct Polabian. Most recently, Schuster-Šewc (1976:70-86) has presented an argument that a number of ancient Proto-Slavic dialects sharing features of all three Slavic language branches, i.e., East, West, and South, may have converged to yield a kind of Common Sorbian language around 600 A.D. This argument has no bearing on the processes under discussion here since their operation is sufficiently far removed from that period.

If we compare this situation with other West Slavic languages, nothing like the development in Upper Sorbian is seen to occur in any one of them. But we find despirantization without aspiration in some dialects of Czech before sonorants, cf. kvala 'praise'; kvil'a'minute'; krust 'June beetle'; and krobak 'dung-beetle'. All of these words have initial x in literary Czech.

The question which arises in this respect is whether the two processes, i.e., despirantization with aspiration in Upper Sorbian, and despirantization without aspiration in Upper Sorbian, Lower Sorbian, and Czech dialects are in any way genetically related. Schuster-Šewc (1972:10-27), who argues for such a relation, sees the inception of the change  $x \rightarrow k$ - in the dissimilatory change of the sequences x + sonorant to k + sonorant. Despirantization then spread in Upper Sorbian from this environment to a position before a vowel. In Lower Sorbian the change was restricted to the sequences  $x + r_{,}$ l,  $\tilde{s}$ ,  $\tilde{s}$  (and even here not regularly). The lower frequency of the new initial k prevented this development from spreading to a prevocalic position. To explain why Upper Sorbian developed an aspirated [k<sup>C</sup>], Schuster-Šewc resorts to the notion of functional load. He argues that if x had changed to k, the functional load of this phoneme would have been increased excessively (Schuster-Šewc 1972:364). We have shown elsewhere (Schaarschmidt 1978:343) that before a vowel the change x > k would have resulted in no more than half a dozen cases of homonyms. There seem to be only two clear cases where homonyms would have resulted in a position before a sonorant. Whether this number can be considered sufficient to make a case for functional load as a meaningful criterion for determining the directionality of linguistic change, is not an easy question to answer. In any case, even if functional load were not a factor, this would still not invalidate the argument that the development in Upper Sorbian is in essence the

same sound change as in Lower Sorbian, albeit with a different result.

Stieber (1934:67) argued against a genetic relationship between the two processes because he noticed that in those dialects where initial x had been preserved, there exist nonetheless forms like [klep] chleb 'bread'. He maintains that this development is not related to the change x > k in Upper Sorbian, but is part of a more general change x > k in the environment before a sonorant. Stieber does not provide any evidence against the possibility that Upper Sorbian may in fact be at a more advanced stage of a process which can be traced back to a common origin.

The answer to this question can only be found in the internal phonological history of Sorbian, an area which has received far too little attention among students of Sorbian. For the purpose of the present problem, it will be worthwhile returning to the rule given by Schuster-Šewc for despirantization in Lower Sorbian. After stating that Lower Sorbian has not been affected by the Upper Sorbian change x > k, Schuster-Šewc notes that there is a similar change in Lower Sorbian, viz., the change x > k before the sonorants r, l, m and the spirants  $\hat{s}$  and  $\hat{s}$ .

The above rule could actually be simplified by stating the environment as [+cons], since the list of phonemes given exhausts all possible preconsonantal environments for x, with the exception of w, a bilabial glide in Lower Sorbian. The problem with the proposed rule is, however, that there simply did not exist a stage in the development of Sorbian at which we can assume \*xs and \*xs sequences. If we examine the examples given by Schuster-Šewc, we note that in most cases  $\hat{s}$  and  $\hat{s}$  are derived from Proto-Slavic \*r:  $k\hat{s}\hat{e}n < *xr\hat{e}nb$  'horse-radish';  $k\hat{s}ebjat < *xrbbbtb$  'back; spine';  $k\hat{s}opa < *kropa$  'drop';  $k\hat{s}osta\hat{s} < *xrostati$ 'to rustle'. In one case,  $\hat{s}$  is derived from \*t via  $\hat{c}$ :  $k\hat{s}\hat{e}\hat{s} < xbt\hat{e}ti$ 'to want', cf. Upper Sorbian  $chcy\hat{c}$ .

The only way to derive a  $\acute{s}$  or  $\acute{s}$  from \*r in Lower Sorbian is by the process of *r*-assibilation. This process operated only in the environment after the voiceless stops *p*, *t*, *k* with  $\acute{s}$  resulting before a front vowel, and  $\acute{s}$  before a back vowel, cf.  $p\acute{s}i < *$ pri 'at; with';  $k\acute{s}iwy < *$ krivb 'crooked';  $t\acute{s}i < *$ tri 'three';  $p\acute{s}osy\acute{s} < *$ prositi 'request';  $mok\acute{s}y < *$ mokry 'wet';  $sot\acute{s}a < *$ sestra 'sister'.

Therefore, at the time when r was becoming assibilized to  $\pm$ or  $\pm$  in Lower Sorbian, x must already have become k, or else assibilation would not have occurred. The assibilization of r thus provides a terminus ante quem for the despirantization of x in Lower Sorbian: if r-assibilation took place around or before the tenth century A.D., then the change x > k must have been completed by that time.<sup>3</sup>

The assibilation of r also provides a terminus post quem for despirantization in Upper Sorbian. As in Lower Sorbian, r in Upper Sorbian underwent assibilation after the voiceless stops p, t, k, but only before front vowels, cf. [pši]  $p\tilde{r}i$  'at; with'; [kšiwy]  $k\tilde{r}iwy$  'crooked'; [ts'i]  $t\tilde{r}i$  'three'; but:  $prosy\acute{c}$  'request'; mokry'wet'; sotra 'sister'. Even though in contemporary Upper Sorbian, inherited \*x has become [k] before r, that r itself has not undergone assibilation, cf. [kribjet] chribjet 'back; spine'; [krěn]

<sup>3</sup> The exact mechanism and chronology of r-assibilation in Sorbian are still poorly understood. On the one hand, it appears to be a very old process which may have been completed well before the tenth century (Faska 1973). On the other hand, there is evidence which suggests that assibilation was the end product of a number of intermediate stages stretching over two or three centuries (Mareš 1976:54-63).



chren 'horse-radish'. Thus, x must still have been a fricative in Upper Sorbian at the time when r-assibilation took place.

Michałk (1979:194-95) using evidence from documents, dialects, and studies of Sorbian-German bilingualism, comes to the conclusion that despirantization cannot have been an active process in Upper Sorbian before the sixteenth or seventeenth centuries. For expository purposes, then, we may sum up the history of despirantization in Sorbian by the following set of rules:

(1) 
$$x \longrightarrow k/\#$$
 \_\_\_\_\_\_ sonorant Lower Sorbian  
Ninth century  
(2)  $r \longrightarrow \tilde{r}/\{p, t, k\}$  \_\_\_\_\_\_ Lower and Upper Sorbian  
(3)  $x \longrightarrow \begin{bmatrix} k \\ k^c \end{bmatrix}/\#$  \_\_\_\_\_\_ [sonorant]  
vowel Upper Sorbian  
Sixteenth century

The final question that remains to be examined within the scope of this study is why Upper Sorbian developed an aspirated  $k^c$  from \*x before vowels, while Lower Sorbian did not. Since the answer can obviously not be found within the internal phonological development of Upper Sorbian, we must turn to an examination of possible external causes. As the map shows, there is an interesting correspondence between the  $x/k^c$  isogloss in Sorbian and the g/k isogloss line in the German dialects west of the Sorbian language area.<sup>4</sup> As we have described elsewhere (Schaarschmidt 1978:339-40), initial k of whatever origin is strongly aspirated pretonically and before vowels in West Lusatian, an East Middle German dialect bordering on Upper Lusatia to the west, cf.  $k^c \varphi x$  'cook';  $k^c \bar{u}$  'cow';  $k^c \bar{e}$  'no; none';  $k^c i \varphi e$  'kitchen'. Before sonorants, the aspiration of initial k is

<sup>4</sup> This map is adapted from Herrmann (1970:409). The author wishes to thank the Akademie-Verlag in Berlin for granting him permission to reproduce the map.

either weak or non-existent, cf.  $gl\bar{i}$  'clover';  $gn\bar{i}$  'knee';  $gr\bar{a}\bar{o}$  'crow'; grum 'bent'.<sup>5</sup>

North of the West Lusatian area, in the Eastland Seam (German Osterländische Staffel), initial k is realized as a voiceless, non-aspirated lenis before both vowels and sonorants, cf.  $g_{\zeta x}$  'cook';  $g\bar{u}$  'cow';  $g\bar{e}$  'no; none'; gi ce 'kitchen'.

Since the change  $x > k^c$  spread from west to east in the Upper Sorbian area (Michałk 1979: 194-95), the assumption of a possible superstratal influence seems quite plausible. Since German, at least Low and Middle German, has not had an initial x since the sixth century A.D., the aspirated  $k^c$  of East Middle German was reasonably close phonetically to Sorbian x in order to facilitate a replacement. In Lower Sorbian, the phonetic distance between the non-aspirated lenis of the adjacent German dialects and the native x was too great to allow any such replacement.

We tend to agree with Michałk (1979), however, that before final judgment can be passed upon this hypothesis, the exact dialect boundaries and the core of the Sorbian-German bilingual area need to be established. It is always difficult to deal with interference phenomena in a historically remote period, the more so when, as in the case of Sorbian, documentary evidence is sparse. In the meantime, however, the proposed hypothesis can provide a meaningful starting point for examining alternative solutions to the problem under investigation.

<sup>5</sup> In the practice of German dialectologists, this voiceless, nonaspirated lenis is transcribed as g.

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