

XIV. LINGUISTICS*

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A. ON pon, áť, AND obrazovát, TYPE VERBS IN RUSSIAN

This report is an extension of previous work done on the Russian verb by Jakobson¹ and Halle.² We discuss only the present tense and the infinitive; furthermore, we shall not consider prediction of stress location. For this reason, Halle's rules regarding stress assignment and imperative, infinitive, and participle derivation have been omitted.

We shall be concerned, in particular, with the following forms; the forms in the left-hand column represent the Basic Verbal Stems from which all forms of the verb may be predicted:

<u>Stem</u>	<u>1 sg Pres</u>	<u>3 sg Pres</u>	<u>3 pl Pres</u>	<u>Infinitive</u>
po+jm	pajmú	pajm, óť	pajmút	pan, áť,
s+jm	sn, ímú	sn, ím, í t	sn, ímut	sn, áť,
obraz+ou+a	abrazúju	abrazújt	abrazújut	abrəzavát,

After the application of the precycle rules given by Halle, these forms will be represented by the following strings, in which parenthesizing indicates the immediate constituent structure:

<u>1 sg Present</u>	<u>3 sg Present</u>	<u>3 pl Present</u>	<u>Infinitive</u>
((po+jm+o)+u)	((po+jm+o)+t)	((po+jm+o)+ut)	(po+jm+t,)
((s+jm+o)+u)	((s+jm+o)+t)	((s+jm+o)+ut)	(s+jm+t,)
((obraz+ou+a+o)+u)	((obraz+ou+a+o)+t)	((obraz+ou+a+o)+ut)	(obraz+ou+a+t,)

The following rules apply in a cyclical fashion to the smallest constituent containing no parentheses:

$$C-1. \text{ Insert } \underline{j} \text{ in env: } \text{---} + \begin{bmatrix} +\text{voc} \\ -\text{cns} \\ -\text{flt} \end{bmatrix} + \begin{bmatrix} +\text{voc} \\ -\text{cns} \\ +\text{flt} \end{bmatrix}$$

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C-2. $\underline{u} \rightarrow \underline{v}$ in env: _____ (+) $\begin{bmatrix} +\text{voc} \\ -\text{cns} \end{bmatrix}$

C-3. $V \rightarrow \emptyset$ in env: _____ (+) $\begin{bmatrix} +\text{voc} \\ -\text{cns} \end{bmatrix}$

C-4. $[+\text{cons}] \rightarrow [+\text{sharp}]$ in env: _____ + $\begin{bmatrix} +\text{voc} \\ -\text{cns} \\ +\text{flt} \end{bmatrix}$ + Y where Y may not be null.

C-5. Erase parentheses and return to C-1. If there are no more parentheses, then go to the postcycle phonetic rules.

We apply these cycle rules to some of the strings given above.

Phonetic Form	Derivation	Rules Applied In Derivation
1. pajm ^ú	((po+jm+o)+u) (po+jm+o+u) (po+jm+u) po+jm+ ^ú	C-5 C-3 C-5
2. pajm, ót	((po+jm+o)+t) (po+jm+o+t) (po+jm, +o+t) po+jm, + ^ó t	C-5 C-4 C-5
3. sn, ím, It	((s+jm+o)+t) (s+jm+o+t) (s+jm, +o+t) s+ ^í m, +o+t	C-5 C-4 C-5
4. sn, ímut	((s+jm+o)+ut) (s+jm+o+ut) (s+jm+ut) s+ ^í m+ut	C-5 C-3 C-5
5. pan, át,	(po+jm+t,) po+ ^í m+t,	C-5
6. sn, át,	(s+jm+t,) s+ ^í m+t,	C-5
7. abraz ^ú ju	((obraz+ou+a+o)+u) (obraz+ouj+a+o) (obraz+uj+o) (obraz+uj+o+u) (obraz+uj+u) obraz+ ^ú j+u	C-1 C-3 C-5 C-3 C-5

8.	abrazújɪt	((obraz+ou+a+o)+t)	C-1
		(obraz+ouj+a+o)	C-3
		(obraz+uj+o)	C-5
		(obraz+uj+o+t)	C-5
		obrazúj+o+t	
9.	abrəzavát,	(obraz+ou+a+t,)	C-2
		(obraz+ov+a+t,)	C-5
		obraz+ov+á+t,	

In order to obtain the correct phonetic forms, we must now apply a number of post-cycle phonetic rules.

1. Insert n in env: $\langle [+cns] \rangle + \text{---} \underline{j}m + \langle [+cns] \rangle$
where at least one of the entities enclosed in $\langle \rangle$ must be present.
2. $[+cns] \rightarrow [+sharp]$ in env: $\text{---} (+) \underline{j}$
3. $[-cns] \rightarrow \underline{a}$ in env: $\text{---} [+nsl] + [+cns]$
4. $\underline{j} \rightarrow \underline{i}$ in env: $[+nsl] \text{---} [+nsl]$
5. $[+nsl] \rightarrow \emptyset$ in env: $\text{---} + [+cns]$
6. Erase all + markers
7. Unstressed o \rightarrow a
8. Unstressed $\left\{ \begin{array}{c} \underline{a} \\ \underline{e} \\ \underline{i} \end{array} \right\} \rightarrow \underline{I}$ in env: $\left[\begin{array}{c} +cons \\ +shrp \end{array} \right] \text{---}$
9. Unstressed a \rightarrow ə in nonpretonic, noninitial positions

We complete the derivations of the examples given above.

1. $po+jm+\acute{u} \rightarrow pojm\acute{u} \rightarrow pajm\acute{u}$
2. $po+jm, +\acute{o}+t \rightarrow poj\acute{m}, \acute{o}t \rightarrow paj\acute{m}, \acute{o}t$
3. $s+j\acute{m}, +o+t \rightarrow s+nj\acute{m}, +o+t \rightarrow s+n, j\acute{m}, +o+t \rightarrow s+n, \acute{i}m, +o+t \rightarrow sn, \acute{i}m, \acute{o}t \rightarrow sn, \acute{i}m, \acute{a}t \rightarrow sn, \acute{i}m, \text{I}t$
4. $s+j\acute{m}+ut \rightarrow s+nj\acute{m}+ut \rightarrow s+n, j\acute{m}+ut \rightarrow s+n, \acute{i}m+ut \rightarrow sn, \acute{i}mut$
5. $po+j\acute{m}+t, \rightarrow po+nj\acute{m}+t, \rightarrow po+n, j\acute{m}+t, \rightarrow po+n, \acute{a}m+t, \rightarrow po+n, \acute{a}t, \rightarrow po+n, \acute{a}t, \rightarrow pan, \acute{a}t,$
6. $s+j\acute{m}+t, \rightarrow s+nj\acute{m}+t, \rightarrow s+n, j\acute{m}+t, \rightarrow s+n, \acute{a}m+t, \rightarrow s+n, \acute{a}t, \rightarrow sn, \acute{a}t,$
7. $obraz+\acute{u}j+u \rightarrow obraz\acute{u}ju \rightarrow abraz\acute{u}ju$
8. $obraz+\acute{u}j+ot \rightarrow obraz\acute{u}jot \rightarrow abraz\acute{u}jat \rightarrow abraz\acute{u}j\text{I}t$
9. $obraz+ov+\acute{a}+t, \rightarrow obrazov\acute{a}t, \rightarrow abrazav\acute{a}t, \rightarrow abr\acute{e}zav\acute{a}t,$

It is interesting to note that the present treatment of the a/[-cns][+nsl] alternation in Russian is not restricted to the pon, á, type verbs.

Thus, for example, the verb with infinitive načát, but 3 plural Present načnú, can be derived with the help of one additional (independently motivated) postcycle phonetic

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rule that applies after Rule 4:

4A. $\underline{j} \rightarrow \emptyset$ in env: [+cns] _____

The derivations will be

phonetic: načnúť	načát,
phonemic: ((na+čjn+o)+ut)	(na+čjn+t.)
C-5: (na+čjn+o+ut)	na+čjn+t,
C-3: (na+čjn+ut)	
C-5: na+čjn+úť	
3:	na+čán+t,
4A: na+čn+úť	
5:	na+čá+t,
6: načnúť	načát,

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References

1. Roman Jakobson, Russian conjugation, Word 4, 155-167 (1948).
2. M. Halle, Note on cyclically ordered rules in the Russian conjugation, Quarterly Progress Report No. 63, Research Laboratory of Electronics, M.I.T., October 15, 1961, pp. 149-155.