

Equative elements and relative clauses

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Introduction

degree equatives in English:

- (1)
 - a. Ralph is **as** tall **as** Peter (is).
 - b. Ralph has **as** many cats **as** Peter (has).
 - c. Ralph has **as** fast a cat **as** Peter (has).

Equative elements

two equative elements:

- matrix equative element *as* – takes a lexical AP or *many*, entire degree expression may be a predicate or a modifier of the NP
- equative complementiser *as* of the subclause

no surface identity requirement on the two, see German:

- (2) Ralf ist **so** groß **wie** Peter.
Ralph is so tall as Peter
'Ralph is as tall as Peter.'

Selectional restrictions

- (3)
- a. Ralph is **as** tall **as/*than** Peter.
 - b. Ralph is taller ***as/than** Peter.

Relative clauses

equative elements attested in relative clauses as well – earlier stages and certain dialects of English (Kortmann & Wagner 2007)

- (4) And his brother's name was Jubal: he was the father of all **such as** handle the harp and organ.
(*King James Bible*, Genesis 4:21)

question: how and why equative elements are available in relative clauses

Proposal

- equative elements differ in terms of encoding
- lexical meaning of similarity associated with the equative element in the subclause, not the one in the matrix clause
- matrix equative element expresses equation, not specifically degree equation
- degree interpretation arises if the matrix degree element has a gradable predicate in its specifier, which is also mapped onto the degree operator in the subclause
- lack of gradable predicate produces an identificational interpretation – (restrictive) relative clauses
- cross-linguistic differences depend on whether the equative head has to take a gradable argument

The syntax of comparatives

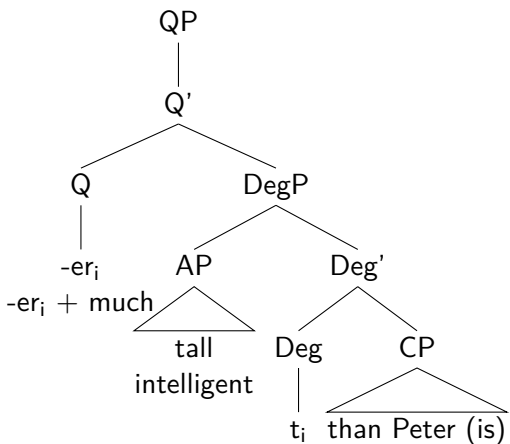
- (5) a. Ralph is taller **than** Peter (is).
 b. Ralph is more intelligent **than** Peter (is).

assumptions (Bacskai-Atkari 2014b, 45–53):

- element *-er* is a degree head
- the AP is in the specifier of the Deg head – Lechner (2004)
- the *than*-CP is the complement of the Deg head – Lechner (2004)
- a QP is generated above the DegP, the Deg moves to Q – cf. Bresnan (1973) and Corver (1997) on Q elements; see also Lechner (1999)

Structure

(6)



Features

Deg head imposes selectional restrictions on the complement

restrictions on the AP in the specifier, too – must be gradable (or a gradable interpretation must be licensed contextually)

(7) #Mary is more pregnant than Susan.

degree in the subclause: operator movement to the CP-periphery – visible if the operator itself is visible (cf. the Overtness Requirement of Bacskai-Atkari 2014b)

(8) %Ralph is taller than **how tall** Peter is.

Semantics

(9) $\exists d \exists d' [\text{TALL}(r, d) \ \& \ \text{TALL}(p, d') \ \& \ (d \neq d') \ \& \ (d > d')]$

encoding of semantic properties (Bacskai-Atkari to appear):

- degree d : matrix Deg head (*-er*)
- degree d' : operator in the subclause (*how*)
- degree inequality: comparative complementiser (*than*)
- superiority: matrix Deg head

Properties of comparatives

- the degree element *-er* is often a bound morpheme, and it cannot stand alone as a proform – (10a)
- the *than*-CP is licensed only if the matrix degree element is present – (10b)

- (10) a. Peter is indeed tall, but Ralph is more *(so).
 b. *Ralph is tall than Peter.

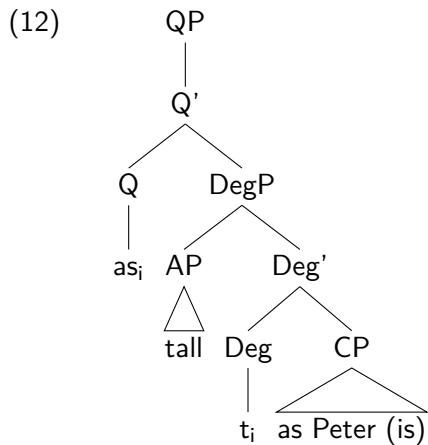
→ comparatives seem to be tied to a degree interpretation, the DegP is an integer part of the construction

The syntax of equatives

question: whether equatives have the same structure as comparatives

(11) Ralph is as tall **as** Peter (is).

Possible structure



Semantics

semantics:

$$(13) \quad \exists d \exists d' [\text{TALL}(r, d) \ \& \ \text{TALL}(p, d') \ \& \ (d = d')]$$

Differences from comparatives

- equatives periphrastic – matrix element not a suffix
- matrix equative element may function as a proform – (14b), (14c)
- *as*-CP available without the matrix equative element, too (cf. Jäger 2010, Thurmair 2001, 165–182) – (14d), (15b)

German

- (14)
- a. Sie ist **so** nett, **wie** ihre Mutter.
she is so kind as her.F mother
'She is as kind as her mother.'
 - b. Sie ist **so wie** ihre Mutter.
she is so as her.F mother
'She is like her mother.'
 - c. Sie ist halt **so**.
she is PRT so
'She is like that.'
 - d. Sie is nett, **wie** (auch) ihre Mutter.
she is kind as too her.F mother
'She is kind, as is her mother.'

English

similar but proform element is *so*, not *as*:

- (15) a. Peter is nice and Mary is **so**, too.
 b. Peter is nice, **as** is Mary.

So...

lack of degree interpretation: lack of matrix equative element or of matrix gradable AP

- degree interpretation is not contingent upon the equative head of the subclause (in line with the assumption that d' is encoded by the operator)
- degree interpretation is contingent upon the presence of the matrix equative element (in line with the assumption that d is encoded by the matrix Deg)
- but: the presence of the matrix equative element is not sufficient, a gradable argument in the specifier has to be present for the degree interpretation to arise

Subclauses expressing similarity

degree equatives:

- (16) a. Ralph is as tall **as** Peter.
- b. Ralf ist so groß **wie** Peter.
 Ralph is so tall as Peter
 'Ralph is as tall as Peter.'

non-degree equatives:

- (17) a. Ralph is tall, **as** is Peter.
- b. Ralf ist groß, **wie** (auch) Peter.
 Ralph is tall as too Peter
 'Ralph is tall, as is Peter.'

Parenthetical constructions

cf. Bacskai-Atkari (2014a):

- (18) a. Peter, tall **as** he is, will hit his head.
- b. Peter, groß **wie** er ist, wird sich den
Peter tall as he is will.3SG himself the.M.ACC
Kopf anschlagen.
head on.hit.INF
'Peter, tall as he is, will hit his head.'
- c. Peter, **as** we know, likes books.
- d. Peter, **wie** wir wissen, mag Bücher.
Peter as we know.1PL likes books
'Peter, as we know, likes books.'

Hypothetical comparatives

- (19) a. My daughter is shouting, **as** if she were at the dentist's.
- b. Meine Tochter schreit, **wie** wenn sie beim
my.F daughter shouts as if she at.the.DAT.M
Zahnarzt wäre.
dentist would.be
'My daughter is shouting, as if she were at the
dentist's.'

Matrix equative element

licensed without an equative subclause, too – exclamatives,
so...that constructions

- (20)
- a. She is **so** diligent!
 - b. Sie ist **so** fleißig!
 she is so diligent
 'She is so diligent!'
 - c. She is **so** tall that she will hit her head.
 - d. Sie ist **so** groß, dass sie sich den Kopf
 she is so tall that she herself the.M.ACC head
 anschlagen wird.
 on.hit.INF will.3SG
 'She is so tall that she will hit her head.'

English

like (cf. the data in Pulgram 1983, 124, Pfeffer 1985):

- (21)
- *Ralph is as tall **like** Peter.
 - Ralph is tall, **like** Peter.
 - %My daughter is shouting **like** she were at the dentist's.

German

als in hypothetical comparatives (cf. Jäger 2010; Eggs 2006):

- (22)
- a. Sie schreit, **als** wäre sie beim Zahnarzt.
 she shouts than be.SBJV she at.the dentist
 'She is shouting as if she were at the dentist's.'
 - b. Sie schreit, **als** ob sie beim Zahnarzt wäre.
 she shouts than if she at.the dentist be.SBJV
 'She is shouting as if she were at the dentist's.'
 - c. Sie schreit, **als** wenn sie beim Zahnarzt wäre.
 she shouts than if she at.the dentist be.SBJV
 'She is shouting as if she were at the dentist's.'

West-Germanic pattern

als ((*al*)*so*) the original equative complementiser – present in Old High German equatives already, replaced by *wie* during Early New High German (from the second half of the 16th century onwards), see Jäger (2010); the patterns in (22) show the grammaticalisation of an earlier form (Bacskai-Atkari 2016)

regular West-Germanic pattern: cognates of *as* as equative/similative markers – German *wie* innovative, as is English *like* and Dutch *gelijk* (Haspelmath & Buchholz 1998)

So...

- complementiser in equatives more grammaticalised than in similatives (innovative patterns start in non-degree equatives, cf. Jäger 2010)
- hypothetical comparatives represent an independent path – complementiser taken from similatives
- similative clauses have a lexical meaning without there being a matrix equative element; the lexical meaning may be weakened in equatives (grammaticalisation), which do not straightforwardly allow any similative complementiser
- the complementiser of the subclause in itself does not encode degree equality, degree is present if the degree operator is present, too; equation encoded by the matrix equative element, which selects for a particular C head (e.g. *as*) and does not allow all similative complementisers (e.g. *like*)

More on equative elements

regular West-Germanic pattern:

- *as* in degree equatives and ordinary similatives
- matrix equative element *so*

Present-day patterns

- (23)
- a. Ralph is **as** tall **as** Peter.
 - b. Sophie is **zo** groot **als** Lieke.
Sophie is so tall as Lieke
'Sophie is as tall as Lieke.'
 - c. Ralf ist **so** groß **wie** Peter.
Ralph is so tall as Peter.
'Ralph is as tall as Peter.'

German

- (24)
- a. wart aber ie **sô** werder man geborn [...] **sô** von
 was but ever so noble man born as from
 Norwege Gâwân
 Norway Gawain (*Parzival*; Eggs 2006)
- b. waer er **sô** milt **als** lanc, er hete tugende vil
 be he so generous as tall he have virtues many
 besezzen
 possess (Walther von der Vogelweide; Eggs 2006)
- c. dochn was dâ nieman **alsô** vrô **alsô** mîn her
 but was there noone so glad as my lord
 Gawein
 Gawain (*Iwein*; Eggs 2006)

Etymology

- English: *as* derives from *eallswa* (*all* + *so*), forms *swelce* (*swilce*, *such*) and *so* (*swa*) also possible historically in *as*-constructions (see Kortmann 1997, 315–317; see also López-Couso & Méndez-Naya 2014, 312–314 and references)
 - German: *als* derives from Old High German *also* (*all* + *so*), various forms of *so* possible historically in *as*-constructions (see Jäger 2010)
 - Dutch: *als* derived from *also* (*al* + *so*)
- elements *so* and *as* are essentially the same (either as matrix elements or as complementisers), later differentiation/changes naturally possible (e.g. English *as...as* vs. *so...that*, German *so...wie* vs. *so...dass*)

Relative clauses

equative elements in relative clauses attested in earlier periods in English and German

- (25) And his brother's name was Jubal: he was the father of all **such as** handle the harp and organ.
(*King James Bible*, Genesis 4:21)

partly in present-day English dialects (traditional/conservative feature, Kortmann & Wagner 2007) – matrix element *all* (Herrmann 2005)

- (26) [...] so **all as** he had to do were go round in a circle all the time [...]
(Herrmann 2005, 64, ex. 26d)

Old High German

- (27) a. **sulike** gesidoe **so** he im selbo gecos
 such companions so he him self chose
 ‘such companions that he chose for himself’
 (*Heliand* 1280; Brandner & Bräuning 2013, 138)
- b. **So** ware **so** ich cherte minen zoum ...
 so where so I guided my rein
 ‘Wherever I guided my rein ...’
 (*Bairischer Psalm* 138; Brandner & Bräuning 2013,
 143, quoting Lühr 1998)

Modal free relatives

- (28) er bi unsih tod thulti, **so** wio **so** er selbo wolti
 he by us death suffered as how as he self wanted
 'he suffered death by us, as he himself wished'
 (*Otfrid V*, 1, 7; Jäger 2010, 488, quoting Schrodtt 2004)

Grammaticalisation

so-relatives grammaticalised and *so* was a general relative marker in Early New High German (similarly to present-day *wo* in southern dialects, see Brandner & Bräuning 2013, and to *that* in English) → no matrix *so* needed

- (29) hier das Geld **so** ich neulich nicht habe
 here the.M money so I recently not have
 mitschicken können
 with.send.INF can
 'Here the money that I recently could not send.'
 (Schiller to Goethe 127; Brandner & Bräuning 2013, 132,
 ex. 4, quoting Paul 1920)

Proposal

availability of equative elements in relative clauses: relative clauses also express equation (Brandner & Bräuning 2013, 147–150)

- (30) a. The book I am reading is on the table.
 b. What I am reading is on the table.

paraphrase of (30a), following Brandner & Bräuning (2013, 148):
 x is a book and it is on the table, I am reading y, and $x=y$

paraphrase of (30b): x is on the table, I am reading y, and $x=y$

claim of Brandner & Bräuning (2013, 148): equation ($x=y$) established by the equative complementiser (*so*)

Solution

- degree equation: equation encoded by the matrix element, it cannot be left out because the gradable argument has to be accommodated into the structure; meaning of similarity of the subclause weakened in comparison to non-degree similatives
- non-degree equation (relative clauses) with overt matrix element: equation encoded by the matrix element (obligatory presence of this element in English historical data and in Old High German); subclause not interpreted as similative, head regularly selected by the matrix element
- non-degree equation (relative clauses) without overt matrix element: equation encoded by the complementiser; complementiser taking over the role of marking equation (with the loss of the similative meaning)

Degree equatives in Hungarian

- (31) a. Anna **olyan** magas, amilyen Mari volt.
 Anne so tall how.REL Mary was
 'Anne is as tall as Mary.'
- b. Anna **olyan** magas, **mint** (amilyen) Mari volt.
 Anne so tall as how.REL Mary was
 'Anne is as tall as Mary.'
- c. Anna **ugyanolyan** magas, **mint** (amilyen) Mari volt.
 Anne same.so tall as how.REL Mary was.
 'Anne is as tall as Mary.'

Properties

- operator (here: *amilyen*) sufficient for clause-typing (see Bacskai-Atkari to appear)
- matrix element *olyan* ‘so’ encodes equality
- matrix element may be reinforced by the prefix *ugyan-* ‘same’ but this is not obligatory since *olyan* is sufficient as an equative marker

Relative clauses in Hungarian

Bacskai-Atkari (2014b), following Bacskai-Atkari & Kántor (2012)

- (32)
- a. Anna azt a könyvet olvassa, amelyiket Mari (is).
Anne that the book reads which Mary too
 - b. Anna (**ugyan**) azt a könyvet olvassa, **mint**
Anne same.that the book reads as
amelyiket Mari (is).
which Mary too
 - c. Anna abba a füzetbe rajzolt, amelyikbe Mari (is).
Anne that the booklet drew which Mary too
 - d. Anna (**ugyan**) abba a füzetbe rajzolt, **mint**
Anne same.that the booklet drew as
amelyikbe Mari (is).
which Mary too

Variation

complementiser *mint* licensed in equative relatives – element *ugyan-* is preferably present but not necessarily required (speaker-dependent) – difference from (31): ordinary demonstratives not specified as equative, as opposed to *olyan*

- speakers who require *ugyan-* encode equality on the matrix element
- speakers who do not require *ugyan-* encode equality on the complementiser

→ presence of equative elements in relative clauses can be accounted for in a principled way cross-linguistically

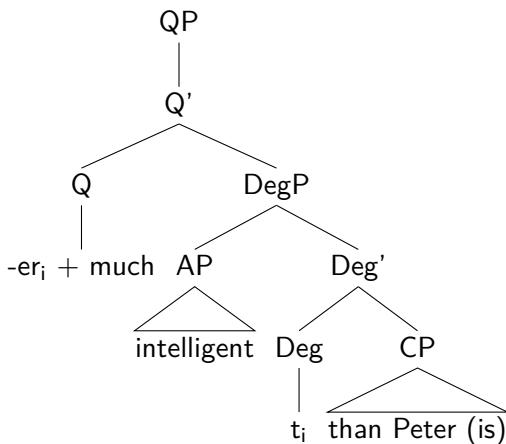
The proposed structure

question: how the structure of equative relative clauses compares to degree equatives and to ordinary relative clauses

drawing upon the idea of Brandner (2016): Equative Phrase (EquatP) – here: EquatP analogous to DegP, unlike the structure of Brandner (2016)

Structure for (degree) comparatives

(33)



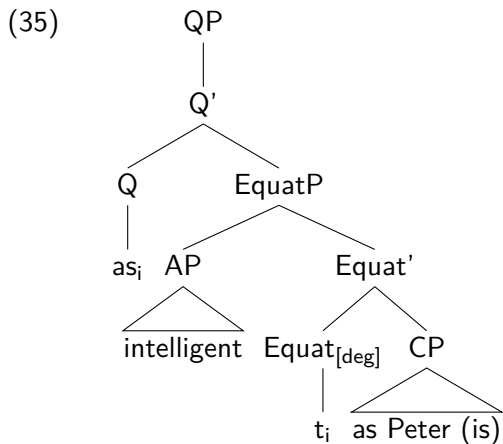
Properties

comparatives regularly have a DegP layer, which encodes the comparative degree and thereby difference

but: some APs may be lexically specified as comparative (cf. Bacskai-Atkari 2014b)

- (34) a. %University life is **different** than I expected.
 b. I don't want to be anything **other** than what I've been trying to be lately.

Structure for degree equatives

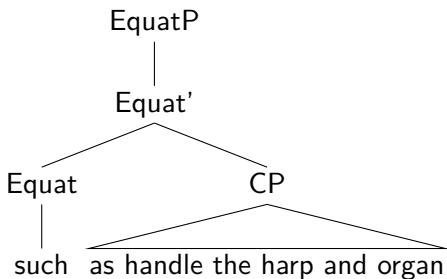


Properties

- no DegP layer – absolute adjective combined with an equative marker
- degree present as a feature [deg] – not all equative elements can be associated with a degree (e.g. *so* in English), these do not bind a degree variable in the subclause
- structure similar to comparatives; shared property: QP layer
→ comparatives and degree equatives demonstrate similar syntactic behaviour

Structure for equative relative clauses

(36)



Properties

- no DegP, no [deg] present
- EquatP similar to the one in degree equatives, but no lexical AP and no [deg]
- no QP generated
- structure applies to equative relative clauses, not to all relative clauses

structure of equative relatives is essentially similar to that of degree equatives, which are in turn minimally different from comparatives

availability of degree equatives does not imply the availability of equative relatives: not all Equat heads allow the absence of a gradable argument

Conclusion

equative elements in relative clauses – attested in various periods of English and German, and in Hungarian

- degree equatives involve an EquatP and not a DegP, as opposed to comparatives – yet an AP in the specifier and a CP complement in both cases attested
- equative relatives involve an EquatP, just like degree equatives
- equative relatives do not have a gradable argument in the specifier of the Equat head → no gradable interpretation

equative relatives and their cross-linguistic differences can be accounted for in a principled way, involving minimal syntactic/semantic differences

Thank you!

Danke!

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