Evaluativity and Structural Competition

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Introduction. Certain degree expressions are associated with unexpected evaluative presuppositions which are not predictable from the semantics traditionally assumed. Evaluativity is the phenomenon by which the interpretation of an adjective in a given construction is dependent on a contextual standard (Rett 2008, 2015; Breakstone 2014).

(1) a. Athos is taller than Porthos
b. Porthos is shorter than Athos
c. Athos is less short than Porthos ⇝ Athos and Porthos are *short*
d. Athos is more tall than Porthos ⇝ Athos and Porthos are *tall*

The goal of this paper is to account for the distribution of evaluative presuppositions in the environments described in (1) using a (de)-compositional analysis of degree expressions.

A previous approach. Rett (2008, 2015) proposes that evaluativity is contributed by an independent morpheme EVAL (4), which can optionally modify gradable properties:

(2) $[\![\text{tall}]\!](\text{x}) = \lambda d.tall(x, d)$ (3) $[\![\text{short}]\!](\text{x}) = \lambda d.short(x, d)$

(4) $[\![\text{EVAL}]\!] = \lambda Adj_{\langle d,t\rangle}.\lambda d.Adj(d) \wedge d > s$, for some contextual standard s.

The use of EVAL is conditioned by a markedness competition in which marked adjectives or marked degree heads are licensed only if they yield different truth conditions than those obtained with their unmarked counterparts. For example, the non-evaluative parse of (5) is precluded by the non-evaluative parse of (6) because the two LFs are semantically equivalent and *less/short* are marked whereas *-er/ tall* are unmarked.

(5) Aramis is less short than Porthos. (without EVAL)
*MAX(λd. short(aramis,d)) < MAX ($\lambda d'$. short(porthos,d'))

(6) Aramis is taller than Porthos. (without EVAL)
MAX(λd. tall(aramis,d)) > MAX ($\lambda d'$. tall(porthos,d'))

Weaknesses of the analysis. The pragmatic competition account does not fully provide us with a way of deciding what competes with what. Instead, it must stipulate the candidates for competition without providing a theory of markedness.

Analysis. I will argue with Rett (2008, 2015) that evaluativity is contributed by EVAL, and that it is sometimes obligatory because of a semantic competition. I will show that a decompositional approach of degree expressions introduces the right metrics for competition: structural complexity. I will offer a principled way for generating the candidates that are subject to semantic competition. I will provide further arguments for the morpheme EVAL by showing that its distribution can be explained by independently motivated claims about morphology.

Motivating Structural competition. According to the Syntactic Negation Theory of Antonymy (Heim 2007,2008; Büring 2007), the semantic primitives of comparison are the comparative head ('*-er*') (7) and positive antonyms (like '*tall*'). In addition, a negative operator **little**, which amounts to a negation for gradable adjectives, relates positive antonyms to their negative counterpart. That is, *short* is derived from the complex underlying structure: $[_A$ LITTLE $[_A$ t_{subj} tall]] (see (9)).

(7) $[\![\text{-ER}]\!] = \lambda D'_{\langle d,t\rangle}.\lambda D_{\langle d,t\rangle}.$ D $\supset$ D' (8) $[\![\text{LITTLE}]\!] = \lambda Adj_{\langle d,t\rangle}.\lambda d.$ Adj(d) = 0

(9) $[\![\text{LITTLE}]\!]([\![\text{tall}]\!](\text{x})) = \lambda d'.\neg$tall(x,d')

Independently of its semantic contribution, LITTLE exhibits a flexible morphological distribution: it is pronounced *short* or *less* depending on the constituent it gets spelled out with (Heim 2008, Bobaljik 2013) ((11) and (10)). In addition, following Bresnan (1973), I assume the spellout of *more* in (12) where MUCH is semantically vacuous.

(10) [little tall] = *short* (11) [-er little] = *less* (12) [-er much] = *more*

The decompositional analysis provides us with a metric for comparing degree expressions:

(13) **Hierarchy of DegPs in term of Structural complexity**
[-er tall](*taller*)<**[-er little tall]**(*shorter, less tall*)<**[-er little little tall]**(*less short*)

The competition between pairs of degree expressions is governed by *Minimize DegPs!* (adapted from Scope Economy, Marty (2017)), a grammatical principle which rules out redundant DegPs under semantic equivalence with structurally simpler alternatives. For example, one of the competitors for LF_2 in (15a) includes an LF that contains the degree expression *taller* as in (14a). The competitor in (14a) is derived via deletion of subconstituents (in accordance with Katzir (2007)'s definition of Structural alternatives) and is therefore simpler than LF_2. As it is also semantically equivalent to LF_2, predicting that LF_2 is ruled out by *Minimize DegPs!*. The same reasoning applies to the pair *taller* (14)/*more tall* (16).

(14) Aramis is **taller** than Porthos is.
  a. LF_1: [λ2. Aramis is ~~-er$_1$~~ tall] -er [λ3. Porthos is ~~wh$_3$~~ tall]
  b. *Assertion*: {d: a is d-tall} $\supset$ {d: p is d-tall }

(15) Aramis is **less short** than Porthos is.
  a. LF_2:*[λ2. Aramis is ~~-er$_1$~~ little little tall] er [λ3.Porthos is ~~wh$_3$~~ little little tall]

(16) Aramis is **more tall** than Porthos is.
  a. LF_3:*[λ2. Aramis is ~~-er$_2$~~ much tall] er [λ3. Porthos is ~~wh$_3$~~ much tall]

Argument for eval. I adopt a new entry for EVAL: the standard is a contextually provided interval of degrees called the Standard Set (Std_c) (von Stechow 2005).

(17) $[\![\text{EVAL}]\!] = \lambda Adj_{\langle d,t\rangle} : Adj \supset Std_c$. Adj

I contend that EVAL is a zero morpheme, subject to Myer's (1984) generalization according to which *'A zero-derived form cannot undergo further affixation'*. It follows that whenever EVAL occurs in a structure, it blocks further *-er*-affixation of the form it attaches to. As a result, *much*-support is a structure detector: a) In the perspective of Myer's generalization, it allows EVAL to occur in a position it would not be allowed otherwise (compare '*more tall*' in 18b and 18c), and b) in the perspective of *Minimize DegPs!*, it forces the evaluative parse (compare '*taller*' in 18a and 18d).

(18) ***Taller* vs. *more tall***
  a. [-er tall]] (*taller*)
  b. [-er much $\varnothing_{\text{EVAL}}$-tall]] (*more*)
  c. *[-er $\varnothing_{\text{EVAL}}$-tall] (×)
  d. *[-er much tall]] (*more*)

The analysis improves upon previous analyses of evaluativity in the degree domain by connecting semantic complexity of degree expressions to already known redundancy effects in grammar. In particular, it is argued that both PF and LF viewpoints are necessary to understand the distribution of evaluative presuppositions in degree constructions. An analysis of equatives is proposed in the present framework that relies on the decomposition of *as* into [no -er little] as shown in the table of decompositions (19).

(19) Table of decomposition

	MEANINGS	PF REALIZATION
Primitives	-ER	*-er/more*
	TALL	*tall*
	LITTLE/NO	*/no
Negative antonym	$[\text{LITTLE TALL}]_{AP}$	*short*
Comparatives	$[\text{-ER TALL}]]_{aP}$	*taller*
	$[[\text{-ER much}]\ (\varnothing_{\text{EVAL}})\ \text{TALL}]]_{aP}$	*more tall*
	$[\text{-ER}\ [\text{LITTLE TALL}]_{AP}]_{aP}$	*shorter*
	$[\ [\text{-ER much}]\ (\varnothing_{\text{EVAL}})\ [\text{LITTLE TALL}]_{AP}]_{aP}$	*more short*
	$[\ [\text{-ER LITTLE}]\ \text{TALL}]_{AP}]_{aP}$	*less tall*
	$[\text{-ER LITTLE}]\ (\varnothing_{\text{EVAL}})\ [\text{LITTLE TALL}]_{AP}]_{aP}$	*less short*
Equatives	$[\ [\text{no -ER}]\ [\ \text{TALL}]_{AP}]_{aP}$	*no taller*
	$[\ [\text{no [-ER much]}]\ (\varnothing_{\text{EVAL}})\ \text{TALL}]]_{aP}$	*no more tall*
	$[\ [\text{no -ER}]\ [\ \text{LITTLE TALL}]_{AP}]_{aP}$	*no shorter*
	$[\ [\ \text{no [-ER much]}]\ (\varnothing_{\text{EVAL}})\ [\text{LITTLE TALL}]_{AP}]_{aP}$	*no more short*
	$[\ [\text{no -ER LITTLE}]\ [\text{TALL}]_{AP}]_{aP}$	*as tall/ ?no less tall*
	$[\ [\text{no -ER LITTLE}]\ (\varnothing_{\text{EVAL}})\ [\ \text{LITTLE TALL}]_{AP}]_{aP}$	*as short*

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