GRAMMATICALIZATION IN THE NORTH CAUCASIAN LANGUAGES

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1. North Caucasian languages: overview[1]

Caucasus is a home for dozens of languages spoken by several million people. While some of the Indo-European, Turkic and Semitic languages are present in the region, most languages of the Caucasus belong to one of the three indigenous families, namely the (North-)West Caucasian or Abkhaz-Adyghe, the (North-)East Caucasian or Nakh-Daghestanian, and the Kartvelian or South Caucasian families. Although at present there is no consensus regarding the genetic relationships between the three families, the idea that the West Caucasian and the East Caucasian families are distantly related (being unrelated to the Kartvelian family) seems to us the most promising (Starostin 1999). The three families share some important typological properties like rich consonantism, complex morphology, ergativity, SOV word order, prefixal conjugation etc., which is sometimes taken as evidence of the existence of the Caucasian Sprachbund (Chirikba 2008), although this position also remains debatable.

The (macro)family comprising the West Caucasian and the East Caucasian branches is known as North Caucasian (Nikolayev & Starostin 1994: 38–40), and in the present paper we focus on selected grammaticalization processes in the two branches, focusing on one compact language group from each of them. Section 2, written by Peter Arkadiev, describes the Circassian group of the West Caucasian family, and section 3, written by Timur Maisak, deals with the Lezgic group of the East Caucasian family. The choice of the groups is mainly determined by the authors' expertise, in particular by the fieldwork experience with Circassian and Lezgic languages that we have.

The Circassian group of the West Caucasian family consists of two closely related languages (or groups of dialects), Adyghe or West Circassian, and Kabardian or East Circassian. The other known languages of the family are the closely related Abkhaz and Abaza and the now extinct Ubykh[2]. Up to the 1860s the Circassian branch must have constituted a dialect continuum occupying a vast territory from the Black Sea coast in the north-west to the borders of modern North Ossetia in the south-east, but following the military defeat of the Circassians by the Russian Empire and ensuing mass deportations and resettlement, the original linguistic landscape has been disrupted and a number of dialects became extinct. Currently Circassians live in compact patches of land surrounded by areas settled by the Russians in the Russian republics of Adygeya, Karachaevo-Cherkessia and Kabardino-Balkaria, in certain districts of the Krasnodar region, as well as in several countries of the Middle East, most notably in Turkey. The total number of speakers of Circassian languages in all countries is hard to estimate due to the lack of reliable information about the language proficiency in their diaspora. According to Korjakov (2006: 22), among the about 1.1 million speakers, 130,000 Adygheans and 590,000 Kabardians live in Russia. Technically speaking, Circassian languages and dialects are not endangered, at least in Russia, where, despite total bilingualism in Russian, both standard Adyghe and

[1] We are grateful to Yury Lander, two anonymous reviewers and the editors of the volume for their comments on the draft of this chapter. All faults and shortcomings remain ours. Peter Arkadiev also acknowledges the financial support of the Russian Foundation for the Humanities, grants #14-04-00580 and 17-04-00444.

[2] For a general overview of the family see Hewitt (1989), Hewitt (2005) and Korjakov (2006: 22–26); for a historical-comparative perspective see Chirikba (1996).

Kabardian and the local rural dialects are still spoken and acquired by children as well as employed in media including the internet.

Languages of the East Caucasian family are mainly spoken in the Russian republics of Daghestan, Chechnya and Ingushetia, as well as in the adjacent areas of Azerbaijan and Georgia. The total number of languages in the family is about thirty, but this figure may turn out to be higher given that the traditional classification tends to lump some mutually unintelligible idioms into one language, counting them as mere dialects[3]. Lezgic languages constitute the southern branch of the family and are spoken in the southern part of Daghestan and the northern part of Azerbaijan by more than 800,000 people. There are nine Lezgic languages, with the three groups of closely related idioms, namely East Lezgic (Lezgian, Tabasaran and Agul), West Lezgic (Tsakhur and Rutul) and South Lezgic (Kryz and Budugh), and the two outliers Archi in central Daghestan and Udi in northern Azerbaijan. Among them, there are major languages with developed literary standards (Lezgian and Tabasaran), smaller languages which became written only in 1990s, with almost no original literature (Agul, Tsakhur and Rutul), and even smaller unwritten languages (Kryz, Budugh and Archi). Udi enjoys a special position as the closest living relative to the extinct Caucasian Albanian language[4], the only East Caucasian language with an ancient, albeit interrupted, written tradition (cf. the palimpsests found on Mt. Sinai and published in Gippert et al. 2008). Other East Caucasian branches include Nakh (comprising Chechen, Ingush and Batsbi), Avar-Andic (comprising Avar and eight smaller languages of the Andic group), Tsezic with five or six languages, Lak and Khinalug (each constituting a separate family-level branch) and Dargwa (the latter includes the Literary Dargwa, as well as a large number of highly divergent dialects/languages).

Despite many common features, the two North Caucasian branches differ considerably in their morphosyntax, in particular in the morphological structure of the verb and in the inventory of inflectional and derivational categories that can be expressed within word boundaries. The same is true of the preferred grammaticalization paths, which include both mutually and cross-linguistically common developments, on the one hand, and family-particular ones, on the other. We start by presenting the general typological profile of each family (sections 2.1 and 3.1), and then proceed to the discussion of case studies that seem remarkable to us. Most of them pertain to the verbal system, which morphologically is the most complex in both families.

For Circassian, the first domain of interest is the grammaticalization of body-part nouns into locative applicatives and of motion verbs into directional suffixes (section 2.2). In particular, it can be shown that the applicative use of body-part nouns does not necessarily presuppose their postpositional function, as has sometimes been claimed. On the whole, both nominal and verbal roots become fully integrated into the structure of the polysynthetic verbal complex of Circassian as grammaticalized markers of spatial specification of the event. The picture is different as far as auxiliary verb constructions are concerned, which are the focus of section 2.3. The system of periphrastic verb forms complements the complexity of morphological structure and offers rich material concerning the role of constructional patterns in grammaticalization as well as on the gradual nature of morphosyntactic integration of such constructions. Various diagnostics show that constructions with auxiliary verbs in Circassian form a cline from free combinations of two independent verbs each heading its own clause to tightly integrated complexes where the auxiliary has almost become a suffix. The same is true of the Lezgic periphrastic constructions, which are discussed in section 3. On the whole, the range of verbs that has become grammaticalized in Lezgic languages is very restricted (especially in comparison with the neighbouring Turkic languages, for example). It is often the case, though, that the same lexical

[3] For a general overview of the family see van den Berg (2005) and a collection of grammatical sketches in Smeets (1994) and Job (2004); for the issues dealing with genetic classification, see Korjakov (2006: 26–40) and Nichols (2003).

[4] Caucasian Albanian (alternatively, Agwan) is the conventional name of the dominant language of Caucasian Albania, an ancient state in the eastern Caucasus.

item can be found in a number of grammaticalizing constructions. Thus, copulas and the verbs 'be' and 'become' appear regularly in various periphrastic tense and aspect forms. This issue is dealt with in section 3.2 where we focus on the degree of autonomy of the auxiliaries. Multiple grammaticalization paths are also characteristic of the verb 'say', which gives rise to a number of markers, instantiating both cross-linguistically common but also quite rare grammaticalization paths, as described in section 3.3. Alongside some bona fide cases of grammaticalization, when we see the loss of a verb's autonomy following its gradual change into a grammatical marker (e.g. auxiliary or subordinator), an unusual development is attested in some Lezgic languages where the morphological coalescence occurs at a faster rate, anticipating even syntactic fusion[5]. In section 3.4, the origin of the 'verificative' category in two Lezgic languages will be outlined, which also involves the grammaticalization of a matrix verb but stands out with respect to both the structure of the source construction and the unexpected discrepancy between morphological fusion and the lack of syntactic monoclausalization.

In the discussion of North Caucasian grammaticalization we draw both on existing descriptions and our own fieldwork, as well as on textual sources. The Circassian data mainly come from two varieties, i.e. the Temirgoy dialect of Adyghe, which is the basis of the standard language, and the Besleney dialect of Kabardian as spoken in the village Ulyap in the Republic of Adygeya[6]. However, some of the texts actually come from the published literature in standard Adyghe. In the Lezgic sections we give illustrative examples from most languages of the group, including elicited data stemming from Timur Maisak's fieldwork on Agul, Tsakhur and Udi[7]. For unification reasons, the transcription in examples cited from others' works has been changed or adapted, and glosses were added in case the original did not have them.

2. Grammaticalization in the Circassian languages (West Caucasian)

2.1. Basics of Circassian morphosyntax

All Circassian varieties share the following most important structural characteristics:

– Little distinction between major word classes (nouns, adjectives and verbs), all of which can occur as arguments, predicates and modifiers without any special derivational marking (Lander & Testelets 2006; Lander 2016: 3523–3524), as well as blurred distinctions between inflection and derivation, on the one hand, and derivation and compounding, on the other (see Lander 2016: 3511). Although the latter issue has direct relevance for grammaticalization, it is not discussed here for reasons of space.

– Polysynthesis, i.e. indexing of all verbal arguments (S, A, P as well as various indirect objects such as recipient, benefactive, and location, cf. e.g. Smeets 1992) by means of pronominal prefixes, and a rich system of affixes marking argument-related, aspectual, temporal and modal meanings (Kumaxov 1971; Smeets 1984; Korotkova & Lander 2010; Lander & Letuchiy 2010; Lander & Testelets 2017). A naturally occurring example of a characteristically "long" verbal form is given in (1):

[5] A similar case has been recently described for the West Caucasian Abaza in Panova (2017).

[6] Both varieties have been subject to fieldwork conducted by a group of linguists including Peter Arkadiev, organized under the auspices of the Russian State University for the Humanities (2003–2012) and jointly by the latter and the National Research University Higher School of Economics (2013–present). When both Adyghe and Kabardian cognate forms are cited, the Adyghe form comes first.

[7] Textual examples from the Huppuq' dialect of Agul are taken from the oral corpus, collected by Dmitry Ganenkov, Timur Maisak and Solmaz Merdanova in the 2000s.

Standard Adyghe (corpus data)

(1) zewap'e-m_i zə-qə-$\varnothing_i$[8]-r-a-r-jə-ʁe-xə-ʁ-ep
battlefield-OBL RFL.ABS-DEIC-3SG.IO-LOC-3PL.IO-DAT-3SG.ERG-CAU-carry-PST-NEG
'He did not ask them to carry him from the battlefield.'

– Ergativity in both head- and dependent-marking (Smeets 1992; Kumakhov & Vamling 2009; Letuchiy 2012), coupled with an impoverished case system comprising only the Absolutive (*-r*, marks S (2a) and P (2b)) and the Oblique (several allomorphs, of which *-m* is the basic one, marks A (2b), all types of indirect objects (2b), and adnominal possessors (2c)). Personal pronouns, possessed nominals and proper names, as well as non-referential common nouns normally do not admit overt case marking (on the latter see Testelets & Arkadiev 2014).

Standard Adyghe (elicited)

(2) a. č'^{j}ale-**r**$_i$ $\varnothing_i$-me-čəje.
boy-ABS 3.ABS-PRS-sleep
'The boy is sleeping.'

b. č'^{j}ale-**m**$_i$ pŝaŝe-**m**$_j$ txələ-**r**$_k$ $\varnothing_k$-$\varnothing_j$-r-j$_i$-e-tə.
boy-OBL girl-OBL book-ABS 3.ABS-3SG.IO-DAT-3SG.ERG-PRS-give
'The boy is giving the book to the girl.'

c. c'əfə-**m**$_i$ $\varnothing_i$-jə-wəne
man-OBL 3SG.PR-POSS-house
'the man's house'

– Head-final word order in most types of clauses and phrases, see (2) above, though word order of major constituents, especially in independent clauses, is quite flexible.

The word in Circassian languages is defined on the basis of rigid morphological structure and morphophonological rules. Among the latter, the alternation /eCe/ ~ /aCe/ is most important, see Smeets (1984: 206–211) for details. Generally speaking, the alternation applies once in a word and signals the right edge of the stem; the class of morphemes occurring to the right of the domain of the alternation (the so-called "endings", see Smeets 1984: 282–287), as well as of those exempt from it, is well-defined and quite limited in all Circassian varieties.

According to Lander (2016: 3510), both verbal and nominal words in Circassian languages are constituted by five morphological zones schematically shown in Figure 1. Each of the zones, especially the argument structure zone (A), the stem (D) and the endings (E), can contain more than one morpheme, whose order partly reflects their semantic scope (see Korotkova & Lander 2010) and partly adheres to a rigid template; elements from different zones can interact with each other in intricate ways, see e.g. Arkadiev & Letuchiy (2011). Example (3) presents a verb manifesting elements from all morphological zones, while example (4) shows the so-called nominal complex, a formation equivalent to a noun phrase with modifiers in syntax but displaying morphological and phonological properties of a single word (see e.g. Lander 2017), with three of the morphological zones.

Figure 1. The morphological composition of the Circassian word

Argument structure zone (A)	Pre-stem elements (B)	Causative marker(s) (C)	Stem (D)	Endings (E)

[8] Beyond this section we will not mark and gloss zero morphemes. The subscript indices show cross-referencing of the noun phrase by the pronominal prefix.

Besleney Kabardian (corpus data)

(3) [ja]$_A$-[mə]$_B$-[ʁe]$_C$-[šx-a]$_D$-[wə]$_E$
[3PL.ERG]$_A$-[NEG]$_B$-[CAU]$_C$-[eat-PST]$_D$-[ADV]$_E$
'they having not fed (him/her)'

(4) [∅-jə]$_A$-[ʁ^{w}ənеʁ^w-č'^{j}ele-c'ək'ə]$_D$-[m]$_E$
[3SG.PR-POSS]$_A$-[neighbor-boy-little]$_D$-[OBL]$_E$
'(to) her neighbor, a little boy'

Circassian languages offer a plethora of phenomena relevant for grammaticalization studies, such as the development of body-part nouns into locative applicatives and verbs of motion into directional suffixes (section 2.2), a rich system of auxiliary verb constructions expressing a variety of meanings and showing different degrees of formal integration (section 2.3), as well as grammaticalization of nouns and verbs into postpositions and sentence connectors, semantic bleaching of posture verbs and their role in expression of spatial configurations and motion events, and, finally, analytical challenges in distinguishing between nominal or adjectival roots and bound affixes in nominal complexes. For reasons of space, only the first two kinds of phenomena will be addressed here.

2.2. Expression of spatial meanings: grammaticalized nouns and verbs

Circassian languages, like West Caucasian in general, possess elaborate systems of markers expressing spatial meanings, mostly concentrated within the verbal form (see e.g. Smeets 1984: 436–451 and various contributions to Tabulova & Temirova eds. 1983). These include both prefixes and suffixes, which often interact with each other. Both of these categories are interesting from the perspective of grammaticalization and will be discussed in turn.

2.2.1. Locative preverbs from body-part nouns

Similarly to other languages of the Caucasus, Circassian languages employ prefixes (preverbs) for spatial specification of the event expressed by the verb. Each Circassian variety employs at least twenty such prefixes, though their productivity varies. Most prominently such prefixes are attested with positional roots *-t-* 'stand', *-s-* 'sit' and *-λ-* 'lie', which are used to express position and location not only of people but also of animals and inanimate entities (see e.g. Ryžova & Kjuseva 2013), but locative prefixes can also attach to verbal roots expressing many other types of events, not necessarily denoting position or motion. The choice of the prefix is mainly determined by the topological properties of the landmark (the entity with respect to which the spatial configuration of the event is assessed) and by the entire spatial configuration (see e.g. Paris 1995), cf. the following illustrative examples.

Standard Adyghe (corpus data)

(5) a-dre-r <...> lebe-č'^{j}ej **de**-sə-ʁ.
DEM-other-ABS Labe-valley LOC:area-sit-PST
'The other man ... lived in the valley of the Labe river.'

(6) zə-pχe-djəwan <...> q^{w}eʁ^{w}ə-m **q^{w}e**-tə-ʁe-r
one-wood-sofa[R] corner-OBL LOC:behind-stand-PST-ABS
'a wooden sofa standing in the corner'

(7) p'ek'^{w}erə-m p'^{w}eble-p'c'ane **jə**-λə-ʁ.
bed-OBL mat-bare LOC:enclosure-lie-PST
'There was a bare mat on the bed.'

Besleney Kabardian (corpus data)

(8) a-bə a dehap'e-m dje **ʔʷə**-t-te-r napəžʲ-xe j-a-čʼʲale.
DEM-OBL DEM passage-OBL at LOC:beside-stand-IMPV-ABS SURNAME-PL POSS-3PL.PR-boy
'Napyzhevs' son stood in that passage.'

(9) školə-m sə-**čʼe**-s-wə-re...
school[R]-OBL 1SG.ABS-LOC:under-sit-ADV-CNV
'when I was a school-girl (lit. when I sat under the school)'

(10) pŝaŝe-m jə-ʔeʁʷape blatəkʷ **xe**-λ-t-jə p-ŝʼe-re.
girl-OBL POSS-sleeve kerchief LOC:among-lie-IMPV-ADD 2SG.ERG-know-Q
'The girl had a kerchief in her sleeve (lit. a kerchief lied in her sleeve), you know.'

As is common for spatial markers cross-linguistically (see e.g. Heine & Kuteva 2002), Circassian locative preverbs mostly go back to incorporated nouns denoting body-parts or parts of objects such as 'corner' or 'bottom' (see e.g. Kimov 2010 for an analysis of metaphorical extensions and grammaticalization of the Kabardian body-part nouns). Table 1 (based on Kumaxov 1964: 164–182) lists some of the locative preverbs with their corresponding nominals; unless indicated otherwise, Adyghe forms are given. Some of the preverbs are actually morphologically complex consisting of a body-part noun and another preverb.

Table 1. Lexical sources of Circassian locative preverbs

locative preverb	corresponding nominal
čʼe- 'under the landmark'	*čʼe* 'bottom'
pe-, pə- 'on the frontal part of the landmark'	*pe* 'nose, front'
qʷe- 'behind the landmark'	*qʷeʁʷə* 'corner', cf. ex. (6)
λə- 'moving following the landmark'	*λe* 'foot, footprint'
ble- 'moving along the landmark'	*ble* 'forearm'
gʷe- 'beside or near the landmark'	*gʷə* 'heart'
kʼʷecʼə- 'inside the landmark'	*kʼʷecʼə* 'intestines'
ʔʷə- 'beside or near the front of the landmark'	*ʔʷə* 'mouth, lips'
bʁe-de- (Kabardian) 'near the landmark'	*bʁe* 'chest'
bʁʷə-rə- 'beside the landmark'	*bʁʷə* 'side'
čʲe-rə- 'on top or end of the landmark'	*čʲe* 'tail, end'
že-xe- 'close to the landmark'	*že* 'mouth'
ŝhe-de-, *ŝhe-rə-*, *ŝhe-ŝə-* 'over the (top of) the landmark'	*ŝhe* 'head, top'

A number of locative preverbs have no transparent cognates among synchronically attested lexemes, e.g. *de-* 'in', *tje-/tər-* 'on', *jə-* 'in', *xe-* 'among'. Notably, these are the preverbs which are attested in all dialects. They have developed various non-spatial and idiomatic meanings and appear to be used with the greatest frequency, which might be indicative of their higher degree of grammaticalization. On the other hand, some of the preverbs listed in Table 1, e.g. *pe-* 'in front of', also belong to the oldest layer of morphological elements, being attested not only in the Circassian, but also in the Abkhaz-Abaza branch of the family.

As is evident from the table, the locative meanings of some preverbs are more or less transparently related to the semantics of the nouns they originate from, cf. *čʼe-* 'under' and *čʼe* 'bottom' or *bʁʷərə-* 'beside' and *bʁʷə* 'side' (cf. e.g. Heine & Kuteva 2002: 60–61, 271–273 for similar developments in other languages). On the other hand, the spatial semantics of some of the preverbs is not so evidently related to the lexical meaning of their possible nominal sources, e.g. *ble-* 'movement along the landmark' and *ble* 'forearm' or *gʷe-* 'beside or near the landmark' and

gʷə ‘heart’ (Heine & Kuteva 2002 do not list corresponding paths of grammaticalization in their lexicon).

Finally, there are several preverbs which retain the original semantics of their nominal correspondences and can be considered incorporated body-part terms, especially since morphologically they almost always combine with other preverbs (some such combinations of body-part noun with a preverb, e.g. *bʁe-de-* [chest-LOC:in-] ‘near’ or *ŝhe-de-* [head-LOC:in-] ‘over’, have acquired purely spatial meanings). To this group belong *že* ‘mouth’, cf. some verbs of physical actions such as Adyghe ***že**-de-we* [mouth-LOC:in-hit] ‘hit in the mouth or in the face’, ***že**-de-xə* [mouth-LOC:in-take] ‘take out of the mouth’, as well as a number of metaphorical extensions having to do with speech, e.g. Adyghe ***že**-de-zə* [mouth-LOC:in-fall] ‘utter’, and *ʔe* ‘hand’, like in Adyghe *zə-**ʔe-**čʲe-ʁe-zə* [RFL.ABS-hand-LOC:under-CAU-fall] ‘drop, let fall’ or Standard Kabardian ***ʔe**-ŝ’e-ne* [hand-LOC:under-remain] ‘remain in someone’s hands’, and in the following textual example:

Standard Adyghe (corpus data)

(11) qə-**ʔe**-č’ʲe-fa-ʁe-r ŝhenʁʷəpčʲe-m-č’ʲe qə-r-jə-ʒ-ə-ʁ
DEIC-hand-LOC:under-fall-PST-ABS window-OBL-INS DEIC-LOC.in-3SG.ERG-throw-ELAT-PST
‘he threw out of the window those who fell into (lit. under) his hands’

Beside the more literal meaning the combination *ʔe-čʲe-/ʔe-ŝ’e-* ‘under the hand’ has developed into a marker of non-expected or non-volitional action (see Kumakhov & Vamling 2009: 190–191; Arkadiev & Letuchiy 2011: 501–504), cf. the following example:

Standard Adyghe (corpus data)

(12) ʁʷegʷə-m šʲə-ʁʷeze-nə-r **ʔa-č’ʲe**-k’ʷede-žʲə-ʁa-p
road-OBL LOC-understand-MSD-ABS hand-LOC:under-lose-RE-PST-ASS
‘he completely lost the understanding of the road’

Morphosyntactically, all Circassian spatial preverbs are applicatives adding to the verb an indirect object denoting the landmark. This argument can be expressed by an overt noun phrase in the oblique case, as in examples (6) and (9), or unmarked, as in examples (5) and (10), and can be cross-referenced by overt personal prefixes appearing before the preverb except for third person singular. Cf. the following textual examples:

Standard Adyghe (corpus data)

(13) šə-λabŝe-me q-**a-č’e**-zə-re jet’e-taqərə-šxʷe-xe-r
horse-hoof-OBL.PL DEIC-3PL.IO-LOC:under-fall-PRS soil-piece-large-PL-ABS
‘large pieces of soil falling from horses’ hoofs’

Besleney Kabardian (corpus data)

(14) λ’əʁe **p-xe**-λ-q’əm
courage 2SG.IO-LOC.in-lie-NEG
‘you don’t have courage’, lit. “there is no courage inside you”

The same concerns incorporated body parts, cf. the following example with ‘hand’:

Standard Adyghe (corpus data)

(15) bžʲ-ew qə-f-a-šʲejə-ʁe-r **a-ʔ**-jə-xə-ʁ.
horn-ADV DEIC-BEN-3PL.ERG-fill-PST-ABS 3PL.IO-hand-3SG.ERG-take-PST
‘He took from their hands the horn they had filled for him.’

It is worth noting that the other Circassian applicative prefixes with more abstract functions, such as the benefactive *fe-/xʷe-*, the malefactive *ŝ’ʷe-/f’e-*, the comitative *de-* and the instrumental/prolative *rə-* have also most probably developed from spatial preverbs, thus exemplifying a more advanced stage of grammaticalization. For example, the benefactive still retains the allative meaning in combination with verbs of motion, cf. ex. (16a) and (16b), while

the malefactive is productively used in the peculiar spatial meaning ‘on the tip of the landmark’ (see Mazurova 2009), cf. ex. (17a) and (17b).

Standard Adyghe (corpus data)

(16) a. qə-**fa**-k’^{w}e, setenaj!
DEIC-LOC:towards-go(IMP) proper.name
‘Come here, Setenay!’

b. λepŝə č’^{j}ele-c’ək’^{w}ə-m sawəsərəq^{w} c’-ew **f**-jə-wəsə-ʁ.
proper.name boy-little-OBL proper.name name-ADV BEN-3SG.ERG-invent-PST
‘Tlepsh invented for the baby boy the name “Sosruko”.’

Besleney Kabardian

(17) a. pəʔe-r ŝhe-m **f’e**-s-λh-a.
hat-ABS head-OBL LOC:tip-1SG.ERG-put-PST
‘I put the hat on my head.’ (elicited, Lomize 2011: 11)

b. ʒ^{j}a-r-jə d-a-x-r-jə **f’e**-x-a-ʒ-a.
DEM-ABS-ADD LOC:in-3PL.ERG-carry-CNV-ADD MAL-LOC.among-3PL.ERG-throw-PST
‘And so they carried him [the wounded soldier] and threw him out (to his detriment).’ (corpus data)

From a typological perspective, Circassian languages appear to offer a fairly clear case of body-part nouns grammaticalizing into applicative markers on verbs, similarly to what Nordlinger (2011) has shown for Murrinh-Patha (Northern Australia), and contrary to claims by Peterson (2007: 140–141) that applicatives can only arise from an adpositional use of such nouns. Though several Circassian preverbs indeed have postpositional counterparts (e.g. *pə-* ‘front’ ~ *pe* ‘before’, *č’e-* ‘under’ ~ *č’eʁ* ‘under’; see Kumaxov 1964: 250), it is by no means the case that all preverbs (or at least all preverbs with transparent lexical sources) have corresponding postpositions. The opposite is also true, e.g. the noun *wəžə* ‘footprint’ has developed into a postposition meaning ‘behind, after’, but is never found as a part of the verbal complex. The use of unequivocal incorporated nouns as applicatives introducing overt indirect objects, like in (15), also speaks in favor of this scenario.

2.2.2. Directional suffixes from verbs of motion

Another type of encoding of spatial semantics in Circassian languages is constituted by roots of verbs of directed motion used as verbal suffixes (see Smeets 1984: 436–451; Kumaxov 1964: 139–147; Urusov 1983) encoding the path and direction of concrete or abstract motion. The use of these morphemes is always accompanied by prefixation, and the roots themselves fall into two groups depending on whether the choice of the prefix is fixed or not. To the first group belong directional roots *-xə-* ‘go down’ and *-ž^{j}e-* ‘depart; begin’ always combining with the semantically bleached “dative” applicative prefix *(j)e-*/*r-*. Examples (18) and (20) show these morphemes as verbal roots, while in examples (19) and (21) they feature as suffixes attaching to other verbal roots.

Standard Adyghe (corpus data)

(18) the-r b-ʁe-g^{w}əbžə-ʁe, ŝ’ex-ew q-**je-xə**-ž^{j}!
God-ABS 2SG.ERG-CAU-angry-PST quickly-ADV DEIC-DAT-go.down-RE(IMP)
‘You have angered God, now quickly go down!’

Besleney Kabardian (corpus data)

(19) bγə-m q’-**je**-že-**xə**-n-wə k’^{w}-a.
mountain-OBL DEIC-DAT-run-DOWN-POT-ADV go-PST
‘He went skiing (lit. down) from a hill.’

Standard Adyghe (corpus data)

(20) kʷaχʷe je pčʲeʁʷə q-ə-št-jə, λes-ew q-a-d-**je-žʲa**-ʁ.
pitchfork or stake DEIC-3SG.ERG-take-ADD on.foot-ADV DEIC-3PL.IO-COM-DAT-depart-PST
'He took a pitchfork or a stake and departed with them on foot.'

Besleney Kabardian (corpus data)

(21) t'ane hade-r q'-a-ʔat-r-jə, šʲə-**r**-a-hə-**žʲe**-m...
then deceased-ABS DEIC-3PL.ERG-raise-CNV-ADD REL.TEMP-DAT-3PL.ERG-carry-INCH-OBL
'when they raised the body of the deceased and started carrying it...'

Formally, the "circumfixes" *je*-V-*λ'e* 'movement towards' (22) and *de*-V-*je* (23) 'movement upwards', which are not used as freestanding verbs and do not have any clear etymology, belong to the same group of elements.

Standard Adyghe (corpus data)

(22) bəsλəmen-xe-r j-a-wənaʁʷe-me **j**-a-kʼʷe-**λ'e**-žʲə-ʁe-x
Muslim-PL-ABS POSS-3PL-family-OBL.PL DAT-3PL.IO-go-ALL-RE-PST-PL
'The Muslims returned to their families.'

(23) šʲebzašʲe-r-jə waŝʷe-m **d**-e-bəbə-**je**
arrow-ABS-ADD sky-OBL LOC-PRS-fly-UP
'The arrow flies up into the sky, too.'

The second group of directional affixes that developed from verbs is constituted by two directionals which combine with the semantically appropriate locative preverbs, i.e. *-he* 'motion in or towards the landmark' (lative) and *-čʲə* 'motion out of or from the landmark' (elative), which transparently correspond to verbal roots meaning, respectively, 'go in' and 'go out'. These roots are always used with locative preverbs, and the same is true of their suffixal counterparts. The following examples show these verbs used on their own (24), (26) and as directional markers (25), (27). It is worth noting that in the literature such cases are sometimes described as "incorporation" of the verbal root into the preverb + directional verb combination (see e.g. Kumaxov 1964: 143–146; Rogava & Keraševa 1966: 282–292); see Lander (2016: 3514) for arguments against such an analysis.

Besleney Kabardian (corpus data)

(24) nəse-m-re čʼʲale-m-re ʒʲər-jə s-a-**λexe-he**-q'əm
daughter.in.law-OBL-COORD boy-OBL-COORD still-ADD 1SG.ABS-3PL.IO-LOC:towards-go.in-NEG
'I still do not visit my son and my daughter in law.'

(25) jet'ane c'əxʷə-r šə-m **t**-o-t'əs-**ha**-r-jə
then man-ABS horse-OBL LOC:on-PRS-sit.down-LAT-CNV-ADD
'Then the man mounts (lit. sits onto) a horse.'

Standard Adyghe (corpus data)

(26) rwəsλan wəne-m **jə-čʼʲə**-ʁ
PROPER.NAME house-OBL LOC:in-go.out-PST
'Ruslan went out of the house.'

Besleney Kabardian

(27) baʒe-r karobke-m q'ə-**de**-pšə-**čʼʲ**-a
fly-ABS box[R]-OBL DEIC-LOC:in-crawl-ELAT-PST
'The fly went (lit. crawled) out of the box.' (elicited, Lomize 2011: 11)

Lative and elative suffixes can attach not only to verbs of motion but to verbs of other semantic types as well; the development of "abstract motion" and Aktionsart meanings shown in examples (28) and (29) is indicative of a high degree of grammaticalization.

Standard Adyghe (corpus data)

(28) γərz-maqe-me zəg^{w}ere q-a-**xe**-k^{w}əwə-**č'^{j}ə**-ʁ
moan-voice-OBL.PL someone DEIC-3PL.IO-LOC:among-shout-ELAT-PST
'Someone of [those with] moaning voices screamed out.'

(29) **č'^{j}e**-txə-**č'^{j}ə**-ž^{j}ə-n
LOC:under-write-ELAT-RE-POT
'to rewrite, copy' (Arkadiev & Letuchiy 2011: 501)

Summing up, we have seen how Circassian languages employ originally nominal and verbal roots as grammaticalized markers of spatial specification of the event. In both cases these markers are fully integrated into the structure of the polysynthetic verbal complex and interact with syntax: locative preverbs, being applicatives, augment the valency of the verb, and directional suffixes, always combining with preverbs or other applicatives, ultimately do the same.

2.3. Auxiliary verb constructions

In addition to rich verbal morphology, Circassian languages possess an elaborate system of auxiliary verb constructions expressing aspectual and modal meanings (for the most comprehensive description of the Adyghe auxiliary system to date see Kimmelman 2010). We define auxiliary verbs as verbs deprived of their own lexical meaning and argument structure and expressing some aspectual, temporal, modal or other modification of the morphosyntactically subordinate lexical verb. Auxiliaries are functionally similar to affixes, but retain some morphosyntactic properties of independent predicates, e.g. their own inflection and selectional requirements on the form of the lexical verb. The basic inventories of both lexical source verbs and auxiliary verb constructions are identical across Circassian varieties, though, of course, some variation in their use and functions is attested. A prominent feature of this system is "polygrammaticalization" (Craig 1991, Robert 2004), i.e. coexistence of different constructions employing the same lexical source verb in different functions, while the number of distinct source verbs used as auxiliaries is fairly limited. This situation can be exemplified by the verb *χ^{w}ə* 'become, happen' which, in addition to its lexical use shown in (30), has several grammaticalized uses exemplified in (31a–f) taken from Kimmelman (2010: 13):

Standard Adyghe (corpus data)

(30) adəγe-xe-r bəsλəmen **zə-χ^{w}ə-ʁe-xe-r** a-š^{j} fedjəz-ew beŝ'aʁ-ep.
Circassian-PL-ABS Muslim REL.TEMP-become-PST-PL-ABS DEM-OBL like-ADV long.ago-NEG
'It was not a long time ago that the Circassians became Muslims.'

Temirgoy Adyghe (elicited)

(31) a. se školə-m **sə-k'^{w}e** **χ^{w}ə-ʁe**
1SG school[R]-OBL 1SG.ABS-go become-PST
'I began to go to school.' (aspect: inchoative)

b. se školə-m **sə-k'^{w}e** **χ^{w}ə-š^{j}t**
1SG school[R]-OBL 1SG.ABS-go become-FUT
'I am allowed to go to school.' (modality: deontic possibility)

c. se školə-m **sə-k'^{w}-ew** **me-χ^{w}ə**
1SG school[R]-OBL 1SG.ABS-go-ADV PRS-become
'Sometimes I go to school (but not all the time).' (aspect: raritive or habitual)

d. se školə-m **sə-k'^{w}e-n-ew** **me-χ^{w}ə**
1SG school[R]-OBL 1SG.ABS-go-POT-ADV PRS-become
'I have to go to school.' (modality: external necessity)

e. se školə-m **sə-k'^{w}e-n-č'^{j}-jə** **me-χ^{w}ə**
1SG school[R]-OBL 1SG.ABS-go-POT-INS-ADD PRS-become
'Maybe I will go to school.' (modality: epistemic)

f. se školə-m **sə-k'^{w}e-n-m-jə** **me-χ^{w}ə**
1SG school[R]-OBL 1SG.ABS-go-POT-COND-ADD PRS-become
'I can go to school (but it doesn't matter if I don't).' (modality: external possibility)

The example of the verb *χ^{w}ə* clearly shows that the interpretation of the construction depends on the form of the lexical verb (bare stem in (31a,b), adverbial form in (31c) and various forms built on the potential suffix *-n* in (31d-f)) and on the tense form of the auxiliary itself (cf. (31a) vs. (31b)). A similar situation obtains with other auxiliary verbs, the most frequent of which, besides *χ^{w}ə*, are *faj(e)* / *x^{w}je(jə)* 'want; need; must' and various combinations of the stative root *-t* 'stand' with locative preverbs, giving rise to aspectual and modal constructions.

From the point of view of their morphosyntax, constructions with auxiliary verbs form a cline from free combinations of a fully-fledged matrix verb with a complement verb to tightly integrated complexes where the auxiliary has almost become a suffix. Polysynthetic morphosyntax of Circassian provides a whole range of diagnostics for assessing the degree of independence resp. integration of such constructions. These diagnostics fall into two groups:

1) word order:
   a) can the lexical verb and the auxiliary be permutated?
   b) can any word form be inserted between the lexical verb and the auxiliary?
2) locus of inflection:
   a) can the auxiliary host its own inflectional prefixes like cross-reference or subordination markers or do all inflectional prefixes have to appear on the lexical verb?
   b) can the lexical verb inflect for tense and other categories, or do all inflectional suffixes have to appear on the auxiliary?

Constructions involving two lexical verbs, e.g. with *faje*/*x^{w}je(jə)* 'want' as a matrix verb, give positive answers to all the questions 1a)–2b), while most of the auxiliary verb constructions yield mixed results. Compare, for instance, the behavior of *x^{w}je(jə)* in Besleney Kabardian as a matrix verb in (32a–g) vs. as an auxiliary expressing deontic necessity in (33a–f). As examples (32a–g) show, *x^{w}je* as a lexical verb 'want' governing a sentential complement headed by the verb in the *-n-wə* form common for irrealis subordinate clauses demonstrates full morphosyntactic autonomy. In particular, it projects its own argument structure, as manifested by the obligatory prefix denoting the absolutive argument (32d,f) and hosts morphology expressing the syntactic status of the whole construction (i.e. subordinators) (32g).

Besleney Kabardian (elicited)

(32) a. bž^{j}əhaŝhe-m **sə-žjejə-ž^{j}ə-n-wə** **sə-x^{w}jejə-ne**
evening-OBL 1SG.ABS-sleep-RE-POT-ADV 1SG.ABS-want-FUT
'In the evening I will want to sleep.'

b. **sə-x^{w}jejə-ne** **sə-žjejə-ž^{j}ə-n-wə** bž^{j}əhaŝhe-m
1SG.ABS-want-FUT 1SG.ABS-sleep-POT-ADV evening-OBL
'id.' (permutation)

c. **sə-žjejə-ž^{j}ə-n-wə** bž^{j}əhaŝhe-m **sə-x^{w}jejə-ne**
1SG.ABS-sleep-POT-ADV evening-OBL 1SG.ABS-want-FUT
'id.' (split)

d. *se **žjejə-n-wə** **sə-x^{w}je**
1SG sleep-POT-ADV 1SG.ABS-want
intended: ‘I want to sleep.’ (omission of cross-referencing prefixes on the dependent verb)

e. *se **sə-žjəjə-n-wə** **x^{w}je**
1SG 1SG.ABS-sleep-POT-ADV want
‘id.’ (omission of cross-referencing prefixes on the matrix verb)

f. s-o-ŝ’e wə-žjejə-n-wə wə-**č’ə**-x^{w}je-r
1SG.ERG-PRS-know 2SG.ABS-sleep-POT-ADV 2SG.ABS-REL.RSN-want-ABS
‘I know why you want to sleep.’ (subordinating marker on the matrix verb)

g. *s-o-ŝ’e wə-**č’e**-žjejə-n-wə wə-x^{w}je-r
1SG.ERG-PRS-know 2SG.ABS-REL.RSN-sleep-POT-ADV 2SG.ABS-want-ABS
intended: ‘id.’ (subordinating marker on the dependent verb)

By contrast, the same verb used as a modal auxiliary combining with the lexical verb in the *-n* form is fairly tightly integrated into the construction: it must occur right after the lexical verb (33a–c), cannot inflect for person (33d), and even subordinators can attach to the lexical verb (33e) as if the construction were a single word; nonetheless, the auxiliary retains some of its autonomy, still being able to host relativizers (33f)[9].

(33) a. se pis^{j}mo **s-txə-n** **x^{w}je**
1SG letter[R] 1SG.ERG-write-POT AUX:must
‘I must write a letter.’

b. *se pis^{j}mo **x^{w}je** **s-txə-n**
1SG letter[R] AUX:must 1SG.ERG-write-POT
intended: ‘id.’ (permutation)

c. *se **x^{w}je** pis^{j}mo **s-txə-n**
1SG AUX:must letter[R] 1SG.ERG-write-POT
intended: ‘id.’ (split)

d. *se pis^{j}mo **s-**txə-n **sə-**x^{w}je
1SG letter[R] 1SG.ERG-write-POT 1SG.ABS-AUX:must
intended: ‘id.’ (cross-referencing prefix on the auxiliary)

e. s-o-ŝ’e pis^{j}mo **zerə**-s-txə-n x^{w}je-r
1SG.ERG-PRS-know letter SBD-1SG.ERG-write-POT AUX:must-ABS
‘I know that I must write a letter.’ (subordinating prefix on the lexical verb)

f. s-o-ŝ’e pis^{j}mo s-txə-n **zerə**-x^{w}je-r
1SG.ERG-PRS-know letter 1SG.ERG-write-POT SBD-AUX:must-ABS
‘I know that I must write a letter.’ (subordinating prefix on the auxiliary)

The most grammaticalized auxiliary verbs in Circassian have completely lost their morphosyntactic freedom and have become affixes. Some of them, like the frequentative *-zepət* (< ‘stand one after another’) both in Adyghe and Kabardian, and the imperfective past *-šʲtəʁ(e)* (<*-šʲə-tə-ʁe* ‘stood’) in Adyghe, still fail to block the /eCe/ ~ /aCe/ alternation in the stem of the lexical verb, as other suffixes (not of the form -Ce) do. This is the only sign of their erstwhile independent status, cf. examples (34) and (35) and the discussion in Korotkova & Lander (2010: 311–312). Yet another suffix, the Adyghe future marker *-šʲt*, also evidently deriving from the same postural verb, blocks the alternation, which testifies to its full morphologization, cf. (36).

[9] See also section 3.3 on the status of auxiliary ‘want’ in different modal constructions of Agul, a Lezgic language.

Besleney Kabardian

(34) se sup s-o-**ʁa-ve-zepət** / *s-o-**ʁe-ve-zepət**
1SG soup[R] 1SG.ERG-PRS-CAU-boil-FREQ
'I always cook soup.' (elicited)

Temirgoy Adyghe (corpus data)

(35) aw nahə-be-r **č'a-he-šʲtə**-ʁ-ep / ***č'e-he-šʲtə**-ʁ-ep
but more-many-ABS LOC:under-go.in-IMPV-PST-NEG
'But the majority didn't go there.'

(36) zə-č'e-b-ʁe-wa-ʁe-m-jə, zə-qə-č'-jə-**ʁe-we-šʲt** /
***zə-qə-č'-jə-**ʁa-we-šʲt**.
RFL.ABS-LOC:under-2SG.ERG-CAU-sink-COND-ADD RFL.ABS-DEIC-LOC:under-3SG.ERG-CAU-sink-FUT
'If you submerge (under water), it (the arrow) will submerge, too.'

With regard to the Adyghe suffixes *-šʲtəʁe* and *-šʲt* it must be noted, first, that they also show a certain degree of phonological erosion, i.e. the loss of the vowel of the preverb *šʲə-*[10]. The same vowel elision occurs in some other grammaticalized uses of the verb *šʲət* 'stand' across Circassian varieties, but generally the Circassian auxiliaries do not show any signs of phonological reduction regardless of the degree of their decategorialization. Second, alongside the suffixes *-šʲtəʁ(e)* 'past imperfective' and *-šʲt* 'future' in Adyghe, all Circassian varieties feature less grammaticalized constructions with the verb *šʲət* 'stand' that could well have served as the sources of these suffixes, i.e. the past habitual construction (37), (38) and the deontic necessity construction (39), (40). In both of these constructions the lexical verb appears in forms distinct from the bare stem to which the respective suffixes attach.

Standard Adyghe (corpus data)

(37) j-a-dawəš-jə nah-rjə **q-ə-ʔet-ew** **šʲə-tə-ʁ**.
POSS-3PL.PR-glory-ADD more-ADD DEIC-3SG.ERG-raise-ADV LOC-stand-PST
'... it used to enhance their glory even more.'

Besleney Kabardian (corpus data)

(38) mə-r <...> **bzegʷəχ-wə** **šʲə-t-a**
DEM-ABS gossip-ADV LOC-stand -PST
'He was a gossiper.'

Temirgoy Adyghe

(39) bzəwə-r **bəbə-n-ew** **šʲə-t**
bird-ABS fly-POT-ADV LOC-stand
'The bird has to fly.' (elicited, Kimmelman 2010: 26)

Besleney Kabardian

(40) žʲə-w wəne-m **sə-q'-jə-č'ʲə-n-wə** **šʲə-t-a**
early-ADV house-OBL 1SG.ABS-DEIC-LOC:in-go.out-POT-ADV LOC-stand-PST
'I had to leave home earlier.' (elicited, Tjurenkova 2013: 20)

These cases show that in Circassian languages lexical verbs become auxiliaries and then even suffixes. Even more importantly, widespread polygrammaticalization amply attested in Circassian presents a strong case for the principal role of whole morphosyntactic constructions rather than simple lexical items in grammaticalization (cf. Traugott 2004).

[10] In some varieties of Adyghe, e.g. in the Bzhedug dialect, the whole preverb has been lost, the suffixes appearing as *-təʁ* and *-t*.

3. Grammaticalization in Lezgic languages

3.1. Morphosyntactic features and their diachrony

The East Caucasian family shares with its West Caucasian sister such typological properties as predominantly verb-final word order and ergative case alignment. At the same time, the morphological make-up of the East Caucasian languages is quite different, as they lack the polysynthetic complexes so typical of the West. Also, the distinction between major word classes is usually well-articulated in the East.

Languages of the Lezgic branch of the East Caucasian family are well-known for their extraordinarily rich case inventories with numerous locative forms, as well as elaborate verb paradigms. Apart from tense, aspect, mood and evidentiality distinctions, the verb is marked for either class (gender) or person agreement in most languages. While class agreement is an archaic feature, already lost in a few languages (Agul, Lezgian, Udi), person agreement is an independent innovation in Tabasaran and Udi; thus, Tabasaran happens to combine both types of agreement.

The two sentences (41) and (42) from Rutul illustrate the typical SOV word order, the ergative case alignment and the ergative pattern of class agreement, which is here marked prefixally and infixally on verbs (the verbs agree with the absolutive noun phrase *uχun* 'dress', which belongs to one of the two non-human genders[11]). The absolutive case is unmarked, while other cases are derived by means of suffixes. These examples also show the use of periphrastic forms (here, the perfect with the auxiliary verb 'be inside' and the aorist with the morphologized copula), which will be discussed below in section 3.2.

Rutul, Mukhad dialect (Maxmudova 2001: 70–71)

(41) did-e wa-s uχun lü-w-šu-r ʔa!
father-ERG 2SG-DAT dress.ABS PRV-CL-take.PFV-CNV IN.be.PRS
'Father has bought you a dress!'

(42) uχun zul~zul w-iši-r-i.
dress.ABS torn CL-become.PFV-COP
'The dress got torn.'

Apart from the scarce available records in Old Udi (Caucasian Albanian), which can be approximately dated to the period between the late 7th and the 10th century (Gippert et al. 2008, I-32), there are virtually no data on older stages of Lezgic languages before the 19th century, when the first grammatical sketches and texts were published. This is why the grammaticalization sources and the evolution scenarios of such old and prominent phenomena of these languages as locative cases or gender agreement markers are not clear, although attempts to discover their origins have been undertaken in works on comparative reconstruction (cf. especially Alekseev 1985).

For example, as far as the locative case forms are concerned, it seems plausible that the corresponding markers go back to a set of locative adverbs (or, perhaps, postpositions) which fused with nominals, finally becoming suffixes. In a different syntactic construction, namely as verbal modifiers in the preverbal position, the same items ended up as verbal prefixes (preverbs)[12]. In modern languages, the historical affinity of verbal prefixes and locative case forms can be seen in a still common (despite the semantic changes in prefixed verbs) congruence between the two sets of markers. Not only is their form similar or even identical, but verbs with a

[11] As class agreement systems vary across the languages of the Lezgic branch, we gloss the various class markers invariably as "CL".

[12] As a cross-linguistic parallel, cf. Indo-European languages, where etymologically cognate verbal prefixes and prepositions are traced back to adverbs (see e.g. Delbrück 1893: 647–653, 666–752, or Pinault 1995 for a more recent overview). In Kartvelian languages as well, many locative prefixes have correspondences among the postpositions and adverbs (Harris 2003b).

particular locative prefix typically go together with the dependent noun phrases with the same localization marker. In the following Tabasaran examples, *k:*- (43a) and *x*- (43b) are prefixes of locational verbs (with the root 'be'), and one can easily see that the locative case suffixes on nouns are cognate with them.

Standard Tabasaran (Zagirov et al. 2014 : 211)

(43) a. har.i-**k**: **k**:-a
tree-SUB SUB-be.PRS
'(s/he) is under the tree'

b. har.i-**x** **x**-a
tree-APUD APUD-be.PRS
'(s/he) is near the tree'

Unlike in Circassian (see section 2.2), locative prefixes and locative case markers of Lezgic languages are too ancient to be traced to any particular lexemes. The etymology of postpositions is usually more transparent, as relational nouns like 'lower part, bottom', 'upper side', 'side, flank' or 'inside(s)' in various locative cases are the most typical sources (often such nouns are obsolete and do not occur outside of postpositional phrases). Body part terms can be also identified among the sources of postpositions, e.g. *q'iliw* 'near, to' in Lezgian is based on *q'il* 'head', *ulixde* 'before, in front' in Rutul is the sub-essive case of *ul* 'eye' (literally, 'under the eye'), and *aq'^{w}al^{j}* 'on, on the outside' in Tsakhur is the super-essive case of *aq'^{w}a* 'face' (literally, 'on the face').

Among the non-locative cases, it is only some recent formations whose ultimate historical source can be discerned. Thus, the Agul comitative in *-qaj* clearly originated in a construction with a dependent clause headed by the converb *qaj* 'having' derived from a stative verb *qaa*. This verb, with the prefix *q*- of the POST ('behind') localization, has the locative meaning 'be behind', but it is also the main means of expressing predicative possession; the possessor noun phrase occurs in the post-essive case in *-q* (44). The comitative case *wa-qaj* 'with you' in (45) resulted from the coalescence of the noun in the post-essive with the converb: the source structure like **wa-q qaj* 'you having' ended up as a regular case form introducing a secondary participant (Merdanova 2004: 147–150).

Agul, Huppuq' dialect (corpus data)

(44) za-q jaq'u gada=ra **qa-a**, sa ruš=ra **qa-a**.
1SG-POST four son.ABS=ADD POST.be-PRS one daughter.ABS=ADD POST.be-PRS
'I have four sons, and also a daughter.'

(45) gada quš-u-f-e wa-**qaj**, p-u-naa.
son.ABS go_away-PFV-SBZ-COP 2SG-COM say-PFV-PRF
'The son went away with you, they said.'

In what follows we will focus on several examples of grammatical markers based on source constructions with verbal lexemes.

3.2. Verbs and copulas as auxiliaries

An average Lezgic tense and aspect system includes both synthetic and periphrastic (analytic) forms in a varying proportion. Synthetic forms are suffixal and are basically derived from one of the aspectual stems, namely perfective vs. imperfective. The two stems are usually morphologically distinguished by means of suffixes or infixes, but sometimes apophony, reduplication or suppletion are also employed, cf. the perfective/imperfective pairs in Tsakhur *āqɨ* / *āqa* 'open', *hiχu* / *heχ^{w}a* 'run away', *hiwo* / *hele* 'give', *uχo* / *uχoχa* 'give birth' etc. (Kibrik & Testelets 1999: 69–75). Periphrastic forms are composed of a non-finite component (e.g. participle, converb, infinitive) and a postpositional auxiliary. The most common auxiliaries are the copula, the existential verb 'be' or 'be inside' and the regular verb 'become, happen'.

Copulas and existential verbs are morphologically deficient and possess a very reduced paradigm; as auxiliaries, they mainly occur in one of the two synthetic tenses, the present or the past. To the contrary, the verb 'become' has a complete paradigm, and within periphrastic forms can potentially take any form, both synthetic and periphrastic. (Not all the potentially possible periphrastic constructions are frequently used, or even attested in natural speech at all, though.) Example (46) from Tsakhur illustrates the synthetic aorist (syncretic with the perfective converb), the periphrastic perfect with the copula *wod* as an auxiliary (the final consonant of the copula is a class marker), the periphrastic pluperfect with the auxiliary 'become' in the synthetic aorist form *ɨxa*, and the "surcomposé" past including the auxiliary 'become' in the periphrastic perfect *ɨxa wod*[13].

Tsakhur, Mishlesh dialect (based on Kibrik & Testelets 1999: 86–89, 240)

(46) a. maʕhammadʏ-ē ɢulʲ **āqɨ**.
Muhammad-ERG window.ABS CL.open.PFV
'Muhammad opened the window.'

b. maʕhammadʏ-ē ɢulʲ **āqɨ** **wo-d**.
Muhammad-ERG window.ABS CL.open.PFV COP-CL
'Muhammad has opened the window.'

c. maʕhammadʏ-ē ɢulʲ **āqɨ** **ɨxa**.
Muhammad-ERG window.ABS CL.open.PFV CL.become.PFV
'Muhammad had opened the window {and now it is closed again}.'

d. maʕhammadʏ-ē ɢulʲ **āqɨ** **wo-d** **ɨxa**.
Muhammad-ERG window.ABS CL.open.PFV COP-CL CL.become.PFV
('Muhammad had opened the window.')

The morphosyntactic evolution of periphrastic forms, especially those with a phonologically light copula or a verb 'be', involves a gradual drift towards synthetic, morphologically bound forms with the (former) auxiliary becoming affixed to the main verb (see also section 2.3 on the varying degree of independence of auxiliaries in Circassian, where a similar cline can be observed). For example, in Agul virtually all the core indicative tense and aspect forms are originally periphrastic (47)[14], but in the modern language they mostly appear as highly morphologized, with the fusion of the non-finite main verb and the auxiliary accompanied by sound changes typical of word-internal morpheme boundaries (frequent vowel drops, elision of glides and vowel coalescence in the present, the /d/>/t:/ devoicing in the negative future, etc.):

Agul, Huppuq' dialect (based on Merdanova 2004: 72)

(47) a. ruχ-u-ne < *ruχ-u-na e
read-PFV-AOR read-PFV-CNV COP
'read' (aorist)

b. ruχ-u-na(j)a < *ruχ-u-na aa (aja)
read-PFV-PRF read-PFV-CNV IN.be.PRS
'has read' (perfect)

[13] By "surcomposé" forms I mean those periphrastic forms which are "double composed", as the auxiliary is itself in a periphrastic form. The term "surcomposé" stems from the Romance linguistic tradition, cf. the French "surcomposé" past in *Il a eu mangé*, lit. "he has had eaten" (de Saussure & Sthioul 2012: 586). Note that, as argued in Kibrik & Testelets (1999: 88–89), the copula *wod* in the Tsakhur "surcomposé" forms moves from the periphrastic auxiliary *ɨxa wod* to the main verb according to the general rule of copula placement on a focused element. The translation of (46d) is provisional, as all the "surcomposé" forms are very rare.

[14] Only a partial paradigm is presented in (47); for a more detailed treatment, cf. Merdanova (2004: 64–77) and Majsak (2012).

c. ruχ-a-(j)a < *ruχ-a-j aa (aja)
read-IMPV-PRS read-IMPV-CNV IN.be.PRS
'is reading' (present)

d. ruχ-a-j-e < *ruχ-a-j e
read-IMPV-CNV-COP read-IMPV-CNV COP
'usually reads' (habitual)

e. ruχ-a-s-e < *ruχ-a-s e
read-IMPV-INF-COP read-IMPV-INF COP
'will read' (future)

f. ruχ-a-s-t:awa < *ruχ-a-s dawa
read-IMPV-INF-COP.NEG read-IMPV-INF COP.NEG
'will not read' (negative future)

Even without affixation, in the neutral case the auxiliary cannot be separated from the main verb or occur before it. In those languages where a change of the position of the auxiliary is possible, it only occurs in constituent focus, with the auxiliary following the focused element (cf. Kalinina & Sumbatova 2007 for an overview of this strategy in East Caucasian languages). It is often the case that in sentences with constituent focus the predicate should obligatorily take the participial form, like in (48) from Agul. Although in sentence-focus constructions other non-finite forms can be found as components of the periphrastic forms (e.g. converbs or infinitive, as shown in (47)), they are not possible with constituent focus in Agul: the topical part of the clause can be only headed by a (substantivized) participle.

Agul, Huppuq' dialect (Majsak 2012: 281)

(48) gada-jari **e** ǯinawur **fac-u-f**.
boy-PL.ERG COP wolf.ABS catch-PFV-SBZ
'It's THE BOYS who caught the wolf.'

Another instance where the auxiliary is not adjacent to the main verb involves verificational focus, i.e. the emphasis on the truth of the proposition: in this case, the auxiliary is not encliticized but gets independent stress. This can also be illustrated by an Agul example: in (49), the morphologized aorist (originally, the combination of a converb and a copula, cf. (47a)) appears as a two-word combination.

Agul, Huppuq' dialect (Merdanova 2004: 74)

(49) **ruχ-ú-n** **é** zun, amma χuralas нar-aq'-u-ndawa.
read-PFV-CNV COP 1SG.ERG but by_heart know-do-PFV-AOR.NEG
'I DID READ (it), but I didn't learn (it) by heart.'

Thus we see that alongside the highly morphologized, almost synthetic forms, their bipartite periphrastic equivalents with an autonomous auxiliary can still be used in certain pragmatic contexts. The auxiliary, in particular the present tense of a copula, can be also dropped, or fused with the main verb so that it is no longer discernible. After the auxiliary loss, the finite form can end up being syncretic with the non-finite form of the main verb: e.g., in Lezgian the aorist in *-na* is identical with the perfective converb (cf. *laha-na* 'said' or 'having said'), and in Archi the perfective converb in *-li* coincides with the unwitnessed past (cf. *bo-li* 'said' or 'having said'). However, in some cases the comparison with cognate forms in closely related languages makes it possible to suspect that the original source structure indeed included the auxiliary[15].

[15] For example, as far as the Lezgian aorist is concerned, cf. the equivalent Central Agul form in *-ne*, which clearly goes back to the perfective converb in *-na* plus the present copula *e* (47a), the Burshag Agul aorist in *-naw* from the same perfective converb in *-na* and the present copula *wu*, or the South Tabasaran aorist in *-nu* resulting from the combination of the perfective converb in *-na* (*-un*) with the copula *wu*.

3.3. Polygrammaticalization of ‘say’

The general speech verb ‘say’ is among the most grammaticalizable source verbs in Lezgic languages (as in East Caucasian languages in general[16]) and is used in a number of functions. First of all, the markers going back to ‘say’ (usually, to the converbial form of the verb) serve as ‘quotative indexes’, i.e. linguistic expressions which signal the presence of a quote, in Güldemann’s (2008: 10–11) terms. In example (50) from Lezgian a perfective converb *lahana* ‘having said’ is used after a quote in a direct speech construction introduced by a speech verb *harajun* ‘scream, shout’. As Haspelmath (1993: 354–355) notes, it is not possible to use the zero strategy of reported speech encoding here, i.e. to omit *lahana*.

Standard Lezgian (Haspelmath 1993: 355)

(50) gadadi, zun k’^{w}al-e amuq’-da!, **laha-na** haraj-na.
boy.ERG 1SG.ABS house-IN.ESS stay-FUT say.PFV-CNV scream-AOR
‘The boy screamed: "I will stay at home!"’

As a rule, such quotative markers are not restricted to complements of speech verbs, and are also attested with verbs of thinking and knowledge or emotional predicates, as in (51) from Tabasaran (*k’uri* is the imperfective converb of the verb ‘say’). Apart from complements, quotative markers occur quite regularly in dependent clauses expressing cause and purpose, as two other Tabasaran examples show.

Standard Tabasaran (Xanmagomedov 1970: 196, 205)

(51) čpi-h-na[17] gagarin ʁ-idi **k’u-ri**, pioner-ari-z
self:PL-IN-LAT Gagarin.ABS come-FUT say.IMPV-CNV pioneer-PL-DAT
χabar du‹b›x-naji.
news PRV<CL>become-PRF.PST
‘The Young Pioneers learnt that Gagarin would come to them.’

(52) č^{w}e ʁula-z küč iš-ri **k’u-ri**, adašdi
brother.ABS village-DAT migration become-JUSS say.IMPV-CNV father.ERG
duʁa-z sovχozdi-ʔ užu-b la^{ʕ}χin ʁa‹b›g-nu.
this-DAT sovkhoz-IN good-CL job.ABS <CL>find.PFV-AOR
‘So that the brother would move to the village, the father found him a good job in a sovkhoz.’

(53) č^{w}e χula-z ʁaf-un-dar **k’uri**, či
brother.ABS home-DAT come.PFV-AOR-NEG say.IMPV-CNV sister.ABS
jarχi jišdi nivk’u-z ʁuš-un-dar.
long all_night dream-DAT go.PFV-AOR-NEG
‘Because the brother didn’t come home, the sister could not fall asleep all night.’

Note that in all the examples (51)–(53) the head verb in dependent clauses is finite, which makes the subordination strategy employing the dependency marker based on ‘say’ quite exceptional, given the strong prevalence of non-finite subordination strategies in East Caucasian languages (typically, complements are encoded by participles, infinitives, simple converbs or action nominals, and for adverbial subordination various kinds of specialized converbs are recruited).

Another function of grammaticalized ‘say’-verbs is reported evidential: here, the clause containing the marker is not a quote as such, but the information source is specified as hearsay. Quotative indexes and reportative markers need not coincide: e.g. in Lezgian the reportative suffix *-lda* is not related to a converb but is a contracted finite habitual form *luhuda* ‘(they) say’:

[16] It is worth noting that this is to a lesser extent true also of the Circassian languages, see e.g. Ershova (2013) on Besleney Kabardian.

[17] The 3rd person pronoun that we gloss as ‘self’ functions as a logophor in reported speech (cf. also examples (56), (58), (59) below), its other functions being reflexive and intensifier.

Standard Lezgian (Haspelmath 1993: 148)

(54) q:e sobranie že-da-**lda**.
today meeting.ABS become-FUT-REP
'They say that there will be a meeting today.'

The degree of the decategorialization and reduction of the speech verb in the reportative function can vary across languages. For example, in Agul the reportative marker is an invariable clitic *ʁaj*, but it still keeps traces of its verbal nature. The marker occurs in non-firsthand narratives quite frequently, normally being encliticized to finite verbs, cf. (55) from a fairy-tale. Although it is formally identical to the imperfective converb *aʁ-a-j* [say-IMPV-CNV], its most plausible source is rather the finite present *aʁaja* 'says, is saying' or habitual *aʁaje* 'usually says'[18]. The reason for this can be seen in the ability of *ʁaj* to introduce the agent noun phrase *če bawa* 'our mother' referring to a person who actually is the information source, cf. (56)[19]. Being morphologically reduced, *ʁaj* thus retains a certain degree of syntactic autonomy, which points to its probable origin as a finite predicate.

Agul, Huppuq' dialect (corpus data)

(55) aχp:a qaj-ne=**ʁaj**, χab fajqaj-ne=**ʁaj** hage χalbizak,
then come.PFV-AOR=REP again bring.PFV-AOR=REP that melon.ABS
"le χalbizak wa?", p-u-ne=**ʁaj** šuwa,
this melon.ABS no say-PFV-AOR=REP husband.ERG
"saje χalbizak" p-u-ne=**ʁaj**.
another melon.ABS say-PFV-AOR=REP
'Then she came back (they say) and brought a water-melon (they say), and the husband said (they say): "Not this water-melon, another water-melon", he said (they say).'

(56) ha, uč=na нabaw elq-e-a=**ʁaj** če bawa.
PTC self.ABS=and grandmother.ABS laugh-IMPV-PRS=REP we(EXCL).GEN mother.ERG
'And so, she and her grandma are laughing, as our mother says.'

The reportative *-er* in Archi is morphosyntactically even closer to the full verb than the Agul marker, although it has undergone some reduction as well. It seems to descend from the general present tense *war* of the verb 'say'. When *-er* is suffixed to various tense and aspect forms, its initial vowel may change or get dropped depending on the phonological context. However, like its Agul counterpart, the Archi reportative marker can introduce its own arguments, namely the agent ('one who says') and the addressee. Moreover, the erstwhile speech verb can still occur in other forms than the present, including the periphrastic imperfect with the past auxiliary, as well as some other forms (Kibrik 1977: 97–98, 234–238). Thus, whereas in (57) the reportative means just 'they say' and is used impersonally, in (58) the agent is specified, and in (59) with the auxiliary the meaning of the marker changes to the past ('used to say'), and its arguments are also present[20].

Archi (Kibrik 1977: 232, 235)

(57) to-w χʿere-ši uqʿa-**r**.
[this-CL Khere-ALL CL.go.AOR]-REP
'They say he went to Khere {the central Archi settlement}.'

[18] The first vowel is optional in all the forms derived from the imperfective stem *aʁ-a-* [say-IMPV-]; the reportative marker *ʁaj* is used almost exclusively in reduced form without a vowel.

[19] Example (56) is from a story about the narrator's mother. In some clauses of the story, the narrator uses the clitic *ʁaj* showing that she knew about what she says from someone else's words; in (56), the source (i.e. her mother, who is also the main protagonist of the story) is mentioned explicitly.

[20] The square brackets in examples (57)–(59) and (65)–(69) were added in the glossing line to indicate the part of the clause in the scope of the reportative and the verificative marker, respectively.

(58) to-t laha že-n dija χˁere-ši uqˁa-**r**.
this-CL child.ERG [self.CL-GEN father.ABS Khere-ALL CL.go.AOR]-REP
'The child says his father went to Khere.'

(59) to-w[21] zarši inž zawodl-a w-irχːʷin-**er-ši** **e‹w›di**.
this-CL 1SG.ALL [self.ABS plant-IN.ESS CL-work.PRS]-REP-CNV <CL>be.PST
'He used to tell me he works at a plant.'

The use of grammaticalized quotative and reportative markers going back to 'say' is cross-linguistically common (cf. Heine & Kuteva 2002: 261–267), but in Lezgic languages we find another development of this verb which seems to be quite rare in the world's languages. Participial forms of the speech verb become markers of ordinal numerals, which follow (and are typically affixed to) a cardinal numeral as a base. This source pattern probably originates in the naming construction, as in Lezgic languages 'one that is called X' is commonly expressed as 'one to which they say X', cf. the Agul *анmadχan aʁaf* 'one whose name is Akhmadkhan' (lit. 'Akhmadkhan saying', with the substantivized imperfective participle *aʁ-a-f* [say-IMPV-SBZ])[22]. The aspectual value of the participle is subject to variation, though: while the East Lezgic languages employ the perfective participle as an ordinal marker, others (e.g. Kryz) use the imperfective participle, and in still others (e.g. West Lezgic), the future/debitive participle is employed, cf. (60) for a few examples.

(60) a. Lezgian (Haspelmath 1993: 233)
q'ʷed **laha-j**
two ORD (< say.PFV-PTCP)
'second', lit. '(one about which) two have been said'

b. Rutul (Maxmudova 2001: 192)
q'ʷˁaˁd **xus-dɨ**
two ORD (< say.INF-ATTR)
'second', lit. '(one about which) two will be said'

c. Kryz (Authier 2009: 105)
q'ʷar **liji**
two ORD (< say.PFV-PTCP)
'second', lit. '(one about which) two is being said'

3.4. Morphologization with and without clause union

Apart from the markers based on the verb 'say' introducing reported speech, there are only rare cases of grammaticalization of matrix verbs in Lezgic languages. Even such a cross-linguistically common type of development as the rise of morphological causative markers from the verb 'do' is only scarcely represented, since causative matrix verbs ('do', 'give' or 'let') do not normally fuse with their complements to become affixes.

An isolated instance of the latter kind is found in Udi, where the causatives are derived regularly from infinitives by means of the suffix *-d-* (*-tː-*, in devoicing contexts), which is supposed to go back to 'give' diachronically (Schulze 2001: 324). With the compound causative predicate, the causer is coded by the ergative case, and the causee of the transitive verb takes the dative (61). Synchronically, derivatives like *boχes-tː-* 'make cook' do not include an autonomous

[21] The agent noun phrase *tow* 'he' (< demonstrative 'this') takes the absolutive case in (59), as in Archi the use of the imperfective converb with the auxiliary verb often triggers the choice of 'bi-absolutive' coding (i.e. both the agent and the patient of a transitive verbs occur in the absolutive case). For an overview of bi-absolutives in East Caucasian languages, cf. Forker (2012).

[22] In East Caucasian languages, participles are quite free in their syntactic orientation, with the syntactic role of the relativization target selected on semantic or even pragmatic grounds (cf. Comrie & Polinsky 1999). In the naming construction like *анmadχan aʁaf* 'one who is called Akhmadkhan' or *xibud-puf* 'third', it is the role of addressee ('one to whom / to what they say') that is relativized.

matrix verb and a complement, but rather represent a type of verbal compounds with a non-verbal part (here, the infinitive in *-es*) and a light verb *-d-*, which is also used in Udi in a number of transitive verbal compounds as well (e.g. *gal-d-* 'touch', *toj-d-* 'sell' etc.).

Udi, Nizh dialect (Majsak 2008: 142)

(61) nana-n χüjär-ä sijoʁ=e boχ-es-**t**:-i.
mother-ERG girl-DAT porridge.ABS=3SG cook-INF-CAU-AOR
'The mother made the girl cook the porridge.'

In most Lezgic languages, the causative construction displays no morphological contraction but undergoes clause union, in the sense of a 'variety of clause reduction <...> where the matrix and complement predicates share one set of grammatical relations' (Noonan 2007: 83). Thus, in the syntactic 'do'-causative of Agul a transitive causee can keep its ergative encoding, or alternatively can be encoded with a locative case, namely the apud-essive or the apud-elative (62)[23]. One can argue, as do Daniel et al. (2012: 67), that in this latter case it is unclear which of the verbs ('eat' or 'do') assigns the apud-elative marking to the causee, it is rather assigned by the complex predicate 'eat-do' as a whole.

Agul, Huppuq' dialect (Daniel et al. 2012: 66)

(62) bawa gadaji-f-as k'ildi šurpa **ʕut'-a-s** **q'-u-ne**.
mother.ERG boy-APUD-ELAT whole broth.ABS eat-IMPV-INF do-PFV-AOR
'Mother made the boy eat the soup. (e.g. by threats)'

Harris (2003a: 538–541) describes the construction with the desiderative matrix verb *k:an-* 'want' in the Burshag dialect of Agul as a case of clause union (clause fusion, in her terms)[24]. This verb belongs to a class of experiential (affective) predicates which encode their experiencer subject with the dative case, cf. (63); the complement clause is headed by the infinitive if its subject is coreferential with the experiencer, and by the perfective participle otherwise. However, with the necessity meaning 'need, should' *k:an-* behaves more like an auxiliary, as the subject encoding becomes solely determined by the (formerly) dependent predicate. Thus, in (64) the subject noun phrase takes the ergative case according to the requirements of the transitive verb *utas* 'beat' (recall the grammaticalization of the verb 'want' into an auxiliary expressing deontic necessity with ensuing clause union in the Circassian languages, discussed in section 2.3).

Agul, Burshag dialect (Kibrik 2003: 489, 487)

(63) čuji-s **k**:**an-di-w** či ut-a-s.
brother-DAT want-CNV-COP sister.ABS beat-IMPV-INF
'The brother wants to beat the sister.'

(64) čuji či ut-u-na **k**:**an-di-w**.
brother.ERG sister.ABS beat-PFV-CNV want-CNV-COP
'The brother should beat the sister.'

Even when becoming parts of complex predicates or turning into auxiliaries, former matrix verbs 'do' in (62) or 'want' in (64) still remain morphologically autonomous words. Against this background, the morphological 'verificative' discovered in two Lezgic languages definitely stands out as an instance of complete matrix verb morphologization which seemingly does not involve a preceding stage of clause union[25].

[23] The locative meaning of the APUD marker is 'near'; the apud-essive specifies the location near a landmark, while the apud-elative points that the object moves from a landmark. Cf. (43b) for an example of the apud-essive use in Tabasaran.

[24] The Agul data in Harris (2003a) come from the syntactic sketch by Aleksandr Kibrik, published in 1979 and later reprinted in Kibrik (2003: 486–500).

[25] The verificative was discovered in Agul and first described in Majsak & Merdanova (2004); it later turned out that the Archi form mentioned by Kibrik (1977: 290–292) represents essentially the same phenomenon. For a

The meaning of the verificative is 'to find out the truth value (or the value of an unknown variable) of the proposition'. Both the situation of 'checking' and the situation to be checked are coded by one morphologically bound verb form, which can be seen in examples (65) from Agul and (66) from Archi. In (65), 'check!' is expressed by the bound verificative marker *-čuk'* (the imperative value is zero-marked), and the semantically embedded question 'whether (he) has learnt' is expressed by the preceding part *ruχunaj-*, which resembles the perfect (cf. the finite perfect *ruχunaa* / *ruχunaja* 'has read, has learnt', see also section 3.2). In (66), 'checked' is also expressed by the bound verificative marker *-kːu*, which has the aorist inflection, and what precedes it is the interrogative future form *boʟor* of the verb 'give'.

Agul, Huppuq' dialect (based on Danièl´ & Majsak 2014: 379)

(65) gadaji dars-ar ruχ-u-naj-**čuk'**.
[boy.ERG lesson-PL.ABS learn-PFV-PRF]-VERIF.IMP
'Find out whether the boy has learnt the lessons.'

Archi (Danièl´ & Majsak 2014: 389)

(66) χːʷalli boʟo-r-**k**ː**u**.
[bread.ABS give-IMPV.Q]-VERIF.AOR
'(I) checked whether they would give (me) bread.'

In both cases, it seems reasonable to assume that the source structure of verificatives included the matrix verb with the preceding indirect question complement: in Archi, this complement is headed by special interrogative forms in *-ra*, while in Agul, indirect questions employ the conditional mood forms in *-či*[26]. Even more remarkable is the source of the verificative affix, i.e. the original verb of 'checking'. Undoubtedly, in Archi it goes back to the verb *akːus* 'see', which loses the first vowel and becomes affixed to the verb in the complement clause, e.g. *boʟo-r-kːu* 'checked whether (they) will give' < **boʟo-r akːu* 'saw whether (they) will give'. In Agul, the source is not immediately obvious, but most plausibly the verificative marker having dialectal variants *-čug-* / *-čuk'-* is the result of the fusion of the conditional in *-či* with various forms of the matrix verb *agʷas* 'see' (cognate to the Archi *akːus*), e.g. *ruχunaj-čuk'* 'check whether (he) has learnt' < **ruχunaj-či agʷ* 'see whether (he) has learnt'[27].

The source verb *akːus* / *agʷas* in both languages refers to passive visual perception, its active counterpart ('look') being encoded by other lexical items. Like in many other East Caucasian languages, 'see' in Agul and Archi belongs to the experiential class with the dative subject marking (cf. *za-s agʷ-a-a* [1SG-DAT see-IMPV-PRS] 'I see' in Agul). Interestingly, in the verificative the subject ('one who checks'), if present, is only encoded with the ergative case, i.e. as a canonical agent, not experiencer. This means that apart from the complete morphological fusion of the complement and the matrix predicate, the evolution of the verificative involved a semantic shift from passive visual perception ('see') to active 'inquisitive' meaning ('check, find out'), with the concomitant shift of subject encoding from the pattern typical for experiencers (dative) to the one typical for agents (ergative).

parallel discussion of the Agul and the Archi varieties of the verificative, cf. Danièl' & Majsak (2014); a detailed treatment of the Agul verificative is given in Maisak (2016).

[26] Both these suffixes become fused with adjacent morphemes and are not always easily identifiable: in particular, the Archi interrogative marker *-ra* changes to *-la* when assimilated by the preceding perfective converb suffix *-li* (*-li-ra* > *-lla*), and the combination of the imperfective converb marker *-r* with the interrogative *-ra* (i.e. *-r-ra*) yields simply *-ra* or *-r*, as in (66). On the original structure of the Agul verificative, see below.

[27] Other dialectal variants of the verificative marker include *-čuq'-* with the ejective uvular and *-magʷ-*, whose initial consonant does not resemble the conditional affix. Possibly, alternative source constructions (or some idiosyncratic sound changes) should be postulated in these cases.

Agul, Huppuq' dialect (Danièl′ & Majsak 2014: 378)

(67) sa zargar **aj-čuk'-a-j-e** **mi**.
[one goldsmith.ABS IN.be.PRS]-VERIF-IMPV-CNV-COP this.ERG
'He is checking whether there is a goldsmith (in the town).'

Archi (Danièl′ & Majsak 2014: 394)

(68) tu-w-mu baʕk' **bu-ʟ'u-r-k:u-qi** **zari**.
[this-CL-ERG sheep.ABS CL-slaughter.AOR-Q]-VERIF-FUT 1SG.ERG
'I'll check whether he slaughtered a ram.'

As its outcome, the morphologization of the verificative yielded verbal forms which are exceptional in a number of ways (apart from being unusually polymorphemic). Forms like *aj-čuk'-a-j-e* 'is checking whether (he) is there' in (67) or *buʟ'ur-k:uqi* 'will check whether (he) slaughtered' in (68) not only refer to two situations, but morphologically have two independent positions for tense and aspect marking. For example, *buʟ'ur-k:uqi* contains the 'external' future form (as *-qi* is the future tense inflection), and the 'internal' aorist form (as the situation to be checked, namely '(he) slaughtered', is expressed by the verb 'slaughter' in the aorist). The two parts of verificatives, one referring to the embedded question and another to the situation of checking, keep even more of their syntactic autonomy: each of them has its own set of arguments (unlike in causatives, in verificatives the argument encoding in the embedded part does not change, hence the two ergatives in (68)), and can adjoin its own adverbials, as in (69).

Agul, Huppuq' dialect (Danièl′ & Majsak 2014: 381)

(69) zun **jaʕa** gadaji **naq'** dars **ruχ-u-naj-čuk'-a-s-e**.
1SG.ERG today [boy.ERG yesterday lesson.ABS read-PFV-PRF]-VERIF-IMPV-INF-COP
'I will check today whether the boy learnt his lesson yesterday.'

Thus, the morphologization of the verificative does not appear to be the result of clause union (as a stage on the path from looser to tighter structure): it was not preceded by syntactic fusion of the matrix predicate and its complement. To the contrary, the verificative turns out to be the mirror image of those complex predicates which comprise two (or more) morphologically autonomous verbs, at the same time being monoclausal on the syntactic level (periphrastic causative constructions with the verb 'do' in French and other Romance languages can be mentioned as a paradigm case of the latter).[28]

It is quite mysterious why it was exactly the 'verificational' construction with the verb 'see' (not a common grammaticalization source in the languages of the world), which is not particularly frequent in discourse. that has undergone such a development[29]. Another puzzle that still remains to be solved is the occurrence of morphological verificative only in the two Lezgic languages which are not very close genetically or geographically (cf. also Danièl′ & Majsak 2014). Since the Proto-Lezgic status of verificative is highly dubious given the inter-language (or even inter-dialectal, in the case of Agul) variation in the source structure, it may turn out that this Agul-Archi peculiarity reflects some ancient areal connections, and not trivial ones.

4. Conclusion

In this article we have presented a number of case studies of grammaticalization phenomena in two subgroups of the two branches of the North Caucasian macrofamily. Despite the considerable differences in their morphological make-up, both the Circassian and the Lezgic languages share a

[28] See also Maisak (2016) for elaboration on the morphological vs. syntactic fusion asymmetry of the verificative.

[29] The semantic shift from 'see' to 'check, find out' is not unique (cf. Alm-Arvius 1993: 243–264 for the discussion of the use of English *see* "as a near-synonym of *find out (about)* or *check*", or Ibarretxe-Antuñano (2002) for similar Spanish and Basque examples), but we are not aware of any other cases where this shift would result in the auxiliation, let alone affixation of the source verb.

trend of creating tense-aspect and modal markers from verbal sources. The grammaticalizing constructions display various degrees of integration, ranging from highly autonomous auxiliaries to those partly or totally fused with lexical verbs, up to the extent of becoming affixes. Some of the criteria showing the degree of autonomy are common to both families (e.g. word order permutations, the possibility of insertion of any material between the auxiliary and the lexical verb, or phonological erosion). Other criteria are language-specific, like the distribution of inflections between the lexical verb and the auxiliary, or the blocking of stem-final vowel alternations in West Caucasian.

The set of lexical items that are most commonly employed as sources is rather restricted and includes copulas, existential verbs 'be' or 'become, happen', posture verbs (e.g. 'stand') or modal predicates (e.g. 'want'). Polygrammaticalization, i.e. the coexistence of various grammaticalization paths involving one and the same lexical source item, is also characteristic of both branches, especially as regards constructions with the auxiliaries like 'become', 'want', 'stand', and 'say'.

On the other hand, there are grammaticalization paths, or rather families of grammaticalization paths which are amply represented in one branch, but are rare in the other. In particular, body-part nouns and motion and posture verbs are the obvious and the most important sources of locative markers in West Caucasian languages, whereas the equivalent source items are only scarcely found in the East Caucasian family, where the origin of locative markers largely remains unclear. The development of the 'verificative' in some Lezgic languages involves a grammaticalization source uncommon for the Caucasus (the verb 'see') and is an example of a cross-linguistic, and not only family-internal, *rarissimum*. Interestingly, morphological verificatives amount to the creation of polysynthetic structures so typical of the Western branch: being the result of complete morphological fusion between a matrix verb and its complement, verificatives not only remain syntactically biclausal, but also include two positions for tense and aspect marking – a property unparalleled in other grammaticalized structures of East Caucasian languages.

Finally, it is obviously the massive (and still ongoing) grammaticalization and morphologization of erstwhile analytic structures that has been responsible for the creation of the Circassian and more broadly West Caucasian polysynthetic morphosyntax, which makes it so distinct from the East Caucasian languages (see e.g. Chirikba to appear).

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