

Transitivity and valency in Northern Akhvakh

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Abstract. This paper analyzes transitivity and valency in Northern Akhvakh, a language belonging to the Andic group of languages included in the Northeast Caucasian (or Nakh-Daghestanian) family. Northern Akhvakh clause structure is characterized by an extreme flexibility of constituent order, omissibility of arguments with an either anaphoric or unspecified reading, and fully consistent ergative coding of core NPs. Northern Akhvakh has a very low rate of transitivity prominence, and an extremely strong tendency to derive the causal member of noncausal / causal pairs from its noncausal counterpart. Ambitransitivity is very marginal, and the productivity of morphologically unmarked valency alternations is very limited. Causative derivation is the only valency changing mechanism involving verb morphology, and ingestion verbs are the only transitive verbs for which causative derivation is productive.

1. Introduction

This article describes the main regularities in the transitivity and valency properties of Northern Akhvakh verbs. Akhvakh (*aš^waī mič'i*, Russian *axvaxskij jazyk*) belongs to the Andic group of languages included in the Northeast Caucasian (or Nakh-Daghestanian) family. The number of Akhvakh speakers is estimated at 20,000 by Magomedova & Abdulaeva (2007). Four varieties are recognized. One of them (by far the most important as regards the number of speakers) is designated as Northern Akhvakh, whereas the other three are grouped under the label of Southern Akhvakh. Northern Akhvakh is spoken in four villages of the Axvaxskij Rajon in the western part of Daghestan (Tadmagitl', Lologonitl', Kudijab-Roso, and Izani), in recent settlements in the lowlands of Daghestan (Kamyškutan, Sovetskoe), and in Axaxdərə near Zaqatala (Azerbaijan). The Southern Akhvakh varieties are spoken in one village each (Cegob, Tljanub and Ratlub), all situated in the Šamil'skij Rajon of Daghestan.

This study relies on the following sets of data: the Akhvakh-Russian dictionary (Magomedova & Abdulaeva 2007), which describes in detail the polysemy of verbs and provides abundant illustrations, a collection of texts I collected myself, and elicitation with Indira Abdulaeva (native speaker of the variety of Northern Akhvakh spoken in Tadmagitl', and one of the co-authors of the Akhvakh-Russian dictionary), who also checked the texts with me.

The article is organized as follows. Section 2 summarizes the most basic aspects of Northern Akhvakh morphosyntax. Section 3 presents the inventory of coding frames through which Northern Akhvakh verbs express their argument structure, and discusses their productivity. Section 4 analyzes the Northern Akhvakh system from the point of view of

transitivity prominence, and the orientation of the causal/noncausal alternation. Section 5 deals with the morphologically unmarked valency alternations. Section 6 describes causative derivation, which is in Akhvakh the only valency changing mechanism involving verb morphology or grammaticalized periphrases.

2. The basics of Akhvakh morphosyntax

2.1. Clause structure

2.1.1. Constituent order

Akhvakh clause structure is characterized by the extreme flexibility of constituent order, which plays no role in the expression of argument structure. The verb tends to occur in clause-final position, but this is just a tendency. There is no particular position for focalized constituents (which implies that intonation is essential for the expression of information structure).

2.1.2. Basic transitive coding and intransitive alignment

As illustrated by Ex. (1), case marking of core NPs and verb agreement are consistently ergative: in transitive coding, A in the ergative case is not indexed on the verb, whereas P in the nominative case (alias absolutive, characterized by a zero ending) controls verb agreement, and with just 2 or 3 exceptions (see 3.2), the sole argument of semantically monovalent verbs (S) has exactly the same coding characteristics as P. The verb agrees in gender and number with the nominative argument but does not express person agreement. The distinctions expressed by gender-number agreement are human masculine / human feminine / non-human in the singular, human / non-human in the plural.

- (1) a. **aḱ'a-ī-e** **imiḱi** **b-el-ari**
 woman-OS.F-ERG donkey N-lead-PF
 'The woman took the donkey with her.'
- b. **aḱ'a-ī-e** **waša** **w-ol-ari**
 woman-OS.F-ERG boy M-lead-PF
 'The woman took the boy with her.'
- c. **milica-ṣ^w-e** **aḱ'a** **j-el-ari**
 policeman-OS.M-ERG woman F-lead-PF
 'The policeman took the woman with him.'
- d. **waša** **w-oq'-ari**.
 boy M-come-PF
 'The boy came.'

- e. **aḱ'a j-eq'-ari.**
 woman F-come-PF
 'The woman came.'
- f. **imiḱi b-eq'-ari.**
 donkey N-come-PF
 'The donkey came.'

2.1.3. Unexpressed arguments

Arguments whose identity is recoverable from the context are not obligatorily expressed, and unexpressed arguments receiving an arbitrary interpretation are common too. Anaphoric zeros are however avoided whenever the antecedent is not recoverable from the immediate context. In dialog, 1st and 2nd person arguments usually remain unexpressed, but in narrative texts, anaphoric zeros are much less common than in typical 'pro-drop' languages. On null arguments interpreted as non-specific, cf. 5.4 and 5.5.

2.1.4. The 'binominative' construction

Like the other Nakh-Daghestanian languages, Akhvakh has a construction in which the two core arguments of a transitive verb are in the nominative case and are both indexed.¹ However, this phenomenon occurs only with the progressive forms of the verb, analytic forms consisting of **bik'uruḷa** 'be' (or the copula **godi**) in auxiliary function, and the progressive converb of the auxiliated verb. In this construction, A is indexed on the auxiliary, whereas P is indexed on the auxiliated verb. The binominative construction is not possible with synthetic verb forms, which leaves open the possibility to analyze it as a raising construction in which the unexpressed agent of the embedded transitive verb is identified to the S argument of an intransitive auxiliary that acts syntactically as the main predicate of the construction. Let us for example examine the following sentences.

- (2) a. **hu-šte m-ač-ene b-ik'^w-ari di-g-a di ila-ḱ-e.**
 DIST-thus N-tell-PROG N-be-PF 1SG.OS-CFG₁-ALL 1SG.OS[GEN] mother-OS.F-ERG
 'This is what my mother used to tell me.'
- b. **di-g-a če čula m-ač-ene j-ik'^w-ari di ila.**
 1SG.OS-CFG₁-ALL one thing N-tell-PROG F-be-PF 1SG.OS[GEN] mother
 'My mother used to tell me something.'

In both sentences, the progressive converb agrees with the P argument. But in sentence (a), in which the agent clearly receives its ergative case from the transitive verb **mačunuḷa**, both the auxiliated verb and the auxiliary agree with P, whereas in sentence (b), in which the NP representing the agent of **mačunuḷa** is in the nominative, it also governs the agreement of the auxiliary. Consequently, sentence (a) can be analyzed as involving an analytic verb form that has the same case assignment and agreement properties as a synthetic form of a transitive

¹ For a survey of this kind of construction in Nakh-Daghestanian languages, and a discussion of their possible analyses, see Forker (2012).

verb. By contrast, analyzing **mačene jik'wari** in sentence (b) as an analytic verb form in a monoclausal construction does not account for the fact that its two elements do not agree with the same argument. This phenomenon has however a very simple explanation if we posit a raising construction in which the S argument of the intransitive verb **bik'urula** 'be' receives its semantic role from the embedded transitive verb, whereas the embedded transitive verb regularly agrees with its P argument.

Additional evidence comes from the observation of word order: in sentences in which the agreement of the auxiliary is unambiguously governed by P, the auxiliated verb is always immediately before the auxiliary, whereas in sentences in which the auxiliary agrees with A, there is no adjacency constraint between the auxiliated verb and the auxiliary.

2.2. Verb inflection

2.2.1. The morphological structure of synthetic verb forms

Akhvakh verb forms always include an overt inflectional ending, but with respect to prefixal inflection, they divide into two morphological classes: those including a prefixal slot that cannot be left empty, and those that cannot take prefixes. The prefixal inflection of the verbs that take inflectional prefixes is limited to the expression of gender-number agreement with the nominative argument (S or P), with five possible values: M (human masculine singular), F (human feminine singular), N (non-human singular), HPL (human plural) and NPL (non-human plural).

Suffixal inflection is identical for all verbs and expresses TAM, epistemic modality, polarity, finiteness, and gender-number agreement. There is no person agreement proper, although person distinctions are involved in the contrast between the **-ari** Perfective and the **-ade** Perfective – see Creissels (Forthcoming).

Morphologically, the suffixal inflection of verbs is predominantly agglutinative, with endings beginning with a vowel added to stems ending with a consonant, and no phonological interaction at the stem-suffix junction, but there is a class of verb stems ending with an 'unstable consonant' whose deletion triggers fusion of the preceding vowel with the first vowel of the ending. For example, the final **j** of the stem **eqeda(j)**- 'look for' is maintained in contact with the imperative ending (**eqedaj-a!** 'look for it!'), whereas the combination of **eqeda(j)**- 'look for' with the Infinitive suffix **-urula** gives the form **eqedōrula**, in which the long **ō** results from the fusion of the **a** and the **u** brought into contact by the deletion of **j**. Similarly, the final **b** of the stem **ča(b)**- 'wash' is apparent in the imperative form **čab-a!** 'wash!', whereas the combination of **ča(b)**- 'wash' with the prohibitive suffix **-uba** gives the form **čōba**, in which the long **ō** results from the fusion of the **a** and the **u** brought into contact by the deletion of **b**. For more details on this phenomenon (in particular, the inventory of verbs with unstable consonants and the conditions in which the unstable consonants are maintained or deleted), see Creissels (2009a).

2.2.2. The suffixal inflection of verbs heading independent clauses

The synthetic verb forms that can head independent clauses are characterized by the paradigm of suffixes (or combinations of suffixes) listed in the following chart. In this chart, the first column gives the labels I use for each of these forms, and the second column gives a brief

description of their characteristic endings, without going into the details of morphophonological variation (in case of variation, the chart gives just the form of the ending that can be viewed as directly reflecting its underlying form). AGR stands for ‘gender-number agreement marker’.

Table 1: suffixal inflection of verbs in Northern Akhvakh

-ari Perfective ²	HPL -iri , other gender-number values -ari
-wudi Perfective	-AGR-w(ud)i
-wa Perfective	HPL -aji , other gender-number values -AGR-wa
-ada Perfective	HPL -idi , other gender-number values -ada
-ade Perfective	HPL -idi , other gender-number values -ad-AGR
-ila Perfective Negative ³	-il-a or il(a)-AGR
-ilawudi Perfective Negative	-il-AGR-w(ud)i
-uřawa Perfective Negative	-uř-AGR-wa
-iri Imperfective ⁴	-iri
-ida Imperfective	-ida or -id(a)-AGR
-iki Imperfective negative ⁵	-iki
-ika Imperfective negative	-ika or -ik(a)-AGR
Potential	HPL -oji , other gender-number values -AGR-wa
Imperative	-a
Prohibitive	-uba
General optative	-a-l’a ⁶
-ada Optative ⁷	-ad-AGR
Optative Negative	-uba-l’a ⁸
Apprehensive	-ala-gole ⁹
Apprehensive Negative	-il-ala-gole

² The verbal inflection of Northern Akhvakh includes several synthetic tenses that equally describe events as having occurred before the time of utterance or some other reference point on the time scale, and consequently share an aspectual value of the type commonly labeled perfective. These perfective tenses do not differ in terms of distance in time, current relevance, or aspect, but only in their epistemic implications – cf. Creissels (Forthcoming).

³ The **-ilawudi** perfective negative is the negative counterpart of the **-wudi** perfective, the **-uřawa** perfective negative is the negative counterpart of the **-wa** perfective, and the **-ila** perfective negative neutralizes the distinctions expressed in positive clauses by the choice between the **-ari** perfective, the **-ada** perfective, and the **-ade** perfective.

⁴ The two imperfectives are used interchangeably in assertive or interrogative clauses referring to habitual or permanent events, and the **-ida** imperfective tends to be more frequent in this use, but the **-iri** imperfective also has modal uses in which it cannot be replaced by the **-ida** imperfective.

⁵ The **-iki** imperfective is the negative counterpart of the **-iri** imperfective, whereas the **-ika** imperfective is the negative counterpart of the **-ida** imperfective.

⁶ The first element of the optative ending **a-l’a** can be analyzed as the imperative ending **-a**.

⁷ The **-ada** optative is restricted to wishes that specifically involve the addressee, and the gender-number suffix included in its ending expresses agreement with the addressee irrespective of the syntactic role of the 2nd person pronoun in the clause.

⁸ The first element of the optative negative ending **uba-l’a** can be analyzed as the prohibitive ending **-uba**.

⁹ The first element of the apprehensive ending can be analysed as the conditional converb ending **-ala**. The conditional converb is a dependent verb form, but the apprehensive derived from it via the addition of **-gole** may head independent as well as subordinate clauses.

This chart makes apparent the heterogeneity of verb inflection as regards agreement with the nominative argument. A suffixed gender-number agreement marker is found in some forms only. It is sometimes optional, and sometimes obligatory, but this variation has no obvious interpretation in terms of finiteness, since it does not correlate with differences in the status of the clause. There are several sets of suffixed agreement markers whose distribution lends itself to no generalization either. Note also that, in several tenses, the agreement suffix is found between the verb stem and another suffix. This situation can be explained as resulting from the univerbation of analytic tenses in which a dependent form of the auxiliated verb was followed by the auxiliary: In this process, the root of the former auxiliary becomes a final suffix, whereas the fusion of the suffix of the auxiliated verb with the agreement prefix of the auxiliary results in an agreement marker trapped between the verb stem and the final suffix.

2.2.3. *Analytic verb forms*

In addition to the synthetic tenses listed in Section 2.2.2, Northern Akhvakh also has analytic verb forms in which the auxiliary function is fulfilled by the copula **godi**, the verb **bik'urula** 'be', or the verb **mičunula** 'be found'.

2.2.4. *Dependent verb forms*

Northern Akhvakh has no form specialized in participial function, but four of the independent verb forms listed above are also used as participles, i.e. as heads of noun-modifying clauses: **-ada** perfective, **-ila** perfective negative, **-ida** imperfective, and **-ika** imperfective negative.¹⁰

Strictly dependent verb forms include the verbal noun or masdar (**-e**), the infinitive (**-urula**), the spatial form (**-iĭ-i/a/u(ne)** 'at/to/from the place where ...'), the general converb, the progressive converb (**-ere**), and several specialized converbs expressing various semantic types of adverbial subordination.¹¹ Note that the general converb has no marker of its own. It is formed by adding to the verb stem a complex suffix that can be designated as *adverbial agreement*, consisting of a special set of gender-number markers followed by a formative **-he**. Adverbial agreement characterizes not only a converbial form of the verb, but also the functive-transformative form of nouns,¹² and many adverbial forms which may have a historical link with converbs but cannot be analyzed synchronically as including a verbal lexeme.

2.3. Noun phrase structure

Three agreement classes of nouns are distinguished in the singular (human masculine (M), human feminine (F), and non-human (N)), and two in the plural (human plural (HPL) and non-human plural (NPL)).

In canonical NPs, the head noun in final position is inflected for number and case. Number inflection of nouns is irregular and involves considerable free variation. In headless NPs (i.e., complex NPs whose head noun has been elided), gender-number and case markers attach to

¹⁰ On the participles of Northern Akhvakh, see Creissels (2009c)

¹¹ On the converbs of Northern Akhvakh, see Creissels (2010 and 2012).

¹² For more details on this form, see Creissels (2014a).

the noun dependent that, in the absence of an overt head noun, constitutes the last word of the NP.

Gender-number agreement of dependents in canonical NPs is optional (and in practice, rarely expressed), except for a subclass of adjectives that have an obligatory prefix expressing agreement with the head noun.

The nominative (alias absolutive) case, used in quotation, in S and P roles, and in predicate function, has no overt mark. The other cases are marked by suffixes, and most case suffixes select the so-called *oblique stem* of the words to which they attach.

2.4. Case inflection

2.4.1. *The inventory of cases*

In addition to the nominative, case inflection includes three ‘syntactic’ cases (ergative, dative, and genitive), seven series of spatial cases, three peripheral cases (comitative, functive-transformative, and mediative), and two postpositional clitics (causal and versative). Given the topic of this article, some precisions are in order about the ergative, the genitive, and the spatial cases.

2.4.2. *The ergative and the encoding of instruments*

In addition to its use with agent NPs, the ergative is also used productively for instrumental adjuncts, and a transitive predication with an unexpressed agent and an ergative NP in instrumental function (3a) is superficially identical to a canonical transitive predication (3b). Note that (3b) is not a passive clause (Akhvakh does not have passive), but a transitive clause whose constituent order suggests the kind of information structure typically expressed in English by means of passive constructions.

- (3) a. **riĹ’i meřuna-de b-uq’-id-e**
 meat knife.OS-ERG N-cut-IPF-N
 ‘One cuts the meat with a knife.’
- b. **riĹ’i wařo-de b-uq’-ari.**
 meat boy.OS-ERG N-cut-PF
 ‘The meat was cut by the boy.’

However, situations involving a participant that could be conceptualized as an instrument are often encoded by verbs whose valency pattern is organized in such a way that the participant in question is treated as the P argument. For example, the usual Akhvakh equivalent of English ‘hit’ is Ĺ’**arurula** with the case frame <ERG, NOM, LOC> typical for verbs expressing that an agent makes an object impact on another.

(4) **wašo-de beko-g-e č'uli l'war-ari.**

boy.OS-ERG snake.OS-CFG₁-LOC stick hit-PF
 'The boy hit the snake with the stick.'
 lit. 'The boy applied the stick on the snake.'

Moreover, instruments are also commonly encoded by means of biverbal constructions in which an embedded converbial clause describes the manipulation of the instrument by the agent – ex. (5).

(5) a. **mik'e-lo-de gužila g<o>č'-ē īgo-lī žari kur-ari.**

child.OS.HPL-ERG ball <N>knock-ADV.N window-GEN glass break-PF
 'The children broke the window with the ball.'
 lit. 'The children knocking the ball broke the window'

b. **ek'wa-s̄w-e rak'waro-g-e L'a tuhi-la g<o>č'-ō l'war-u-wi.**

man.OS.M-ERG heart.OS-CFG₁-LOC on gun-and <N>knock-ADV.M kill-M-PF
 '... and the man killed him by shooting him in the heart.'
 lit. 'by knocking a gun on his heart'

c. **īk'wa mešu b-ik'w-a-wi gere-χar-i,**

small knife N-be-N-PF Gere-CFG₂
 'Gere had a small knife on him,

hu-be-la l'war-ō ī-sū-da wačiq'a l'war-u-wi.

DIST-N-and apply-ADV.M REFL-OS.M[GEN]-INT cousin kill-M-PF
 and he killed his cousin with it.' lit. 'by applying it'

2.4.3. *Genitive NPs in argumental function*

The use of the genitive to mark verb dependents is not common in Akhvakh. It is however found with **beč'urula / beč'ōrula** 'be full / fill', **gūrula** 'make' in the sense of 'make something into something else', and **mačunula** 'tell' in the sense of 'talk about' – ex. (6) to (8).

(6) **č'ehi miqī-lī b-eč'-ēhe godi.**

basket fruit-GEN N-be_full-ADV.N COP.N
 'The basket is full of fruit.'

(7) **īk'ot'a-de mušuli-lī šušuk'e g<u>j-ēhe godi.**

mouse.OS-ERG cloth.OS-GEN sieve <N>make-ADV.N COP.N
 'The mouse made the cloth into a sieve.'
 lit. 'made of the cloth a sieve'

- (8) **hu-ĭi-ĭi** **čela** **žo-ĭ-i** **m-ač-u-wa** **du-g-a** **de-de.**
 DIST-OS.N-GEN another day-OS.N-LOC tell-N-POT 2SG.OS-CFG₁-ALL 1SG-ERG
 ‘I will talk to you about this another day.’

In the case of ‘fill’, a plausible explanation is that this valency pattern results from constituent structure reanalysis (or re-bracketing) in a construction in which the genitive NP was originally in its canonical adnominal use (fill [a bag [of potatoes]] → fill [a bag] [of potatoes]). A similar explanation is plausible for ‘make’ too. In the case of ‘talk about’, the exceptional case frame <ERG, ALL₁, GEN> probably developed as an elliptic variant of a construction in which the matter talked about was encoded as the genitival modifier of **ɣaba** ‘story’ or another noun with a similar meaning:

$X_{\text{ERG}} Y_{\text{ALL1}} [Z_{\text{GEN}} \text{ɣaba}] \text{mačunuLa}$ = X tell [Z’s story] to Y
 → X talk to Y about Z

2.4.4. *Spatial cases*

The spatial case markers consist of a *directionality marker* with three possible values (locative, allative, and ablative) preceded by a *configuration marker* expressing types of spatial configurations (‘in’, ‘under’, etc.). Most of the configuration markers are polysemous in such a way that no simple semantic characterization is possible, and this is why I use an arbitrary numbering to distinguish them. For more details on the spatial forms of Akhvakh nouns, see Creissels (2009b). Given the topic of this article, it is sufficient to mention that the configuration marker **-g-** (glossed CFG₁) is a default configuration marker that does not specify a particular spatial configuration by itself, and to briefly discuss the choice between allative and locative in the coding frames of movement verbs (section 2.4.5).

Note that, in the remainder of the chapter, LOC_x, ALL_x, and ABL_x, must be understood as abbreviations for ‘configuration marker CFG_x followed by the directionality marker LOC, ALL, or ABL’.

2.4.5. *The choice between locative and allative with verbs of movement*

In Akhvakh, the choice between locative and allative in the coding frames of verbs of movement is at first sight puzzling, but in many cases, the distinction between *movement* and *impact* provides an explanation: NPs referring to the goal of a movement tend to be in the locative (rather than allative) when the final phase of the movement involves contact between the ground and the figure. In other words, the choice of the locative indicates that the goal of the movement is not really conceptualized as a goal, but rather as a place where contact occurs. According to this analysis, **k’usuruLa** ‘sit (on something)’, used exclusively with a locative complement, is not properly speaking a verb of movement, but rather a verb of contact.

With some verbs, both the allative and the locative can be used, but the choice is bound to a difference in conceptualization revealed by the observation of the contexts in which speakers spontaneously use the locative. For example, **beq’uruLa** ‘come, arrive’ is generally found in the case frame <NOM, ALL>, but the locative is also possible, if contact is a prominent element of the event, as in Ex. (9).

- (9) **m-aʔ-āhe guḷa hu-du jaše-ḷi-g-e b-eq'-a-wudi**
 N-go-ADV.N bullet DIST-SL girl-OS.F-CFG₁-LOC N-come-N-PF
 'The bullet went and hit the girl.' (lit. '...came at the girl.')

The semantic implications of this choice are particularly clear in the case of **t'ōnula**. In the dictionary, this extremely frequent and polysemous verb is glossed 'throw', but it can be viewed as basically encoding nothing more than caused movement. With **t'ōnula**, the locative implies that the agent still holds the figure during the final phase of the movement, resulting in physical contact between the agent and the point of impact of the figure (a type of caused movement for which English requires the use of verbs other than 'throw': put a collar on one's neck, cover a child with a blanket, hang washing on the clothesline, tie a hobble to a horse's leg, etc.). By contrast, the use of the allative implies that the agent does not accompany the movement of the figure up to the point of impact (put nuts in a basket, put hay in a manger, throw a stone into a window, etc.) – Ex. (10).

- (10) a. **ḡw-ana-g-e čoloḡa t'am-a!**
 horse.OS-CFG₁-LOC bridle throw-IMP
 'Put the bridle on the horse!'
- b. **āḡw-ik'ena ḡik'-a šagi-g-a t'am-a!**
 boil-IMMED dumpling-PL pot-CFG₁-LOC throw-IMP
 'As soon as [the water] will be boiling, put the dumplings in the pot!'

3. The coding frames of Northern Akhvakh

In Akhvakh, contrasts between the nominal terms of a clause are mainly expressed by case marking. Constituent order plays no role in the expression of argument structure, and indexation is redundant with case marking. Coding frames are consequently defined in terms of case.

3.1. Avalent verbs

No Akhvakh verb can be analyzed as having a valency pattern characterized by the absence of any argument. In particular, none of the verbs used to describe meteorological events or states of the atmosphere occurs in a construction including no slot for a nominative NP.

Some meteorological expressions involve verbs that are not specialized in this meaning, the meteorological meaning depending on the presence of a nominative NP referring to the meteorological event (such as **hiri** 'lightning', **aša** 'hoar-frost', **rašile** 'dawn', **rešule** 'twilight', **č'ari** 'rain'), or to its location (**duna** 'world' or **reše** 'sky'). The verbs commonly used in meteorological expressions without being dedicated meteorological verbs include **āšaturula** 'become warm', **bašilurula** 'become white', **ḡurula** 'speak, make noise', **tākunula** 'calm down', **tehilōrula** 'become warm', **t'ōnula** 'throw', **t'ot'orurula** 'flow', **žahurula** 'become cold'. With some of them, leaving the S argument unexpressed in non-anaphoric contexts triggers a meteorological interpretation. For example, 'It is becoming

warm’ can be expressed as **duna āšalere godi** lit. ‘The world is becoming warm’, or simply **āšalere godi** ‘[It] is becoming warm’ if there is no risk of ambiguity with an anaphoric interpretation of the unexpressed S.

The only peculiarity of dedicated meteorological verbs is that they combine with a very limited range of nouns (sometimes just one), and most of the time, their S argument is left unexpressed. But null arguments with either an anaphoric or arbitrary interpretation are common in Akhvakh, and consequently the frequent absence of the nominative NP with meteorological verbs can be viewed as the mere consequence of the fact that the S argument of specialized meteorological verbs provides very few information (or even no information at all):

- **č’ōrula** ‘fall (precipitation)’ and **q’ečurula** ‘stop falling (precipitation)’ can combine with **č’ari** ‘rain’ (cognate with **č’ōrula**), **āži** ‘snow’, and **žari** ‘ice, hail’.
- **l’elōrula** ‘blow (wind)’ can only combine with the cognate noun **l’e** ‘wind’.
- **šiburula** ‘drizzle’ can only combine with **č’ari** ‘rain’.
- **χabōrula** ‘whirl (snow)’ can only combine with **āži** ‘snow’.
- **g’ālunula** ‘break (dawn)’, **hiraχurula** ‘become overcast with clouds’¹³, **h’ič’unula** ‘clear up’, **īk’unula** ‘fall (night)’, **k’āč’ōnula** ‘clear up’, **rešurula** ‘fall (night)’ can only combine with **duna** ‘world’.

3.2. Monovalent verbs

Almost all monovalent verbs have <NOM> as their only possible coding frame. I have been able to find only the following three exceptions.

The case frame <ALL> is found (in free variation with a canonical intransitive construction) with **č’anurula** ‘feel a sharp pain’, a monovalent verb whose sole argument represents the body part where the pain is located. The person affected can be encoded as a genitive NP if the body part noun is treated as the S argument of a canonical intransitive construction, as in (11a), or as an allative NP, as in (11b).

- (11) a. **di** **rel’a** **č’an-ere** **godi.**
 1SG.OS[GEN] hand feel_a_sharp_pain-PROG COP.N
 ‘I feel a sharp pain in the hand.’
- b. **di-g-a** **rak’waro-g-a** **č’an-ere** **godi.**
 1SG.OS-CFG₁-ALL heart.OS-CFG₁-ALL feel_a_sharp_pain-PROG COP.N
 I feel a sharp pain in the heart.’ lit. ‘It hurts to me to the heart’

č’inurula also means ‘feel a sharp pain’. Like **č’anurula**, it is a monovalent verb whose sole argument represents the body part where the pain is located, but it selects the case frame <LOC>.

<LOC> is also a possible case frame for **q’waraturula**, a verb deriving from the adjective **q’warada** ‘narrow’ which occurs in canonical intransitive predication with the meaning ‘get

¹³ This verb is occasionally found in combination with human nouns with the meaning ‘frown’, but it clearly derives from **hira** ‘cloud’, and consequently this use is best analyzed as metaphorical.

narrow’, as in (12a), but is also used with the meaning ‘have a blocked nose’ in a construction in which ‘nose’ is in the locative, and no nominative NP can be introduced, as in (12b).

(12) a. **χūk’āce-la q’wara-l-ari**
 shoe-PL narrow-VBZ-PF
 ‘The shoes became tight.’

b. **miša-q-e q’wara-l-ēhe godi.**
 1SG.OS-CFG₁-ALL narrow-VBZ-ADV.N COP.N
 ‘I have a blocked nose.’ lit. ‘In the nose [it] became narrow.’

Northern Akhvakh does not really have monovalent verbs with a case frame <ERG>, since all apparent cases of such verbs are the contracted variant of a *noun + verb* compound involving a noun in the nominative, like for example **nikūqurula** ‘swear’ < **nik^wa buqurula**, where **nik^wa** is the noun ‘swear’, and **buqurula** is a light verb (arbitrarily glossed ‘swear’).

(13) a. **hu-s̄w-e nik^wa b-uq-ari heč’e b-eχ-urula.**
 DIST-OS.M-ERG swear N-swear-PF vengeance N-ttake-INF
 ‘He swore vengeance.’

b. **hu-s̄w-e nikūq-ari heč’e b-eχ-urula.**
 DIST-OS.M-ERG swear-PF vengeance N-take-INF
 same meaning as (a)

3.3. Bivalent verbs

3.3.1. The case frame <ERG, NOM>

<ERG, NOM> (with the most agent-like participant in the ergative, and the most patient-like argument +in the nominative) is the default case frame for bivalent verbs, contrasting with the marked case frames listed in Sections 3.3.2 to 3.3.4, which as a rule characterize sets of verbs showing a relative semantic homogeneity.

3.3.2. The case frame <NOM, DAT>

This case frame is typical of bivalent verbs whose dative and nominative arguments can be characterized as experiencer and stimulus respectively, but is also found with verbs of finding or involuntary acquisition, and with verbs carrying meanings like ‘suit’, ‘be good for’: **āl’unula** ‘hear’, **bažarilōrula** ‘master’, **beq’urula** ‘come → get’,¹⁴ **beq’urula** ‘know’, **bičilōrula** ‘understand’, **bit’axurula** ‘succeed in something’, **bit’urula** ‘succeed in something’, **biχurula** ‘remain → get’, **bołurula** ‘happen’, **č’ašinōrula** ‘be tired/sick of’, **dādič’welōrula** ‘meet’, **harigurula** ‘see’, **hidičurula** ‘forget’, **haq’iilōrula** ‘despise’, **kalihinōrula** ‘find ridiculous’, **kit’ałurula** ‘hate’, **kūnula** ~ **k’iłunula** ‘love, want’, **l’aturula** ‘come to knowledge’, **małūq’ełurula** ‘despise’, **mičunula** ‘find’, **mizałilōrula**

¹⁴ The notation ‘come → get’ means that the basic meaning of this verb is given as ‘come’ by the dictionary, and its interpretation as ‘get’ is bound to the particular case frame considered here.

‘get bored with’, **nasihilōrula** ‘be intended for’, **q̄’wāraṣunula** ‘need’, **raq’urula** ‘suit’, **šoturula** ‘suit, be good for’, **zah’āfilōrula** ‘have problems with’.

<NOM, DAT> is also found with verbs expressing the attitude of a person (encoded as the nominative argument) towards another (encoded as the dative argument): **muk’ufilōrula** ‘accept, agree with, acknowledge’, **mut’iṣihilōrula** ‘obey’, **χijanafilōrula** ‘betray’.

3.3.3. Case frames involving the nominative and a spatial case

<NOM, LOC>¹⁵ is found with verbs such as **baqōrula** ‘rummage’, **baražurula** ‘twine (intr.)’, **beburula** ‘stop → remain, live’, **bik’urula** ‘be’, **biχurula** ‘remain, be left’, **duk’urula** ‘get on a horse/bicycle or into a vehicle’, **goč’urula** ‘knock’, **L’ado gožurula** ‘surround’, **huχuχurula** ‘appear on a surface (blisters, etc.)’, **het’ilōrula** ‘make do with’, **k’ōnula** ‘lie down’, **k’ōrula** ‘cling to’, **k’usurula** ‘sit down’, **k̄’at’urula** ‘stick’, **L’ado k̄’užurula** ‘stick, throng’, **L’içurula** ‘step’, **q̄’arurula** ~ **q̄’at’urula** ‘cling’, **q̄’inōrula** ‘get stuck’, **šorełurula** ‘surround’, **tūkunula** ‘hit against’, **t’erurula** ‘get stuck’, **χuχurula** ‘twine (intr.)’, **ṣaxatilōrula** ‘take part’.

<NOM, LOC₁> is found with **baχihilōrula** ‘admire’, **bołurula** ‘play’ (sport, game, etc.), **herafilōrula** ‘admire’, **rak’wāq’elurula** ‘regret’, **rāq’aṣunula** ‘be satisfied with’, **raq’urula** ‘fit’, **razihilōrula** ‘accept, agree’, **šoturula** ‘fit’, **tamašafilōrula** ‘be surprised’, **waswasilōrula** ‘have doubts about’.

<NOM, LOC₂> is found with **haq’elōrula** ‘long for, miss’, **mišaraqurula** ‘long for’, **xūdarilōrula** ‘fall in love with’, **x̄’ax̄’arurula** ‘chase after’, **ṣōrula** ‘weep over someone’. This argumental function of LOC₂ is consistent with the use of this case to encode adjuncts with the meaning ‘in exchange for something’.

<NOM, ALL> is typically found with goal-oriented movement verbs: **bač’aq’urula** ‘arrive somewhere late’, **bak’arilōrula** ‘converge on a place’, **baḅarilōrula** ‘start moving towards’, **bišurula** ‘gather (intr.)’, **čiłurula** ‘splash (intr.)’, **goč’urula** ‘go up’, **herurula** ‘bend, list’, **hūrula** ‘blow on/into something’, **hadulilōrula** ‘get ready to go somewhere’, **il’urula** ‘push one’s way through’, **k’ōrula** ‘cling to’, **lerurula** ‘move (intr.)’, **L’adałurula** ‘throw oneself on’, **qinałurula** ‘approach’, **q’ūnula** ‘reach’, **q’elōrula** ‘get ready to go somewhere’, **q̄’oq̄’ilōrula** ‘head for a place’, **sorurula** ‘get through’, **šorurula** ‘turn’, **šinurula** ‘stick (intr.)’, **xuč’urula** ‘slip into’, **x̄’ax̄’arurula** ‘run towards’, **χerurula** ‘climb’, **ṣedeṣilōrula** ‘hurry’. Note that the status of the allative as encoding an argument or an adjunct may be difficult to evaluate, because the argument structure of verbs that basically involve a single participant but imply movement in some way or other can easily be extended to include an allative NP, as in **batiga čak’urula** ‘urinate in one’s trousers’.

<NOM, ALL₁> is found with **abažurula** ‘stick to someone’, **beq’urula** ‘come → affect’, **bužurula** ‘believe’, **čanadilōrula** ‘hunt’, **ēłunula** ‘resemble’, **goč’urula** ‘reach, achieve’, **hādaχurula** ‘listen’, **mič’ałurula** ‘get addicted to’, **nałurula** ‘scold’, **raṣilōrula** ‘have time enough for’, **rehēłurula** ‘get accustomed to’, **rak’wāḅelōrula** ‘amuse oneself with’, **būrula** ‘speak → scold’, **šorurula** ‘turn → change into’, **šaklilōrula** ‘feel suspicious about’, **xūdarilōrula** ‘be eager for’, **χalałurula** ‘become domesticated’.

¹⁵ In case frames involving spatial cases, labels not specified for a particular configuration marker mean that the configuration marker may vary depending on semantic properties of the noun, whereas labels such as LOC₁, ALL₂, etc. mean that there is no possibility of variation. This distinction roughly coincides with the distinction between spatial and non-spatial uses of the spatial cases.

<NOM, ABL> is typically found with source-oriented movement verbs: **beč'ilōrula** 'flow from', **buč'urula** 'get detached', **bururula** 'come out swirling', **č'ōrula** 'flow from', **gimōnula** ~ **ginōrula** 'hang (intr.)', **h^waχurula** 'disappear', **jerilōrula** 'disappear', **k^warurula** 'fall (from a horse)', **minadałurula** 'get detached', **miχunula** 'rise', **q̄'osinōrula** 'deviate from the way', **rik'afilōrula** 'move away from', **šinurula** 'hide (intr.)' (6.15), **t'orurula** 'fall in drops', **χuχururula** 'flow abundantly', **χūrula** 'fall (leaves from a tree, etc.)', **χ^warurula** 'flow from', **zorurula** 'slip from'

<NOM, ABL₁> is found with **bač'ōrula** 'be deprived of', **guhilōrula** 'feel sorry for', **lūrula** 'be afraid of', **mahiruñilōrula** 'be deprived of', **q̄'inurula** 'be afraid of', **χ^wašarilōrula** 'escape from, avoid'.

3.3.4. Others

<NOM, NOM> is found with **bik'urula** 'be' and the morphologically irregular copula **godi**. It also occurs with a few verbs taking predicative complements in the nominative case: **bołurula** 'become', **mičunula** 'be found → happen to be', **buχurula** 'fall → happen to be'.

<NOM, GEN> is found in possessive predication with **bik'urula** 'be' or its substitute **godi**, with **bołurula** 'become', and with **beč'urula** 'become full of something'.

<NOM, FUNC> (with an argument in the functive-transformative case 'as') is an alternative case frame for the copulative verbs commonly used with a predicative complement in the nominative.

<NOM, MDT> (with an argument in the mediative case 'by means of', mainly found with NPs in adjunct function) is found with **beχūrula** 'rejoice at'.

<NOM, COM> (with an argument in the comitative case) is mainly found with a few verbs describing naturally reciprocal events: **dašbadilōrula** 'quarrel', **dašixūrula** 'quarrel', **herēñilōrula** 'behave affectionately towards', **het'ilōrula** 'get on with', **mañeq'urula** 'be vexed with', **meq'elunula** 'match with', **minadałurula** 'divorce', **q'elōrula** 'stop speaking with', **q̄'acāñilōrula** 'compete', **raq'urula** 'be friends again with'.

<ERG, GEN> is found with **halbiñilōrula** 'try' and **mačunula** 'speak about something'. In the case of **halbiñilōrula**, the explanation of this exceptional case frame is borrowing from Avar, where **hal biñize** is a *noun + verb* compound meaning literally 'see the state of'.

<ERG, LOC> is used for situations that have an obvious semantic affinity with the regular case frame <ERG, NOM, LOC> (see 3.4.2): **bol'ōrula** 'hurt', **č'inōrula** 'sting (snake, wasp, etc.)', **č'ōrula** 'burn → sting (nettle)', **q'uq'udōrula** 'knock', **q^wal'ōrula** 'knock', **q̄'ik'ōnula** 'flick something with one's finger', **q̄'it'urula** 'pinch'.

<ERG, ALL> is found with **hūrula** 'blow (on something)'.

<ERG, ALL₁> is found with **equrula** 'look at' and **žōrula** 'shout at', 'appeal to'.

<ERG, ABL₁> is found with **q'elāč'unula** 'argue with, reproach'.

3.4. Trivalent verbs

3.4.1. The case frame <ERG, NOM, DAT>

Apart from **oχurula** 'give' and **šiturula** 'forbid', this case frame is found mainly with causative verbs deriving from verbs whose argument structure includes a dative experiencer: **āñl'ōnula** 'inform about', **bičilōt'ōrula** 'explain', **č'añinōtōrula** 'bother/plague with',

harigōrula ‘show’, **hidičōrula** ‘make someone forget something’, **kit’arōrula** ‘make someone hate something’, **mizalilōt’ōrula** ‘bore someone with something’.

Note that the argumental use of the dative is sometimes difficult to distinguish from its use to encode benefactive adjuncts. The use of the dative to encode beneficiaries is extremely productive in Akhvakh, and monotransitive verbs can easily be found in a construction superficially similar to that of ‘give’, in which however the dative NP is better analyzed as encoding a benefactive adjunct.

3.4.2. Case frames involving spatial cases

<ERG, NOM, LOC> is found with **baražurula** ‘twine (tr.)’, **belurula** ‘leave something/someone somewhere’, **bik’ōrula** ‘fix something on something’, **bilurula** ‘put’, **biḡurula** ‘catch → fix something on something’, **čaqōrula** ‘smack’, **č’waxōrula** ‘splash (tr.)’, **dalōrula** ‘hang’, **duk’ōrula** ‘make someone get on a horse/bicycle or into a vehicle’, **gimōnula** ~ **ginōrula** ‘hang’, **goč’urula** ‘knock’, **ič’urula** ‘step, tread (on)’, **ilurula** ‘put on (cloths)’, **iłōrula** ‘rub against’, **iḡurula** ‘hang, string’, **k’abōrula** ‘fasten, hook’, **k’usōrula** ‘seat’, **k’wamōnula** ‘lay’, **larurula** ‘smear’, **l’warurula** ‘hit’, **qūrula** ‘sprinkle’, **q’arurula** ‘dip’, **q’inōrula** ‘squeeze, tighten → push into (e.g. a cork)’, **tūkunula** ‘shove’, **t’ōnula** ‘throw’.

<ERG, NOM, LOC₁> is found with two causative verbs exceptionally derived from transitives: **baqōrula** ‘suckle’ and **q’amōnula** ‘feed’.

<ERG, NOM, LOC₃> is found with **rāq’ašōnula** ‘reconcile’.

<ERG, NOM, ALL> is found with **beq’ōrula** ‘bring’, **bišōrula** ‘gather (tr.)’, **buk’ōrula** ‘crumble (tr.) into’, **buḡōrula** ‘poke’, **čilōrula** ‘splash (tr.)’, **ič’urula** ‘step, tread (towards)’, **k’arurula** ‘tie’, **lerōrula** ‘move (tr.)’, **l’učurula** ‘thrust into’, **oturula** ‘let, send, drop’, **sorōrula** ‘plunge’, **sušurula** ‘sprinkle (salt, flour)’, **šinōrula** ‘stick (tr.)’, **t’ik’ōnula** ‘drip (tr.)’, **t’inurula** ‘pour’, **t’ōnula** ‘throw’, **t’orōrula** ‘drip (tr.)’, **ḡ’arōrula** ‘pour’, **žōrula** ‘call, invite’. As already observed above (see 3.3.3), the status of the allative as encoding an argument or an adjunct may be difficult to evaluate, because the argument structure of verbs that do not involve movement of the participants but imply movement in some way or other can easily be extended to include an allative NP, as in **hema bidiriga l’arurula** ‘milk a cow into a bucket’.

<ERG, NOM, ALL₁> is found with causative verbs deriving from verbs used in the case frame <NOM, ALL₁>, and with verbs of saying: **mič’arōrula** ‘make someone develop an addiction to’, **šorōrula** ‘transform into’, **beq’ōrula** ‘communicate’, **eł’urula** ‘tell’, **mačunula** ‘tell’, **małunula** ‘suggest, teach’, **q’arurula** ‘write (a letter) to someone’.

<ERG, NOM, ALL₂> is found with **oḡurula** ‘give’ in competition with <ERG, NOM, DAT> – see 5.6.1.

<ERG, NOM, ABL> is found with **baḡčilōrula** ‘hide (tr.)’, **bequrula** ‘remove from’, **beḡurula** ‘take from’, **buč’ōrula** ‘separate from’, **č’orurula** ‘wring out, squeeze out’, **č’wabōrula** ‘strip (bark from a tree, etc.)’, **jerilōt’ōrula** ‘chase’, **lōrula** ‘tear away’, **muhunula** ‘unfasten’, **q’osinōt’ōrula** ‘make someone deviate from the way’, **šinōrula** ‘hide (tr.)’, **ḡurula** ‘make fall (fruits from a tree, etc.)’.

<ERG, NOM, ABL₁> is found with **č’inurula** ‘protect from’, **mahirulilōt’ōrula** ‘deprive of’, **qōrula** ‘ask (someone to give something)’, **rāč’unula** ‘ask (someone about something)’.

<NOM, ABL, ALL> is typical of intransitive movement verbs equally compatible with the expression of the source and goal of movement: **beq'urula** 'come, arrive', **boč'ilōrula** 'escape', **boļurula** 'walk', **buḫurula** 'fall', **gočilōrula** 'migrate', **heč'urula** 'rise', **kasurula** 'jump', **k'weturula** 'flee', **l'ulurula** 'move', **mūnula** 'go, leave', **t'ik'unula** 'fall in drops', **t'iq'urula** 'jump', **x'welōrula** 'leave and disappear'.

<DAT, NOM, FUNC> is found with **harigurula** 'see → consider as'.

3.4.3. Others

<ERG, NOM, GEN> is found with **boļōrula** 'transform into' and **gūrula** 'transform into', 'make from'.

<ERG, NOM, FUNC> is found with **beļurula** 'leave → nominate', **t'ōnula** 'throw → nominate', **bigurula** 'count → consider as', and **bišilōrula** 'choose, elect'.

3.5. Quadrivalent verbs

<ERG, NOM, ALL, ABL> is found with verbs of caused movement equally compatible with the expression of the source and goal of movement: **belurula** 'lead', **boč'ilōt'ōrula** 'save, bring to a successful conclusion', **boļōrula** 'chase', **buḫōrula** 'make fall, lead', **danurula** 'pull, draw', **gočilōt'ōrula** 'resettle', **heč'ōrula** 'raise', **rešt'inōrula** 'come to rest'.

3.6. Noun + verb compounds

Light verb constructions involving *noun + verb* combinations are relatively common in Akhvakh. In most cases, the verb is transitive, and the noun saturates its P valency exactly as if it represented a P argument in canonical transitive predication, resulting in a compound predicate with a single core argument encoded as an ergative NP. There is no obvious distinction in Akhvakh between the nominal element of a *noun + verb* compound and the P argument of a transitive verb. The verbs most commonly involved in the formation of *noun + verb* compounds are **gūrula** 'do, make' and **oḫurula** 'give'. Three case frames are particularly productive:

- <ERG, nom>, ¹⁶ (**hūl'e gūrula** 'jump', **hukmu gūrula** 'take a decision', etc.),
- <ERG, DAT, nom>, (**čani biḫurula** 'wait for', **komoki gūrula** 'help', etc.),
- <ERG, GEN, nom> (**ada gūrula** 'treat with respect', **avazi gūrula** 'pay attention to', etc.).

The noun involved in the formation of a compound predicate may also saturate the S valency of intransitive verbs used as light verbs, as in **roļ'i buḫurula** <GEN, nom, LOC₃> 'fall in love', or **čari k'onōrula** <LOC, nom> 'catch fire': 'X falls in love with Y' is literally expressed in Akhvakh as 'X's love falls at Y', and 'X catches fire' as 'fire burns in X'.

¹⁶ In formulae representing case frames of light verb constructions, lower case indicates the case form of the noun contributing to the elaboration of the event, whereas upper case indicates the case forms of arguments proper.

Not however that, in light verb constructions, the noun involved in the formation of a complex predicate cannot always be analyzed as saturating a valency of the verb used in light verb function. For example, the etymological meaning of **χ̄erage jūnula** ‘marry’ (speaking of a woman who marries a man) is quite obviously ‘go to a husband’s place’, but the case frame associated to this compound predicate is <NOM, DAT, loc₁>. Neither dative nor locative₁ reflect elements of the case frame of **mūnula** ‘go’; in particular, **χ̄ewe** ‘husband’ is in not in the allative normally required by **mūnula** (**χ̄eraga**), but in the locative (**χ̄erage**).

3.7. Adverb + verb compounds

Akhvakh has very few adpositions and no preverb at all, but adverbs (in particular, spatial adverbs) tend to form lexicalized combinations with verbs, and the effect of such combinations on the meaning of verbs and on their syntactic properties can be compared to the use of adpositions or preverbs in other languages.

Adverbs may form lexicalized combinations with verbs without however triggering any change in the case frame, as illustrated by **kadiga gūrula** <ERG, NOM> ‘humiliate’, lit. ‘make down’, which occurs in the same case frame as **gūrula** ‘make’, although the conditions on the semantic nature of the second argument are different. But there are also *adverb + verb* compounds whose case frame is not immediately predictable from the verb and the adverb involved in the construction.

For example, **bešaqurula** ‘work’ and **siḡi** ‘in front (LOC)’ form the lexicalized combination **siḡi bešaqurula** ‘work in someone’s service’, with the case frames <NOM, LOC₁> and <NOM, DAT> in free variation. The meaning ‘in someone’s service’ is not immediately predictable from the meaning carried by **siḡi** in combination with other verbs, and the clearest evidence of lexicalization follows from the fact that the locative case normally required when an NP and a spatial adverb combine to express static location can be substituted here by the dative case. This substitution is clearly motivated by the benefactive function of the dative, but syntactically, it provides crucial evidence that **siḡi bešaqurula** constitutes at least to some extent a lexical unit comparable to the *preverb + verb* combinations of languages like Russian or Hungarian.

4. Northern Akhvakh and the typology of transitivity

4.1. Transitivity prominence

Languages differ in the extent to which they assign transitive coding to verbs that, semantically, are not prototypically transitive. In order to compare languages with respect to their rate of transitivity prominence, I elaborated a questionnaire consisting of 26 verb meanings commonly lexicalized as semantically bivalent verbs that are neither among those that are transitive in (almost) all the languages for which I have been able to check the relevant data, nor among those that have a marked tendency to select intransitive coding.¹⁷

¹⁷ The verb meanings selected in this questionnaire are as follows: attack / be afraid of / believe / betray / bite / despise / escape (from) / find / follow / forget / hate / hear / help / hit / know / laugh at / like / listen to / look at / need / scold / search for / see / touch / wait for / want.

For Northern Akhvakh, the rate of transitivity prominence evaluated on the basis of this questionnaire is extremely low: 1/25. By way of comparison, the rate of transitivity prominence evaluated on the basis of the same questionnaire is 26/0 for the Atlantic language Jóola Fóoñi, 18/7 for English, and 13/12 for Russian. This is no surprise, since it has long been observed that Nakh-Daghestanian languages have a strong tendency to reserve transitive coding for prototypical transitive verbs. This typological feature of Nakh-Daghestanian languages is confirmed by Haspelmath's (2015) study of cross-linguistic variation in the rate of transitivity prominence in the languages of the world, since the Nakh-Dagestanian language included in the sample he used for this study (Bezhta) is the one with the lowest rate of transitivity prominence. Note however that, as discussed by Ganenkov (2013), the situation of Nakh-Daghestanian languages is not completely uniform in this respect.

4.2. The orientation of the noncausal-causal alternation

Another important aspect of the transitivity system of languages is the relationship between intransitive verbs encoding processes that can be conceptualized as occurring more or less spontaneously, or at least without a clearly identified instigator, and transitive verbs encoding the same processes triggered by the action of an agent – cf. Haspelmath (1993), Nichols & al. (2004). Such verb pairs may show no formal relationship ($I \neq T$), or be related in various ways:

- the noncausal verb and its causal counterpart may be identical ($I = T$);
- the causal verb may morphologically derive from its noncausal counterpart ($I > T$);
- the noncausal verb may morphologically derive from its causal counterpart ($T > I$);
- the noncausal verb and its causal counterpart may be both derived from an abstract root that does not exist as a verb stem (double derivation, symbolized as $I \sim T$).

The sample of Akhvakh noncausal-causal pairs in Table 2 has been constituted according to the questionnaire proposed by Haspelmath (1993). This questionnaire includes 31 verb pairs in descending order of their cross-linguistic propensity to involve causative derivation. In Table 2, the numbering given in Haspelmath's article has been maintained, but the verb pairs have been grouped according to their formal relationship.

Table 2: noncausal-causal pairs in Northern Akhvakh

1. boil	āχunula / āχōnula	I > T
2. freeze	žaq'urula / žaq'ibōrula	I > T
3. dry	buq'urula / buq'ōrula	I > T
4. wake up	goč'urula / goč'ōrula	I > T
6. sink	geĹ'a χerurula / geĹ'a χerōrula	I > T
8. melt	mihunula / mihōnula	I > T
9. stop	beburula / bebōrula	I > T
10. turn	šorurula / šorōrula	I > T
11. dissolve	mihunula / mihōnula	I > T
12. burn	č'ōrula / č'ajōrula	I > T
13. destroy	baχurula / baχōrula	I > T
14. fill	beč'urula / beč'ōrula	I > T

15. finish	boġurula / boġōrula	I > T
17. spread	bačurula / bačōrula	I > T
18. roll	gigirurula / gigirōrula	I > T
19. develop	ik'ałurula / ik'arōrula	I > T
20. get lost / lose	buq'urula / buq'ōrula	I > T
21. rise / raise	heč'urula / heč'ōrula	I > T
22. improve	šolurula / šolorula	I > T
23. rock	kokorurula / kokorōrula	I > T
24. connect	miχunula / miχōnula	I > T
26. gather	bišurula / bišōrula	I > T
28. break	biq'urula / biq'ōrula	I > T
30. split	q̄arurula / q̄arōrula	I > T
31. die / kill	bil'urula / bil'ōrula	I > T
16. begin	bašilōrula / bašilōrula	I = T
25. change	χisilōrula / χisilōrula	I = T
27. open	aχurula / aχurula	I = T
29. close	ec'urula / ec'urula	I = T
5. go out / put out	eχā boġurula / eχā oturula	I ≠ T
7. learn / teach	žōrula / maġunula	I ≠ T

Table 2 makes immediately apparent that, within the limits of this sample, Akhvakh has an extremely high number of I > T pairs (25), very few I = T and I ≠ T pairs (4 and 2, respectively), and no T > I or I ~ T pair. In other words, Akhvakh has an extremely strong tendency to use causative derivation in the coding of noncausal/causal pairs, even in comparison with the other Nakh-Daghestanian languages, which are far from uniform in their preferences in the coding of noncausal/causal pairs. Table 3 compares the results obtained for Akhvakh on the basis of this questionnaire with those of three other Nakh-Daghestanian languages (Avar, Lezgian, and Tsez) and three languages from other families selected to illustrate the cross-linguistic diversity in this domain: Russian (an extremely 'detransitivizing' language), Hungarian (a language with a very strong preference for double derivation), English (a language with a strong preference for ambitransitivity), and Tswana (a moderately 'transitivizing' language). With the exception of the Tswana data, which come from my personal documentation, the data are from the World Atlas of Transitivity Pairs.¹⁸

Table 3: Northern Akhvakh and the cross-linguistic variation in the coding of noncausal/causal pairs

	Russian	Hungarian	English	Tswana	Avar	Lezgian	Tsez	Akhvakh
I > T	0	5	0	16	9	12	18	25
T > I	23	8	2	8	0	8	3	0
I ~ T	5	16	1	5	0	6	8	0
I = T	0	0	25	0	20	5	0	4
I ≠ T	3	2	3	2	2	0	1	2

¹⁸ <http://verbpairmap.ninjal.ac.jp>

This shows that, within the Nakh-Daghestanian language family, there is less stability in the orientation of the noncausal-causal pairs than in the rate of transitivity prominence. Interestingly, the same observation has been made about the Atlantic and Mande languages of West Africa – Creissels & al. (2016).

5. Morphologically uncoded valency alternations

5.1. Preliminary remarks

In Akhvakh, valency alternations are manifested by variations in the case frame of the verb. However, counting every variation in the case frame of an individual verb as a variation in the coding of an argument would lead to confusion with variations due to the fact that polysemous verbs may encode types of events that, although semantically related, do not necessarily involve the same kind of participants. But on the other hand, the notion of valency alternation must not be defined in a too restrictive way, since the choice between two alternative case frames is never entirely devoid of semantic implications. The decision taken here is that case variations that do not imply changes in the nature of the participants count as valency alternations, even when they have a clear incidence on semantic roles, whereas variations that imply a change in selection restrictions are excluded. According to this criterion, the DAT ~ ALL₂ variation in the construction of **oḡurula** ‘give’ (cf. 5.6.1) counts as a valency alternation, whereas the ALL₁ ~ LOC₃ variation in the construction of **ḡudarilōrula** ‘long for’ or ‘fall in love with’ is excluded from the notion of valency alternation, because the meanings expressed by **ḡudarilōrula** in the case frame <NOM, ALL₁> (‘be eager for’, ‘long for’) and in the case frame <NOM, LOC₃> (‘fall in love with’) imply a difference in the nature of the second argument.

l̄’warurula ‘hit, beat, kill’ provides a particularly interesting illustration of the interaction between verbal polysemy and valency patterns. Used in the case frame <ERG, NOM, LOC> typically found with verbs expressing that an agent makes an object impact on another, with the hittee in the locative, **l̄’warurula** constitutes the most common equivalent of English ‘hit’ – Ex. (4), repeated as (14).

- (14) **wašo-de beko-g-e č’uli l̄’war-ari.**
 boy.OS-ERG snake.OS-CFG₁-LOC stick hit-PF
 ‘The boy hit the snake with the stick.’
 lit. ‘The boy applied the stick on the snake.’

Note that, in this construction, **l̄’warurula** carries a wider meaning than ‘hit’ in English, and may also express ‘fix’ – Ex. (15).

- (15) a. **ek’wa-šw-e surati q’ēda-l̄-i l̄’war-ari.**
 man-OS.M-ERG picture wall-CFG₅-LOC hit-PF
 ‘The man fixed the picture on the wall.’

- b. **ek'wa-s̄w-e** **x̄'ana-g-e** **lali** **l̄'war-ari.**
 man-OS.M-ERG horse.OS-CFG₁-LOC horseshoe hit-PF
 ‘The man shod the horse.’

l̄'warurula can also express ‘beat’ in the case frame <ERG, NOM, (ERG)> typically used for events involving an agent, a patient and an instrument, but mainly in combination with inanimate patients (‘hammer a nail’, ‘beat a drum’). With a human NP in the nominative argument slot, **l̄'warurula** is usually interpreted as ‘kill’ – Ex. (16).

- (16) **ima-s̄u** **amru-ḥi-gul-ō** **l̄'war-ō** **gudi** **ek'wa.**
 imam-OS.M[GEN] order-OS.N-MDT-ADV.M kill-ADV.M COP.M man
 ‘They killed the man on the orders of the Imam.’

The case frame selected by **l̄'warurula** when the intended meaning is ‘kill’ is consistent with the fact that Y in ‘X kills Y’ is a prototypical patient, whereas the case frame selected by **l̄'warurula** ‘hit’ suggests that the hittee is not conceptualized as a patient, but rather as the point of impact of a missile manipulated by the agent.

It is also important to keep in mind that the recognition a given type of alternation may depend on particularities in the morphosyntactic organization of the language. For example, it would make no sense to discuss the existence of an alternation comparable to **The butcher cuts the meat ~ The meat cuts easily** in a language in which agents can freely be left unexpressed with an unspecified or arbitrary interpretation, without modifying anything else in the canonical construction of a transitive verb. Similarly, the notion of ‘instrument subject alternation’ (as in English **The man broke the window with a hammer ~ The hammer broke the window**) is not relevant to a language in which no coding property distinguishes ergative NPs encoding instrumental adjuncts from agents, and agents can freely be left unexpressed with an unspecified interpretation. Given the coding properties of core syntactic roles in Akhvakh, the question of P-lability is particularly important to clarify. As discussed in detail in Creissels (2014), the analysis of the transitivity properties of Akhvakh verbs is conditioned by the consistently ergative encoding of core arguments, whose consequence is that a transitive clause looks like an intransitive clause to which an agent NP would have been added without necessitating any readjustment.

5.2. A-lability

In a language like Akhvakh, the conversion of an A argument into the S term of an intransitive predication triggers a modification of its case-marking and indexation property. The only Akhvakh verb I have found with this kind of alternation is **uxilōrula** <ERG, NOM> ‘imagine something’ / <NOM, LOC₁> ‘think about something’.

5.3. P-lability, the functional equivalent of passive constructions, and morphologically unmarked causal / noncausal alternations

In Akhvakh, as illustrated in several of the previous examples, it is always possible to omit ergative NPs representing agents without modifying the semantic status of the nominative NP as representing a participant undergoing the action of an agent, and the coding characteristics

of a transitive predication with an unexpressed A are exactly the same as those of an intransitive predication. In other words, all Akhvakh verbs that are not strictly intransitive show argument structure *preserving* P-lability, in which the unexpressed agent is still semantically present. As illustrated by ex. (17), the mere omission of the ergative NP from the transitive construction, without any further readjustment, is productively used as the equivalent of the agentless passive constructions found in other languages.

- (17) **1936-liĭ'a reše-ĭ-i, kaχuzi šuĉ'il-āri,**
 1936-ORD year-OS.N-LOC kolkhoz organize-PF
 'In 1936 the kolkhoz was organized,

hēma-na-la r-el-ari kaχuzi-l-a.
 cow-PL-and NPL-lead-PF kolkhoz-CFG₅-ALL
 and the cows were led to the kolkhoz.'

aχurula 'open' and **ec'urula** 'shut' illustrates argument structure *modifying* P-lability, since these two verbs (like their English counterparts) lend themselves to a morphologically unmarked causal / noncausal alternation, the absence of the ergative NP being interpreted as meaning that the referent of the nominative NP is involved in a process that does not necessarily involve an external cause. This behavior is however not common at all among Akhvakh verbs. As already indicated in 4.2, the general rule in Akhvakh is that the causal member of noncausal/causal pairs is morphologically marked by causative derivation. In Akhvakh, not many verbs can be used transitively with a causal meaning and intransitively with a noncausal meaning, and most of them are not really involved in a causal / noncausal alternation, since the choice between their transitive and intransitive construction involves additional semantic distinctions or lexical restrictions, and must consequently be analyzed in terms of polysemy – cf. for example **bilurula** 'put', used intransitively with the meaning 'settle', but exclusively with nouns referring to substances such as smoke, fog, or dew.

Interestingly, in Akhvakh, **mūnula** 'go' and **beq'urula** 'come', which cross-linguistically are rarely among the verbs for which a morphologically unmarked causal use is possible, can be used transitively without any morphological marking with the meanings 'take away' and 'bring', respectively.

5.4. Unexpressed non-nominative arguments

Agents encoded as ergative NPs are not the only type of argument that can be freely omitted with a non-specific reading: this property is shared by arguments encoded by NPs in any other overtly marked case, as illustrated in Ex. (18) by the omission of the dative experiencer of **harigurula** 'see'.

- (18) **beĉa-g-e āži harig-ere godi.**
 mountain-CFG₁-LOC snow see-PROG COP.N
 'One can see snow on the mountain.'

5.5. Unexpressed nominative arguments

Ex. (19) illustrates the arbitrary reading of a missing nominative NP.

- (19) **č'oroba** **geL-ēhe** **harig-ik-e** **di-La.**
 glasses without-ADV.N see-IPF.NEG-N 1SG.OS-DAT
 'I can't see without glasses.'

Missing nominative arguments with a non-specific reading are much less common in spontaneous discourse than missing ergative NPs, and less easily accepted in elicitation. Further investigation would be necessary before stating in a more precise way the conditions that license the omission of S or P arguments with a non-specific reading. The only regularities I have been able to establish are that:

- missing nominative NPs with a non-specific nominative argument reading are relatively common with verbs selecting a limited class of nouns in S or P role (as for example with meteorological verbs, or verbs such as **tūruLa** 'spit', which can have nouns such **aχtu** 'sputum' as its P argument, but is more commonly used without an overt P argument);
- **iLi** 'we (inclusive)' or **ādo** 'people' may be used, in particular in nominative argument role, to express reference to an unspecified human participant, but the same meaning is commonly expressed by constructions in which no nominative NP is present and the verb is marked for human plural agreement.

The relatively low productivity of P deletion with a non-specific reading is not compensated by the systematic use of other strategies. Akhvakh does not have antipassive derivation, Availability is extremely marginal (see Section 5.2), and the use of light verb constructions in this function (as for example **k'ora gūruLa** lit. 'do theft') is not very productive either. Suppletion is illustrated by **q'ōnuLa** 'eat (tr.)' / **ūkunula** 'eat (intr.)', but this is the only case I am aware of.

5.6. Others

A number of other valency alternations are found in Akhvakh, but each of them concerns a very limited group of verbs (very often, just one). Consequently, they do not lend themselves to generalizations, although their semantic motivation is most of the time obvious. For example, **čōruLa** 'wash', much in the same way as its English equivalent, is used intransitively with a reflexive meaning, but this behavior does not seem to be shared by any other Akhvakh verb.

However, two of the alternations found with a limited number of verbs deserve to be examined, since they involve particularly frequent verbs and provide an interesting illustration of the interaction between cases and semantic roles.

5.6.1. The DAT ~ ALL₂ alternation

This alternation characterizes constructions expressing the transfer of objects that can be possessed, essentially with **oχurula** 'give'. ALL₂ marks recipients that are not viewed as

future possessors, whereas the dative is used when the transfer results in a possessive relationship – Ex. (20). Such a contrast is common among Daghestanian languages (Daniel & al. 2010).

(20) a. **di-lir-a** **e-x̄-a** **hu-du** **č'īχ̄-a,**
 1SG.OS-CFG₂-ALL NPL-give-IMP DIST-SL pebble-PL
 ‘Give me those pebbles,

de-de **t'-ōni-wa** **hu-du-re** **īhori-l̄-a!**
 1SG-ERG throw-NPL-POT DIST-SL-NPL lake.OS-CFG₃-ALL
 I will throw them into the lake.’

b. **č'ila-q̄-e** **χisilaj-ēhe** **di-la** **mašina** **o-x̄-ari.**
 house.OS-CFG₃-LOC change-ADV.N 1SG.OS-DAT car N-give-PF
 ‘In exchange for the house they gave me a car.’

This restriction to the use of the dative in the encoding of giving events is consistent with the fact that the Akhvakh dative is productively used to encode beneficiaries, and does not occur with verbs of saying.

5.6.2. The NOM ~ LOC alternation

The NOM ~ LOC alternation is also found with **q̄'eleč'uruLa** ‘bite’. In this case, the choice of the case frame <ERG, NOM> encoding prototypical transitivity implies that the physical integrity of the patient is affected significantly (‘bite in order to tear a piece’), whereas the case frame <ERG, LOC> suggests that the physical integrity of the second participant is not really affected – Ex. (21). This use of the locative is also consistent with the fact that the locative is productively used in Akhvakh to encode not only static location, but also impact – see 4.6.

(21) a. **wašo-de** **ŕeče** **q̄'eleč'-ari.**
 boy.OS-ERG apple bite-PF
 ‘The boy bit into the apple’ (lit. ‘bit the apple’)

b. **žibi-de** **di-g-e** **q̄'eleč'-ari.**
 mosquito-ERG 1SG.OS-CFG₁-LOC bite-PF
 ‘The mosquito bit me.’ (lit. ‘bit on me’)

5.8. The expression of ‘involuntary agents’

The possibility of a mere case alternation encoding the notion of involuntary agent is sometimes evoked in studies of Daghestanian languages. However, in Akhvakh, the contrast between canonical transitive predications and predications involving involuntary agents is clearly not a mere case alternation, since it relies on the choice between two verbs with different transitivity properties, typically an intransitive verb and its causative counterpart.

As illustrated by Ex. (21), ABL₁ is productively used to encode participants that play a crucial role in a process affecting another participant (represented by a nominative NP) without however being real agents: stimulus of affective verbs that assign the nominative case to their experiencer, natural forces responsible for a process undergone by a patient, and also involuntary agents.

- (22) a. **dene** **χ^we-g-une** **L-ōhe** **g^wida.**
 1SG dog-CFG₁-ABL be_afraid-ADV.M COP.M
 ‘I am afraid of the dog.’
- b. **di-be** **rak’wa** **guhilaj-ēhe** **godī** **du-g-une.**
 1SG.OS[GEN]-N heart pity-ADV.N COP.N 2SG.OS-CFG₁-ABL
 ‘I pity you.’ (lit. My heart feels pity from you)
- c. **mašīna-g-une** **w-uL’-ari** **hu-du-we.**
 car-CFG₁-ABL M-die-PF DIST-SL-M
 ‘He was killed by a car.’ (lit. He died from a car)
- d. **dene** **tati-g-u-la** **heč-id-o.**
 1SG dust.OS-CFG₁-ABL-and sneeze-IPF-M
 ‘Even dust makes me sneeze.’ (lit. I sneeze even from dust)
- e. **hu-šū-g-une** **istaka** **b-iq’w-ē** **godī.**
 DIST-OS.M-CFG₁-ABL glass N-break-ADV.N COP.N
 ‘He broke the glass unintentionally.’ (lit. The glass broke from him)

However, it would not be correct to analyze sentences such as (22c) or (22e) as involving just an alternative case marking of transitive agents, since the verbs occurring in these sentences are all strictly intransitive: the verb in (22c) is not **biL’ōruła** ‘kill’, but **biL’urula** ‘die’, and (22e) is an intransitive clause in which an ablative NP is added to the minimal intransitive predication **istaka biq’wari** ‘The glass broke’, in the same way as **mašinagune wul’ari huduwe** and **dene χ^wegune lōhe g^wida** result from the adjunction of ablative NPs to the minimal intransitive predications **huduwe wul’ari** ‘He died’ and **dene lōhe g^wida** ‘I am afraid’. The meaning of involuntary agent in (22e) does not follow from the construction itself, but from the contrast with a transitive construction headed by the causative form of the same verb – ex. (22f).

- (22) f. **hu-šū-de** **istaka** **b-iq’w-aj-ē** **godī.**
 DIST-OS.M-ERG glass N-break-CAUS-ADV.N COP.N
 ‘He broke the glass.’ (lit. He made the glass break)

The overt marking of causativization in Akhvakh excludes the case alternation analysis that could be considered in languages in which such pairs of sentences involve labile verbs encoding meanings such as ‘break’ or ‘die/kill’.

6. The causative derivation

6.1. The causative suffixes

In Akhvakh, the causative derivation is the only valency changing mechanism involving verb morphology. Akhvakh has two causative suffixes **-a(j)-** and **-ut'-** in complementary distribution. **-ut'-** has an optional variant **-ut'a(j)-**.

The choice between **-a(j)-** and **-ut'-** has no semantic correlate and is automatically triggered by the phonological structure of the stem to which the causative suffix attaches: **-a(j)-** attaches to stems that do not end themselves with **...a(j)-**, whereas stems ending with **...a(j)-** select the causative suffix **-ut'-**.

The causative suffix **-a(j)-** shows all characteristics of ‘old’ affixes. It has cognates in the other Andic languages, but its origin cannot be reconstructed with certainty (although there is some evidence that it might result from the grammaticalization of a ‘make’ verb). In Northern Akhvakh, this suffix undergoes morphophonological processes that drastically reduce its phonological form. It can be isolated as **-aj-** in some verb forms, for example in the imperative, but depending on the inflectional suffix, (j) may be deleted, and **a** fuses with the initial vowel of the inflectional suffix. For example, the underlying sequence **-a(j)-urula** ‘CAUS-INF’ is realized **-ōrula** – cf. for example **beč'urula** / **beč'ōrula** (< **beč'-a(j)-urula**) ‘be full / fill’.

In contrast to **-a(j)-**, **-ut'-** is a ‘young’ suffix, still in free variation with the analytic construction from which it developed. For example, the synthetic causative **boč'ilōt'urula** ‘bring to an end’ (segmentable morphologically as **bočila(j)-ut'-urula**, where **-urula** is the infinitive suffix) coexists with the analytic form **boč'ilō bit'urula**, where **boč'ilō** is the short form of the infinitive **boč'ilō(rula)** ‘come to an end’,¹⁹ and **bit'urula** is a verb meaning ‘straighten, direct’, used here in causative operator function.²⁰

6.2. Causative derivation and transitivity

Causative derivation encoding the addition of an agent represented by an ergative NP is very productive with intransitive verbs – ex. (22).

- (23) a. **dene w-ač'aq'-ari.**
 1SG M-be_late-PF
 ‘I was late.’

¹⁹ The infinitive suffix **-urula** has a short variant **-u**. There is no strict syntactic distribution of the two variants, but the short variant is particularly usual in some contexts.

²⁰ There is some confusion in the transitivity properties of this verb (for example, the Akhvakh dictionary gives both **reĭ'wa bit'urula** and **reĭ'wa bit'ōrula** with the same meaning ‘make the bed’), and this probably explains the variation affecting the causative auxiliary **bit'urula** ~ **bit'ōrula** and the causative suffix **-ut'-** ~ **-ut'aj-**. A plausible explanation of this situation is that **bit'urula** has been borrowed from Avar as a plain verb before grammaticalizing as a causative operator. In Avar, the use of **b-it'-ize** as a causative operator does not seem to be attested, but **b-it'-ize** is a labile verb, and consequently the confusion observed in Akhvakh might be the result of the adaptation of a labile verb borrowed from a language in which ambitransitivity is common (Avar) to the transitivity system of a language which has a strong preference for the use of causative marking (Akhvakh).

- b. **mik'e-lo-de dene w-ač'aq'-āri.**
 child-OS.HPL-ERG 1SG M-be_late-CAUS.PF
 'The children made me late.'

As illustrated by Ex. (24), the presence of arguments in cases other than the ergative (in this case, a dative experiencer) does not affect the productivity of causative derivation.

- (24) a. **di-la č'īda-be miq'i harig^w-ari.**
 1SG.OS-DAT new-N road see-PF
 'I saw the new road.'

- b. **hu-s^w-e di-la č'īda-be miq'i harig^w-āri.**
 DIST-OS.M-ERG 1SG.OS-DAT new-N road see-CAUS.PF
 'He showed me the new road.'

By contrast, causative derivation is exceptional with transitive verbs. Causatives derived from transitive verbs are mentioned by Magomedbekova (1967), and in elicitation, speakers do not reject them, but the only transitive verbs whose causative form is commonly used are **baqurula** 'suck', **č'arurula** 'drink', and **q'ōnula** 'eat'. As illustrated by ex. (25), in the causative construction, if the P argument of the non-derived verb is expressed, it is maintained in P role and the causee (the A argument of the non-derived verb) is encoded as a locative NP, but if the P argument of the non-derived verb remains unexpressed, the causee is treated as the patient of the causative verb.

- (25) a. **mik'i-de īeni č'ar-ari.**
 child.OS-ERG water drink-PF
 'The child drank water.'
- b. **ek^wa-s^w-e mik'i-g-e īeni č'ar-āri.**
 man-OS.M-ERG child.OS-CFG₁-LOC water drink-CAUS.PF
 'The man made the child drink water.'
- c. **ek^wa-s^w-e mik'e č'ar-āri.**
 man-OS.M-ERG child drink-CAUS.PF
 'The man made the child drink.'

The use of the analytic causative construction *infinitive* + **bit'urula** is equally exceptional with transitive verbs. Akhvakh seems to have no conventionalized way of expressing causation with transitive verbs. In elicitation, Akhvakh speakers render causative constructions involving transitive verbs as *infinitive* + **t'ōnula** 'throw', but I have found very few attestations of this construction or of any other construction analyzable as a causative periphrasis in spontaneous texts.

6.3. Causative derivation without valency increase

Four verbs have a causative form that does not encode the introduction of an additional participant, but modify the semantic role of an argument of the non-derived verb in a way that can be described as *agentivization*: **beq'urula** 'know', **hidičurula** 'forget', **lūrula** 'fear', and **mičunula** 'find'.

In their non-derived form, **beq'urula** 'know', **hidičurula** 'forget' and **mičunula** 'find' select the case frame <DAT, NOM>, the dative NP representing an animate participant who knows, forgets, or finds something / someone. The corresponding causative verbs are found in the case frame <ERG, NOM> with the meanings 'learn', 'forget (voluntarily)', and 'obtain (as the result of one's efforts)' – Ex. (26) to (28).

- (26) a. **hu-š^w-a** **ʃara** **mič'i** **b-eq'-id-e.**
 DIST-OS.M-DAT Arabic language N-know-IPF-N
 'He knows Arabic.'
- b. **hu-š^w-e** **ʃara** **mič'i** **b-eq'-āri.**
 DIST-OS.M-ERG Arabic language N-know-CAUS.PF
 'He learnt Arabic.'
- (27) a. **raLe-šē** **miL'e** **hidič-e-wudi** **di-La.**
 last_night-ADJZ dream forget-N-PF 1SG.OS-DAT
 'I have forgotten the dream I had last night.'
- b. **di-be** **iši** **hidič-ōba** **me-de!**
 1SG.OS[GEN]-N task forget-CAUS.PROH 2SG.ERG
 'Don't forget the assignment I gave you!'
- (28) a. **hu-š^w-a** **ači** **m-ič-ani.**
 DIST-OS.M-DAT money N-find-PF
 'He found money.'
- b. **hu-š^w-e** **ači** **m-ič-āni.**
 DIST-OS.M-ERG money N-find-CAUS.PF
 'He earned money.'

In its non-derived form, **lūrula** 'fear' occurs in the case frame <NOM, ABL>, the nominative NP representing an animate participant who fears something / someone. The corresponding causative verb occurs in the case frame <ERG, NOM> with the meaning 'frighten' – Ex. (29).

- (29) a. **mik'e** **ek'wa-šū-g-une** **L-ēri.** (**Lēri** < **Li(b)-ari**)
 child man-OS.M-CFG₁-ABL fear-PF
 'The child feared the man.'

- b. **ek'wa-s̄w-e** **mik'e** **Lib-āri.** (**Libāri** < **Lib-a(j)-ari**)
 man-OS.M-ERG child fear-CAUS.PF
 'The man frightened the child.'

6.4. Lexicalized causatives

It is cross-linguistically common that polysemous verbs have causative counterparts in some of their uses only, and also that morphologically regular causatives have partly unpredictable meanings, and such situations can be found in Northern Akhvakh too. Here are some examples.

goč'urula 'knock' has a causative form **goč'ōrula** which however cannot be used productively to transform intransitive clauses headed by **goč'urula**. This causative form has very limited and specific uses, like for example **kʷani goč'ōrula** 'direct a beam of light', lit. 'make the light knock', **χʷadi dādi goč'ōrula** 'organize a dog fight', lit. 'make dogs knock together'.

mūnula 'go', used transitively in its underived form with the meaning 'take away', also has a morphologically regular causative form **maʔōnula**, which however is used exclusively with the meaning 'spend a period of time'.

bol'urula 'hurt' has a causative form **bol'ōrula** that lends itself to a canonical causative construction, but is also found with a case frame <ERG, LOC₁> that cannot be syntactically derived from the valency pattern of **bol'urula** – Ex. (30). Interestingly, this exceptional valency pattern with no nominative slot is also found with **q̄'eleč'urula** 'bite' – see Ex. (21) above.

- (30) **me-de** **ukoli** **gʷ-īda** **ri-ī-i** **b-ol'-āri** **di-g-e.**
 2SG.OS-ERG injection make.N-IPF time-OS.N-LOC N-hurt-CAUS.PF 1SG.OS-CFG₁-LOC
 'You hurt me when you gave me the injection.'

No generalization can be put forward about the relationship between such lexicalized causatives and regular causatives, and unfortunately, the lack of historical documentation makes it impossible to reconstruct the changes in the construction of individual verbs that have resulted in the lexicalization of some causative forms in the history of Northern Akhvakh.

7. Conclusion

In this article, I have tried to describe the main regularities in the valency properties of Akhvakh verbs. The main points I would like to emphasize by way of a conclusion are as follows:

- Several aspects of the valency properties of Akhvakh verbs are conditioned by the combination of a fully consistent ergative encoding of core syntactic terms and the unrestricted possibility to omit non-nominative arguments (in particular, agent NPs in the ergative case) with an unspecified reading.
- Akhvakh has many polysemous verbs compatible with several case frames depending on the particular meanings they express. True valency alternation are not rare either, but

most of them concern limited groups of verbs (very often, just one), and consequently do not lend themselves to generalizations. Interesting observations can however be made about the *allative* ~ *dative* and *nominative* ~ *locative* alternations.

- Akhvakh has a very low rate of transitivity prominence (a property shared by the other Nakh-Daghestanian languages).
- Akhvakh is an extremely ‘transitivizing’ language, with a limited number of verbs used in the same form to encode actions involving an agent and processes that do not necessarily involve an external cause, and a very strong tendency to encode the causal member of noncausal / causal pairs by means of causative verbs derived from strictly intransitive verbs.
- In Akhvakh, causative derivation (with two distinct causative suffixes whose distribution is purely phonological) is the only valency changing mechanism involving verb morphology, and ingestion verbs are the only transitive verbs commonly found in the causative form.

Abbreviations

ABL: ablative, ADJZ: adjectivizer, ADV: adverbial agreement, ALL: allative, CAUS: causative, CFG: spatial configuration marker, COP: coupla, DAT: dative, DIST: distal, ERG : ergative, F: human feminine, GEN: genitive, HPL : human plural, IMMED: immediate converb, IMP: imperative, INF: infinitive, IPF: imperfective, INT: intensifier, LOC: locative, M: human masculine, MDT: mediative, N: non-human, NEG: negative, NPL: non-human plural, ORD: ordinal, OS: oblique stem, PF: perfective, PL: plural, POT: potential, PROG: progressive converb, PROH: prohibitive, REFL: reflexive, SG: singular, SL: same level, VBZ: verbalizer

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