

Variation in stem formation in Tsezic languages

Diana Forker, MPI EVA, Leipzig

forker@eva.mpg.de

1. Introduction

The Tsezic languages are a group of closely related languages that form one branch of the Avar–Andic–Tsezic grouping within the Nakh–Daghestanian language family. They can be divided into East Tsezic, comprising Hunzib and Bezhta, and West Tsezic, comprising Khwarshi, Tsez and Hinuq.

Tsezic nouns can be marked for number and case. As in other Daghestanian languages, the case formation itself is rather straightforward and regular. The main difficulty in the nominal morphology of the Tsezic languages is the formation of the oblique stem from the base stem. The aim of this talk is to give a detailed description of the stem formation, capturing various general patterns. In the end a diachronic view at the system and a short look at other, unrelated languages are presented.¹

2. Oblique singular stems

Tsezic languages are morphologically ergative. The nominal root corresponds to the Absolutive singular form of the nouns. Other case forms of nouns in the singular are formed by applying at least one of the following mechanisms:

- (i) stress shift
- (ii) ablaut
- (iii) insertion of an epenthetic vowel
- (iv) insertion of a consonant or glide
- (v) deletion of the stem–final vowel
- (vi) deletion of the stem–final consonant or glide
- (vii) oblique markers
- (viii) assimilation (and deletion) of a stem–final sonorant

Some of the mechanisms are due to phonotactic restrictions or general morphophonological rules of the languages, e.g. epenthetic vowels or sonorant

¹ My data and the following analysis are mainly based on the investigation of various texts. Many of these texts were collected in the field (Zaira Khalilova for Khwarshi and D.F., for Hinuq). The Bezhta texts which serve as basis for this talk are the memoirs of Šeyx Ramazan, written down by himself at the end of the twentieth century and edited and translated by Madžid Xalilov. They have not yet been published. The Tsez texts are currently in press (Abdulaev, in press). For Hunzib the grammar by Van den Berg (1995) has been the main source. Additional sources were the series of dictionaries of the Daghestanian languages, edited by the Daghestan Scientific Centre of the Russian Academy of Science (Xalilov 1995; Xalilov 1999; Xalilov and Isaakov 2001; Xalilov and Isaakov 2005) and the grammatical sketches of Bokerev (1959)

assimilation and deletion. But the major part is lexicalized, i.e. speakers have to know what to do with a noun before using it in an utterance. Tsezic languages usually avoid consonant clusters of more than two consonants. This also affects the stem formation.

Almost all mechanisms occur in all five Tsezic languages, if not indicated otherwise.

Two Tsezic languages, namely Khwarshi and Bezhta, have a zero-marked Ergative. In these languages the oblique form of nouns without further case endings serves Ergative function. If the oblique form is identical to the base form then Absolutive form and Ergative form collapse.² If epenthetic vowels are used, then *-i* as a kind of default Ergative marker is used.

In the following all eight mechanisms of oblique singular stem formation are presented.

(i) Stress shift or no change

- the noun is left unchanged, but the stress may shift to the root-final syllable in all case forms except for the Absolutive, or even to the case suffix if it is disyllabic (to its penultimate syllable)
- only with nouns that end with a vowel or a glide (/y/)
- maybe not in Hunzib

	Tsez 'bear'	Hinuq 'boy'	Khwarshi 'spade'	Bezhta 'mother'	Hunzib 'father'
ABS	<i>zey</i>	<i>úži</i>	<i>réxne</i>	<i>iyo</i>	<i>αbu</i>
ERG	<i>zey-ă</i>	<i>uži:</i>	<i>rexné</i>	<i>iyo</i>	<i>αbu-l</i>
GENI	<i>zey-s</i>	<i>uži-š</i>	<i>rexné-s</i>	<i>iyo-s</i>	<i>αbu-s</i>
CVX	<i>zey-dăȝor</i>	<i>uži-žo</i>	<i>rexné-lo</i>	<i>iyo-la</i>	<i>αbu-ȝur</i>

(ii) Ablaut

- only with a handful of nouns: e.g. moon, sun, neck, salt, sleep, place, water
- Tsez: *i* → *a/ă*, *u/o* → *e*; Hinuq: *u* → *e*; Khwarshi: *o* → *e/a*, *e* → *a*, Bezhta: *a* → *i*, *o* → *i*; Hunzib: *o* → *ɨ*, *a/α* → *i/ɨ*
- can be combined with vowel deletion, an oblique marker or an epenthetic vowel

	Tsez 'place'	Hinuq 'moon'	Khwarshi 'eye'	Bezhta 'sleep'	Hunzib 'sun'
ABS	<i>moč/i</i>	<i>buce</i>	<i>ezol</i>	<i>miλ/o</i>	<i>boq</i>
ERG	<i>moč-ă</i>	<i>bece-y</i>	<i>ezal-a</i>	<i>miλ-a</i>	<i>bɨq-ə-l</i>
GENI	<i>meč-o-s</i>	<i>bece-s</i>	<i>ezal-a-s</i>	<i>miλ-a-s</i>	<i>bɨq-ə-s</i>
CVX	<i>meč-o-λ'or</i>	<i>bece-λ'o-zo</i>	<i>ezal-a-λ'a</i>	<i>miλ-a-λ'as</i>	

² The Absolutive-Ergative syncretism occurs also with SAP pronouns in all Tsezic languages except Khwarshi.

(iii) insertion of an epenthetic vowel

- after consonants or a semivowels, if the following case marker has a *C* structure
- Tsez: -e, Hinuq -e, (-i), Khwarshi -i, Bezhta -i, Hunzib -i, (-e?)
- can be combined with vowel deletion, ablaut, oblique markers

	Tsez	Hinuq	Khwarshi	Bezhta	Hunzib
	'eagle'	'cat'	'sibling'	'snow'	'head'
ABS	<i>cey</i>	<i>k'et'/u</i>	<i>is</i>	<i>õz</i>	<i>q'am</i>
ERG	<i>cey-ä</i>	<i>k'et'-i</i>	<i>is-t-i</i>	<i>õz-i</i>	<i>q'am-i-l</i>
GEN1	<i>cey-e-s</i>	<i>k'et'-e-s</i>	<i>is-t-i-s</i>	<i>õz-i-s</i>	<i>q'am-i-s</i>
CVX	<i>cey-λ'ay</i>	<i>k'et'-zay</i>	<i>is-t-λ'o</i>	<i>õz-λ'a</i>	<i>q'am-λ'o</i>

(iv) insertion of a consonant or glide

- after vowels, mostly monosyllabic words with *CV* structure
- no clear examples in Tsez
- mostly combined with oblique markers

	Tsez	Hinuq	Khwarshi	Bezhta	Hunzib
	#	'thing'	'girl'	'fire'	'thing'
ABS	#	<i>žo</i>	<i>kad</i>	<i>c'o</i>	<i>žo</i>
ERG	#	<i>žo-y-</i>	<i>kand-i</i>	<i>c'o-y-li / c'o-y</i>	<i>žo-yo-l</i>
GEN1	#	<i>žo-y-la-s</i>	<i>kand-i-s</i>	<i>c'o-y-s</i>	<i>žo-y-lo-s</i>
CVX	#	<i>žo-y-</i>	<i>kand-i-λ'o</i>	<i>c'o-y-la</i>	

(v) deletion of the stem-final vowel

- Tsez -i, -u; Hinuq -u, Khwarshi -o, -u, Bezhta -o, Hunzib -u; and all other vowels
- in combination with oblique markers, epenthetic vowels, ablaut

	Tsez	Hinuq	Khwarshi	Bezhta	Hunzib
	'honey'	'goat'	'wolf'	'neck'	'boy'
ABS	<i>nuc/i</i>	<i>t'ek/a</i>	<i>boc'/o</i>	<i>boł/o</i>	<i>ož/e</i>
ERG	<i>nuc-ä</i>	<i>t'ek-i</i>	<i>boc'-i</i>	<i>bił-a</i>	<i>ož-di-l</i>
GEN1	<i>nuc-o-s</i>	<i>t'ek-e-s</i>	<i>boc'-i-s</i>	<i>bił-a-s</i>	<i>ož-di-s</i>
CVX	<i>nuc-o-λ'o-si</i>	<i>t'ek-zo</i>	<i>boc'-λ'o</i>	<i>bił-a-λ'a</i>	<i>ož-di-γur</i>

(vi) deletion of the stem-final consonant or glide

- the deleted consonant is mostly *-r* (sometimes it seems to be deleted only in the ABS), but in Hunzib there are a few nouns where a final *-s* is deleted which represent a petrified Ablative suffix
- can be combined with ablaut, oblique marker
- some nouns alternate between *V*-final and *VY*-final (kind of glide insertion)

	Tsez	Hinuq	Khwarshi	Bezhta	Hunzib
	'husband'	'hand'	#	'eye'	'hand'
ABS	<i>xedi/w</i>	<i>k^weze/y</i>	#	<i>hã/y</i>	<i>koro</i>
ERG	<i>xedi-y-a / xed-yo</i>	<i>k^weze-ra-y</i>	#	<i>hã</i>	<i>kã-l</i>
GEN1	<i>xed-yo-s</i>	<i>k^weze-ra-s</i>	#	<i>hã-l</i>	<i>kã-s</i>
CVX	<i>xed-yo-qay</i>	<i>k^weze-ra-zo</i>	#	<i>hã-çä</i>	<i>kã-λ'o</i>

Comment [f1]: is this right?

(vii) oblique markers

- the most frequent way of oblique stem formation in all Tsezic languages
- Tsez: 9–11, Hinuq: 18, Khwarshi: 6, Bezhta: 12, Hunzib: 19–22
- only one or two productive markers per language: Tsez *-o*, *-re*, *-yo* (no really productive default marker), Hinuq: *-mo*, Khwarshi: *-mo*, Bezhta: *-li*, Hunzib: *-li*
- some markers occur only with one word
- some markers are clearly phonologically or morphologically conditioned and are therefore quite productive
- quite a number of nouns can have more than one oblique marker (usually a less productive and the most productive marker as an alternative)
- can be combined with ablaut (e.g. Khwarshi *ezol* 'eye'), vowel (e.g. Hunzib *ož/e* 'boy') or glide deletion (e.g. Hinuq *k^weze/y* 'hand'), consonant deletion (e.g. Tsez *ozuri* 'eye', LAT *oz-ä-n*), assimilation (e.g. Bezhta *kid* 'girl')

	Tsez	Hinuq	Khwarshi	Bezhta	Hunzib
	'cattle'	'wind'	'axe'	'wife'	'stable'
ABS	<i>posu</i>	<i>łaci</i>	<i>õg</i>	<i>aq/o</i>	<i>bež</i>
ERG	<i>posu-r-ä</i>	<i>łaci-na-y</i>	<i>õg-mo</i>	<i>aq-a</i>	<i>bež-li-l</i>
GEN1	<i>posu-re-s</i>	<i>łaci-na-s</i>	<i>õg-mo-s</i>	<i>aq-a-s</i>	<i>bež-li-s</i>
CVX			<i>õg-mo-lo</i>	<i>aq-a-qa</i>	<i>bež-li-çur</i>

(viii) assimilation (and deletion) of a stem-final sonorant

- not very widespread
- before some CV oblique markers, can be combined with vowel deletion

	Tsez	Hinuq	Khwarshi	Bezhta	Hunzib
	'weapon'	'face'	'weapon'	'girl'	'winter'
ABS	<i>tup/i</i>	<i>humer</i>	<i>tub/i</i>	<i>kid</i>	<i>λ'in/i</i>
ERG		<i>hume-li-i</i>	<i>tum-mo</i>	<i>kib-ba</i>	
GEN1	<i>tum-mo-s</i>	<i>hume-li-š</i>	<i>tum-mo-s</i>	<i>kib-ba-s</i>	<i>λ'im-mo-s</i>
CVX		<i>hume-li-žo</i>	<i>tum-mo-lo</i>	<i>kib-ba-λ'a</i>	

Combinations of at least two mechanisms are quite frequent, but not every mechanism can be combined with every other mechanism. 11 out of 20 principally possible combinations are attested.

- (ii) + (iii) or (v) or (vi) or (vii)
- (iii) + (v) or (vii)
- (iv) + (vii)
- (v) + (vii) or (viii)
- (vi) + (vii)
- (vii) + (viii)

Especially rare mechanisms like (viii) do not combine very often. The most widespread (vii) combines freely with every other. Combinations of three mechanisms always involve vowel deletion (v) and oblique markers (vii). Three possibilities are attested:

- (ii) + (v) + (vii), e.g. Tsez *moč/i* ('place'), Bezhta *maλ/o* ('sleep')
- (iii) + (v) + (vii), e.g. Khwarshi *iš/u* ('mother'), ERG *iš-et'-i*, GEN1, *iš-et'-i-s*, GEN2 *iš-et'-lo*
- (viii) + (v) + (vii), e.g. Khwarshi *tub/i* ('weapon'), Hunzib *λ'in/i* ('winter')

In all Tsezic languages some nouns³ can form more than one oblique singular stem. The variants differ in the mechanisms employed and/or in the oblique suffixes used.

	Tsez	Hinuq	Khwarshi	Bezhta	Hunzib
	'fist'	'sheaf'	'axe'	'calf'	'wing'
ABS	<i>besi</i>	<i>k^wet'</i>	<i>ōg</i>	<i>biš/e</i>	<i>hab/u</i>
GEN1	<i>besi-s / besi-mo-s</i>	<i>k^wet'-ro-s / k^wet'-e-s / k^wet'-a-s</i>	<i>ōg-i-s / ōg-mo-s</i>	<i>biš-i-s / biše-li-s</i>	<i>hab-a-s / habu-li-s</i>

³ Van den Berg (1995: 39) counts about 7% of such nouns in her material. For the other languages there are no numbers.

3. Absolutive plural

The Absolutive plural is formed by adding one (or occasionally two) suffixes to the Absolutive singular form of nouns, or sometimes to the oblique singular. Sometimes the final vowel is deleted.⁴ The West Tsezic languages have only one productive Absolutive plural suffix divergent from the oblique suffixes: Tsez *-bi*, Hinuq *-be* and Khwarshi *-bo/-ba*. Additionally, a small number of nouns in the West Tsezic languages may have some idiosyncratic plural forms.

The East Tsezic languages do not have only one productive plural suffix, but some of them; and additionally some unproductive suffixes. Thus, Bezhta has 11 plural suffixes, among them *-a* and *-la* are the most productive ones. In addition, five of the suffixes are not only for the normal plural used, but also for the paucal. Hunzib has 14 plural suffixes, *-la* is the most productive. For the occurrences of some of the Bezhta and Hunzib plural suffixes, especially the more productive ones, phonological conditions can be established. All unproductive plurals must be memorized by the speakers. In both languages occasionally the plural suffix is identical to the oblique singular suffix, e.g. Bezhta *baɫay* ('dagger'), INS *baɫay-ya-d*, PL *baɫay-ya*; Hunzib *aɫ* ('village') GEN1 *aɫ-a-s*, PL *aɫ-a*.

In Tsez, Khwarshi and Bezhta frequently an additional suffix precedes the Absolutive plural suffix. This suffix is often, but not always, the same that is used for the formation of the oblique singular stem. Hinuq and Hunzib have only one example each, where an additional suffix precedes the plural suffix.

- (i) regular plural suffix
- (ii) deletion of a stem-final vowel
- (iii) (oblique) marker
- (iv) ablaut
- (v) assimilation: Tsez *tupi* → *tum-ma-bi*

Possible combinations of mechanisms are: (i) + (ii), (i) + (iii), (i) + (iv), (ii) + (iii) and (i) + (ii) + (iii). The only regular and productive mechanism is can be combined with all other ones.

Plurals that are formed with some unproductive means (e.g. with an unproductive suffix or by using also vowel deletion) are often cognate in some or even all Tsezic languages (e.g. the last example 'sibling'/'brother').

	Tsez	Hinuq	Khwarshi	Bezhta	Hunzib
SG	<i>hut'</i> 'lip'	<i>uži</i> 'boy'	<i>zor</i> 'fox'	<i>ãc</i> 'door'	<i>xor</i> 'ram'
PL	<i>hut'-bi</i>	<i>uži-be</i>	<i>zor-bo</i>	<i>ãc-la</i>	<i>xor-la</i>
SG	<i>bikor/i</i> 'snake'	<i>k'et'u</i> 'cat'	<i>boc'/o</i> 'wolf'	<i>bac'/o</i> 'wolf'	<i>aq/e</i> 'wife'
PL	<i>bikor-bi</i>	<i>k'et'(u)-be</i>	<i>boc'-bo</i>	<i>bac'-a</i>	<i>aq-a</i>

⁴ This is often, but not always the case for nouns that undergo vowel deletion also for the oblique singular.

	Tsez	Hinuq	Khwarshi	Bezhta	Hunzib
SG	<i>fi</i> 'water'	<i>t'eka</i> 'goat'	<i>ɣin/e</i> 'woman'	<i>äⁿhey/o</i> 'hole'	<i>mɨq</i> 'pole'
PL	<i>fi-da-bi</i>	<i>t'ek(a/i)-be</i>	<i>ɣin-a-ba</i>	<i>äⁿhey-a-a</i>	<i>mɨq-əl-a</i>
OBL	<i>ɬaː-</i>	<i>t'ek-(i)-</i>	<i>ɣin-a-</i>	<i>äⁿhey-a-</i>	<i>mɨq-əl-</i>
SG	<i>esi/ɣ</i> 'sibling'	<i>essu</i> 'sibling'	<i>is</i> 'sibling'	<i>is</i> 'brother'	<i>is</i> 'sibling'
PL	<i>es-na-bi</i> ⁵	<i>essu-be / ess-ni-(be)</i>	<i>is-na-ba</i>	<i>is-na</i>	<i>is-na</i>

Comment [f2]: is this right?

Finally, as with the oblique singular, in all languages some nouns can have more than one Absolutive plural form. The alternative suffix is always productive.

	Tsez	Hinuq	Khwarshi	Bezhta	Hunzib
SG	<i>bizo</i> 'pick'	<i>tam/a</i> 'horn'	<i>ěš</i> 'apple'	<i>ä^l</i> 'village'	<i>hak</i> 'flower'
PL	<i>bizo-bi / bizo-m-bi / bizo-r-bi</i>	<i>tama-be / tam-i-be / tam-be</i>	<i>ěš-bo / ěš-no-bo / ěš-mo-bo</i>	<i>ä^l-ä ä^l-lä</i>	<i>hak'-a / hak'-la</i>
SG	<i>mo^l/u</i> 'fingernail'	<i>ɣ^wer/o</i> 'cow'	<i>šel^l/u</i> 'horn'	<i>boc/o</i> 'moon'	<i>xɨ^l/u</i> 'trousers'
PL	<i>mo^l-a-bi / mo^l-bi</i>	<i>ɣ^wer-iš / ɣ^wer-iš-be</i>	<i>šel^l-u-bo šel^l-a-ba</i>	<i>boc-bo / boco-wa</i>	<i>xɨ^l-wa / xɨ^l-e-la</i>

4. Oblique plural stem

In contrast to the Absolutive plural, for the formation of the oblique plural all Tsezic languages have regular suffixes. In all West Tsezic languages the oblique plural suffix may be preceded by the oblique singular suffix which is not found in the Absolutive plural form. Or, if the oblique singular is formed by ablaut or stem alternation, then the oblique plural suffix is added to the oblique singular form.

In the East Tsezic language Bezhta the oblique plural is regularly formed by adding *-a* to the Absolutive plural form. However, if the Absolutive plural ends already with a long /a/ because it has been formed on the basis of the Absolutive singular form, then no additional *-a* is added, but Absolutive and oblique plural forms are identical, e.g. *äⁿhey/o* ('hole'), OBL SG *äⁿhey-a-*, ABS PL *äⁿhey-a-a-*, OBL PL *äⁿhey-a-a-*. In addition, some nouns with unproductive Absolutive plural markers have regular oblique plural forms, e.g. *iyɔ* ('mother'), ABS PL *iyɔ-ol*, GEN1 PL *iyɔ-la-a-s*. In Hunzib, the second East Tsezic language, the oblique plural suffix is *-la* and it is almost exclusively added to the Absolutive plural form. But in some rare cases this suffix is not used and Absolutive and oblique plural forms are identical.

As was already illustrated for the oblique singular and plural, some nouns have also two or three forms for the oblique plural stem, e.g. Khwarshi *ōg* ('axe'), PL GEN1 *ōg-no-za-s*, *ōg-mo-za-s* or *ōg-za-s*.

⁵ This noun behaves similar in all languages, but the meaning of the suffix *-na/-ni* is unclear for all Tsezic languages except Hunzib where it is an unproductive plural marker.

	Tsez	Hinuq	Khwarshi	Bezhta	Hunzib
	'stick'	'boy'	'sibling'	'leg'	'bear'
SG ABS	<i>hibo</i>	<i>uži</i>	<i>is</i>	<i>č'amal</i>	<i>si</i>
PL ABS	<i>hibo-bi</i>	<i>uži-be</i>	<i>is-na-ba</i>	<i>č'amal-a</i>	<i>si-bur</i>
PL ERG	<i>hibo-za</i>	<i>uži-za-y</i>	<i>is-na-za</i>	<i>č'amal-a-a</i>	<i>si-bur-la-l</i>
PL GEN I	<i>hibo-za-s</i>	<i>uži-za-s</i>	<i>is-na-za-s</i>	<i>č'amal-a-a-s</i>	<i>si-bur-la-s</i>

	Tsez	Hinuq	Khwarshi	Bezhta	Hunzib
	'boy'	'house'	'mother'	'horse'	'dog'
SG ABS	<i>uži</i>	<i>buže</i>	<i>išu</i>	<i>šügöšöwä</i>	<i>wə</i>
SG OBL	<i>ža-</i>	<i>beže-</i>	<i>iš-e-t'-</i>	<i>šügöšöwä</i>	<i>wə-y-</i>
PL ABS	<i>uži-bi</i>	<i>buže-be</i>	<i>išu-bo</i>	<i>šügööl</i>	<i>wə-ba</i>
PL OBL	<i>ža-za-</i>	<i>beže-za-</i>	<i>išu-e-t'-za-</i>	<i>šügöšöwä-ä</i>	<i>wə-ba-</i>

5. Structuring the chaos

Generalizing over all Daghestanian languages Kibrik and Kodzasov (1990: 251–258) distinguish 11 pattern of stem formation, Kibrik (1991) lists already seven general patterns and 16 subtypes.

Tsezic nouns can be divided into several classes according to the ways in which oblique singular, Absolutive plural and oblique plural are formed from the Absolutive singular stem, disregarding the details of formation. All nouns distinguish at least two forms and at most four forms. The majority of nouns have four different stems. Usually the oblique plural is formed quite regularly whereas the formation of oblique singular and Absolutive plural shows a lot variation.

Minor patterns are restricted to a few nouns or to one language.

Two-stem patterns

Tsezic languages do not have nouns where ABS SG = OBL SG and ABS PL = OBL PL. However, other Daghestanian languages such as Khinlug (e.g. *halám* 'sheep', OBL SG *halám-*, ABS PL *halám-irdir*, OBL PL *halám-irdir-* van den Berg 2005: 161) and Udi have such nouns. But this pattern is rather uncommon for Daghestanian languages. The below two-stem pattern which is attested in the Tsezic languages is restricted to one or two nouns only.

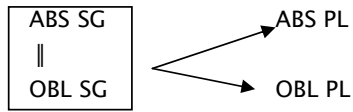
ABS SG	=	ABS PL
↓		
OBL SG	=	OBL PL

▷ minor pattern

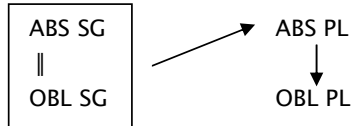
▷ e.g. Hinuq *xexbe* ('child', 'children'), OBL SG, *xexza* OBL PL *xexza-*

Three-stem patterns

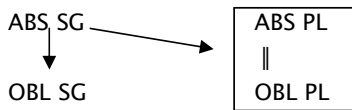
There are five different three-stem patterns with three different kinds of syncretisms, but the majority of them occur only in one or two languages with a few nouns.



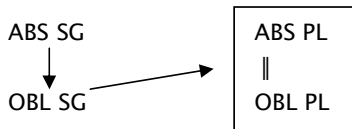
> common pattern
 > e.g. Tsez *zey* ('bear'), OBL SG *zey-*, ABS PL *zey-bi*, OBL PL *zey-za-*



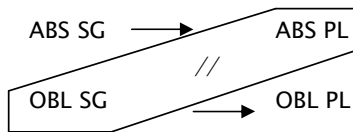
> common pattern
 > e.g. Bezhta *isi* ('sister'), OBL SG *isi-*, ABS PL *isi-ya*, OBL PL *isi-ya-a-*



> minor pattern
 > e.g. Hunzib *nax/ə* ('louse'), OBL SG *nax-i-*, ABS PL *nax-ba*, OBL PL *nax-ba-*



> minor pattern
 > e.g. Bezhta *äⁿhey/o* ('hole'), OBL SG *äⁿhey-a-*, ABS PL *äⁿhey-a-a-*, OBL PL *äⁿhey-a-a-*

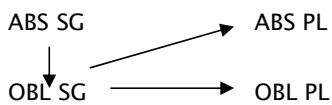


> minor pattern
 > e.g. Hunzib *aq/e* ('wife'), OBL SG *aq-a-*, ABS PL *aq-a*, OBL PL *aq-a-la-*

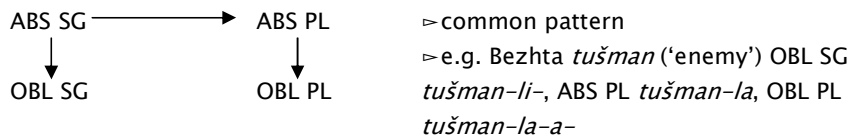
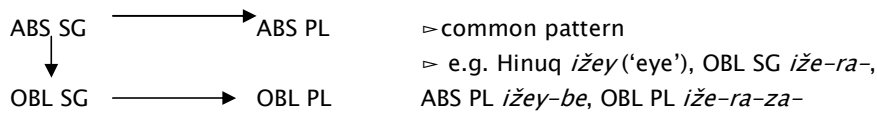
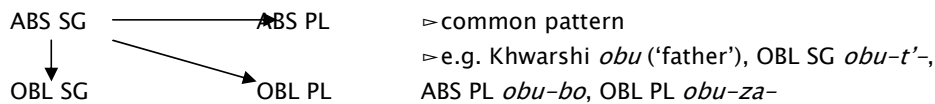
Four-stem patterns

In the first four stem pattern both Absolutive plural and oblique plural are derived from the oblique singular. Therefore Kibrik (1991: 263– 264) regards the oblique singular stem as base stem for nouns following this pattern. The Absolutive singular stem is derived by deletion. But this analysis is not satisfying because the deleted segments correspond to the oblique markers normally used in the languages. Nevertheless the precise analysis of the final segments found in all three stems besides the Absolutive singular remains problematic. They can not be described nor as oblique markers nor as plural markers.

In all remaining four-stem pattern it is the Absolutive singular form which serves as the base for the formation of at least the oblique singular and the Absolutive plural.



> common pattern
 > e.g. Khwarshi *ěš* ('apple'), OBL SG *ěš-mo-*, ABS PL *ěš-mo-bo*, OBL PL *ěš-mo-za-*



6. Reflections on diachrony

In view of the great variation of oblique and plural suffixes one may ask, where they come from. In the literature one can find many suggestions regarding the oblique suffixes: they developed from

- former case markers
- gender markers
- pronouns
- gender markers/pronouns (Alekseev 2003: 79)
- they were former Absolutive endings and were truncated and became OBL marker, e.g. 'eye' in Tsez the Absolutive is *ozuri*, the oblique stem in Hinuq is *iže-ra-* (Burčuladze)

Alekseev (2003) lists the following consonants that are used in many Daghestanian languages as part of OBL markers: *-l-*, *-r-*, *-d-/-t'*, (*-m-*, *-n-*). *-l-*, *-r-*, *-m-*, and *-n-* are all agreement affixes for gender and number in the Tsezic languages. *-d-* is an agreement affix in Archi, another Daghestanian language. Vowels were probably also used as OBL markers in Proto-Daghestanian, but they are difficult to reconstruct (Alekseev 2003: 33–34).

Kibrik (1991: 271–272, 2008) makes the following comments on the origin of the Daghestanian system of stem formation:

- number was not part of the original system because some languages (e.g. Lak have numerous plural marker that are not phonologically conditioned
- Proto-Daghestanian had only a two-case opposition of direct (S, A, P) vs. oblique (all others) because:
 - Proto-Daghestanian case markers do not reconstruct very well
 - the inventory of cases differs remarkably from language to language (e.g. grammatical cases: from (three or) four in most languages to ten in Archi; local cases: from five in Budukh and Udi to 56 in Tsez)

- the direct vs. oblique opposition is also found in parts of speech: e.g. in the Tsezic languages demonstrative pronouns and modifying adjectives have it in accordance with the case of the head noun, and two Genitives according to the case of the head noun (Absolute vs. all other cases)
- stem formation with nouns is typically base vs. oblique
- some languages (e.g. Bezhta, Khwarshi) have a zero-marked Ergative in addition to the zero-marked Absolute
- the plural and/or oblique markers reflect(ed) the gender system:
 - Chamalal (Magomedova 2004: 33) there is a dedicated OBL marker for masculine nouns and several ones for inanimate nouns; Hinuq: the marker *-la* and *-ru* are predominantly found with nouns of gender V (which has *r-* as agreement marker)
 - Rutul (Alekseev 1994: 218): one plural marker *-bir* is only used with inanimate nouns

The stem formation system becomes reduced through

- lexicalization of unproductive markers
- use of productive markers for borrowings (default markers or markers that follow morphophonological rules)
- variation of markers (unproductive and productive) with many words
- drift from a clear direct vs. oblique opposition to a one-way system (with only stress shift, if at all)

To sum up, the Nakh–Daghestanian languages have a quite unique system of stem formation. Only South Dravidian languages seem to have a similar system, but to a much lesser extent. For instance, Tamil has two obligatory oblique markers that occur before case suffixes of some nouns (but after number suffixes); their occurrences are to a great extent phonologically conditioned. Tamil has also two optional oblique markers, whose occurrences are not predictable from the phonological structure of a word (Lehmann 1993: 14–23). Toda, another South Dravidian language, has only one oblique suffix that is used with most nouns. It is added to the nominal stem before all case suffixes except Nominative and Accusative. In a very few nouns this suffix is directly added to the stem. But usually it replaces a stem-final segment, or the stem-final segment is modified in some way before adding the oblique suffix (Emeneau 1984: 70–75)

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