

Locative forms in Nakh-Daghestanian as an example of a transcategorial paradigm

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The definition of a word class relies on the notion that different word classes have different paradigms: “canonically, lexemes in different syntactic categories exhibit different morphology,...inflect for different morphosyntactic property sets, and ... have different exponents” (Stump 2015: 229). One possible deviation from this is **transcategorial polyfunctionality**: cases in which “distinct but related content is systematically expressed by the same morphology in different syntactic categories” (Stump 2015: 230).

Word class division in the languages of Nakh-Daghestanian (North-East Caucasian) family in general is rather straightforward: nouns, pronouns, verbs, adjectives (for those languages that have this class) and adverbs have distinct paradigms with the familiar mixed categories deviations: verbs normally have sub-paradigms of participles and verbal nouns which employ nominal paradigms.

However, there is one area in nominal morphology which can be classified as instantiating categorial polyfunctionality: the situation where the same content is expressed by the same morphology in distinct word classes. In many Nakh-Daghestanian languages, both nouns and adverbs employ the same case endings. Examples (1) to (3) from a Lezgian language Archi can serve as a starting point.

- (1) **tus:əl-l-a-k¹** sak:u-qi
bag(III)-SG.OBL-IN-LAT 1PL.look-FUT
‘We will look inside the bag.’
- (2) χit:a **kana-ki** <w>di-muχur eχni-li oq^ʕa-li
then there-LAT <I.SG>be.PST-when [IV.SG]forget.PFV-CVB [IV.SG]leave.PFV-EVID
‘Then, when he was there, he forgot.’

In (1) the noun *tus:əllak* ‘into the bag’ has a locative ending *-k*. In (2) the same ending attaches to the adverb *kana* ‘there’. Note that when used with the adverb, the ending loses its meaning, and the form *kanak* does not mean an expected ‘towards there’. Example (3) from an Archi text collected in 2006 contains two locative nouns and two locative adverbs:

- (3) i<w>χ:u-li i<w>di-li iši-š te:n-ši uq^ʕa-t:u
<I.SG>remain.PFV-CVB <I.SG>be.PST-EVID here-EL there-ALL I.SG.come.PFV-ATTR.I.SG
ħaž-li-t:i-k rume-k-l-a-š os haman-nu i<w>χ:u-li
Hajj(IV)-SG.OBL-SUP-LAT rume-k-SG.OBL-IN-EL one Lak-ATTR.I.SG <I.SG>remain.PFV-EVID
‘There, in Mecca remained a Lak (person) from Rume-k, who went there to do Hajj.’

The adverbs *išiš* ‘from here’ and *te:nši* ‘to there’ employ the elative ending *-š* and the allative ending *-ši* respectively (note that this time both locative endings retain their

¹ I use IPA sign for length (:) to denote fortis consonants.

semantics). The nouns *ħaʒlit:ik* ‘to (do) Hajj’ and *ʁumeklaʂ* ‘from Rumeĸ’ contain the locative ending *-k* and the relative ending *-ʂ* respectively.

These examples reflect a situation typical for a Nakh-Daghestanian language: the paradigm of locative cases straddles the otherwise clearly marked border between nouns and adverbs. To my knowledge, this situation has never been the focus of a theoretical discussion despite the fact that the locative paradigms in Nakh-Daghestanian languages attracted the attention of linguists before (Bokarev 1954, Creissels 2009, Daniel & Ganenkov 2009). The purpose of this paper is to describe the issue and define the questions that needed answers providing the road map for more detailed investigation.

1. Noun paradigm structure in Nakh-Daghestanian languages

Nouns in Nakh-Daghestanian languages are famous for having large and complex paradigms. Two features distinguish Nakh-Daghestanian nominal systems: the opposition between direct and oblique cases, and the division into non-spatial and spatial subparadigms.

The first division runs through both non-spatial and spatial subparadigms. It opposes the unmarked (at least in the singular) absolutive case to all other cases, which are produced from the oblique stems. The oblique stems are often homophonous with the form of the ergative case. Example (4) shows a paradigm of non-spatial cases of a noun from the Lezĸic language Archi. We can see that the absolutive case is opposed to the form of the ergative which serves as a base for all the other case forms. In the singular this opposition is irregular (*baʿkʹ* vs *beʿkʹiri*) whereas in the plural it is expressed by a regular suffix *-čej*.

(4) Non-locative paradigm of *baʿkʹ* ‘ram’ (Archi, Lezĸic)

	SG	PL
ABSOLUTIVE	baʿkʹ	baʿkʹ-ur
ERGATIVE	beʿkʹiri	baʿkʹ-ur-čej ²
GENITIVE	beʿkʹiri-n	baʿkʹ-ur-če-n
DATIVE	beʿkʹiri-s	baʿkʹ-ur-če-s
COMITATIVE	beʿkʹiri-ł:u	baʿkʹ-ur-če-ł:u
SIMILATIVE	beʿkʹiri-qʹdi	baʿkʹ-ur-če-qʹdi
CAUSAL	beʿkʹiri-š:i	baʿkʹ-ur-če-š:i
COMPARATIVE	beʿkʹiri-ħur	baʿkʹ-ur-če-ħur
PARTITIVE	beʿkʹiri-qʹiʂ	baʿkʹ-ur-če-qʹiʂ
SUBSTITUTIVE	beʿkʹiri-klʹena	baʿkʹ-ur-če-klʹena

Large part of a Nakh-Daghestanian noun paradigm is taken up by the locative subparadigm; the forms in the locative subparadigm are based on the same oblique stem as the non-locative forms, but involve the addition of (at least) two elements: a localization suffix and another element, which in some languages (such as Archi) functions as an ending and in some (such as Dargwa) – as a suffix (i.e. can attach further morphological material). The term for this element varies between linguistic traditions within the family, thus, the Archi element is called ‘a directional ending’, whereas Dargwa descriptions call it ‘category of orientation’.

² Here, I break away from the tradition to spell the affix of the plural Ergative case as *-čej* (see, for example, Kibrik 1977) and choose the spelling *-čej* as it reflects the actual pronunciation better and makes clear that the form of the ergative case serves as the oblique stem (the final *j* disappears in the case forms as a result of a phonological rule).

The latter term is easier to use across the family as in several languages there is also a category of directive, which makes the term ‘directional ending’ confusing.

Example (5) from a spontaneous Archi text illustrates usage of locatives: the form *bošormirak* ‘to the husband’ of the noun *bošor* ‘man, husband’ contains a regular suffix of the oblique singular stem *-mi*, a suffix of a CONT(act) localization *-ra* and a lative case ending *-k*:

- (5) tu-w bošor-mi-ra-k kaɣər t’alau-na
 that-I.SG man(I)-SG.OBL-CONT-LAT letter(III)[SG.ABS] <III.SG>send.PFV-CVB
 ‘By sending a letter to this husband (we’ll bring him here)...’

Archi locative subparadigm involves five forms of localization and six forms of orientation; the localizations (LOC) distinguish contact (CONT), inside hollow space (IN), inside filled space (INTER), under (SUB) and on (SUPER) surfaces. Orientation distinguishes ESSive (being in the LOC), ELative (moving from LOC), LATive (moving towards LOC), ALLative (moving to the area of LOC), TERMinative (moving to LOC and no further), and TRANSlative (moving through LOC):

(6) Archi locative affixes

localization		orientation	
CONT	-r-	ESSIVE	ZERO
IN	-a-	ELATIVE	-š
INTER	-q ^c -	LATIVE	-k
SUB	-kl’i-	ALLATIVE	-ši
SUPER	-t:i-	TERMINATIVE	-kəna
		TRANSLATIVE	-χut

Archi represents an average Nakh-Daghestanian locative paradigm. Both larger and smaller paradigms (involving just these two features, localization and orientation) are possible. Thus, Khwarshi, a language belonging to the Tsezic group, has the same number of orientation values as Archi but six rather than five localizations:

(7) Locative suffixes in Khwarshi (Tsezic)

	ESSIVE	DIRECTIVE	VERSATIVE	ABLATIVE	TRANSLATIVE	TERMINATIVE
AD	-ho	-ho-l	-ho-ɣol	-ho-žo	-ho-jža	-ho-q’a
CONT	-l	-l-el	-l-ɣol	-l-žo	-l-ejža	-l-q’a
IN	-ma	-ma-l	-ma-ɣol	-ma-žo	-ma-jža	-ma-q’a
POSS	-qo-	-qo-l	-qo-ɣol	-qo-žo	-qo-jža	-qo-q’a
SUB	-λ	-λ-el	-λ-ɣol	-λ-žo	-λ-ejža	-λ-q’a
SUPER	-λ’o	-λ’o-l	-λ’o-ɣol	-λ’o-žo	-λ’o-jža	-λ’o-q’a

Khalilova, Testelets ms.

Localization and orientation are not the only possible locative categories. Tsezic languages add a third feature, that of the proximity to the speaker (van den Berg 1995, Testelets 1980/2019, Radkevich 2008). As the following example from Bezhta demonstrates, this category can be optional. In (8b) it is realised by the suffix *-da* which goes between localization suffix and the orientation:

- (8) a. do roso-ka-s λ'alo ježeč
 1SG.ERG wall-AD-EL stone carry.PRS
 'I am carrying the stone (away) from the wall.'
- b. do roso-ka-da-s λ'alo ježeč
 1SG.ERG wall-AD-APPROX-EL stone carry.PRS
 'I am carrying the stone (away) from somewhere near the wall.'
- (Testelets 1980/2019 via Lyutikova 2022)

Another optional category, the directive, is registered in Avar (Bokarev 1954), Dargwa (Sumbatova 2003, Lander 2011) and Tabassaran (Khanmagomedov 1958). As (9) from Tanty Dargwa shows, this is an optional category realised by the suffix which attaches to the orientation suffix. This category normally involves direction up or down and sometimes also include meanings hither and thither. In (9) the directive expresses the meaning 'down':

- (9) čet:i-d-at-ur q'uš-me-ra qa'b-li-ja-r-kale
 put-NPL-LV:PF-PRET foot-PL(ABS)-ADD neck-OBL-SUPER-EL-DOWN
 '(Literally:) And he put his feet from the top of the (other's) neck down.'
- (Lander 2011: 2)

Thus, the locative paradigms of the noun in Nakh-Daghestanian languages have common structural properties: the locative forms are based on the same oblique stems as non-locative forms and consist of at least two elements: localization and orientation. The actual values of these features and the usages of locative forms (such as coding the verbal arguments) vary across the languages but this is not the focus of this paper; here, I concentrate on formal elements of locative subparadigm shared by nouns and other parts of speech, namely, adverbs and postpositions.

2. Locative paradigms of adverbs

Adverbs in Nakh-Daghestanian languages present a typologically familiar picture: it is a heterogeneous class encompassing words with different etymological sources: some adverbs clearly derive from case forms of nouns, some originate in converbs and some are non-derived. Mostly, adverbs do not inflect, although in every language there are some adverbs which allow inflection for directional cases and a (much smaller) number of adverbs which have agreeing forms. I am interested in the former type of adverbial inflection here.

If we take Archi as the first example, there are two classes of adverbs: locative and non-locative. Example (10) presents examples from both classes:

- (10) Two adverbial classes in Archi

locative adverbs	non-locative adverbs
<i>jašul</i> 'inside'	<i>jasqi</i> 'today'
<i>jak</i> 'to.inside'	<i>kelaw</i> 'than'
<i>q'on</i> 'between'	<i>χit:a</i> 'then'
<i>l'arak</i> 'under'	<i>jonsaw</i> 'again'
<i>emik</i> 'there'	<i>nessen</i> 'now'
<i>harak</i> 'in front'	<i>o:k'ur</i> 'slowly'

Only locative adverbs can inflect for location, but not every adverb with locative semantics

does so: the grammar of Archi gives examples of inflecting adverbs but never states that the list is exhaustive. Adverbial locative paradigm is smaller than that of a noun: nouns have six values for orientation (6) whereas adverbs have four:

(11)	Inflection of adverbs in Archi			
		‘there’	‘in front’	‘down there’
	ELATIVE	emi-š	hara-š	kl’ara-š
	LATIVE	emi-k	hara-k	kl’ara-k
	ALLATIVE	emi-ši	hara-ši	kl’ara:-ši
	TRANSLATIVE	emi-χut	hara-χut	kl’ara-χut

Compared to noun paradigm, the adverbs lack the essive and the terminative case. The orientation cases employed in both nominal and adverbial paradigms have the identical realizations. While the form is identical, the meanings are not: the form of the lative in the adverbial paradigm does not denote the meaning ‘towards’ but rather means ‘be somewhere’, so the lative case in adverbs functions as the essive case in nouns. Compare the adverb *emik* ‘there’ in (12) which does not mean ‘towards there’ and the noun *dux:ʰat:ak* ‘towards the mill’ in (13):

(12)	emi-k	ħurmat	q’imat	au-li
	there-LAT	respect(III)[SG.ABS]	esteem(III)[SG.ABS]	<III.SG>do.PFV-EVID
	‘...and there they were shown all the respect and esteem’ (that was due to them)			

(13)	q ^w a-li	dux:ʰat:-a-k	tuw
	come.I.SG.PFV-EVID	mill(IV).OBL.SG-IN-LAT	he
	‘He came to the mill’		

Since the lative in adverbial paradigm has the essive meaning, the form of the allative expresses the meaning ‘towards’; in the nominal paradigm the lative and allative have, according to the grammar, the meanings ‘towards’ and ‘towards the area of’, although if we look in the texts, both of cases tend to mean ‘towards’ but are used with different lexical items, and the allative is most frequently used to code the speech addressee.

From a purely morphological point of view, the adverbial inflection for locative cases seems less regular than the nominal inflection: two adverbs are registered to be defective and two are overabundant. The defective ones are shown in (14)³.

(14) Locative paradigms of the Archi adverbs *imik* ‘there’ and *jak* ‘inside’

ELATIVE	imi-š	ja-š
LATIVE	imi-k	ja-k
ALLATIVE	no form	no form
TRANSLATIVE	imi-χut	no form

For two adverbs an overabundant paradigm was registered: the adverbs *kana* ‘there’ and *jat* ‘above’ have the essive form that the other adverbs lack:

³ It has to be noted that we cannot draw the parallel with nouns with the absolute certainty as no systematic study has been done on the nominal lexicon to check whether every noun has the full locative paradigm; such study is almost impossible on a language with only a small corpus, and one can never be sure that the apparent lack of a form (arising in a situation where the linguist offers a form to the speaker) is not a by-product of the fact that the context was not set correctly.

(15) Locative paradigms of the Archi adverbs *kana* ‘there’ and *jat* ‘above’

ESSIVE	<i>kana</i>	<i>jat</i>
ELATIVE	<i>kana-š</i>	<i>jat:i-š</i>
LATIVE	<i>kana-k</i>	<i>jat:i-k</i>
ALLATIVE	<i>kana:-ši</i>	<i>jat:i-ši</i>
TRANSLATIVE	<i>kana-χut</i>	<i>jat:i-χut</i>

However, the essive form of *kana* does not have the expected meaning of ‘there’; rather, it means ‘look!’; in (16) the semantic contrast with *išik* ‘here’ used in the same sentence highlights this:

- (16) *kana, kana, zon išk w-i bo-li*
 there there 1SG.ABS here I.SG-be say.PFV-EVID
 ‘Look, look, I am here, – he said.’

- (17) *kana, bo-li zon wiš lo bo-li*
 there say.PFV-EVID 1SG.ABS your child.SG.ABS say.PFV-EVID
 ‘Look, she said, I am your daughter, — she said.’

While in Archi the locative paradigm for adverbs is smaller than that of the nouns, the adverbs and nouns in Khwarshi have exactly the same set of locative endings:

(18) Locative paradigm for adverbs in Khwarshi

	ESSIVE	DIRECTIVE	VERSATIVE	ABLATIVE	TRANSLATIVE	TERMINATIVE
‘there’	<i>iⁿgo</i>	<i>iⁿgo-l</i>	<i>iⁿgo-koł</i>	<i>iⁿgo-žo</i>	<i>iⁿgo-jža</i>	<i>iⁿgo-q’a</i>
‘here’	<i>idi</i>	<i>idi-l</i>	<i>idi-koł</i>	<i>idi-žo</i>	<i>idi-jža</i>	<i>idi-q’a</i>

(Khalilova, Testelets, ms)

Unlike adverbs in Archi, the adverbs in Khwarshi can attach to both the localization affix and the orientation one:

- (19) *žid-a łona biton-no l-eča-na, iⁿgo-ho-l l-ez-na...*
 they-GEN1 three can-ADDIV-be.CVB.PFV there-AD-LAT IV-take-CVB.PFV
 ‘They had three cans, they took (them) there...’ (Fox, Bear and Wolf, 2)

(Ljutikova 2022)

Bagwalal, a language from Andic group of Nakh-Daghestanian family, has a locative subparadigm with seven localizations but only four orientations:

(20) Noun locative paradigm in Bagwalal

localization		orientation	
AD	-x-	ESSIVE	
CONT	-č'-	ELATIVE	-s:
IN	-ini-, -ni-	LATIVE	-a
INTER	-hi-	TRANSLATIVE	-s:ini
LOCPOSS	-la-		
SUB	-kl'i-		
SUPER	-la-, -lla-		

(Kibrik et al. 2001: 141)

There are adverbs in Bagwalal which inflect for orientation but, similar to what we saw in Archi, the adverbial locative paradigm is smaller than the locative sub-paradigm of the noun. In Bagwalal only two values of the orientation feature are used, the essive and the elative. Example (21) shows an inflecting adverb form Bagwalal.

(21) Inflection of the adverb č'ihī 'above'

ESSIVE č'ihī
ELATIVE č'ihī-s:

These examples drawn from three languages of different branches of the family show us that there is considerable variation in the locative paradigms and in the number of transcategorial elements, i.e. elements shared between adverbial and nominal paradigm, but at the moment we do not have enough data on the adverbial inflection across the family to make any significant conclusions.

3. Locative paradigms of postpositions

If our data on locative inflection of adverbs is sketchy, we know even less of the locative inflection of the postpositions. But the glimpses we get from the descriptions of individual languages are interesting enough to prompt further studies.

The difficulty to distinguish between adverbs and postpositions is a known issue in Nakh-Daghestanian linguistics. Every language in the family has postpositions, i.e. function words which head PPs and select a nominal complement in certain case. However, almost every such word can also be used as an adverb, i.e. without the complement in the initial as well as final position in the clause. Because of this fact, some grammatical descriptions do not distinguish two classes but say that there is a class of adverbs (a lexical class much larger than that of the postpositions) which includes a sub-class of adverbs-postpositions. However, at least one grammar, that of Archi, makes a point that when it comes to taking locative morphology, the postpositions demonstrate some specific properties: while the adverbs take four orientations, the postpositions can only take three: elative, lative and translative. Example (22) shows which parts of locative paradigm is shared between nouns, adverbs and postpositions in Archi. The noun is shown in the form of SUPER localization as this localization demonstrates the least amount of idiosyncrasies when combining with various forms of orientation.

(22) Locative paradigm sharing in Archi

	NOUN ‘ram’	ADVERB ‘under’	POSTPOSITION ‘under X’
ESSIVE	be ^s k’iri-t		
ELATIVE	be ^s k’iri-t:i-š	kl’ara-š	kl’ara-š
LATIVE	be ^s k’iri-t:i-k	kl’ara-k	kl’ara-k
ALLATIVE	be ^s k’iri-t:i-ši	kl’ara:-ši	
TERMINATIVE	be ^s k’iri-t:i-kəna		
TRANSLATIVE	be ^s k’iri-t:i-χut	kl’ara-χut	kl’ara-χut

This is a possible test to distinguish adverbs and postpositions, but more data is needed both for Archi and other languages. Thus, we do not even know how the locative forms of postpositions are used in Archi; there are no examples in the texts or in the grammatical descriptions.

Bagwalal also has some inflecting postpositions; like adverbs, they take two values of orientation, but the values are different from those taken by the adverbs.

(23) Inflection of the postposition *la* ‘above X’

ELATIVE	-la-s:
LATIVE	-la-a

Because of the difference in the values of the orientation taken by different parts of speech, the shared paradigm for Bagwalal has a different configuration from that of Archi; only one cell is shared across all three word classes:

(24) Locative paradigm sharing in Bagwalal

	NOUN ‘ram’	ADVERB ‘above’	POSTPOSITION ‘above X’
ESSIVE	miq’a-la	č’ihi	
ELATIVE	miq’a-la-s:	č’ihi-s:	la-s:
LATIVE	miq’a-la-a		la-a
TRANSLATIVE	miq’a-la-s:ini		

The grammatical description of Bagwalal gives examples of the inflected postposition usage: if the locative form of the noun is governed by a postposition, the orientation ending attaches to the postposition and not to the noun:

- (25) *istolla č’ihi* ‘on the table’ — *istolla č’ihi-s:* / **istolla-s: č’ihi-s:* ‘from the table’
(Kibrik et al. 2001: 144)

4. Conclusions

The locative forms in Nakh-Daghestanian family distort the otherwise canonical division of the lexicon into lexical classes. In general, the languages of the family have easily distinguishable lexical classes, each with its own set of morphosyntactic features. The locative paradigms present a clear case of paradigm with shared forms, rather than an instance of ‘borrowing’ forms (in contrast with, for example, participles which make use of nominal case endings when used as headless attributives). In the case of locative forms of nouns, adverbs and postpositions, it is not clear which lexical class got the locative endings ‘originally’ and which only make use of them as a result of some sort of transposition. Very little is known of

the diachrony of these forms and the fact that nouns sometimes have larger locative paradigms cannot, I think, be viewed as an indication of the diachronic path for these forms.

To the best of my knowledge, there has been only one theoretical account for this situation: Lander (2011) proposes to consider locative forms in Dargwa as a specific lexical class. He believes that the appearance of the localization marker on a nominal stem derives a member of a special word class – locatives – with its own syntactic distribution and morphological properties. Besides locative forms of nouns, this class also includes locative adverbs/postpositions and some toponyms. This class has specific syntactic and morphological properties: all locatives normally appear as adjuncts and they all have a special inflectional category – orientation.

Lander (2011) also proposes to consider the production of locative forms to be an instance of incorporation rather than suffixation: locative forms result from incorporation of nominal stems into locative adverbs/postpositions. Like incorporation in many other languages, the formation of locative forms is quite regular and productive and to a large extent lexically determined. Finally, an incorporating element determines the syntactic category of the whole.

At the moment, it is unclear to me whether this analysis can scale up to account for Nakh-Daghestanian languages in general: as we have seen, while it can potentially work for the situations where the adverbs, nouns and postpositions have the same set of orientation values (as we have seen in Tsezic and as it is in Dargwa as well), the instances like Archi and Bagwalal, where the nouns, adverbs and postpositions do not share the whole of the locative paradigm but just some cells, seem to be more challenging.

At the moment, there is no systematic description of the morphosyntactic behaviour of the locative forms across Nakh-Daghestanian languages and therefore I will end with a set of questions for the future:

- Which word classes can participate in the paradigm sharing?
- Are there predictable lexical / semantic classes participating in paradigm sharing?
- How much variation is there in the size of shared paradigm?
- What are the diachronic path(s) resulting in shared locative paradigms?

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