

A Bipartite Verb Stem Outlier in Eurasia: Nakh-Daghestanian

Author(s): Johanna Nichols

Proceedings of the Twenty-Ninth Annual Meeting of the Berkeley Linguistics Society: General Session and Parasession on Phonetic Sources of Phonological Patterns: Synchronic and Diachronic Explanations (2003) pp. 321-334

Please see “How to cite” in the online sidebar for full citation information.

Please contact BLS regarding any further use of this work. BLS retains copyright for both print and screen forms of the publication. BLS may be contacted via <http://linguistics.berkeley.edu/bls/>.

The Annual Proceedings of the Berkeley Linguistics Society is published online via [eLanguage](#), the Linguistic Society of America's digital publishing platform.

A bipartite verb stem outlier in Eurasia: Nakh-Daghestanian

JOHANNA NICHOLS

University of California, Berkeley

1. Bipartite stems

A bipartite verb stem (Jacobsen 1980a, DeLancey 1996) is one that is segmentable into two parts on certain morphological criteria but behaves in most respects like a simple root. Bipartite stems are not the same thing as compounds, though in most languages with bipartite stems some of the more transparent bipartites are also amenable to analysis as compounds. The definition of *bipartite stem* used here is: a segmentable simplex stem; or a stem with inflection positioned so as to split the stem into two parts.

The first element of a bipartite stem is often called a preverb. Here, however, I will simply speak of the *initial* element and the *final* element of a bipartite stem, so as not to impose any assumptions about which piece is more predicate-like and which is more likely to be an open-class element. In fact, cross-linguistically, both the initial element and the final element are prone to be closed classes, and both are likely to include many dependent stems and some cranberry morphs.

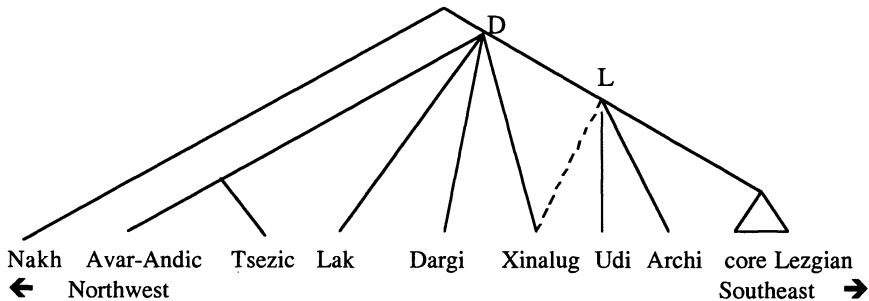
I will use the term *interposition* to describe the positioning of inflectional material between the two pieces of a bipartite stem. (This is different from infixation, which occurs inside of a simple stem, where its position is usually defined phonologically.) In some languages bipartite stems appear to have arisen when clause elements became incorporated, trapping inflectional morphemes that had formerly been ordinary prefixes or suffixes on the incorporating element. The purpose of this paper is to show that incorporation and trapping is not the only route to formation of bipartite stems: in the Nakh-Dagestanian language family of the eastern Caucasus, interposition appears to be not the accidental byproduct of incorporation but the driving force behind formation of bipartites. Nakh-Daghestanian, as will be shown here, is both a geographical and a typological outlier from the North American languages with bipartite verb stems.

A tree for the Nakh-Daghestanian (or East Caucasian) family, which is about 8000 years old, is in (1). The Nakh branch, though phylogenetically half of the tree, is internally shallow and contains only three languages (Chechen, Ingush, and Batsbi); the Daghestanian branch is internally old and diverse, with about thirty daughter languages.

2. Gender agreement in Nakh-Daghestanian languages

(2)-(3) below show Ingush (Nakh branch), in which gender agreement is maximally transparent: initially or following the deictic prefix, the verb root has a gender prefix which has no allomorphy. (Gender markers are underlined.)¹

(1) Nakh-Daghestanian (East Caucasian) family tree with schematic coordinates. (Down to the early Middle Ages, branches only; dashed line: alternate placement of Xinalug; triangle: considerable internal structure for the inner core of the Lezgian branch); D = Daghestanian branch, L = Lezgian branch)



(2) Ingush	B	jett	wa- <u>b</u> izhar	'the cow lay down'
	D	zhwali	wa- <u>d</u> izhar	'the dog lay down'
	V	Ahwmad	wa- <u>y</u> izhar	'Ahmed lay down'
	J	Peat'amat	wa- <u>j</u> izhar	'Fatima lay down'
			down-GENDER.lay	

(3)	B	suona	jett	duqa <u>b</u> ieza	'I like (the) cow'
	D	suona	zizaazh	duqa <u>d</u> ieza	'I like (the) flowers'
	V	suona	Ahwmad	duqa <u>y</u> ieza	'I like/love Ahmed'
	J	suona	Peat'amat	duqa <u>j</u> ieza	'I like/love Fatima'
		I.DAT		a lot GENDER.like	

Hunzib (Tsezic; van den Berg 1995:79-80), shown in (4)-(6), is somewhat less transparent: one of the gender categories has zero marking; the prefixes have phonologically conditioned allomorphy as shown in (4)-(5), where a stem with a nasal vowel nasalizes the *b-* and *r-* prefixes; some verbs, as shown in (6), have vowel alternation rather than prefixation as their agreement marking.

In both of these languages, as in most of the family, gender is a partial category: some verbs take gender agreement and others do not.

(4) Hunzib	1	ozhe	yq'.lə-r	'the boy grew up'
	2	kid	j-yq'.lə-r	'the girl grew up'
	3	kāy	j-yq'.lə-r	'the berries grew'
	4	gudo	b-yq'.lə-r	'the hen grew up'

¹ Here and below, Chechen, Ingush, and Batsbi examples are written in the all-Latin no-diacritics transcription used in the UC Berkeley Chechen and Ingush projects. *ch, sh* as in English; *ss, tt*, etc. geminate/ fortis; *aa*, etc. long; *w* = pharyngealization or pharyngeal segment.

Nakh-Daghestanian Bipartite Verb Stems

	5	q'əra	r-yq'.lə-r		'the child grew up'
(5)	1	ozhe	ūcu-r		'X stole a boy'
	2	kid	j-ūcu-r		'X stole a girl'
	3	kāy	j-ūcu-r		'X stole berries'
	4	gudo	m-ucu-r		'X stole a hen'
	5	q'əra	n-ucu-r		'X stole a child'
(6)	1	iju-l	ozhe gəl-ər		'mother put the boy down'
	2	iju-l	kid gil-er		'mother put the girl down'
	3	iju-l	celu gil-er		'mother put the drum down'
	4	iju-l	baba gul-ur		'mother put the bread down'
	5	iju-l	q'əra gul-ur		'mother put the child down'
			mother-ERG	put down	

3. Nakh-Daghestanian bipartite verb stems

In the modern Nakh-Daghestanian languages, the verb root shape is mostly CV(R)C. For the protolanguage, however, the situation seems to have been different: for no cognate set in my database can the first consonant be reconstructed, while the second one shows regular or near-regular correspondences (Nichols 2003). Instead of a reconstructible first consonant there is usually gender prefixation and/or other, usually non-cognate, elements in the daughter languages. (7) is a representative cognate set showing gender prefixation in most daughter languages but infixation in Archi. ("=" indicates gender marker boundary, following the convention of Kibrik and Kodzasov 1988, 1990.)

(7)	*=Vt 'leave/let'	
	Chechen	=it
	Avar (Chadakolob)	=Vta
	Andi	=eta
	Lak	(q'a) + =it
	Dargi	=a(r)t
	Archi	a=ti

3.1. Lezgian.

In most Lezgian languages, many or most verbs are bipartite. Gender and imperfective aspect are infixed to bipartite stems (immediately before the final element) but prefixed to others. Tsakhur, shown in (8), is typical.

(8) Tsakhur bipartite verbs in aorist tense, showing infixation of gender (Dobrushina 1999:85; qq = geminate, y = high back unrounded vowel, X = uvular)

<u>Gender</u>	<u>'hold'</u> {a=q}	<u>'hang'</u> {giwa=X}
1	aqy	giwarXyn
2	ajqy	giwarXyn
3	awqu	giwapXyn
4	aqy	giwatXyn

Three Lezgian languages have lost gender: Lezgi, Agul, and Udi. Without gender infixation, there is no way of distinguishing bipartite verbs from ordinary compounds like those in (9).

(9) Lezgi compound verbs (Haspelmath 1993:171)

aw-atun	'fall out'	aw-udun	'take out'
al-atun	'fall off'	al-udun	'take off'
ak-atun	'fall under'	ak-udun	'take away'
hal-tun	'meet'	hal-dun	'cover, put on'

3.2. Dargi. Kubachi Dargi has an large set of preverbs in two position slots, but these form compound rather than bipartite verbs. Gender agreement is initial on the verb root; some preverbs also have gender agreement, prefixal for some and suffixal for others. Most preverbs are transparently derived from postpositions. In other Dargi varieties, preverb-root combinations are lexicalized to the point that they can be considered bipartite stems: van den Berg, in press.

(10) Kubachi Dargi (Magometov 1963:76)

b=e:n - ka - b=išši-j	'insert, put in' (gender class III)
w=e:n - ka - w=išši-j	'go in' (gender class I)
GENDER=in-down-GENDER=go-INF	

3.3. Lak. Gender is prefixal except that a few verbs also infix gender and are thus bipartite.

(11) Lak gender agreement (Zhirkov 1955:93, [] = constructed; Xaidakov 1962:418)

Simple stem:	bucara	[ducara]	ucara	'brings'
Bipartite stem:	buvna	durna	uvna	'went'

3.4. Avar-Andic and Tsezic. Gender is mostly prefixal except that a very few verbs infix gender and are therefore bipartite.

(12) Avar-Andic 'wash, launder' (Gudava 1959:197, his set no. 218). Boundary "=" added. *b-* is traditional citation form for gender prefix.

	<u>Stem</u>	<u>Past tense</u>
Avar	čur-	čurana
Andi	a=b=č-	abčo
Botlikh	m=uč-	muča
Chamali	b=uš-	bušā
Tindi	b=uč-	bučō
Bagvali	b=učw-	buča
Karati	b=ičw-	bičwā (Anchikh dial.: m=učw-, muča)
Akhvakh	č-	čari

Nakh-Daghestanian Bipartite Verb Stems

(13) Avar-Andic 'weave' (Gudava 1959:142, set no. 132.)

	<u>Stem</u>	<u>Past Tense</u>	
Avar	b=ess-	b=essana	
Andi	b=ešš-	b=ešši	
Botlikh	šš-	arxaššu	
Godoberi	hišš-	hišši	
Chamali	iss-	issi	
Tinti	išš-	iššo	
Bagvali	eš-	ešo	
Karati	kešš-	keššē	
"	keršš-	keršši	(Tokita dial.)
Akhvakh	goss-	gosseri	
"	k'anss-	k'anssira	(Tljabon dial.)

3.5. Nakh.

In the Nakh languages, gender is exclusively prefixal in roots and never infixal; see again (2)-(3). Uniquely in the family, the Nakh branch has variable initials in a number of verbs, where gender prefixation is just one of the different initials and the others are not segmentable morphemes in Nakh or Nakh-Daghestanian (though some of the same consonants recur as initials in different sets). The vowels and ablaut classes also vary, but this is common in the Nakh branch. Examples are in (14)-(17). An abstract meaning for the verb root is suggested for each set. ? = connection uncertain.

	<u>Ingush</u>	<u>Chechen</u>	<u>Batsbi</u>	<u>gloss</u>
(14)	tassar	tasar	tasar	strew, scatter, sprinkle
	qossar	qossar	qosar	throw, cast
	? moassa+d=ar	--		splash; pour water out

Semantics: *-ss / -s* motion of thrown, tossed, or poured mass or particles

(15)	ottar	ottar		stand up
	--	hottar	--	stand up
	laattar	laattar	lattar	be standing
	d=ottar	d=ottar	d=ottar	stack; pour
	ghattar	ghaattar	--	fly away, take off
	--	--	qettar	stand up.ITER
		cf. litta 'haystack'		

Semantic analysis: *-tt* verticality of motion or stance

(16)	allar	willar		lie, be lying
	d=ollar	d=ollar	d=ollar	insert, enclose, bury
	d=yilla	d=illar	d=illar	lay foundation; plate
	qollar	qollar	qollar	cast, cover
	tyllar	tillar	tillar	put on top; name
	? d=aallar	d=aallar		be tightly contained, inserted

?	ollar	ollar	ollar	hang; string up, string together
---	-------	-------	-------	----------------------------------

Semantics: *-ll* contact over side, plane, surface

(17)	d=aagar sagar, sog	d=aagar -- sagar, sega qaagar+d=uolar	d=ak' ak'+d=ar	burn set afire flash, shine burn scorch, burn and stick to pan
------	-----------------------	--	-----------------------	--

Semantics: **-k'* burn

These are cognate sets in which, within Nakh, the second consonant reconstructs but the first does not. They must be the partly or mostly intact remains of Proto-Nakh sets that may once have been larger. At least back to Pre-Proto-Nakh, there is no reconstructible evidence that they were ever semantically more transparent.

In addition, the Nakh languages have inflectional and derivational prefixation of deictic, directional, and locative elements. When these are prefixed to a gender-agreeing verb root, the result is a trapped gender prefix (much as in (10)). Ingush examples:

(18)	hwa-aara-v=ealar here-out-GENDER=went 'he came out (toward speaker)'	dwa-chy-d=ellar there-in-GENDER=inserted 'inserted (e.g. key in lock)'
------	--	--

4. Comparative grammar of Nakh-Daghestanian bipartites

4.1. Verb root structure.

Why is only the second consonant reconstructible for Proto-Nakh-Daghestanian (PND) verb roots? There are five synchronic patterns that are responsible for this:

(a) The first consonant slot is occupied by a gender prefix in most branches. An example is (7) above. In (20) below Agul *f-* is a variant of a frozen gender marker (Agul has lost gender) and not the regular reflex of any PND consonant.

(b) Occasionally, the first consonant is a reduplicate of the second. There are sporadic examples in Lezgian and Lak; see (19) and (21) below.

(c) Most of the languages have a few monoconsonantal verbs. The verb 'see' is monoconsonantal in a number of daughter languages; see (19) below.²

(d) There are occasional other initials. *l seems to recur in more than one branch; it may or may not be the same element as the *R of the canon form *(C)V(R)C. In (20) below, Chechen and Ingush have *l-* in one form of the root, no initial in the other; Chamali and Agul have no sonorant immediately before the reflex of **-c*; Dargi has a sonorant not connected to gender; and Tabassaran and Archi have gender markers immediately before the reflex of **-c*. In (23), Avar and Dargi have C=VRC roots where the sonorant is distinct from the gender agreement; Agul

² Two of the monoconsonantal Nakh verbs consist of nothing but a gender prefix and a tense suffix: Ingush pres. *d=u*, past *d=yr* (Chechen *d=o*, *d=ira*) 'do' and pres. *d=y*, past *d=ar* (Chechen *d=u*, *d=ara*) 'be'. They belong to different conjugation classes but have no segmental lexical identity.

Nakh-Daghestanian Bipartite Verb Stems

has a sonorant and no gender; Archi has a second gender marker in this slot; and the other languages have no sonorant. Apart from these possible connections of *l-* to *(R) and gender, there are no consistencies in initial elements.

(e) A bipartite initial occupies the first consonant slot. This is especially common in the Lezgian branch:

The *preverb* [=my initial – JN] is the initial element of simple roots. It can be segmented off as a separate element because the gender/number slot comes between it and the root consonant. Though preverbs in origin, synchronically these elements cannot be considered productive derivational morphemes because no regular meaning can be ascribed to them. (Dobrushina 1999:58, on T̄sakhur (Lezgian).)

(19)-(23) are cognate sets showing various discrepant initials in Nakh-Daghestanian. (‡ = source other than Kibrik & Kodzasov 1988; ? = connection to this cognate set uncertain. Glosses are identical to the first one unless otherwise indicated.)

(19)	Chechen, Ingush	gar	'see'	<u>initial:</u>	none
	Andi	haGwo			h-
	Bezhta	=egaa			gender
	Lak	kkwakkw			reduplicate
	Dargi	ʃul + =irg	(ʃul 'eye')		gender
	Agul	agw			none
	Archi	=akkwa			gender
(20)	Chechen, Ingush	laacar	'catch, capture'	<u>initial:</u>	*l-
	? Lak	iecar	'take, buy'		none
	? Lak	las	'carry, bring'		*l-
	Chamali	=u=c	id.		gender
	Dargi (Chirag)	=Vci	'take, hold'		gender
	Tabassaran	=u(r)c	id.		gender
	Agul (Richa)	=i=s	id.		gender
	Archi	fac	id.		f- < *gender
		=sa	id.		gender
(21)	Chechen, Ingush	laq'	'go dry, dry up'	<u>initial:</u>	*l-
	Avar	b=aqq'waze	‡		gender
	Andi	b=eqq'uda	‡		gender
	Lak	q'aq'an	‡		reduplicate
	Lezghi	q'urun	‡		none
	Archi	q'uras	‡		none
(22)	Chechen, Ingush	d=ouzar	'know, recognize'	<u>initial:</u>	gender
	Lak	=uvč'	'understand'		gender
	Avar (Chadakolob)	=ic'	'understand'		none
	Andi	c'indi	'know'		none
	Rutul	ac'	'know'		none
	Tsakhur	=c'a=xes	'know' [my segmentation -- JN]		none

(23)	Chechen, Ingush	d=ustar 'measure'	<u>initial</u> : gender
	Avar (Chadakolob)	=orš(n)	gender
	Andi	=ason	gender
	Bezhta	=ašah	gender
	Lak	=uc	gender
	Dargi	=unc	gender
	Agul	alc	none
	Archi	=a=sin	gender (2x)

Since monoconsonantal verbs are very few (synchronically and for the protolanguage), initials are usually present but discrepant, and no set of prefixes can be reconstructed, the most conservative and least committal reconstruction is to posit that PND had many bipartite verb stems whose internal segmentation may already have been less than transparent.

4.2. Inflection.

It should be noted that the gender markers, as a set, seem to reconstruct for PND, but they seem to have been originally head class markers (markers on the nouns themselves rather than agreement markers on the verbs: Nichols in press, 1990, work in progress; for head class see Evans 1997, Evans et al. 2002, the latter using the term *morphological class*). Their use in agreement seems to be a secondary, though still very early, post-Nakh-Daghestanian innovation that arose in the southeast of the family's range, in the Lezgian branch, and affected the northwestern branches, Nakh and Avar-Andic (±Tsezic) later. Where it arose earlier it is least transparent, most often infixal, and found in most or all verbs; where it spread later it is more transparent and affects fewer verbs. Head class marking is evident now in Nakh and Xinalug (Nichols in press, 2003) and probably in no other branch.

Interposing or infixation is widespread, though usually not productive, in the modern Nakh-Daghestanian languages. Gender prefixation is found in all branches, though with very different frequencies. Examples are in (24)-(25).

(24) Interposed and/or infixal elements in modern Nakh-Daghestanian branches

Nakh	Pluractional categories: multiple argument labial infix Iterative *e/*i ablaut
Avar-Andic	Gender (a very few verbs)
Tsezic	Pluractional (infix); Gender (ablaut) (21 verbs: van den Berg 1995:80)
Lak	Gender (a few verbs)
Dargi	Pluractional (r/l infix; ablaut)
Lezgian	*i ablaut and *l (Schulze) or /r/ (Alekseev) infix (durative) Gender (ablaut or infix) (most verbs)

(25) Inflectional prefixation of verbs in Nakh-Daghestanian branches.

Nakh	Gender (about 30% of verb roots)
Avar-Andic	Gender (about half of verb roots)
Tsezic	Gender (about half of verb roots)
Lak	Gender (most verb roots)
Dargi	Gender (many verb roots)
Lezgian	Gender (non-infixing verbs; most verbs are infixing)

Nakh-Daghestanian Bipartite Verb Stems

Variable initial consonants as in (14)-(17) are found only in the Nakh branch, unless Dargi verb pairs in which the perfective member has gender prefixation and the imperfective lacks it (Magometov 1963:165ff. for Kubachi) also belong here.

To summarize: Infixation of pluractional categories of some kind, including at least an *i infix, appears to be reconstructible for PND. Gender prefixation and infixation may be secondary (though still very old). Originally root-internal sonants of the *CV(R)C pattern are likely to have been recruited to gender agreement, and this may also have been the source of the sonorants involved in pluractional infixation in some branches. The variable initial consonants now found only in Nakh are reconstructible, at least as a pattern: if the variation *within* languages is found only in Nakh, there is evidence for it *between* the other branches (see (19)-(23)).

4.3. The set of bipartites. A likely PND bipartite stem is shown in (26).

(26) A reconstructed bipartite stem: *(C)=VRdz 'stand, stand up'. (Some of the Daghestanian initials may be recently added preverbs, but probably not all.)

PND:	* Ø- / h-	* uvular	* l-	other initials
Nakh:				
Chechen	hott- 'stand up'	ghaatt- 'fly off'	laatt- 'stand'	d.ott- 'stack'
Ingush	ott-	ghatt-	laatt	d.ott-
Batsbi	ott-	qett- id.ITER	latt-	d.ott-
Daghestanian:				
Avar *	c'(VI) 'stand'			
Andi	hirc'i 'stand up'			
Chamali *	hinc'i 'stand up'			
Bezhta *		=aghic' 'stand up'		
Lak	=iz 'stand up'			
Dargi	he=-i(r)cc 'stand up'			ka=Vrcc 'stand'
Lezgi		aqqw[-]jazun 'stand'		
Tabassaran *		GV-udzw 'stand up'		
Agul (Burschag)	gha-zw-a 'stand up'			
Rutul			lu=zw 'stand up'	
Tsakhur			ulyo=z-r	
Budukh		Gu=zVr		
Archi				=o=ci 'stand'

* Dialects cited: Chadakolob Avar, Gigatl Chamali, Tljadal Bezhta, northern Tabassaran.

PND bipartite verbs may have been a closed class, as indicated by the fact that pluractional ablaut or infixation generally affects a smallish closed class of verbs in the daughter languages, and a minority of the Nakh verb roots show variable initials. (In most of the daughter languages, verb roots themselves are a closed class; new verbs are formed by directional/locative prefixation in the minority of languages that have it, and in all languages by compounding with auxiliaries to form phrasal verbs.) No non-bipartite *CVC or *CVRC stems appear to be reconstructible, so apparently the alternative to bipartite structure was not unipartite *CV(R)C structure (as it is in several daughter branches) but monoconsonantal *(V)C structure.

While bipartite structure in the abstract can be reconstructed for PND, specific bipartite verbs are harder to reconstruct. (20)-(23) above are likely to have been bipartite. (26) above is the clearest case of a bipartite PND verb. Otherwise, the members of the closed bipartite sets of Nakh, Avar-Andic-Tsezic, and Lak do not coincide. This suggests that each such set is a shrunken residue of the PND bipartites, which must have been a larger (though still probably closed) set.

Thus, the only aspect of bipartite structure that can be firmly reconstructed is the variable initial consonants, though they are clearly in evidence in only one branch.

5. More recent kinds of bipartitivity

There are more recent ways in which verb roots consist, or come to consist, of two pieces in various daughter languages.

5.1. Reduplication.

For ancient reduplication see (19), (21). In Rutul (Lezgian), gender is infixal for CV(R)C stems but prefixal for reduplicated stems (Aleksseev 1985:87), so this reduplication must be secondary.

(27)	Reduplicated:	ra=q'alq'as, va=q'alq'as	'tremble'
	CVC:	ki=r=kas, ki=v=kas	'resemble'

Rutul also has various kinds of inflectional reduplication not illustrated here.

5.2. Chechen-Ingush whole-root reduplication.

The chaining enclitic =*a* must be interposed between the verb root and the preverbal element (directional prefix, first element of compound verb, direct object), and if there is no such host the verb root is reduplicated to provide one (Peterson 2001, Conathan & Good 2000). Ingush examples showing various hosts are in (28)-(31); the clitic is in boldface.

- | | | |
|------|------------------------|--|
| (28) | First element of verb: | yz bwarjg= a veina
3s eye & V.see.CV
'saw him and ...', 'having seen him, ...' |
| (29) | Direct object: | mashen= a iicaa
car & buy.CV
'bought a car and ...' |
| (30) | Preverb: | chy= a veanna
in & V.go.CV
'went in and ...' |
| (31) | Reduplicate : | Yz kinashjka hwa= a iicaa, diisha= a diishaa, waqessar cuo
this book DX & buy D.read & D.read.CV down-throw.WP 3s.ERG
'He bought, read, and threw out the book' |

5.3. Udi endocclisis.

In Udi (Harris 2000, 2002), person markers are clitics placed at the right edge of the focused element. (The person-number clitic is an innovation in Udi.) The person marker appears between the parts of a complex stem (28), between the two elements

Nakh-Daghestanian Bipartite Verb Stems

of a bipartite stem ((29)), or – if the stem is simplex – before its last consonant (30)-(31). (Σ = first part of bipartite stem.)

- (28) me pasčagh-en eč-es-ne-st'a ... kul
 this king-ERG bring-INF-3s-CAUS earth
 'This king has earth brought ...' (Harris 2002:122)
- (29) nana-n bağha-ne-b-e p'a ačik'alshey
 mother-ERG find-3s-do-AOR two toy
 'Mother found two toys' (p. 122)
- (30) kaghuz-ax a-z-q'e
 letter-DAT Σ -1s-receive-AOR
 'I received the letter' (p. 125)
- (31) similarly: a-ne-q'-sa u-ne-k-sa
 Σ -1s-receive-PRES Σ -1s-eat-PRES
 'receives' 'eats' (p. 127)

5.4. Phrasal and compound verbs.

In most of the daughter branches simple verb roots are a closed class, so phrasal predicates and compound verbs of various kinds are numerous.

6. Structural explanation

There are several unusual, even mysterious, factors in the structure and history of Nakh-Daghestanian bipartites. Gender infixation is their most frequent and probably best-attested identifying mark, but it is likely to be secondary; discrepant initials probably reflect the inherited state, but they are found only in a handful of verbs in one branch. That is, gender infixation is found only in the Daghestanian half of the family and variable initials only in the Nakh half; the daughter languages share the commitment to bipartite structure, but realize it in different ways. The origin of gender agreement seems to have involved head class markers being moved into or copied inside of verb roots. Pluractional infixation is found in both halves of the family, but is likely to also be secondary, independently formed by recruitment of various root-internal elements to number inflection. Secondary, sometimes very recent, bipartite properties are found in various branches of the family. The two most recent ones are quite unusual: the Chechen-Ingush coordinating/chaining enclitic is so far the world's only firm example of a clitic which is positioned relative to the final element in its domain, precedes that, and is proclitic to the word before it (Peterson 2001; a Type 5 clitic in the typology of Klavans 1985), and the no less curious Udi endoclitisis inserts a clitic into an indivisible word (Harris 2000, 2002).

Strange though this set of developments is, they can be subsumed under a panchronic generalization that covers both ancient and secondary bipartite phenomena in Nakh-Daghestanian languages: Elements such as clitics, and others that are positioned relative to domain edges, are always placed before the final element of the domain, in a reverse Wackernagel position. Furthermore, what constitutes an "element" of the domain for purposes of this positioning must be of the same kind as the element to be positioned. Thus, in most of the daughter branches, focus position in the verb phrase or clause is immediate preverbal position; since the verb is VP-final and in nearly all of the languages clause-final,

this amounts to placing the focused word immediately before the domain-final word. A clitic in this position is proclitic to the last word, e.g. the verb in the verb phrase as in (32), or enclitic to the word before that (the position described by Peterson 2001), as in (33)-(34).

- (32) Ingush dika cy= xouzh
 well NEG know.CONVERB
 'not knowing well', 'since (s/he) doesn't know well...'
- (33) Ingush cynga axcha =a d=anna
 him.DAT money & GENDER=give.CONVERB
 'gave him money and ...', 'having given him money, ...'
- (34) Ingush bwarjg =a v=eina
 eye & GENDER=see.CONVERB
 'saw him and...', 'having seen him, ...'

An affix is placed before the last suffix of its word. Thus, when the negative proclitic became an affix in Ingush, it moved to before the tense ending (PST = past stem formative, PAST = witnessed past tense ending):

- (35) Proto-Nakh *co v=aal-in-ra
 NEG V=go-PST-PAST
- Pre-Ingush *vaal-in-c-ira
- Ingush veal-an-**dz**-ar
 go-PST-NEG-PAST
 'didn't depart'

Neither Chechen nor Batsbi suffixes the negative: cognate to the Ingush form above is Chechen *ca veelira*. Batsbi does, however, suffix the reported marker in the same position: {tet'-i-no-ra} /tit'nor/ [cut-PST-REPORTED-PAST] '(he/she) cut': Holisky 1994:180.

Finally, a segment is positioned before the last segment of the stem. Examples are the pluractional infixes as in (36), and gender infixation in all languages that have it.

- (36) Labial pluractional in Nakh:
- | | | | |
|--------|--------|------------|---------|
| Batsbi | tasar | pl. tepsar | 'throw' |
| | qollar | qeblar | 'cast' |

This set of positioning tendencies can be stated as in (37).

(37) **Nakh-Daghestanian strong interposition rule:** Any floating or clitic item preferably goes before the domain-final element at its own level: word before word, affix before affix, segment before segment. Gender agreement markers and other monosegmental formatives can be treated as segments.

This principle explains the positioning of everything except the Udi endoclitics, for which the only oddity is that they are treated as though they were

monosegmental (when most are bisegmental) and positioned before a final segment rather than before a word, as clitics should be.³

References

- Alekseev, M. E. 1988. *Sravnitel'no-istoricheskaja morfologija avaro-andijskix jazykov*. Moscow: Nauka.
- . 1985. *Voprosy sravnitel'no-istoricheskoy grammatiki lezginiskix jazykov*. Moscow: Nauka.
- Conathan, Lisa, and Jeff Good. 2000. Morphosyntactic reduplication in Chechen and Ingush. *CLS*.
- DeLancey, Scott. 1996. The bipartite stem belt: Disentangling areal and genetic correspondences. David Librik and Roxane Beeler, eds., *BLS 22 Special Session on Historical Issues in Native American Languages*, 37-54. Berkeley: BLS.
- Dobrushina, Nina. 1999. Glagol. 58-85 in A. E. Kibrik, ed., *Èlementy caxurskogo jazyka v tipologicheskom osveschenii*. Moscow: MGU.
- Evans, Nicholas. 1997. Head class and agreement class in the Mayali dialect chain. In *Nominal classification in Aboriginal Australia*, eds. Mark Harvey and Nicholas Reid, 105-146. Amsterdam: Benjamins.
- Evans, Nicholas, Brown, Dunstan, and Corbett, Greville. 2002. The semantics of gender in Mayali: Partially parallel systems and formal implementation. *Language* 78:111-155.
- Gudava, T. E. 1959. *Sravnitel'nyj analiz glagol'nyx osnov v avarskom i andijskix jazykax*. Makhachkala: IJJaL Dag. Fil. AN SSSR.
- Harris, Alice C. 2000. Where in the word is the Udi clitic? *Language* 76:3. 593-616.
- . 2002. *Endoclysis and the Origins of Udi Syntax*. Oxford University Press.
- Haspelmath, Martin. 1993. *A Grammar of Lezgian*. Berlin: Mouton de Gruyter.
- Holisky, Dee Ann, and Rusudan Gagaa. 1994. Tsova-Tush (Batsbi). Rieks Smeets, ed., *The Indigenous Languages of the Caucasus, vol. 4: North East Caucasian Languages, part 2*, 147-212. Delmar, NY: Caravan Books.
- Jacobsen, William H., Jr. 1980a. Washo bipartite verb stems. Kathryn Klar, Margaret Langdon, and Shirley Silver, eds., *American Indian and Indoeuropean Studies: Papers in Honor of Madison S. Beeler*, 85-99. Berlin: Mouton de Gruyter.
- Kibrik, A. E., and S. V. Kodzasov. 1988. *Sopostavitel'noe izuchenie dagestanskix jazykov: Glagol*. Moscow: Moscow University.
- . 1990. *Sopostavitel'noe izuchenie dagestanskix jazykov: Imja. Fonetika*. Moscow: Moscow University.
- Klavans, Judith. 1985. The independence of syntax and phonology in cliticization. *Language* 61.95-120.
- Magometov, A. A. 1963. *Kubachinskij jazyk*. Tbilisi: Georgian Academy of Sciences.
- Nichols, Johanna. 2003. The Nakh-Daghestanian consonant correspondences. Dee Ann Holisky and Kevin Tuite, eds., *Current trends in Caucasian, East*

³ This paper is based in part on work supported by the National Science Foundation under Grant 9616448.

European, and Inner Asian linguistics: Papers in honor of Howard I. Aronson. Philadelphia: Benjamins.

- . In press. Chechen (with notes on Ingush). Alan S. Kaye, ed., *Morphologies of Asia and Africa (including the Caucasus)*. Winona Lake, IN: Eisenbrauns.
- . 1990. The Nakh evidence for the history of gender in Nakh-Daghestanian. H. I. Aronson, ed., *The Non-Slavic Languages of the USSR: Linguistic Studies*, 158-75. Chicago: Chicago Linguistic Society (University of Chicago).
- Peterson, David A. 2000. Ingush ?a: the elusive Type 5 clitic? *Language* 77.144-55.
- Schulze, Wolfgang. 1998. *Person, Klasse, Kongruenz. Fragmente einer Kategorial-typologie des einfachen Satzes in den ostkaukasischen Sprachen. Vol. 1: Die Grundlagen, part 1.* Munich: Lincom Europa.
- van den Berg, Helma. 1995. *A Grammar of Hunzib (with texts and lexicon)*. Munich: Lincom Europa.
- . In press. Spatial prefixes in Dargi (East Caucasian). F. Kiefer, ed., *Proceedings of Tenth Morphology Meeting. Folia Linguistica Hungarica* special issue.