

The Interpretation of the Comparison Class in Superlative and Comparative Predication

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Background. Sentences involving superlatives or comparatives are interpreted with reference to a *comparison class* C, which is a semantic argument of *-est* and *-er* (e.g. [7],[2]). Crucially, different specifications of C lead to different interpretations of the sentence. I focus on the interpretation of the non-overt C of superlative/comparative adjectives when they appear in predicative positions, as in (1).

(1) The chocolate cake was [the most/more] expensive.

In this paper, I provide novel data from the interpretation of predicative superlatives/comparatives to illustrate a case where C does not entirely rely on pragmatic specifications, but rather is grammatically constrained by the focus-alternative semantics of the subject of the superlative/comparative predicate. I make a new generalization that when the subject of the superlative/comparative predicate is a [*wh* NP] that contributes the semantics of a set of individuals, the comparison class (C) argument of *-est/-er* must be anaphoric to it (i.e. must be a subset of it).

The Puzzle. The interpretation of C is always subject to contextual restrictions. In (1), the C argument is supplied by a contextually salient set of entities. The C argument of *-est* can, for example, be the set of things that are sold at the bakery (e.g., cakes, muffins, croissants, etc.) or the set of things that someone brought to a birthday party (e.g. the chocolate cake, another cake, party hats, champagne, etc.). The C argument of *-er* can similarly contain, in addition to the chocolate cake, another contextually salient entity. Besides this contextual restriction, however, there is no further restriction such that C must be a subset of cakes. Given the appropriate context, non-cake alternatives to *the chocolate cake* such as *the chocolate muffin* or *party hats* may freely enter C. When C is determined solely based on context as in (1), I refer to it as the “**FREE C**” reading, in the sense that there is no *grammatical* requirement on the interpretation of C.

However, superlative/comparative predicates do not always give rise to FREE C. When the subject of the predicate undergoes certain \bar{A} -movements—as in restrictive relative clauses, *wh*-questions, and free relatives—C is restricted to a subset of the NP in the \bar{A} -moved element (*cake* in (2)). In (2), C *must* be a subset of *cakes*, meaning that non-cake entities (e.g. other baked goods) are banned from entering C.

(2) **RESTRICTED C:** ‘*more expensive than [any other/the other] relevant **cake**/#thing*’

- a. Mary bought the cake that was [the most/more] expensive. [Restrictive relative clause]
- b. Which cake was [the most/more] expensive? [Wh-question]
- c. I will buy whatever cake is [the most/more] expensive. [Free relative]

I refer to this type of interpretation as “**RESTRICTED C**”. The usual contextual restrictions apply on top of this grammatical restriction, restricting C to a contextually relevant subset of *cakes*.

Not all \bar{A} -movements give rise to RESTRICTED C. FREE C obtains in other \bar{A} -movement contexts such as appositive relative clauses, topicalization, *it*-clefts, pseudoclefts, and in the case of A-movement: (3).

(3) **FREE C:** ‘*more expensive than [any other/the other] relevant **thing** (e.g. at the bakery/birthday party/etc.)*’

- a. Mary bought the cake, which was [the most/more] expensive. [Appositive relative clause]
- b. What did Mary say was [the most/more] expensive?
The chocolate cake, Mary said was [the most/more] expensive. [Topicalization]
- c. It was the cake that was [the most/more] expensive. [It-cleft]
- d. What was [the most/more] expensive was the cake. [Pseudocleft]
- e. The cake seems to be [the most/more] expensive. [A-movement: Subj.-to-subj. raising]

Question: Why is C grammatically restricted in certain environments but not in others?

The contrast between FREE C and RESTRICTED C becomes more apparent in examples like (4) where a specific context is provided. In (4), the painting of the Eiffel Tower was the most expensive *painting* but not the most expensive *art piece* at the show. (4a-e) are infelicitous continuations of the context because they have a FREE C reading where C can be the set of all the art pieces at the show. (4f-h), however, are felicitous utterances because C is now restricted to the set of paintings, and the painting of the Eiffel Tower was indeed the most expensive amongst the *paintings*.

(4) (Context: *At an art show, there were many different paintings, sculptures, and photographs being sold. The organizers said that the most expensive art piece at the show was a photograph of a female celebrity, priced at \$1000. Amongst the paintings, they said the painting of the Eiffel Tower was the most expensive, priced at \$700. Mary bought this painting of the Eiffel Tower.*)

- a. # The painting of the Eiffel Tower was the most expensive. [No \bar{A} -movement]
- b. # Mary bought the painting of the Eiffel Tower, which was the most expensive. [Appos. RC]
- c. # The painting of the Eiffel Tower, they said was the most expensive. [Topicalization]
- d. # It was the painting of the Eiffel Tower that was the most expensive. [It-cleft]

- e. # What was the most expensive was the painting of the Eiffel Tower. [Pseudocleft]
 f. √ Mary bought the painting that was the most expensive. [Restrictive RC]
 g. √ Which painting was the most expensive? —The painting of the Eiffel Tower. [Wh-ques.]
 h. √ Mary said she will buy whatever painting is the most expensive, and she did. [Free relative]

Proposal. I propose that the generation of focus-alternatives to the subject of the superlative/comparative predication (as in Rooth's (1985) Focus-alternative semantics) has consequences for the interpretation of C. In predicative superlative/comparatives, when the subject of the superlative/comparative predication does *not* have an alternative set as its focus semantic value, C is determined solely based on context. When the subject of the degree predication does have an alternative set as its focus semantic value, C must be anaphoric to it, in the sense that C becomes a contextually relevant subset of the alternative set: (5) $C \subseteq S$ when S is the alternative set to the subject of the degree predication. I propose that this should be added to the semantics of *-est* ([6]) as a presupposition, and also by analogy to the presupposition of *-er*.

The Semantics of *wh*-phrases. *Wh*-phrases contribute the semantics of a set of individuals of the type given by the NP restrictor of the *wh*-determiner: *which cake* “evokes” a set of cakes (informally). There are different ways to implement this idea. For purposes of exposition (and for reasons of space), I follow Beck (2006) and Cable (2007)'s claim that *wh*-phrases have a focus semantic value of an alternative set of individuals. For example, the focus-alternative value of *which cake* (i.e. $\llbracket \text{which cake} \rrbracket^f$) is a set of cakes ($\{x_c : x \in \text{cake}\}$). Crucially, in (2), the lower copy of the \bar{A} -moved subject of the superlative/comparative predicate is a *wh*-phrase that contains an NP (*which cake* for (2a-b), *whatever cake* for (2c)), and [*wh* NP] generates an alternative set that consists of entities denoted by the NP, and therefore is relevant for the derivation of RESTRICTED C. My analysis works in a similar vein under the Hamblin-alternatives type of approach as well, with different technicalities, of course.

Accounting for the facts. (6) shows how the derivation of RESTRICTED C is achieved in restrictive relative clauses. As shown in (6b), the subject of the degree predication is a *wh*-phrase. This generates alternatives as in (6c). (6d) says that C is a contextually relevant subset of that alternative set, and RESTRICTED C is derived (6e), as desired.

- (6) a. the cake [_{CP} that was the most expensive]
 b. LF for CP: [_{CP} ~~which cake~~]₁ [_{TP1} [_{TP2} ~~which cake~~]₁ was [_{-est} C] *d*-expensive]]
 c. $\llbracket \text{which cake} \rrbracket^f = \{x_c : x \in \text{cake}\} = \{\text{cake}_1, \text{cake}_2, \text{cake}_3, \dots\}$
 d. $C \subseteq S$ (the proposed addition to the presupposition of *-est*)
 e. RESTRICTED C = $\{\text{cake}_1, \text{cake}_2, \text{cake}_3, \dots\}$

The subjects of the superlative/comparative predication in (3a, b, c, e), however, are not in the form of [*wh* NP] and therefore do *not* generate an alternative set. In this case, C is purely contextually determined, giving rise to FREE C. Although the subject of the superlative/comparative predicate in pseudocleft sentences (3d) is a *wh*-phrase (*what* in (3d)), it does not contain an NP. The focus semantic value of *what* (i.e. $\llbracket \text{what} \rrbracket^f$) is a set of nonhuman entities ($\{x_c : x \in \text{nonhuman}\}$), and C is therefore only restricted to be a subset of nonhuman entities (instead of a subset of *cakes*). That is, C in pseudoclefts is restricted, but not in the way that derives the said RESTRICTED C reading.

Prosodic Focus. The presence of prosodic focus also gives rise to an interpretation that is similar to RESTRICTED C. When there is prosodic focus on the determiner of the subject as in (7), for example, C gets restricted to a set of cakes.

- (7) THIS cake is [the most/more] expensive.
 ‘This cake is more expensive than [any other/the other] relevant cake.’

Also, (8) is felicitous, showing that prosodic focus within the PP modifier of the subject makes C the set of paintings (in the first clause of the sentence).

- (8) (*In the same context as (4), two people are talking in the painting section of the art show. One person says:*)
 The painting of the EIFFEL TOWER is the most expensive, but that photograph of a female celebrity is more expensive.

These facts are compatible with the current focus-semantics based analysis, but I leave the exact nature of these facts to further exploration.

References. [1] Beck '06. Intervention effects follow from focus interpretation. *NLS*. [2] Bhatt & Pancheva '04. Late merger of degree clauses. *LL*. [3] Cable '07. The grammar of Q. *PhD Thesis*. MIT. [4] Hamblin '73. Questions in Montague English. *Foundations of Language*. [5] Heim '85. Notes on comparatives and related matters. *ms.* UT-Austin. [6] Heim '99. Notes on superlatives. *ms.* MIT. [7] Rooth '85. Association with Focus. *PhD Thesis*. UMass.