Equative 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 tall**er *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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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
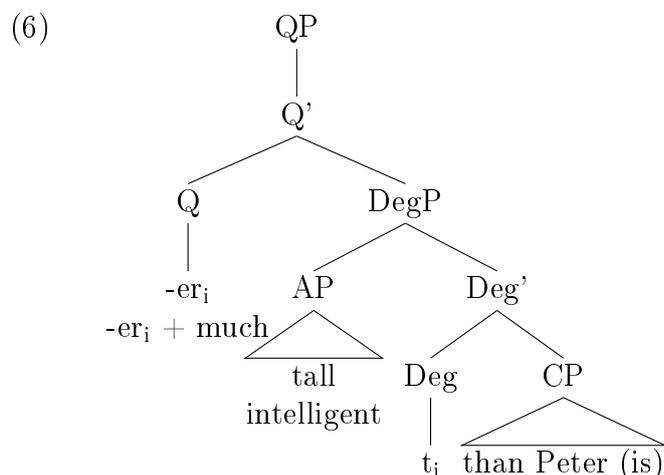
literature on comparatives: mostly comparatives expressing inequality

(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)

QP
|
Q'
├── Q
│ |
│   -er$_i$
│   -er$_i$ + much
└── DegP
    ├── AP
    │   tall
    │   intelligent
    └── Deg'
        ├── Deg
        │ |
        │   t$_i$
        └── CP
            than Peter (is)

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) $\exists d \exists d'$[TALL (r,d) & 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).
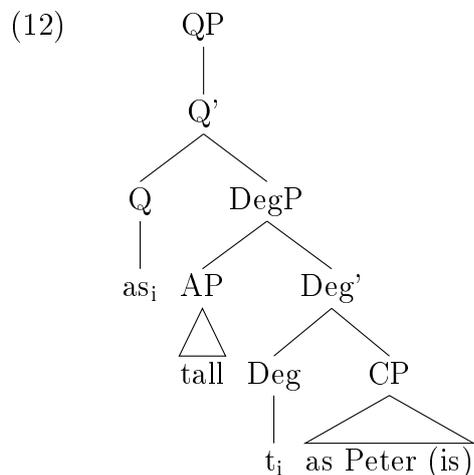   b.   *Ralph is tall than Peter.

$\rightarrow$ 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)

```
                QP
                │
                Q'
              ╱    ╲
           Q        DegP
           │       ╱    ╲
         as_i   AP      Deg'
                △      ╱    ╲
              tall   Deg     CP
                      │     ╱  ╲
                     t_i  as Peter (is)
```

semantics:

(13) $\exists d \exists d'$[TALL (Ralph,d) & TALL (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, 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.'

4

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. 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.'

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.
            my.F daughter shouts as   if   she at.the.DAT.M dentist   would.be
            'My daughter is shouting, as if she were at the dentist's.'

→ 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
            '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.
            she is so tall   that she herself the.M.ACC head on.hit.INF will.3SG
            'She is so tall that she will hit her head.'

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 pat-
    terns 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 el-
    ement; 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.M 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   dâ   nieman **alsô** vrô **alsô** mîn 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 *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 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** 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, 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 Schrodt 2004)

$\rightarrow$ 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) $\rightarrow$ no matrix *so* needed

(29) hier das Geld **so** ich neulich nicht habe mitschicken   können
      here the.M money so I   recently not   have 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)

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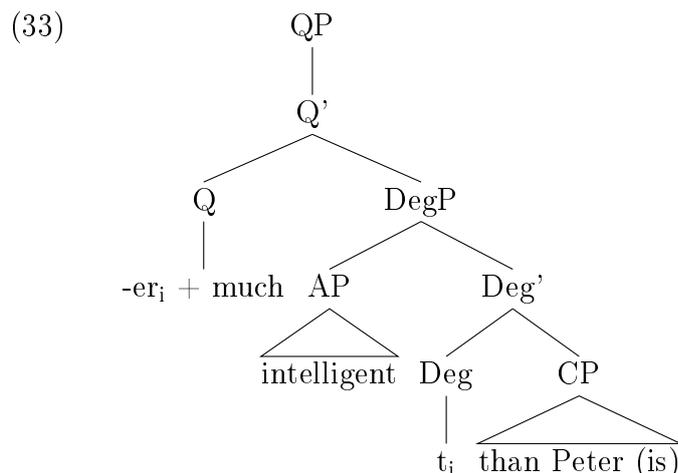
→ presence of equative elements in relative clauses can be accounted for in a principled way cross-linguistically

7 The proposed structure

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

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

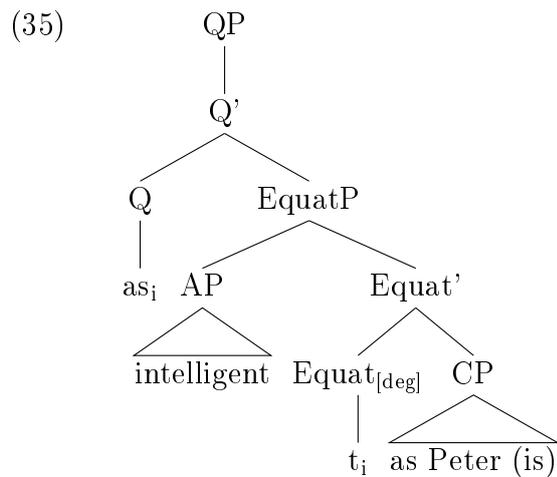structure for (degree) comparatives:

(33)

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: 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.
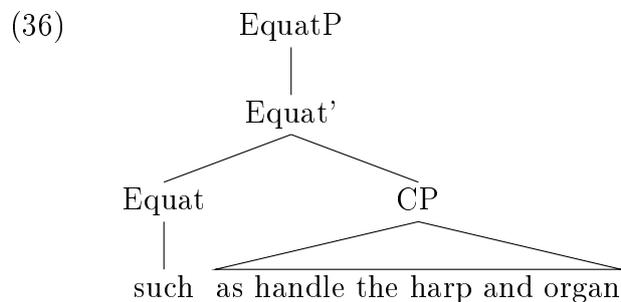
structure for degree equatives:

(35)

```
                QP
                │
                Q'
             ╱     ╲
           Q        EquatP
           │       ╱      ╲
         as_i  AP         Equat'
              ╱  ╲       ╱      ╲
         intelligent  Equat_[deg]  CP
                        │        ╱  ╲
                       t_i    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 → comparatives and degree equatives demonstrate similar syntactic behaviour

structure for equative relative clauses:

(36)

```
              EquatP
                │
              Equat'
            ╱       ╲
        Equat        CP
          │        ╱     ╲
        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

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

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