

**Extreme adjectives, comparatives and *even***  
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**Main goal:** This paper attempts to explain two related puzzles about extreme adjectives (EA henceforth), like *gigantic*, *excellent*, *terrible*, observed in the literature (e.g. Paradis 2001, Rett 2008, Morzycki 2012), namely their degraded status in comparatives (1), and the fact that such comparatives become felicitous in the presence of *even* (2):

(1) ?Godzilla is more gigantic than Mothra      (2) Godzilla is even more gigantic than Mothra

**Background: Morzycki's (2012) semantics for EA and his solution for the two puzzles:**

Morzycki takes EAs to denote relations between individuals and degrees which lie beyond the contextually provided scale  $C$ . For example,  $Gigantic_C$  is a function from an entity  $x$  and a degree  $d$ , that returns truth iff  $d$  exceeds the maximum degree in  $C$  and  $x$  is big to degree  $d$ :

(3).  $[[ \text{gigantic}_C ]] = \lambda x \lambda d . d \geq \max(C) \wedge x \text{ is } d\text{-big}$

Consequently, the comparatives in (1) should have the semantics in (4):

(4)  $\exists d' d' > \max(C) \wedge \text{Godzilla is } d'\text{-big} \wedge d' > \max\{d: d > \max(C) \wedge \text{Mothra is } d\text{-big}\}$

Morzycki suggests that (1) is infelicitous since comparison makes degrees salient, thus leading to a pragmatic clash when applied to the non-salient degrees associated with EAs. More intuitively, being so extreme makes the comparison of two degrees of gigantiness difficult or pointless (cf. Rubinstein & Portner 2014). As an alternative explanation Morzycki suggests that the maximality function in (4) presupposes that “there be a degree beyond the salient ones to which Mothra is big — that is...that Mothra be gigantic” (p 587), (as evidenced by (5)) and the infelicity of (1) may be due to the need to accommodate this presupposition.

(5) ? Godzilla is (not) more gigantic than Mothra. Entails: Mothra is gigantic.

Re (2), Morzycki suggests that “because *even*... [is]... reflecting what is more or less expected in the discourse (Rooth 1985, Wilkinson 1996; Rullmann 1997; Giannakidou 2007), it provides a way for the speaker to acknowledge that the intended comparison is beyond the expected range, and to invite other discourse participants to play along” (p.588).

**An evaluation of Morzycki's suggestions:** We believe that Morzycki's suggestions still leave a number of questions open. For example, as Rubinstein & Portner (2014) point out, attributing the infelicity of (1) to a semantic clash between ‘salient’ and ‘nonsalient’ degrees is still vague unless a clear definition of salience of degrees is developed. Deriving it from the need to accommodate the presupposition that Mothra is gigantic is not enough either, as cases of presupposition accommodation with no resulting infelicity are very common. Finally, the traditional semantics for *even* assumed by Morzycki, as presupposing that its prejacent is less likely / expected than its alternatives, can solve neither of the two potential problems he takes (1) to have: E.g. taking (1) to be less likely than e.g. *Godzilla is as / less gigantic than Mothra* does not seem to shift the degrees to which Mothra or Godzilla is big from non-salient to salient, and does not by itself help accommodating the presupposition that Mothra is gigantic. (The same result will hold if we take *even* to induce other alternatives). We conclude that although some of Morzycki's intuitions regarding the infelicity of (1) and the felicity of (2) seem to us to be on the right track, it would be better to arrive at a more precise explanation of these puzzles.

**An alternative proposal:** Our proposal integrates three components:

The first component is Morzycki's semantics in for EA and for EA comparatives in (3) and (4), correctly predicting the entailment pattern in (5). More precisely, we take the entailment in (5) to support Rett's (2008) view that the standard for extreme adjectives like *gigantic* is at the minimal endpoint of their scale, i.e. immediately above the maximal endpoint of  $C$  (for *big*).

The second component is an updated semantics for *even* suggested in Greenberg 2015, 2016. Greenberg points out several problems for the traditional, ‘comparative unlikelyhood’-based scalar ps. for *even*. One of these problems is the observation that a sentence with *even* entails that a nonfocused element in both *p* and its alternatives must have a degree which is at least as high as the standard on a relevant gradable property G. For example notice that only when *even* is present in (6a,b) we get an entailment to (7):

(6) John is 1.70m tall. A. Bill is (even) 1.75 b. Bill is (even) taller than him

(7) Being 1.70 is tall i.e. its a degree which is at least as high as the standard of tallness.

To capture this and other observations about *even*, Greenberg re-defines its scalar ps. as in (8):

(8) *Even (C) (p) (w)* is defined iff  $\forall q \in C \ q \neq p \rightarrow \forall w1, w2 \ [w1Rw \wedge w2Rw \wedge w2 \in p \wedge w1 \in [q \wedge \neg p]] \rightarrow [max(\lambda d2. G(d2)(x)(w2)) > max(\lambda d1. G(d1)(x)(w1))$

$\wedge the \ max(\lambda d1. G(d1)(x)(w1)) \geq stand_G]$  (where x is non-focused element in *p* (Bill)).

In prose, x is more G in all accessible *p* worlds than in all accessible *q*-and *not-p* worlds and in the *q*-and *not-p* worlds x’s degree of G is at least as high the standard of G. This now ensures that the comparative in (6b) has the scalar presupposition in (9), assuming that *p* is *Bill is taller than John*, the alternative *q* is *Bill is as tall as John* and x (the nonfocused element) is *Bill*:

(9)  $\forall w1, w2 \ [w1Rw \wedge w2Rw \wedge w2 \in the \ max \ d1(\lambda d1. TALL(d1)(Bill)) > 1.70m \wedge w1 \in [the \ max \ d1(\lambda d1. TALL(d1)(Bill)) \geq 1.70m \wedge \neg the \ max \ d1(\lambda d1. TALL(d1)(Bill)) > 1.70m]0 \rightarrow [the \ max \ d2(\lambda d2. TALL(d2)(Bill)(w2)) > the \ max \ d1(\lambda d1. TALL(d1)(Bill)(w1)) \wedge the \ max \ d1(\lambda d1. SUITABLE(d1)(Bill)(w1)) \geq stand_{TALL}]$

In prose, (9) presupposes that Bill’s degree of tallness in all accessible worlds where he is taller than 1.70m is higher than in all worlds where he is exactly 1.70, and Bill’s degree of tallness in the worlds where he is 1.70m tall to be at least as high as the standard of tallness (i.e. he is tall).

The third component in our proposal is **Maximize Presupposition!** (e.g. Sauerland 2008, Percus 2006, Chemla 2008, Singh 2011), requiring speakers to choose between two alternative forms the form with stronger presuppositions if these presuppositions are satisfied in the context. We suggest that this is exactly what happens in our case, and more specifically, that the EA-comparative in (1) is degraded since using the minimally contrasting comparative with *even* in (2) is preferred due to Maximize Presupposition!. In particular, given the fact that an EA-comparative entails the positive form, and given the updated semantics of *even*, whose scalar presupposition independently ensures that a comparative with *even* entails the positive form, speakers choose the form with *even* (*Godzilla is even more gigantic than Mothra*) over the form without it (*Godzilla is  $\emptyset$  more gigantic than Mothra*).

**Summary and directions:** In a way, our explanation of (1) and (2) has the opposite direction than Morzycki’s: Instead of first explaining why (1) is bad, and then why (2) is better, we derive the infelicity of (1) from the fact that (2) is preferred due to Maximize Presupposition!

Among the questions raised by our proposal we would like to compare EAs to Lower-closed adjectives (*wet*, *dirty*, *bent*). First, if indeed the standard for EA is the minimal point of the scale, then they may seem identical to L-closed one (cf. Rett (2008)), but Morzycki (2012) rejects this conclusion based on the inability of *slightly* to modify EA. We examine the idea that the latter fact can be explained by assuming the arbitrariness / vagueness of the cutoff point between e.g. *big* and *gigantic* (as opposed to the absolute minima with e.g. *wet*), and by using Solt’s 2012 idea that *slightly* cannot modify adjectives with arbitrary standards (cf. Sassoon (2012)). Second, one can wonder whether our proposal does not wrongly predicts *x is wetter than y* to be as infelicitous as *?x is more gigantic than y*. However, unlike the latter, the former do NOT entail the positive form for y, only strongly implies it (cf. Kennedy 2007), so the parallel form with

*even* is not preferred by Maximize Presupposition! We discuss the difference between the scale structures for EA and L-closed ones which leads to this difference.