



A surprising comparison: a unified account of degree *surprisingly* with bare adjectives and comparatives

{emma.nguyen, gabriel.martinez_vera} @ uconn.edu

Department of Linguistics, University of Connecticut

Lightening Version

- We propose...
 - a unified account of degree *surprisingly* with bare adjectives and comparative constructions.
 - a modification and extension of Nouwen's (2011) account to the comparative.
- Our proposal is extendable cross-linguistically where degree *surprisingly* shows the same distribution.

Degree *surprisingly*

- When appearing with bare degree adjectives, adverbial modifiers like *surprisingly* can either modify the PROPOSITION or the DEGREE (Nouwen 2011).

- Alex is tall.
- Alex is *surprisingly* tall.

PROPOSITIONAL reading of (2): The proposition (=Alex is tall) is surprising to the speaker.

DEGREE reading of (2): The degree of Alex's height is surprising to the speaker.

- Similar adverbs also work: *amazingly*, *incredibly*, *strangely*, etc. (Nouwen 2011)

Novel Observation

- Surprisingly* (and similar expressions) give rise to a DIFFERENTIAL reading in the comparative.
- PROPOSITIONAL reading is also available.

(3) Gabriel is *surprisingly* taller than Tania.

- DIFFERENTIAL reading of (3): The degree resulting from the difference between Gabriel's and Tania's height is what is surprising.
- Crucially, **NOT** the degree corresponding to Gabriel's or Tania's height (\neq DEGREE reading)
- PROPOSITIONAL reading of (3): The proposition (= Gabriel is taller than Tania) is surprising to the speaker's expectation.

- DEGREE/DIFFERENTIAL readings do not arise when *surprisingly* and a measure phrase co-occur (4)-(5)
 - Only one adverb slot (for degree/measure expressions) modifying a bare adjective/the comparative construction is available.

- Gabriel is *surprisingly* 6 feet tall.
- G is *surprisingly* 2 inches taller than A.

General Assumptions

- The syntax for a bare adjective is in (6-a) and in (6-b) for the comparative, in which one adverb slot is available (Morzycki 2015).

- [_{DegP} Deg A]
 - [_{DegP} Deg [_{α} more A than y]]

- A degree morpheme Deg can combine with an adjective A or the comparative.
 - Deg is the attachment site of *pos*, *surprisingly* and measure phrases (e.g., 6 feet)
- Adjectives and the comparative (i.e., of (7) prior to adding Deg) are of type $\langle e, \langle s, d \rangle \rangle$ (Kennedy & Levin 2008).
 - An adjective A denotes a measure function m that takes individuals and worlds and gives a degree in the scale associated with it (7-a).
 - The comparative α denotes a differential measure function m_d^\uparrow just like m except that the degree returned for an individual in its domain represents the difference between the individual's projection on the scale and a degree d (of the comparative standard $m(y)$) (7-b).

- [[A]] = $\lambda x_e \lambda w_s [m(x)(w)]$
 - [[α]] = $\lambda y_e \lambda x_e \lambda w_s [m_{m(y)}^\uparrow(x)(w)]$

Proposed Analysis

Denotation of *surprisingly*

- surprisingly* is a degree morpheme of type $\langle \langle e, \langle s, d \rangle \rangle, \langle e, \langle s, t \rangle \rangle \rangle$ (cf. Nouwen 2011).
- Crucially, with *surprisingly*, the denotation is the comparison of degrees in different worlds.

$$(8) \quad \llbracket \text{surprisingly} \rrbracket = \lambda m_{\langle e, \langle s, d \rangle \rangle} \lambda x_e \lambda w_s [\forall w'_s \in \text{Exp}_S [m(x)(w) > m(x)(w')]]$$

surprisingly vs *pos*

- pos*, like *surprisingly*, is also a degree morpheme of type $\langle \langle e, \langle s, d \rangle \rangle, \langle e, \langle s, t \rangle \rangle \rangle$.

$$(9) \quad \llbracket \text{pos} \rrbracket = \lambda m_{\langle e, \langle s, d \rangle \rangle} \lambda x_e \lambda w_s [m(x)(w) \geq \text{stnd}(m)(w)]$$

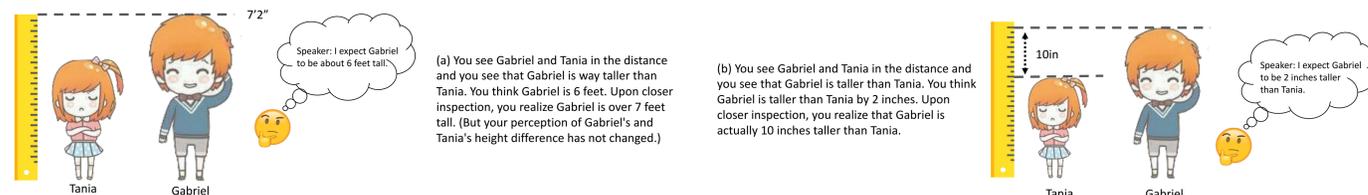
Putting it all together:

$$\llbracket \text{[A is surprisingly tall.]} \rrbracket = \lambda w_s [\forall w'_s \in \text{Exp}_S [\text{tall}(a)(w) > \text{tall}(a)(w')]]$$

$$\llbracket \text{[G is surprisingly taller than T.]} \rrbracket = \lambda w_s [\forall w'_s \in \text{Exp}_S [\text{tall}_{\text{tall}(t)}^\uparrow(g)(w) > \text{tall}_{\text{tall}(t)}^\uparrow(g)(w')]]$$

Targeting the Differential Degree

- What is relevant is the difference between the two heights—not the actual heights of the individuals.
 - Thus, sentence (3), namely, *Gabriel is surprisingly taller than Tania* is felicitous in context (b), not (a).
 - This provides further evidence for the claim that one (perhaps the) crucial aspect of comparatives is a differential degree.



A Unified Account?

- The distribution of adverbs like *surprisingly* is similar cross-linguistically.
 - This includes “degreeless” languages like Japanese (and Korean) (Beck et al. 2005).
 - This suggests that a unified account is possible—at least when differential degrees are considered.

Language	With a bare adjective	With the comparative
Dutch	John is <i>verbazingwekkend</i> lang.	John is <i>verbazingwekkend</i> langer dan Bill.
Spanish	Gabriel es <i>sorprendentemente</i> alto.	Gabriel es <i>sorprendentemente</i> más alto que Tania.
Italian	Gianni é <i>sorprendentemente</i> più alto.	Gianni é <i>sorprendentemente</i> più alto di Bill.
Polish	Jan jest <i>dziwnie</i> wysoki.	?Jan jest <i>dziwnie</i> wyższy od Bila.
Korean	John-wa <i>emcheongnake</i> ki-ka ku-ta.	John-un Bill-puta <i>emcheongnake</i> ki-ta ku-ta.
Japanese	Taro-wa <i>odoroku-hodo</i> se-ga taka-i	Taro-wa <i>odoroku-hodo</i> Bill-yori se-ga taka-i.