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**Филогения цезской языковой группы:
лексикостатистика
и грамматические инновации**

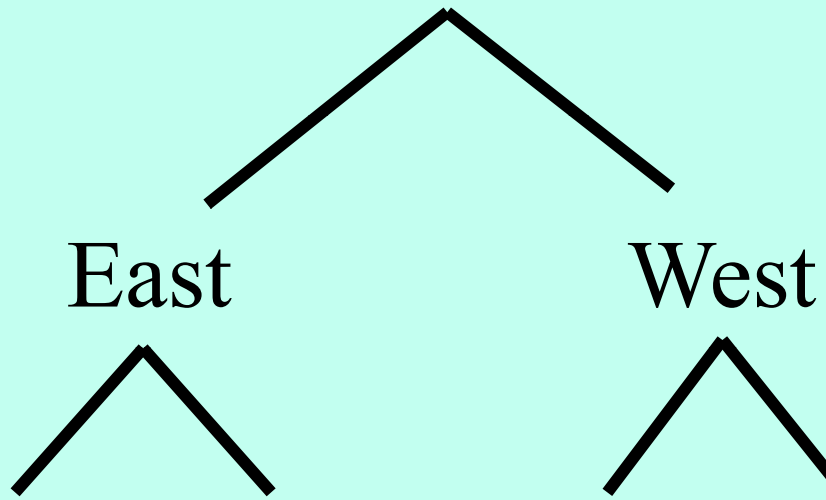
X традиционные чтения памяти С. А. Старостина, РГГУ, Москва, 27 марта 2015 г.

Tsezic languages

- Spoken in South-West Dagestan (Russian Federation)
- Form a relatively compact group within the East Caucasian (a.k.a. Nakh-Dagestani) clade of the North Caucasian linguistic family
- The group consists of five languages: Hunzib, Bezhta, Hinukh, Tsez (a.k.a. Dido), Khwarshi

Subdivision (acc. to all classifications):

Proto-Tsezic



Hunzib

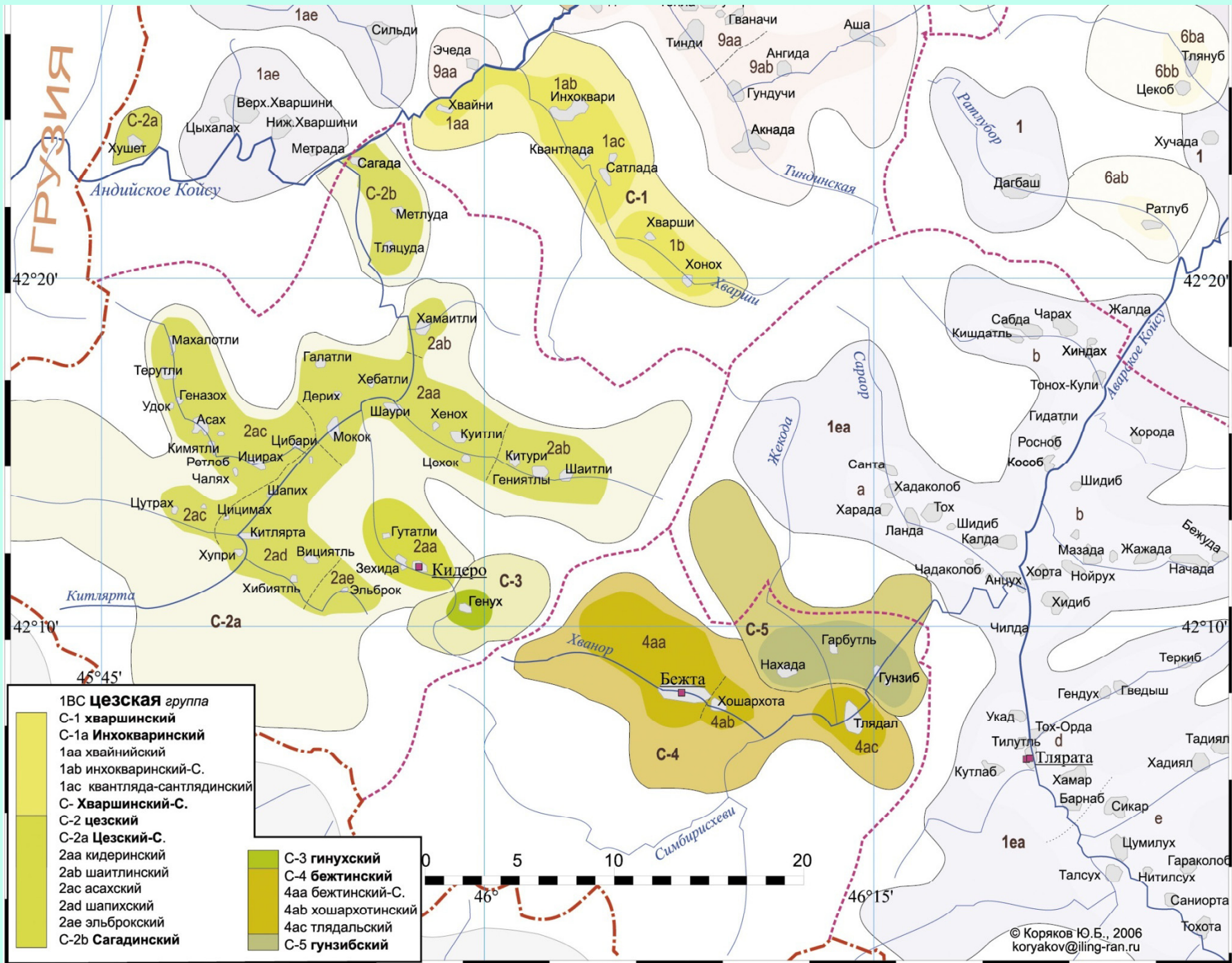
Bezhta

Tsez

Khwarshi

? Hinukh ?

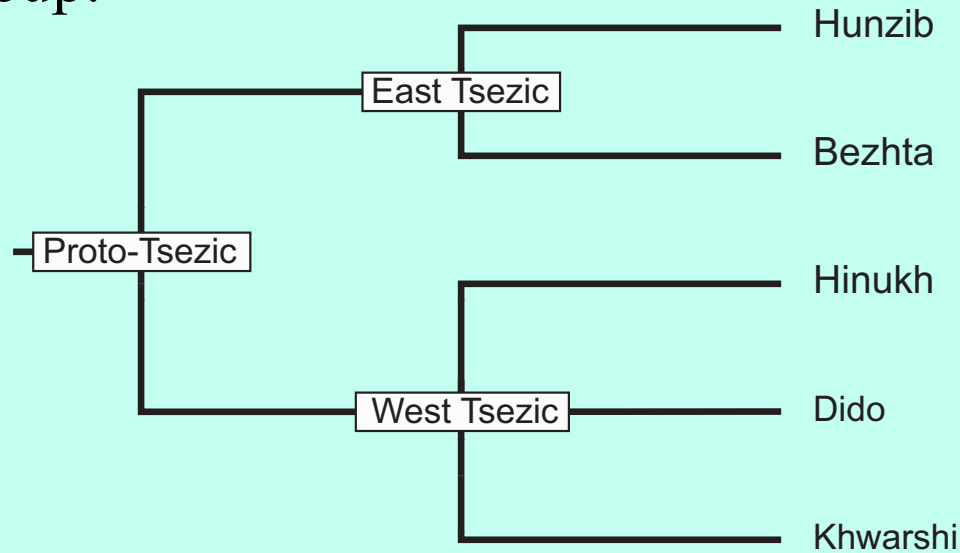
Map of the modern Tsezic lects (adapted from Koryakov 2006: map #11).



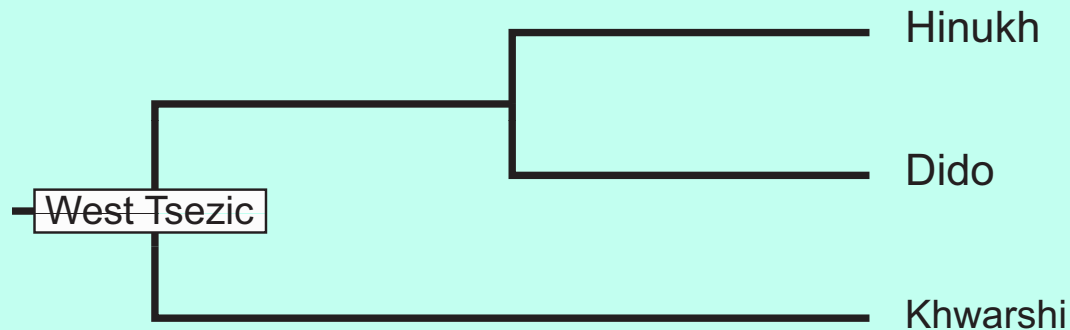
Position of Hinukh

- Hinukh is an intermediate East-West lect: Bokarev 1959: 227 (general evidence).
- Hinukh is a closest relative of Tsez or simply a dialect of Tsez: Lomtadze 1963 (various evidence); Testelet's 1993 (lexicostatistics and phonetic evidence); van den Berg 1995: 5 (general evidence); Cysouw & Forker 2009 (ASJP Levenshtein distances); Müller et al. 2013 (ASJP Levenshtein distances).
- West Tezic is a ternary node which splits into Hinukh, Tsez and Khwarshi: Alekseev 1998: 300 (lexicostatistics); Koryakov 2006: 21 (lexicostatistics).

- Thus both the traditional expert and formal lexicostatistical classifications suggest the following principal cladogram for the Tsezic group:



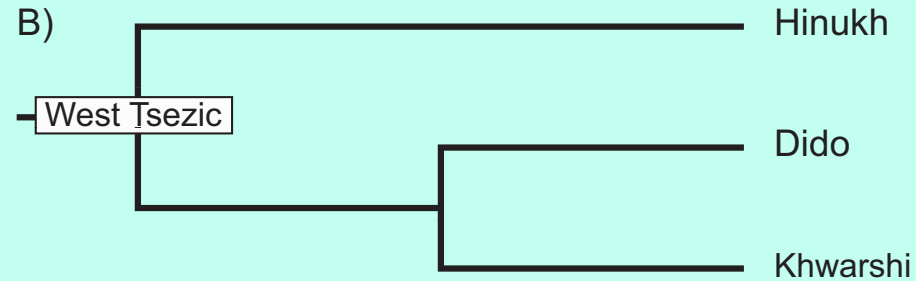
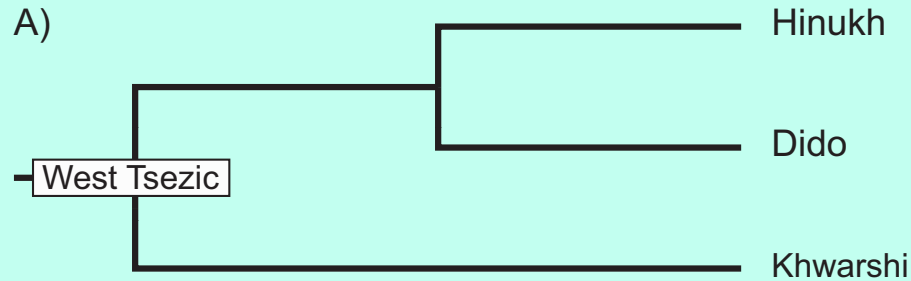
- According to the majority of previously proposed classifications, Hinukh and Tsez form a distinct clade within the West Tsezic cluster



GLD: a new approach

- Meticulously compiled 110-item Swadesh wordlists: <http://starling.rinet.ru/new100/>
- 10 languages and dialects: Hunzib, Bezhta (Bezhta proper, Khoshar-Khota, Tlyadal), Hinukh, Tsez (Kidero, Sagada), Khwarshi (Khwarshi proper, Inkhokwari) plus the reconstructed Proto-Tsezic list.
- Main phylogenetic method: NJ, UPGMA, Bayesian MCMC, Maximum Parsimony.

GLD: results



A:

- StarlingNJ
- UPGMA
- Max. Parsimony

B:

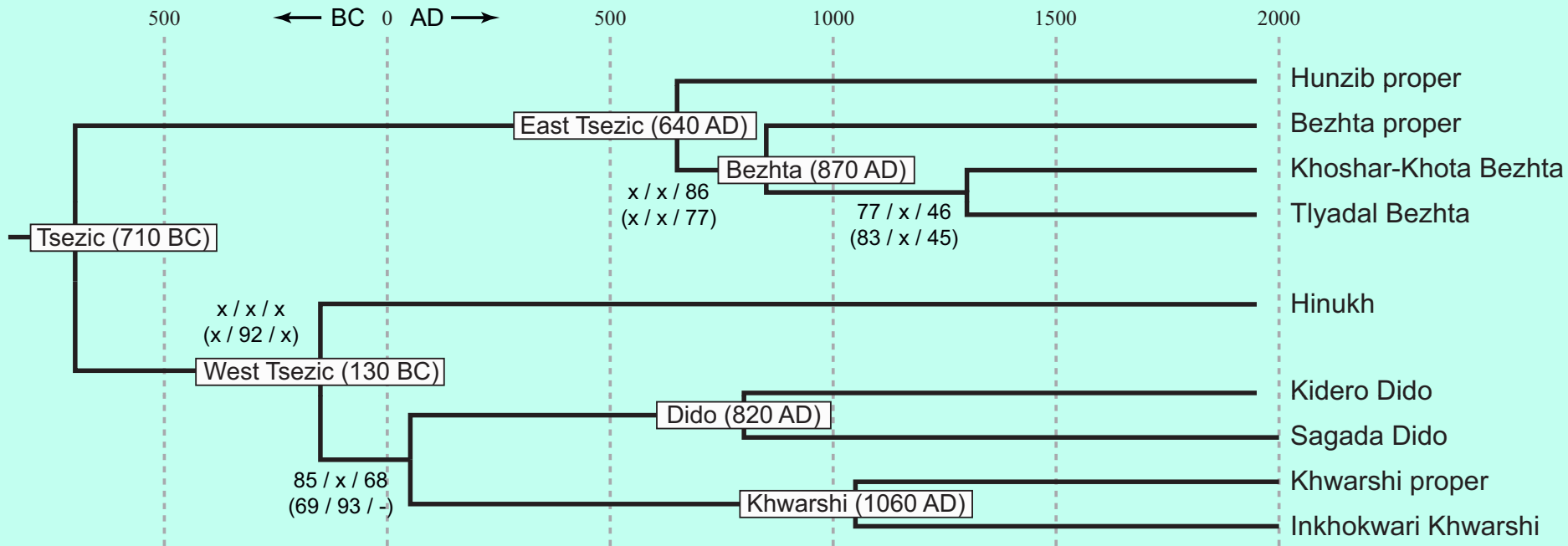
- NJ
- Bayesian MCMC

Ethnographic evidence

- “[T]here has been and there still is extensive contact between Hinuq speakers and speakers of two other Tsezic languages, Bezhta and Tsez” (Forker 2013: 12).
- “Many Hinuq men marry Tsez women, who then move to the village of Hinuq. These women often do not fully acquire the Hinuq language and sometimes simply continue to speak Tsez, at least at home” (Forker 2013: 16).

After homoplastic optimization

- all phylogenetic methods reconstruct the same topology of the Tsezic tree with Tsez and Khwarshi forming a distinct clade



Common Tsez-Hinukh innovations: heritage or parallel development?

- Historical phonology.
- Morphology.

Phonology

- **Loss of vowel nasalization.** There is no nasalization in synchronic Tsez and Hinukh in contrast to all other Tsezic languages that have preserved it to a greater or lesser degree
 1. PTs **ʔãsa* ‘rowan, mountain ash’ > Tsez *asa*, Hinukh *ase*, Khwarshi proper *ãsa*, Hunzib, Bezhta *ãza* ‘id.’.
 2. PTs **CLASS=ẽɰ* ‘*V*’ ‘to go’ > Sagada Tsez, Hinukh =*iɰ* ‘*i*’, Khwarshi proper =*ĩɰ* ‘*a*’, Hunzib, Bezhta =*ẽɰ* ‘*e*’ ‘id.’.

Phonology

- There is a scantily represented, but nevertheless regular development PTs $*y\tilde{V}-$ > Hinukh $yV-$, Tsez $nV-$
- 1) PTs $*y\tilde{\epsilon}\lambda u$ ‘ashes’ > Tsez $no^{\epsilon}\lambda u$, Hinukh $yo\lambda u$, Khwarshi proper $y\tilde{u}\lambda u$, Hunzib $y\tilde{a}\lambda u$, Bezhta $y\tilde{a}\lambda o$ ‘id.’
- 2) PTs $*y\tilde{\epsilon}cu$ ‘saliva’ > Tsez $nocu$, Hinukh $yocu$, Khwarshi proper $y\tilde{u}cu$, Hunzib $y\tilde{a}cu$, Bezhta $y\tilde{a}\check{c}\ddot{o}$ ‘id.’
- This implies that the nasal feature of a vowel was still retained in Proto-Tsez with the inner Tsez development $*y\tilde{V}-$ > $*y\tilde{y}V-$ > $nV-$.

Phonology

- **The fate of Proto-Tsezic **l* and **r*.** According to Nikolaev's Proto-Tsezic reconstruction, in West Tsezic Proto-Tsezic **r* and **l* were shuffled, yielding *r* or *l* without transparent rules of distributions and with many cases of discrepancies between modern lects in individual morphemes (Starostin & Nikolaev 1994: 111-112).
- Tsez and Hinukh are normally in accordance with each other having identical reflexes of PTs **r*/**l* (either Tsez-Hinukh *r* or Tsez-Hinukh *l*). Similarly there are practically no discrepancies between the Khwarshi dialects (either Khwarshi proper & Inkhokwari Khwarshi *r* or Khwarshi proper & Inkhokwari Khwarshi *l*).

Phonology

- In fact, Proto-Tsezic morphemes which contain PTs **r* or **l* fall into three main groups according to the reflexes of PTs **r* and **l* in the West Tsezic languages:
- Group 1, PTs **r / *l* > Tsez-Hinukh *r*, Khwarshi *r* — 22 examples;
- Group 2, PTs **r / *l* > Tsez-Hinukh *r*, Khwarshi *l* — 22 examples;
- Group 3, PTs **r / *l* > Tsez-Hinukh *l*, Khwarshi *l* — 14 examples.

Phonology

- The problem Group 2 (Tsez-Hinukh *r* : Khwarshi *l*) contains 17 examples with Proto-Tsezic **r* vs. 5 examples with Proto-Tsezic **l*.
- It is natural to treat the bulk of etymologies with the correspondence Tsez-Hinukh *r* : Khwarshi *l* as retentions of Proto-Tsezic **r* in Tsez-Hinukh (not a Tsez-Hinukh innovation) with lambdacization **r* > *l* Khwarshi under unclear conditions.

Morphology

- **Nominal agreement classes (gender).** Proto-Tsezic verbal class prefixes:

	I (male humans)	II (female humans)	III (animals & inanimate)	IV (inanimate)	V (inanimate)
sg.	*∅	*y	*b	*r	*y
pl.	*b		*r		

- The most innovative one is the Tsez system, where the nouns of the old female class II (*y-b*) were included into the inanimate class V (*y-r*):

	I (male humans)	II (female human & inanimate)	III (animals & inanimate)	IV (inanimate)
sg.	∅	y	b	r
pl.	b	r		

Morphology

- Acc. to Bokarev 1959: 113 and Kibrik & Kodzasov 1990: 273, the Hinukh system is the same:

	I (male humans)	II (female human & inanimate)	III (animals & inanimate)	IV (inanimate)
sg.	∅	<i>y</i>	<i>b</i>	<i>r</i>
pl.	<i>b</i>	<i>r</i>		

- But in fact the Hinukh class system is more archaic, see Forker 2013: 115, 189; Isakov & Khalilov 2004: 181; Lomtadze 1963: 91–92:

	I (male humans)	II (female humans)	III (animals & inanimate)	IV (inanimate)	V (inanimate)
sg.	∅	<i>y</i>	<i>b</i>	<i>r</i>	<i>y</i>
pl.	<i>b</i>	<i>b</i> (rarely <i>r</i>)	<i>r</i>		

Morphology

- The synchronously observed tendency to treat female nouns as the inanimate class V in Hinukh is a transparent innovation which must be explained as the influence on the part of the Tsez dialects.
- Thus, there are no shared Hinukh-Tsez class features which could be reconstructed for a distinct Hinukh-Tsez proto-language.

Conclusions

- The Hinukh and Tsez languages do not form a distinct clade.
- Hinukh is in close contact with neighboring Tsez.
- Hinukh and Tsez share a lot of contact-driven homoplastic characters, including lexical, phonetic and morphological ones.
- The normal direction of influence is Tsez > Hinukh.
- The number of secondary matches between the Tsez and Hinukh Swadesh wordlists is substantial enough to make some phylogenetic methods (StarlingNJ, UPGMA, Maximum Parsimony) reconstruct the Tsez-Hinukh clade.

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