## SOME ASPECTS OF LUSATIAN PHONOLOGY: A TRANSFORMATIONAL TREATMENT

ANTHONY L. VANEK

In traditional Lusatian grammars (Wowćerk 1955), infinitive forms are given two phonological reflexes, $c$ and $c$, which are appended to stems terminating in non-velar consonants or vowels and velar consonants respectively. We will argue that if the forms of the infinitive in Lusatian have two phonological reflexes, we miss a generalization which could not be captured within a traditional description. Consider the following:
(a) plesć
(b) bosc
(c) njesć
(d) wjezć
(e) $p i c ́$
'something'
'drink'
'weave'
'stab'
'carry'
'drive'
something'
'drink'
pletu
bodu
njesu
wjezu
piju
piješ
[pić]
Notice that (la-d) have $\underline{s}$ preceding the infinitive suffix $\underline{\underline{c}}$ but, comparing the infinitive forms with those of the first person singular, we see that $s$ alternates with $t, d, s$ and $z$ and that $d$ alternates with $\dot{s}$ and $t$ with $c$. We postulate the first singular present form to be basic, as in (2) UR (underlying representation):
(a) $/$ plet + ti $/$
(b) $/ \mathrm{bod}+\mathrm{ti} /$
(c) $/$ nes $+\mathrm{ti} /$
(d) $/ \mathrm{wez}+\mathrm{ti} /$

Further rules will enable us to derive the desired phonetic forms as in (l) a-d, thus accounting for the above alternations.

$$
[+ \text { obstruent }] \rightarrow\left[\begin{array}{l}
+ \text { strident }  \tag{3}\\
+ \text { continuant } \\
+ \text { anterior }
\end{array}\right] / \rightarrow[+ \text { infinitive }]
$$

$$
[+ \text { obstruent }] \rightarrow[- \text { voice }] / \longrightarrow\left[\begin{array}{l}
- \text { voice }  \tag{4}\\
+ \text { obstruent }
\end{array}\right]
$$

$\begin{array}{llllll}\text { (5) } & d, t & \longrightarrow & \dot{3}, \dot{c} & - & \mathrm{F} \\ \text { (6) } & i & \longrightarrow & \varnothing & - & \#\end{array}$
Applying (3) to (7-10):
UR: /plet $+\mathrm{ti} / \rightarrow 3 \rightarrow$ ples $+t i \rightarrow 4 \rightarrow$ vacuous $\rightarrow 5 \rightarrow$ ples $+c i i \rightarrow 6 \rightarrow$ DR: [plesć]
UR: /bod $+\mathrm{ti} / \rightarrow 3 \rightarrow b o z+t i \rightarrow 4 \rightarrow b o s+t i \rightarrow 5 \rightarrow \mathrm{bos}+c \dot{c} i \rightarrow 6 \rightarrow$ DR: [bosć]
$/ \mathrm{njes}+\mathrm{ti} / \rightarrow 3 \rightarrow$ vacuous $\rightarrow 4 \rightarrow$ vacuous $\rightarrow 5 \rightarrow n j e s+c \dot{c} i \rightarrow 6 \rightarrow \mathrm{DR}:$ [njesć]
(10) UR: $/$ wjez $+\mathrm{ti} / \rightarrow 3 \rightarrow$ vacuous $\rightarrow 4 \rightarrow$ wjes $+t i \rightarrow 5 \rightarrow$ wjes $+c i i \rightarrow 6 \rightarrow$ DR: [wjesć]
We see that $D R$ (derived representation) in (7-10) corresponds to the phonetic forms in (la-d). Consider the following:
(11)
(a) pec 'bake' peku
(b) móc 'able' mohu

These examples show an alternation of $k, h$ with $c$. The question is whether the terminal consonant in the roots pek and móh, respectively, is deleted before the infinitival suffix or whether the infinitival suffix is deleted.
Analogously to ( $1 \mathrm{a}-\mathrm{d}$ ), let us select the first present stem as the underlying form for pec in (12):
(12)

$$
\mathrm{UR}: / \mathrm{pek}+\mathrm{ti} /
$$

Let us apply the independently motivated rules in (3-6) to (12), as in (13):

$$
\begin{align*}
& \text { UR: /pek }+\mathrm{ti} / \rightarrow 3 \rightarrow \text { pes }+t i \rightarrow 4 \rightarrow \text { vacuous } \rightarrow 5 \rightarrow \text { pes }+c \dot{c} i \rightarrow 6 \rightarrow  \tag{13}\\
& \quad \text { DR: [pesć] }
\end{align*}
$$

The output of these rules is an incorrect form *pes $+\dot{c}$ instead of the correct pec.
In Standard Czech the word péc, 'bake', has a colloquial variant péct. Therefore, a speaker of Standard Czech has internalized a rule which deletes $t$ in the infinitive. Using this Czech phenomenon, we may postulate the UR for pec in Lusatian as (13). In order to ensure the desired output of the previous rule (3) as pec instead of pesć, we reformulate (3) as (14):

$$
[+ \text { obstruent }] \longrightarrow\left[\begin{array}{l}
+ \text { strident }  \tag{14}\\
\alpha \text { continuant } \\
+ \text { anterior }
\end{array}\right] /[\overline{\alpha \text { anterior }}][+ \text { infinitive }]
$$

In addition, we formulate a rule of $\dot{c}$ deletion:

$$
\begin{equation*}
\dot{c}-ø / \mathrm{C}[\overline{+ \text { infinitive }}] \tag{15}
\end{equation*}
$$

This rule, then, operates both in Standard Czech and Standard Upper Lusatian.

In considering the derivation of pec in (16):
(16) UR: $/ \mathrm{pek}+\mathrm{t} / / \rightarrow 14 \rightarrow p e c+t i \rightarrow 4 \rightarrow$ vacuous $\rightarrow 5 \rightarrow p e c+c i t \rightarrow 6 \rightarrow$ pec $+\dot{c} \rightarrow 15 \rightarrow \mathrm{DR}:[\mathrm{pec}]$
we have derived the desired form, even though the formulation of rules (3-6) was motivated on independent grounds to account for one phenomenon, slight modification of rule (3) as (14) allows us to account for an additional phenomenon.

Department of Slavic Languages
University of Alberta, Edmonton

## REFERENCES

Vanek, A.L.
1969 "Syntactically Oriented Phonological Analysis", Papers in Linguistics 1:1.
Wowcerk, P.
1955 Kurzgefasste Obersorbische Grammatik (Berlin, Volk und Wissen Ludowy Naklad Berlin).

## DISCUSSION

Dearmond (Burnaby, B.C.)
One possible solution to the problem of the derivation of the infinitive of stems which terminate in velars is to consider the infinitive suffix to be $/ \mathrm{Ti} /$, and that palatalization extends through $/ \mathrm{t} /$ to $/ \mathrm{k} /$ :

$$
/ \mathrm{pek}+\mathrm{Ti} / \quad / \mathrm{p}, \mathrm{ek}+\mathrm{T}, \mathrm{i} /
$$

then by the first palatalization, $/ \mathrm{k}, / \rightarrow / \mathrm{c} /$ and then $/ \mathrm{c} /$ by dissimilation becomes $/ \mathrm{j} /$ : $/ \mathrm{p}, \mathrm{ej} \mathrm{T}, \mathrm{i} / / \mathrm{j} /$ and $/ \mathrm{t}, /$ metathesize: /pet,ji/. The jod palatalization applies and the final short high vowel is lost: /peć/. This analysis accounts for the apparent fact that the jod palatalization applies to all the Slavic languages with an infinitive (except Ukrainian where the initial palatalization does not apply across $/ \mathrm{T} /$ to $/ \mathrm{K} /[\mathrm{pekty}]$ ). Do you know of any evidence why this should not occur in Lusatian as well?

## VANEK

It is usually possible to design multiple solutions to a limited problem in linguistic description. The difference between an $a c h o c$ and a 'natural' solution to such a problem is its applicability to OTHER areas of the grammar of the same language, or indeed of languages in general. My argument is based on three rules applying to three different phenomena and is thus independently motivated. I have no comparable evidence that Mr. DeArmond's solution is a 'natural' one.

Hewson (St. John's, Nfld.)
Why do you go to such lengths to "simplify" an inventory of only three items?

## VANEK

I go to such lengths to simplify an inventory of only three items for the same reason that one describes a language in any sense - that is, to capture some generalization.
rochet (Edmonton, Alta.)
Since $t$ (mentioned in your presentation) is never realized in the language as a mark of the infinitive, are you trying to account for the 'competence' of the speakers, or are you replacing the traditional DESCRIPTION by another DESCRIPTION, whose criteria have been selected arbitrarily by the linguist?

## VANEK

I am trying to account for the 'competence' of the speakers.

