

# The syntax of relative clauses

## 1: Basics

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## 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.  $\not\approx$  Peter kissed every woman
- 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):

**relative clause** = a clause which modifies a noun (= head noun)

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

- definition 2 (Andrews 2007: 206):

**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.

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## Definition

- 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

- 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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## 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' *Turkish*

## 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

- 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) ein [seine Frau verehr-end-er] Direktor (cf. ein alt-er D.)  
 a his wife adore-PRT-M.NOM director ( a old-M.NOM D.  
 'a director adoring his wife' *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 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:

(12) [[PeemE thep khii-pa] the] nee yin.  
 Peem.ERG book.ABS carry.PRT the.ABS I.GEN be  
 ‘The book Peem carried is mine.’ *Tibetan Keenan (1985)*

## 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.’

*Bambara*

- 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*

## 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) [CORCP ... Rel-XP<sub>i</sub> ...] [TP ... Dem-XP<sub>i</sub> ...]

(16) [[jo CD]<sub>i</sub> sale-par hai]<sub>i</sub> Maya [us CD-ko]<sub>i</sub> 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.’ *Hindi*  
 (Lit. ‘[Which CD is on sale], Maya will buy that CD.’)

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

(17) a. [CORCP ... Rel-**XP**<sub>i</sub> ...] [TP ... Dem-**XP**<sub>i</sub> ...]  
 b. [CORCP ... Rel ...] [TP ... Dem-**XP**<sub>i</sub> ...]  
 c. [CORCP ... Rel-**XP**<sub>i</sub> ...] [TP ... Dem<sub>i</sub> ...]

## Overview: HN and RC

- cross-classification (Lehmann 1986: 666)

	RC	
head	<i>adjoined</i>	<i>embedded</i>
<i>head-internal</i>	preposed	circumnominal
<i>head-external</i>	postposed	adnominal (pre-/post-)

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

## Adjoined RCs

- Multi-headed correlatives

(18) [jis-ne<sub>i</sub> jo<sub>j</sub> kar-na: cha:h-a]<sub>i/j</sub> [us-ne<sub>i</sub> vo<sub>j</sub> 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.’ *Hindi*  
 (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].

## 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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## Resumption

- a resumptive 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)

## Relative pronouns

- occur in the left periphery of the RC (→ movement)
- encode the function in varying degrees of explicitness:
 

(21) This is the man whom I met. DO
- differ in form from the *wh*-pronouns in many languages (unlike English)
- pronoun or complementizer? – pied-piping:
 

(22) the man with whom/\*with that I spoke
- do not occur in prenominal and circumnominal RCs

## 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-en] oğlan  
 school-DAT go-SUB.REL boy  
 'the boy who goes to school' SU
- b. [Halil-in öldür-düğ-ü] adam  
 Halil-GEN kill-NOM-3s.POS man  
 'the man who Halil killed' non-SU

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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) SU > DO > IO > GEN > 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 (also: Dyirbal, Tagalog) → other functions must first be promoted to SU
    - only SU+DO: Luganda (Bantu) → obliques must be promoted

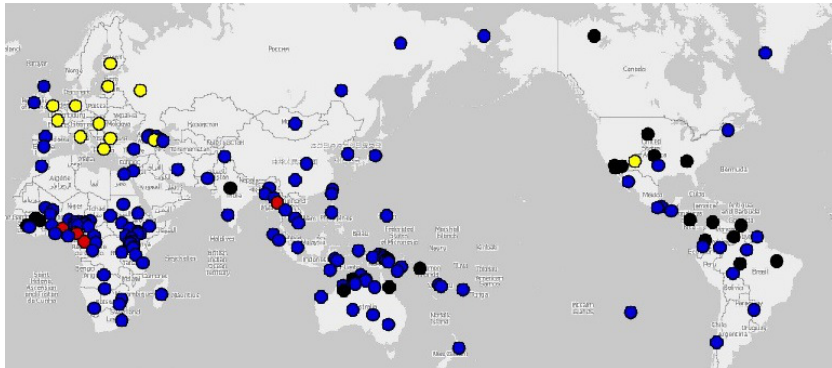
## Accessibility of functions

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

strategy \ function	SU	INST
relative pronoun	12	13
head-internal	24	14
resumption	5	20
gap	125	55
impossible	0	10

## Accessibility of functions

- Geographical distribution of relativization strategies: SU



WALS 122A

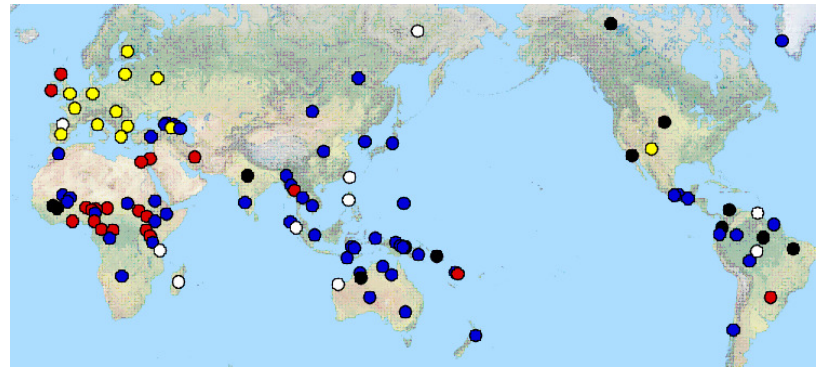
- yellow: relative pronoun
- black: head-internal
- red: resumption
- blue: gap

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## Accessibility of functions

- Geographical distribution of relativization strategies: INST



WALS 123

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

## Relativization markers

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

(29) s Chuchichäschtl*i*, **won** i \_\_ i de Ikea kchauf*t* han  
the kitchen cupboard C 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 aN struck you him  
'the man that you struck' '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.' *Japanese*

- 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].

## 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<sub>1</sub> ... V \_\_\_<sub>1</sub> ]]] HEA  
 b. [DP D [CP [DP N<sub>2</sub> [D' Op \_\_\_<sub>2</sub> ]]<sub>1</sub> ... V \_\_\_<sub>1</sub> ]]] HRA  
 c. [DP D [NP [NP N ] [CP [DP Op NP]<sub>1</sub> ... V \_\_\_<sub>1</sub> ]]] MA
- Head-external analysis: 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

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- 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

## Schedule (tentative)

- 8: Resumption
  - Movement or base-generation? – various implementations
  - Distribution of resumptives
  - 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’                   *Standard German*

  - 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

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