

Can comparative correlatives be derived under minimalist assumptions?

Comparative Correlatives (1) (henceforth CCs) have been highlighted recently in the debate over whether Universal Grammar (UG) can reasonably account for the acquisition of all naturally occurring linguistic data (McCawley, 1988; Culicover & Jackendoff, 1999; Culicover, 1999; Borsley, 2003; den Dikken, 2004; Goldberg & Jackendoff, 2004). It is claimed (McCawley, 1988; Culicover & Jackendoff, 1999; Borsley, 2003) that the syntactic properties of CCs are idiosyncratic, leaving no possibility for a single syntactic structure to simultaneously account for the syntactic properties and the semantic interpretation, leading to the conclusion that these types of expressions stand as strong evidence against a theory of Universal Grammar (UG) and Principles & Parameters (P&P) (Chomsky, 1995). However, when subjected to a battery of syntactic tests, it becomes clear that CCs hold a great deal in common with standard conditionals (2). To my knowledge, no prior analysis of CCs has noted that the syntactic behaviors of the two clauses of CCs appear identical to those of standard conditionals. In this paper, I present a minimalist (Chomsky, 1995) derivation of comparative correlatives that accounts for the syntactic facts. Specifically, I propose that the comparative in the matrix clause, along with the clause it c-commands, A'-move to a position higher than the matrix clause, then the lower clause further raises to sentence-initial position.

What do CCs and conditionals have in common? If we take the first clause of a CC to behave like the apodosis (IF-clause), and the second clause of a CC to behave like the protasis (main clause), CCs behave like conditionals with respect to a number of syntactic tests. First, the second clause of a CC behaves like a matrix clause with respect to tag questions (Beck, 1997; Culicover & Jackendoff, 1999; Borsley, 2003) (see (3)). Second, when the entire CC is embedded under a VP that triggers subjunctive mood, the subjunctive mood is hosted on the second clause, and cannot be hosted on the first (Culicover & Jackendoff, 1999; den Dikken, 2004) (see (5)). This suggests that the second clause is the most immediately embedded clause under the main VP and that the first clause is an adjunct. These two syntactic behaviors (tag questions and hosting of subjunctive mood) are the same as that seen in conditionals (see (4) and (6)). Third, extraction from a CC via relativization (7), topicalization (9), and wh-movement (11) is equally permissible from both clauses. Again, this syntactic behavior is identical to that of a conditional (surprisingly so, since the IF-clause is presumably an adjunct) (see (8), (10), and (12)). Fourth, the first clause of a CC licenses NPI, but the second does not (see (13)). In a conditional, the IF-clause licenses NPIs and the main clause does not (see (14)).

It has been noted that if the order of the clauses is reversed (i.e., the "IF-clause" is in sentence-final position), the semantic interpretation of the expression changes ((15), (16)). But, conditionals freely allow IF-clauses to appear in sentence-final position. Perhaps this is a data-point that speaks against the conditional analysis of CCs? No; I propose that what has been called the CC' (17) is a CC with the "IF" clause in sentence-final position. The support for this proposal is the following:

Iatridou (1991) demonstrates that IF-clauses in conditionals undergo A'-movement from sentence-final to sentence-initial position in this way: Under bridge verbs, the IF-clause can be construed under the main VP (21). Under factive verbs, the presence of the IF-clause in sentence-initial position that is construed under the main VP results in an unacceptable expression (22). Lastly, the IF-clause cannot be construed from originating within a complex NP (if this is movement, it obeys the CNPC) (23). By the same tests, it can be shown that the "IF"-clause of a CC undergoes A'-movement to sentence-initial position (see (18)-(20)). But (24) is not acceptable. It looks like the raising of the comparative in the matrix clause is linked derivationally to the A'-movement of the "IF"-clause. This is also supported by the non-synonymy of (15) and (16), ruling out a derivation in which the comparative in the matrix clause raises, and leaves the "IF"-clause in sentence final position. I propose that the comparative, along with the "IF"-clause which it c-commands, A'-moves the sentence-initial position. This movement is followed immediately by a second A'-movement of only the "IF"-clause to sentence-initial position, giving the CC. The standard constituency test of coordination of the sequence *fatter the more pizza he eats* in (17) shows that this word string is indeed a constituent, supporting this movement analysis (test in (25)).

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- (1) The more pizza Romeo eats, the fatter he gets.
- (2) If Romeo eats more pizza, he gets fatter
- (3) The more John cooks clams, the more Mary hates seafood, doesn't she/*he?
- (4) If John cooks clams more, (then) Mary hates seafood more, doesn't she/*he?
- (5) a. \checkmark I demand that the more John eats, the more he pay(s)
b. * I demand that the more John eat, the more he pay(s)
- (6) a. \checkmark I demand that if John eats more pizza, he pay(s) more money.
b. * I demand that if John eat more pizza, he pay(s) more money.
- (7) a. This is the sort of car₁ which, the faster Bill sells t₁, the quicker he'll please his girlfriend
b. Janet is the sort of girl₁ which, the faster Bills sells this car, the quicker he'll please t₁.
- (8) a. This is the sort of car₁ which, if Bill sells t₁ faster, (then) he will more easily please his girlfriend
b. Janet is the sort of girl₁ which, if Bill sells this car faster, (then) he will more easily please t₁ .
- (9) a. This car₁, the faster Bill sells t₁ , the quicker he'll please his girlfriend
b. His girlfriend₁, the faster Bill sells this car, the quicker he'll please t₁
- (10) a. This car₁, if Bill sells t₁ faster, (then) he will more easily please his girlfriend
b. His girlfriend₁, if Bill sells this car faster, (then) he will more easily please t₁ .
- (11) a. Mary wonders which car₁, the faster Bill sells t₁, the quicker he'll please his girlfriend
b. Mary wonders which woman₁, the faster Bill sells this car, the quicker he'll please t₁
- (12) a. Mary wonders which car₁ , if Bill sells t₁ faster, (then) he will more easily please his girlfriend
b. Mary wonders which woman₁, if Bill sells this car faster, (then) he will more easily please t₁
- (13) a. \checkmark The more anyone drinks, the faster we will leave the party
b. * The more Bill drinks, the faster anyone will leave the party
- (14) a. \checkmark If anyone drinks more, we'll leave the party faster
b. * If Bill drinks more, anyone will leave the party faster
- (15) The more Bill cooks clams, the more Mary hates seafood
- (16) The more Mary hates seafood, the more Bill cooks clams (\neq (15))
- (17) a. Romeo gets fatter, the more pizza he eats
- (18) The more it rains, Mary believes/said/heard/assumed the more likely it is that Bill will come
- (19) * The more it rains, Mary regrets/forgets/resents/recognizes the more likely it is that Bill will come
- (20) * The more it rains, the more Mary heard the rumour that Bill will come
- (21) If it rains Mary believes/said/heard/assumed that Bill will come
- (22) * If it rains Mary regretted/forgot/resented/recognized that Bill will come
- (23) *If it rains Mary heard the rumour that Bill will come
- (23) a. The hungrier Romeo gets, then the more pizza he eats
b. If Romeo gets hungrier, then he eats more pizza
- (24) *The more pizza he eats, Romeo gets fatter ~~the more pizza he eats~~
- (25) Romeo gets [fatter the more pizza he eats] and [smarter the more classics he reads]

References

- Beck, S. (1997)** On the Semantics of Comparative Conditionals; **Borsley, R. (2003)** On the Polish periphery: comparative correlatives in Polish; **Chomsky, N. (1995)** *The Minimalist Program*; **Culicover, P. & R. Jackendoff (1999)** The view from the periphery: The English comparative correlative; **den Dikken, M. (2004)** Comparative Correlatives Comparatively. Ms. (<http://web.gc.cuny.edu/dept/lingu/dendikken/papers.html>); **Iatridou, S. (1991)** Topics on conditionals; **McCawley, J. (1988)** The Comparative Conditional Constructions in English, German and Chinese; **McCawley, J. (1998)** *The syntactic phenomena of English (2nd edn)*.