ZESZYTY NAUKOWE WYŻSZEJ SZKOŁY PEDAGOGICZNEJ W BYDGOSZCZY

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A GENERATIVE MORPHOPHONEMIC DESCRIPTION OF THE RUSSIAN IMPERATIVE

Abstract. The most natural generative account of the Russian imperative requires its derivation from the nonpast stem, not the Jakobsonian base as heretofore. The Jakobsonian bas is most appropriately used as a verbal citation form, from which the appropriate nonpast stem form can be predicted by stem-referencing rules. The present analysis illustrates the advantages for the description of Russian of morphophonemic systems like that proposed by Lunt 1975. Such systems permit the generative derivation of surface forms from underlying forms without the need for the excessive abstraction characteristic of Lightner 1972.

1. In the present study of the Russian imperative, first the analysis will be presented, then the relevant literature will be discussed in light of the analysis. Following a modified version of Lunt 1975, the analysis will make use of the inventory of Russian morphophonemes described below[1]. This system will also be used as a generalized notation for discussing the work of various authors, each of whom uses a slightly different notational system. The advantage of Lunt's system is that, in containing two rows of vowels, it exhibits sufficient vowel power in the sense of Hamilton 1976 to produce consonant mutations and palatalizations, while avoiding the excessive abstractness characteristic of other generative approaches to Russian phonology such as Lightner 1972. Lightner's approach involves, among other things, the postulation of various vowel features, in particular vocalic dipthongs and length, which become absolutely neutralized during the course of word derivation. Although in the interest

of simplicity of explication rules in the present study are given in a traditional morphophonemic form, the assumption is that these rules can be given an eventual generative phonological interpretation. For this reason it will be considered appropriate to evaluate morphophonemic rules in light of their ultimate phonological plausibility.

1.1. MORPHOPHONEMES

Vowels

Plain	a	e	i	o	u	
Iotated	ă	ĕ	ĭ	ŏ	ŭ	$\breve{\underline{\imath}}_2$

Consonants

Plain	p	b	f	v	m	t	d	s	z	n	l	r
Velar	k	g	x									
Hushing	š	ž	č		Dental Affricate			c				
Palatal Glide				j								

Operators

Softening Operator and Mobile	$\breve{\underline{o}}$ '
Zero Operator and Mobile	$\underline{o}$ "
Null	Ø
End of Word	#
Morpheme Boundary	-

Stress Morphophonemes[2]

Fixed	'
Simple Shifting	`

By the morphophomene $\breve{\underline{\imath}}_2$ /for which Lunt has no special notation/[3] is meant the $\breve{\underline{\imath}}$ morphophomene that is realized as the phoneme $\underline{i}$ preceded by a palatalized plain or velar consonant /in the case of the velar, palatalization is not distinctive/, cf. nŏs-$\acute{\breve{\imath}}_2$: ṇoṣí 'carry!', pŏk-$\breve{\imath}_2$: ṗokí 'bake!'. The morphophomene $\breve{\underline{\imath}}_2$ is distinguished on the one hand from $\breve{\underline{\imath}}$, which is realized as phonemic $\underline{i}$ preceded bya palatalized plain consonant or a mutated velar consonant /cf. xód-ĭ-t: xóḍit 'he walks', úk-ĭ-t: účit 'he teaches'/, and on the other hand

from the morphophoneme i, which is realized phonemically as i preceded by a plain or /nonphonemically/ palatalized velar consonant /cf. gúb-i: gúbi 'lips', rúk-i: rúki 'hands'/. Through the application of morphophonemic rules, the system outlined above is eventually realized as the phonemic /or lowerlevel morphophonemic/ system sketched below:

1.2. PHONEMES

Vowels	a	e	i	o	u							
Consonants												
Paired	p	b	f	v	m	t	d	s	z	n	l	r
	p̣	ḅ	f̣	ṿ	ṃ	ṭ	ḍ	ṣ	ẓ	ṇ	ḷ	ṛ
Velar	k	g	x									
Hushing	š	ž	č		Dental Affricate					c		
Palatal Glide				j								

1.3. MORPHOPHONEMIC RULES

The morphophonemic rules pertinent to the present study are given below. Unless otherwise indicated, these are general Russian morphophonemic rules, unrestricted as to word class or grammatical category within a word class. Rules are to be applied in order, whenever the structural description is met. As in Bloomfield 1939, in the examples the morphophonemic forms to the left of the colon are evetually realized as the phomenic forms to the right, possibly utilizing some rule or rules still to be illustrated. Since throughout this paper morphophonemic forms will contain at least one boundary marker /-/, no special device for differentiating between morphophonemic and phonemic notation will be required. In the illustrations below, forms other imperative are used where possible.

1. $\check{\text{I}}$, $\check{\text{I}}_2$: j/V__; da-$\check{\text{I}}_2$: daj 'give!'

2. ov: u/__C; dar-óv-j-u: darúju 'I grant'

3. plain C: mutated C/__j; pís-j-ð-š: písoš 'you write'[4]

4. velar C: mutated C/__', ă, ĭ, ŏ, ŭ; móg-ŏ-t: móžot 'he can'

5. unstressed ĭ, $ĭ_2$: '/__ # ; čitátĭ: čitáť 'to read'. This rule, limited to verbal morphology, applies to either ĭ or $ĭ_2$ but, in the imperative it does not apply in case the stem /at this point in the derivation/ ends in more than one consonant, cf. krĭk-n-$ĭ_2$: kríkni 'shout'.

6. ': ŏ, ":o/__C', C"; p's-": pos 'dog', s"n-": son 'dream'. Following this rule, " drops.

7. plain C: palatalized C (Ç)/__' or iotated V; vŏd-ŏ-t: vodót 'he leads'. Following this rule, ' drops.

8. o: e/Ç__Ç, č, c, j: poč: peč 'to bake'.

2. THE VERBAL CITATION FORM

In the present study we follow the analysis in Swan 1983 according to which most Russian verba exhibit either one general, perhaps abstract or underlying, stem /consonant stem verbs and suffixed verbs in -ĭ-/ or two stems, a past stem and a nonpast stem /suffixed verbs other than those with suffix in -ĭ-/. Examples of single-stem verbs are živ- 'live', vŏd- 'lead', mog- 'be able', ž'm- 'reap', t'r- 'wipe', p'j- 'drink', m"j- wash', poj- 'sing', xod-ĭ- 'walk'. The single-stemmedness of the foregoing consonant stems is supported by morphophonemik rules not listed above. For example, the infinitive of živ- relies on the rule v: Ø/__C, hence žív-tĭ: žiť 'to live'. A full set of rules may be found in Swan 1983, Chapter VI. Examples of typical two-stem verbs, giving the past stem first, are pĭs-a- pĭs-j- 'wite', kol-o- kol-j- 'prick', dar-ov-a- dar-ov-j- 'grant', prig-n-u- prig-n- 'jump', sĭd-ĕ- sĭd-ĭ- 'sit', krĭk-ă- krĭk-ĭ- 'shout', čĭt-a- čĭt-a-j- 'read', um-ĕ- um-ĕ-j- 'know how', du-du-j- 'puff', gnĭ- gnĭ-j- 'rot', dĕ- dĕ-n- 'put'. Following Jakobson 1948, in the interest of having a single citation form for the regular two-stem verbs, the past stem of some verbs and the nonpast stem of other verbs

/specifically, verbs with nonpast stem in V-j- or -n-/ will be used as the general citation form, hence pĭs-a-, kol-o-, dar-ov-a-, prig-n-u, sĭd-ĕ-, krĭk-ă-, čit-a-j-, um-ĕ-j, du-j-, dĕ-n-. The rules for predicting the opposite member of the stem pair can be extrapolated from the above material. For example, the rule for forming the nonpast stem from pis-a- and all other regular verbs in -a- is to replace -a- with -j-, hence pis-j-; the rule for predicting the past stem of čit-a-j- and all other regulat verbs in -j- is to drop the -j-, hence čit-a-; and so on. Certain verbs, considered irregular, still need to be cited in two or possibly more forms, for example, da- dad- 'give'.[5]

The reader familiar with Jakobson 1948 and subsequent literature in this vein will notice that the present method of predicting stem alternants differs from Jakobson's. Instead of using the citation form as a stem-referencing base, Jakobson considers it to be the actual derivational base. All inflectional endings are added to the general citation form, and the opposite stem, when needed, is produced by phynological rules designed expressly for the purpose. As discussed in Swan forthcoming, the phonological plausibility of many the rules adduced by Jakobson to account for verb stem alternations is highly questionable. Certain of the phonological difficulties characteristic of the Jakobsonian approach are exhibited in the formation of the imperitive, as will by discussed belov, 4. The present study considers that certain inflectional endings are added to the past stem and certain others, among them, the imperative, are added to the nonpast stem. The appropriate stem is derived from the Jakobsonian base, if necessary, by a process of stem-switch triggering. According to this process, in case a nonpast ending is added to a paststem-used-as-base, or a past ending to a nonpast-stem-used-as-base, this incompatible juxtaposition will trigger the mechanical replacement of the one stem by the other. The mechanism of stem-switch triggering eliminates the need for superfluous rules that are in conflict either with natural phonological principles or

with general principles of Russian sound-patterning /see Swan forthcoming for a full discussion/.

3. The Russian imperative has four possible surface shapes: i preceded by softening /xodí 'walk!', stem xod-/; j /daj 'give!', stem da-/; softening alone /bud 'be!', stem bud-/; and Ø /lag 'lie!', stem lag-/. These surface shapes are obtained by adding the imperative ending -ĭ$_2$ to the nonpast stem and by applying morphophonemic rules 1-8 above. The verbs da- dad- 'give', da-v-a- 'giveimperative', -zna-v-a 'knov', vsta-v-a 'arise',[6] kolyx-a- 'rock', kolěb-a- 'swing' exceptionally form the imperative on the past stem, usually in avoidance of some transparent problem that would be presented by forming the imperative on the nonpast stem. For example, if the imperative of the imperfective da-v-a- were formed on the nonpast stem da-j-, the resulting form would be indistinguishable from the imperative of the perfective verb da- dad-.

3.1. The plural imperative is formed cyclically; unstressed ĭ or ĭ$_2$ must be allowed to reduce to ' /Rule 5/ before the cycle boundary is removed. The cycle boundary provides a conditioning environment similar to #/end of word/: /búd-ĭ$_2$/-tě: budte. As a simplicity procedure, it can be considered unnecessary to add the imperative ending ĭ$_2$ to nonpast stems ending in Vj or in ĭ. Such stems are able to stand by themselves as imperative bases, hence čit-a-j-, imperative čitaj; xod-í-, imperative xodí.
Although no problems would be created by adding ĭ$_2$ to such bases and reducing it in every instance to Ø, it seems simplest to consider that the imperative ending in such cases is Ø to begin with. This simplicity procedure is assumed in the illustrations below, 3.3.

3.2. The stress of the imperative follows the stress of the 1.p.sg. nonpast, hence nosú 'I carry', imperative nosí.

For purposes of the present discussion it is immaterial whether we consider that the imperative stress is copied from the stress of the 1.p.sg. nonpast or is generated directly by some morphopphonemic stress operator, more or less in the manner of Levin 1978. Exceptional in this regard are the verbs stoj-á- 'stand' and smĕj-a- sá 'laugh' and a small number of verbs with root in -ov-, e.g. kov-a- 'forge'. The foregoing verbs, despite having 1.p.sg. end stress, form imperatives stoj, smej sa, kuj. Verbs of the five-member p'j- class likewise form the imperative as though the imperative base exhibited stem stress. Stressed or not, ĭ$_2$ goes to j after vowel by Rule 1, hence da-ĭ$_2$: daj. Unstressed ĭ$_2$ reduces to ' by Rule 5: búd-ĭ$_2$: bud', eventual buḍ /Rule 7/. The surface realization Ø occurs after an unpaired /velar, hushing, affricate, glide/ consonant, hence lág-ĭ$_2$: lag. The mobile vowel rule /6/ operates following Rule 5 to produce the imperatives of verbs of the p'j- and m"j- types, for example m"j-ĭ$_2$: m"j' /5/: moj /6/. The only truly anomalous Russian imperative form is ješ 'eat!', the reflection of a defunct athematic imperative formation.

3.3. Imperative derivations of representative verbs are given below, in approximate order of complexity.

čit-á-j-Ø	čitáj	
da-ĭ$_2$	daj /2/	
nŏs-ĭ$_2$	ṇosí /7/	
t'r-ĭ$_2$	tṛi /7/	
živ-ĭ$_2$	žiṿí /7/	
krík-n-ĭ$_2$	kríkṇi /7/	
xod-í-Ø	xoḍí /7/	
krík-í-Ø	kríčí /4/	kṛičí /7/
búd-ĭ$_2$	bud' /5/	buḍ /7/
brós-í-Ø	bros' /5/	broṣ /7/
lág-ĭ$_2$	lág' /5/	l̩ag /7/

rézʹ-j-ĭ$_2$	rĕži /3/	rĕžʹ /5/	rẹžʹ /7/	
kóv-j-ĭ$_2$	kuji /1/	kujʹ /5/	kujʹ /7/	
m"j-ĭ$_2$	m"jʹ /5/	mojʹ /6/	mojʹ /7/	
pʹj-ĭ$_2$	pʹjʹ /5/	pŏjʹ /6/	pọjʹ /7/	pẹjʹ /8/.

4. As mentioned, the currently accepted generative appro ach to the Russian imperative, if one may speak of any approa to this by-and-large overlooked Russian verbal category as be accepted, is based on a literal interpretation of Jakobson's 1948 article about the verbal base. The most well-developed description is apparently Lunt 1974; less complete descriptio in the same vein may be found in Townsend 1968, Lightner 1972 and Levin 1978. Lunt, as most Russian generativists, takes Jakobson's past-tense-stems-used-as-bases, e.g., pĭs-a-, kol-, sĭd-ĕ-, and so on, as actual derivational bases. Thus Lunt ad the imperative ending ĭ /Lunt does not distinguish ĭ$_2$ as a se rate morphopneme but instead gives an accompanying statement regarding the effect of the imperative ending on a precedin consonant/ directly to pĭs-a-, kol-o-, sĭd-ĕ- and so on, i.e. not to the nonpast stems pĭs-j-, kol-j-, sĭd-ĭ-. As a result, one has number of implausible or inconsistent phonological changes to deal with. The plausible result of pĭs-a-ĭ would b *pĭsaj, as shown by more-or-less historical da-ĭ: daj. Unde Lunt, pĭs-a-ĭ, kol-o-ĭ give first pĭsji, kolji /as though -a-, -o- had iotated/ and eventually piši, koli. The iotation of -a- and -o- is not adequately explained; indeed it cannot be: of all Russian vowels, a and o are the least likely to iotate being farthest in articulation from j. Even more problematica for Lunt's /in general, the Jakobsonian/ analysis is that whereas on the basis of pĭs-a-ĭ: piši one expects sĭd-ĕ-ĭ: *siži, ĕ in this instance does not iotate but merely drops, producing eventual sidi. No explanation for this discrepancy has ever been offered. In effect, because of the decision to derive forms directly from the Jakobsonian verb base rather

than use this base merely as a stem-referencing citation form, the Jakobsonian analysis requires the establishment of a series of sound combinations which undergo changes on an assentially ad hoc basis simply to produce the correct forms. It is much less problematical to approach the Jakobsonian base purely as a citation form from which the appropriate stem can be derived procedures illustrated above, 2.

Note that the Jakobsonian analysis of the imperative necessitates the treatment of imperative forms like daj, vstavaj, kolyxaj, and so on, i.e., imperatives formed on the past base in avoidance of some problem entailed by formation on the non-past base, as wholly anomalous. Most linguists following the Jakobsonian model of imperative formation, e.g., Levin 1978, set up a special stem daj just to account for the imperative of the verb da- dad- /whose imperative, tautolologically, is daj/. The natural derivation, da-ǐ: daj, is precluded by the rule that forces piši out of pĭs-a-ǐ; under either Lunt or Levin, da-ǐ would give žǐ /!/.

As mentioned, the problems involved in the Jakobsonian analysis of the imperative are emblemmatic of various other similar problems encountered when one takes Jakobson's verbal base as a literal derivational base rather than as a stemreferencing citation form.

NOTES

[1] Lunt goes farther than this author is prepared to go at present toward assigning actual features of articulation to his morphophonemic units. For example, Lunt's vowels are divided into fronted and backed, as opposed to the present provisional terms 'plain' and 'iotated'; the units ' and " are given by Lunt the status of vowels. In addition, Lunt considers consonant palatalization to be of mere phonetic significance. None of these questions bears on any important aspects of the present analysis. The author intends to take up discussion of the natural phonological aspects of analysis at another time.

[2] Stress morphophonemes are taken from Levin 1978. When simple shifting stress falls on the stem of a suffixed base, stress will fall on the ending in both the 1.p.sg. nonpast and in the imperative.

[3] The morphophoneme $\underline{\check{\imath}}_2$ derives historically from an anomalously developing common Slavic oi diphthong. Usually, oi gave late common Slavic ě, continued in the contemporary morphophoneme ě. The only grammatically sihnificant place exhibiting the morphophoneme $\underline{\check{\imath}}_2$ is the imperative.

[4] By mutation is meant the following series of sound replacements: p: p$_{\downarrow}$, b: b$_{\downarrow}$, f: f$_{\downarrow}$, v: v$_{\downarrow}$, m: m$_{\downarrow}$, t: ď, d: ť, s: š, z: ž, n: ň, l: ľ, r: ř, k: č, g: ǯ, x: š. Note that the phonemic representation does not take late vowel reductions into account.

[5] Irregular verbs include the following /givig only the past stem/: rěv-ě- 'roar', brĭ- 'shave', mol-o- 'grind', st'l-a, 'make bed', g"n-a 'drive', lěg- 'lie, sěd- 'sit down', ěx-a- 'ride', klăd- 'bow', s"p-a- 'sleep', s"l-a- 'send', č't-ĭ- 'count', -šib-ĭ- 'err', b'r-a- 'take', z"v-a- 'call', ž'd-a- 'wait', živopĭs-a- 'draw', -n'm- 'take', xot-ě- 'want', běg-á- 'run', ĭ- 'go', by- 'be', da- 'give', ěd- 'eat'.

[6] As discussed in Swan forthcoming, the derived imperfectives da-v-a- da-j,-zna-v-a- zna-j-, vsta-v-a- vsta-j result from the attachment to the stems da-, zna-, vsta- of the alternating suffix -a- ~ -j- /i.e., the suffix one sees in pĭs-a- pĭs-a-/. The addition of a to a produces v-epenthesis, hence da-a: dava-.

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GENERATYWNY OPIS MORFOFONEMICZNY ROZKAŹNIKA ROSYJSKIEGO

Streszczenie

Autor prezentuje układ derywujący formy rozkaźnika rosyjskiego przyjmując za podstawę system morfofonemiczny H. G. Lunta i wychodząc od tematu nieprzeszłego oraz traktując tzw. formy cytacyjne jako symbole nazewnicze, a nie jako bazy derywacji /inaczej więc niż u R. Jakobsona i jego kontynuatorów/. Celem tego zabiegu jest zmniejszenie stopnia abstrakcyjności opisu i uczynienie go bardziej "naturalnym".