POSSIBLE SUPERLATIVES

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BACKGROUND. Gradable adjectives like *tall* are standardly assumed to denote relations between indivuals and degrees: (1a,b). The superlative morpheme *-est* operates on the degree argument. (2a) means "John is tall to a degree to which nobody else in group C is tall": (2b) (Heim 1999).

(1) a. John is (at least) 160 centimeters tall.
b. tall(j,160cm)

(2) a. John is the tallest (in group C).
b. $\exists d$ [tall(j,d) & $\forall y \in C$ [$y \neq j \rightarrow \neg$tall(y,d)]]

Superlatives give rise to certain ambiguities (Szabolcsi 1986, Heim 1999). E.g., (3) can be understood as picking the highest mountain out of the set of mountains (3a), or as picking the most-achieving mountain climber out of the set of mountain climbers (3b).

(3) John climbed the highest mountain.
a. Absolute reading: "J climbed a mountain higher than any other mountain."
b. Comparative reading: "J climbled a higher mountain than anybody else climbed."

This ambiguity has been explained as scope ambiguity of the DegreeP *[-est C]* (Szabolcsi 1986; Heim 1985, 1999). The absolute reading (3a) results when the DegP scopes within its original host NP: (4). The comparative reading (3b) arises when the DegP scopes higher up, immediately under the argument position over which the comparison is established (in this case, immediately under the subject, since we compare mountain climbers): (5). To derive these readings the entry (6) is used:

(4) a. LF: John climbed [THE [–est C] 1 [t_1-high mountain]]
b. climb (j, ιx_e. $\exists d$ [mount(x) & high(x,d) & $\forall y \in C$ [$y \neq x \rightarrow \neg$(mount(y) & high(y,d))]])

(5) a. LF: John [–est C] 1 [climbed [A t_1-high mountain]]
b. $\exists d$ [$\exists z$[mount(z) & high(z,d) & climb(j,z)] & $\forall y \in C$ [$y \neq x \rightarrow \neg$($\exists u$ mount(u) & high(u,d) & climb(y,u)]]

(6) ⟦*-est*⟧ = $\lambda C_{<e,t>}.\lambda R_{<d,et>}.\lambda x_e.\ \exists d$ [R(d)(x) & $\forall y \in C$ [$y \neq x \rightarrow \neg$R(d)(y)]]

THE PROBLEM. Superlatives with intensional adjuncts like *possible* present a problem:

(7) John climbed the fewest mountains possible. (Larson 2000, Schwarz 2005)
(8) Juan escaló las menos posibles. [Spanish]
John climbed the fewest/-er possible 'Juan climbed the fewest (mountains) possible.'

If we scope DegP within its original NP, we obtain very weak truth conditions: sentence (8) is false in scenario (10) but the derived truth conditions (9b) wrongly predict it to be true:

(9) a. John climbed [A mountains IN A [-est possible(C_5)] 1 [[t_1 little LARGE] AMOUNT]]]
b. $\exists x$ [mountains(x,w_0) & climbed(j,x,w_0) & $\exists n$ [|x|=n &
$\exists d$ [$\neg$large(n,d) & $\forall n' \in$possible(C_5) [$n' \neq n \rightarrow$ large(n',d)]]]]

(10) Scenario: John is has to climb 10 mountains or more. He ends up climbing exactly 15.

If, instead, we scope DegP higher up, we end up with a λn argument slot (for the amount n) that is not filled up: (11b). (If we $\exists$-close it, we again produce very weak truth conditions).

(11) a. [-est possible(C_5)] little 1 John climbed [A mountains IN A [[t_1 LARGE] AMOUNT]]
b. λn_e. $\exists d$ [amount(n) & small(n,d) & ...

PROPOSAL. If we eliminate the third argument λx_e in the entry for *-est* above and retrieve the missing information from Focus, as in (Heim 1999), the new entry (12) yields the correct results. The DegP *[-est possible(C5)]* will scope out of its original NP, as we did in (11a), but now there will be no left-over λn. The desired reading is given in (13).

(12) ⟦*-est*⟧ = $\lambda C_{<<d,st>,t>}.\lambda R_{<d,st>}.\lambda w_0.\ \exists d$ [R(d)(w_0) & $\forall Q \in C$ [$Q \neq R \rightarrow \neg$Q(d)($w_0$)]]
Plus presupposition (or assertion): R(w_0) matches some member of C evaluated at w_0.

(13) $\lambda w_0.\ \exists d\ [\ \neg\exists x[\text{mountains}(x,w_0)\ \&\ \text{climb}(j,x,w_0)\ \&|x|\geq d]\ \ \&\ \ \forall Q\in \text{possible}(C_5)$
$[\ Q \neq \lambda d_d.\lambda w_0.\neg\exists x[\text{mountains}(x,w_0)\ \&\ \text{climb}(j,x,w_0)\ \&|x|\geq d] \rightarrow\neg Q(d)(w_0)\ ]\ ]$
Plus presupposition (or assertion): $\lambda d_d.\neg\exists x[\text{mountains}(x,w_0)\ \&\ \text{climb}(j,x,w_0)\ \&|x|\geq d]$
matches some member of ⟦*possible C₅*⟧ evaluated at w_0, where
$[\![\textit{possible } C_5]\!] = \{\ \lambda d_d.\lambda w_0.\ \exists w\in Acc(w_0)[\neg\exists x[\text{mountains}(x,w)\ \&\ \text{climb}(j,x,w)\ \&|x|\geq d]]\ \}$

Once the λx_e argument of *-est* has been eliminated, the question arises whether other accounts that relied on this λx_e can be still maintained, e.g. Hackl's (to appear) analysis of *most* and *few*. It will be argued that the constraints that Hackl places on this λx_e are found not just in superlatives but also in other focus-sensitive constructions, and hence should be derived from Focus and not from *-est*.

Bibliography

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