

Subcomparatives: Across-the-board binding of two degree variables by a single quantifier

Inequality comparatives like (1) are named *subcomparatives* (henceforth *SCs*) because an underlying measure-phrase modifier is *subdeleted* or removed from the standard of comparison (*cf.* Bresnan 1975). The subdeleted string may be thought of as “*d* many”, an unspecified number with which the standard or referent for comparison is established.

- (1) They have many more enemies than *we have* *_friends*. [standard marked in *italics*]

In this paper I focus on the properties of *SCs* like (2)-(3). Based on observations from typologically distinct languages, concretely, English (Napoli 1983) and Spanish (Sáez 1999), as well as novel evidence from Basque, I formalize the observations first expressed by Napoli (1983) that in this type of *SCs* [A] the standard of comparison does not derive from a clausal source, in contrast with the *SC* in (1); and that [B] the two compared elements stand in a coordinated relation mediated by the standard marker *than*. This proposal has the great advantage of dispensing with the *ad hoc* rule of *Comparative Subdeletion* and deriving its effects from the a deletion operation independently attested in coordinate structures.

- (2) More women than *_men* attended the event.
(3) The room was filled with more supporters than *_opponents* of Mao.

[A] **Phrasal *SCs***. A clausal analysis of the standards in (2)-(3) is untenable because [A1] this type of *SCs* do not pass the clausal expansion test (*cf.* (4); the same argument applies to parallel Spanish and Basque *SCs*). [A2] Moreover, Basque clearly evidences the phrasal status of the standard in comparatives like (2), in which a single case marker surfaces for the whole comparative complex (see (5)). In Basque, bare nominals like *enpresari* in (5) are banned from argumental positions. Hence, this nominal is not functioning as the subject of a (partially elided) clause. The absence of case-marking on the nominal in the standard in Basque thus signals its non-clausal status. [A3] Furthermore, a clausal analysis of *SCs* like (3) would involve an impossible type of ellipsis, one that elides a prepositional head without its complement (*cf.* (6); where elements that are presumably elided have been shaded).

- (4) More women than *men* {**did/*attended the event/*came yesterday*} attended the event.
(5) *Enpresari baino langile gehi-ago-k jotzen dute egoera larritzat.*
business-owner THAN worker many-ER-ERG consider AUX situation grave
'More workers than business-owners consider the situation grave.'
(6) ✗ The room was filled with more supporters than [_{IP} the room was filled [_{PP} with opponents of Mao]]. ((6) cannot be the underlying structure of (3))

[B] **Comparative coordination**. It is well known that clausal *SCs* like (1) show coordination-like behaviour (*cf.* Corver 1993), for example, in that these constructions allow *Gapping* (see (7)) or *Right-Node-Raising* (8); i.e. *Conjunction Reduction* ellipsis operations that are restricted to coordinated structures and comparatives (Hendriks 1991). Crucially, the properties in [B1]-[B3] below evidence the fact that the coordination-like behaviour of *SCs* is not restricted to clausal *SCs* (*cf.* (1),(7),(8)) but extends to phrasal *SCs* as well (*cf.* (2),(3),(9a)).

- (7) John knows more Romance languages than Pete **knows** Germanic languages.
(8) More women like, than men hate [the man with the red beard].

That *SCs* like (2)-(3) involve a coordinated structure is evidenced by the fact that [B1] they only allow extraction if it is *across-the-board* (compare (9a) with (9b) from Napoli 1983); [B2] *SCs* involve parallel constituents to the right and left of the standard marker ((2),(3),(9a)); and [B3] a single PP complement can be shared by the two nominals connected by *than* in phrasal subcomparatives with complement-taking nouns such as (3) (see also (10)). This behaviour regarding shared PPs is identical to that of common phrasal coordination (compare (3) with (11)).

- (9) a. Nancy Reagan, I've seen more pictures of *_* than books about *_*.
b. *Nancy Reagan, I've seen more pictures of Ronald Reagan than books about *_*.
(10) The room was filled with many {supporters/opponents}*(of Mao).
(11) The room was filled with many supporters and opponents of Mao.

The proposal and its advantages. Both clausal and phrasal *SCs* make use of a coordinating *-er/than&*. In particular, I propose that the behaviour of *than&* is similar to *and not* in that it involves coordination of two alike categories (Munn 1993) and negation (Seuren 1973). This proposal has the welcoming result of accounting for [I] the coordination-like behaviour of *SCs* (cf. [B]), and [II] the typologically prominent use of coordinating conjunctions introducing the standard of comparison (Stassen 1985; in fact, Basque *baino* ‘than’ has a second function as the adversative coordinator ‘but’). Accordingly, [III] the availability of both clausal and phrasal (cf. [A]) standards of comparison is expected since coordinating conjunctions can combine both types of elements.

Formalization. I assume the standard quantificational analysis of the degree head *-er*. Concretely, the comparative data are better explained following the *A-not-A* analysis of comparison (Seuren 1973) by which *er/than* introduces existential quantification over degrees, coordination and negation. I propose that in coordinating *-er/than&*, these markers divide their labour and have the denotations in (12)-(13). A simplified version of the denotation of example (2) is given in (14)-(15).

$$(12) \llbracket -er\& \rrbracket_{\langle\langle d,t \rangle, t \rangle} = \lambda D_{\langle d,t \rangle} . \exists d [D(d)]$$

$$(13) \llbracket than\& \rrbracket_{\langle\tau, \langle\tau, \tau \rangle \rangle} = \lambda Q_{\langle\langle e,t \rangle, t \rangle} \lambda R_{\langle\langle e,t \rangle, t \rangle} \lambda P_{\langle e,t \rangle} . R(P) \wedge \neg Q(P)$$

$$(14) \exists d [\exists y [|y| \geq d \wedge \text{women}(y) \wedge \text{attend}(y, ev)] \wedge \neg \exists x [|x| \geq d \wedge \text{men}(x) \wedge \text{attend}(x, ev)]]$$

There exists a degree *d* and there exist some women *y* that attended the event whose cardinality reaches at least degree *d* and it is not the case that there exist some men *x* that attended the event whose cardinality reaches degree *d*.

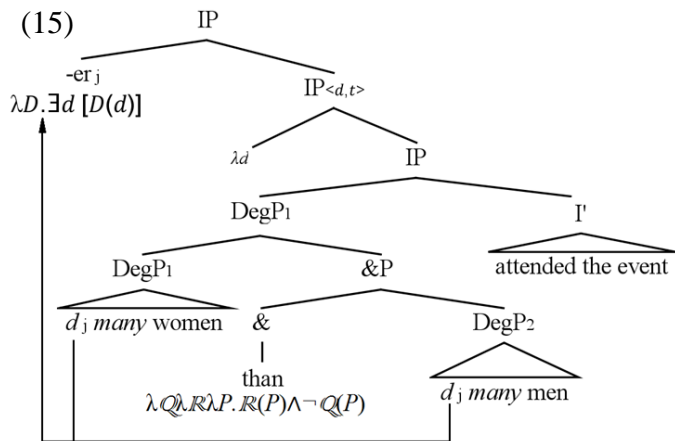
I adapt Cover’s (1993) proposal for English clausal *SCs* and argue that *comparative coordination* in both clausal and phrasal *SCs* involves symmetric ATB binding of two degree variables, one in each conjunct, by the \exists quantifier over degrees introduced by *-er*.

Crucial novel points:

[i] I defend that *than&* has the standard semantics of *and* (meet operator; cf. Partee & Rooth 1983) plus negation of the first argument (the standard).

[ii] *Comparative Subdeletion*: not the result of *wh*-movement (Chomsky 1977) nor an *ad hoc* deletion rule (Bresnan 1975). Rather, result of multiple and symmetric quantifier raising (ATB movement of an operator ranging over degrees). Same obligatory ellipsis attested in coordinate structures with two variables (one in each conjunct) bound by a single quantifier (cf. Wilder 1994).

- (15) a. Few people admire John and _ are very junior. [Ellipsis: bound variable interpretation]
- b. Few people admire John and *they* are very junior. [Pronoun: E-type reading]



Main contributions. [1] Novel supporting evidence from Basque for a phrasal analysis with coordination of *SCs* like (2)-(3) and for the *A-not-A* analysis of inequality comparatives. [2] Shedding light on the long-standing debate about the internal structure and semantic composition of subcomparatives like (2)-(3) (cf. Bhatt & Takahashi 2011). [3] A fully compositional syntactic and semantic analysis of these understudied phrasal *SCs* involving a coordinating *-er/than&*. [4] *Comparative Subdeletion* explained as the result of an obligatory ellipsis operation independently attested in common coordinate structures.

BHATT, R. & TAKAHASHI, S. 2011. Review of W. Lechner's *Ellipsis in Comparatives*. BRESNAN, J. 1975. *Comparative deletion and constraints on transformations*. CHOMSKY, N. 1977. *On Wh-Movement*. CORVER, N. 1993. *A note on subcomparatives*. HENDRIKS, P. 1991. *The coordination-like structure of comparatives*. LECHNER, W. 2001. *Reduced and phrasal comparatives*. MUNN, A. 1993. *Topics in the Syntax and Semantics of Coordinate Structures*. NAPOLI, D. J. 1983. *Comparative ellipsis*. PARTEE, B. H. & ROTH, M. 1983. *Generalized conjunction and type ambiguity*. SÁEZ, L. 1999. *Los cuantificadores*. SEUREN, P. A. 1973. *The comparative*. STASSEN, L. 1985. *Comparison and UG*.