

Some Remarks on Phrasal Comparatives

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1. INTRODUCTION

1.1. INITIAL SET OF DATA

(1) DESCRIPTIVE GENERALIZATION

If item of comparison is an **object**, the remnant (i.e.XP following *als*) may function as a **subject**.
If item of comparison is a **subject**, the remnant cannot function as an **object**.

- (2) a. weil die Maria bessere Komponisten_{DO} als der Peter_{SU} kennt
b. weil die Maria bessere Komponisten_{DO} kennt als der Peter_{SU}
since the M. better composers than the P. knows than the P.
“since Mary knows better composers than Peter ~~knows d-good composers~~”
- (3) a. *weil bessere Komponisten_{SU} als den Peter_{DO} die Maria kennen
b. *weil bessere Komponisten_{SU} die Maria kennen als den Peter_{DO}
since better composers than the P. the M. know als the P.
“since better composers know Mary than ~~d-good composers know~~ Peter”

1.2. OUTLINE OF THE PRESENTATION

Section 2: Phrasal Comparatives

- Phrasal comparatives ACD
- ACD resolution by comparative clause movement

Section 3: Some Empirical Consequences

- Passives, unaccusatives, double objects constructions
- *More* vs. *better*

Section 4: Theoretical Implications

- DegP Hypothesis (Corver 1995)
- DP is right-branching
- Objects of transitive attributive AP's
- Interpreting the operator chain

2. PHRASAL COMPARATIVES AND ACD

2.1. COMPARATIVES AS INSTANCES OF ACD

- ACD with Predicative AP's (Larson 1985, von Stechow 1984):

- (4) a. Mary is [_{AP} taller than Peter is $\triangle$]
b. Mary is [_{AP} taller than Peter is [_{AP} taller than Peter is [_{AP} taller than Peter is ...]]]

- ACD with Attributive AP's (Moltmann 1993, Lerner & Pinkal 1995):

- (5) a. Mary [_{VP} knows better composers than Peter $\triangle$]
b. Mary [_{VP} knows better composers than Peter does $\triangle$]
- (6) Mary [_{VP} knows better composers than Peter [_{VP} knows better composer than Peter knows...]]

2.2. TWO WAYS OF RESOLVING ACD

- OPTION I: Standard solution by QR of object:

- (7) Mary [_{VP} knows every composer that Peter does $\triangle$]
- LF: [every composer OP that Peter does $\triangle$] Mary [_{VP} knows t_i]
 - LF: [every composer OP_i that Peter [_{VP} knows t_i]]_j Mary [_{VP} knows t_j]

- QR of object, followed by subject shift and reconstruction of IP (Lerner & Pinkal 1995):

- (8) Mary [_{VP} knows better composers than Peter does $\triangle$]
- LF: [better composers than OP Peter does $\triangle$]_i Mary [_{VP} knows t_i]
 - LF: [[better composers than OP Peter does $\triangle$]_i [_{IP} Mary_j [_{IP} t_j [_{VP} knows t_i]]]]
 - LF: [[better composers than OP_m Peter_k [_{IP} t_k [_{VP} knows t_m]]]]_i [_{IP} Mary_j [_{IP} t_j [_{VP} knows t_i]]]]

- OPTION II:

- ❶ Covert movement of the comparative clause à la Russell (1905)/von Stechow (1984)
- ❷ Reconstruction of VP under vehicle change *better* → *d-good* (Moltmann 1992)

- (9) Mary [_{VP} knows better composers than Peter does $\triangle$]
- LF: [than OP Peter does $\triangle$]_i Mary [_{VP} knows better composers t_i]
 - LF: [than OP Peter knows d-good composers]_i Mary [_{VP} knows better composers t_i]

2.3. APPLYING COMPARATIVE MOVEMENT (OPTION II) TO GERMAN DATA

- (10) ASSUMPTIONS

- ❶ Phrasal Comparatives derive from a clausal source
- ❷ Movement of the comparative clause (CM) is constrained by bounding conditions (CED):

- (11) weil Maria [_{DP} bessere Komponisten [als der Peter $\triangle$]] kennt
since M better composers than P. knows
- LF: [als der Peter $\triangle$]_i Maria [_{DP} bessere Komponisten t_i] kennt : CM out of object
 - LF: [als der Peter d-gute Komponisten kennt]_i Maria [_{DP} bessere Komponisten t_i] kennt
- (12) a. weil [bessere Komponisten [als den Peter $\triangle$]] die Maria kennen
b. LF: [als Peter $\triangle$]_i [[bessere Komponisten * t_i] die Maria kennen : *CM out of subject

3. MORE EVIDENCE FOR THE COMPARATIVE MOVEMENT ANALYSIS

3.1. DOUBLE OBJECT CONSTRUCTIONS

- DO's are transparent for subextraction, IO's are islands (vd. e.g. Müller 1993):

- (13) a. Maria hat dem Peter [einen Freund von Fritz]_{DO} vorgestellt
M. has the P. a friend of F introduced
"Mary introduced a friend of Fritz to Peter"
- b. Von wem hat die Maria dem Peter [einen Freund t]_{DO} vorgestellt?
"Who did Mary introduce a friend of t to Peter?"

- (14) a. Maria hat [einem Freund von Fritz]_{IO} den Peter vorgestellt
 M. has a friend of F. the P. introduced
 “Mary introduced Peter to a friend of Fritz”
 b. *Von wem hat die Maria [einem Freund t]_{IO} den Peter vorgestellt?
 “Who did Mary introduce Peter to a friend of t”
- Phrasal comparative may be associated with DO, but not with IO (also true of subject remnants):
- (15) a. weil Maria dem Peter_{IO} [bessere Komponisten [als dem Fritz_{IO} $\triangle$]]_{DO} vorgestellt hat
 since M. to P. better composers than to F. introduced has
 “since Mary has introduced better composers to Peter than to Fritz”
 b. LF: [als dem Fritz_{IO} $\triangle$]_i Maria dem Peter_{IO} [bessere Komponisten t_i]_{DO} vorgestellt hat
- (16) a. *weil Maria [besseren Komponisten [als den Fritz_{DO} $\triangle$]]_{IO} den Peter_{DO} vorgestellt hat
 since M. better composers than the F. the P. introduced has
 “since Mary has introduced Peter to better composers than Fritz_{ACC}”
 b. LF: [als den Fritz_{DO} $\triangle$]_i Maria [besseren Komponisten *t_i]_{IO} den Peter_{DO} vorgestellt hat

3.2. PASSIVE SUBJECTS AND UNACCUSATIVE SUBJECTS

- Passive & unaccusative subjects are transparent for subextraction, and may serve as item of comparison:
- (17) [Ein besserer Vertrag als der Maria $\triangle$] wurde nur dem Peter angeboten
 a better contract than the M. was only the P. offered
 “Mary was offered a better contract than Peter”
- (18) [Ein schlimmerer Fehler als mir $\triangle$] ist dem Peter unterlaufen
 a worse mistake than me is the P. occurred
 “A worse mistake happened to me than to Peter”
- (19) a. [Ein besserer Vertrag [als der Maria $\triangle$]] wurde dem Peter angeboten
 a better contract than the M. was the P. offered
 b. LF: [als der Maria $\triangle$]_i [ein besserer Vertrag t_i] wurde dem Peter angeboten
- (20) a. [Ein schlimmerer Fehler [als mir $\triangle$]] ist dem Peter unterlaufen
 a worse mistake than me is the P. occurred
 b. LF: [als mir $\triangle$]_i [ein schlimmerer Fehler t_i] ist dem Peter unterlaufen
 $\triangle$ = ein d-schlimmer Fehler unterlaufen
- (21) PROBLEM: Constituent to be reconstructed does not contain IO.
- (22) SOLUTION: Covert object shift, which is independently motivated by analysis of Pseudogapping à la Jayaseelan (1990), Johnson (1996), Lasnik (1995) (vd. also Pesetsky 1982).
- (23) a. Mary made soup more often than Bill did $\triangle$ pork roast
 b. LF: Mary made soup more often than Bill [_{AgroP} [pork roast]_i] did $\triangle$: Object shift
 $\triangle$ = make t_i

- Applying covert object shift plus Comparative Movement to passive/unaccusative cases:

- (24) Ein schlimmerer Fehler [als mir $\triangle$] ist dem Peter unterlaufen
- a worse mistake than me is the P. occurred
- a. LF: [_{IP} [**als mir** $\triangle$]_i [_{IP} [ein schlimmerer Fehler t_i] ist dem Peter unterlaufen] :CM
- b. LF: [_{IP} [als mir $\triangle$]_i [_{IP} [**dem Peter**]_j [_{IP} [ein schlimmerer Fehler t_j] t_j ist unterlaufen] : IO shift
- c. LF: [als OP_i mir_k [_{IP} [ein schlimmerer Fehler t_i] t_k ist unterlaufen]]
[dem Peter]_j [_{IP} [ein schlimmerer Fehler t_j] ist unterlaufen]

3.3. THE MORE VS. BETTER CONTRAST

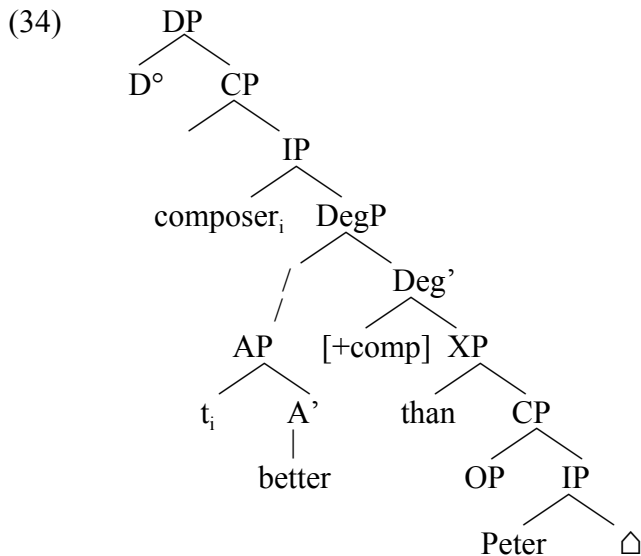
- (25) PROBLEM: Surprisingly, *more* contrasts with *better* in that it licenses object remnants with subject item of comparison.
- (26) a. *weil bessere Komponisten_{SU} als den Peter_{DO} die Maria kennen
b. *weil bessere Komponisten_{SU} die Maria kennen als den Peter_{DO}
since better composers than the P. the M. know als the P.
- (27) Mehr Komponisten kennen die Maria als den Peter
“More composers know Mary than den Peter”
- (28) TENTATIVE SOLUTION: Comparative DP’s headed by *more* undergo QR as a whole (Option I), hence CM does not apply and CED effects are suspended.
- (29) a. LF: [mehr Komponisten [als OP [_{IP} den Peter $\triangle$]]]_i [_{IP} t_i die Maria kennen] : QR
b. LF: [[**die Maria**]_j [[mehr Komponisten [als OP_i den Peter $\triangle$]]_i [_{IP} t_i t_j kennen]]] : DO-shift
c. LF: [[die Maria]_j [[mehr Komponisten [als OP_m [den Peter_k [_{IP} t_m t_k kennen]]]]]_i
[_{IP} t_i t_j kennen]
- *more* is located in higher position than *many* (hence, *more* is not *more many*, contra Bresnan 1973):
- (30) a. the many books
b. *the more books
c. the better books

4. THEORETICAL CONSEQUENCES

4.1. RIGHT BRANCHING DP'S AND THE DEG(REE)P HYPOTHESIS (CORVER 1990)

- (31) ASSUMPTIONS:
- ❶ AP is base generated in SpecDegP
 - ❷ Comparative morphology on head of AP is checked by Deg°
 - ❸ Comparative clause is the complement of DegP
 - ❹ Kaynian/Vergnaudian DP structure, with DegP as complement of IP
- (32) bessere Komponisten als Peter
better composers than Peter_{SU}

- (33) a. $[_{DP} [_{CP} [_{IP} [_{DegP} [_{AP} \text{Komponisten bessere}] [_{Deg'} [\text{Deg}^\circ [+comparative]]] [_{XP} \text{als Peter}]]]$
 b. $[_{DP} [_{CP} [_{IP} \text{Komponisten}_i [_{DegP} [_{AP} t_i \text{ bessere}] [_{Deg'} [\text{Deg}^\circ [+comparative]]] [_{XP} \text{als Peter}]]]$
 c. $[_{DP} [_{CP} [_{AP} t_i \text{ bessere}]]_j [_{IP} \text{Komponisten}_i [_{DegP} t_j [_{Deg'} [\text{Deg}^\circ [+comparative]]] [_{XP} \text{als Peter}]]]$



- (35) CONSEQUENCE: Comparative Clause is not embedded in adjunct (as in standard analysis of attributive AP's), and may therefore move out of the containing DP.

4.2. COMPLEMENTS OF ATTRIBUTIVE TRANSITIVE AP'S

- Both subject and object remnants are licit with predicative transitive AP's:

- (36) a. Maria ist ihren Prinzipien treuer als ihre Schwester $\triangle$
 $\triangle$ = ihren Prinzipien treu ist
 M. is her principles more faithful than her sister
 "Mary is more faithful to her principles than her sister"
 b. Maria ist ihren Prinzipien treuer als $\triangle$ ihrer Berufung
 $\triangle$ = als Maria t treu ist
 M. is her principles more faithful than her vocation
 "Mary is more faithful to her principles than to her vocation"

- (37) OBSERVATION: Only subject remnants are licit with attributive AP's:

- (38) a. weil es eine ihren Prinzipien treuere Frau [als Maria $\triangle$] nie gab
 $\triangle$ = ihren Prinzipien treue Frau
 since there a her principles more faithful woman than M. never was
 "since there has never been a woman who was more faithful to her principles than Mary"
 b. *weil Maria eine ihren Prinzipien treuere Frau [als $\triangle$ ihrer Berufung] ist
 $\triangle$ = t treue Frau
 since M. a her principles more faithful woman than her vocation is
 "since Mary is a woman (who is) more faithful to her principles than to her vocation"

- (39) ANALYSIS: Comparative Movement plus reconstruction of AP. Object shift of *ihren Prinzipien* out of AP is blocked by CED.

- (40) a. $[_{DP} \text{eine} [_{CP} [_{AP} \text{ihren Prinzipien treuere}] [_{IP} \text{Frau} [_{DegP} t_j [\text{als Maria } \triangle]]]]]$
 b. $[_{DP} \text{eine} [_{CP} [\text{als Maria } \triangle]_i [_{CP} [_{AP} \text{ihren Prinzipien treuere}]_j [_{IP} \text{Frau } t_j t_i]]]]]$
 c. $[_{DP} \text{eine} [_{CP} [\text{als Maria ihren Prinzipien d-treu}]_i [_{CP} [_{AP} \text{ihren Prinzipien treuere}]_j [_{IP} \text{Frau } t_j t_i]]]]]$

- (41) a. $[_{DP} \text{eine} [_{XP} [_{CP} [_{AP} \text{ihren Prinzipien treuere}] [_{IP} \text{Frau} [_{DegP} t_j [\text{als } \triangle \text{ ihrer Berufung}]]]]]]]$
 b. $[_{DP} \text{eine} [_{XP} [\text{als } \triangle \text{ ihrer Berufung}]_i [_{CP} [_{AP} \text{ihren Prinzipien treuere}]_j [_{IP} \text{Frau } t_j t_i]]]]]$
 c. $[_{DP} \text{eine} [_{XP} [\textbf{ihren Prinzipien}]_k [_{CP} [_{AP} \textbf{*}t_k \text{ treuere}] [_{IP} \text{Frau } t_i]]]]]]$

⇒ Phrasal comparatives with attributive AP's constitute additional evidence for the CM analysis based on a right branching DP structure and the DegP hypothesis.

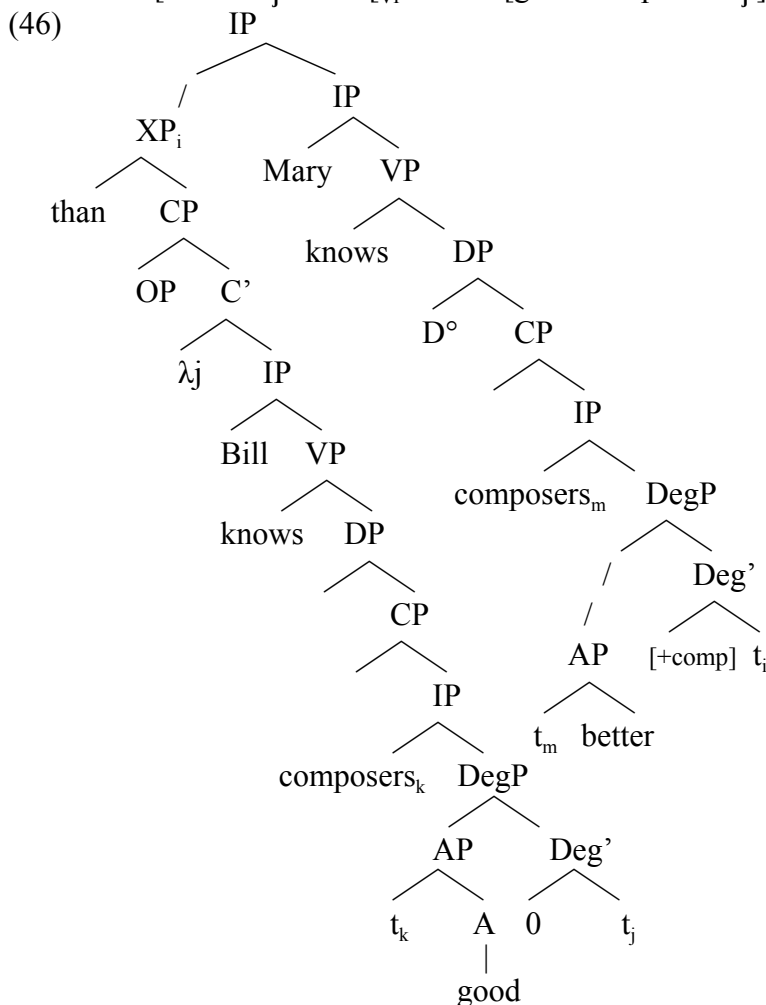
4.3. INTERPRETING THE OPERATOR CHAIN

- (42) THE PROBLEM (Moltmann 1992, 1993): If the comparative operator is assumed to bind a degree variable, the chain violates the Left Branch Condition:

- (43) $\text{than OP}_i \text{ Peter knows } [_{DP} [_{NP} [_{AP} d_i \text{ -good}]] [_{NP} \text{composers}]]]]]$

- (44) SOLUTION: The comparative operator binds the (reconstructed copy of the) trace left by movement of the comparative clause. The operator chain does not violate the left branch condition, and the trace is interpreted as degree variable

- (45) a. Mary knows better composers than Peter
 b. $[\text{than OP Peter } \triangle]_i \text{ Mary } [_{VP} \text{ knows better composers } t_i]$
 c. $[\text{than OP Peter } [_{VP} \text{ knows } [\text{good composers } t]]]_i \text{ Mary } [_{VP} \text{ knows better composers } t_i]$
 d. $[\text{than OP}_j \text{ Peter } [_{VP} \text{ knows } [\text{good composers } t_j]]]_i \text{ Mary } [_{VP} \text{ knows better composers } t_i]$



4.4. APPENDIX: THE LF-STRUCTURES ARE INTERPRETABLE

- Comparative Morpheme applies first to comparative clause, then to AP in SpecDegP:

$$(47) \quad \llbracket \text{-er} \rrbracket = \lambda d \lambda R_{<d,t>} [\exists d' [R(d') \ \& \ d' > d]]$$

- Comparative Clause denotes maximal element of a set of degrees (Rulmann 1995, vonStechow 1984):

$$(48) \quad \begin{aligned} \llbracket \text{than} \rrbracket &= \lambda P [\max(P)] \\ \text{a. } \llbracket \text{than Peter knows good composers} \rrbracket &= \\ &= \lambda P [\max(P)] (\lambda d [\exists x [\text{composers}(x) \ \& \ \text{good}(d)(x) \ \& \ \text{knows}(x)(\text{bill})]]) \\ &= \max(\lambda d [\exists x [\text{composers}(x) \ \& \ \text{good}(d)(x) \ \& \ \text{knows}(x)(\text{bill})]]) \\ \text{b. } \llbracket \llbracket_{\text{Deg}} \text{-er} [\text{than Peter knows good composers } t] \rrbracket \rrbracket &= \\ &= \lambda d \lambda R [\exists d' [R(d') \ \& \ d' > d]] (\max(\lambda d [\exists x [\text{composers}(x) \ \& \ \text{good}(d)(x) \ \& \ \text{knows}(x)(\text{bill})]])) = \\ &= \lambda R [\exists d' [R(d') \ \& \ d' > \max(\lambda d [\exists x [\text{composers}(x) \ \& \ \text{good}(d)(x) \ \& \ \text{knows}(x)(\text{bill})]])]] \end{aligned}$$

- The Comparative Clause: Operator existentially closes off the standard of comparison (Lerner & Pinkal 1995) and binds the degree variable (i.e. the copy of the trace left by CM)

$$(49) \quad \llbracket \text{OP} \rrbracket = \lambda P_{<d<et>} \lambda d' [\exists y [P(d')(y)]]$$

$$(50) \quad \begin{aligned} \llbracket \llbracket \text{OP}_j \llbracket_{\text{IP}} \text{Peter} \llbracket_{\text{VP}} \text{knows good composers } t_j \rrbracket \rrbracket \rrbracket &= \\ &= \lambda P \lambda d' [\exists y [P(d')(y)]] (\lambda d \lambda x [\text{composers}(x) \ \& \ \text{good}(d)(x) \ \& \ \text{make}(x)(\text{Peter})]) = \\ &= \lambda d' [\exists y [\lambda d \lambda x [\text{composers}(x) \ \& \ \text{good}(d)(x) \ \& \ \text{make}(x)(\text{Peter})] (d')(y)]] = \\ &= \lambda d' [\exists y [\text{composers}(y) \ \& \ \text{good}(d')(y) \ \& \ \text{make}(y)(\text{Peter})]] \end{aligned}$$