

Participle-Converbs in Iron Ossetic: Syntactic and Semantic Properties¹

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This paper concerns the use of forms in *-gv* and *-gvjv* in contemporary Ossetic. Our aim is to produce a typologically informed and fine-grained account of both the syntax and semantics of these two formatives. As we will show, the main difference is that while the form in *-gv* is a participle-converb (with a wide range of uses), the form in *-gvjv* is a converb proper. At the same time, there are a number of surprising syntactic effects and subtle semantic differences. We will provide a general description of the uses of the two forms and of some of the typologically interesting facts associated with them, and an explanation of the facts observed.

1. Introduction

The two deverbal Ossetic² forms under discussion are derived from the present stem via the affixes *-gv* and *-gvjv* (formally the ablative of *-gv*), e.g.

kɛn-ən "to do" → *kɛn-gv(jv)*
ʒvɛ-ən "to say" → *ʒvɛ-gv(jv)*

According to the main reference grammars (ABAEV 1970, AXVLEDIANI 1963, BAGAEV 1965), the form in *-gv* can be used both as a participle (1) and as a converb (2), while the form in *-gvjv* can only be used as a converb (2). Word order in Ossetic NPs is fairly rigid, and attributes must always be preposed to the noun they modify. Therefore, the form in *-gv(jv)* in (2) is unambiguously converbal.

(1) *wəsə lɛppu-jə vldar xəd-tul-gv(*-jv) wɛrdon-ə ʃ-bad-ən kod-t-a*
that boy-GEN landlord self-roll-PART-ABL cart-IN PV-sit-INF do-TR-PST.3SG
"the landlord made that boy sit on a "self-going" cart" (ABAEV 1970: 612)³

(2) *lɛppu kɛw-gv(-jv) ba-səd jv=xɛzər-mv*
boy cry-PART(-ABL) PV-go.PST.3SG POSS.3SG=house-ALL
"the boy, crying, came to his house"⁴

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² East Iranian. This study is based on the Iron dialect of Ossetic spoken in the Republic of North Ossetia-Alania, Russia, which serves as the basis of the literary language. Most of the examples presented in this article have been collected during our fieldwork in Vladikavkaz, North Ossetia, in 2008-2010. The examples which have references are quoted from modern Ossetic (Iron) literature.

³ Animate direct objects are genitive-marked in Ossetic in a pattern of differential object marking.

⁴ Unless specified otherwise, PST refers to the intransitive past-tense ending.

Russian-language sources prefer to call these forms "participle-converbs" (*pričastie-deepričastie*), a term probably originating in ABAEV (1970). Prior grammars used different terms. MILLER (1882: 221-222) called the form in *-gv* a participle or a converb depending on its use, while considering the form in *-gvjv* to be a converb proper. In GAGKAEV (1952: 77) both forms are called converbs. The term "gerund" is used in THORDARSON (1989, 2009) and in the English translation of ABAEV's grammatical sketch (1964). The reason is probably that the Ossetic *-gv* forms are functionally similar to English gerunds in that they act as both participles and converbs, but crosslinguistically the term "gerund" is typically used in the narrow sense of "action noun" (HASPELMATH 1995: 45), which, as we will demonstrate, is not applicable to Ossetic *-gv*.

The semantics and use of these forms have only partially been studied so far (MILLER 1882, GAGKAEV 1952, 1956, AXVLEDIANI 1963, BAGAEV 1965, ABAEV 1970), a doctoral dissertation by Medoeva (1969) and a single special study by THORDARSON (2009: 70-77). However, previous descriptions have only listed the most usual functions of these forms as participles and converbs, without clearly stating the distinctions between the two forms in converb function and without describing their uses in modal constructions in detail.

A description of some of the constructions with *-gv* and *-gvjv* can be found in TEXOV (1970). This monograph contains descriptions of the constructions of deontic necessity (cf. section 5.3 of the present paper) and inevitability (section 5.5). However, the semantics and morpho-syntax of the constructions are not described; the distribution of the forms in *-gv* and *-gvjv* is left unexplained. Also, no mention is made of the passive in *-gv* (section 5.2) and of possessive construction of necessity (section 5.4). Both constructions are, to our knowledge, first systematically described in the present paper.

The PhD dissertation by MEDOEVA (1969) is specifically dedicated to converbs in Ossetic. In this dissertation, the author defines *-gv* as a participle-converb and *-gvjv* as a converb proper, which agrees with our data. The dissertation also contains an in-depth discussion of the semantics of converbs in Ossetic. However, some of the semantic labels the author attaches to certain examples are questionable; moreover, she does not consistently differentiate between forms in *-gv* and *-gvjv*, and it is impossible to deduce their semantic distribution from her examples. The author also describes several constructions some of which are not recognized as grammatical by our consultants. This may reflect the fact that these constructions are peculiar to the varieties spoken in South Ossetia, the region where Medoeva comes from. The only other special study of the forms in question was carried out by THORDARSON (2009: 70-77). In this study, the author describes two main functions of the forms in *-gv* and *-gvjv* (which are not treated separately): a deverbal adverb that "...marks an action concomitant with, and logically subordinate to, the action expressed by a finite main verb" (p. 70) and a noun which may be the head or a modifier of a NP, the nominal part of a compound verb, or a postposition" (p. 72). While providing examples of various main clause arguments controlling the subject of the converbal clause, the author does not specify their distribution. No modal or passive constructions with the forms in *-gv* are mentioned. In general, THORDARSON's study, while rich in examples, does not provide an adequate description of the use of Ossetic forms in *-gv* and *-gvjv*.

The present study aims to provide a more complete and consistent description of the functions of these verbal derivatives, as well as the major differences between them. The paper is organized as follows. In section 2., we define the terms we will be using for our description. In section 3., we describe the participial functions of the form in *-gv*, and in section 4., the converbal functions of both forms. In section 5. various constructions employing these forms are considered. Section 6. sums up our description and points out typologically interesting features of the Ossetic participle-converbs.

2. Defining the framework

There are two mainstream definitions of the term "converb". According to the first one, by NEDJALOV (1995), the converb is defined as "a verb-form which depends syntactically on another verb form, but is not its syntactic actant, i. e., does not realize its semantic valences... a canonical... converb can occupy (a) the position of an adjunct, i. e., an adverbial, but cannot occupy the positions: (b) of the only predicate of a simple sentence (without additional auxiliary elements); (c) of nominal attributes; (d) of a clausal actant... (e) of a nominal actant".

An alternative definition is provided by HASPELMATH (1995), who defines the converb in the following way: "a non-finite verb form whose main function is to mark adverbial subordination". Haspelmath's definition has been criticized by a number of scholars (e.g. by PELLARD 2010 and CREISSELS 2010), since it relies on the notion of *adverbial subordination*, which is problematic for a number of languages where clause combining by means of converbs often has properties of coordination (so-called "clause chaining" languages, e.g. Tsakhur, KAZENIN / TESTELETS 2004). For these languages, one must either use some other term, like "medial form", for the verbal derivatives in question, or use some other definition like Nedjalkov's which does not *a priori* rely on complex syntactic notions such as "adverbial subordination".

This discussion is, however, irrelevant for the forms in question, since, as we will demonstrate, the Ossetic forms are clearly subordinate, non-finite, and are semantically associated with the range of meanings commonly identified as "adverbial" (THOMPSON et al. 2007). What we call converbs in Ossetic is thus included in both definitions.

Nedjalkov's article also contains several definitions which are descriptively useful for the study of converbs in a given language. He distinguishes between "same-subject", "different-subject" and "varying-subject" converbs. The subject of clauses with same-subject converbs must be coreferent with the subject of the main clause, the subject of different-subject converbs is *never* coreferent with the subject of the main clause, and varying-subject converbs can behave in both ways.

Another useful distinction is between "converbs proper", or canonical converbs, verb forms whose unique function is converbial, and converbs which occur in other functions without any overt modification in form, notably participle-converbs.

There is considerable discussion in HASPELMATH (1995) concerning the notion of "co-predicative participles". The notion is originally introduced for a specific type of construction in some languages, mostly ancient Indo-European, where a detached participle agrees with an NP in the main clause, functioning similarly to a converb. Applied to a language with no agreement of attributes with nouns, this notion is essentially synonymous with Nedjalkov's notion of "participle-converbs", and we will use the two interchangeably.

3. The participle

The primary function of the forms in *-gʷ* is participial. When used with transitive verbs, they are object-oriented, while with intransitive verbs they are subject-oriented:

waj-gʷ bex (run-PART horse) "running horse"
dus-gʷ qug (milk-PART cow) "cow raised for giving milk; milch cow"

This participle is present-tense when the verb is imperfective, and past-tense when the verb is perfective,⁵ cf. *ba-liz-gʷ-t-v* (PV-run-PART-PL-NOM) "those who ran away". Participles in *-gʷ* only use the nominal negation *ʷnʷ* "without", e.g. *ʷnʷ-zur-gʷ čəžg* (without-speak-PART girl) "a quiet girl".⁶

The form in *-gʷjʷ* is morphologically the ablative of the form in *-gʷ*, and can never be used as a participle. It can only function as a converb and in a modal construction, which will be demonstrated below.

As a participle, *-gʷ* can lexicalize to create nouns while *-gʷjʷ* cannot, e.g. *dəm-gʷ* (blow-PART >) "wind". In this respect, *-gʷ* is often used within complex predicates, e.g. *ba-žon-gʷ wəv-ən* (PV-know-PART be-INF) "to get acquainted". A complicated case is when a complex predicate with *-gʷ* is synonymous with a simple verb, e.g. (3). The semantic difference between these forms, if any, remains to be discovered.

- (3) a. *wədon=dər kʷərttatə kom-əj ra-səw-gʷ štə*
 3PL=PTCL PN gorge-ABL PV-go-PART be.PRS.3PL
 b. *wədon=dər kʷərttatə kom-əj ra-səd-əštə*
 3PL=PTCL PN gorge-ABL PV-go-PST.3PL
 both "they also came out from the Kurtati gorge"

4. Converbs

Forms in *-gʷ* and *-gʷjʷ* can both function as converbs. In most cases, it is clear whether the form in *-gʷ* is a participle in attribute position or a converb: as stated in Section 1., participles must immediately precede the nouns they modify, and they cannot generally attach to pronouns.

⁵ The perfective aspect is mostly expressed by verbal prefixes in Ossetic.

⁶ For negation in Ossetic, see also ERSCHLER / VOLK in this volume.

4.1. Semantics

In this section we will demonstrate that converbal usage of the forms in *-gv* is generally restricted to adverbial clauses expressing manner and time. On the other hand, *-gvje* can express a wide range of meanings: manner, time, depictive, attendant circumstance, real condition, cause, irrealis condition, concession. The inventory of meanings of converb constructions we are using is based on KÖNIG 1995. Narrative use, characteristic for languages of the North Caucasus, is not attested for converbs in Ossetic, and they are undoubtedly subordinate (e.g. they can be freely embedded in the main clause like in (5)).

- (4) manner
alan axem rašəg wəd-i emv zew-zew kən-gv(-je) səd
 PN so drunk be-PST.3SG and stagger do-PART(-ABL) go.PST.3SG
 "Alan was so drunk that he went staggering"
- (5) time
mad, je=šəvəlle-tt-ə xədtəxəg-mv fəndarašt kən-gv(-je),
 mother POSS.3SG=child-PL-GEN airplane-ALL bon.voyage do-PART(-ABL)
š-k wəd-t-a
 PV-cry-TR-PST.3SG
 "when mother was seeing her children off to the airplane she started to cry"
- (6) attendant circumstance
*her vž televizor-mv kəš-ən ləw-gv-je/*ləw-gv*
 now I television-ALL watch-PRS.1SG stand-PART-ABL/*stand-PART
 "I am now watching television while standing"
- (7) real condition
*televizor-ə sur vnafon-mv bad-gv-je/*bad-gv*
 television-GEN near late-ALL sit-PART-ABL/*sit-PART
wəd rajšom-əj ražə nv=šə-št-zənv
 then morning-ABL early NEG=PV-stand-FUT.2SG
 "sitting near the TV up till late, you will not get up early in the morning"
- (8) cause
*je=birv fellej-tt-ən tərš-gv-je/*tərš-gv,*
 POSS.3SG=many possession-PL-DAT fear-PART-ABL/*fear-PART
žanašpi kolxoz-ə ba-səw-ən-ə fənd nv=kod-t-a
 PN kolkhoz-IN PV-go-INF-GEN wish NEG=do-TR-PST.3SG
 "fearing for his many possessions, Janaspi did not want to join the kolkhoz"
 (MEDOEVA 1969: 13)
- (9) irrealis condition
dəv=urok xorž š-ax wəŋr=gəv-gv-je/-gəv-gv,*
 POSS.2SG=lesson well PV-learn=do-PART-ABL/*-do-PART
xorž nəšan ra-jšt-aiš
 good mark PV-receive-CNTRF.2SG
 "if you had learned your lesson well, you would have received a good mark"
 (MEDOEVA 1969: 14)

(10) concession

<i>iron</i>	<i>adɛm,</i>	<i>štər</i>	<i>zəllɛ</i>	<i>wɛv-gv-jɛ/*wɛv-gv,</i>
PN	people	great	nation	be-PART-ABL/*be-PART
<i>sv-xi</i>		<i>š-k wənɛg</i>	<i>kod-t-oj,</i>	
3PL-REFL.GEN		PV-meager	make-TR-PST.3PL	
<i>iwmiag</i>	<i>ɛfšəmar-waržon-zinad-ɛj</i>	<i>fidar</i>	<i>nɛ=wəd-əštə</i>	
common	brother-love-AN-ABL	strong	NEG=be-PST.3PL	

"the Ossetian people, having been (in the past) a great nation, had become small, [and] was not strong by a common brotherhood" (MEDOEVA 1969: 14)

The difference between "manner" and "attendant" circumstance is defined by KÖNIG (1995: 65-66) in the following way: "[manner] should only be used for sentences describing two aspects or dimensions of only one event" (as in (4), where staggering is not a separate event, but a manner of walking), while "attendant circumstance... should be used for cases where two independent events or actions are involved, either of which could be stopped without affecting the other, but which manifest a unity of time and place and thus also a 'perceptual unity'" (as in (6), where standing is not a manner of watching the TV, but is simply a state of affairs concomitant with the action in the main clause). Obviously, there are borderline cases, but (4) and (6) are quite clearly different for the native speakers.

It is important to note that for some native speakers examples like (5) are ungrammatical with *-gv*.⁷ For these speakers, then, this form can only mean manner. Therefore, for them this form is not any different from other adjectives in Ossetic, most of which can also function as adverbs. However, for those native speakers who do allow temporal use of *-gv*, it must still be analyzed as having a distinct converbal function, since adjectives in Ossetic can only be used as manner adverbs, not as time adverbs (i. e. *rɛšud* "beautiful" can mean "beautifully", but not *"when s/he was beautiful"). Nevertheless, we will analyze the syntactic properties of the forms in *-gv* based on the judgements of those native speakers who do accept such uses of *-gv*.

Additionally, sentences like (9), which express irrealis condition, are also prohibited for a number of native speakers, who only allow a finite subordinate clause in this context. In any case, converbs in *-gvjɛ* have a wider range of meanings, as is reflected in examples (6)-(10); so they can be labeled contextual converbs by the terminology of NEDJALCOV 1995.

4.2. Word order

The position of the converbal clause in the sentence is free: it can stand in the beginning or the end of the sentence, or can be centrally embedded within it (11). Clauses in *-gvjɛ* seem to be more often sentence-initial, while clauses in *-gv* are generally sentence-medial or final. Converbal clause-internal word order is more rigid than in main clauses. While the unmarked word order in main clauses is SOV, any other variant is possible depending on information structure. Converbal clauses, on the contrary, tend to be verb-final (12).

⁷ All the native speakers who disallow such examples come from the Ardon region. This development represents a functional narrowing compared to an earlier stage, since in the texts collected by MILLER 1881 the form in *-gv* could be used converbally in the same way it can be used now for most native speakers. It is unknown whether functional narrowing of this kind is present in other regional varieties as well.

- (11) a. [*xvdtexvæg-mv sv=šəvəll-ett-ə fənderašt kən-gv(-jv)*],
 airplane-ALL POSS.3PL=child-PL-GEN bon.voyage do-PART(-ABL)
mad jv=q wədət-əj šk wəd-t-a
 mother POSS.3SG=thought-PL-ABL PV-cry-TR-PST.3SG
 "mother cried from her thoughts when seeing her children off to the airplane"
 b. *jv=q wədətəj*, [*xvdtexvəgmə sv=šəvəllət:ə fənderašt kəngv(jv)*], *mad šk wədta*
 c. *mad jv=q wədətəj šk wədta*, [*xvdtexvəgmə sv=šəvəllət:ə fənderašt kəngv(jv)*]
- (12) a. *televizor-ə sur anəfon-mv bad-gv(-jv), rajšom-əj nv=šə-št-zənv*
 television-GEN near late-ALL sit-PART(-ABL) morning-ABL NEG=PV-stand.
 up-FUT.2SG
 "watching television up till late, you will not get up early in the morning"
 b. **anəfonmə badgə(jv) televizorə sur, rajšomej nv=šəštzənv*

4.3. Negation

When used as a converb (just like when used as participle), the form in *-gv* can only be negated by the preposition *ənv* "without" (typically used with nominals), while the form in *-gvjv* can be negated either by using the normal verbal negation particle *nv* or the preposition *ənv* "without":

- (13) *či=jəm fə-lev-zən *nv=/^{OK} ənv=š-zur-gv?*
 who=3SG.ENCL.ALL PV-wait-FUT.3SG NEG=/without=PV-speak-PART
 "who will wait for him when he did not say [anything] (lit. who will wait for him without speaking)" (KANTEMIROVA / BEKUZAROVA 2002: 299)
- (14) *səšt nv=nək'ul-gv-jv kəš-ə bəvəg-mv*
 eye NEG=blink-PART-ABL look-PRS.3SG horseman-ALL
 "not blinking, he is looking at the horseman" (*Max dug* 10, 2002: 47)
- (15) *a-rdəm ənv=fəš-gv-jv səmən vrbə-səd-tv?*
 this-DIR without=ask-PART-ABL what.DAT PV-go-PST.2SG
 "why have you come here without asking?"

When forms in *-gv* and *-gvjv* are used in special constructions (section 5.), it is always the auxiliary verb that is negated, and not the participle or converb.

4.4. Control of the implicit subject

The dependent / embedded clause, no matter if headed by *-gv* or *-gvjv*, cannot contain its own overt subject. According to our field data control of *-gvjv* is generally triggered by the most pragmatically and semantically salient NP available, which in most cases is identical to the syntactic main clause subject (cf. HASPELMATH 1995: 32-36). However, it is not necessarily the subject: in example (16), the NP *Marinə* in the main clause is not the grammatical subject, but the dative possessor of the noun *žərdə* "heart".⁸ This NP controls the subject of the converbial clause due to the fact that it is the most salient participant of the main clause (and, presumably, of the discourse).

⁸ The sentence can be reformulated with *Marinə* as the genitive possessor (...*marinə-jə žərdə*... "Marina-GEN heart"), in which case it will also be grammatical.

- (23) a. *mɛn* *fɛnd-ə* [*alə* *bon=ɛm* *kɛʃ-ən*]
 1SG.GEN want-PRS.3SG every day=3SG.ENCL.ALL look-INF
- b. *mɛn=ɛm* *fɛnd-ə* [*alə* *bon* *kɛʃ-ən*]
 1SG.GEN=3SG.ENCL.ALL want-PRS.3SG every day look-INF
- c. *mɛn* *fɛnd-ə=jɛm* [*alə* *bon* *kɛʃ-ən*]
 1SG.GEN want-PRS.3SG=3SG.ENCL.ALL every day look-INF
 "I want to watch it every day"

"Weak" clitic climbing, to our knowledge, has not been previously described in the literature for any language, but its complete analysis and explanation is beyond the scope of this paper. The crucial point here is that a pattern mirroring the behaviour in (23) is also observed for converbs in *-gv* and *-gvjv*.

4.5.2. "Clitic climbing" out of converbal clauses

Surprisingly, "weak" clitic climbing is observed with converbs both in *-gv* and *-gvjv* alongside *in situ* clitic positioning:

- (24) a. *ʒawər* *fɔnz* *minut-ə*
 PN five minutes-GEN
 [*lɛmbənɛg=ɛm* *kɛʃ-gv(-jv)* *lɛwwəd-i*]
 closely=3SG.ENCL.ALL look-PART(-ABL) stand-PST.3SG
 "Zaur stood for five minutes, watching him/her closely"
- b. *ʒawər* *fɔnz* *minut-ə=jɛm*
 PN five minute-GEN=3SG.ENCL.ALL
 [*lɛmbənɛg* *kɛʃ-gv(-jv)* *lɛwwəd-i*]
 closely look-PART(-ABL) stand-PST.3SG

What is more, canonical clitic climbing is also observed in some cases (the exact distribution of which is yet to be determined), but only with the converb in *-gvjv*.

- (25) *ʒawər=ɛm* *lɛwwəd-i* [*lɛmbənɛg* *kɛʃ-gv-jv/*kɛʃ-gv*]
 PN=3SG.ENCL.ALL stand-PST.3SG closely look-PART-ABL/look-PART
 "Zaur stood watching him closely"

To our knowledge, clitic climbing has hitherto only been observed for sentential complements and purpose clauses of verbs of movement. Ossetic is therefore extremely interesting from a typological point of view. In addition, the fact that the semantically "freer" converb in *-gvjv* seems to be syntactically more integrated into the clause than the converb in *-gv* is somewhat odd. A putative explanation will be proposed in the conclusion.

4.5.3. Possessive proclitics

Ossetic also has a series of possessive proclitics, which are generally homonymous with the genitive forms of the enclitic pronouns. They are prefixed to the NPs they modify and are proclitics according to both prosodic and morphophonological features: they form a single intonational group with the following NP, and the final vowel can undergo fronting before constituents beginning with *v* (cf. example (26) with the form *je=* instead of *jev=*).

Possessive proclitics can mark the direct objects of forms in *-gvjv*, but not of forms in *-gv* or of finite verbs:

- (26) *či-dvr=ej* *nə-ffəšt-a*
 some-INDEF=3SG.ENCL.GEN PV-write-PST.TR.3SG
je=nev=r-q wədə-jv *emv*
 POSS.3SG=without=PV-thought-ABL and
*je=nev=mbar-gv-jv/*je=nev-mbar-gv*
 POSS.3SG=without=understand-PART-ABL/*POSS.3SG=without=understand-PART
 "someone wrote it without thinking and without understanding it"
 (Max Dug 5, 2001: 138)¹³

5. Additional uses of *-gv* and *-gvjv*

5.1. *-gv* in emphatic periphrastic verb forms

Forms in *-gv*, but not those in *-gvjv*, can be used periphrastically with the light verb *kvnən* "to do" to put some kind of emphasis on the action:

xvrən "eat" → *xvr-gv kvn-ən* (eat-PART do-INF) "eat"

This construction appears in two types of cases (Natalia Serdobolskaya, p.c.):

1.thetic sentences, where the whole sentence is focused:

- (27) – *sə vr-səd-i, səwəl kəw-əš?*
 what PV-go-PST.3SG what.SUPER cry-PRS.2SG
 – *nev=fəd səw-gv kvn-ə*
 POSS.1PL=father go-PART do-PRS.3SG
 "What happened, why are you crying? – Our father is going away."

2. sentences with predicate focus:

- (28) *zul nev=xo fv-kvn-ə,*
 bread POSS.1PL=sister PV-do-PRS.3SG
vž=ta=jv vlxn-gv fv-kvn-ən
 1SG=CONTR=3SG.ENCL.GEN buy-PART PV-do-PRS.1SG
 "it is our sister who bakes bread, but me, I just buy it"

Grammars also mention that the forms in *-gv* have an imperative function:

xvr-gv (eat-PART) "eat!"
xvr-gv-ut! (eat-PART-IMP.2PL) "eat (PL)!"

¹³ This example also shows that *-jv* in *-gvjv* is still synchronically analyzed as an ablative case marker at least in some contexts. *jenervq wədəjv* is clearly a complex predicate: *je=nev=r-q wədə kvn-gv-jv* (POSS.3SG=without=PV-thought do-PART-ABL) with the light verb omitted (if it is restored, the sentence is still grammatical). There is no other possibility, since preverbs cannot attach to nominals outside of complex predicates in Ossetic (cf. footnote 8 for another example of such omission of the light verb). While the participle suffix *-gv* is not present, the ablative marker *-jv* is left intact.

However, as shown in VYDRIN (2010), these forms are better analyzed as the same emphatic construction with *kənən* where the light verb is dropped. The evidence for this analysis is that the light verb must obligatorily be present in the following cases:

- with negation: **ma=xer-gv* (NEG=eat-PART), ^{OK}*xer-gv ma=kən* (eat-PART NEG=do.IMP.2SG) "don't eat";
- in imperative forms (which have hortative semantics) in the 1SG/PL: **xer-gv-vm* (eat-PART-IMP.1PL), ^{OK}*xer-gv kən-vm* (eat-PART do-IMP.1PL) "let's eat"; or 3SG/PL: **xer-gv-vd* (eat-PART-IMP.3SG), ^{OK}*xer-gv kən-vd* (eat-PART do-IMP.3SG) "let him eat";
- with preverbs: **ba-xer-gv* (PV-eat-PART), ^{OK}*xer-gv ba-kən* (eat-PART PV-do.IMP.2SG) "eat".

5.2. The passive construction

The standard passive, as described in grammars of Ossetic, is formed by using the past-tense participle and an auxiliary verb *wəvən* "to be", *vəjjən* (habitual verb of being) or *səwən* "to go". The auxiliary agrees with the patient, which is in the nominative; the agent is marked by the ablative:

- (29) *xəzar kušǰ-ət-əj arežt u*
 house worker-PL-ABL build.PART.PST be.PRS.3SG
 "the house has been built by workers"
- (30) *xəzar kušǰ-ət-əj arežt səw-ə*
 house worker-PL-ABL build.PART.PST go-PRS.3SG
 "the house is being built by workers"

Our data show, however, that there is another passive construction where *-gv* is used. It is formed by using the form in *-gv* and the auxiliary *wəvən* "to be", which agrees with the patient. The form in *-gəjv* cannot be used in the passive construction.

- (31) *sjužet kən-gv u afeqo-jv*
 script do-PART be.PRS.3SG PN-ABL
 "the script was made by Afaqo" (*Max Dug* 8, 2002: 127)

As seen in (31), the agent is marked by the ablative here as well. The construction in (31) is probably the result of passivization of the emphatic construction with *kənən* (see section 5.1 above) with the light verb replaced by the auxiliary *wəvən* "to be".

5.3. The construction of deontic necessity

-gv can also be used in a construction of deontic necessity. It consists of the *-gv* form and the auxiliary *wəvən* "to be", which agrees with the patient of transitive verbs (i.e. the patient is promoted to subject status). With intransitive verbs, the auxiliary is used in the 3SG, and in this case *-gəjv* can also be used. The Principal (the A argument of transitive verbs and the S argument of intransitive verbs, cf. KIBRIK 1997) is marked by the dative:

- (32) *žawər-en asə čing^{wə}-t-v keš-gv štə*
 PN-DAT this book-PL-NOM read-PART be.PRS.3PL
 "Zaur must read these books"

- (33) *mən-en a-səw-gv(-fə) u*
 1SG-DAT PV-go-PART(-ABL) be.PRS.3SG
 "I have to go"

The only thing that distinguishes the construction of deontic necessity from an ordinary passive when it is used with transitive verbs is dative-marking of the subject. The dative is also usually positioned in the beginning of the sentence, while the ablative is either in the middle or at the end of the sentence. Since finite clause-internal word order in Ossetic is free, this is not a strict rule, but a tendency.

The construction of deontic necessity can also be used with non-agentive verbs:

- (34) ... *sər-gv emv mvl-gv kəmən u,*
 live-PART and die-PART who.DAT be.PRS.3SG
wəj tox-ə bədar-ə ra-vžar-ən-mv
 3SG battle-GEN field-IN PV-decide-INF-ALL
 "(we have come here) to decide on the field of battle,
 who has to live and who has to die" (*Max Dug* 10, 2002: 38)

An important observation is that this construction is analogous to the construction expressing inalienable possession (the *mihi est* construction), and the dative marking is also used to express the benefactive:

- (35) *žawər-en iš əfšəməv*
 PN-DAT EXST brother
 "Zaur has a brother"
- (36) *wəj kuš-ə jv=binont-en*
 3SG work-PRS.3SG POSS.3SG=family-DAT
 "he works for his family"

Based on the fact that in the possessive construction, the existential form of the verb *wəvən* "to be", *iš*, is used, and not the copular form *u*, we prefer to link this construction to benefactive, rather than to possessive semantics. The connection between benefactive semantics and non-canonical case marking is typologically widespread (cf. NARROG 2010).

If the construction in (32) can be reformulated as "For Zaur, these books are what is read", then examples such as (33) are an extension of the original construction to intransitive verbs.¹⁴ Since both *-gvjv* and *-gv* can be used with intransitive verbs, the *-gv* form in (32) could have been reanalyzed as a converb. However, modal use is not typical of converbs; HASPELMATH (1995: 43-45) only lists resultative, perfect and applicative constructions as typologically common periphrastic constructions involving converbs.

When another dative-marked participant is present, it is impossible for two dative NPs or full pronouns to appear simultaneously, e.g.:

¹⁴ One could claim that (33) originally meant something like "to Zaur is going", i.e. an existential construction. But two objections can be made: (a) if so, the existential form of the verb would be used, as in the possessive construction; (b) the *-gv* form does not function as an action noun in any other context.

- (37) **mən-en fəš šəmax-en argəvd-gv u*
 1SG-DAT ram 2PL-DAT slaughter-PART be.PRS.3SG
 "I must slaughter a ram for you"

However, if one of the two datives is expressed via a pronominal enclitic, the sentence is grammatical and the clitic invariably denotes the Principal. This is explained by the fact that this dative is licensed by the construction of deontic necessity higher in the clause, and it gets obligatorily cliticized to avoid conflict with the other dative-marked NP.

- (38) *rajsəm=wən mən-en fəš argəvd-gv u*
 tomorrow=2PL.ENCL.DAT 1SG-DAT ram slaughter-PART be.PRS.3SG
 "tomorrow you must slaughter a ram for me",
 but *"tomorrow I must slaughter a ram for you"

We will now go over some common properties exhibited by the two constructions described in sections 5.2 and 5.3. Ambiguity of the passive construction and the construction of necessity is possible when the Principal is not overtly expressed:

- (39) *exšənad xisən adəjməg-t-əj kən-gv u*
 society separate person-PL-ABL do-PART be.PRS.3SG
 "the society is made of separate individuals" or
 "the society must consist of separate individuals" (BESTAEV 2004: 127)

In both constructions described above, any tense-aspect form of the verb *wəvən* "to be" can be used (except the imperative), including the habitual one:

- (40) *səma kʷəd ɐvər-gv vɛjj-ə axəm minə?*
 I.wonder how put-PART be.HAB-PRS.3SG such landmine
 "I wonder how such a landmine is usually laid" or
 "I wonder how such a mine must usually be laid" (BESAEV 2002: 209)

Preverbs can only be attached to the participle form and not to the copula in both passive and modal constructions.

5.4. The possessive construction of necessity

Sentences like (32) can also be reformulated by making the Principal the genitive possessor of the participle in *-gv* (41). As mentioned above, the link between possession and obligation, often without an overt modal marker, is a widespread typological pattern (cf. BHATT 1998, VAN DER AUWERA / PLUNGIAN 1998).

- (41) *asə činəg žawər-ə ɐrba-xəš-gv wəd*
 this book PN-GEN PV-carry-PART be.PST.3SG
 "this book was to be carried by Zaur"

This construction is not recognized by all native speakers. Therefore, it is somewhat marginal compared to other construction mentioned here. We can cautiously suggest that the relationship of the constructions in (32) and (41) mirrors the relationship between genitive-marked possession vs. dative possession (cf. example 16) in Ossetic, and may

reflect the general trend of overlap between genitive and dative in expressing possession and benefactivity in Ossetic and, more generally, in Iranian languages (cf. HAIG 2008).

5.5. The construction of inevitability

Another construction with dative-marking of the Principal is formed by using the *-gv* form (*-gvjv* cannot be used), negated by *vnv* "without", together with the negative form of the existential form *iš* of the verb *wɛvən* "to be". All verbal arguments retain their respective marking, except for the Principal, which is dative-marked:

(42) *žawər-vn alan-ə vnv=fen-gv(*-jv) neʃ*
 PN-DAT PN-GEN without=PV.see-PART(-ABL) EXST.NEG
 "Zaur definitely will notice Alan (lit. Zaur's not-seeing Alan is-not)"

(43) *žawər-vn vnv=a-səw-gv(*-jv) neʃ*
 PN-DAT without=PV-go-PART(-ABL) EXST.NEG
 "Zaur definitely will go"

6. Conclusion

The results of our investigation may be summed up as follows. The primary function of *-gv* is participial. *-gvjv* can only be used converbally, and for a wide range of meanings, including manner, time, attendant circumstance, condition, cause and concession. Forms in *-gv* can also be used converbally, but their domain is very limited. While for most native speakers forms in *-gv* can only be used in clauses expressing manner and time, for some even the temporal use of *-gv* is prohibited.

Being a participle, *-gv* can be used in a number of periphrastic constructions, for which *-gvjv* is mostly disallowed. The only case where *-gvjv* is allowed (with intransitive verbs) can be viewed as an extension of the original construction, where the participle has probably been reanalyzed as a converb.

When used converbally, the two forms have substantial syntactic differences as well:

1. While the implicit subject of clauses with *-gvjv* is pragmatically controlled by the most salient participant of the main clause, the implicit subject of converbal clauses with *-gv* is controlled by the linearly closest NP, provided that the resulting interpretation is pragmatically plausible.
2. When a converbal clause with the form in *-gv* or *-gvjv* is not clause-initial, "weak" clitic climbing is observed: the clitics may either remain in the converbal clause or attach to the closest constituent of the main clause to the left. The latter position is distinct from the second position of the main clause.
3. When the converbal clause in *-gvjv* (but not in *-gv*) is not sentence-initial, any enclitics present in it can "climb" to the main clause and be placed after its first constituent. Clitic climbing out of finite subordinate clauses is not possible.

4. With forms in *-gɛjɛ*, the direct object can be expressed by a possessive proclitic attached to the converb. This is not possible for forms in *-gɐ*, nor for finite verbs.

Therefore, the syntactic and semantic distribution of the properties of forms in *-gɐ* and *-gɛjɛ* is not easily placed on a continuum of "desententiality" such as the one proposed in LEHMANN (1988). In many ways, the form in *-gɛjɛ* is more "nominal" and more integrated into the main clause than the form in *-gɐ*: it carries an analyzeable ablative case suffix, its direct objects can be expressed by possessive proclitics, and its clitics can be positioned in the main clause. The only property which marks the form in *-gɛjɛ* as more "verbal" is that it allows both nominal and verbal negation, while *-gɐ* only allows the former. But from a semantic point of view converbs in *-gɛjɛ* are much more independent than converbs in *-gɐ*: they can be used in a wide range of adverbial contexts, while the converbal use of forms in *-gɐ* is very limited and seems to be in the process of becoming even more marginal.

The key to the explanation of these conflicting properties lies in the prehistory of the forms. The form in *-gɐ* has been derived from the instrumental singular **-akā* (THORDARSON 2009: 70-77) or from the locative **-akai* (CHEUNG 2002) of the Proto-Iranian deverbal nominal in **-aka-*. Since the nominative of **-aka-* is the predecessor of the Ossetic present participle in *-vɛ* it appears plausible to assume that the nominal in **-aka-* functioned as present participle in Proto-Ossetic. As noted by Thordarson and Cheung, participles are commonly used in Indo-European languages in so-called absolute constructions (cf. KEYDANA 1997), e.g. in the Latin *ablativus absolutus*. Therefore, we can assume that the form in *-gɐ* is the result of a merger of the instrumental in **-akā* (and/or the locative in **-akai*) and other case-forms of the same participle. The former could be the source for the converbal functions of *-gɐ*, the latter the source for the participial ones.

Since *-gɐ* is a participle, it is no wonder that the control of the implicit subject of the converb in *-gɐ* is determined by linear order. While synchronically the NP-internal word order in Ossetic is fairly rigid, this was not the case for Old Iranian, and we can safely assume that participles could be separated from their head nouns in Ossetic at some earlier point in time. In the absence of case agreement, they would be more likely associated with the nearest NP, which is what we find in contemporary Ossetic.

The form in *-gɛjɛ*, originally a depictive use of the participle in *-gɐ* (*-gɛjɛ* is the ablative of *-gɐ*, and using the ablative case is a standard way of forming depictives from adjectives in Ossetic), has undergone grammaticalization into a full-fledged converb. At present, converbal clauses with *-gɛjɛ* seem to be semantically much less integrated into the main clause and more independent than clauses with *-gɐ*. However, they preserve some of the syntactic deranking associated with their prior status: the direct object can be expressed by possessive proclitics, and pronominal enclitics can "climb" into the main clause, both of which is not possible with finite subordinate clauses nor with converbal clauses headed by forms in *-gɐ*. The higher syntactic integration of forms in *-gɛjɛ* is also supported by the fact that the form in *-gɛjɛ* still contains an analyzeable ablative case suffix. The possibility of using verbal negation with forms in *-gɛjɛ* can thus be regarded as a step towards a more independent syntactic status motivated by semantic evolution. At the same time, the limited use of *-gɐ* in converbal function may be due to a more recent development, by which *-gɐ* tends to replace *-gɛjɛ*.

Abbreviations

ABL	ablative case	INF	Infinitive
ALL	allative case	NEG	negation
AN	abstract noun	NOM	nominative case
CNTRF	counterfactual	NP	noun phrase
CONTR	contrastive particle	PART	participle
DAT	dative case	PL	plural number
DIR	directive case	PN	name
ENCL	enclitic pronoun	POSS	possessive pronoun
EXST	existential form of the verb "to be"	PRS	present tense
FUT	future tense	PST	past tense
GEN	genitive case	PTCL	particle
HAB	habitual aspect	PV	(perfective) preverb
IMP	imperative	REFL	reflexive pronoun
IN	inessive-illative case	SG	singular number
INDEF	indefinite pronoun	SUPER	superessive-superlative case
INF	infinitive	TR	transitive verb

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