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Comparative Deletion and the Overtness Requirement*

0. Introduction

● Comparative Deletion:

(1)   a. Ralph is more qualified than Jason is ~~x-qualified~~.
      b. Ralph has more qualifications than Jason has ~~x-many qualifications~~.
      c. Ralph has better qualifications than Jason has ~~x-good qualifications~~.

● subcomparatives:

(2)   a. The table is longer than the desk is **wide**.
      b. Ralph has more books than Jason has **manuscripts**.
      c. Ralph wrote a longer book than Jason did a **manuscript**.

previous analyses:

Bresnan (1973): identical syntactic structure

Lechner (1999, 2004): coordination and syntactic identity – problems (Bacskai-Atkari 2010a)

Kennedy (2002): movement in (1) prior to spellout but not in (2)

● visible operator + lexical XP combinations in certain languages (e.g. Hungarian):

(3)   a. Mari   magasabb, mint **amilyen magas** Peti.
         Mary   taller   than how   tall   Peter
         'Mary is taller than Peter.'
      b. Marinak   több macskája   van, mint **ahány macskája** Petinek
         Mary-DAT more cat-POSS.3SG is   than how.many cat-POSS.3SG Peter-DAT
           van.
           is
         'Mary has more cats than Peter has.'
      c. Marinak   nagyobb macskája   van, mint **amilyen nagy macskája**
         Mary-DAT bigger   cat-POSS.3SG is   than how   big   cat-POSS.3SG
           Petinek   van.
           Peter-DAT is
         'Mary has a bigger cat than Peter has.'

● Attributive Comparative Deletion:

(4)   a. Ralph bought a bigger cat than George did ~~buy~~ a ~~big~~ cat flap.
      b. Ralph bought a bigger cat than George ~~bought~~ a ~~big~~ cat flap.
      c. *Ralph bought a bigger cat than George bought a ~~big~~ cat flap.
      d. *Ralph bought a bigger cat than George bought a big cat flap.
      e. *Ralph bought a bigger cat than George ~~bought~~ a big cat flap.
      f. *Ralph bought a bigger cat than George did ~~buy~~ a big cat flap.

Kennedy and Merchant (2000): quantified AP has to be eliminated – VP-ellipsis

→ questions:

● the site of deletion (base position or left periphery)

● why Comparative Deletion seems to be obligatory in English

● obligatory verb deletion in attributive comparatives

● the ungrammaticality of an overt quantified AP in attributive comparatives (English)

1. Comparative Deletion

descriptively: Comparative Deletion is a process which eliminates the QP or the quantified DP from the subclause, if it is logically identical with its antecedent in the matrix clause (Bacskai-Atkari 2010b, 2012)

only GIVEN elements can be deleted; F-marked elements cannot be deleted (see Selkirk 1996, 2005; Schwarzschild 1999; Merchant 2001; Büring 2006 on the notions)

(5) a. Ralph was reading a novel and Peter ~~was reading~~ an epic.
     b. *Ralph was reading a novel and Peter ~~was writing~~ an epic.

regular (relative) operator movement in the comparative subclause to a left-peripheral – [Spec,CP] – position (Chomsky 1977; Kennedy 2002)

moved constituent: entire quantified AP (QP) or entire quantified DP in English

   ● operator cannot be extracted from within the QP

   ● QP cannot be extracted from within the DP (cf. Kayne 1983; Ross 1986; Izvorski 1995; Grebenyova 2004; Bošković 2005; Kántor 2008)

also in interrogatives (see Kennedy and Merchant 1997):

(6) a. ***How** is Ralph **qualified**?
     b. **How qualified** is Ralph?
     c. ***How big** did Ralph see **cats**?
     d. **How big cats** did Ralph see?
     e. ***How many** did Ralph see **cats**?
     f. **How many cats** did Ralph see?

two copies

   ● higher copy in [Spec,CP]: deleted by Comparative Deletion

   ● lower copy (base position): regularly deleted if not F-marked (Bobaljik 2002; Chomsky 2005; Bošković and Nunes 2007)

(7) a. Ralph is more qualified [CP than [CP ~~[QP x-qualified]~~ Jason is ~~[QP x-qualified]~~]].
     b. Ralph has more qualifications [CP than [CP ~~[DP x-many qualifications]~~ Jason has ~~[DP x-many qualifications]~~]].
     c. Ralph has better qualifications [CP than [CP ~~[DP x-good qualifications]~~ Jason has ~~[DP x-good qualifications]~~]].

subdeletion structures:

(8)   The table is longer [CP than [CP [QP x-wide]F the desk is **[QP x-wide]F**]].

realisation of a lower copy enforced only if it is contrastive

contrastiveness matters – GIVEN APs may also be realised (cf. Kennedy 2002)

(9)   a. ??/*The table is longer than the desk is **long**.

     b. A: The table is longer than the desk is wide.
         B: No, the table is longer than the desk is **LONG**.

2. On Hungarian operators

● operator *amilyen* 'how' + non-contrastive AP:

(10) a. Mari   magasabb, mint **amilyen magas** Péter volt.
       Mary taller   than how   tall   Peter   was.3SG
       'Mary is taller than Peter was.'

     b. *Mari magasabb, mint **amilyen** Péter volt   **magas**.
        Mary taller   than how   Peter was.3SG   tall
        'Mary is taller than Peter was.'

● operator *amennyire* 'how much' + non-contrastive AP:

(11) a. Mari   magasabb, mint **amennyire magas** Péter volt.
       Mary taller   than how.much tall   Peter   was.3SG
       'Mary is taller than Peter was.'

     b. Mari   magasabb, mint **amennyire** Péter volt   **magas**.
       Mary taller   than how.much Peter was.3SG   tall
       'Mary is taller than Peter was.'

● no zero operator (+ non-contrastive AP):

(12) a. *Mari magasabb, mint **magas** Péter volt.
        Mary taller   than tall   Peter   was.3SG
       'Mary is taller than Peter was.'

     b. *Mari magasabb, mint Péter volt   **magas**.
        Mary taller   than Peter was.3SG   tall
       'Mary is taller than Peter was.'

same paradigm with contrastive APs

● operator *amilyen* 'how' + contrastive AP:

(13) a. Az asztal hosszabb, mint **amilyen széles** az iroda.
   the desk longer than how wide the office
   'The desk is longer than the office is wide.'

  b. *Az asztal hosszabb, mint **amilyen** az iroda **széles**.
    the desk longer than how the office wide
    'The desk is longer than the office is wide.'

● operator *amennyire* 'how much' + contrastive AP:

(14) a. Az asztal hosszabb, mint **amennyire széles** az iroda.
   the desk longer than how.much wide the office
   'The desk is longer than the office is wide.'

  b. Az asztal hosszabb, mint **amennyire** az iroda **széles**.
   the desk longer than how.much the office wide
   'The desk is longer than the office is wide.'

● no zero operator (+contrastive AP):

(15) a. *Az asztal hosszabb, mint **széles** az iroda.
    the desk longer than wide the office
   'The desk is longer than the office is wide.'

  b. *Az asztal hosszabb, mint az iroda **széles**.
    the desk longer than the office wide
   'The desk is longer than the office is wide.'

same differences in interrogatives

● operator *milyen* 'how':

(16) a. **Milyen magas** volt Péter?
   how tall was.3SG Peter
   'How tall was Peter?'

  b. ***Milyen** volt Péter **magas**?
    how was.3SG Peter tall
    'How tall was Peter?'

● operator *mennyire* 'how much':
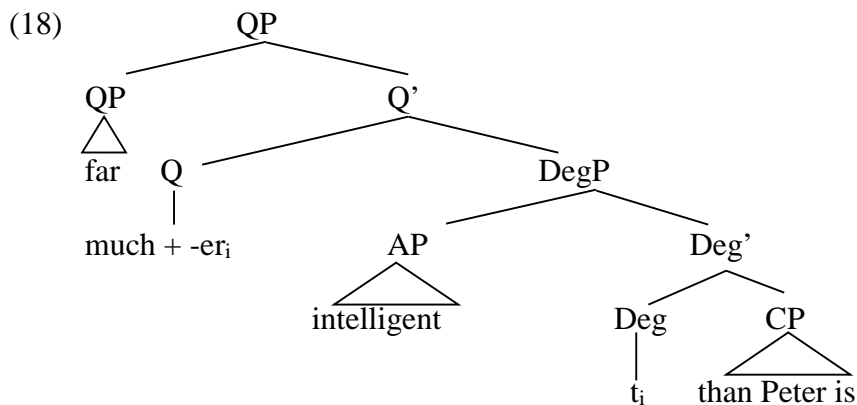
(17) a. **Mennyire magas** volt   Péter?
         how.much tall   was.3SG Peter
         'How tall was Peter?'

      b. **Mennyire** volt   Péter **magas**?
         how.much was.3SG Peter tall
         'How tall was Peter?'

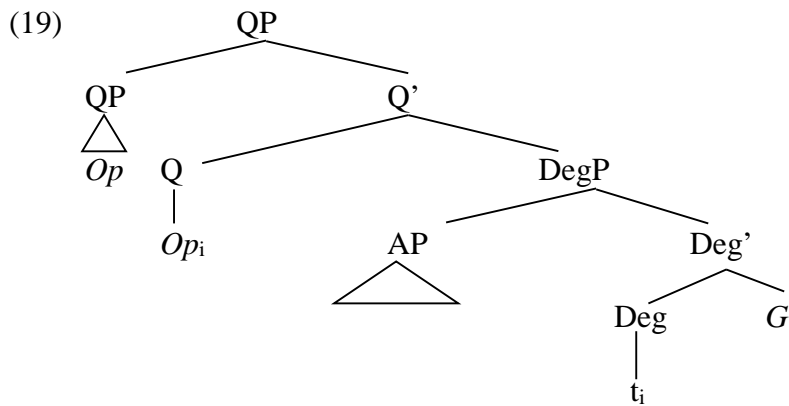## 3. The structure of degree expressions

functional layers: DegP and QP

arguments of the Deg head: lexical AP (cf. Lechner 2004) and the Grade argument (*G*),
     expressing the standard value (cf. Lechner 2004)

e.g. *far more intelligent than Peter is*:

(18)

```
                    QP
          _____|_____
         QP                    Q'
         /\          _____|_____
        far   Q                          DegP
              |            _____|_____
         much + -er_i     AP                             Deg'
                          /\                     _____|_____
                     intelligent               Deg                CP
                                                |                  /\
                                               t_i          than Peter is
```

operator positions:

(19)

```
                 QP
        _____|_____
       QP                  Q'
       /\         _____|_____
      Op   Q                        DegP
           |          _____|_____
          Op_i       AP                             Deg'
                     /\                      _____|_____
                    /__\                    Deg               G
                                            |
                                           t_i
```

Hungarian operators:

- *amilyen* 'how': a Deg head → not extractable

- *amennyire* 'how much': a QP modifier → extractable

the two overt operators cannot be co-present (economy)

operator *how* in English: Deg head

(20) a. ^{OK}/*Mary is taller than **how tall** Peter is.

b. *Mary is taller than **how** Peter is **tall**.

c. ^{OK}/*The desk is longer than **how wide** the office is.

d. *The desk is longer than **how** the office is **wide**.

zero operator in English: a Deg head

(21) a. ??/*Mary is taller than Peter is **tall**.

b. The desk is longer than the office is **wide**.

4. Operators cross-linguistically

- Czech: interrogative operator *jak* 'how': a QP modifier

(22) a. **Jak vysoký** je Karel?
how tall   is Karel
'How tall is Karel?'

b. **Jak** je Karel **vysoký**?
how is Karel tall
'How tall is Karel?'

- Czech: comparative operator *jak* 'how': a QP modifier

(23) a. ^{??}Marie je vyšší, než **jak vysoký** je Karel.
Marie is taller than how tall   is Karel
'Marie is taller than Karel.'

b. [?]Marie je vyšší, než **jak** je **vysoký** Karel.
Marie is taller than how is tall   Karel
'Marie is taller than Karel.'

c. ^{??}Ten stůl je delší, než **jak široká** je ta kancelář.
that desk is longer than how wide   is that office
'The desk is longer than the office is wide.'

d. Ten stůl je delší, než **jak** je ta kancelář **široká**.
that desk is longer than how is that office   wide
'The desk is longer than the office is wide.'

● Dutch: interrogative operator *hoe* 'how': a Deg head

(24) a. **Hoe groot** is Jan?
how tall is John
'How tall is John?'

   b. ***Hoe** is Jan **groot**?
how is John tall
'How tall is John?'

● Dutch: comparative operator *hoe* 'how': a Deg head

(25) a. $^{OK/*}$Maria is groter dan **hoe groot** Jan is.
Mary is taller than how tall John is
'Mary is taller than John.'

   b. *Maria is groter dan **hoe** Jan **groot** is.
Mary is taller than how John tall is
'Mary is taller than John.'

   c. $^{OK/*}$De tafel is langer dan **hoe breed** het kantoor is.
the table is longer than how wide the.NEUT office is
'The table is longer than the office is wide.'

   d. *De tafel is langer dan **hoe** het kantoor **breed** is
the table is longer than how the.NEUT office wide is
'The table is longer than the office is wide.'

● Dutch: zero comparative operator: a QP modifier

(26) a. ? Maria is groter dan Jan **groot** is.
Mary is taller than John tall is
'Mary is taller than John.'

   b. De tafel is langer dan het kantoor **breed** is
the table is longer than the.NEUT office wide is
'The table is longer than the office is wide.'

● German: zero comparative operator: a QP modifier

(27) a. $^{?}$Maria ist größer als Johann **groß** ist.
Mary is taller than John tall is
'Mary is taller than John.'

   b. Der Tisch ist länger als das Büro **breit** ist.
the.MASC table is longer than the.NEUT office wide is
'The table is longer than the office is wide.'

operators cross-linguistically:

(28)

	overt	**covert**
Deg head	*how* (English) *amilyen* (Hungarian) *hoe* (Dutch)	zero (English)
QP modifier	*amennyire* (Hungarian) *jak* (Czech)	zero (Dutch) zero (German) zero (Italian)

→ operators can be overt/covert, extractable/non-extractable

5. *The overtness requirement*

Comparative Deletion: if (and only if) there is a covert operator + a lexical XP in [Spec,CP]

overtness requirement: a phonologically visible lexical XP may appear in an operator position only if it appears together with a phonologically visible operator

combinations in [Spec,CP]:

HOW – licensed

HOW long – licensed

Ø – licensed

Ø long – not licensed

→ Comparative Deletion is not a special mechanism

→ the phenomenon of Comparative Deletion is not directly related to information structure

role of information structure: preferred position of stranded lexical XPs

● Czech: *jak* 'how' + non-contrastive AP

(29) a. ^{??}Marie   je   vyšší, než **jak vysoký** je Karel.
           Marie   is   taller than how tall   is Karel
           'Marie is taller than Karel.'
     b. [?]Marie   je   vyšší, než **jak** je **vysoký** Karel.
           Marie   is   taller than how is   tall   Karel
           'Marie is taller than Karel.'
     c. #Marie   je   vyšší, než **jak** je Karel **vysoký**.
           Marie   is   taller than how is Karel   tall
           'Marie is taller than Karel.'

● Czech: *jak* 'how' + contrastive AP

(30) a. ^{??}Ten   stůl je delší, než **jak široká** je   ta   kancelář.
           that   desk is longer than how wide   is   that   office
           'The desk is longer than the office is wide.'
     b. #Ten   stůl je delší, než **jak** je **široká** ta   kancelář.
           that   desk is longer than wide is   wide   that   office
           'The desk is longer than the office is wide.'
     c. Ten   stůl je delší, než **jak** je ta   kancelář **široká**.
           that   desk is longer than wide is that   office   wide
           'The desk is longer than the office is wide.'

Czech: contrastive elements in clause-final position, GIVEN elements in clause-internal
     position (Radek Šimík, p.c.)

● Hungarian: *amennyire* 'how much' + non-contrastive AP

(31) a. Mari   magasabb, mint **amennyire magas** Péter volt.
           Mary   taller   than how.much tall   Peter   was.3SG
           'Mary is taller than Peter was.'
     b. #Mari   magasabb, mint **amennyire** Péter **magas** volt.
           Mary   taller   than how.much Peter tall   was.3SG
           'Mary is taller than Peter was.'
     c. ^{??}Mari   magasabb, mint **amennyire** Péter volt   **magas**.
           Mary   taller   than how.much Peter was.3SG tall
           'Mary is taller than Peter was.'

● Hungarian: *amennyire* 'how much' + contrastive AP

(32) a. [?]A   macska kövérebb, mint **amennyire széles** a   macskaajtó volt.
           the cat   fatter   than how.much wide the cat flap   was.3SG
           'The cat is fatter than the cat flap was wide.'
     b. A   macska kövérebb, mint **amennyire** a   macskaajtó **széles** volt.
           the cat   fatter   than how.much the cat flap   wide was.3SG
           'The cat is fatter than the cat flap was wide.'
     c. [?]A   macska kövérebb, mint **amennyire** a   macskaajtó volt   **széles**.
           the cat   fatter   than how.much the cat flap   was.3SG wide
           'The cat is fatter than the cat flap was wide.'

Hungarian: the preverbal position is the canonical contrast (focus) position
     (Bródy 1990, 1995; É. Kiss 2002)

6. Attributive Comparative Deletion

the phenomenon:

(33) a. Ralph bought a bigger cat than George did ~~buy~~ a ~~big~~ cat flap.

   b. Ralph bought a bigger cat than George ~~bought~~ a ~~big~~ cat flap.

   c. *Ralph bought a bigger cat than George bought a ~~big~~ cat flap.

   d. *Ralph bought a bigger cat than George bought a big cat flap.

   e. *Ralph bought a bigger cat than George ~~bought~~ a big cat flap.

   f. *Ralph bought a bigger cat than George did ~~buy~~ a big cat flap.

positional problem:

(34) a. *Ralph bought a bigger cat than George ~~bought~~ a wide cat flap.

   b. *Ralph bought a bigger cat than George did ~~buy~~ a wide cat flap.

related to the remnant NP:

(35) Ralph bought a bigger cat than George bought ~~a big cat~~.

note: phenomenon not universal

Hungarian:

(36) Rudolf   nagyobb macskát vett,   mint amilyen széles macskaajtót Miklós
      Rudolph bigger   cat-ACC bought.3SG than how   wide   cat flap-ACC Mike
        vett.
        bought.3SG
      'Rudolph bought a bigger cat then Mike did a cat flap.'

Kennedy and Merchant (2000): quantified AP not grammatical in a certain position within the
      nominal expression – deletion carried out by a more general process (VP-ellipsis)

(similar analysis by Reglero 2006 for Spanish)

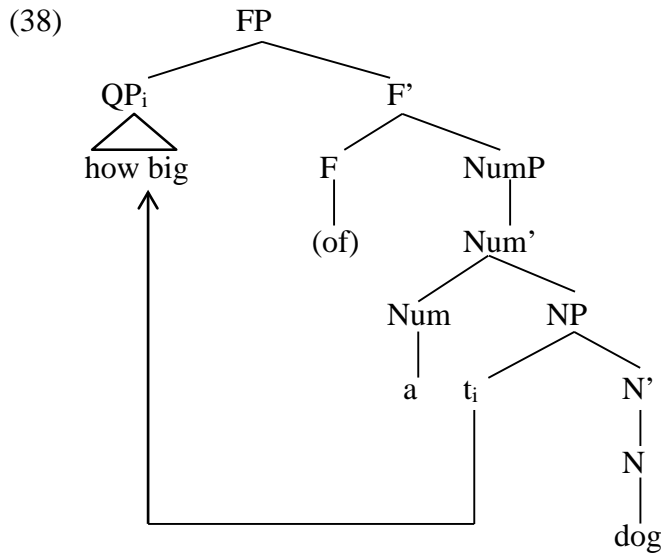→ question: why the quantified AP is not grammatical

inversion in the nominal domain (Kennedy and Merchant 2000)

      the QP moves to a position above the DP

Kennedy and Merchant (2000: 124, exx. 65a and 66a, and 66c):

(37) a. **[How interesting a play]** did Brio write?

   b. I ate **[too big a piece]**.

   c. Bob didn't write **[as detailed a proposal]** as Sheila did.

structure:

(38)

```
                    FP
            ┌────────┴────────┐
          QPᵢ                 F'
           △           ┌──────┴──────┐
        how big        F            NumP
                       |             |
                      (of)          Num'
                              ┌──────┴──────┐
                             Num           NP
                          ┌───┴───┐    ┌────┴────┐
                          a      tᵢ            N'
                                               |
                                               N
                                               |
                                              dog
```

note: Kennedy and Merchant (2000: 125, ex. 67: DegP instead of QP, DP instead of NumP)

→ QP (DegP) adjacent to the verb – they can be elided together

linear ellipsis (↔ Kennedy and Merchant 2000: rightward movement):

(39) a. *Ralph bought a bigger cat than Mike [$_{VP}$ bought [$_{FP}$ x-big [$_{NumP}$ a cat flap]$_F$]].
    b. *Ralph bought a bigger cat than Mike [$_{VP}$ ~~bought~~ [$_{FP}$ x-big [$_{NumP}$ a cat flap]$_F$]].
    c. Ralph bought a bigger cat than Mike [$_{VP}$ ~~bought~~ [$_{FP}$ ~~x-big~~ [$_{NumP}$ a cat flap]$_F$]].
    d. *Ralph bought a bigger cat than Mike [$_{VP}$ ~~bought~~ [$_{FP}$ ~~x-big~~ [$_{NumP}$ ~~a cat flap~~]$_F$]].

ungrammaticality of the QP in [Spec,FP] in comparatives: overtness requirement

    operative both in the CP-domain and in the nominal domain

(40) Ralph bought a bigger cat
    than [$_{FP}$ ~~x-big~~ [$_{NumP}$ ~~a cat flap~~]$_F$] Mike [$_{VP}$ ~~bought~~ [$_{FP}$ ~~x-big~~ [$_{NumP}$ a cat flap]$_F$]].

inversion licensed if the quantifier is overt – (37)

generalised overtness requirement on left-peripheral elements

    for operator positions

PF-interpretable configuration:

(41) X$_{[EDGE]}$ Y

PF-uninterpretable configuration:

(42) [EDGE] Y

Conclusion

Comparative Deletion: result of more general rules

● overtness and extractability of operators

● overtness requirement on left-peripheral elements

● same overtness requirement attested in the nominal domain

→ no separate mechanism for Comparative Deletion / Attributive Comparative Deletion

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