Suffixaufnahme *and noncanonical converbs in Georgian*

Thomas R. Wier

Abstract:

Suffixaufnahme is the typologically rare morphosyntactic process found within Kartvelian (see e.g. Boeder 1995) in which a genitival nominal possessor must agree in case and number with its possessum. In modern Georgian, this process has become restricted to a small set of construction types, including a kind of nonfinite adverbial subordinate clause, or converbs, which affix the genitive-dative string *–isa-s* to verbal gerundives with the meaning 'while Xing'. This paper will survey the origin and functions of this construction, and show that because it retains some of the morphological and syntactic properties of its nominals, it constitutes a kind of noncanonical converbal construction.

The literature on converbs has long noted the relationship between overall syntactic typology and the presence or absence of converbs. Converbs, which Haspelmath (1995) defined as 'nonfinite verb forms whose main function is to mark adverbial subordination', are typically found in left-branching, suffixal languages, and correspondingly left-branching, suffixal languages often have converbs (Ross 2021). Languages with converbs also often have an entire range of converbal suffixes to distinguish different semantic or logical relationships with the matrix verb, or alternatively they have single multifunctional converbs, acting also as participles, infinitives and other construction types, such as English *-ing*. The Georgian language (a member of the Kartvelian language family) however has long eluded neat categorization into such typologies: it is neither truly left-branching, nor predominantly suffixal, and it has never before been described as having any converbs of any kind. This paper will illustrate one unusual case of a recently grammaticalized converbal construction in Georgian, the *-isa-s* gerundive 'while Xing', and its even more unusual origin in *Suffixaufnahme*, or double-case constructions.

§1   *What is the -isa-s gerundive?*
The Georgian language is a polysynthetic language of the Caucasus with a split-intransitive alignment that marks both head verbs for agreement for subject and object features such as person and number, as well as dependent nouns in a complicated cross-cutting pattern of case-assignment whose significance for converbs will be discussed later in this paper. Syntactically, it makes relatively sparing use of nonfinite

verb forms: participles are rare, and there is no direct equivalent of infinitives as a distinct morphosyntactic category. The near-absence of converbs is thus part of a pattern of the larger organization of the language.

The one clear exception to this generalization is the *–isa-s* gerundive used to create contemporaneous temporal adjuncts, as in (1)-(3).

(1) dzalian   da-k'av-eb-ul-i   v-i-q'av-i

     very   PVB-occupy-TH-PART-NOM   1-PRV-be.IMPF-IMPF.1/2

     am   c'ign-is   da-c'er-***isa-s***

     this.OBL   book-GEN   PVB-write-***GEN-DAT***

     'I was very busy ***while writing*** this book.'

(2) Ekim-ma…   da-gv-e-mšvidob-a   da   otax-i=dan

     doctor-NARR   PVB-1PL-PRV-fare.well-AOR.3SG   and   room-INST=from

     ga-svl-***isa-s***   še-mo-brun-d-a

     PVB-go.MAS-***GEN-DAT***   PVB-VENT-return-AOR-AOR.3SG

     'The doctor bade us farewell, and ***while leaving*** the room he turned around and came back in…' (Nodar Dumbadze, *Iliko, Grandmother and I*)

(3) xel-is   mo-dzra-ob-***isa-s***   atasnair-ad   i-cvl-i-da

     hand-GEN   PVB-move-TH-***GEN-DAT***   thousand.kind-ADV   PRV-change-TH-IMPF.3SG

     per-s   lamp'-is   šuk=ze

     color-DAT   lamp-GEN   light=on

     '***While moving*** his hand, it changed colors a thousand times under the light of the lamp.' (Otar Chiladze, *Godori*)

Like converbs in more familiar languages, the *–isa-s* construction resembles canonical converbs as defined above. As we will see, only some of these hallmarks of converbs

are fully true of the *–isa-s* construction, but the ways in which they deviate from the canonical converb (Corbett 2010) can in fact shed light on their diachronic development in important ways. To begin with, like canonical converbs, the *-isa-s* gerundive cannot inflect for person (4) or number (5) features of either its subject or object arguments:

(4) (a) *da-v-c'er-***isa-s***

PVB-1-write-*isa-s*

'while I am writing it'

  (b) *da-x-c'er-***isa-s*** [1]

PVB-2-write-*isa-s*

'while you are writing it'

cf.(a') roca da-v-c'er-d-i

when PVB-1-write-IMPF-1/2

'when I was writing it'

(c) *da-g-i-c'er-***isa-s***

PVB-2-PRV-write-*isa-s*

'while I am writing to you'

  (d) *da-u-c'er-***isa-s***

PVB-PRV-write-*isa-s*

'while I am writing to him'

cf. (c') roca da-g-i-c'er-d-i

when PVB-2-PRV-write-IMPF-1/2

'when I was writing to you'

(5) (a) *da-v-c'er-t-***isa-s***

PVB-1-write-PL-*isa-s*

'while we are writing it'

  (b) *da-x-c'er-t-***isa-s***

PVB-2-write-PL-*isa-s*

'while you are writing it'

cf.(a') roca da-v-c'er-d-i-t

when PVB-1-write-IMPF-1/2-PL

'when we were writing it'

---

[1] In fact, most verb forms do not take the *x-* second person prefix in Georgian, only 'be' and 'go' now do so, and only in some paradigms. However, as explained below, *-isa-s* gerundives never take any person-number prefixes or suffixes of any kind.

(c)   *da-g-i-c'er-t-**_isa-s_**   (d)   *da-u-c'er-t-**_isa-s_**

         PVB-2-PRV-write-PL-_isa-s_   PVB-PRV-write-PL-_isa-s_

         'while I am writing to y'all'   'while I am writing to them'

cf. (c')   roca   da-g-i-c'er-d-i-t

         when PVB-2-PRV-write-IMPF-1/2-PL

         'when I was writing to y'all'

Although it is possible to create subordinate clauses headed by conjunctions like _roca_ 'when', such subordinate clauses bear head verbs which are fully finite, and they must be inflected for person and number features of the subject and object. However, actually proving this is more difficult than might appear at first glance because of Georgian's system of morphological blocking (Anderson 1986, Marantz 1993, Carmack 1997, Wier 2011, Wier 2022). In this system, which has become something of a poster-child for morphological complexity, affixes compete for realization in specific single slots on the verb and only one can be realized: (4c') in fact shows inflection for both first and second person even though the _v-_ prefix is blocked from expression. This complicated system found in the regular verb morphology and which resembles the hierarchical blocking morphology in families such as Algonquian or Carib is totally absent in the _-isa-s_ construction: subordinate verbs are never marked for any person or number features at all. Thus even though morphologists might dispute how and why person and number morphology function the way they do in Georgian, all scholars would agree that the _–isa-s_ construction lacks specification for such features.

Another feature of the _–isa-s_ construction is that it can only modify whole clauses or verb phrases; it cannot modify noun phrases (6) or phrases that modify them (7). Thus the _–isa-s_ construction bears adverbial force.

(6)   *Me   v-e-lap'arak'-eb-od-i   c'ign-is   da-c'er-isa-s   k'ac-s

       1SG   1-PRV-speak-TH-IMPF-SUBJ.1/2   book-GEN   PVB-write-isa-s   man-DAT

       'I was speaking to the man while he was writing the book.'

(6′)   Me   v-e-lap'arak'-eb-od-i   k'ac-s   mašin roca   c'ign-s   c'er-da

      1SG   1-PRV-speak-TH-IMPF-SUBJ.1/2   man-DAT   while   book-DAT   write-IMPF.3SG

      'I was speaking to the man while he was writing the book.'

(7)   *Me   v-e-lap'arak'-eb-od-i   c'ign-is   da-c'er-**_isa-s_**   saint'ereso   k'ac-s

      1SG   1-PRV-speak-TH-IMPF-SUBJ.1/2   book-GEN   PVB-write-**_isa-s_**   interesting   man-DAT

      'I was speaking to the man (who was) interesting while he was writing the book.'

Because converbs are defined in part by the absence of subordinating conjunctions, other criteria have been proposed to identify them. In Georgian the *–isa-s* construction is not restricted to particular positions in the clause, and may appear before or after the matrix verb. Thus, (1) may be reformulated as (8):

Displacement to a focal position

(8)   Am   c'ign-is   da-c'er-**_isa-s_**,   dzalian

      this.OBL   book-GEN   PVB-write-**_GEN-DAT_**   very

      da-k'av-eb-ul-i   v-i-q'av-i

      PVB-occupy-TH-PART-NOM   1-PRV-be.IMPF-IMPF.1/2

      '***While writing*** this book, I was very busy.'

Because in Georgian the immediately preverbal position is also a focal position, this position may also be modified by focal adverbs and particles: "*mxolod am c'ignis dac'erisas…*" [only this.OBL book-GEN PVB-write-GEN-DAT]. The subordinating properties of the converb also make possible anaphoric cataphora (9) and extraction (10a-b) which would otherwise violate binding or island constraints:

Possibility of backwards control of anaphors:

(9)   Tavis-i*ᵢ*   c'ign-is   da-c'er-**_isa-s_**,   Gela*ᵢ*

        REFL.POSS-GEN   book-GEN   PVB-write-**_GEN-DAT_**   Gela.NOM

        dzalian   da-k'av-eb-ul-i   i-q'-o

        very   PVB-occupy-TH-PART-NOM   PRV-be.IMPF-IMPF.3

        '**_While writing_** his*ᵢ* (own) book, Gela*ᵢ* was very busy.'

Violation of the Coordinate Structure Constraint:

(10a) *Zurab-ma   ra   ga-q'id-a

        Zurab-NARR   what.NOM   PVB-sell-AOR.3SG

        lurj-i   mankana   da   še-mo-e-q'id-a?

        blue-NOM   car.NOM   and   PVB-VENT-PRV-buy-AOR.3SG

        *'What did Zurab sell the blue car and buy?' (also ungrammatical in English)

Acceptability within an _-isa-s_ gerundive:

(10b) Lurj-i   mankan-is   ga-q'id-v-**_isa-s_**

        blue-NOM   car-GEN   PVB-sell-TH-**_GEN-DAT_**

        Zurab-ma   ra   še-mo-e-q'id-a?

        Zurab-NARR   what.NOM   PVB-VENT-PRV-buy-AOR.3SG

        'While selling the blue car, what did Zurab buy?'

     Thus in crucial respects the gerundive construction behaves like a canonical converbal construction: it is _nonfinite_, _adverbial_ and clearly _subordinate_. Canonical converbs however also display clearly verbal properties and here the –_isa-s_ construction deviates from the norm. To begin with, the _-isa-s_ construction is always formed morphologically from the masdar stem of verbs. In Georgian, masdars are verbal nouns

which often display morphological or semantic idiosyncrasies distinguishing them from their base verb. Though the most common strategy is to form a masdar by attaching an –*a* masdar suffix to the stem bearing a thematic suffix (such as –*eb*, -*ob*, -*(a)v*, -*ev*, -*ov*, etc.), as in Table 1 (a), (b), and (c), some verbs have special masdar stem suffixes like -*n* (d) and –*om* (e) or instead use a participle -*il* in place of a specifically masdar stem forming suffix (f).

Table 1. –*isa-s* gerundives and masdar stem formation

	FINITE FORM	MASDAR	*-ISA-S* GERUNDIVE
(a)	ga-a-k'et-eb-s	ga-k'et-eb-a	ga-k'et-eb-isa-s
	PVB-PRV-do-TH-3SG	PVB-PRV-do-TH-MAS	PVB-PRV-do-TH-isa-s
	's/he will do, make it'	'doing, making'	'while doing it'
(b)	da-k'arg-av-s	da-k'arg-v-a	da-k'arg-v-isa-s
	PVB-lose-TH-3SG	PVB-lose-TH-MAS	PVB-lose-TH-isa-s
(c)	ga-a-t'k'b-ob-s	ga-t'k'b-ob-a	ga-t'k'b-ob-isa-s
	PVB-PRV-sweeten-TH-3SG	PVB-sweeten-TH-MAS	PVB-sweeten-TH-isa-s
(d)	s-tx-ov-s	tx-ov-n-a	tx-ov-n-isa-s
	3SG-beg-TH-3SG	beg-TH-MAS-MAS	beg-TH-MAS-isa-s
(e)	u-nd-a	nd-om-a	nd-om-isa-s
	PRV-want-3SG	want-MAS-MAS	want-MAS-isa-s
(f)	i-cin-i-s	sic-il-i	sic-il-isa-s
	PRV-laugh-TH-3SG	laugh-PART-NOM	laugh-PART-isa-s
(g)	ga-v-a	ga-svl-a	ga-svl-isa-s
	PVB-go-3SG	PVB-go.MAS-MAS	PVB-go.MAS-isa-s
(i)	i-brdzv-i-s	brdz-ol-a	brdz-ol-isa-s
	PRV-fight-TH-3SG	fight-MAS-MAS.NOM	fight-MAS-isa-s

And some masdars have unique masdar roots suppletive with the main root in finite verbs (g). Such masdars are sometimes used to create the semantic equivalent of infinitival constructions:

(11a)	Keip-is	mere	m-i-nd-a	saxl=ši	c'a-vid-e
	party-GEN	after	1SG-PRV-want-3SG	house=to	PVB-go.OPT-OPT.1/2

'After the party, I want to go home.'

(11b)	m-i-nd-a	c'ign-is	c'a-kitx-v-a	(*c'ign-is)
	1SG-PRV-want-3SG	book-GEN	PVB-read-TH-MAS.NOM	book-GEN

'I want to read the book.'

(11c)	v-cdil-ob	c'ign-is	c'a-kitx-v-a-s	axla=ve
	1-try-TH	book-GEN	PVB-read-TH-MAS-DAT	now=FOC

'I'm trying to read the book right now.'

Normally, one way to create a subordinate clause is for the matrix verb to take a fully finite lexical verb in the optative, as in (11a). However, an alternative construction is to use a masdar nominalization, which behaves as a noun in at least two ways. First, the masdar itself takes case, and the case that is selected will be whatever is required by the higher verb (nominative case in (11b) and dative case in (11c)). Secondly, the 'object' of the masdar obligatorily precedes the masdar and takes genitive case (*c'ign-is* in (11b) and (11c) because it is acting as a nominal specifier. The relevance of this for our converbal construction is that when *–isa-s* gerundives are derived from a masdar stem, they are:

- morphologically identical to masdars except for the deletion of any final masdar suffix *–a*: *da-k'arg-v-a* 'losing' becomes *da-k'arg-v-isa-s* 'while losing', *ga-svl-a* becomes *ga-svl-isa-s* and so on

- syntactically they take genitival objects which obligatorily precede the *–isa-s* gerundive, exactly like masdar nominalizations

This stands in sharp contrast to the behavior of Georgian verb phrases and clauses, which set no constraint on the ordering of arguments with their domain, and which do not assign genitive case to their objects, but rather either nominative, dative or narrative case in a complicated cross-cutting pattern shown in **Table 2**. Thus not only are the *–isa-s* gerundives morphologically part of the nominal system, they have the same internal

	Transitive		'Medial' Intr.	Stative Intr.	Dative-Affective
PRESENT-FUTURE	SUBJ:	NOM	SUBJ: NOM	SUBJ: NOM	SUBJ: DAT
	IOBJ:	DAT			DOBJ: NOM
	DOBJ:	DAT			
AORIST	SUBJ:	NARR	SUBJ: NARR	SUBJ: NOM	SUBJ: DAT
	IOBJ:	DAT			DOBJ: NOM
	DOBJ:	NOM			
PERFECT-EVIDENTIAL	SUBJ:	DAT	SUBJ: DAT	SUBJ: NOM	SUBJ: DAT
	IOBJ:	PP			DOBJ: NOM
	DOBJ:	NOM			

Table 2. System of regular case-assignment in Georgian. Georgian verbs feature several splits of alignment across both transitivity type and tense-aspect series, but in every case the default assignment of case to subject or object is nominative, dative or narrative case, not genitive case.

syntax as well. This lays the groundwork to understand how the *–isa-s* gerundive arose historically, to which we now turn.

§2 Suffixaufnahme *and other double-case constructions in Georgian*

2.1 Suffixaufnahme *in Old Georgian*

The transition from Old to Modern Georgian witnessed a number of important changes, but probably the most important involved the reorganization of the syntax of noun phrases and their dependants. Old Georgian was a more right-branching language than the modern language, as it possessed more prepositions than postpositions, and adjectives and genitival specifiers generally followed their head noun rather than precede it. The most unusual feature though borne by Old Georgian is *Suffixaufnahme*, by which genitival possessors (or, in some cases, adpositional phrases) agreed with the head noun in case and number features (see Boeder 1995 for an extensive discussion). This sometimes lead to large strings of cases stacked upon one another in embedded constructions, as in (12)[2]:

---

[2] This particular example is constructed for ease of exposition, but it is reflective of the type and the others in this paper are drawn from historical corpora.

(12) kveqʼana-**ni**   [meupe-**ysa-ni**   [Sakartvelo-**ysa-ysa-ni**]]

country-*NOM.PL*   king-*GEN.SG-NOM.PL*   Georgia-*GEN.SG-GEN.SG-NOM.PL*

'the lands of the king of Georgia'

(13) da   h-rku-a   ert-**man**   mocʼape-**ta**-gan-**man**

and   3SG-call-AOR.3SG   one-NARR.SG   disciple-*GEN.PL*-from-*NARR.SG*

'and one of the disciples called out to him' (*Martyrdom of Eustathius of Mtskheta*, ca 550 A.D.)

In (12), the first embedded genitival phrase *meupe-ysa-ni* 'of the king' agrees with the head noun *kveqʼana-ni* 'lands', but that first genitival phrase itself has its own possessor, which therefore agrees with both of the other forms, *Sakartvelo-**ysa-ysa-ni***. Although this suggests an ideal kind of morphosyntactic recursion, in practice the case-stacking did not always reach down into every constituent of the modifier. And in (13), the case agreement spreads not to a possessor but to a postpositional phrase. It was also possible for example for the extra case-marking to take phrasal rather than local scope, as in (14) where the instrumental suffix *–yta* is not reflected on the adjective 'holy':

(14) še-cʼevn-**ita**   [[cʼmid-**isa**   Sam-eb-**isa**]-**yta**]

help-INST.SG   holy-GEN.SG   three-COLL-GEN.SG-INST.SG

'with the help of the Holy Trinity' (*Life of Grigol Xandzteli*, 951 A.D.)

And in extreme cases, up to four cases could stack onto the final word of the phrase, even when the nested words do not show full exponence of their phrasal status:

(15) qʼovel-ta   mtavar-ta   šesakʼrebel-isa   dze-ta

each-DAT.PL   chief-DAT.PL   congregation-GEN.SG   son-GEN.PL

Israel-isa-ta-ysa-ta

Israel-GEN.SG-GEN.PL-GEN.SG-DAT.PL

'each of the chiefs of the congregation of the Sons of Israel' (*Gelati Bible*, Joshua 22:30, ca. 13th c)

In (15), if each recursive phrase agreed systematically for the higher node, we would expect to see **šesakʼrebel-isa-ta* [congregation-GEN.SG-DAT.PL] and **dze-ta-ysa-ta* [son-GEN.PL-GEN.SG-DAT.SG], when in fact, only the final word of the construction shows full

inflection for each layer of expression. Thus even in Old Georgian, the exponence of case-marking and constituency structure did not stand in a one-to-one relationship.

Other forces were likely also at work. Unlike modern Georgian, syntactic discontinuities were also possible in some cases, especially when the modifying possessor was 'heavy':

(16) rametu kalak-i   ar-s   [meup-isa   did-isa-y]

      for   city-NOM.SG   be-3SG   king-GEN.SG   great-GEN.SG-NOM.SG

      'for it is the city of the Great King' (*Sinai Miscellany*, 864 A.D.)

Suffixaufnahme sometimes resisted haplology of homophonous suffixes, as in (17) where the dative plural –*ta* and the genitive plural –*ta* are not both marked on the genitival noun (even though they refer to distinct cases!), while (18) shows that haplology was optional rather than obligatory:

(17) k'ar-ta   kalak-ta   expected: *kalak-ta-ta

      gate-DAT.PL   city-GEN.PL   city-GEN.PL-DAT.PL

      'the gates of the city'

(18) k'ide-**sa**   mas   t'b-isa-sa-**sa**

      edge-DAT.SG   the.DAT.SG   sea-GEN.SG-DAT.SG.DAT.SG

      'on the edge of the sea' (*Romanus' Torture*, ca 10th century)

And finally, double case was anciently used to form toponyms whose head noun had been elided:

(19) Tb-il-*is-i*   Dman-*is-i*   Ru-*is-i*

      be.warm-PART-*GEN-NOM*   building-*GEN-NOM*   ditch-*GEN-NOM*

      'city of Tbilisi'   'town of Dmanisi'   'village of Ruisi'

      Kuta-*is-i*   Boln-*is-i*

      rock.promontory-*GEN-DAT*   <unknown>-*GEN-DAT*

      'city of Kutaisi'

What such constructions show is that, while *Suffixaufnahme* in Old Georgian *aimed* at the features born by particular phrasal heads, the actual manifestation of such agreement was often far from complete. The actual relationship of phrase structures to (overt) case-markers was in fact already quite loose.

2.2   Suffixaufnahme *in the modern Georgian literary language and dialects*

In today's Georgian language, the above pattern of agreement between possessors and possessums has largely been lost. During the course of the last few centuries of the first millennium A.D., Georgian gradually switched from right-branching phrasal syntax in noun phrases to a far more rigidly left-branching syntax: *meupe-y Sakartvelo-ysa-y* [king-NOM.SG Georgia-GEN.SG-NOM.SG] became *Sakartvelo-s mepe* [Georgia-GEN king.NOM]. However, a number of important exceptions to this exist which provide important clues to how the *–isa-s* gerundive arose. While most regular possessive phrases do not have case-stacking, it has remained in contexts of ellipsis so that the grammatical function of the elided content can be recovered, as in (20):

(20)   X: vis   saxl-s   e-dz-eb

            whose.DAT   house-DAT   PRV-seek-TH

            'Whose house are you looking for?'

       Y: čem-i   amxanag-***isa-s***

            1sgPoss-GEN   acquaintance-***GEN-DAT***

            '[I'm looking for] my friend's [house]'

Similarly, in cases where a pronoun has been dropped but in which an adjunct modifying that pronoun remains, the adjunct retains the case marking of the underlying argument:

(21)   ekvs-i-švid-i   c'l-isa-m   am   k'ac-isa

       six-GEN-seven-GEN   year-GEN-NARR   this.GEN   man-GEN

       mxolod   v-i-cod-i

       only   1-PRV-know.PAST-AOR1/2

       'I only knew of this man at the age of six or seven.' (*Data Tutushkhia*, 1975)

Here, the phrase *ekvsišvidi c'lisam* 'of the age six-or-seven' modifies the implicit pronominal subject, which is first person; if this had been an overt third person subject, it would likewise take narrative case. Also, in conservative nonstandard dialects of the eastern mountain regions of Khevsureti, Tusheti, Pshavi and Mokhevi, double case marking inherited from Old Georgian has remained far more frequent as a marker of oblique adjuncts:

'Locative' double instrumental: *-it-it*

(22) mo-mk'vdar-iq'w   vinaʔm   p'ir-ik-*it-it*

PVB-die.PERF-PERF.3SG   anyone.NOM   face-there-*INST-INST*

'If anyone died up over there…' (Tush dialect, Georgian Dialect Corpus)

'Perlative' instrumental plus dative: *-ita-s*

(23) memre   a-mo-v-x-q'r-i-t   c'q'l-*ita-s*

then   PVB-VENT-1-3-throw-AOR.1/2-PL   water-*INST-DAT*

'then we threw it into the water' (Tush dialect, Georgian Dialect Corpus)

'Benefactive' genitive plus adverbial: *-is-ad*

(24) memrina-s   ǧor-s   e-tkv   mgel-*is-ad*

then-DAT   pig-DAT   PRV-speak   wolf-*GEN-ADV*

'Then he spoke to the pig for the wolf' (Tush dialect, Georgian Dialect Corpus)

In both the literary language and the nonstandard dialects, adverbs of time or space are often marked either by single or (sometimes pleonastic) double case-marking in the dative or instrumental cases:

(25) dǧe-s   axlo-s   am   adgila-s

time-DAT   near-DAT   this.obl place-DAT

'today'   'nearby'   'at this place'

(26a) ik-it   ik-*it-it*

there-INST   there-*INST-INST*

'there'   'there'

(26b) ak-it-ob-a-s   ak-it-ob-***isa-s***

here-INST-NOML-MAS-DAT   here-INST-NOML-***GEN-DAT***

'back this way'   'back this way'

(26c) ik-it-ob-a-s   ik-it-ob-***isa-s***

there-INST-NOML-MAS-DAT   there-INST-NOML-***GEN-DAT***

'back that way'   'back that way'

Such double-case constructions also appear in the literary language in the form of idioms of time or space:

(27a) dǧ-***is-it***   da   mz-***is-it***

day-***GEN-INST***   and   sun-***GEN-INST***

'by the light of day, in full daylight'

(27b) dǧ-***is-it***   da   ǧam-it

day-***GEN-INST***   and   night-INST

'by night and day, all day and all night'

§3 *Historical and Typological Generalizations*

What such constructions show is the historical morphosyntactic context in which the –*isa-s* gerundive arose. Georgian already possessed a typologically unusual system of double-case marking based on *Suffixaufnahme* in which verbs could come to bear case suffixes by means of masdar nominalizations. This was originally primarily a feature of the syntax of noun phrases, not verb phrases or clauses, which is why the converbal construction that eventually developed cannot bear any finite inflection for person or number and why notional objects must bear genitive case and must immediately precede the converbal verb. However, it is also clear that the morphosyntactic apparatus of *Suffixaufnahme* eventually began to become distinct from the nominal syntax on which it originally depended:

- it did not always show up on every nominal head which in principle could host it, as in (14) and (15);

- the noun phrase bearing *Suffixaufnahme* did not always appear immediately adjacent to the noun phrase with which it agreed, as in (16);

- in modern Georgian, *Suffixaufnahme* can appear on elliptical noun phrases with no (overt) head noun, as in (20) and (21);

Completely separate from this, Old Georgian also regularly used case forms to mark adjuncts of time and space, as in (22) through (27), and in the modern Georgian literary language and *a fortiori* nonstandard dialects began to use use double-case constructions in a similar fashion. So it is really the ***cogrammaticalization*** of these two features that allowed the *–isa-s* gerundive to arise: a *Suffixaufnahme*-phrase disjointed from a head noun phrase which has been turned into an oblique adjunct of time.

How does this compare to other languages of the family, and to other languages with *Suffixaufnahme*-like constructions around the world? We are unfortunately not blessed with historical corpora of related Kartvelian languages like **Megrelian**, **Laz** and **Svan** with which we could test the above hypothesis. Although it occurs sporadically in modern texts, *Suffixaufnahme* is not now, if it ever was, a regular feature of these languages. We do find occasional constructions like the Megrelian (28) and Svan (29) below:

(28)	ma	m-e-g-čkv-an-k	žiri	cxen-s	
	1SG	PVB-PRV-2.OBJ-send-TNS-SG	two	horse-DAT	
	arti	tavadi-***ši-s***	do	mazira	q'azaq'i-***ši-s***
	one	prince-***GEN-DAT***	and	second	peasant-***GEN-DAT***

'I'll send you two horses: one of a prince and the second of a peasant.' (Klimov, cited by Boeder 1995: 192)

(29) Ečanğo   kanyesx   bayrax-s   xas   Tāridzel-*iš-s*

      then   they.bring.out   banner-DAT   icon.DAT   Taridzel-*GEN-DAT*

      'Then they bring out the banner, the icon of [Archangel] Taridzel' (Boeder 1995: 198)

In other languages of the Caucasus, dative absolutes have also been one source for the grammaticalization of converbs. In **Lezgian** (Lezgic; Nakh-Daghestanian) for example we find the dative suffix –*z* acting as an immediate converb (often as here reduplicated) as in (30a) alongside its original meaning marking recipients, as in (30b):

(30a) Am   küčed-aj   ič   ne-**z**=ne-**z**   fi-zwa-j

       He.ABS   street-INEL   apple   eat-**IMC**=eat-**IMC**   go-IMPF-PAST

   'He went along the street, eating an apple.' (Haspelmath 1995: 419)

(30b) Küne   za-**z**   raq̃ur-a   za   am

       y'all.ERG   1-**DAT**   send-IMP   I.ERG   it.ABS

       badedi-z   [sawq'wat   ja-z]   gu-da

       grandmother-DAT   gift.ABS   be-IMC   give-IMPF

       'Send it to me, I will give it to grandmother as a gift.' (Haspelmath 1995: 419)

Although Lezgic and other Daghestanian languages often have complicated systems of oblique stem formation, in which a specific oblique stem suffix must first be attached to a nominal root before the case may be affixed, in no case do we find something analogous to the morpho*syntactic* system of *Suffixaufnahme* in which agreement between phrases is paramount.

To find closer parallels to the Georgian construction involving *Suffixaufnahme*-like constructions, we must turn elsewhere. Plank (1995) found around 91 possible cases of *Suffixaufnahme* distributed around the world, mostly in the Caucasus, South Asia, far eastern Siberia and Australia (see map).
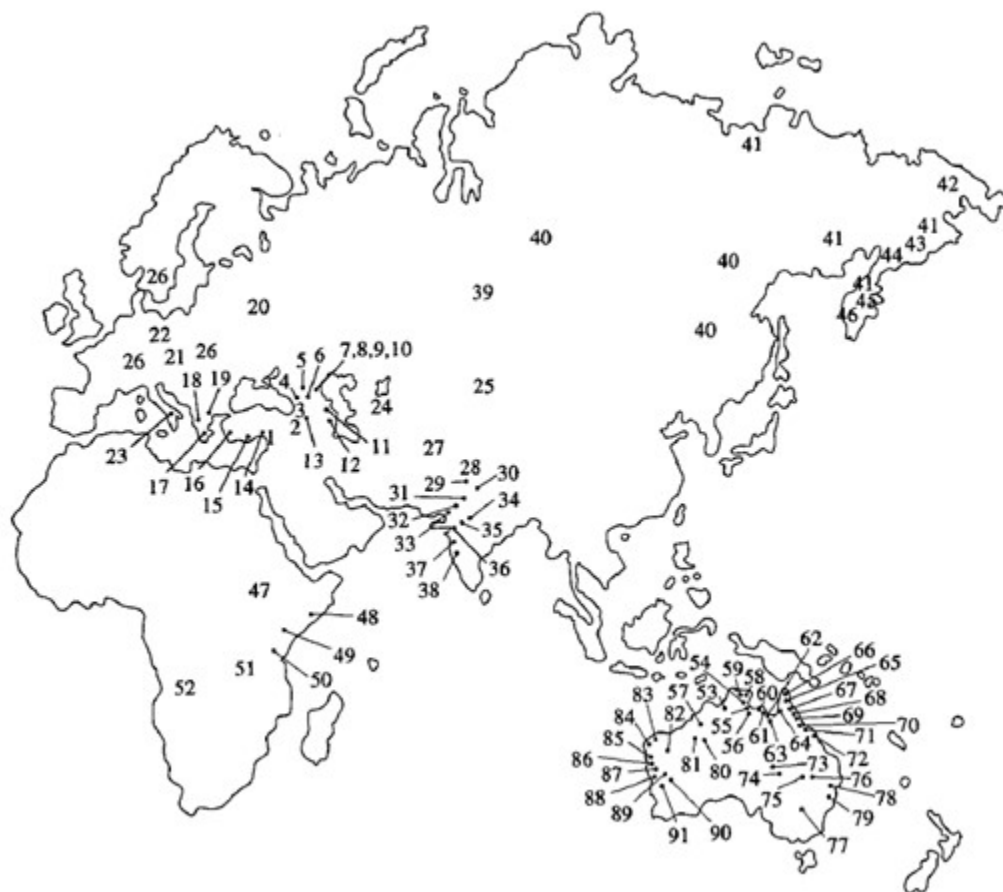
Map. Approximate distribution of Suffixaufnahme constructions (taken from Plank 1995: 96)

In some cases we find examples of *Suffixaufnahme* which have indeed acquired some of the traits of converbs. For example, Evans notes that in **Kayardild** (Tangkic; Pama-Nyungan), it is common for subordinate verbs to take a special complementizing case, and in some cases these subordinate verbs become insubordinated when historically a main clause was elided:

(31)   maku-ntha   yalawu-jarra-ntha   yakuri-naa-ntha

   woman-C.OBL   catch-PAST-C.OBL   fish-M.ABL-C.OBL

   thabuju-karra-nguni-naa-ntha   mijil-nguni-naa-nth

   brother-GEN-INS-M.ABL-C.OBL   net-INS-M.ABL-C.OBL

   'The woman caught the fish with brother's net' (Evans 1995: 407)

Here, *-ntha*, which is historically a dative case, serves to mark the entire clause as subordinate, and so is marked on every element of the clause, even though the superordinate main clause is not present at all. According to Evans, this marks the entire clause as based on an inference about a past event. Thus, like Georgian, ellipsis serves as one way in which *Suffixaufnahme* may come to have a role distinct from simple agreement of noun phrase modifiers.

Another construction that may be closer to the Georgian converbal construction in its function is the construction found in **Yukulta** (Tangkic; Pama-Nyungan) which uses the proprietive and ergative/locative cases in purpose clauses:

(32) dangka-ya-karr   ngid-a   karna-ja

man-ERG-3/3PRES   wood-ABS   light-IND

makurrarra-wurlu-ya   karna-j-urlu-ya

wallaby-PROP-ERG   cook-THEME-PROP-ERG

'The man lit a fire in order to cook the wallaby.' (Evans 1995: 407)

Here we see double-case clearly functioning without finite inflection in subordinate clause used to modify the main clause, to indicate purpose. What Georgian and such systems have in common is not just the use of case-stacking to mark converb-like constructions, but the multivariate use of different *combinations* of cases to mark obliques of different kinds, only some of which become grammaticalized in the functions of converbs.

§4   *Conclusions*

Although it has not before been described as such, the Georgian *–isa-s* construction bears most of the hallmarks of proper converbs: it is nonfinite, adverbial and subordinate. It has despite this maintained some of the morphosyntactic features of its nominal origin: it assigns genitive case to objects, which obligatorily precede the phrasal head. These noncanonical features of the converb make sense only in the light of its historical origin within the nominal system of Georgian masdars which, because they could host case markers, could thus also participate in the typologically unusual system of *Suffixaufnahme* which only Georgian nominals could do. And because case markers also often served to mark phrasal adjuncts, processes of ellipsis and

displacement allowed these two features together to detach the *Suffixaufnahme* phrases originally within noun phrases to become adjuncts of the clause as a whole. It is the **cogrammaticalization** of these two features that makes this converb possible.

We have also seen that while these features are not found in regional or related languages, the individual elements of them are found more broadly cross-linguistically, so what makes the Georgian case unusual is the specific set of features in one construction. But what is the way forward? There are still many features of this process that are not fully understood:

- How frequent are converbs derived from case-marked temporal/spatial adjuncts among languages with *Suffixaufnahme*?

- Can converbs arise from noncanonical systems of case-exponence, e.g. case-attraction in Armenian or Greek, or oblique-case stem interaction in Daghestanian languages?

- What is the role of language contact in developing such a system? Georgian has long been in contact with Abkhaz-Adyghean, Nakh-Daghestanian and Turkic languages that use converbs regularly, albeit none through *Suffixaufnahme*.

Answering these questions would go a long way to shedding light both on the diachrony of converbs, as well as the more unusual systems of *Suffixaufnahme*.

Works Cited

Anderson, S.R., 1986. 'Disjunctive ordering in inflectional morphology'. *Natural Language & Linguistic Theory*, 4(1), pp.1-31.

Anderson, S.R., 2001. 'On some issues in morphological exponence'. In *Yearbook of morphology 2000* (pp. 1-17). Dordrecht: Springer Netherlands.

Boeder, W., 1995. 'Suffixaufnahme in Kartvelian′ in Plank, F. ed., *Double case: agreement by Suffixaufnahme*. Oxford University Press.

Brown, D, M Chumakina and G Corbett. 2010. *Canonical Morphology and Syntax*. Clarendon

Press, Oxford.

Evans, N., 1995. 'Multiple case in Kayardild: Anti-iconic suffix ordering and the diachronic

  filter'. *Double case: Agreement by suffixaufnahme*, pp.396-428.

Halle, M., & Marantz, A. 1993. 'Distributed morphology and the pieces of inflection'. In K.

  Hale, & S. J. Keyser (Eds.), *The view from building 20* (pp. 111-176). The MIT Press.

Haspelmath, Martin. 1995. 'The converb as a cross-linguistically valid category'.

  Haspelmath & König (eds.), *Converbs in cross-linguistic perspective*, 1–56. Berlin: de
  Gruyter.

Plank, F. ed., 1995. *Double case: agreement by Suffixaufnahme*. Oxford University Press.

Ross, Daniel. 2021. *Pseudocoordination, Serial Verb Constructions and Multi-Verb*

  Predicates: The relationship between form and structure. University of Illinois Urbana-
  Champaign Ph.D. dissertation. https://doi.org/10.5281/zenodo.5546425

Wier, T.R., 2011. *Georgian morphosyntax and feature hierarchies in natural language*.

  PhD. Dissertation, the University of Chicago.

Wier, T.R., 2022. 'Shifting patterns of Georgian verb morphology: diachrony and
  dialectology' in *Building on Babel's Rubble: a Festschrift for Léa Nash*, Boneh, Harbour,
  Matushansky and Roy, Eds.; Sciences du Langage Press.

Contact:

Thomas R. Wier

Free University of Tbilisi

Kakha Bendukidze University Campus

Davit Aghmashenebeli Alley, 13km

Tbilisi, Republic of Georgia, 0131

Email: t.wier@freeuni.edu.ge