The syntax of relative clauses

1: Basics

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About myself

- currently: syntax and morphology at the University of Leipzig
- PhD: Leiden University
- MA: University of Zurich
- in between: Konstanz, Zurich

Research interests:
- A′-movement, relative clauses, resumption, locality, copy theory
- complex predicates, verb clusters
- syntax-semantics interface: reconstruction, scope, binding
- coordination, ATB-movement, ellipsis
- syntactic microvariation, dialect syntax
- OT vs. MP (derivation vs. representation)
- rules vs. constructions (also: abstract vs. surface-oriented)
- morphology-syntax interface, esp. case, agreement, syncretisms
a new graduate programme in linguistics at the University of Leipzig: Interaction of grammatical building blocks

IGRA studies how grammatical building blocks in phonology, morphology and syntax interact and thereby restrict the distribution of linguistic expressions.

Types of interactions:

1. excitatory sequential interaction of building blocks: Feeding, Counter-Bleeding
2. inhibitory sequential interaction of building blocks: Bleeding, Counter-Feeding
3. inhibitory simultaneous interaction of building blocks: competition (disjunctive blocking, conflict)
4. excitatory simultaneous interaction of building blocks: cooperation

We will admit four doctoral students in April 2015; positions will be advertized on LinguistList.
Goals

- understand why RCs pose interesting challenges for formal syntax
- get an overview of the various analyses of RCs in the history of Generative Grammar
- become familiar with different types of RCs: head-internal RCs, appositive RCs, correlatives, free relatives
- learn to assess the relevance of reconstruction as a diagnostic
- become familiar with the properties of resumption
- understand why certain phenomena in RCs may provide an argument for top-down derivation
- learn what makes a good syntactic argument
Why relative clauses?

(1)  a. I saw the woman Peter kissed.
    b. \( \approx \) I saw \( x=\)woman such that Peter kissed \( x \).

- Somehow, *the woman* is related to both *saw* and *kissed*

- Movement?
  - Theta-criterion
  - Case filter/Activity Condition
  - Scope

(2) I saw every woman Peter kissed. \( \not\Rightarrow \) Peter kissed every woman

\( \rightarrow \) The relationship is obviously more complex
- the precise link between the two positions/functions is the central challenge posed by relative clauses
Outline

1. Why relative clauses?
2. Definition
3. Parameters of variation
   - Relationship head noun – RC
   - Marking the function of the HN in the RC
   - Which functions in the RC can be relativized?
   - Form of the RC
4. Schedule
5. References
Definition

- definition 1 (naïve):

  \textit{relative clause} = a clause which modifies a noun (= head noun)

  (3) I heard the claim that John was asleep.

- definition 2 (Andrews 2007: 206):

  \textit{relative clause} = a subordinate clause which delimits the reference of an NP by specifying the role of the referent of that NP in the situation described by the RC

- what about appositive RCs (non-intersective)?

  (4) a. The Japanese \{who are industrious\} now outcompete Europe.
      b. The Japanese, \{who are industrious\}, now outcompete Europe.
what about head-internal relative clauses (no obvious subordination)?

(5) [Nuna bestya-ta ranti-shqa-n] alli bestya-m ka-rqo-n.
man horse-ACC buy-PFV-3 good horse-EVD be-PST-3
‘The horse that the man bought was a good horse.’  Ancash Quechua

crucial parts (de Vries 2002: 14):
- RCs are subordinated
- RCs are clausal modifiers of NPs (intersective and non-intersective)
- An RC is connected to surrounding material by a pivot constituent, i.e. a constituent shared semantically by matrix clause and RC
- The theta-role and the syntactic role which the pivot plays in the RC are in principle independent of its roles outside the relative (but see attraction and matching)
Parameters of variation

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Parameters of variation

- the structural relationship between the head noun and the RC
- the marking of the function of the head noun inside the RC
- the functions which the relativized NP can have inside the RC
- form of the RC (particles, finiteness, reduction, nominalization)

→ the parameters are not fully independent
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The relationship head noun – RC

- Is the RC integrated into the main clause or is it at the periphery?
- Does the RC precede or follow the head noun?

1. Embedded RCs: Together with the head noun, the RC occupies a regular slot in the main clause (argument/adjunct)
2. Adjoined RCs: RC occurs at the periphery of the main clause
3. Free RCs: no obvious head noun
Embedded RCs

- Externally headed relative clauses
  - the RC is a subordinate clause to the head noun
  - RC and HN form a constituent: can be moved together
    (6) a. I saw [the man who Mary likes] in the park. →
    b. [The man who Mary likes] was seen in the park.

- prenominal vs. post-nominal relative clauses
  - English, German: RC follows head noun
  - Turkish and many others: RC precedes HN:
    (7) [oğl-u mekteb-e gid-en] adam son-3s.POS school-DAT go-SUB.REL man
    ‘the man whose son goes to school’
Embedded RCs

- Prenominal RCs
  - are often nominalized, usually lack relative pronouns
  - frequently found in head-final languages (e.g. Japanese, Turkish)

- Position of the RC
  - Despite their similar function, RCs and adjectives often occupy different structural positions, e.g., English
  - the more nominal/reduced an RC is the more it behaves like an adjective, compare the prenominal participial clauses in German whose external syntax is that of an adjective:

\[
(8) \quad \text{ein [seine Frau verehr-end-er] Direktor (cf. ein alt-er D.)} \\
\text{a his wife adore-PRT-M.NOM director (a old-M.NOM D.)} \\
\text{‘a director adoring his wife’} \quad \text{German}
\]
Embedded RCs

- Variation in the position of the determiner (de Vries 2002: 63):
  - D + N + RC: (Englisch, German etc.)
  - N + D + RC: (Urhobo [Kwa, Nigeria], Albanian)
  - N + RC + D: (Yoruba [Kwa, Nigeria], Indonesian)
  - D + RC + N: (German: participial RCs, Tigre, Yurok)
  - RC + D + N: (Korean, Abkhaz)
  - RC + N + D: (Basque, Ijo)
Embedded RCs

- Head-internal relative clauses
  - no visible external head noun, instead, the HN surfaces inside the RC, usually in the position corresponding to its function
  - Bambara (Mande, Niger-Congo): The head of the RC is marked by the postposition *min* (Keenan 1985)

(9) a. n ye so ye
   I PST house see
   ‘I saw the house.’

   b. tyə be [n ye so min ye] dyo
   man PRS I PST house REL see build
   ‘the man builds the house that I saw.’

- Ancash Quechua: no special marking

(10) [Nuna bestya-ta ranti-shqa-n] alli bestya-m ka-rqo-n.
    man horse-ACC buy-PFV-3 good horse-EVD be-PST-3
    ‘The horse that the man bought was a good horse.’ Ancash Quechua
Embedded RCs

- head-internal RCs are often ambiguous (Comrie 1981: 139):

  (11) [Kan kwitsa-man kwintu-ta willa-shka]-ka llapa sumaj-mi
       you girl-to story-ACC tell-NOM-TOP very pretty-VAL
       ‘The girl to whom you told the story is very pretty.’ or
       ‘The story that you told to the girl is very pretty.’
       *Imbabura Q.*

- embedded head-internal RCs are called *circumnominal*

- they usually have the distribution of NPs, thus bear case, occur with D:

       Peem.ERG book.ABS carry.PRT the.ABS I.GEN be
       ‘The book Peem carried is mine.’
       *Tibetan* Keenan (1985)
Adjoined RCs

- RC is adjoined to the main clause, occurs in a peripheral position
- adjoined RCs can be internally or externally headed
  - extraposed RCs in English:
    
    (13) I met the man yesterday [who Claudia wants to marry].

  - head-internal version (Hale 1976: 79):
    
    (14) [Nyuntulu-rlu kutja-npa wawirri pantu-rnu] ngatjulu-rlu you-ERG rel-2s kangaroo spear-PST I-ERG kapi-rna purra-mi. FUT-1S cook-NPST
    ‘I will cook the kangaroo that you speared.’ Warlpiri
Adjoined RCs

- correlatives: left-dislocated RC with a resuming element in the main clause (demonstrative etc.)

(15) \([\text{CORCP} \ldots \text{Rel-XP}_i \ldots] [\text{TP} \ldots \text{Dem-XP}_i \ldots]\)

(16) \([[\text{jo CD}]_i \text{sale-par hai}]_i \text{Maya} [\text{us CD-ko}]_i \text{khari:d-egi: Rel CD sale-on be.PRS Maya.F DEM CD-ACC buy-FUT.F}

‘Maya will buy the CD that is on sale.’

(Lit. ‘[Which CD is on sale], Maya will buy that CD.’) Hindi

- the head noun can occur in the main clause, in the RC or in both:

(17) a. \([\text{CORCP} \ldots \text{Rel-XP}_i \ldots] [\text{TP} \ldots \text{Dem-XP}_i \ldots]\)

b. \([\text{CORCP} \ldots \text{Rel} \ldots] [\text{TP} \ldots \text{Dem-XP}_i \ldots]\)

c. \([\text{CORCP} \ldots \text{Rel-XP}_i \ldots] [\text{TP} \ldots \text{Dem}_i \ldots]\)
Adjoined RCs

- Multi-headed correlatives

(18) [jis-nei joj kar-na: cha:h-a]i/j [us-nei voj ki-ya:] Rel-ERG REL do-GER want-PFV Dem-ERG Dem do-PFV

‘For x, y s.t. x wanted to do y, x did y.’

(Lit. ‘Who wanted to do what, he/she did that.’)

- extraposed appositive RCs with internal heads (Bhatt 2005, see also Serbo-Croatian, Keenan 1985: 153):

(19) I read the New Yorker yesterday, [which magazine is one of the finest in the country].
Overview: HN and RC

- cross-classification (Lehmann 1986: 666)

<table>
<thead>
<tr>
<th>head</th>
<th>adjoined</th>
<th>embedded</th>
</tr>
</thead>
<tbody>
<tr>
<td>head-internal</td>
<td>preposed</td>
<td>circumnominal</td>
</tr>
<tr>
<td>head-external</td>
<td>postposed</td>
<td>adnominal (pre-/post-)</td>
</tr>
</tbody>
</table>

- Languages often have several types:
  - German, English: adnominal (post-), postposed (= extraposed)
  - Warlpiri: preposed, postposed
  - Hindi: preposed (corr), postposed, adnominal (post-)
  - Turkish: adnominal (pre-), postposed
Free relatives

- have the distribution of an NP/PP, but there is no visible nominal/prepositional layer:

(20)  
   a. I like what you say.
   b. We should talk to whom/whoever he talks.
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Relative pronouns

- occur in the left periphery of the RC (→ movement)
- encode the function in varying degrees of explicitness:
  
  \[ (21) \quad \text{This is the man whom I met.} \]

- differ in form from the \textit{wh}-pronouns in many languages (unlike English)
- pronoun or complementizer? – pied-piping:
  
  \[ (22) \quad \text{the man with whom/*with that I spoke} \]

- do not occur in prenominal and circumnominal RCs
Resumption

- a regular personal pronoun occupies the position corresponding to the function of the HN:

(23) ha-ʔiš še raʔiti ʔoto
the-man that saw.1s him
‘the man that I saw’  

Hebrew Shlonsky (1992)

- very flexible strategy, found with practically all grammatical functions

- hardly occur in prenominal RCs (because they are often nominalized), but see Mandarin

- do not occur in circumnominal RCs, see de Vries (2002: 38)
Other Strategies

- deletion/gap-strategy

(24) the man [I saw __]

- Does not work for all functions:

(25) *the man [I saw __’s sister] (= whose sister I saw)

- Doubling: HN inside and outside the RC (rare), Keenan (1985: 152)

(26) [PeemE coqtsee waa-la kurka thii-pe] coqtse
Peem.ERG table.GEN under-DAT cross.ABS write-PART table
the na noo-qi yin
the.ABS I.ABS buy-PRS be
‘I will buy the table under which Peem made a cross.’ Tibetan
Other Strategies

Turkish: Type of participle indicates grammatical relation:

\[(27)\]

a. [mekteb-e gid-\textit{en}] oğlan
   school-DAT go-SUB.REL boy
   ‘the boy who goes to school’

b. [Halil-in öldür-düğ-ü] adam
   Halil-GEN kill-NOM-3s.POS man
   ‘the man who Halil killed’
Parameters of variation

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Accessibility of functions

- Main-clause function of the pivot is unrestricted, but the roles inside the RC are often restricted:
- Noun Phrase Accessibility Hierarchy (Keenan and Comrie 1977)

$$(28) \quad \text{SU} \succ \text{DO} \succ \text{IO} \succ \text{GEN} \succ \text{OCOMP}$$

- The higher the function, the more likely it is that it can be relativized
- Different strategies cover different parts of the hierarchy
- In some languages, only very few functions can be relativized:
  - Only SU: Malagasy, Dyirbal, Tagalog $\rightarrow$ other functions must first be promoted to SU
  - Only SU+DO: Luganda (Bantu) $\rightarrow$ obliques must be promoted
## Accessibility of functions

Distribution of relativization strategies according to WALS (Comrie and Kuteva 2005):

<table>
<thead>
<tr>
<th>strategy</th>
<th>SU</th>
<th>INST</th>
</tr>
</thead>
<tbody>
<tr>
<td>relative pronoun</td>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td>head-internal</td>
<td>24</td>
<td>14</td>
</tr>
<tr>
<td>resumption</td>
<td>5</td>
<td>20</td>
</tr>
<tr>
<td>gap</td>
<td>125</td>
<td>55</td>
</tr>
<tr>
<td>impossible</td>
<td>0</td>
<td>10</td>
</tr>
</tbody>
</table>
Accessibility of functions

- Geographical distribution of relativization strategies: SU

- yellow: relative pronoun
- black: head-internal
- red: resumption
- blue: gap

WALS 122A
Accessibility of functions

- Geographical distribution of relativization strategies: INST

- yellow: relative pronoun
- black: head-internal
- red: resumption
- blue: gap
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Relativization markers

- particles (in C?) indicating the clause type (see also de in Mandarin)

(29) s Chuchichäschtli, won i i de ike kchauft han
    the kitchen cupboard I in the Ikea bought have.1s
    ‘the kitchen cupboard I bought at Ikea’

Swiss German

- as suffixes (Keenan and Comrie 1977: 22)

(30) [emakume-a-ri liburu-a eman dio-n] gizon-a
    woman-DEF-DAT book-DEF give AUX-REL man-DEF
    ‘The man who gave the book to the woman’

Basque

- sometimes these particles agree with the HN:

(31) ki-tabu a-li-cho-ki-soma Ali
    7-book 1-PST-REL7-OM7-read Ali
    ‘the book which Ali read’

Swahili

- marker indicates strategy: aL = gap; aN = resumption (McCloskey 1990: 205)

(32) a. an fear a bhuail tú __ b. an fear ar bhuail tú é
    the man aL struck you
    ‘the man that you struck’

Irish
Reduction/nominalization

- Prenominal RCs are frequently nominalized: participles, subjects in genitive (Andrews 2007: 232):

(33) kore wa [ano hito ga/no kai-ta] hon desu
this TOP that person NOM/GEN write-PST book is
‘This is the book which that person wrote.’

- No reduction with correlatives or extraposed RCs:

(34) a. People [reported to be absent] will be fined.
b. *People will be fined [reported to be absent].
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Schedule (tentative)

1: Intro: Definition, parameters of variation
2: Analyses of RCs in the history of Generative Grammar (part 1)

\[(35)\]

a. \[[DP D [NP [NP N ]] [CP Op_{1} \ldots V \_1 ]]]\] HEA
b. \[[DP D [CP [DP N_{2} [D' Op \_2 ]]_{1} \ldots V \_1 ]]]\] HRA
c. \[[DP D [NP [NP N ]] [CP [DP Op NP]_{1} \ldots V \_1 ]]]\] MA

- Where is the RC attached? N or D?
- Is the RC a complement or an adjunct?
- Internal structure of RCs: movement, left-periphery
- Relationship between HN and the operator
- Head-Raising: various implementations; arguments and problems

3: Analyses of RCs in the history of Generative Grammar (part 2)

- Head-Raising: more implementations and problems
- Matching Analysis
- The relevance of reconstruction
Schedule (tentative)

4: Correlatives (case study by Bhatt 2003)
   - How is the CorCP connected to the demonstrative?
   - Reconstruction
   - Economy condition on Merge

5: Appositive RCs (case study by de Vries 2006)
   - Analyses of appositive RCs
   - A coordination analyses
   - ARCs as false free relatives

6: Head-internal RCs
   - Is there also an external head?
   - Is there LF-movement?

7: Free RCs
   - Category of the FRC
   - Internal structure: position of the pronoun, is there a D-head?
   - Matching + Attraction
8: Resumption
- Movement or base-generation? – various implementations
- Distribution of resumptives
- Case study: Resumption in Swiss German

9: Prolepsis
(36) der Mann, von dem ich glaube, dass Maria ihn mag
the man of whom I believe.1s that Mary him likes
‘the man who I believe Mary likes’

- Is the of-PP an argument?
- Base-position of the of-PP?
- Licensing by predication
- Ellipsis accounts for partial reconstruction

10: Case attraction and Matching as evidence for top-down derivation
- Problems for bottom up: activity, look-ahead
- Case checking under matching
- Hierarchy effects


