

Binding into relative superlative descriptions

Dylan Bumford, UCLA

Superlative descriptions are often underspecified. Imagine that John and several friends take a trip to the library, and each picks out a book. In this context there are at least two ways to interpret the sentence in (1). On one understanding of the object description, its *absolute reading*, the sentence entails the existence of a single book longer than all the others in the library, and asserts that John picked out that book. This is a reading on which the superlative quantifies over the entire relevant portion of the extension of the nominal ‘book’, selecting the longest among them. Alternatively, on its *relative reading*, (1) may merely entail that John picked out a longer book than any of his friends did, regardless of whether he picked out the very longest book in the building, or whether such a book even exists.

(1) John picked out the longest book

Broadly speaking, there are two kinds of theories that attempt to explain how the superlative embedded in the direct object can appear to quantify over alternatives to the subject, viz., John and his friends. The first interprets the superlative *in situ*, but treats the superlative’s comparison class as a context-sensitive parameter of the discourse, akin to vanilla cases of quantificational domain restriction. So just as ‘every student’ may be understood to quantify only over students in the current room, rather than every student in the world, the superlative in (1) may quietly quantify over a restricted set of books, namely those picked out by John and his friends. Among analyses of this variety, there are those that attribute the restricted comparison class to matters of more or less free pragmatic reasoning (e.g., [Gutiérrez-Rexach 2006](#), [Teodorescu 2009](#)), and those that fix the class as a function of the sentence’s focus structure (e.g., [Sharvit & Stateva 2002](#), [Tomaszewicz 2015](#)).

The other kind of theory interprets the superlative outside of the description it occurs in ([Heim 1999](#)). With scope above the verb phrase or even the entire sentence, the superlative is compositionally situated in a position from which it can directly evaluate various potential individuals that could saturate the same argument position as the subject with respect to their performance on the degree property that it abstracts over. In (1), for example, this means the superlative would compare John with the rest of the gang on the degrees d to which they can be said to have picked out a d -long book. The sentence is true if John exceeds his friends. Scopal theories also differ in the role that focus plays (e.g., [Romero 2013](#) vs. [Bhatt 2006](#)).

This talk introduces to the debate a novel pattern of binding data, and argues that the paradigm is better explained by the latter, scopal, theories of superlative meaning. The principal example is illustrated in (2). Returning to the library scenario, imagine now that John, Mary, Sue, and Fred each pick out a dozen or so books to read. Just to be cute, some of them choose books with titles that include the names ‘John’, ‘Mary’, ‘Sue’, and/or ‘Fred’. In this scenario, (2) will be interpreted as saying one of two things. It either entails, as indicated in (2a), that John picked out fewer books with the word ‘John’ in the title than any of Mary, Sue, or Fred did. Or, as indicated in (2b), it entails that John picked out fewer books with ‘John’ in the title than Mary did with ‘Mary’ in the title, Sue did with ‘Sue’ in the title, or Fred did with ‘Fred’ in the title.

(2) John picked the fewest books with his name in the title

- a. $\forall z \neq j. \max \{n \mid j \text{ picked } n \text{ books with } j\text{'s name}\} < \max \{n \mid z \text{ picked } n \text{ books with } j\text{'s name}\}$
- b. $\forall z \neq j. \max \{n \mid j \text{ picked } n \text{ books with } j\text{'s name}\} < \max \{n \mid z \text{ picked } n \text{ books with } z\text{'s name}\}$

The so-called sloppy reading of (2) paraphrased in (2b) is difficult for domain-restriction theories of superlatives to capture. Roughly, the trouble for such analyses is that no matter what set of objects is taken to stand in for the implicit comparison class (regardless of how such a class is identified in practice), the superlative has to quantify over the noun phrase ‘books with his name in the title’. But from the superlative’s point of view, trapped as it is within the grammatical object, the pronoun in that description is rigidly bound to John. So intersecting this set — books with ‘John’ in the title — with whatever the comparison class turns out to be will necessarily return a set containing only John’s books, which precludes any truth conditions along the lines of (2b). Given this, I will argue that the only option available to such theories is to give up altogether on interpreting the noun phrase, and instead using it merely as a parameter for the determination of the comparison class. I evaluate the prospects of this idea, and conclude that to the extent that it can be made to work, it is a long way away from a parsimonious, purely pragmatic theory of domain restriction.

The problem is even more acute for focus-sensitive *in situ* approaches. For instance, the LF in (3) presents the schematic shape for a focus-sensitive derivation that leaves the superlative inside the DP (modeled after [Tomaszewicz 2015](#)).

(3) [the $est_C \lambda d$ d -few books with his_z name] [$\sim C$ [λx JOHN λz z picked x]]

What can be seen here is that the constraints of sloppiness on the one hand and relativity on the other put conflicting pressures on the superlative DP. In order for the pronoun to be interpreted sloppily — i.e., to co-vary with the focus alternatives — it needs to be bound by the element in focus. But in order for the superlative to be interpreted relatively — i.e., to quantify over the focus alternatives — it needs to outscope the element in focus. Since the pronoun and the superlative are stuck in the same DP, these two things cannot happen simultaneously. So if relativity really required *the entire superlative DP* to clear out of the scope of the focus operator, then nothing in the superlative DP would ever be sloppy, contrary to empirical fact.

Conceivably, the sloppy relative reading of (3) could depend on some sort of partial nominal reconstruction. However, (4) shows that it is also possible to interpret a pronoun sloppily in an argument to the superlative adjective itself. And in such cases, reconstruction is of no use; as the putative *in situ* LF in (4b) makes clear, no matter where the adjective were to be interpreted, one of its two arguments — the degree or the PP — would contain an unbound variable.

(4) JOHN climbed the mountain closest to his house

a. ✓ John^{*j*} climbed a mountain that was closer to *his_j* house than any mountain climbed by any^{*y*} one else was to *their_y* house

b. [the $est_C \lambda d$ [mntn d -close to his_z house]]
 [$\sim C$ [λx JOHN λz z climb [x [mntn d -close to his_z house]]]]

Scope-taking theories of superlatives have no comparable difficulty with the sloppy reading in (2b), or the strict reading above it. On every such theory, the superlative quantifies over a constituent large enough that the pronoun can be bound — strictly or sloppily — within it, which determines the shape of the property against which competitors are compared. This is a fairly straightforward point in favor of scopal theories of superlative semantics, though as far as I can tell the data has been overlooked in the literature so far. Time permitting, I will also discuss generalizations of the above data to adjectival exclusives and ordinals, suggesting that scope-oriented treatments may be appropriate for a broader class of quantificational adjectives, as in [Sharvit 2015](#) and [Bumford 2017](#).

References

- Bhatt, Rajesh. 2006. *Covert Modality in Non-finite Contexts* (Interface Explorations). New York: Mouton de Gruyter.
- Bumford, Dylan. 2017. *Split-scope effects in definite descriptions*. New York University PhD Dissertation.
- Gutiérrez-Rexach, Javier. 2006. Superlative quantifiers and the dynamics of context-dependence. *Where semantics meets pragmatics*. 237–266.
- Heim, Irene. 1999. Notes on superlatives. Unpublished manuscript, MIT.
- Romero, Maribel. 2013. Modal superlatives: a compositional analysis. *Natural Language Semantics* 21(1). 79–110.
- Sharvit, Yael. 2015. The onliest np: non-definite definites. In Ulrike Steindl (ed.), *Proceedings of west coast conference on formal linguistics (WCCFL) 32*, 171–190.
- Sharvit, Yael & Penka Stateva. 2002. Superlative expressions, context, and focus. *Linguistics and Philosophy* 25(4). 453–505.
- Teodorescu, Alexandra. 2009. *Modification in the noun phrase: the syntax, semantics, and pragmatics of adjectives and superlatives*. University of Texas at Austin PhD Dissertation.
- Tomaszewicz, Barbara. 2015. *Superlative ambiguities: a comparative perspective*. University of Southern California PhD Dissertation.