Equatev elements and relative clauses

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1 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).

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 on the comparative C head in the subclause:

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

degree equatives express degree equation and similarity

but: 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)

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1
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

2 The syntax of comparatives

literature on comparatives: mostly comparatives expressing inequality

(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) \[ \begin{array}{c} QP \\ Q' \\ Q \\ -er_i \\ AP \\ tall \\ intelligent \end{array} \quad \begin{array}{c} DegP \\ Deg_i \\ Deg \\ CP \\ than Peter (is) \end{array} \]
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 Bacskaï-Atkari 2014b)

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

semantics:

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

encoding of semantic properties (Bacskaï-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
3 The syntax of equatives

question: whether equatives have the same structure as comparatives

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

possible structure:

(12)

\[
\begin{array}{c}
\text{QP} \\
\mid \\
\text{Q'} \\
\mid \\
\text{Q} \\
\mid \\
\text{as}_i \\
\mid \\
\text{AP} \\
\mid \\
\text{Deg} \\
\mid \\
\text{tall} \\
\mid \\
\text{Deg'} \\
\mid \\
\text{CP} \\
\mid \\
\text{as P eter (is)} \\
\end{array}
\]

semantics:

(13) \( \exists d \exists d' [\text{TALL} (\text{Ralph},d) \& \text{TALL} (\text{Peter},d') \& (d=d')] \)

but: 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, Thurmai r 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 ist 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.

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

4 Subclauses expressing similarity

degree equatives:

(16)  
a. Ralph is as tall *as* Peter.

   b. Ralph 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.

   Ralph is tall *as too* Peter
   ‘Ralph is tall, *as is* Peter.’

various 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 Kopf anschlagen.  
   Peter tall *as he is* will.3SG himself the.M.ACC 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 Zahnarzt wäre.

→ equative complementisers are licensed in a number of constructions, independently of a matrix equative element

→ the equative/degree interpretation of the subclause arises in the scope of the matrix equative element – in itself, the subclause conveys a meaning of similarity

note: 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!’
    c. She is so tall that she will hit her head.
    d. Sie ist so groß, dass sie sich den Kopf anschlagen wird.

standard value expressed by a THAT-clause or reference to a norm

complementiser in clauses expressing similarity shared with degree equatives – but not necessarily so

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

(21)  a. *Ralph is as tall like Peter.
    b. Ralph is tall, like Peter.
    c. %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.3SG she at.the.M.DAT 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.M.DAT dentist be.SBJV.3SG
    ‘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.M.DAT dentist be.SBJV.3SG
    ‘She is shouting as if she were at the dentist’s.’

reason: *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)

→ 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*)
5 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: *wie* an innovation – (23c)

English: matrix *as* seems to be different – (23a)

former periods of German (before Early New High German): *as*-clause introduced by *als*
(examples from the beginning of the 12th century)

(24) a. wart aber ie *sô werder man geborn [. . .] sô von Norwege Gâwân
   was.3SG but ever so noble.3M man born as from Norway Gawain
   ‘But was there ever born a man as noble as Gawain from Norway?’
   (Parzival 651, 8ff; Eggs 2006: 22–23, ex. 14)

b. [. . .] waer er *sô milt als* lanc, er hete tugende
   be.COND.3SG he so generous as tall he have.COND.3SG virtues
   vil besezzen
   many possess.INF
   ‘If he were as generous as he is tall, he would have had many virtues.’
   (Walther von der Vogelweide, Werke Bd. 1, 118f; Eggs 2006: 22, ex. 12)

c. dochn was da nieman *alsô vrô alsô min her Gawein*
   but was.3SG there noone so glad as my Lord Gawain
   ‘but noone was as glad there as my Lord Gawain’
   (Iwein 2618f; Eggs 2006: 22, ex. 13)

→ the variation *so/as* is common in West Germanic historically (both matrix equative element and complementiser)
etymology:

- **English**: *as* derives from *allswa* (*all + so*), forms *swelce* (*swilce, such*) and *so* (*swa*) also possible historically in *as*-constructions (see Kortmann 1997: 315–317; see also López-Conso & Méndez-Naya 2014: 312–314 and references there)

- **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*)

### 6 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 attested 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 [...] *(Freiburg English Dialect Corpus Som_001; Herrmann 2005: 64, ex. 26d)*

element *all* evidently not a degree marker but may convey the meaning of equation

Old High German:

(27) a. *sulike gesiðoe 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, ex. 20)*

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, ex. 30, quoting Lühr 1998)*

pattern in (27b): headless relative – attested in modal free relatives as well:

(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, ex. 46, quoting Schrödt 2004)*
parallelism with equative constructions

note: 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 mitschicken können
here the money so I recently not have with sends INF can
‘Here the money that I recently could not send.’
(Schiller to Goethe 127; Brandner & Bräuning 2013: 132, ex. 4, quoting Paul 1920)

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)

but: equation in degree equatives rather expressed by matrix equative element, the subclause in itself expresses similarity

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)

evidence from Hungarian for an intermediate stage of the equative complementiser in relative clauses: complementiser mint ‘as’
degree equatives:

(31)  
   a. Anna olyan magas, amilyen Mari volt.  
        Anne so tall how.REL Mary was.3SG  
        ‘Anne is as tall as Mary.’
   
   b. Anna olyan magas, mint (amilyen) Mari volt.  
        Anne so tall as how.REL Mary was.3SG  
        ‘Anne is as tall as Mary.’
   
   c. Anna ugyanolyan magas, mint (amilyen) Mari volt.  
        Anne same so tall as how.REL Mary was.3SG  
        ‘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

parallel patterns in relative clauses (Bacskai-Atkari 2014b: 247–250, following the original observation of Bacskai-Atkari & Kántor 2012; data to be discussed in the ‘Comparative Grammar Resources’ volume)

(32)  
   a. Anna azt a könyvet olvassa, amelyiket Mari (is).  
        Anne that.ACC the book.ACC reads which.REL.ACC Mary too  
        ‘Anne is reading the (same) book that Mary is reading.’
   
   b. Anna (ugyan) azt a könyvet olvassa, mint amelyiket Mari  
        Anne same that.ACC the book.ACC reads as which.REL.ACC Mary  
        (is). too  
        ‘Anne is reading the (same) book that Mary is reading.’
   
   c. Anna abba a fizetbe rajzolt, amelyikbe Mari (is).  
        Anne that.ILL the booklet.ILL drew.3SG which.ILL Mary too  
        ‘Anne has drawn something into the (same) booklet into which Mary has drawn something.’
   
   d. Anna (ugyan) abba a fizetbe rajzolt, mint amelyikbe Mari (is).  
        Anne same that.ILL the booklet.ILL drew.3SG as which.ILL Mary too  
        ‘Anne has drawn something into the (same) booklet into which Mary has drawn something.’
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

7 The proposed structure

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


structure for (degree) comparatives:

\[(33)\]

\[
\begin{array}{c}
\text{QP} \\
\text{Q'} \\
\text{Q} \\
\text{DegP} \\
\text{-er}_i + \text{much} \\
\text{AP} \\
\text{Deg'} \\
\text{intelligent} \\
\text{Deg} \\
\text{CP} \\
\text{t}_i \text{ than Peter (is)}
\end{array}
\]

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

but: some APs may be lexically specified as comparative (cf. Bacskaï-Atkari 2014b: 53)

\[(34)\]

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:

(35)  
\[
\text{QP} \\
\text{Q'} \\
\text{Q} \quad \text{EquatP} \\
\text{as} \quad \text{AP} \quad \text{Equat'} \\
\text{intelligent} \quad \text{Equat}_{[\text{deg}]} \quad \text{CP} \\
\text{t} \quad \text{as Peter (is)}
\]

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 $\rightarrow$ comparatives and degree equatives demonstrate similar syntactic behaviour

structure for equative relative clauses:

(36)  
\[
\text{EquatP} \\
\text{Equat'} \\
\text{Equat} \quad \text{CP} \\
\text{such as handle the harp and organ}
\]

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

13
8 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

References


