Abstract: This study presents new data on the bi-absolutive construction in Chechen, a Nakh-Daghestanian language spoken in the northern Caucasus. The basic case frame in a transitive clause in Chechen is ergative-absolutive. In progressive constructions with an auxiliary and a simultaneous converb, the basic case frame alternates with an absolutive-absolutive – or bi-absolutive – construction. To assess the factors conditioning this alternation, we use data from two corpora (one of spoken narratives and one of written newspaper articles) and data elicited from native speakers using visual (video and picture) stimuli. We discuss conditions on the relatively infrequent bi-absolutive construction in terms of (in)animacy/humanness of the A argument, verb class, discourse-based factors, and aspectual meaning. We connect our results to existing studies of bi-absolutive constructions in other Nakh-Daghestanian languages as well as to methodological challenges associated with the study of minority patterns in under-resourced languages.

Keywords: bi-absolutive construction; Chechen; ergative case; gender agreement

1 Introduction

Chechen is one of the Nakh-Daghestanian (ND) languages spoken in the northern Caucasus in Russia. Chechen together with Ingush and Batsbi (also known as Tsova-Tush) make up the Nakh branch of the family. It is an official language of the Chechen Republic, together with Russian.

This paper focuses on bi-absolutive constructions (henceforth BCs) in Chechen, specifically on their semantic function and the restrictions on their usage. A BC is a transitive construction containing two arguments in the absolutive case.
Chechen is an ergative language (see Section 2.1), i.e., in the default transitive construction the A argument is in the ergative case whereas the P argument is in the morphologically unmarked absolutive case, as shown in (1).\(^1\) We will refer to this basic case frame as the ‘ergative construction’, henceforth EC. In example (1), the verb is marked for simple present tense.\(^2\) However, when a transitive clause appears in the progressive form (expressed by the combination of the so-called simultaneous converb and an auxiliary), it can be expressed either by an EC, as in (2a), or by a BC, as in (2b). Note that (2a) and (2b) differ not only in case frame, but also in gender agreement on the auxiliary, marked by the prefix \(d-\), corresponding to gender class ‘D’ of beepig (‘bread’). We will return to this in Sections 2.2 and 3.\(^3\)

\[(1) \quad \text{as beepig} \quad d-u'u \quad \text{'I eat the bread.'} \]

\[(2) \quad \begin{array}{l}
(\text{a}) \quad \text{as beepig} \quad d-u'u-sh \quad d-u \\
\quad 1\text{SG.ERG bread(D).ABS D-eat-CVBsim D-AUX.PRS} \\
\quad \text{'I am eating the bread.'} \\
(\text{b}) \quad \text{so beepig} \quad d-u'u-sh \quad j-u \\
\quad 1\text{SG(J).ABS bread(D).ABS D-eat-CVBsim J-AUX.PRS} \\
\quad \text{'I am eating the bread.'}
\end{array} \]

Our study investigates the EC-BC alternation in three different types of production data: a corpus of spoken narratives, a corpus of written newspaper texts, and native-speaker production data elicited with visual stimuli.

The paper is structured as follows: In Section 2, we briefly describe the grammatical properties of Chechen relevant for the present study. In Section 3, we concentrate on BCs, describing them for Chechen first and then surveying earlier literature on the construction in other ND languages. In Section 4, we present our two corpus studies, followed by an analysis of the elicited data in Section 5. We raise some points of discussion on using different sources of data in Section 6 and conclude the paper in Section 7.

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\(^1\) We follow Bickel (2010) in labelling the most agentive argument of a transitive construction A and the most patientive argument P. The single argument of an intransitive clause is S.

\(^2\) If not otherwise stated in the text, examples are constructed by the first author, who is a native speaker of Chechen.

\(^3\) Notice that our use of EC is neutral with respect to aspect (progressive or non-progressive), referring to the case frame only. However, the EC alternates with the BC only in progressive clauses. Where relevant, we will make a distinction between progressive and non-progressive ECs.
2 Typological overview of Chechen

Chechen is an ergative language. The basic word order is SOV, but it is relatively free and other patterns are found. There is no person agreement, but Chechen has complex verbal morphology. In particular, it has a large number of non-finite verb forms which appear in different tense, aspect, and mood categories, as well as in clause-linkage strategies. In this paper we discuss only those categories that are relevant to the topic under study; for further details on Chechen grammar see Nichols (1994), Molochieva (2011), Molochieva and Nichols (2018) and Komen et al. (2021).

2.1 Argument marking in Chechen

Chechen has 10 grammatical cases, viz. ergative, absolutive, genitive, dative, allative, lative, ablative, instrumental/comitative, comparative, and locative. They are all morphologically marked on the noun, except the absolutive case, which is unmarked. The S argument of an intransitive verb is in the absolutive case, as shown in (3). As already indicated in Section 1, the A argument of a transitive verb is typically marked as ergative, whereas the P argument is in the absolutive case (4). However, A arguments of experiencer verbs expressing perception, emotion, feelings, etc. take the dative case, as shown in (5).4

(3) k’ant sixxa v-odu
    boy(v).ABS fast v-run.PRS
    ‘The boy runs fast.’

(4) k’ant-as quor b-u’u
    boy(v)-ERG pear(b).ABS b-eat.PRS
    ‘The boy eats the pear.’

(5) k’ant-ana quor go
    boy(v)-DAT pear(b).ABS see.PRS
    ‘The boy sees the pear.’

In addition to the case frames described above, a number of other case frames exist for core arguments in Chechen. For instance, (6) and (7) show examples with the A argument in the absolutive case and the P argument in the allative and lative cases, respectively.

4 These constructions are a typical feature of ND languages and are often called ‘affective’ (or ‘experiencer’) constructions in the literature (Forker 2012: 78).
Finally, Chechen has a large number of noun-verb complex predicates. The case frames of these complex predicates deviate from the simple verbs illustrated in (3)–(7). For further details on complex predicates and their argument marking see Witzlack-Makarevich and Molochieva (submitted).

2.2 Gender agreement

A sub-class of Chechen verbs shows gender agreement with their absolutive (typically S or P) argument. In Chechen, each noun belongs to a gender class. The gender is not morphologically marked on the noun itself; it appears as a prefix on some verbs (and on adjectives). There are four grammatical genders, marked morphologically as prefixes j-, v-, b-, and d- on the verb, and glossed in our examples accordingly with capital letters. The gender-agreeing verb class makes up only about 30% of the verbal lexicon (Nichols 1994). However, since this class includes auxiliaries and many high-frequency verbs, the frequency of gender agreement in discourse is close to 50% (as shown in Komen et al. [2021]).

Only absolutive arguments can trigger gender agreement. For instance, the S argument in (8) is a v-noun and the gender agreement is marked with the prefix v- on the verb v-odu ‘run’. In transitive constructions, the absolutive P argument triggers gender agreement, as shown in (9): quor ‘pear’ belongs to gender b-, whereas the A argument belongs to gender v- and does not trigger gender agreement. In (10) the verb b-ieza ‘want, love’ takes an A in the dative case. Like in (9), it is the absolutive P argument that triggers gender agreement. Note that gender agreement occurs regardless of whether the absolutive argument is singular or plural (although plural forms can have a different gender compared to their singular counterparts).

(8) k’ant sixxa v-odu
boy(v).ABS fast v-run.PRS
‘The boy runs fast.’
3 Bi-absolutive constructions

3.1 Bi-absolutive constructions in Chechen

As shown in Section 1, Chechen progressive clauses display an alternation between EC and BC. Progressive aspect is expressed by the simultaneous converb, which has the suffix -(u)sh, plus an auxiliary. Aspect is furthermore morphologically marked by the ablaut of the verbal stem. For instance, the root vowel /a/ in the infinitive form of the verb ‘eat’ da’a changes into /u/ in the simultaneous converb du’u-sh, whereas the perfective form is de’a-na. The auxiliary can have the present or past form; for instance, d-u for the present form (see [11a]) and d-ara for the past form (see [11b]; for more details see Molochieva [2011], Molochieva and Nichols [2018]). Note that if the lexical verb belongs to the gender-agreeing class, it will agree with the P argument, whereas the auxiliary agrees with the gender of A.

BCs express an ongoing event; they are often used to describe a situation which is ongoing at the moment of speech, as in (11a), or a situation which happens simultaneously with some other event, as in (11b).

(11) a. k’ant dechka kag<j>ie-sh v-u

   boy(ν).ABS stick(ι).ABS kag<j>make-CVBsim V-AUX.PRS

   ‘The boy is breaking the stick.’

b. k’ant dechka kag<j>ie-sh v-ara

   boy(ν).ABS stick(ι).ABS kag<j>make-CVBsim V-AUX.PST

   ‘The boy was breaking the stick.’

As an alternative to the BC, an ongoing event can also be expressed by means of a progressive EC. Since ergative A cannot trigger gender agreement, both

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5 The converb kagjiesh (the infinitive form is kagda ‘to break’) consists of two parts: kag-, which cannot be analyzed as a semantic contribution and the verb da, which means ‘make’ and shows gender agreement.
the auxiliary and the converb agree in gender with the P argument. For instance, in (12) the P argument ‘mouse’ belongs to gender B and both verb forms show B-agreement.

(12) $z$hw$w$alie $d$ex$K$ ditt t’era wo-b-oqqu-sh b-u

dog(D).ERG mouse(B).ABS tree from down-B-take-CVBsim B-AUX.PRS

‘The dog is taking down the mouse from the tree.’

Forker (2012: 82) observes that while most ND languages do not allow BCs with experiencer verbs, Chechen and Ingush are exceptions to this generalization (see Section 3.2). (13a) illustrates a Chechen BC with an experiencer verb. This construction occurs in contexts where the event is in focus (13b) or happens during a restricted time period (13c). (13b) was produced while watching a TV show. The speaker referred to the characters in the show when it was obvious that one of the characters was not honest about his feelings. The sentence in (13c) was also produced while watching a TV show. The scene showed a man standing far away from two people having a conversation. The conversation was audible for the viewers, but it was not clear whether it was audible for the person in the scene.

(13) a. $M$uusa $S$eeda j-ieza-sh v-u

Musa(v).ABS Seda(j).ABS j-love-CVBsim V-AUX.PRS

‘Musa is in love with Seda.’

b. e=m v-aac e j-ieza-sh,

3SG.ABS(V)=EMPH V-AUX.NEG.PRS 3SG.ABS(j) j-love-CVBsim,

i j-u=q e v-ieza-sh

3SG.DEM.ABS(j) J-AUX.PRS =CL 3SG.ABS(v) J-love-CVBsim,

‘He is not in love with her, but she is in love with him.’

c. cu shimmuo diicurg xaza-sh v-u-i e?

dem two(D).ERG tell.NMZ hear-CVBsim V-AUX.PRS-Q 3SG.ABS(v)

‘Does he hear what these two are saying?’

However, not all experiencer verbs can appear in BCs. Experiencer verbs such as $douza$ ‘recognize, be acquainted’, $xieta$ ‘seem’, $dagadaa$ ‘remember’, $k’ordada$ ‘get tired’, etc. cannot be used in a BC. Experiencer verbs can be subdivided into three groups: the first group, represented by ‘love’ in (13), is very flexible; the second group contains verbs which are usually used with dative A but in a certain context can be used in BCs, for instance, $xaza$ ‘hear’; and the third group comprises verbs which do not allow BCs at all, for instance, $douza$ ‘recognize, be acquainted’, $xieta$ ‘seem’, etc.
3.2 Previous research on bi-absolutive constructions in Nakh-Daghestanian languages

The most comprehensive overview of BCs is Forker (2012). She states that BCs are attested in all branches of the (ND) family, with the possible exception of Khinalukh (for which she lacks the relevant data). While Forker’s overview contains data on BCs in a large number of ND languages, detailed descriptions of the construction in individual languages are not common. Moreover, Forker (2012: 76) remarks that “because BCs are hardly ever attested in natural texts or speech, all examples collected during fieldwork are elicited”.

Forker (2012: 78–79) lists a number of formal properties of BCs that are recurrent across the ND languages: (i) both arguments (A and P) are in the (unmarked) absolutive case; (ii) the predicate is mostly periphrastic, with a non-finite lexical verb (a participle or a converb) and a finite copula or auxiliary; (iii) if agreement can be expressed, the lexical verb agrees with P and the finite verb with A; (iv) the clause has (some form of) imperfective aspect. One of the typical functions of BCs, according to Forker (2012: 80) is to describe the agent as involved in a concrete ongoing action. Similar lists of properties can be found in Ganenkov (2021) and Ganenkov and Maisak (2021).

In addition to these general formal and functional properties, Forker (2012: 82ff) goes on to describe a number of restrictions on the use of BCs (as opposed to ECs) that apply variously across ND languages. In particular, these restrictions apply to, among other things, the types of verbs that may participate in BCs, the animacy status of the A argument, and word order. First, as already mentioned, unlike Chechen most ND languages disallow BCs with verbs other than those with a default ergative-absolutive case frame, thus excluding experiencer verbs (and other non-canonical frames). Second, most languages do not allow inanimate A arguments in BCs (but see Chumakina and Bond [2016] on Archi). With respect to this restriction, Forker gives a quite detailed description of the situation in Chechen:

For human subjects the BC is either the only possibility or it is preferred. For inanimate subjects the EC is the grammatical construction. Animate, but nonhuman subjects lie in between. (Forker 2012: 84)

6 For references on bi-absolutive(-like) constructions in languages other than those belonging to the Nakh-Daghestanian family, see Forker (2012), Ganenkov (2021).
7 The exact type (and corresponding term) of tense/aspect form is language specific. For Chechen, this is the Durative Progressive (Forker 2012: 89).
8 We disregard two other dimensions of variation mentioned by Forker (2012), namely clitic placement and adverbial agreement since we will not discuss these for Chechen BCs, and Forker lacks relevant data for Chechen, too.
Finally, BCs in many ND languages do not allow word-order variants in which an element (either the A argument or some other constituent) intervenes between the P argument and the lexical verb; P must directly precede the verb. Moreover, the lexical verb and the auxiliary form a fixed unit. However, our Chechen data display more word-order variation than is generally considered possible in BCs. We will discuss this further in Section 5.2.

Since Forker’s comprehensive study, a few more studies on BCs have appeared, either in the form of language-specific analyses (Gagliardi et al. [2014] on Lak and Tsez; cf. Ganenkov [2016] on Lak; Chumakina and Bond [2016] on Archi), or as part of the description of a broader phenomenon in ND languages (see Ganenkov [2021] on ergativity and Foley [2021] on agreement).

Gagliardi et al. (2014) present a contrastive analysis of BCs in Lak and Tsez in the generative framework. With respect to the form of the construction, Lak is unusual in having a synthetic BC type, alongside a periphrastic type that resembles BCs in other ND languages including Tsez. Regarding function, the authors emphasize that the meaning of BCs in both languages is similar to its EC counterpart but that the BC alternant emphasizes the fact that the event is ongoing and that this event has come about through an active agent. In terms of restrictions, it is noteworthy that Lak patterns with Chechen (and Ingush) in allowing the BC alternation with experiencer predicates (cf. Section 3.1).

Chumakina and Bond (2016) observe that BCs in Archi display two possible converbal forms: -ši (progressive) and -mat (continuous). Interestingly, whenever the latter form is used, the BC is the only option; the progressive EC is ungrammatical. Moreover, Chumakina and Bond ascribe a special meaning to BCs with the -mat converb: these constructions express that the predicated event is or was continuing longer than anticipated. By contrast, BCs with the -ši converb, which alternate with ECs, have a broad progressive meaning, akin to BCs in other ND

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9 Note that Forker (2012: 89) does list Chechen as one of the languages that possibly allow certain adverbs to intervene between P and the lexical verb.
10 The Oxford Handbook of Languages of the Caucasus (Polinsky 2021) also contains grammar sketches of some ND languages. Of these, Friedman (2021), Forker (2021a, 2021b), and Komen et al. (2021) contain some description of BCs in Lak, Avar, and Ingush and Chechen, respectively. We do not discuss these chapters here, as they do not substantially add information on BCs that is pertinent to our analysis.
11 While this meaning holds for BCs in Lak and Tsez, it is claimed to result from different structural properties: it is either associated with a functional v-head bearing a progressive aspect feature (in Lak) or with a finite intransitive predicate ‘be engaged in’ (in Tsez). Ganenkov (2016), however, proposes a different analysis for Lak, which also involves an intransitive predicate projecting absolutive case.
12 See also the other contributions to Bond et al. (2016), for accounts of Archi BCs in various theoretical frameworks.
languages. In fact, this meaning is stable across progressive constructions that do not have both arguments in the absolutive case, similar to the observations for Lak and Tsez in Gagliardi et al. (2014).

With regard to restrictions on BCs, Chumakina and Bond (2016) show that Archi (like Lak, Chechen, and Ingush) not only allows experiencer predicates to form BCs but also allows inanimate agents in these constructions. Typically, in such cases an instrument is interpreted as an agent; see (14) (Chumakina and Bond’s [2016] [40a]):

\[(14) \text{kosilka uχ bažar-ši i} \]
\[
\text{mower(IV)[SG.ABS] field(IV)[SG.ABS] cut.IPFV-CVB [IV.SG]be.PRS}
\]

‘The (electric) mower is mowing the field.’

Importantly, Chumakina and Bond (2016) echo Forker’s (2012) observation that BCs are rare, especially in narrative texts. They explain this in terms of the discourse function of imperfective clauses in general; i.e. to provide contextual information, which is typically expressed by dependent converbial clauses in ND languages. However, they argue that the distribution of the two alternants suggests that the BC can be used in response to questions and for contrastive focus. For instance, (14) was produced in response to the question ‘Can I borrow your mower?’.

In the *Oxford Handbook of Languages of the Caucasus*, Foley’s (2021, Section 20.2.2.2) and Ganenkov’s (2021, Section 18.4.1) discussions of BCs in ND languages mostly summarize the points already covered in the studies cited so far. However, we consider it worthwhile to highlight Ganenkov’s observation that BCs have sometimes erroneously been considered a case of aspect-based split ergativity. The reason why this view is not accurate is that the use of the BC is – at least under a certain set of conditions – optional, rather than obligatory (although note that the above-mentioned continuous converb BC in Archi constitutes an exception). Thus, it is better to consider it an alternation rather than a split. Below, we will further scrutinize the factors determining Chechen speakers’ actual use of the BC.

In sum, previous research on BCs across ND languages identifies a number of common properties, in particular in terms of agreement pattern of core arguments, semantic function, and low usage frequency. Dimensions of variation include the amount and type of restrictions on BCs in terms of verb type(s) and animacy of the agent.

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13 The Roman numbers in the glosses indicate gender classes.
4 Corpora

We studied BCs in two different corpora of Chechen; one spoken (Molochieva and Walker, in preparation) and one written (Komen to appear). The spoken corpus consists of four fairytales produced by native speakers in a fairly natural setting. The written corpus is a compilation of newspaper articles. The two corpora differ not only with respect to the spoken versus written modality and the genre, but also in their technical build-up and annotation schema. The spoken corpus does not have a syntactic annotation layer and is not very large (approximately 1,000 clauses). Hence, we manually surveyed the texts and identified BC instances, which, as seen below, were scarce. The written corpus is larger (approximately 1,888 clauses), includes rich syntactic annotation (in form of a treebank), and offers a built-in search function that we were able to use for data extraction. In what follows, we will first describe the BC instances found in the spoken corpus and then present the data extracted from the written one.

After carefully checking the entire spoken corpus, we found only four instances of BCs, given in (15)–(18). These involve three different transitive verbs: ‘eat’, ‘break’, and ‘sharpen’ in the progressive form. The A argument in all examples is either an animate or a human agent and the sentence expresses an ongoing event.

Two details are worth pointing out. First, note that in (17) the auxiliary and the converb are separated from each other by the P argument (and an adverb). In Section 5, we will discuss similar cases of word-order variation in the elicitation data. Second, (18) features the auxiliary xilla. This form is used to express that the event happened in the remote past (for more details see Molochieva [2011: 222]). This auxiliary does not show gender agreement, in contrast to the auxiliaries du und dara in (15)–(17).

(15) shai naewarg k’a d-u’u-sh so
2PL.REFL.POSS courtyard.ADV wheat(D).ABS D-eat-CVBsim 1SG.ABS(D)
d-olchu xeenahw (...)
D-AUX.CVB time.ADV
‘When I (bird) was eating wheat in your courtyard…’

(16) shai naewarg muq b-u’u-sh
2PL.REFL.POSS courtyard.ADV barley(B).ABS B-eat-CVBsim
shie j-olchu xeenahw
3SG.REFL.ABS(J) J-AUX.CVB time.ADV
‘When she (crow) was eating barley in your courtyard…’
‘Oh, the children are breaking the fences there.’

‘S/he was sharpening her/his sword.’

As already mentioned, (15)–(18) were the only BCs we found in the spoken corpus. It is important to mention that, with the exception of (18) (which describes an event happening simultaneously with another event), these examples were uttered in dialogues, which were quoted as part of a narrative monologue. The narrative style of storytelling in Chechen is characterized by the use of various clause-linkage strategies involving non-finite verbs, such as converbs and participles. In these chaining constructions, often only a non-finite verb form (without auxiliary) appears and the A and/or P argument is omitted.14 As a result, BCs occur rarely in monologues of this kind.

Given the low number of BCs in our spoken data, we continued our study by investigating BCs in a written corpus, since a treebank for Chechen is freely available (Komen to appear).15 This corpus provides rich syntactic annotation on the clause structure; for instance, whether a clause has a transitive structure – i.e., includes a ‘subject’ (SBJ) and a ‘direct object’ (OB1) – and aspectual information, such as the presence of a progressive auxiliary. Hence, we were able to extract all transitive clauses in the progressive form from the written corpus and could then go through them manually to identify BCs. The automatic extraction resulted in a total of 66 hits, of which 40 were irrelevant for our study. Out of the 26 remaining occurrences, 18 were in the bi-absolutive case frame, 7 in ergative-absolutive, and 1 in dative-absolutive. We then annotated these occurrences for humanness/(in)animacy of the A argument (i.e., the agent or the experiencer), verb class, and word order.

As expected, we found a clear bias towards humanness: in all occurrences of the BC, the A argument is either human or can be considered to be representing humans (e.g. ‘school’, ‘ministry’, ‘inspection institute’, etc.). However, the association between animacy of A and the BC is not straightforward since it is not the case that in all progressive EC tokens, the A argument is inanimate, as can be seen

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14 For further details on clause linkage in Chechen, see Good (2003).
15 https://cesar.science.ru.nl/.
in (19). In this example, while the sentence is in the progressive aspect and the A argument is clearly a human agent, the latter takes the ergative case. We have 5 similar cases in our dataset.\footnote{The clitic =‘a is also involved in clause linkage. For details see Good (2003) and – since the functional properties of the clitic in Ingush are basically the same as in Chechen – Peterson (2001) on Ingush.}

\begin{verbatim}
(19) hoora=’a qoomuo d-az<ie-sh de
every=and nation(d).ERG D-celebrate<D>make-CVBsim day(d).ABS
d-u iza, [massaara=’a shajnshajna aamaliehw]
D-AUX.PRS DEM all.ERG=and its.own way
‘Every nation/all people celebrate this day in its/their own way.’
\end{verbatim}

Comparing the progressive ECs with human As in our dataset to BCs such as (20), we notice that the difference between the two may lie in the narrower function of the progressive aspect: In ECs, the progressive form describes a habitual event whereas in BCs it describes an event happening at the moment of speech.

\begin{verbatim}
(20) taxana=’a chaaghjinchu rozhiehw bolx b-ie-sh
today=and fixed.OBL order.LOC work(B).ABS B-make-CVBsim
b-u respublik-an (...) bielxaxuoj=’a, kyygalxuoj=’a
B-AUX.PRS republic-GEN workers(B).ABS=and directors(B).ABS=and
‘The civil servants (lit. ‘workers and directors of the republic’) (...) are working in a fixed order today.’
\end{verbatim}

Interestingly, the more or less opposite observation has been made for Ingush, which is very closely related to Chechen (Nichols 2011: 262–264):

The ergative progressive [EC] is a prototypical progressive, indicating that the action or situation went on more or less continuously or regularly during some time frame; often it frames a punctual or completed action. The nominative progressive [BC] implies a longer and less delimited time frame and an intermittent action or a tendency during that time frame; some consultants describe it as describing a property of the subject rather than an action. (Nichols 2011: 262)

For instance, (21) from Ingush shows a BC describing a habitual event, i.e., the mother used to make homespun in general (rather than doing it at the moment of speech). (22), on the other hand, is an EC and describes a progressive event that is happening simultaneously with another event, i.e., the mother was making homespun when the person came in (Nichols 2011: 262).
Our mother made homespun. Our mother used to make homespun.\footnote{The meaning is close to ‘Our mother was one of the people who could make homespun’; knowledge and practice of this craft characterized her.}

Regarding our second variable, namely verb class, our data include only verbs with an ergative-absolutive default case frame (e.g., bolx ba ‘work’, tallam lattaba ‘control’ da’a ‘eat’, naq‘ostalla da ‘help’, dazda ‘celebrate’, etc.); that is, we did not find any instances of BCs with experiencer verbs. Finally, with respect to word order, the BCs in the written corpus do not feature any cases where the auxiliary and the converb were separated from each other (cf. \cite{17} above from the spoken corpus and Section 5.2 below).

Given the overall infrequency of BCs in both corpora and in order to gain more insight into the use of BCs, we collected more data using elicitation with visual stimuli. The next section presents these data.

5 Elicitation data

The third type of data used in this paper is native-speaker production data elicited with visual stimuli. We showed a series of pictures and video clips to 6 native speakers (between 30 and 70 years of age) living in the Chechen Republic. All speakers are bilingual in Chechen and Russian and code switching is a common phenomenon for them. We asked them to describe what they saw in 2–3 sentences. They did not know the goal of the study or the reason behind the selection of the stimuli. Each speaker was asked the same question: ‘What do you see in this picture/video?’ in Chechen or in Russian. The verb in the Chechen construction was used in the non-progressive present, in order to avoid syntactic priming. Russian was used for the same reason: Russian does not have a grammatical progressive form of the verb so the verb may be interpreted either as progressive or as non-progressive.
Usually, speakers would answer using more than one sentence. Where relevant (e.g. when the sentences contained different case frames), we took all sentences into account. This explains why speaker number multiplied by stimulus number is lower than the total number of data points.

5.1 Stimuli

Our visual stimuli consisted of a combination of pictures and short video clips. These included 14 target transitive events intended to elicit BC sentences:
- four videos with a human (agentive) A, e.g., a video of a man chopping wood;
- four videos with an inanimate (agentive) A, e.g., a video of a river carrying away cars;
- four pictures with a non-human animate (agentive) A, e.g., a picture showing a cat climbing up a tree (two examples appear in Figure 1);
- two pictures with a human experiencer A, e.g., a girl looking at a boy.

Our stimuli also included filler items (both videos and pictures) that depicted intransitive events, e.g., a picture of a boy and a dog sleeping (taken from Meyer 1969), a video of a person sitting on a chair.

It should be noted that the reason why we do not have a balanced set of stimuli with respect to both stimulus types (pictures vs. videos) and event types (agentive vs. experiencer) is connected with the difficulty in finding/creating visual stimuli for all types of events relevant for our study. In general, while Forker (2012) mentions that all BC data in her paper are elicited, we are not aware of any earlier

18 Our video stimuli with human agentive come from two fieldwork manuals from the Max Plank Institute for Psycholinguistics (see Bohnemeyer et al. 2001; Van Staden et al. 2001). We also used stimuli designed by Pakendorf and Matić (2007) as well as video material freely available online for the inanimate agentive As and filler items. YouTube links are given in the reference list.

19 These pictures are part of a stimulus set used for the MAIN project (Multilingual Assessment Instrument for Narratives; see https://main.leibniz-zas.de/). In their original form, the pictures appear in sets of six, and they were designed to assess children’s narrative skills. We deliberately presented the pictures in isolation; however, since our corpus study of Chechen spoken narratives (see Section 4) shows that the narrative genre is unlikely to yield BCs; rather, we found that clause chaining constructions are employed for this purpose. Note, however, that the MAIN pictures involve various characters, as well as ‘background’ scenes. As we will see in the next sub-section, this characteristic may have been the reason why these stimuli triggered more complex answers than the other stimuli.

studies which elicited BCs specifically on the basis of visual stimuli. In this context, our study should be seen as a first attempt to assess this construction type in a semi-controlled manner.

5.2 Results

We collected a total of 100 utterances, of which we had to exclude 46 that were not relevant for our study (we will discuss some of these cases later). Table 1 presents the distribution of different case frames with respect to the stimuli/event types in the remaining 54 utterances, which we further annotated with respect to the aspect used.

As in Section 4, we observe that progressive aspect does not systematically trigger a BC when A is animate (either animal or human), but it is by far the most common option (20 out of 21 progressive sentences with human As are BCs, and 6 out of 7 progressive sentences with animal As are BCs). This is illustrated in (23) and (24):

(23) k'ant v-u dechka kag<j>-ie-sh
boy(V).ABS D-AUX.PRS stick(J).ABS break<J>make-CVBsim
The boy is breaking the stick.

Figure 1: Two examples of visual stimuli involving animate non-human agents (Gagarina et al. 2019).

21 Diana Forker (p.c.) mentions that she built some BC constructions herself, based on information in grammars, and checked these constructions with native speakers using different verbs. She also asked them to explain the meaning of the BCs.

22 In should be noted that we considered all sentences produced by the speakers during the session when describing the stimuli and annotated them regardless of the initially targeted construction.
The dog is watching it (the cat).

Speakers sometimes used a non-progressive, perfect EC with a human A, as shown in (25a). However, one speaker self-corrected and produced instead the BCs in (25b) and (25c).

(25) a. k’ant-o zhonnok d-ooxai-na
    boy(v)-ERG carrot(d).ABS D-cut-PRF
    ‘The young man is cutting the carrot.’

b. d-ooxo-sh v-u
    D-cut-CVBsim V-AUX.PRS
    ‘(He) is cutting (the carrot).’

c. k’ant zhonnok d-ooxo-sh v-u
    boy(v).ABS carrot(d).ABS D-cut-CVBsim V-AUX.PRS
    ‘The boy is cutting the carrot.’

However, even when the sentence is in the progressive form, a human or animate A argument can still be marked with ergative case. This, is infrequent, though, and we have only one case in our data, shown in (26). In this example, the A argument is actually unexpressed, but the gender agreement shows that it

Table 1: Overview of elicitation data.

<table>
<thead>
<tr>
<th>Event type</th>
<th>Progressive</th>
<th>Non-progressive</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human agent A</td>
<td>21</td>
<td>5</td>
<td>26</td>
</tr>
<tr>
<td>ABS/ABS</td>
<td>20</td>
<td>n.a.</td>
<td>20</td>
</tr>
<tr>
<td>ERG/ABS</td>
<td>1</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Animal agent A</td>
<td>7</td>
<td>2</td>
<td>9</td>
</tr>
<tr>
<td>ABS/ABS</td>
<td>6</td>
<td>n.a.</td>
<td>6</td>
</tr>
<tr>
<td>ABS/LAT</td>
<td>1</td>
<td>n.a.</td>
<td>1</td>
</tr>
<tr>
<td>ERG/ABS</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Inanimate agent A</td>
<td>8</td>
<td>7</td>
<td>15</td>
</tr>
<tr>
<td>ABS/ABS</td>
<td>2</td>
<td>n.a.</td>
<td>2</td>
</tr>
<tr>
<td>DAT/ABS</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>ERG/ABS</td>
<td>6</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>Human exp A</td>
<td>3</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>ABS/ABS</td>
<td>2</td>
<td>n.a.</td>
<td>2</td>
</tr>
<tr>
<td>ABS/ALL</td>
<td>1</td>
<td>n.a.</td>
<td>1</td>
</tr>
<tr>
<td>DAT/ABS</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>39</td>
<td>15</td>
<td>54</td>
</tr>
</tbody>
</table>

Please note that we put “n.a.” here instead of 0 because in non-progressive tense, the bi-absolutive construction is ungrammatical (and indeed not attested in our data).
would have been ergative if it were overt, since it is the absolutive P argument that triggers gender agreement on both the converb and the auxiliary. With inanimate As, only 2 out of 8 progressives sentences were BCs. They are given in (27) and (28):

(26) saara koga t’e-b-ittu-sh b-ooxo-sh b-u
     stick(B).ABS leg.ADV on-B-hit-CVBsim B-break-CVBsim B-AUX.PRS
     ‘Hitting on the leg (s/he) is breaking the stick.’

(27) massuo huma j-ooxo-sh d-u=q
     all thing(J).ABS J-break-CVBsim D-AUX=CL
     ‘(The snow) is destroying everything.’

(28) mashien-ash wo-hwo-zh d-u=q [hord…] xi
     cars(J)-PL.ABS down-carry-CVBsim D-AUX=Q [lake(B).ABS] water(D).ABS
     ‘The water is carrying the cars.’

However, after uttering example (28), the speaker immediately self-corrected and produced the progressive EC in (29), presumably because A is inanimate.

(29) cherka xi-s wo-hwo-sh mashien-ash j-u
     fast water(D)-ERG down-carry-CVBsim car(J)-PL.ABS J-AUX.PRS
     ‘The fast water is carrying the cars away.’

As expected, based on the statement made by Forker ([2012: 84]; see Section 3.2 above), the stimuli with inanimate A arguments were described mostly with progressive ECs. Alternatively, a non-progressive EC was used, either in the perfect, as in (30), or in the present, as in (31).

(30) moxo dwa-b-ehhi c’ina txou
     wind(B).ERG away-b-carry.PRF house.GEN roof(B).ABS
     The wind carried away the roof.

(31) chwa boqqachuol t’ulgo t’ai d-ooxa-d-o
     one big.OBL stone(B).ERG bridge.ABS D-destroy-D-make.PRS
     ‘A big stone breaks the bridge,’

With regard to verb class, we observe that, as expected, experiencer verbs are also allowed in BCs, as is shown in (32):

23 The word hord in (28) is a false start. The gender agreement is with xi.
However, experiencer constructions were in general harder to elicit. Out of 10 datapoints that were meant to elicit a sentence with an experiencer A, only half actually worked in triggering such a sentence. (For comparison: for human agentive As, the rate was 20 BCs out of 26 responses, and for inanimate agentive As, it was 15 out of 21.) It is noteworthy that our stimuli with animal agentive As had an even lower rate of success (9 out of 24); we will return to this below.

It is important to mention that Table 1 includes four examples of noun-verb complex predicates, as in (33) and (34) below, as well as (32) above. We included these sentences because form-wise they are BCs, given that the nominal element of the complex predicate is in the absolutive case, as is the A argument (which would be in ergative or dative in the default case). However, the notional P argument is in the dative.

(33)  
j'roroxol  aara-hwizhu-sh  mohw  b-ittu-sh  
window.ADV  outside-look-CVBsim  shout(B).ABS  B-hit-CVBsim  
k'ant  v-u  
boy(V).ABS  V-AUX.PRS  
‘The boy is shouting looking out of the window.’

(34)  
caarna  qieram  tyssu-sh  chwogal  d-u  
3PL.DAT  fear(B).ABS  throw-CVBsim  fox(D).ABS  D-AUX.PRS  
‘The fox is frightening them.’

Furthermore, some of the BCs we elicited in response to the video stimuli display a non-default word order pattern, in which the converb and the auxiliary are not adjacent. An example is given in (35).

(35)  
k’ant  v-u  dechka  kag<j>ie-sh  
boy(V).ABS  V-AUX.PRS  wood(J).ABS  break<J>make-CVBsim  
‘The boy is breaking the stick.’

We propose that this variation represents a focus construction. In Chechen, word order is not the only way to express focus; the enclitic =q and the proclitic ma= can also be used for this purpose. When the enclitic =q attaches to a finite verb, it scopes over the entire construction or clause, which becomes emphasized or in focus. This happens in (36) below. Notably, the same enclitic is attested in closely
related Ingush. Nichols (2011:283) defines it as expressing ‘cumulative focus’, translated as ‘The point is...’, ‘What’s going on is...’.24

(36) dechig kag<d>ie-sh v-u=q jer
       wood(b).ABS break<d>make-CVBSim D-AUX=CL 3SG.DEM.ABS(V)
       ‘He is chopping/breaking the wood.’

Like the enclitic, the proclitic ma= also attaches to the main verb and emphasizes the entire clause, as illustrated in (37). The second part of the example shows how the proclitic combines with the interrogative marker -i.

(37) k’ant v-u zhonnok xeeda-d-ie-sh. prosta
       boy(v).ABS V-AUX.PRS carrot(d).ABS cut-D-make-CVBSim just
       xeeda-d-ie-sh ma=v-u-i e
       cut-D-make-CVBSim EMPH=V-AUX-Q 3SG.ABS(V)
       ‘The boy is cutting the carrot. He is just cutting (it), right?’

The constructions involving a combination of a focus marker with non-default word order, as in (36) and (37), show that this word order pattern is compatible with the focus interpretation. These focus marking strategies may have been triggered by the speakers’ placing emphasis on the actions they perceived in the stimulus videos. Recall also from Section 3.2 that Chumakina and Bond (2016) describe the function of BCs in Archi as one of (contrastive) focus and/or of answering questions. Arguably, the constructions in (35)–(37) are answers to the question ‘What do you see in this video?’. Moreover, the case of non-default word order attested in our spoken corpus (see [17] above) also constitutes an answer to the question (prompted by hearing a breaking noise): ‘What is happening there?’. Whatever the exact motivation is behind the non-adjacent ordering of auxiliary and converb, our data clearly present counterevidence to the claim in earlier literature that the two verb forms form a fixed unit (cf. Section 3.2).

Finally, to illustrate some of the response constructions that we did not include in our analysis, consider the following examples, which were used to describe one of the videos, which showed an avalanche. Example (38a) is an intransitive progressive construction. The lexical verb is daa ‘come’, used as simultaneous converb. Thus, the speaker starts describing the event s/he sees with the progressive. However, in the subsequently uttered (38b) the present is used. The A argument cuo ‘3SG.ERG’ refers back to the S argument in (38a).

24 In Chechen, this enclitic can also have a mirative meaning depending on the context and the intonation (for details see Molochieva 2011: 249).
In addition, many of the pictures with animal agents were described with complex constructions such as subordinate clauses. The following examples were produced to describe the picture stimuli illustrated in Figure 1 above. Example (39) is a purpose clause with an embedded infinitival clause *hwoozarchij d-a’a* ‘birds.ABS D-eat.INF’. The absolutive *cisk* ‘cat’ is the argument of the intransitive verb *d-ooda-sh* ‘D-go-CVBsim’. The matrix clause is in the progressive tense. A syntactically more complex example is shown in (40). The matrix clause is *chwogal q’aig-ie d-oozhaj-na* ‘the crow knocks over the fox’ and several clauses describing other events are embedded into the matrix clause: *oush laaca* ‘to catch them’, *gherta-sh* ‘trying’, and *te’qietta* ‘attacked’. Some of the events are described using the simultaneous converb, which expresses the progressive aspect; for instance, *doodash* ‘going’ and *ghiertash* ‘trying’. However, it is not possible to reconstruct either a BC or an EC in these complex constructions since there is no verb (auxiliary or lexical) that shows gender agreement with an (unexpressed) absolutive argument.

(39)  
\[
\text{} cisk \quad d-u \quad [hwoozarchij \quad d-a’a] \quad d-ooda-sh \\
\text{cat(D).ABS} \quad \text{D-AUX.PRS} \quad \text{birds.ABS} \quad \text{D-eat.INF} \quad \text{D-go-CVBsim} \\
\text{The cat goes (in order) to eat birds.}
\]

(40)  
\[
\text{} chwogal \quad [[oush \quad laaca \quad [ghierta-sh]]] \quad q’aig-ie \\
\text{fox(D).ABS} \quad \text{3PL.ABS} \quad \text{catch.INF} \quad \text{try-CVBsim} \quad \text{crow(1)-ERG} \\
\text{[t’e-qietta]} \quad \text{d-oozhai-na} \\
\text{on-attack.CVBANT} \quad \text{D-knock.over-CVBANT} \\
\text{‘(While) the fox was trying to catch them, the crow attacked and knocked (the fox) over.’}
\]

Importantly, as mentioned earlier, speakers also used BCs to describe the animal picture stimuli, but they did so only with the inherently durative (simple) verb *larbie* ‘watch’, as shown in (41):

(41)  
\[
\text{} cicig \quad d-u \quad ditt \quad t’e \quad polla \quad lar.bie-sh \\
\text{cat(D).ABS} \quad \text{D-AUX.PRS} \quad \text{tree on} \quad \text{butterfly(B).ABS} \quad \text{watch.B-CVBsim} \\
\text{xi} \quad \text{jistie} \\
\text{water} \quad \text{close} \\
\text{The cat is watching the butterfly close to the river.’}
In sum, our elicitation data reinforced the corpus data to the extent that the BC is the most common construction when the A argument is a human agent. However, the BC still alternates with the EC. In response to our stimuli with animal agents, the BC was also used, but more often these pictures elicited complex constructions. Potentially, this happened because the stimuli contained multiple participants as well as background scenes, which may have enhanced the use of narrative style (comparable to our spoken-corpus data). With inanimate agents, ergative A arguments were preferred, whether in progressive sentences or not, but again this is not absolute since the BC was also attested. Regarding verb class, in response to stimuli with experiencer verbs, speakers did produce BCs as predicted, but overall descriptions of the relevant events were harder to elicit. Finally, we found several cases of non-adjacent ordering of auxiliary and converb and tentatively interpret this as a form of focus marking.

6 Discussion

The use of different data sources in our study clearly displays the challenges associated with researching ‘minority patterns’: from a usage-based perspective, it is essential to study constructional alternations (such as the EC-BC alternation) and their referential, lexical, and/or discourse-based restrictions based on naturalistic and contextualized language data. However, as we have seen, the relatively small corpora available for Chechen did not yield enough instances of the BC construction to be able to assess the conditions underlying its use in any detail. Moreover, we found that genre can greatly impact the occurrence frequency of specific construction types. This means that corpus-based studies of under-resourced languages, including corpus-based language comparison and typology, at this point appear feasible only for ubiquitous constructions and phenomena (see, e.g., Schnell and Schiborr 2022). In contrast, for a fine-grained study of a relatively infrequent construction like the BC in Chechen (and other ND languages), one needs to resort to alternative or at least additional methods, such as elicitation or experiments.

The elicitation data presented in the current study reflect a first attempt at systematically manipulating the conditioning factors of Chechen BCs, in order to find support for claims made in earlier literature, as well as to investigate the patterns suggested by the restricted set of BC instances in the two corpora. In the

25 One of the current projects working in that direction is the Multi-CAST project (Haig and Schnell n.d.), into which the spoken corpus used in our study (Molochieva & Walker in preparation) will also be integrated.
future, more extensive elicitation and/or field-based experiments – involving both more speakers and a larger and more controlled battery of stimuli – will be necessary to further explore the distribution and functional motivations behind BCs and alternating constructions in Chechen and beyond.

7 Conclusion

This study presented data on BCs in Chechen from two corpora – a corpus of spoken narratives, and a corpus of written newspaper articles – in addition to data elicited with visual stimuli. The corpus data confirmed the claim advanced in earlier literature that BCs are an infrequent construction, alternating with ECs in naturalistic discourse. Moreover, a comparison of the spoken and written corpora showed that the narrative genre is especially unlikely to contain BCs, due to the use of clause-chaining constructions involving many non-finite verb forms and unexpressed arguments. Despite the general scarcity of BCs in our corpora, the attested cases confirmed our prediction that BCs are preferably, but not necessarily, used in progressive clauses with a human A argument.

In order to further assess the conditioning factors underlying the use of BCs in Chechen, we supplemented our corpus data with elicited data, using a combination of videos and pictures, in which we varied the (in)animacy/humanness of the agent, as well as the target verb class. We found again a strong tendency to use BCs with human and ECs with inanimate A arguments. With animal agents, BCs were also often used but alongside a variety of other, more complex constructions (the latter probably due to the nature of the stimuli). We furthermore confirmed the prediction that experiencer verbs in Chechen participate in the EC-BC alternation, despite having difficulty eliciting the relevant constructions. Finally, we attributed the attested variation in word order to expressing focus or emphasis on the event perceived by the speakers.

In closing, we dwelled briefly on the tension between the usage-based approach and the study of under-resourced languages. While corpus studies are essential to systematically study the conditioning factors behind language variation, the corpora available for Chechen provided insufficient instances of BCs. A very similar point can surely be made for many other languages for which large-scale (annotated) corpora are not (freely) available and/or for constructions that represent ‘exceptions’ to majority patterns.
Glossing abbreviations

ABS  absolutive
ADV  adverbial
AUX  auxiliary
B    b gender
BC   bi-absolutive construction
CL   clitic
CVBant anterior converb
CVBSim simultaneous converb
CVBtemp temporal converb
D    d gender
DAT  dative
DEM  demonstrative
DX   deixis
EC   ergative construction
ERG  ergative
EX   exclusive
GEN  genitive
IPFV imperfective
INF  infinitive
INTERJ interjection
J    j gender
NMZ  nominalization
OBL  oblique
PL   plural
PRF  perfect
PRS  present
PRG  progressive
PST  past
Q    interrogative
REFL reflexive
SG   singular
V    v gender

References


Meyers, Mercer. 1969. Frog, where are you? As sequel to a boy, a dog, and a frog. New York: Dial Books for Young Readers.


**YouTube video links**

https://www.youtube.com/watch?v=EWJ43hUzrIc.
https://www.youtube.com/watch?v=cPblkNAtTXg.
https://www.youtube.com/watch?v=mxSpQB4QUU.
https://www.youtube.com/watch?v=GqIImMnLI8k.