

Comparative superlatives in relative clauses

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1 Introduction

- Languages like Italian and Spanish extensively use relativization as a strategy to form relative interpretations of superlatives. More so than English.

To convey (1), (3a) is used. (3b) is ungrammatical or does not have a superlative interpretation.

- (1) Jonh read the most books.
 ≈ John read more books than any other relevant person

- (3) a. Gianni è quello che ha letto più libri
 Gianni is the.one who has read more books
 b. *Gianni ha letto \emptyset / il/ i più libri
 Gianni has read the.NEUTR. the.PL more books

Same for (4)

- (4) John ran the fastest
 ≈ John ran faster than any other relevant person

- (5) a. Gianni è quello che ha corso più velocemente
 Gianni is the.one who has run more fast
 b. *Gianni ha corso \emptyset / il/ i più velocemente
 Gianni has run the.NEUTR. more fast

More in general, I take postnominal superlatives to be reduced relative clauses.¹

- (6) il tavolo (che è) più lungo
 the table which is more long
 ‘the longest table/the table which is longest’

Today, I will only discuss quantity superlatives like (3a) and predicative superlative such as (6).

- These relative clauses don’t behave like restrictive ones.

¹Prenominal superlatives on the other hand are attributive modifiers. They are way more restricted in their distribution and hardly compatible with any relative interpretation.

Quick note on the intersectivity of restrictive relatives

Since Partee 1973, it is normally assumed that restrictive (reduced) relative clauses denotes sets which semantically combine with the head noun through intersection

- (7) the book [that I bought]
 the [λx . x is a book and I bought x]

Intersection is a symmetric operation and more than one set can intersect with the same head noun: stacking is to be expected.

These relative clauses are not intersective modifiers (see Schueler 2006 and Bhatt and Pancheva 2012 for discussion of cases like (8)) and differ from predication at the sentential level, like the contrast between (9) and (6) shows.

- (8) Peter is the student [who has the most money]
 $\not\approx$ PETER has the most money
 (some non-student may be richer than Peter)

- (9) Il tavolo è più lungo
 the table is more long
 ‘the table is longer/*longest’ (cf. (6))

The challenge is to provide a compositional analysis of superlatives which are (contained in) predicates that don’t behave like normal predicates (e.g. they are not intersective)

2 Amount relatives

- Carlson 1977 observed that some RCs do not clearly fit in the classical distinction between restrictive relative clauses and appositive. He dubbed them *amount relatives*. (Heim 1987 used the more general term *degree relatives* and Grosu and Landman 1998 extended this class and named it *maximalizing relatives*).

- (10) It will take us years to drink the champagne that they spilled that evening.
 \approx It will take us years to drink as much champagne as they spilled that evening.

adapted from Heim 1987

The relative clauses in (3a) and (6) do not seem to be interpreted in the same way as (10), that is as a property of amounts or degrees.

- Grosu and Landman 2013 distinguish between two types of amount relatives: (i) d-relatives and (ii) ep-relatives (relatives that are e-headed and e-interpreted but p-related because the gap position is not a canonical argument position). (11) and (10) are d-interpreted relative clauses, whereas (12) is a ep-relative.

- (11) John put in his bag [every book he could]. Grosu and Landman 2013
 \approx John put in his bag as many books as he could

- (12) I read the books [that there were on the table]
 \neq I read as many books as there were on the table
 \approx I read *the* books that were on the table

- a. The entire construction may have definite or universal, but not existential, force.
b. The relative clauses do not stack with intersective import. Grosu 2002

Turning to superlatives, modal ones like (13) are d-relatives (see Romero 2013).

- (13) a. John reads the most books possible
 b. Gianni legge più libri possibile
 G. reads more books possible
 \approx John reads as many books as he can.
- (14) a. Mary wanted to be the prettiest possible
 b. Maria voleva essere (il) più carina possibile
 Maria wanted to be the more pretty possible

whereas the ones I am discussing today ((3a) and (6), repeated below in a slightly modified version) have a lot in common with relatives out of existentials:

- (15) Lo studente che legge più libri
 the student who reads more books
 ‘the student who reads the most books’
- (16) il tavolo che è più lungo
 the table which is more long
 ‘the table which is longest’

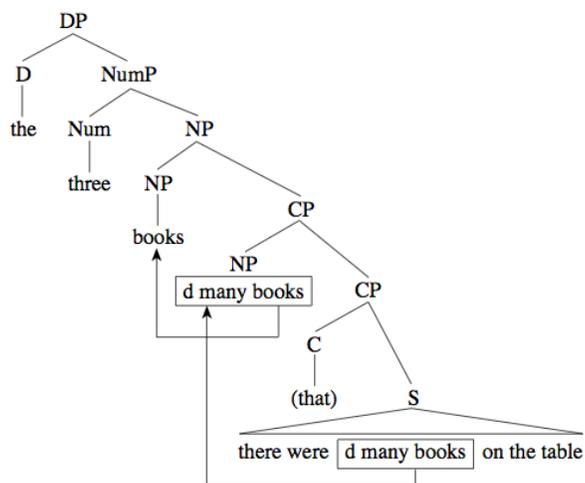
Do these involve abstraction over degrees? And if so - how do they end up referring to an individual?

3 Relatives out of existentials

- Relative clauses whose gap corresponds to the postverbal nominal in a *there*-existential share some properties with amount relatives: (i) a restriction to definite/universal determiners on the head noun (ii) stacking possibilities and (iii) a restriction to some relativizers (*that* and \emptyset but not *wh*-forms) in (some dialects of) English.

(12) is repeated here:

- (17) I read the books [that there were -- on the table]



- Since Carlson 1977, the following is often assumed: the gap in (17) contains a degree variable, which counts as a weak NP and it is compatible with a position open to the definiteness effect (as opposed an individual variable, which would count as a strong NP):

(18) books that there were (*d*-many books) on the table
 $\lambda x.\text{books}(x) \ \& \ |x| = \max(\lambda n.\exists y:\text{books}(y) \ \& \ \text{on the table}(y) \ \& \ |y| = n)$
 $\lambda x.\text{books}(x) \ \& \ |x| = | \text{books on the table} |$
 ‘The set of plurality of books that have the same number of individuals as there are books on the table’
 (adapted from Fintel 1999)

- the nominal ‘books’ is interpreted/active twice
- we get the identity-of-quantity reading, not the identity-of-individuals one.
- the individual variable is existentially closed in the amount relative and need some type of disclosure

Grosu and Landman 1998 use an operation that they call SUBSTANCE to extract the entity from its cardinality. They use use a richer notion of degree (degrees are triples where information about the object measured is stored and from which it is retrieved).

4 Back to non-intersective relative clauses containing superlatives

Like in the relatives out of existential, the head/restrictor is active both outside and inside the RC: while the complex DP refers to an entity (as opposed to an amount), the individual variable is also existentially closed within the relative clause to generate the appropriate (superlative) predicate.

(19) il tavolo che è più lungo
 the table which is more long
 ‘the table which is longest’

- $\max(\lambda d.\exists x \ x \text{ is a book and } x \text{ is } d\text{-long})$

How do we extract the individual from the superlative predicate?

Imagine that in the process of building a predicate and the one of building a subject are interconnected and happen in parallel and that that becomes visible in a subset of the relative clauses that Grosu and Landman 1998 call *maximalizing relatives*. In these cases, the head has to be interpreted twice: once inside the (degree) predicate and once outside to generate the proper individual reading.

Assume that in the process of forming definite relative clauses such as (20) (at least) three different layers can be distinguished (with a strict ordering between predicates and subjects, predicates always move first):

(20) il ragazzo che è più alto
 the boy who is more tall
 ‘the boy who is tallest’

- (i) a predicational core with very minimal structure. At this initial point of the derivation, both the subject and the predicate have bare structures, with no referential import and unbound variables:

[[x boy] [[d-tall]]]

This would be shared by many different constructions such as *The boy is tall*, *A boy is tall*, *a (very) tall boy...*

- (ii) From (i), an indefinite layer (existential closure) is built. The predicate is preposed and the comparative is merged here (with no *than* clause), as well as an indefinite.

[some -er [d tall]_i [[x boy] [t_i]]]

and then the subject is preposed and the indefinite is merged:

[a [x boy]_j [some -er [d tall]_i [t_j [t_i]]]]

This part of the derivation is also shared by comparative phrases: *un ragazzo più alto*, *a taller boy*.

- (iii) finally the layer of definiteness is derived. [*some -er d tall t*] is the preposed and a definite determiner is merged. One could think of this as a maximalizing degree relative that can be paraphrased as follows: *the highest degree d a boy is tall to that degree d*.

[the/∅ [some -er d tall t]_k [[a boy] [t_k]]]

This step only happens with superlatives given their partitive nature (they need to be evaluated w.r.t. a comparison class).² Finally a definite subject relative (with an indefinite head) is formed:

(21) [the [[a [[x boy]_j [t_k]]]_m [the/∅ [[a [-er [[d pretty]_i [t_j t_i]]]]_k [t_m]]]]]]

References

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²While the definite determiner that picks out the maximal degree is unpronounced in Italian (see (20)), it has to be overt in French (see **kayne2008some** for discussion.)

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