

Russian iotation: length is key

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Iotation

Alternation caused by iotation in Russian:

(1) pob u dk a – bu ž u	(d/ž)	(2) l ju bov i – lyub l ju	(b/bʲ)
k osa – k oš u	(s/š)	s pat i – s pl l ju	(p/pʲ)
u klon – klon i u	(n/nʲ)	s tavka – stav l ju	(v/vʲ)

- Often analysed as a merger of the consonant with an iotising segment J
- How does palatalised /l/ appear in iotised labials?
- Morén (2006) for Serbian, Magomedova and Slioussar (2017) for Russian: labial and palatal features do not combine well

Iotation exists on par with palatalisation – a distinct alternation:

(3) Three forms of consonants, Brown (1998, Table 5)

Zero Grade Soft Grade Iotised Grade

/p/	/pʲ/	/pʲʲ/
/b/	/bʲ/	/bʲʲ/
/m/	/mʲ/	/mʲʲ/
/f/	/fʲ/	/fʲʲ/
/v/	/vʲ/	/vʲʲ/
/t/	/tʲ/	/č/
/d/	/dʲ/	/ž/
/s/	/sʲ/	/š/
/z/	/zʲ/	/ž/
/l/	/lʲ/	/lʲʲ/
/n/	/nʲ/	/nʲʲ/
/r/	/rʲ/	/rʲʲ/
/k/	/č/	/č/
/g/	/ž/	/ž/
/x/	/š/	/š/

- Do consonant grades exist?
- Or can these alternations be modelled procedurally?
- Framework of choice – Strict CV (Scheer, 2004), Substance-free phonology (Reiss, 2017)

Previous work

An OT analysis by Magomedova and Slioussar (2017):

- J is a floating segment
- Palatalisation cannot expone J
- Palatalising instead of iotising violates MAXFLT and base-final palatalised labials are banned in the output
- *MAP(lab, pal) ⇒ no b/ž-like alternations
- Epenthesis of /lʲ/ results

(4) lʲub + Ju → lyublʲu (b/bʲ)

OT tableau for a *b*-final stem

/lʲub/ + /Ju/	MAXFLT	*MAP(lab,pal)	DEP	IDENT(place)
lʲubʲu	*!			
✱ lʲublʲu			*	
lʲuž <u>u</u>		*!		*
lʲubž <u>u</u>		*!	*	

The problem: since palatalisation cannot expone J, we expect /lʲ/-insertion in iotised /n r l/, in which Soft Grade and Iotised grade coincide:

(5) klon + Ju → klonʲu (n/nʲ)

Putative OT tableau for a *n*-final stem – the correct form is ruled out by MAXFLT

/klon/ + /Ju/	MAXFLT	*MAP(lab,pal)	DEP	IDENT(place)
klonʲu	*!			
✱ klonlʲu			*	
klož <u>u</u>		*!		*
klonž <u>u</u>		*!	*	

Iotation can mean consonant alternation (k/č), palatalisation (n/nʲ) or /lʲ/-insertion (b/bʲ), which is too diverse for an elegant substance-driven analysis

Iotised consonants are geminates

Proposal: consonant grades proposed by Brown (1998) are real

- Zero grade = non-palatalised consonant
- Soft grade = short palatalised consonant
- Iotised grade = long palatalised consonant (C + J occupy two C-slots)

Exponent of /Ju/ ‘1sg’

C	V
J	u

Expected: lʲub + J → lʲublʲ

G					
C	V	C	V	C	V
lʲ	u	b	ə	J	

lʲub + Ju → lʲublʲu ‘I love’

C	V	C	V	C	V
lʲ	u		b+J		u

lʲub + ⁱa → lʲubⁱa ‘love-conv’

C	V	C	V
lʲ	u	b	ⁱ a

Supporting evidence: no base-final iotation, or else Government breaks up the geminate

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