1. Introduction*

It is perhaps an areal feature of Transcaucasia, the region to the South of the Caucasus Range, that some arguments of relative clauses (RCs) are marked with genitive. Such genitivization is observed in languages belonging to different families including the major languages Azerbaijani (Turkic), Armenian (Indo-European) and Georgian (South Caucasian). However, this kind of marking is not typical for yet another language family found in Transcaucasia, namely the Northeast Caucasian languages, where it is only observed sporadically. Below I will discuss one of such marginal cases and argue that it resulted from a reanalysis of a borrowed pattern. I will suggest that this reanalysis was motivated by the different organization of relative constructions in the donor language and the recipient language, but the resulting construction generally conforms to the profile of the recipient language (even though it turns out to be somewhat unusual typologically).

The case in point is observed in Udi, a Northeast Caucasian language originally spoken in northern Azerbaijan. The language has two dialects, namely Vartashen Udi and Nizh Udi, of which I will concentrate on the latter, where the “adrelative genitive” pattern is quite widespread. Consider example (1):

* Thanks to Vlad Dabakov, Denis Kurankhoy, and Sevil Talybova for their valuable help in the course of the preparation of the paper, to Dmitry Ganenkov, Timur Maisak and the audience of the conference Current Advances in Caucasian Studies (Macerata, January 2010), where this work was presented, for useful discussions, and to Alice Harris, Timur Maisak, Irina Nikolaeva and Vittorio Tomelleri for important comments on the last versions of the paper. All errors are mine.

1 The political and economic processes of the last hundred years led to active migrations of Udis. As a result, more than half of the people currently live in Russia and in Georgia.


3 Most Udi examples given in this paper came from a corpus of oral texts in the Nizh dialect collected by the author together with Timur Maisak and Dmitry Ganenkov in 2002–2006 in Nizh (Azerbaijan) and among some families in Volgograd region (Russia). Parts of this corpus have been published by Maisak 2005 and Ganenkov et alii 2008. A handful of examples
In this sentence, the pronoun that superficially serves as the subject of the verb \textit{tad-} ‘give’, the predicate of a RC, appears in the genitive form\textsuperscript{4}. In independent clauses, however, this argument is marked with ergative\textsuperscript{5}. This is shown by (2), which contains the same verb ‘give’ but whose subject bears ergative marking:

\begin{align*}
(2) \quad &{\text{... me kala vič-en iz qːɨzɨl-χo ta-ne-stːa}} \\
&{\text{me micːikː vič-a}} \\
&{\text{...the eldest brother gave his gold to the younger brother’}}
\end{align*}

Hence at first glance, RCs in Udi admit some special marking of arguments, although later I will dispute this.

In sections 2 and 3, I present the basic data on Udi relatives. Section 4 briefly discusses the phenomenon under discussion and its areal context, in particular, it suggests that this construction was borrowed, presumably from Azerbaijani. Section 5 argues against the nominalization-based analysis, which is often provided for similar patterns. Section 6 gives arguments in favor of an analysis (to some extent inspired by the work of Ackerman and Nikolaeva), according to which the adrelative genitive in Udi is only a kind of “usual” adnominal genitive. Section 7 presents a typological perspective on the phenomenon. The final section gives conclusions and discusses issues that require further investigation.

\begin{itemize}
\item came from elicitation (these are marked as [E]). In most examples, the genitive phrase under discussion is bolded and the whole \textit{matrix NP}, i.e. the NP that includes the relative clause, is bracketed. The list of abbreviations used in glosses is given at the end of the paper.
\item The fact that in (1) the notional subject is expressed by a reflexive pronoun is not directly related to the choice of genitive. In fact, reflexives in Udi occur far more widely than, say, in English.
\item Note that although Udi contrasts between ergative and absolutive in nouns and reflexive and demonstrative pronouns, the first and second person pronouns do not distinguish between them. Moreover, unlike typical ergative languages, Udi displays differential object marking: some direct objects can be marked with dative.
\end{itemize}
2. 

Udi prenominal relatives

In this paper, I will be concerned with just one of the Udi relativization strategies, namely with the prenominal relative construction. In general, this construction involves a RC preceding the noun representing the semantic head (where it is present). In (3), for example, we find a RC meaning ‘where Udis live’ preceding the head noun ‘(of) building blocks’:

\[(3) \text{[udi-joχ karχ-ala mähäl-öʁ-oj] cːi-ur me-tär-e ...}\]

\[\text{Udi-PL live-FUT(PTCP) block-PL-GEN name-PL PROX-ADV=3SG}\]

‘The names of the parts of the village where Udis live are those…’

Prenominal RCs are clearly subordinated. As (4) demonstrates, they can be center-embedded within a NP:

\[(4) \text{ama mongoli-n-a [tːe čːer-i χe] dim}\]

\[\text{but Mongolia-O-DAT DIST go.out-AOR(PTCP) water permanently}\]

\[ʒijjar-e\]

\[\text{turbid=3SG}\]

‘But in Mongolia that water that went out is always turbid’

Here the RC čːer-i ‘which went out’ is placed between a demonstrative (tːe ‘that’) and the head (χe ‘water’). Since Udi normally does not allow discontinuous NPs and the demonstrative clearly forms a part of the same phrase as the head of the relative construction, this RC should be regarded as belonging to the same NP and hence subordinated under it.

In addition, prenominal relatives show properties that mark them as non-finite. In Udi, independent indicative clauses normally contain person markers which agree with intransitive subjects, transitive actors and/or possessors in predicative possession expressions. However, prenominal RCs lack agreement

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6. This is the most common relativization strategy in Nizh Udi. Other strategies involve either demonstrative or interrogative pronouns (often in combination with the complementation marker) accompanying entirely finite relative clauses (cf. Schulze-Fürhoff 1994: 502–504 on Vartashen Udi).

7. The term ‘semantic head’ is used for a noun which lexically describes the participant referred to by the matrix NP. In Udi prenominal relatives the semantic head of the relative construction always coincides with the syntactic head of the matrix NP.

8. For more details, see Lander 2008b.

9. Person markers in Udi can attach to various constituents of the clause, which to some extent reflects the information structure. See Harris 2002 for a detailed description of the agreement marking in Vartashen Udi (this more or less applies to Nizh Udi as well, see Harris 2005).
markers. This is shown in (5), where the predicate of the matrix clause hosts the person marker =ne (which marks agreement with the intransitive subject), but no marker of this kind is found within the RC:

(5) χüjär-ал e-ne-sa [kar-e bava-j bělšI
girl=ADD come=3SG=PRS boy-GEN father-GEN in.front

bak-alal tːe tːalikː-i] tːoIʁ
be-FUT(PTCP) DIST plate-GEN near

‘And the girl comes up to the plate that is in front of the boy’s father.‘

Predicates of prenominal RCs only contrast between past and non-past temporal reference\textsuperscript{10}, while predicates of indicative “finite” clauses can distinguish between no less than seven tense-aspect forms. This means that in prenominal RCs we observe neutralization of tense/aspect distinctions, as shown in Table 1:

Table 1: Tense-aspect forms in finite clauses and in relative clauses

<table>
<thead>
<tr>
<th>Finite indicative tense/aspect forms</th>
<th>Tense forms in prenominal RCs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aorist (-i)</td>
<td></td>
</tr>
<tr>
<td>Perfect (-e)</td>
<td>Past (-i)</td>
</tr>
<tr>
<td>Perfect 2 (-ijo)</td>
<td></td>
</tr>
<tr>
<td>Present (-sa)</td>
<td></td>
</tr>
<tr>
<td>Future 1 (-al)</td>
<td>Non-past (-ala)</td>
</tr>
<tr>
<td>Future 2 (-ala)</td>
<td></td>
</tr>
<tr>
<td>Modal future/Potential (-o)</td>
<td></td>
</tr>
</tbody>
</table>

The following examples partly illustrate this neutralization: the use of predicates marked with -i (6)-(7) for a preceding action (the “aorist” use) and the result of a preceding event (a typical “perfect” use), and the appearance of forms suffixed with -ala (8)-(9) in contexts denoting a simultaneous event (the “present” use) and a subsequent event (the domain of future tenses in finite clauses):

(6) The “aorist” use

[za-χun tac-i χüjär-moš-on]=al zu=al p:al kārān
I-ABL go-AOR(PTCP) girl-PL-ERG=ADD I=ADD two time

\textsuperscript{10} The temporal reference of the relative is usually determined relatively to that of the matrix clause. Probably because of this, Maisak (2008) describes this system as purely aspectual.
äči-jan-p-i.
dance=1PL=LV-AOR
‘Those girls that went with me and I were dancing two times’

(7) The “perfect” use
šo-tː-oř-onالتزام kːal-p-eːtːun,
DIST-NO-PL-ERG=ADD study-LV-PERF=3PL study-LV-AOR(PTCP)

amdar-χo]-tːun
man-PL=3PL
‘They have studied, they are educated persons’

(8) The “present” use
[ja-χun pːrakːtːikː-in-a bak-ala mälim-en] p-i-ne-ki ...
we-ABL practice-O-DAT be-FUT(PTCP) teacher-ERG say-AOR=3SG=COMP
‘The teacher who was with us in the practice said that…’

(9) The “future use”
har-eːne [äjčːle nilžː-e takː-ala amdar]
come-PERF=3SG tomorrow Nizh-DAT go-FUT(PTCP) man.
‘There came a man who will go to Nizh tomorrow’ [E]

Table 1 also shows that the suffixes -i and -ala, which mark past and non-past predicates of prenominal RCs, are found in finite clauses as well (as markers of Aorist and so-called Future 2). Consequently, as is argued in Lander 2008b, there is no reason to postulate a separate category of participles in Nizh Udi, since the subordinated status of RCs in this language is implied from the lack of agreement and the reduction of tense-aspect contrasts but not from a particular syntactic category of the predicate.

3. The role of the target
The next issue to be discussed concerns the way the role of the relativized argument is established. Prenominal RCs in Udi do not involve relative pronouns. As a result, usually the procedure of establishing the role of the target of relativization has to employ less direct means.

Normally, the NP corresponding to the target of relativization should be absent in prenominal RCs. This may help to determine what argument is relativized, yet it does not seem that the omission of the relevant NP ensures the identification of the target. The reason is that other NPs can be omitted as well if their meaning can be recovered. This is illustrated in (10), where the transitive RC contains no NP at all:
Despite this, Udi can relativize a number of different roles, as is shown by the following examples (all of these examples contain RCs marked with -ala, although past/perfective relatives are possible here as well):

(11) Transitive agent relativization

\[
\text{u-ne-k:-on-ki ...} \\
\text{say}=3\text{SG}=\text{ST-POT}=\text{COMP} \\
\text{‘This neighbor who was bringing grapes tells the driver that...’}
\]

(12) Transitive undergoer relativization

\[
\text{the tree that Anton is breaking’ [E]}
\]

(13) Recipient relativization

\[
\text{the man to whom I give money’ [E]}
\]

(14) Source relativization

\[
\text{the man from whom I take money’ [E]}
\]

(15) Instrument relativization

\[
\text{the knife with which we cut greens’ [E]}
\]
(16) Location relativization

\[ \text{šo-tː-o äš-pː-es-tː-ala ga].textColor(0)x̀c.textColor(0}\rightarrow \text{al bu=textColor(0)x̀c.textColor(0}.textColor(0}\rightarrow \text{te textColor(0)x̀c.textColor(0}\rightarrow \text{ne} \]

DIST-NO-DAT work-LV-INF-CAUS- FUT(PTCP) place=ADD COP=NEG=3SG

‘There is not even a place where to work up it’

(17) Time relativization

\[ \text{zu otːdɨχatː-b-ala ʁi].textColor(0)x̀c.textColor(0}\rightarrow \text{ne} \]

I rest-LV-FUT(PTCP) day=3 SG

‘(It is) the day when I have a rest’

(18) Relativization of possessor in the predicative possessive construction

\[ \text{sun-tː-in [bipː äjel bak-ala sa čuhuh].textColor(0)x̀c.textColor(0}\rightarrow \text{e} \]

one-NO-ERG four child be-FUT(PTCP) one woman=3SG
ećeř-e-j

bring-PERF=PST

‘Some (man) married a woman who had four children’

Like many other Northeast Caucasian languages, Udi can make use of reflexive pronouns as resumptives. Their use is highly restricted, though:

(19) \[ \text{zu iz boš arc-i aftːobus} \]

I RFL:GEN inside sit-AOR(PTCP) bus

‘the bus which I entered (lit. sat down)’ [E]

Note that occasionally it is difficult to establish a particular grammatical role that is relativized. In (20) it does not seem to be a core role, anyway:

(20) \[ \text{metär-kī [bava-n ukː-ala χüjär].textColor(0)x̀c.textColor(0}\rightarrow \text{al haqː-e.textColor(0)x̀c.textColor(0}\rightarrow \text{e-tːun} \]

PROX-ADV=COMP father-ERG say-FUT(PTCP) girl=ADD take-PERF=3PL

‘So the girl was taken (for marriage) that the father pointed to (lit. said)’

Given this, I suspect that (besides the absence of any expression of the relativized argument) the role of the target of relativization in Udi prenominal RCs is only partially determined grammatically, and information on it can also be provided by the lexical semantics of the head noun and/or by the context:

11 Interestingly, all of my examples displaying resumptives came either from elicitation or from written texts, but not from spontaneous discourse.

12 Cf. a similar conclusion made in Comrie and Polinsky (1999) for Tsez, a distantly related language. See also Daniel and Lander (to appear) for a general discussion of this kind of relative construction in Northeast Caucasian languages.
4. Genitives within relatives in and across Udi

The RCs found in (21) and (22) represent additional examples of the construction where an argument of a RC is marked with the genitive case. In both examples, genitive is assigned to the “logical subject”, i.e. the intransitive subject or the actor in a transitive clause:

(21) [beš vel-bak-ala ga]-ne bak-sa
   we:GEN believe-LV-FUT(PTCP) place=3SG be-PRS

   ‘This is a place where we believe’

(22) pːɨtalamej cːi-l-a kala sa alim-in zap-i
   Ptolomaeus name-O-DAT big one scholar-GEN draw+LV-AOR(PTCP)
   kartː-in-astːa
   map-O-AD

   ‘in the map drawn by a big scholar named Ptolomaeus’

Numerous examples in the preceding sections showed that such genitivization is not obligatory. Indeed, speakers of Udi easily allow variation between genitive and non-genitive phrases in this case:

(23) [bez / zu šIum kāj kːož] šahat-e
   I:GEN I bread eat+AOR(PTCP) house nice=3SG

   ‘The house where I lunched is nice’ [E]

As has already been said, adrelative genitives are not typical for Northeast Caucasian languages. To the best of my knowledge, besides Udi, among them, a similar phenomenon is only reported for Kryz, another Lezgic language, which is geographically close to Udi. According to Authier (2009: 354), in Kryz genitivization is restricted to agents, intransitive subjects and experiencers of RCs:

   Allahǯi-r [va i-ka-j] vu-tir
   God-ERG you(SG):GEN PV-want-PTCP give-JUSS

   ‘Let God give you what you want’

Given the fact that the adrelative genitive is not observed in most other Northeast Caucasian languages, it is likely that it is not inherited for Udi and

13 The transcription of the Kryz example is unified with that used for the Udi examples.
Kryz but is borrowed. Now, what relates Udi and Kryz (besides their genetic relationship) is the fact that both languages have undergone massive Azerbaijani influence, which affected not only their lexicon, but also their grammar and even their phonology. Crucially, Azerbaijani RCs formed by means of some participles normally require their subjects to be marked with genitive, as in the following examples:\(^{14}\):

(25) Azerbaijani

a. \textbf{mən-im tık-əcəy-im ev-lər}

\begin{tabular}{ll}
I-GEN & build-PTCP:FTF-1SG.PR house-PL \\
\end{tabular}

‘the houses that I will build’ \[E\]

b. \textbf{İsa-nın sev-diy-i qız}

\begin{tabular}{ll}
İsa-GEN & love-PTCP-3SG.PR girl \\
\end{tabular}

‘İsa’s beloved girl’ \[E\]

It is worth mentioning that besides genitive marking, subjects of RCs in (25) are also cross-referenced with possessive suffixes on the participles. Therefore the construction is not exactly parallel to the similar patterns in Udi and Kryz, which lack head-marking in NPs. Nonetheless, given the influence from Azerbaijani on these languages, it is highly likely that it is Azerbaijani that appeared to be a donor of the pattern under discussion\(^{15}\).

Still, Nizh Udi shows additional differences from both Azerbaijani and Kryz. First, note that in Azerbaijani and Kryz the corresponding relative construction employs a special participial verb form.\(^{16}\) In Udi, however, there is no evidence that predicates of RCs belong to any special category, as was mentioned in Section 2.

More important is the second peculiarity of the Udi construction. In Azerbaijani and Kryz, seemingly only subjects can take genitive marking in RCs. On the other hand, Udi allows genitivization not only of subjects but also of at least some other arguments. The examples (26a) and (27a) show that in Nizh Udi direct objects can be marked with genitive in relative constructions as well. The parallel examples (26b) and (27b) demonstrate that the meaning of the struc-

\(^{14}\) Azerbaijani examples are given in the standard orthography.

\(^{15}\) Alternatively, it may be that the pattern was borrowed from Armenian, where the construction involving a participle and the subject marked with genitive is less transparent, however: in particular, genitive is marked with the same suffix as dative.

\(^{16}\) For Azerbaijani, this claim will be refined in footnote 29. As concerns Kryz, the participial nature of the predicate of the RC is especially clear in (24), where the participle simultaneously heads the whole NP hence realizing its nominal potential.
tures with genitive object is not different from those where object retains its original marking:

(26) a. taʁ-a˒z~meɾaz beɾI-en [me bez χüjär-i
goe-LV:FUT=1SG-RDP look-HORT PROX I:GEN girl-GEN
bos-i ga-l-a]
leave-AOR(PTCP) place-O-DAT
‘Let me go and look at that place where I left my daughter’

b. e‧ne‧sa‧j [χüjär-ä bos-i ga-l-a]
come=3SG=PRS=PST girl-DAT leave-AOR place-O-DAT
‘He came to the place where (he) left (his) daughter’

(27) a. [bez ak:-i k:ož] kalmel-ne
I:GEN see-AOR(PTCP) house dirty=3SG

b. [za ak:-i k:ož] kalmel-ne
I:DAT see-AOR(PTCP) house dirty=3SG
‘The house where I was seen is dirty’ [E]

Moreover, our corpus contains one example where genitive marking occurs on the expression of the locative participant:

(28) levetː-a jöni oc‧jan-k‧sa, k‧arχan-in-a‧l,
pot-DAT good wash=IPL=LV-PRS cover-O-DAT=ADD

[iz bak-ala te oč‧li‧xo], he‧t‧u …
RFL:GEN be-FUT(PTCP) DIST mortar-PL-DAT what-NO-DAT
‘We properly wash the pot, and (its) cover, and that mortar which is on it and the like…’

The fact that Udi allows genitivization of arguments other than subject makes this language almost unique\(^{17}\). We therefore need some more discussion of this pattern.

\(^{17}\) According to Boeder and Schroeder (2000), in Georgian participial constructions, either agents or undergoers can be marked for genitive depending on the voice of the participle (i.e. whether it describes the agent or the undergoer, respectively). Still, genitivization of agents seems to be marginal.
5. Why reanalysis? The fall of the nominalization pattern
Since the Udi adrelative genitive construction differs from the parallel Azerbaijani construction, it is likely that it is not a simple calque and must somehow fit into the grammatical structure of Udi. Truly, this alone does not imply that the original construction underwent reanalysis in the recipient language, since the peculiarities of the Udi construction might in principle be motivated by other features of the language. For example, one could relate the possibility of direct object genitivization mentioned in the previous section to ergative features of Udi, which could make (unmarked) undergoers similar to subjects in some respects. Indeed, in Udi, in transitive clauses actors obligatorily receive overt marking by ergative case, while undergoers can remain unmarked just like intransitive subjects. The problem with such an approach comes, however, from the fact that Udi shows differential object marking, whereby individualized (definite and/or specific) direct objects are overtly marked with dative and hence cannot be treated similarly to intransitive subjects. Now, genitivized objects in the examples (26a) and (27a) are apparently highly individualized and cannot be compared to intransitive subjects according to this criterion. A more systematic approach to the phenomenon under discussion presumably requires to explore the *raison d’être* of the adrelative genitive in more detail.

Genitive appears in relative constructions of many languages of the world. While Turkic relatives illustrated with the Azerbaijani examples (25), perhaps, serve as a canonical instance of this phenomenon, it is also observed, for example, in Japanese, some Quechuan languages, some Sino-Tibetan languages etc.; cf. Hiraiwa 2001. Unsurprisingly, the appearance of genitive in relatives has become the target of a number of proposals in the linguistic literature. Crucially, most of them seem to subscribe to the following statement made by Christian Lehmann in his important study on the typology of relativization:


Paradoxically, while most approaches agree on this point, they vary in what they understand by nominalization. For Lehmann, nominalization is one of the general operations that constitute the very nature of relativization and its concept is abstract enough to include quite a number of phenomena that are not always apparently related to the change of a syntactic category. Lehmann (1984: 169-171) proposes that nominalization may have different manifestations which form a kind of scale:

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the reduction of (illocutionary) clause types → restrictions on the expression of modality → limitations on the expression of tense and aspect → implicit subjects → infinite verb forms → genitive (oblique) subjects → limitations on the expression of arguments.

According to this scheme, nominalization can proceed to different degrees, according to how far it has progressed on this scale. As is seen, the appearance of genitive is considered by Lehmann to entail a strong degree of nominalization which should show itself after most other above-mentioned manifestations (except for limitations on the expression of arguments). Further, for him, such marking is motivated purely by demotion of the subject which requires an oblique case, and genitive is chosen simply because it is thought to be the unmarked oblique case.

In this approach, nominalization turns out to be almost equal to the reduction in finiteness\textsuperscript{19}. Therefore such a theory would lead to nothing more than establishing a correlation between non-finiteness and genitive marking. Yet for Udi it is easy to show that even such correlation does not hold. As we have seen, while reduction in finiteness is indeed observed in Udi RCs, it is by no means obvious that this kind of clause shows any special verb forms. This contrasts Udi with many other Northeast Caucasian languages which have distinguished participial forms and hence go farther on Lehmann’s scale than Udi. But this fact goes against the existence of the adrelative genitive in Udi, which suggests that this language has moved farther in the reduction of finiteness\textsuperscript{20}.

In many works on Turkic and other languages, a less abstract approach is found. Here genitive is considered not the most unmarked oblique case but the basic adnominal case. The appearance of genitive in RCs is therefore supposed to follow from the fact that the predicate in such constructions has some nominal features. For languages like Azerbaijani this is a well-grounded idea, since participles in these languages normally can themselves head NPs. For Azerbaijani this is demonstrated in (29), where the future participle serves as a morphosyntactic locus of NP marking and takes the case and number suffixes without showing any traces of a nominalization operation:

(29) Azerbaijani

\[
\text{[Mən-им тик-ацик-лəр-им-ı] сиyahи-yə al}
\]

I-GEN build-PTCP: FUT-PL-1SG.PR-ACC list-DAT take(IMP)

‘Include the ones which I will build into the list’ [E]

---

\textsuperscript{19} See Malchukov 2004 for a review of such approaches.

\textsuperscript{20} In fact, the works on finiteness of the last decades have shown that the proposed manifestations of non-finiteness need not correlate with each other; see, for instance, Nikolaeva 2007.
But the situation in Udi is quite different. Not only is there no evidence for nominalization of predicates in RCs, but there is evidence for the contrary. In particular, usually predicates of RCs in Udi cannot serve as heads of NPs without taking additional morphology\(^{21}\).

As in most other languages, the semantic head can be absent in Udi. This is observed in two cases. The first is represented by (30):

(30) \[\text{urusatː-a bak-ala udi-bo-n] cam-p-es ba-ne-k-o}\]
\hspace{1cm}Russia-DAT be-FUT(PTCP) Udi-PL-ERG write-LV-INF be=3SG=ST-POT

\hspace{1cm}urus-in grafik:-in-en, [azerbaǯan-a bak-ala]
\hspace{1cm}Russian-GEN script-O-ERG Azerbaijan-DAT be-FUT(PTCP)

\hspace{1cm}ba-ne-k-o lati:in grafik:-in-en
\hspace{1cm}be=3SG=ST-POT Latin script-O-ERG

‘Those Udis that live in Russia can write with the Russian script, the ones who live in Azerbaijan can write with the Latin script’

Here the predicate of the RC \textit{azerbaǯan-a bak-ala} ‘who live in Azerbaijan’ is arguably not the head of the matrix NP. Rather the head of the NP is omitted due to a typical elliptical context. Naturally, in this structure we do not expect nominalization of the predicate of the RC.

More important is the second situation, where the immediate syntactic context does not tell anything about the semantic head and the construction is easily interpreted without it:

(31) \[\text{samǯi zu akː-i-j o} / *akː-i] bezi čalχal=-e\]
\hspace{1cm}first I see-AOR(PTCP)-NA see-AOR(PTCP) I:GEN acquaintance=3SG

‘The first whom I saw was an acquaintance of mine’ [E]

(32) \[\text{mand-i-jo-roχ\] al ajiz-eχun al:eqill-tːun karχ-sa}\]
\hspace{1cm}leave-LV-AOR(PTCP)-NA-PL=ADD village-ABL far=3PL live-PRS

‘And the others (lit.: those that are left) live far from the village’

(33) \[\text{buatum bez k:oj-a eχ-al-o-roχ] busa}\]
\hspace{1cm}all I:GEN house-DAT come-FUT(PTCP)-NA-PL hungry

\(^{21}\) To be sure, this agrees with the assumption that predicates of Udi RCs are the same forms as those found in independent clauses.
‘Those that will come to me will not get to be hungry’ [E]

As these examples demonstrate, the predicate of such “headless” RCs takes a special suffix, irrespectively of whether the nominal head of NP shows overt marking in the parallel construction. For example, despite the fact that absolutive is an unmarked case in Udi, “headless” relatives in the absolutive position receive overt marking by means of the suffix -(j)o. In plural absolutive NPs like those shown in (32)-(33), this marker precedes the plural suffix.

Where a “headless” relative occurs in cases other than absolutive, we find a similar picture, namely an oblique suffix -tː attaches to the predicate of the RC before it takes case and number suffixes:

\[
\begin{align*}
göj-n-\alphaχun & \quad \chiib-dänä & \quad ešl-e & \quad \text{bistːa} - \\
\text{sky-O-ABL} & \quad \text{three-thing} & \quad \text{apple}=3\text{SG} & \quad \text{fall+PRS} \\
\text{sokB-o} & \quad [\text{nəi} & \quad \text{p-iː-tː-aj}] , \\
\text{one-NA} & \quad \text{tale} & \quad \text{say-AOR(PTCP)-NO-GEN} \\
\text{sokB-o} & \quad [\text{nəi} & \quad \text{čevkː-iː-tː-aj}] , \\
\text{one-NA} & \quad \text{tale} & \quad \text{extract-AOR(PTCP)-NO-GEN} \\
\text{sokB-al} & \quad [\text{nəi} & \quad \text{ulmuχ} & \quad \text{laχ-iː-tː-aj}] \\
\text{one+NA=ADD} & \quad \text{tale} & \quad \text{ear} & \quad \text{put-AOR(PTCP)-NO-GEN} \\
\end{align*}
\]

‘Three apples fall from the sky: one (apple) is for the one who told the tale, one is for the one who composed the tale, and one is for the one who was listening to the tale’

\[
\begin{align*}
\text{uk-a-nan} , & \quad \text{ulr-al-nan} & \quad [\text{beʃ} & \quad \text{bak-al-tː-ųχun}] , \\
\text{eat-IMP}=2\text{PL} & \quad \text{drink-IMP}=2\text{PL} & \quad \text{we:GEN} & \quad \text{be-FUT(PTCP)-NO-ABL} \\
\text{kőf-pː-a-nan} & \\
\text{enjoy-LV-IMP}=2\text{PL} & \\
\text{‘Eat, drink of what we have, enjoy’} \\
\end{align*}
\]

Exactly the same suffixes -(j)o and -tː are found with adjectives and demonstratives when they head NPs. Therefore these suffixes clearly have the nomi-

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22 The distinction between “direct” and “oblique” stems is certainly not a kind of case marking. In fact, parallel distinctions between two kinds of stems are found both in Udi (in some declensions) and throughout the Northeast Caucasian family (Kibrik 2003; Daniel and Lander, to appear).
nalizing function. Since no such marking is found in RCs with overt heads, they do not involve nominalization and nominalization cannot be the source of genitive within such RCs.

Crucially, this suggests that the adrelative genitive construction indeed underwent reanalysis in Udi as compared to the original construction in Azerbaijani, where the appearance of genitive in relative constructions is motivated by nominal features of the participle.

6. The proper genitive treatment

The previous section investigated analyses which are based purely on syntactic functions of genitive (that is either on the assumption that it is a general oblique case or on the assumption that it is the basic adnominal case). An alternative view can be elaborated, however, which takes as a point of departure the fact that prototypically genitive constructions are only an instance of possessive constructions. In this case, the pattern I discuss should be somehow interpreted as a possessive as well.

The main function of the possessive construction in general and the adnominal genitive construction in particular seems to be the restriction or even establishing the reference of an individual via some relation to other individuals. Importantly, this relation (generally called “possessive relation” in the literature) usually remains unspecified, being implied either from lexical semantics of the constituents participating in the construction or from the context. Either way, genitive itself does not specify the possessive relation.

This does not mean that the possessive relation cannot be specified at all. For example, in many languages the possessive constructions accompanied by a modifier meaning ‘favorite’ (as in English John’s favorite car or French mon livre préféré) allow an analysis, according to which this modifier provides the relevant relation between the possessor and the possessum. Curiously, in Udi we observe this kind of construction as well:

(36) \[
\text{[kalna-j]}_{\text{POSSESSOR}} \ [\text{čur-eř-ala}]_{\text{RELATION}} \ [\text{hejvan}]_{\text{POSSESSED}} = e \\
\text{grandmother-GEN} \quad \text{like-LV-FUT(PTCP)} \quad \text{beast=3SG} \\
\text{‘(This) is grandmother’s favorite beast’} \\
\text{(lit., ‘the beast which grandmother likes’)}
\]

As is seen from (36), the meaning ‘favorite’ in Udi is expressed with a RC. Given the fact that the actor of the predicate of the RC in (36) is marked with

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23 See Lander 2008a for a general discussion of the place of genitive constructions among adnominal possessives.

24 See Partee and Borschev 2000 for an extensive discussion of possible approaches to the semantic contribution of favorite in such constructions in English.
genitive, this example can be considered a manifestation of genitivization discussed in the previous sections. It is tempting therefore to propose that the genitive phrase in the construction under discussion does not belong to the RC but serves as a possessor of the whole matrix NP, while the RC simply specifies the possessive relation. In fact, just this kind of analysis was proposed for the semantics of similar patterns in a few other languages by Ackerman and Nikolaeva (Ackerman and Nikolaeva 1997; Ackerman 1998; Nikolaeva 1999: Ch. 7; Ackerman, Nikolaeva and Malouf 2004)\(^{25}\).

One merit of this interpretation is that it does not require of predicates of RCs to behave in any respect like nouns. However, let alone this consideration, there are other pieces of evidence in favor of the conclusion that the adrelative genitive in Udi actually marks the possessor of the whole matrix NP. Indeed, despite the fact that the genitive phrase in this pattern apparently refers to a participant of the situation denoted by the RC, it is by no means obvious that it is embedded into the relative.

First, this genitive phrase should be placed to the left of other parts of the RC. Cf. the felicitous (37a), where the genitive phrase referring to the subject of a relative precedes all other constituents of the RC, and the infelicitous (37b), which includes the genitive phrase placed between the direct object of the RC and its predicate. (37c) demonstrates that the subject of the RC marked with its proper case (here, ergative) need not occupy the left periphery:

\[(37)\]
\[
\begin{align*}
\text{a.} & \quad \text{bava-} & \chi\text{jär-ä} & \text{ak:-ala} & \text{k:ɔţ} \\
& \text{father-GEN} & \text{girl-DAT} & \text{see-FUT(PTCP)} & \text{house}
\end{align*}
\]
\[
\begin{align*}
\text{b.} & \quad *\chi\text{jär-ä} & \text{bava-} & \text{ak:-ala} & \text{k:ɔţ} \\
& \text{girl-DAT} & \text{father-GEN} & \text{see-FUT(PTCP)} & \text{house}
\end{align*}
\]
\[
\begin{align*}
\text{c.} & \quad \chi\text{jär-ä} & \text{bava-} & \text{ak:-ala} & \text{k:ɔţ} \\
& \text{girl-DAT} & \text{father-ERG} & \text{see-FUT(PTCP)} & \text{house}
\end{align*}
\]

‘the house where the father sees his daughter’ [E]

Second, such genitive phrases can be separated from RCs by the material that clearly does not belong to relatives. In (38), for example, a quantifier which has the head in its scope is inserted between the genitive phrase and the predicate of a RC:

\[\ldots\]

\(^{25}\) Their assumptions on syntax of the constructions they discuss are rather different from my analysis of the Udi pattern; see Section 7.
Both these facts suggest that genitive phrases are not included into relatives. Third, adrelative genitive phrases are not compatible with other possessor phrases that do not participate in the semantic interpretation of RCs. In fact, such possessor phrases are dispreferred with relatives in general (39a), yet their co-presence with adrelative genitive phrases is considered absolutely infelicitous (39b):

(39) a. ?šo-tː-aj zu jäšäjnš-i kːož
    this-NO-GEN I live-AOR(PTCP) house

b. *šo-tː-aj bez jäšäjnš-i kːož
    this-NO-GEN I:GEN live-AOR(PTCP) house

‘that house of his where I lived’ [E]

This is likely to be a consequence of the fact that in Udi (as in many other languages) most contexts do not allow the presence of two referential possessors related to the same possessum. If this explanation is accepted, however, we should treat the adrelative genitive NP on a par with other referential possessor phrases.

Thus, genitivized arguments do not constitute a part of RCs but serve as the possessors of the heads of the matrix NPs. At the same time, the RCs presented in these phrases are involved in the interpretation of the possessive construction, because they specify the possessive relations. Since such constructions need not be confined to the expression of genitive, henceforth these will be called *possessor-relative constructions*.

Note that this treatment of the adrelative genitive in Udi easily explains the fact that genitivization with relatives is not restricted to subjects, since possessive relations in principle are not restricted to any roles. At the same time, it also conforms to the predominance of subjects of RCs among genitivized arguments. On the one hand, this may simply be a consequence of the fact that this construction was borrowed from Azerbajiani where only subjects of relatives can be marked for genitive. On the other hand, subjects are known to have many similarities with possessors: in particular, both prototypically serve as reference points for establishing the reference of the matrix constituent (which

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26 Ackerman and Nikolaeva use a similar, yet different term *possessive relative construction*. The hyphen in the present paper should emphasize both the fact that we do not speak of relativization of possessor and the possible relevance of word order (see Section 8).
is the clause for subjects and the matrix NP for possessors); see Keenan 1974; Langacker 1993. But if the possessive relation is most likely to be constructed in such a way that the possessor comes as a departure point for it, it is likely to be expressed with a predicate selecting the possessor as its subject.

7. Typological perspective
The construction described above for Udi is not that usual from the typological point of view. Nonetheless, it is not restricted to this language. The following examples (40)-(41) indicate that similar patterns are present in Western Armenian (Ackerman and Nikolaeva 1997; Ackerman 1998; Ackerman, Nikolaeva and Malouf 2004) and Dagur (Hale 2002).

(40) Western Armenian (Ackerman 1998)
(im) koɔtst-adz təram-əs
I:GEN steal-PTCP.PST money-1SG.PR
‘the money I stole’

(41) Dagur (Hale 2002: 110)
[məni au-sen biteg-min] adig sain
I:GEN buy-PERF book-1SG.PR very good
‘The book I bought is very good’

Both Western Armenian and Dagur employ head-marking in possessives (sometimes together with dependent-marking). That is why the structure of the construction is more obvious here than in Udi: the pronominal suffixes on the head cross-reference possessors, which in these examples turn out to be semantic arguments of RCs. Other languages displaying this kind of construction include Northern Ostyak (Ackerman and Nikolaeva 1997) and Yakut (Baker and Vinokurova 2010).

In fact, pronominal affixes are not necessary in possessor-relative constructions. Thus, a similar picture is observed in Kolyma Yukaghir (Maslova 2003), where in the case of 3rd person possessors (except for proper nouns) the head of the construction can contain a possessive (non-pronominal) suffix and be marked for the plurality of its possessor. Such marking is also observed when a noun is modified by (one type of) a RC. In (42), for example, the plural on the

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27 Note that although Udi had large contacts with Armenian dialects, these were mainly Eastern Armenian dialects, which seemingly lack this construction. Hence the possessor-relative construction in Udi cannot be the result of a direct borrowing from Armenian.

28 Nikolaeva (1999) states that such constructions are observed in quite a number of Uralic, Turkic and Mongolian languages and are occasionally found in Tungus.
head of the relative construction *jalhil-pe-gi* appears because of the plurality of the semantic subject of the RC:

(42) Kolyma Yukaghir (Maslova 2003: 421)

\[
\text{[odu-pe modo-1 jalhil-pe-gi] ñomö-d’e jalhil}
\]
Yukaghir-PL live-ANR lake-PL-POSS big-ATTR lake

\[\text{o-l’el} \]
COP-INF(INTR:3SG)

‘The lake where the Yukaghirs lived was a large lake’

Moreover, as Herd, Macdonald and Massam (2004) state, a pattern very similar to the possessor-relative one occurs in Polynesian languages, where head-marking *stricto sensu* is absent. Cf. the following example from Hawaiian:

(43) Hawaiian (Baker 2006: 10)

\[
\text{ka wā a Pāka’ā i ha’alele aku nei iā Waipi’o}
\]
DET time POSS Pāka’ā PERF leave thither PERF ACC Waipi’o

‘the moment when Pāka’ā left Waipi’o’

It is worth noting that the possessor-relative construction is found even in Azerbaijani; cf. (44a), in which the possessive suffix cross-referencing the notional subject of a RC occurs not on the future participle but on the head and which exists on a par with more canonical structures like (44b) (see also (25a) above). Note that the parallel constructions with past participles, which also normally require genitive subjects (cf. also (25b)), seem to be impossible; cp. (44a) and (44b):

(44) Azerbaijani

a. \[
\text{[O-nun gör-əcək iş-lər-i-ni]} \quad \text{mən əvvəl-dən}
\]
that-GEN do-PTCP:FUT work-PL-3SG.PR-ACC I beginning-ABL

\[\text{29 It is interesting that the variant where the possessor suffix occurs both on the past participle and on its head is accepted:}
\]
(i) \[
\text{[Mən-im gör-düy-üm iş-lər-im-i]} \quad \text{qeyd et}
\]
I-GEN do-PTCP:FUT-1SG.PR work-PL-1SG.PR-ACC note do

‘Note what I did’ [E]

This example seems to be a contamination of the construction we are interested in and the construction where the adrelative genitive is governed by a participle. It does not violate the original syntactic structure, however.
de-yə bil-m-ər-əm
say-DAT can-NEG-EV-1SG.S

b. [O-nun gör-əcəy-i iş-lər-i] mən əvvəl-dən
that-GEN do-PTCP:FUT-3SG.PR work-PL-ACC I beginning-ABL

de-yə bil-m-ər-əm
say-DAT can-NEG-EV-1SG.S
‘I cannot say beforehand what kinds of work he will do’ [E]

(45) Azerbaijani
a. *[Mən-im gör-dük iş-lər-im-i] qeyd et
I-GEN do-PTCP:FUT work-PL-1SG.PR-ACC note do(IMP)

b. [Mən-im gör-düy-üm iş-lər-i] qeyd et
I-GEN do-PTCP:FUT-1SG.PR work-PL-ACC note do(IMP)
‘Note what I did’ [E]

Curiously, it seems that in all of these languages except for Polynesian the possessor-relative construction is diachronically secondary. Actually, there is evidence that these languages originally used to have a construction where a deverbal noun headed (a functional analogue of) a RC, which motivated the possessive marking of its subject. In particular, it is this pattern that is found in Eastern Armenian, most Mongolian languages (to which Dagur belongs), most Turkic languages (of which Yakut is a member) and other Ostyak dialects. As concerns Kolyma Yukaghir, here the construction with the possessive marking on the predicate of the RC is present on a par with the possessor-relative construction, and the same holds for Azerbaijani. Moreover, all of these languages retained the original constraint prohibiting arguments of the RC other than subject to be represented as a possessor. I hypothesize that here the original construction involving a nominalized sentence with a possessor which was opposed to the head noun (46a) was reanalyzed as an attributive construction where the nominalized predicate of the RC lost (at least some of) its nominal properties and its possessor was therefore re-interpreted as the possessor of the whole nominal (46b)\(^30\):

\(^30\) Actually, the Azerbaijani facts completely support this view. Although both past and future participles originally had nominal distribution, the latter forms (marked with the suffix -əcək/-əcaq) gave rise also to the finite forms of categorical future. This could subsequently lead to a reanalysis of these forms in relative constructions as having verbal rather than nominal nature, as in (46b), the result of which we can see in (44a).
(46) a. \[[\text{POSSESSOR} \ldots \text{DEVERBAL}.\text{NOUN}]_{\text{NP}} \text{ NOUN}]_{\text{NP}}
   b. \[[\text{POSSESSOR} \ldots \text{PARTICIPLE}/\text{VERB}]_{\text{RC}} \text{ NOUN}]_{\text{NP}}

In fact, Udi shows the same evolution with the exception that the structure (46a) in this case belongs to the language from where the construction was borrowed, so the structure (46b) turns out to be the result of reanalysis of a construction belonging to another type of grammatical structure.

8. Conclusion
To sum up, in this paper I argued that the Udi adrelative genitive functions as the possessor of the matrix NP, while the relative clause in the construction involving the adrelative genitive specifies the possessive relation. Thus, in Udi we observe an instance of the possessor-relative construction, which is also found in some other languages of the world.

As it seems, the adrelative genitive pattern was borrowed by Udi, presumably from Azerbaijani, but underwent a reanalysis in order to make the pattern follow the principles of the Udi grammar. Interestingly, similar reanalysis occurred in other languages showing the possessor-relative construction.

Here, it is important to note that according to Ackerman and Nikolaeva, in Western Armenian and Northern Ostyak the adrelative possessor phrase constitutes a part of a RC. Moreover, as Baker (2006) showed, in Hawaiian the sequence of the adrelative possessor and the RC also manifests some properties of a single constituent there. For Udi, however, I argued that the possessor is structurally independent of the RC. Whether this difference is crucial depends on whether we assume the possibility of the gradual reanalysis allowing multiple analyses for one and the same construction. The gradual reanalysis could explain why the adrelative possessor may still behave as if it belongs to the RC according to some criteria but function as adnominal possessor (being marked as such and occurring in the periphery) according to other criteria. However, if the very possibility of the gradual reanalysis is denied, the Udi construction should be contrasted with other possessor-relative patterns, and we will still need a theory explaining the similarities between them.

In addition, there are a few other issues concerning possessor-relative constructions which require further typological investigation.

First, the origin of most possessor-relative constructions implies that they are not so natural for natural languages, because they appear as a result of reorganization of some less exotic structure; the only exception being Polynesian languages. I suspect that the reason for this lies in the principles of the semantic interpretation. RCs normally require an autonomous interpretation, i.e. their in-
interpretation cannot vary together with the meaning of the head noun. That is why, for example, RCs typically cannot convey such meanings as ‘former’ (cf. *the senator who is former) – these meanings cannot have an independent interpretation without appeal to the semantics of the head. In the reanalyzed possessor-relative construction, however, a RC cannot obtain any complete interpretation without the interpretation of the possessor phrase, which is at least to some degree structurally external. Therefore, the possessor-relative construction involves a non-standard interpretation of RCs and is not expected to occur widely.

Second, note that almost all of the attested examples of the possessor-relative construction occur in languages with left-branching NPs (i.e. in languages where dependents normally precede their head noun rather than follow it), although here Polynesian languages appear as an exception again. The correlation between the direction of branching in NPs and the presence of the possessor-relative construction may also have some semantic grounds. My preliminary observations suggest that in right-branching languages it is more often the case that the possessor is placed closer to the head. Hence in such languages the interpretation of the possessive construction should proceed before the RC comes into play, which clearly contradicts the essence of the possessor-relative pattern. In left-branching languages, possessors, on the contrary, are often found before RCs, which therefore occur between possessors and their heads. Consequently, RCs can be employed in the interpretation of possessives.

The particular status of the possessor-relative construction in Polynesian languages is, of course, worthy of attention: in these languages the sequence of the possessor and the relative clause follows the head noun rather than precedes it and there are no traces of “secondariness” of the construction under discussion. It would be interesting, then, to reconstruct the development of these constructions in order to understand to what degree they should be involved in the discussion of other possessor-relative constructions.

Third, it may be that just as the fact that the topicality of some argument plays an important role both in possessive and relative constructions, the very fact that the interpretation of the Udi relatives is based that much on the contextual and lexical information (see Section 3) could favor the reanalysis of the adrelative genitive construction as the possessor-relative one, because the same

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31 This observation is formulated in formal semantics as the claim that relative clauses are always intersective (Kornai 2008: 171). This seems to hold only for externally-headed RCs, though.

32 Those languages where possessors are or were (at some stage) introduced via the relative construction (see, e.g., Aristar 1991) apparently should be disregarded. There are also right-branching languages where possessors exceptionally are found to the left of the head, while RCs occur to the right of it. They do not contradict the idea presented below.
factors are principal in the interpretation of the possessive construction. Yet, despite the fact that the existence of the relative constructions based primarily on contextual and lexical information has been recognized in the literature (see Comrie 1998), by today these patterns have not been analyzed in sufficient detail and their interaction with possessives requires more research.

We thus see that even though the possessor-relative construction may seem quite transparent at first glance, its theoretical understanding still needs much more typological and semantic considerations.

Abbreviations used in glosses


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