Comparative Deletion and the Overtness Requirement*

0. Introduction

● Comparative Deletion:

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

● subcomparatives:

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

previous analyses:

Bresnan (1973): identical syntactic structure


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 \textit{amilyen magas} Peti.
   Mary taller than how tall Peter
   ‘Mary is taller than Peter.’

b. Marinak több macskája van, mint \textit{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 \textit{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 bought 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 (Bácskai-Atkári 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 \([\text{CP} \{\text{QP } \text{F \text{x-wide}}\} \text{F}]\) than \([\text{CP} \{\text{QP } \text{F \text{x-wide}}\} \text{F}]\).

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.’
      Mary taller than how Peter was.3SG tall
      ‘Mary is taller than Peter was.’

- operator amennyire ‘how much’ + non-contrastive AP:

    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):

    Mary taller than tall Peter was.3SG
    ‘Mary is taller than Peter was.’
      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)\[
\begin{array}{c}
\text{QP} \\
\text{QP} \\
\text{Q'} \\
\text{DegP} \\
\text{Deg'} \\
\text{CP}
\end{array}
\]

operator positions:

(19)\[
\begin{array}{c}
\text{QP} \\
\text{QP} \\
\text{Q'} \\
\text{DegP} \\
\text{Deg'} \\
G
\end{array}
\]
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)

<table>
<thead>
<tr>
<th></th>
<th>overt</th>
<th>covert</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Deg head</strong></td>
<td><em>how</em> (English)</td>
<td>zero (English)</td>
</tr>
<tr>
<td></td>
<td><em>amilyen</em> (Hungarian)</td>
<td></td>
</tr>
<tr>
<td></td>
<td><em>hoe</em> (Dutch)</td>
<td></td>
</tr>
<tr>
<td><strong>QP modifier</strong></td>
<td><em>amennyire</em> (Hungarian)</td>
<td>zero (Dutch)</td>
</tr>
<tr>
<td></td>
<td><em>jak</em> (Czech)</td>
<td>zero (German)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>zero (Italian)</td>
</tr>
</tbody>
</table>

→ 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 macskajtó 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 macskajtó 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 macskajtó 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.

g 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
    vett.
    ‘Rudolph bought a bigger cat than 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)  

```
   (QP₁
    how big
    (F
     (of)
     (F'
      (NumP
       (Num
        a
        N'
        N
dog
      )
    )
  )
```

→ 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 \([_{VP} bought \left[{_{FP} _x\text{-big } \left[{_{NumP} a \text{ cat flap}\left[{_F} \right]} \right]} \right]]\).
  
b. *Ralph bought a bigger cat than Mike \([_{VP} bought \left[{_{FP} _x\text{-big } \left[{_{NumP} a \text{ cat flap}\left[{_F} \right]} \right]} \right]]\).
  
c. Ralph bought a bigger cat than Mike \([_{VP} bought \left[{_{FP} _x\text{-big } \left[{_{NumP} a \text{ cat flap}\left[{_F} \right]} \right]} \right]]\).
  
d. *Ralph bought a bigger cat than Mike \([_{VP} bought \left[{_{FP} _x\text{-big } \left[{_{NumP} a \text{ cat flap}\left[{_F} \right]} \right]} \right]]\).

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 \(_{FP} _x\text{-big } \left[{_{NumP} a \text{ cat flap}\left[{_F} \right]} \right]_L\) Mike \([_{VP} bought \left[{_{FP} _x\text{-big } \left[{_{NumP} a \text{ cat flap}\left[{_F} \right]} \right]} \right]]\).

inversion licensed if the quantifier is overt – (37)

generalised overtness requirement on left-peripheral elements

   for operator positions

PF-interpretable configuration:

(41)  

\(X_{[\text{EDGE}]} Y\)

PF-uninterpretable configuration:

(42)  

\([\text{EDGE}] Y\)
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

References