

Comparative Deletion and the Overt 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.

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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 [_{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’:

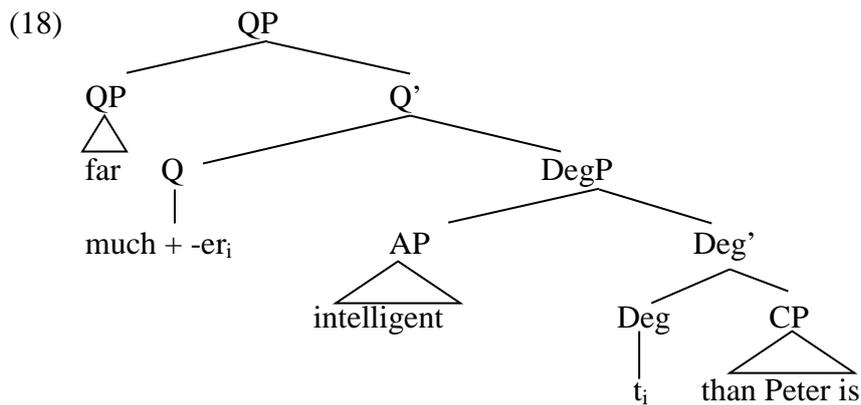
- (17) a. **Mennyire magas** volt Péter?
 how.much tall was.3SG Peter
 ‘How tall was Peter?’
- b. **Mennyire** volt Péter **magas**?
 how.much was.3SG Peter tall
 ‘How tall was Peter?’

3. The structure of degree expressions

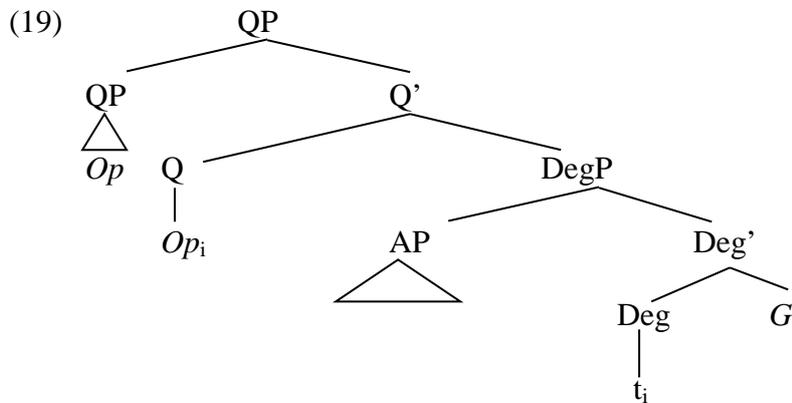
functional layers: DegP and QP

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*:



operator positions:



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	<i>how</i> (English) <i>amilyen</i> (Hungarian) <i>hoe</i> (Dutch)	zero (English)
QP modifier	<i>amennyire</i> (Hungarian) <i>jak</i> (Czech)	zero (Dutch) zero (German) zero (Italian)

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

5. *The overttness requirement*

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

overttness 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

∅ – licensed

∅ 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 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

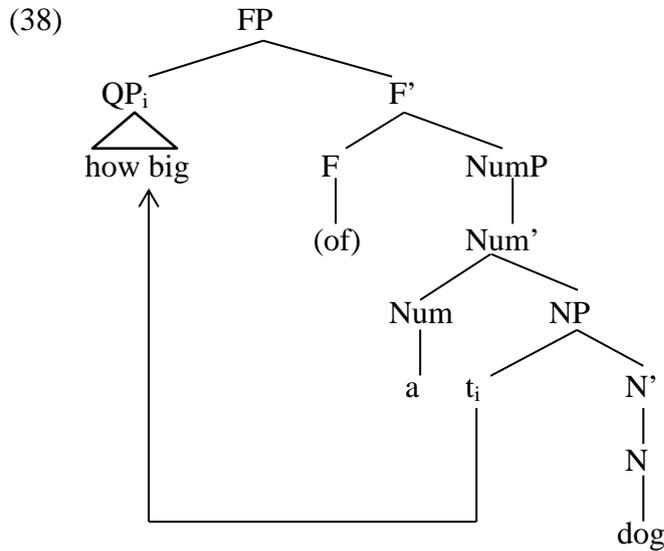
inversion in the nominal domain (Kennedy and Merchant 2000)

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:



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: overtiness 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 overtiness 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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