Relative clauses in Chechen

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1. Relative clauses

1.1. Conventions

See example (1):

- relative clause: The part between brackets: [that my father had taken]
- head noun: The noun to which the relative clause is linked: picture
- relativized noun: The noun that is relativized in the RC: picture
- gap: Empty place left by relativized noun in RC: t
- resumptive: Pronoun filling the gap
- relativizer: Subordinator linking relative clause with matrix: that
- relative pronoun: Pronoun linking relative clause with matrix: which

1) I have given the picture, [that/which my father had taken t], to my children.

1.2. History of research on Chechen relative clauses

Traditional grammars:

- Morphology of participle
- Relative clause agrees in case with the head noun
  - Head noun absolutive → participle has no additional suffix
  - Head noun other case → participle gets oblique case suffix -chu

2) Suuna i dieshnash xae’a
   1S-DAT these word-PL-ABS know-PRS
   I know these words

3) [Sajna xu'u] dieshnash, niisa swa’aala lae’a suuna
   1S-DAT know-PRS-ADJ word-PL-ABS right speak-INF want-PRS 1S-DAT
   I want to pronounce the words that I know right.

4) [Lyra hwyequ-chu] muoxuo dittash uoramashca swadooxura.
   fiercely blow-PRS-OBL wind-ERG tree-PL-ABS root-PL-INS hither-D-extract-IMPF
   The fiercely blowing storm uprooted trees.

Recent research (Nichols 1994a, 1994b, 1997, Good 2003):

- Many constituent types can be relativized:
  - Subject, Direct Object
  - Locative, Possessor, Comparative, Instrument
- Relativized noun leaves a gap in the relative clause
- Gender agreement with noun in the relative clause
- Tense restrictions on main verb in relative clause, comparable to other subordinate clause’s tense restrictions (i.e: deela-clauses)

1.3. Status of the Chechen relative clause

Syntactic status of the Chechen relative clause:

- It has tense (present, past, future – several compound tenses) → IP
- It does not completely coincide with AdjP (Adjectival Phrases)
For the moment I argue to regard it as a CP.
  - Auxiliary *du* has a matching participial form *dolu*.
  - The –l suffix is used in other subordinators (see Table 1, category X).
  - Regard *dolu* as a phonological merger of IP head (auxiliary) and CP head (relativizer).
  - But note:
    - Participle forms of simple verbs don’t show an overt relativizer
    - Negative participle form *doocu* of auxiliary *daac* does not show overt relativizer

### Table 1 Several verbal suffixes

<table>
<thead>
<tr>
<th>Type</th>
<th>Infinitive</th>
<th>Meaning</th>
<th>Class</th>
<th>Root</th>
<th>QM</th>
<th>X</th>
<th>Neg</th>
<th>Mood</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present condition</td>
<td>(auxiliary)</td>
<td>b-</td>
<td>-el-</td>
<td>-ahw</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>belahw</td>
</tr>
<tr>
<td>Present condition</td>
<td>(auxiliary)</td>
<td>d-</td>
<td>-aac-</td>
<td>-ahw</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>daacahw</td>
</tr>
<tr>
<td>Present condition</td>
<td></td>
<td>dita</td>
<td>leave</td>
<td>v-</td>
<td>-it-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Counterfactual condition</td>
<td>(auxiliary)</td>
<td>d-</td>
<td>-el-</td>
<td>-ahwaara</td>
<td>delahwaara</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Counterfactual desire</td>
<td>(auxiliary)</td>
<td>v-</td>
<td>-el-</td>
<td>-ara</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>velara</td>
</tr>
<tr>
<td>Voilitive/Subjunctive</td>
<td>gan</td>
<td>see</td>
<td>go-</td>
<td>-j-</td>
<td>-la</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subjunctive</td>
<td>(auxiliary)</td>
<td>d-</td>
<td>-j-</td>
<td>-la</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voilitive</td>
<td>xila</td>
<td>be/happen</td>
<td>xil-</td>
<td>-i-</td>
<td>-la</td>
<td></td>
<td></td>
<td></td>
<td>xylila</td>
</tr>
</tbody>
</table>

### 1.4. Syntax of the Chechen relative clause

Take as basis the relative clause in (5). With directionality approach Figure 1.

5) \[
[Dudas t_i lieluosh dolu] ghullaqash_i
\]

**DUDA-ERG deal-PRS-PTC D-REL matter-PL-ABS**

*the things Duda was dealing with.*


*Figure 1 Formation of relative clause using the directionality approach*

At spell-out chain reduction is applied as shown in (6).

6) \[
[NP [CP ghullaqash_{DO}] [p [DudasSU [v ghullaqash_{DO} Dudas [vp ghullaqash_{DO} lieluosh_{D} lieluosh_{V}+v^{1+}] lieluosh_{V}+v^{2+}+dolu_{I}] ghullaqash_{DO} ]]
\]

Figure 1
2. Resumptives

2.1. Examples

Take sentence (7), and then relativize the recipient of the land. This results for instance in (8). When a resumptive (here the reflexive pronoun shiena) is used to fill the gap, the result can be as in (9).

7) Kilaaba cunna dika laatta dwaadelira.
Caleb-ERG 3S-DAT good land-ABS away-d-give-RFPS
Caleb gave him good land.

8) [Kilaaba t dika laatta dwaadella volu] stag hinca cigahw
Caleb-ERG good land-ABS away-D-give-NRPS V-REL person-ABS now there
vaaxa uohwaxi‘ira.
V-live-INF down-sit-RFPS
The person, [to whom, Caleb gave good land], has now settled down to live there.

9) [Shiena Kilaaba dika laatta della volu] stag
3S.RFL-DAT Caleb-ERG good land-ABS D-give-NRPS V-REL person-ABS
as dwaatettira.
1S-ERG away.push-RFPS
I rejected the person, [to whom, Caleb gave good land].

Note:
- A reflexive pronoun is used (this is a case of Long Distance Anaphor, since the link crosses a CP boundary)
- Usage is optional
- The relativized noun does not have to be the subject of the relative clause (in this case it is the indirect object)
- The head noun does not necessarily have to be the subject of the matrix clause (here it is the absolutive case direct object)
- Word order (both relative clause as well as matrix clause) plays a role, since for instance (10) is rejected.

10) *[Kilaaba shiena dika laatta dwaadella volu] stag
Caleb-ERG 3S.RFL-DAT good land-ABS away-D-give-NRPS V-REL person-ABS
as dwaatettira.
1S-ERG away.push-RFPS
I rejected the person, [to whom, Caleb gave good land].

Resumptive is also possible when the relativized noun is subject (11), when it is a possessor (13) an object of various adjuncts, like locative, comparative (15), postpositional phrase (14), but not when it is the direct object (12).

11) [(Shaa,) cynga xi malilitina jolu] Rebiqa,
3S.RFL-ERG 3S-ALL water-ABS let.drink-NRPS J-REL Rebecca-ABS
ch’oogha macjelira.
very hunger-J-RFPS
Rebecca, [who, had made him] drink water, became very hungry.

12) *[Muusana,shaa sielxana ginchu] staga, cunax, laecna dyycura
Musa-DAT 3S.RFL-ABS yesterday see-OBL man-ERG 3S-MAT about D-speak-IMPF
The man, who, had seen Musa, yesterday, spoke about him.

13) [(shien, Majra] vella jolu] zuda, maarie jaxara
The woman, whose husband had died, married.
14) [[shi{ena, t'iehw} daari{ x dina duuxar dolu] zuda, jara cigahw 3S.RFL-DAT on silk-MAT D-make-NRPS clothing.D D-REL woman.J J-was there
The woman, who, had clothes made from silk, was there.

15) [[shi{ el leqa] majra volchu] zudchynga.xi mali{tira as 3S.RFL-CMP tall husband-ABS V-REL woman-ABS water-ABS let.drink-RFPS 1S-ERG
I let the woman, whose, husband is taller than her, drink water.

But not every reflexive inside a relative clause is a resumptive, see (16) and (17).

16) [[shi{, zhima{x} volu jaalx vasha\_k swavaaliira Alxasta, 3S-CMP small-CMP V-REL six brother-ABS hither-D-bring-RFPSAlxast-ERG
Alkhast, brought the six brothers\_k, who\_k were younger than he\_.
Kamina 2007

17) [[shi{, zhima{x} volu Zulaj\_i jaalx vasha\_k swavaaliira Alxasta, 3S-CMP small-CMP V-REL Zulaj-GEN six brother-ABS hither-D-bring-RFPSAlxast-ERG
Alkhast, brought the six brothers\_k of Zulay\_i, who\_k were younger than he\_.

2.2. Syntax

The difference between clauses with and without resumptives can be explained straightforward by assuming that they are base-generated. See Figure 2.

Figure 2 Formation of relative clause using the directionality approach

2.3. Hierarchy


(1) Accessibility Hierarchy
Subject > Direct Object > Indirect Object > Object of a post- or prepositional phrase > Possessor > Object of comparison

Each element in the hierarchy is more accessible than the elements below it. E.g. if a language allows indirect objects to be relativized, it also allows direct objects and subjects to be relativized.
Chechen: relativization is possible for all the elements from the hierarchy. Resumptives are possible, except for the direct object.

2.4. Paradigm

Table 2 Usage of reflexive to fill the gap in the relative clause

<table>
<thead>
<tr>
<th>Relativized noun</th>
<th>Head noun in matrix clause</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Subject</td>
</tr>
<tr>
<td>Subject (Ergative)</td>
<td>(ok)</td>
</tr>
<tr>
<td>Direct Object</td>
<td>no</td>
</tr>
<tr>
<td>Subject (&quot;have&quot; clause)</td>
<td>ok</td>
</tr>
<tr>
<td>Possessor</td>
<td>ok</td>
</tr>
<tr>
<td>Subject (Dative)</td>
<td>ok</td>
</tr>
<tr>
<td>Indirect Object</td>
<td>ok</td>
</tr>
<tr>
<td>Goal</td>
<td>-</td>
</tr>
<tr>
<td>Adjunct object</td>
<td>yes</td>
</tr>
</tbody>
</table>

3. Extraposition

Normally relative clauses appear to the left of the head noun, as part of the noun phrase. Extraposed relative clauses occur to the right of the head noun (18).

18) San Syelzha-ghaala uohwavaan diezara, [t'amu o t'iuoxiinachu].

I had to come down to the city Grozny, which was destroyed by the war.

- Extraposition is only observed clause-final.
- There is some kind of connection with focus

3.1. Focus and extraposition

Take as basic sentence the one in (19).

19) Cunna cwa zuda jiezajelira, [geenachu tuoghi chuohw wash jolu]

He fell in love with a woman that lived in a distant valley

Extraposition is not possible when there is no focus, as in Figure 3.

Figure 3 Extraposition not possible without additional projections

a.

b.
Test for combination between focus and extraposition. Evaluate native speaker opinion about OVS variant of sentence (19): \[[\text{FocP OV [IP S [VP tO ] ]}]\] making the following variations:

- Relative clause in normal position versus extraposed (sentence final).
- Plain direct object (i.e: one woman) versus direct object containing a wh-question word (i.e: which woman? and who?).
- Relative clause with normal locative versus locative replaced by question word ‘where?’

### Table 3 Acceptability of question words in relative clause

<table>
<thead>
<tr>
<th>#</th>
<th>Order</th>
<th>Eval</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>O V S O\text{RC}</td>
<td>ok</td>
</tr>
<tr>
<td>b</td>
<td>O\text{RC} V S O</td>
<td>ok</td>
</tr>
<tr>
<td>c</td>
<td>O\text{RC} V S O\text{RC}</td>
<td>*</td>
</tr>
<tr>
<td>d</td>
<td>O V S O\text{RC}</td>
<td>*</td>
</tr>
<tr>
<td>e</td>
<td>O\text{RC}+O V S</td>
<td>ok</td>
</tr>
<tr>
<td>f</td>
<td>O\text{RC}+O\text{RC} V S</td>
<td>ok</td>
</tr>
<tr>
<td>g</td>
<td>O\text{RC}+O\text{RC} V S</td>
<td>ok</td>
</tr>
<tr>
<td>h</td>
<td>O\text{RC}+O\text{RC} V S</td>
<td>ok</td>
</tr>
</tbody>
</table>

Conclusions:
- Extraposition is only allowed when the RC does not contain a question word.
- Assume the question word indicates the presence of a focus feature:
  - Extraposition is only allowed when the RC does not contain a focus feature.
- This then leads to the following suggestion:
- The extraposed relative clause must be stranded somewhere in IP, i.e. not in a focus projection.

### 3.2. Raising analysis and extraposition

Consider the raising analysis for extraposed relative clauses as shown in Figure 4.

**Figure 4 Raising analysis for extraposed relative clauses**

Selectively crossing off relative clause and head noun only works (see \(a, b, c\) and \(d\) in Table 3), when the relative clause does not contain a wh-question word. Raising analysis is then problematic.
3.3. Adjunct analysis and extraposition

Consider the adjunct analysis for extraposed relative clauses as shown in Figure 5 (Henderson 2007).

**Figure 5 Adjunct analysis for extraposed relative clauses**

- When the relative clause contains a focus feature, then there is no extraposition, as in (a) of Figure 5. The relative clause CP is adjoined to the NP containing the head noun.
- When the head noun contains a focus (or topic) feature, but the relative clause as such not, then it adjoins to the copy of the argument inside the IP. The argument NP itself is in the focus (or topic) projection, and at spell-out is pronounced over there.

4. Conclusions

- **Analysis:**
  - The *adjunct* analysis provides an adequate syntactic description.
  - The *raising* analysis does not.
- **Resumptives:**
  - Reflexive pronouns can optionally be used as resumptives.
  - Direct objects don’t allow their gap to be filled with a resumptive.
  - Accessibility hierarchy not completely suitable for resumptives.
  - Resumptive syntax: base generated.
- **Extraposition:**
  - Extraposited relative clause does *not* contain a focus feature.
  - When there is extraposition, then the head noun is topic or focus.
  - Syntax: the extraposed relative clause adjoins to the argument position where it is pronounced at spell-out.

5. Challenges

- Why no resumptives for direct object?
- Word order restrictions in relative clause.
- Noun-class agreement puzzle.
6. Acknowledgments

This presentation is partly based on a term-paper I wrote in 2006 for the Advanced Syntax class led by professor doctor Lisa Cheng as part of the MA linguistics program of the University of Leiden. Many thanks to Anikó Liptak and Linda Hunnicken, who gave valuable input. I would also like to thank several Chechen speakers who evaluated data for me, but who would like to remain anonymous.

7. Affiliations

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8. References


9. Appendix

| AP | adjectival phrase or adjunct |
| B- | class-prefix B on the verb |
| CP | complementizer phrase |
| D- | class-prefix D on the verb |
| DAT | dative case |
| ERG | ergative case |
| FUT | future tense |
| GEN | genitive case |
| GOAL | goal case marking |
| IMPF | imperfective past tense |
| INS | instrumental case |
| J- | class-prefix J on the verb |
| LOC | locative case |
| NEG | negator |
| NML | nominalizer (verb to noun) |
| NP | noun phrase |
| NRPS | non-referential past. Used for past verbal adverbs and past verbal adjectives. Fairy tail matrix verbs also have this tense. |
| PL | plural |
| PRS | present tense |
| PTC | participial form (verbal adverb) |
| RFPS | referential past. Sometimes also called the "witnessed past". Usually matrix verbs in a narrative are in this tense. |
| V- | class-prefix V on the verb |
| VP | verb phrase |
10. Word order restrictions

Native speakers were asked to evaluate the acceptability of sentences with different word orders within their relative clauses. The role of the head noun was varied from intransitive subject in (20) to direct object in (21). Here IO\textsubscript{res} is the reflexive indirect object pronoun, functioning as resumptive.

20) [Kilaaba shiena, dika laatta dwaadella \textit{volu}] stag
   Caleb-ERG 3S.RFL-DAT good land-ABS away-D-give-NRPS V-REL person-ABS
cigahw vaaxa uohwaxillara.
   there V-live-INF down-sit-RFPS
The person, [to whom, Caleb gave good land], has settled down to live there.

21) [Kilaaba shiena, dika laatta dwaadella \textit{volu}] stag
   Caleb-ERG 3S.RFL-DAT good land-ABS away-D-give-NRPS V-REL person-ABS
gira suuna sielxana.
   see-RFPS 1S-DAT yesterday
Yesterday I saw the person, [to whom, Caleb gave good land].

The results of the native speaker's evaluation is in Table 4.

\textit{Table 4 Word order restrictions in relative clause with ditransitive verb}

<table>
<thead>
<tr>
<th>Order in RC S</th>
<th>O A</th>
<th>Ref</th>
<th>Order in RC S</th>
<th>O A</th>
</tr>
</thead>
<tbody>
<tr>
<td>S E O V</td>
<td>ok</td>
<td>ok</td>
<td>O S E V</td>
<td>?</td>
</tr>
<tr>
<td>IO\textsubscript{res} S E O V</td>
<td>ok</td>
<td>ok</td>
<td>IO\textsubscript{res} O S E V</td>
<td>?</td>
</tr>
<tr>
<td>S E IO\textsubscript{res} O V</td>
<td>?</td>
<td>ok</td>
<td>O IO\textsubscript{res} S E V</td>
<td>ok</td>
</tr>
<tr>
<td>S E O IO\textsubscript{res} V</td>
<td>?</td>
<td>ok</td>
<td>O S E IO\textsubscript{res} V</td>
<td>ok</td>
</tr>
</tbody>
</table>

Native speakers were also asked to evaluate the acceptability of a slightly different kind of sentences as shown in (22) and (23). Here the verb was a causativized transitive one. Results are in Table 5. Here G\textsubscript{res} stands for the causee (a resumptive).

22) [Rebiqas shiega xi malilitina \textit{volu}] stag
   Rebecca-ERG 3S-ALL water-ABS let.drink-NRPS V-REL man-ABS
cigahw laettash vara.
   there stand-PTC V-PST
The person, [whom, Rebecca had made drink water], was standing over there.

23) [Rebiqas shiega xi malilitina \textit{volu}] stag
   Rebecca-ERG 3S-ALL water-ABS let.drink-NRPS V-REL man-ABS
gira suuna sielxana.
   see-RFPS 1S-DAT yesterday
Yesterday I saw the person, [whom, Rebecca had made drink water].

\textit{Table 5 Word order restrictions in relative clause with causative verb}

<table>
<thead>
<tr>
<th>Order in RC S</th>
<th>O A</th>
<th>Ref</th>
<th>Order in RC S</th>
<th>O A</th>
</tr>
</thead>
<tbody>
<tr>
<td>S E O V</td>
<td>ok</td>
<td>ok</td>
<td>O S E V</td>
<td>no</td>
</tr>
<tr>
<td>G\textsubscript{res} S E O V</td>
<td>ok</td>
<td>ok</td>
<td>G\textsubscript{res} O S E V</td>
<td>no</td>
</tr>
<tr>
<td>S E G\textsubscript{res} O V</td>
<td>ok</td>
<td>?</td>
<td>O G\textsubscript{res} S E V</td>
<td>no</td>
</tr>
<tr>
<td>S E O G\textsubscript{res} V</td>
<td>no</td>
<td>?</td>
<td>O S E G\textsubscript{res} V</td>
<td>no</td>
</tr>
</tbody>
</table>

11. Noun-class agreement puzzle

The question here is: the main verb of the relative clause agrees in noun class with which argument?

Distinction needs to be made between two cases. The first situation is where the main verb of the relative clause is simple (it is either a simple verb or the auxiliary). In
this situation agreement as is shown in Table 6. In all these cases the agreement is with an argument in the absolutive case inside the relative clause, be it overtly present (in 2-5 and 7) or be it the gap of the relativized noun (in 1 and 6).

Table 6 Agreement of simple verb

<table>
<thead>
<tr>
<th>#</th>
<th>What is relativized?</th>
<th>Vb/Tense</th>
<th>Participial agrees in noun-class with:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Argument in RC</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Case</td>
</tr>
<tr>
<td>1</td>
<td>Subject of intransive</td>
<td>aux</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>Subject of transitive</td>
<td>simple</td>
<td>abs</td>
</tr>
<tr>
<td>3</td>
<td>Possessor of locative</td>
<td>aux</td>
<td>abs</td>
</tr>
<tr>
<td>4</td>
<td>Object of postposition</td>
<td>aux</td>
<td>abs</td>
</tr>
<tr>
<td>5</td>
<td>Subject of &quot;have&quot; clause</td>
<td>aux</td>
<td>abs</td>
</tr>
<tr>
<td>6</td>
<td>Object of &quot;have&quot; clause</td>
<td>aux</td>
<td>abs</td>
</tr>
<tr>
<td>7</td>
<td>Object of comparison</td>
<td>aux</td>
<td>abs</td>
</tr>
</tbody>
</table>

The second situation is the most challenging one. In this case the main verb of the relative clause is a compound one. Its first part is a simple verb, which agrees in noun class with an absolutive case argument inside the relative clause. Its second part is the participial auxiliary. What this word agrees with in noun-class varies, as shown in Table 7.

Table 7 Agreement of auxiliary from compound verb

<table>
<thead>
<tr>
<th>#</th>
<th>What is relativized?</th>
<th>Vb/Tense</th>
<th>Participial auxiliary agrees in noun-class with:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Argument in RC</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Case</td>
</tr>
<tr>
<td>1</td>
<td>Subject of transitive</td>
<td>cmpd/pst</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>Subject of transitive</td>
<td>cmpd/pst</td>
<td>-</td>
</tr>
<tr>
<td>3</td>
<td>Direct object</td>
<td>cmpd/prs</td>
<td>-</td>
</tr>
<tr>
<td>4</td>
<td>Indirect object</td>
<td>cmpd/prs</td>
<td>-</td>
</tr>
<tr>
<td>5</td>
<td>Possessor of subject</td>
<td>cmpd/pst</td>
<td>-</td>
</tr>
<tr>
<td>6</td>
<td>Possessor of subject</td>
<td>cmpd/pst</td>
<td>-</td>
</tr>
<tr>
<td>7</td>
<td>Goal in intransitive clause</td>
<td>cmpd/prs</td>
<td>-</td>
</tr>
<tr>
<td>8</td>
<td>Goal in intransitive clause</td>
<td>cmpd/prs</td>
<td>abs</td>
</tr>
<tr>
<td>9</td>
<td>Goal in intransitive clause</td>
<td>cmpd/fut</td>
<td>abs</td>
</tr>
<tr>
<td>10</td>
<td>Possessor of locative</td>
<td>cmpd/pst</td>
<td>-</td>
</tr>
</tbody>
</table>

Note in particular the minimal pair formed by (numbers 7 and 8 in Table 7), which are shown here as (24) and (25).

24) [Shiena, i baaxon qoochush bolu] stag, ooxa vyyr vu
3S.RFL-DAT that possession-ABS reach-PTC b-REL person-ABS 1P.EXC-ERG v-kill-FUT V-PRS
We will kill the person who inherits the possessions.

25) [Shiena, i baaxon qoochush volu] stag, ooxa vyyr vu
3S.RFL-DAT that possession-ABS reach-PTC v-REL person-ABS 1P.EXC-ERG v-kill-FUT V-PRS
We will kill the person who inherits the possessions.