

**Evaluativity, intensification
and positive polarity.
What's Deg got to do with them?**

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The Meaning of Functional Categories
in the Verbal / Sentential Domain

CLT-UAB, June 17-18, 2021

Some context . . .

- What is a degree modifier?
- Do all intensifiers involve DEGREE modification?

On Deg

⊙ Deg as a functional category

- ⊕ Bresnan (1973) introduces the idea that APs include an underlying **quantifier** that is specified by a degree word. → Corver (1997b,a).
 - ⊕ Abney (1987) is the first to advocate for a **DegP** with Deg as the head and AP as its complement.
 - ⊕ Deg is the natural/default host of many **degree words** (Kennedy and McNally 2005, a.m.o.).
- **Our claim:** Evaluative intensifiers do not necessarily occupy the Deg position.

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Intensifiers

- ⊙ “any device that scales a quality, whether up or down or somewhere between the two” (Bolinger 1972, 16)
 - ⊕ **Boosters** (*perfect, terribly*): upper part of the scale, looking up
 - ⊕ **Compromisers** (*rather, fairly*): middle of the scale, often trying to look both ways at once
 - ⊕ **Diminishers** (*indifferent, little*): lower part of the scale, looking down
 - ⊕ **Minimizers** (*a bit of, an iota*): lower end of the scale

Intensifiers

	completely absolutely	almost nearly	extremely	very awfully	rather pretty	a bit slightly
Stoffel	intensive	-	intensive		downtoner	
Borst	intensive	downtoner	intensive		downtoner	
Biedermann	absolute	-	high		moderate	weak
Bolinger	booster	-	booster		compromiser	minimizer
Bäcklund	highest	absence	high		moderate	low
Gary	completive	approximater	booster		compromiser	diminisher
Van Os	absolute	approximative	extreme	high	moderate	diminishing
Klein	absolute	approximative	extreme	high	moderate	minimal
Paradis	maximizer	approximator	boosters		moderators	diminishers
this talk			H-adverbs Intensifiers		M-adverbs	
	maximum standard				minimum	

From Nouwen (2021)

Goals

- ⊙ **This talk:**
 - ⊕ Raise the question of whether **intensification** needs to be directly associated with **Deg.**
 - ⊕ Discuss the role of evaluativity and intensification in polarity sensitivity.

- ⊙ **Longterm goal:** Provide a principled explanation for the infelicity of **evaluative** intensifiers in entailment-cancelling contexts.

- ⊙ **Case-study:** Catalan *ben* 'well' as an ad-adjectival intensifier

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Evaluative intensifiers

- (Un)bleaching and intensification
- Polarity sensitivity: scalarity, competitors and informativity

(Un)bleaching and intensification (Nouwen 2021)

- ⊙ **Unbleached intensifiers**, e.g. *surprisingly, shockingly*
 - ⊕ Introduce a parallel evaluation that affects the inference of the contextual standard of comparison for A.

- ⊙ **Bleached intensifiers**, e.g. *terribly, pretty, fairly*
 - ⊕ Conventionally linked to a boosting value
 - ⊕ The boosting value is connected to the content of the original unbleached version of the intensifier.

- ⊙ **(Remnant of) lexical content of the intensifier:**
 - ⊕ Negative evaluation [-valence] → H-adverb / excess
e.g. *terribly/ridiculously tall*
 - ⊕ Positive evaluation [+valence] → M-adverb / right degree
e.g. *pretty/surprisingly tall*

(see also the Goldilocks Principle of Evaluation in Nouwen 2020)

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(Un)bleaching and intensification (Nouwen 2021)

⊙ Unbleached intensifiers:

- (1) Utterance: It is {**surprisingly**/**disgustingly**} warm.
QUD: How warm is it?
Assertion: It is warm.
Backgrounded information: Speaker S evaluates 'It is warm.'
as a **surprising medium**/**disgusting high** degree
(of temperature)

⊙ Bleached intensifiers:

- (2) Utterance: It is {**fairly**/**terribly**} warm.
QUD: How warm is it?
Assertion: It is warm to a (remnant: right) **medium**/ (remnant:
excess) **high** degree (of temperature).

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Bleached vs. unbleached as a continuum

(cf. Castroviejo and Gehrke 2020)

- 1 Fully bleached, conventionalized intensifiers, e.g. *very*, possibly also *pretty*, *fairly*
 - ⊕ Degree modifiers, directly operating on the degree (instead of POS); form part of the assertion

e.g. account of *pretty*, *fairly* in Solt and Wilson (to appear)
- 2 Fully unbleached intensifiers, e.g. *surprisingly*, *shockingly*
 - ⊕ Secondary evaluation of '*x* is POS-A.' by the speaker
- 3 In between-cases; e.g. Catalan *ben* '(lit.) well' [BEN]?
 - ⊕ Secondary evaluation account in Castroviejo and Gehrke (2015)

Q When does an intensifier become a 'true' degree modifier?

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Intensifiers and negation: Some facts

Bolinger (1972, 120-124) on **degree words under negation**:

- ⊙ Some **intensifiers** are not good under negation, (3).
(unless: echo reading / metalinguistic negation)

- (3) a. *The girl isn't **quite** attractive.
b. *He's not **rather** foolish!

- ⊙ Others give rise to a **litotes** interpretation, (4).

- (4) He's **not overly bright**.
~ He's **rather stupid**.

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Some facts: Bosque (1980) on Spanish

© Treats some **intensifiers** as **Positive Polarity Items (PPIs)**, (5-b).

- (5) a. *No hemos llegado **ya**.
 NEG have.PRES.we arrived already
 Intended: 'We have not already arrived.'
- b. *La película no me ha gustado **bastante**.
 the movie NEG me has pleased quite
 Intended: 'I did not quite like the movie.'
- c. *No tiene usted **toda la razón del mundo**.
 NEG has.PRES.3SG you.HON all the reason of the world
 Intended: 'You do not have all the time in the world.'

Some facts: González-Rodríguez (2006) on Spanish

⊙ 'Elatives' are bad under negation, (6).

- (6)
- a. Pablo (*no) es listo **como el hambre**.
Paul NEG is smart like the hunger
'Pablo is (*not) extremely smart.'
 - b. Su novio (*no) es **extremadamente** dicharachero.
her boyfriend NEG is extremely talkative
'Her boyfriend is (*not) extremely talkative.'
 - c. Irene (*no) es **bien** espabilada.
Irene NEG is well bright
'Irene is (*not) WELL bright.'
 - d. Tu jefe (*no) es **más** comprensivo!
your boss NEG is more understanding
'Your boss is (*not) so understanding!'

A theoretical account: Solt and Wilson (to appear)

- ⊙ **Aim:** Provide a principled explanation for the PPI-hood of English M-modifiers like *fairly*, *somewhat*, *sort of*, (7).

(7) The issue is (*not) fairly/pretty/somewhat/rather/kind of/sort of important.

⊕ *fairly*: true degree modifier (type $\langle d, \langle e, t \rangle \rangle$)

⊕ *somewhat*: quantifier over degrees

⊕ *sort of*: slack regulator, not a degree modifier/quantifier

- ⊙ **Proposal:**

⊕ M-Mod + A is semantically more or less the same as A without the modifier → in isolation should not exist (unmodified A is simpler)

⊕ M-Mod + A is in direct competition with *very* A → scalar implicature 'not very A' makes M-Mod A informative again

⊕ Under negation, there is no such scalar implicature, and therefore only NEG A is ok (but not NEG M-Mod A)

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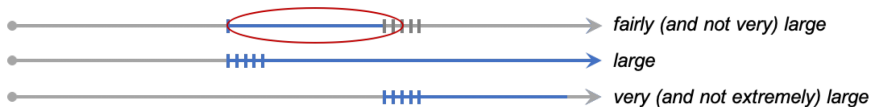
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Solt and Wilson (to appear)

⊙ Lexical semantics:



⊙ With scalar implicature:



⊙ With negation:



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- ⊙ **Our take on this:** This account may very well work for true degree modifiers, which compete with other true degree modifiers like *very*.
 - ⊙ We do not see why other intensifiers should compete with true degree modifiers (if they are not degree modifiers themselves).
- ⇒ Let's look for a different account for those.

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Interim summary

- ⊙ Intensifiers exhibit varied behavior in entailment-cancelling environments.
 - ⊕ Some can be in the scope of NPI-licensing operators and yield a **litotes** interpretation.
 - ⊕ Others cannot be in their scope.
 - ⊕ Bleached M-modifiers might be bad under negation because they compete with the unmodified form (Solt and Wilson to appear).
- BUT** This account cannot be extended to unbleached evaluative intensifiers.

- ⊙ Our focus today: **What is the source of the PPI behavior of unbleached evaluative intensifiers?**
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The general idea

- ⊙ Evaluative intensifiers are not ordinary restrictive degree modifiers (i.e. they do not manipulate the standard), but **non-restrictively** add information associated with the degree expressed by the positive A.

The general format of such modification is therefore:

POS-ADJ(x) \wedge q (some proposition)

- ⊙ Negating this conjunction can have different effects, leading to **different sources of the PPI behavior**, of which we explore two options:
 - 1 Negating a conjunction leads to a **non-convex meaning**, which is generally banned (\sim Solt and Waldon 2019)
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Our case study: BEN

- Why not a DEGREE modifier
- Approval and intensification
- Its PPI behavior

Catalan BEN 'well'

Can express **manner** when it modifies a participle, (8-a), but also **intensification**, when it modifies a genuine adjective, (8-b), (9).

(8) a. un got ben **emplenat** [**participle**]
a glass well filled

b. un got ben **ple** [**absolute A**]
a glass well full
~ **completely** full

(9) una jugadora ben **alta** [**relative A**]
a player well tall
~ **really/quite** tall

⊙ In the following we will show that BEN is unlike:

⊕ 'Degree' WELL (modifies events)

⊕ Degree modifiers: standard boosters, e.g. *very*, slack regulators, e.g. *completely*

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Other uses of WELL, cross-linguistically

- ⊙ Manner (10)
- ⊙ 'Degree' (11) (Bolinger 1972, Kennedy and McNally 2005)

(10) He has written the article **well**. \rightsquigarrow **in a good manner**

(available across languages and eventive verb classes)

(11) They are **well** acquainted. \rightsquigarrow **to a good degree**

(only available under certain conditions)

BEN vs. 'degree' WELL

- ⊙ 'Degree' **WELL** modifies participles (12-a), but not genuine adjectives (12-b). (cf. Bolinger 1972, Kennedy and McNally 2005)

- (12) a. They are **well** acquainted. \rightsquigarrow to a good degree
 b. *The train is **well** blue / long / beautiful.

- ⊙ Catalan **BEN** can modify adjectives (13).
 (similar: *bien* in some varieties of Spanish, cf. Hernanz 1999, González-Rodríguez 2006, González-Rivera and Gutiérrez-Rexach 2012)

- (13) El tren és **ben** blau / llarg / bonic.
 the train is BEN blue long beautiful
 'The train is BEN blue / long / beautiful.'

→ **WELL** is a VP modifier (a predicate of events).

→ **BEN** is an ad-adjectival modifier.

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BEN vs. 'degree' WELL

- ⊙ 'Degree' WELL is incompatible with open scales (14), and with maximum standards (15) (Kennedy and McNally 2005).

- (14)
- a. The truck is **well** / partially loaded.
 - b. ??Marge was **well** / partially worried when she saw the flying pig.

- (15)
- a. The hay is **well** loaded. ONLY MANNER
 - b. The truck is **well** loaded. DEGREE/MANNER

- ⊙ BEN does not exhibit such scale structure restrictions:

- (16)
- a. OPEN SCALE: ben alt 'BEN tall', ben simpàtic 'BEN nice'
 - b. LOWER CLOSED SCALE: ben recte 'BEN straight'
 - c. UPPER CLOSED SCALE: ben pur 'BEN pure'
 - d. CLOSED SCALE: ben obert 'BEN open'

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- ⊙ WELL (17) but not BEN (18) can be graded:

- (17) a. They know each other (very) **well**.
 b. The cart is (very) **well** loaded.

- (18) En Pere és (*molt) **ben** alt.
 the Peter is very BEN tall

→ WELL cannot be a degree modifier in and by itself.

This is accounted for under an event predicate analysis of WELL, also under its 'degree' reading (cf. Gehrke and Castroviejo 2016).

Q Is BEN a degree modifier?

Degree modifiers cannot be graded, either:

- (19) The cup is (*very) {completely/very} full.

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This is accounted for under an event predicate analysis of WELL, also under its 'degree' reading (cf. Gehrke and Castroviejo 2016).

- Q Is BEN a degree modifier?

Degree modifiers cannot be graded, either:

- (19) The cup is (*very) {completely/very} full.

BEN vs. 'degree' WELL

- ◎ WELL (17) but not BEN (18) can be graded:

- (17) a. They know each other (very) **well**.
 b. The cart is (very) **well** loaded.

- (18) En Pere és (*molt) **ben** alt.
 the Peter is very BEN tall

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BEN vs. standard degree modifiers

Intensifying BEN is **different from ordinary ad-adjectival degree modifiers** (say, of type $\langle\langle d, et \rangle, \langle e, t \rangle\rangle$), such as:

- ⊙ **Standard boosters**, e.g. *very*: readjust the standard of gradable adjectives
- ⊙ **Slack regulators**, e.g. *completely*: eliminate pragmatic slack with absolute adjectives

(cf. Lasersohn 1999, Kennedy and McNally 2005, Sassoon and Toledo 2011, and literature cited therein on such modifiers)

Standards for absolute/relative adjectives

- ⊙ **Relative adjectives** (20): The standard is contextually determined with respect to a comparison class.

(20) En Pere és alt.
the Peter is tall

- for a 10-year-old boy from Barcelona: at least 1.40m
- for an NBA basketball player: at least 2.05m

- ⊙ **Absolute adjectives** (21): The standard is (by economy) the bound of the closed scale; some slack is allowed.

(21) L'estadi està ple.
the stadium is full
'The stadium is full.'

→ pragmatic slack: some seats can be empty

BEN vs. standard boosters

- ⊙ **Relative A + very** (22-a): Standard is raised
- ⊙ **Absolute A + very** (22-b): Relativized into having a context-dependent threshold + standard boosting

- (22) a. En Pere és **molt** alt.
 the Peter is very tall
 for a 10-year-old boy from Barcelona: at least 1.50m
- b. L'estadi està **molt** ple.
 the stadium is very full

- ⊙ **Relative A + BEN** (23-a): Does 'BEN tall' raise the standard?
- ⊙ **Absolute A + BEN** (23-b): No relativising, no standard boosting, rather similar to 'no slack allowed'

- (23) a. En Pere és **ben** alt.
 the Peter is BEN tall
- b. L'estadi està **ben** ple.
 the stadium is BEN full

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BEN vs. slack regulators

- ⊙ *Absolute A + completely* (24-a): No slack is allowed.
- ⊙ *Relative A + completely* (24-b): Infelicitous, because it requires a closed scale A (Kennedy and McNally 2005).

- (24) a. L'estadi està **completament** ple.
 the stadium is completely full
- b. *En Pere és **completament** alt.
 the Peter is completely tall

- ⊙ *Relative A + BEN* (25): felicitous

- (25) En Pere és **ben** alt.
 the Peter is BEN tall

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Interim summary: BEN vs. degree modifiers

- ⊙ Degree modifiers directly operate on degree arguments and thus manipulate standards.
- ⊙ BEN is not syntactically sensitive to different scale types.
 - ⊕ **To be shown next:** intensification is obtained only indirectly through **approval** expressed in its lexical semantics.

Approval: Upper bound

(26) Absolute adjectives with a neutral valence

- a. Totally closed scale: BEN buit 'empty' / obert 'open' / visible 'visible'
- b. Upper closed scale: BEN recte 'straight' / net 'clean' / pla 'flat'

→ x is **as** ADJ **as** x **can** be.

(in view of the conventional standard determined by the circumstances of the argument)

Approval: Contextual standard

(27) Relative adjectives with a neutral valence

BEN alt 'tall' / bo 'good, tasty' / petit 'small' / dolç 'sweet' /
intel.ligent 'intelligent'

→ x is **as ADJ as** x **can** be.

(in view of the contextual circumstances of the argument)

Approval: [-valence]

(28) Negative valence adjectives

- a. Relative: *ben* pesat 'annoying' / *difícil* 'difficult' / *trist* 'sad'
- b. Absolute: BEN brut 'dirty' / *malalt* 'sick'

→ x is **as** ADJ **as** x **can** be. (*irony*) ~ x is ADJ-**er** than x **should** be.

BEN is bad in entailment-cancelling contexts ...

- (29)
- a. *En Pere no és **ben** simpàtic.
the Peter not is BEN nice
 - b. *En Pere és **ben** simpàtic?
the Peter is BEN nice
 - c. *És possible que en Pere sigui **ben** simpàtic.
is possible that the Peter is.PRES.SUBJ BEN nice
 - d. *Si en Pere és **ben** simpàtic, estaré contenta.
if the Peter is BEN nice be.FUT.1SG glad

... although some qualifications are in order

- ⊙ Absolute A with an upper bound / [+valence] are OK in some NPI environments:

- (30) a. #Si el terra està **ben** moll, rellicarem.
 if the floor is well wet slip.FUT.1PL
 Intended: 'If the floor is well wet, we will slip.'
- b. Si els cabells estan **ben** molls, ja els pots tallar.
 if the hairs are well wet already them can cut
 'If the hair is well wet, you can go ahead and cut it.'

→ Meaning of sufficiency, goal to be fulfilled.

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→ Meaning of **sufficiency**, goal to be fulfilled.

Negation seems to be pretty bad across the board

- ⊙ But – pending a serious empirical study – absolute A with an upper bound, (31), sound better than relative A, (32).
- ⊙ The meaning that obtains in (31) is **sufficiency**.

(31) ?La camisa no està **ben** neta. Encara has de fregar una mica més.
 the shirt NEG is well clean still have.2SG of scrub a little more
 'The shirt is not well clean. You'll have to scrub it some more.'

(32) #La Leila no és **ben** alta. No pot entrar a l'equip.
 the Leila NEG is well tall NEG can enter to the-team
 'Leila is not well tall. She cannot join the team.'

Previous accounts of BEN

- ⊙ Hernanz (1999, 2010): **ben** (and Sp. *bien*) **is syntactically a PPI**
 - ⊕ B(I)EN is in the specifier of a Pol(arity)P (above IP)
 - In complementary distribution with negation

(see also González-Rodríguez 2006, on Spanish)
- ⊙ Unclear under this analysis:
 - ⊕ What about other entailment-cancelling contexts?
 - ⊕ Can this approach be sensitive to differences in scale structure / valence?
 - ⊕ Is there room for some semantic (or pragmatic) explanation?

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Castroviejo and Gehrke (2015)

- ⊙ *ben/well* is an event modifier in all its uses.
 - ⊙ BEN modifies a saying event (building on Piñón 2013, on speech act modification) and involves self-evaluation of a property ascription.
- (33) a. En Pere és **ben** alt.
 the Peter is BEN tall
 'Peter is BEN tall.'
- b. ~ **tall** is well ascribed to **p**.
- ⊙ Analogy to factive evaluative adverbs like *unfortunately* (Liu 2012, 2014): Add a CI that comes with a factive presupposition.
- **Infelicity in entailment-cancelling contexts**: Contradiction between at-issue meaning and the presupposition of the CI, (34).
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Problems of Castroviejo and Gehrke (2015)

- ⊙ Uniform account of all occurrences of *ben* might not be desirable.
 - ⊕ Evoking a saying event that is modified might be a bit of a stretch.
 - ⊕ Cross-linguistically, we might expect more languages with BEN, but in different languages there are different items that take over (*pretty*, *quite*, *schön* 'beautiful' etc.).
- ⊙ CI + presupposition account gets the facts right, but intuitively there might be a deeper explanation.
 - ⊙ Expressivity might play a role in some of the cases, but not generally.
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Back to the general idea

General format for unbleached evaluative intensifiers

POS-ADJ(x) \wedge q (some proposition)

⊙ Intuitions about BEN:

- ⊕ BEN is an evaluative modifier that has an intensifier interpretation under certain circumstances:
 - ⊙ Affirmative contexts when A does not have an upper bound.
 - ⊙ A broader range of contexts when A has an upper bound (sufficiency).
- ⊕ How does intensification come about?
 - ⊙ Approval of a result, as a manner “in disguise” modifier (Gehrke and Castroviejo 2016).
 - ⊙ Approval of a maximum standard being reached in absolute A with an upper bound.
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A lexical semantics for BEN

- ⊙ We follow our previous work on BON 'good' (Castroviejo and Gehrke 2019) in assuming **subjective** modification that introduces the function **good** (i.e. **approval**).

(36) una bona dosi 'a good dose'

(37) $[[\text{bon/ben}]] = \lambda P_{\langle e,t \rangle} \lambda x_e. (\text{good-as}(P))(x)$

- ⊙ N like *dose* or gradable A have extensions that describe **partial orders**:

(38) For all a , b , and c in the extension of a noun like *dose*,

- Reflexive: a is as big as itself.
- Antisymmetric: if a is as big as b , b cannot be as big as a , unless a and b are the same.
- Transitive: if a is as big as b , and b is as big as c , then a is as big as c .

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- © When the extension is a partial order, the sole **criterion for approval** coincides with reaching some standard (possibly for the achievement of some goal/function, see e.g. Asher 2011).

- (39) a. POS: $\lambda g_{\langle d, \langle e, t \rangle \rangle} \lambda x. \exists d [\text{standard}(d)(g)(\mathbf{C}) \wedge g(d)(x)]$
 (Kennedy and McNally 2005)
 b. alt: $\lambda d \lambda x. \text{tall}(x) \geq d$
 c. POS alt: $\lambda x. \exists d [\text{standard}(d)(\text{tall})(\mathbf{C}) \wedge \text{tall}(x) \geq d]$
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1) Ban on non-convex meanings?

- ⊙ **Solt and Waldon (2019)**: Out of the blue, numerals are bad under negation
 - ⊕ Out of the blue: exact-reading of numerals; under certain conditions (also with *even*), the exact-reading can be replaced by the at least-reading, and then it is ok again under negation.
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⊙ Possible extension to BEN?

- ⊕ Non-modified A: greater/equal the standard – negating it should not be a problem (and it isn't: *She isn't tall.*)
- ⊕ BEN ADJ: the standard is a range on the scale (left and right cut-off points; similar to *between 40 and 50?*)
→ Negation of the range leads to non-convex meaning?

Not sure how this would follow from our formalisation before.

- ⊙ Also not clear that negating BEN + absolute A (e.g. *full*) should lead to a non-convex meaning (intuitively you are at one end of the scale), so this explanation might only work for BEN + relative A.
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2) Incongruence between n-ary meanings?

(Inspired by Liu 2012, 2014, Castroviejo and Gehrke 2015, but modified to avoid drawbacks)

- ⊙ Assumption: BEN (and, generally, evaluative intensifiers) can only have degree effects in affirmative contexts.
 - ⊕ In contexts where POS-ADJ is **challenged**, BEN(POS-ADJ) / proposition q (which entails POS-ADJ) is not supported.
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Summary

⊙ Many intensifiers are bad under negation.

- ⊕ Evaluative intensifiers are generally bad, just like M-modifiers.
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⊙ Catalan intensifier BEN

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- ⊕ adds a proposition that expresses approval of the degree of ADJ that is reached, which yields different effects depending on ADJ's scale structure and valence.
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The big questions

Q How are polarity and intensification related?

- 1) A **universal ban on non-convex meanings** that affects degree expressions in general (extending Solt and Waldon's 2019 idea), which makes exact readings infelicitous under negation when a convex space is not specified?
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PPI-hood across intensifiers

- 1 **Unbleached evaluatives** (*surprisingly, disappointingly*, BEN):
 - ⊕ POS-ADJ(x) \wedge q (some proposition)
 - ⊕ Failure of inferencing and/or incongruence ($q \models$ POS-ADJ(x)).

$$(41) \quad \neg(p \wedge q) \equiv \neg p \vee \neg q$$

- 2 **Bleached (vague) intensifiers**

- ⊕ H- and L- modifiers under negation can yield **strengthened readings** (litotes, not EVEN) (*not very, not a hint*).
- ⊕ M-modifiers: simpler unmodified A with the same lexical semantics (Solt and Wilson to appear) (**not fairly*).

- 3 **True degree modifiers**

- ⊕ Maximal values give rise to convex regions (*not 100%, not completely*).
- ⊕ Other values are more constrained because they do not specify convex regions (*??not 99%, not 2-meters*, see e.g. Solt and Waldon 2019).

→ PPI-hood gives us yet another argument against the idea that evaluative intensifiers are (true) degree modifiers.

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Evaluativity, intensification and positive polarity. What's DEG got to do with them?

GRÀCIES / THANKS!

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References I

- Abney, S. P.: 1987, *The English noun phrase in its sentential aspect*, PhD thesis, Massachusetts Institute of Technology.
- Asher, N.: 2011, *Lexical Meaning in Context. A Web of Words*, Cambridge University Press, Cambridge.
- Bolinger, D.: 1972, *Degree Words*, Mouton, The Hague.
- Bosque, I.: 1980, *Sobre la negación*, Cátedra, Madrid.
- Bresnan, J. W.: 1973, Syntax of the comparative clause construction in english, *Linguistic inquiry* 4(3), 275–343.
- Castroviejo, E. and Gehrke, B.: 2015, A GOOD intensifier, in T. Murata, K. Mineshima and D. Bekki (eds), *New Frontiers in Artificial Intelligence (JSAI-isAI 2014 Workshops, LENLS, JURISIN, and GABA, Kanagawa, Japan, October 27-28, 2014, Revised Selected Papers)*, Lecture Notes in Computer Science, Springer, Dordrecht, pp. 114–129.
- Castroviejo, E. and Gehrke, B.: 2019, Intensification and secondary content: A case study of Catalan *good*, in D. Gutzmann and K. Turgay (eds), *Secondary Content: The Linguistics of Side Issues*, Brill, Leiden, pp. 107–142.
- Castroviejo, E. and Gehrke, B.: 2020, Evaluative intensification and positive polarity: Catalan WELL as a case study. Talk at the ZAS Semantics Colloquium, March 2020.
- Corver, N.: 1997a, The internal syntax of the dutch extended adjectival projection, *Natural Language & Linguistic Theory* 15(2), 289–368.
- Corver, N.: 1997b, Much-support as a last resort, *Linguistic inquiry* pp. 119–164.
- Ernst, T.: 2009, Speaker-oriented adverbs, *Natural Language and Linguistic Theory* 27, 497–544.
- Gärdenfors, P.: 2004, *Conceptual Spaces: The Geometry of Thought*, MIT Press, Cambridge, MA.
- Gehrke, B. and Castroviejo, E.: 2016, Good manners: On the degree effect of good events, in N. Bade, P. Berezovskaya and A. Schöller (eds), *Proceedings of Sinn und Bedeutung 20*, semanticsarchive, pp. 252–269.
- González-Rivera, M. and Gutiérrez-Rexach, J.: 2012, On the syntax and semantics of extreme-degree modifiers in Puerto Rican Spanish. Paper presented at LSRL 42, Southern Utah University.
- González-Rodríguez, R.: 2006, Negación y cuantificación de grado, in M. Villayandre (ed.), *Actas del XXXV Simposio Internacional de la Sociedad Española de Lingüística*, Universidad de León, pp. 853–871.

References II

- Hernanz, M.-L.: 1999, Polaridad y modalidad en español: entorno a la gramática de BIEN. Research report GGT-99-6, Universitat Autònoma de Barcelona. <http://seneca.uab.es/ggt/membres/hernanz.htm>.
- Hernanz, M. L.: 2010, Assertive 'bien' in Spanish and the left periphery, in P. Benincà and N. Munaro (eds), *Mapping the Left Periphery: The Cartography of Syntactic Structures*, Oxford University Press, Oxford, pp. 19–62.
- Kennedy, C. and McNally, L.: 2005, Scale structure, degree modification, and the semantics of gradable predicates, *Language* **81**, 345–381.
- Lasersohn, P.: 1999, Pragmatic halos, *Linguistics and Philosophy* **75**, 522–571.
- Liu, M.: 2012, *Multidimensional Semantics of Evaluative Adverbs*, Current Research in the Semantics Pragmatics-Interface (CRiSPI) 26, Brill, Leiden.
- Liu, M.: 2014, The projective meaning of evaluative adverbs. Ms. University of Osnabrück.
- Nouwen, R.: 2020, Goldilocks and degree modification. Ms. Utrecht University.
- Nouwen, R.: 2021, Vacuity in models of intensification. Talk presented at Workshop Scales, Degree, Implicature. U. Potsdam, May 2021.
- Piñón, C.: 2013, Speech-act adverbs as manner adverbs. Ms. Université Lille 3.
- Sassoon, G. and Toledo, A.: 2011, Absolute and relative adjectives and their comparison classes. Ms., University of Amsterdam & Utrecht University.
- Solt, S. and Waldon, B.: 2019, Numerals under negation: Empirical findings, *Glossa: a journal of general linguistics* **4(1)**: 113, 1–31.
- Solt, S. and Wilson, C.: to appear, M-modifiers, attenuation and polarity sensitivity, *Proceedings of Sinn und Bedeutung* 25.