

Relative clauses

(based on material by Manfred Krifka)

What are relative clauses?

- Relative clauses (RC) serve to modify a nominal expression
Peter read [the book]
Peter read [the book that Paula bought]
Meaning of *book* is restricted by the property to be bought by Paula
- Two perspective:
 - External perspective
How is RC related to expression that is modified
e.g. German: gender agreement, right adjacency
das Buch [das Paula gekauft hatte]
 - Internal perspective:
How is role of the modified expression within the RC expressed?
e.g. German: movement to clause initial position + gap
[das Paula _ gekauft hatte]

Restrictive and non-restrictive RCs

- two basic functions of RCs
 - restrictive RCS
restrict the set of objects within the extension of a noun
We will reward every boy [who does his homework].
 - non-restrictive (appositive) RCS
add background information about extension of modified noun without restricting it
Yesterday I met Bill, [who had just returned from a journey]

Restrictive and non-restrictive RCs

- different syntactic integration into main clause
 - restrictive:
Peter mentioned [_{DP} the [_{NP} book [which/that he knew]]
 - non-restrictive:
Peter mentioned [_{DP} [_{DP} the book] [which he knew]]
 - therefore
 - proper nouns can only be combined with non-restrictive RCs
 - only restrictive RCs can appear within quantified DPS
- (see examples on previous slide)

Restrictive and non-restrictive RCs

- systematic syntactic distinctions between restrictive and non-restrictive RCs
 - English: *that* only with restr. RCs, comma only with non-restr. RCs
Peter read the book that Paula had recommended.
Peter read the book, which Paula had recommended.
 - Persian: *-i* as marker on the modified noun
Mardha-i [ke ketabhara be anha dade budid] ratand
Men-SUB which books to them given have went
'the men to whom you gave the book have gone'

Mo'allef [ke nevisandeye xubi-st] in sabkra exteyar karde ast
author this writer good-is this style chosen has
'the author, who is a good writer, chose this style'

RCs, internal perspective

- The entity which the head of the RCs refers to is picked up again within the RC
Peter read the book [that Mary gave him]
[Peter read a book x] & [Mary gave him x]
- Function of RC:
 - variable x has a role within the RC
 - it also has a role within the matrix clause
- first function is marked in various ways across languages:
 - relative pronouns
 - subordinator
 - gaps or resumptive pronouns
 - head of RCs occurs within RC

Strategies of RC formation: relative pronouns

- relative pronouns:

the variable within the relative clause is realized as a clause-initial pronoun

*Peter read the book [**which** Mary gave him]*

- relative pronoun indicates case, number, gender

Peter las den Roman, den Paul ihm __ empfohlen hatte

Peter las den Roman, der __ von Paul gelobt wurde

Peter traf den Jungen, dem Paul __ ein Eis geschenkt hatte

Peter traf den Jungen, auf den Paul ihn __ aufmerksam gemacht hatte

Strategies of RC formation: relative pronouns

- (language-specific) constraints on how deeply the relative pronoun is embedded

Russian:

matrix objects can be relativized, but not embedded objects

devushka, [kotoruju ja ljublju]

girl who-ACC I love

'the girl that I love'

**devushka, [kotoruju ty думаеш, что я люблю]*

girl who-ACC you think that I love

'the girl that you think that I love'

Strategies of RC formation: relative pronouns

- (language-specific) constraints on how deeply the relative pronoun is embedded

English:

embedded objects are easier to relativize than embedded subjects

the girl [that you think (that) I love]

*the girl [that you think (*that) loves me]*

Hungarian:

(with some inter-speaker variation) embedded objects can be relativized, but not embedded subjects

a pénz, [amit mondtam, hogy a fiu elvett]

the money which-ACC I-said that the boy took-away

'the money that I said that the boy took away'

**a fiu, [aki mondtam, hogy elvette a pentz]*

the boy who I-said that took-away the money-ACC

'the boy that I said took away the money'

Strategies of RC formation: subordinators

- subordinators only indicate that the RC is subordinate to the head

examples:

- English *that*, carrying neither case nor number or gender
- German participial constructions, where agreement with the head noun indicates subordination

Peter las [das [[___ ihm von Maria gestern empfohlen]-e] Buch]
Peter sah [einen [[___ mit dem Hund um die Wette laufend]-en] Menschen]

Gap corresponds to subject role of participial construction

Strategies of RC formation: subordinators

- Turkish:
non-finite participial construction, formed with nominalization suffix *-dig*:
[Hasan-in Sinan-a ver-dig-i] patates-i yed-im
Hasan of Sinan to give his potato-ACC I-ate
'I ate the potato that Hasan gave to Sinan'
- Basque:
finite participial construction, marked by subordinator *-n*
Gizona-k emakunmea-ri liburua eman dio
man-ERG woman-DAT book has-given
'The man has given the book to the woman.'
- [emakumea-ri liburua eman dio-n] gizona*
'the man who has given the book to the woman'
- [gizona-k emakumea-ri eman dio-n] liburua*
'the book which the man has given to the woman'
- [gizona-k liburua eman dio-n] emakumea*
'the woman to whom the man has given the book'

Strategies of RC formation: no marking

- English reduced relatives

the man [Bill introduced Ben to _]

the man [Bill introduced _ to Bob]

no relative pronoun

no subordinator

gap inside relative clause

Strategies of RC formation: marking of variable within RC

- How is the variable within the RC identified?
 - relative pronoun strategy:
der Roman, den [der Mann der Frau gegeben hat]
den: accusative, i.e. head of RC fills accusative argument role of RC
 - subordinator strategy 1:
der [von Paul empfohlen-e] Roman
head always fills subject role of RC
 - subordinator strategy 2:
the novel [that Paul recommended]
direct object within RC is missing, thus head fills this role
- These strategies are complex and frequently lead to ambiguities:
the model that the artist helped to paint

Strategies of RC formation: marking of variable within RC

- Some languages mark variable within RC with **resumptive pronoun**
- sometimes possible in English too:
**This is the road which I don't know it.*
This is the road which I don't know where it leads.
- In many languages this strategy is standardly used
- Persian, relativization of non-subjects:
*Mard-i [ke (*u) bolandqadd bud] juje-ra kost*
man that he tall was chicken-ACC killed
'The man that was tall killed the chicken.'

Hasan mari-i-ra [ke zan (u -ra) zad] misenasad.
Hasan man-ACC that woman he-ACC hit knows
'Hasan knows the man that the woman hit.'

Man zan-i-ra [ke Hasan be u sibe zamini dad] misenasam.
I woman-ACC that Hasan to her potato gave I-know
'I know the woman to whom Hasan gave the potato.'

Strategies of RC formation: marking of variable within RC

- Head-internal relative clauses
- head noun appears in its canonical position **within** the RC; the RC as a whole functions as DP within the matrix clause
- example: Bambara:
marking of head by *min*

N ye so ye.

I PAST house the see.

'I saw the house.'

*Tye be [n ye so **min** ye] dyo.*

man PRESENT I PAST house REL see build

'The man is building the house that I saw.'

Strategies of RC formation: marking of variable within RC

- example: Maricopa (Arizona):

aany=lyvii=m [*'iipaa ny-kw-tshqam-sh*] *shmaa-m*
yesterday man 1-rel-slap.dist-subj sleep-real
'The man who beat me yesterday is asleep.'

Strategies of RC formation: marking of variable within RC

- Some languages repeat the head noun
- it occurs both within and outside the RC
- example: Piraha (South America)

boítóhoi bog-ái-hiab-i-s-aoaxái boító báosa xig-i-sai (hix)

boat come-atelic-neg-epenth-?-inter boat barge bring-
epenth-nmlz (comp/inter)

‘Might it be that the boat (which) tows barges is not coming?’

Strategies for subject relativization

- [WALS map](#)

Strategies for oblique relativization

- [WALS map](#)

The Accessibility Hierarchy

- In many languages, relativization is restricted to certain syntactic positions
- restriction to subject:
German participial constructions

der [dem Kind ein Bild zeigende] Mann
das [von dem Mann dem Kind gezeigte] Bild

Malagasy (VOS language, Madagascar)

Nahita ny vehivavy ny mpianatra
saw the woman the student
'The student saw the woman.'

ny mpianatra [izay nahita ny vehivavy]
the student that saw the woman
'the student who saw the woman' / *the student who the woman saw

The Accessibility Hierarchy

- other meanings are expressed using diathesis

Nividy ny vary ho an'ny ankizy ny vehivavy.

bought the rice for the children the woman

'The woman bought the rice for the children.'

Novidin' ny vehivavy ho an'ny ankizy ny vary

was-bought the woman for the children the rice

'The rice was bought for the children by the woman.'

Nividianan' ny vehivavy ny vary ny ankizy.

was-bought-for the woman the rice the children

'The children were bought the rice by the woman.'

ny var [izay novidin'ny vehivavy ho an'ny ankizy]

'the rice that was bought for the children by the woman.'

ny ankizy [izay nividianan'ny vehivavy ny vary]

'the children who were bought rice by the woman'

The Accessibility Hierarchy

- general hierarchy:

subject > direct object > indirect object > possessor

- universal generalization:

If a language admits relativization of a position within the hierarchy, it admits relativization of all positions to the left of it.

(There are a few known exceptions; some West-Austronesian languages admit relativization of subject and possessor, but not of objects.)

The Accessibility Hierarchy

- examples:
 - only subject-relativization:
Malagasy, German participial constructions (see above)
 - only subject and object:

Kinyarwanda:

N-a -bonye umugabo [w -a -kubise abagore].
I PAST see man RELATIVE PAST strike woman
'I saw the man who struck the women.'

Nabonye abagore [Yohani yakubise]:
I-saw woman John he-struck
'I saw the woman that John struck.'

not possible to relativize the instrument in
Yohani yanditse ibaruwa n -ikaramu.
John wrote letter with pen
'John wrote the letter with the pen.'