

# Evaluative intensification and positive polarity: Catalan WELL as a case study

**Elena Castroviejo & Berit Gehrke**

Ikerbasque and UPV/EHU & HU Berlin

(originally planned for:)  
Degree Expressions and Polarity Effects  
ZAS Berlin, March 9-10, 2020

# Goals

- **Longterm goal:** Provide a principled explanation for the infelicity of some intensifiers in entailment-cancelling contexts.
- **Case-studies:**
  - Catalan *ben* 'well' as an ad-adjectival intensifier
  - Appendix: Catalan *bon* 'good' as an adnominal intensifier

# 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
  - **Minimisers** (*a bit of, an iota*): lower end of the scale

## Some facts

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

- Some **intensifiers** are not good under negation (1)  
(unless: echo reading / metalinguistic negation)

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

- Others give rise to a **litotes** interpretation (2)

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

## Some facts: Nouwen (2013) on Dutch

- L- and M-adverbials behave like PPIs, H-adverbials do not (but give rise to a litotes reading) (3) (L/M/H: low/middle/high on the scale)
  - (3) a. Jan is niet **erg** lang. **H-adverbial**  
Jan is not BADLY tall
  - b. \*Jan is niet **best** lang. **M-adverbial**  
Jan is not BEST tall
  - c. \*De handdoek is niet **een beetje** nat. **L-adverbial**  
the towel is not a bit wet
  
- Evaluative subjective H-adverbials also behave like PPIs (4)
  - (4) a. Jan is (\*niet) **ongelofelijk** lang.  
Jan is not unbelievably tall
  - b. Het boek is (\*niet) **redelijk** dik.  
the book is not ORDERLY thick
  - c. De atleet sprong (\*niet) **aardig** ver.  
the athlete jumped not NICELY far

## Some facts: Morzycki (2012) on English

- Extreme degree modifiers (*downright*, *flat-out*, *positively*, *full-on*) resist embedding under NPI-licensing operators, (5).
  - (5) a. Murderers aren't (??**downright**) dangerous.
  - b. Are murderers (??**downright**) dangerous?
  - c. If murderers are (??**downright**) dangerous, you might want to avoid Harold.

## Some facts: Intensifying adjectives

- Some of the intensifying adverbs can also be used as intensifying adjectives, e.g. Dutch data in Nouwen (2013):

### (6) Intensifying Dutch adverbs

Dit is een {aardig / tamelijk / vrij} ingewikkeld verhaal.  
 this is a NICELY FAIRLY FREELY complicated story  
 'This is a quite/rather/fairly complicated story.'

### (7) Corresponding Dutch adjectives

- a. Hij is een {aardige / tamelijke} idioot.  
 he is a nice fair idiot  
 (i) 'He is a {nice/fair} idiot.' (literal)  
 (ii) 'He is quite an idiot.' (intensifying)
- b. Hij is een vrije idioot.  
 he is a free idiot  
 (i) 'He is a free idiot.' (only literal)  
 (ii) NOT: 'He is quite an idiot.' (not intensifying)

# Interim summary

- There are intensifying adverbs and adjectives.
- Intensifiers exhibit varied behaviour 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.
  - Subjectivity/evaluativity can also lead to unacceptability in these environments.
- Our focus today: *What is the source of the PPI behaviour?*  
Case study: Catalan ad-adjectival *ben* (and adnominal *bon*)  
→ Attempt at a general account (rather than just an account for *ben*)



# The general idea

- The ad-adjectival modifiers under question 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 adjective.

The **general format** of such modification is therefore:

$$(8) \quad \text{POS-ADJ}(x) \wedge q \text{ (some proposition)}$$

- Negating this conjunction can have different effects, leading to **different sources of the PPI behaviour**, of which we explore three options:
  - 1 **Contradiction** between at-issue and non-at-issue meanings (Castroviejo and Gehrke 2015)
  - 2 Negating the modified adjective is as/less **informative** as/than the non-modified adjective, so the non-modified adjective is preferred (~ competition with alternatives Solt 2018)
  - 3 Negated conjunction leads to **non-convex meaning**, which is generally banned (~ Solt and Waldon 2019)

# Catalan BEN 'well'

Can express **amount/degree intensification**

**e.g.** (9): The degree to which the head is high is considerable.

- (9) Marxem amb el cap **ben** alt.  
 we.leave with the head BEN high  
 'We leave with dignity.' (lit. We leave with our head BEN high.)  
<http://www.esport3.cat/video/4619973/futbol/Boadas-Marxem-amb-el-cap-ben-alt>

- 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*
  - 'Distance' intensifiers, e.g. *quite* (e.g. *quite a book*)

## 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.  $\leadsto$  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.

# 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'

## BEN vs. 'degree' WELL

- WELL (17) but not BEN (18) can be modified by degree modification:

- (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 modified by degree modifiers, either:

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

# 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

- a. for a 10-year-old boy from Barcelona: at least 1.40m
- b. 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 adjectives + *very* (22-a): Standard is raised
- Absolute adjectives + *very* (22-b): Are relativised into having a context-dependent threshold + standard boosting

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

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

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

Q Is **BEN** a slack regulator?

## BEN vs. slack regulators

- Absolute adjective + *completely* (24-a): No slack is allowed.
- Relative adjective + *completely* (24-b): Infelicitous, because it requires a closed scale adjective (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 adjective + BEN (25): felicitous
  - Focus on the most typical instances of the property in question
  - Exclusion of borderline cases

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

## Interim summary: BEN vs. degree modifiers

- Degree modifiers directly operate on degree arguments and thus manipulate standards.
- BEN only indirectly affects the standard, by focusing on the core cases to which the adjective in question can apply.

## Requirement: gradability

- Even though BEN is not a degree modifier, it still requires a gradable adjective as an input.

But with no particular scale structure: both absolute (26-a) and relative (26-b) adjectives are fine

- (26)
- L'estadi està **ben** ple.  
the stadium is BEN full
  - En Pere és **ben** alt.  
the Peter is BEN tall

- Non-gradable adjectives are only good inputs if they can be coerced into gradable ones:

- (27)
- ben** embarassada ~ quite pregnant
  - ben** mort ~ completely dead, no doubt that the person is dead
  - ?**ben** nuclear

## Requirement: Direct access to the gradable property

- Some intensifiers allow modification 'at a distance' and of non-gradable expressions and therefore arguably do not operate on a scale structure (see discussion in Nouwen 2013):

- (28)
- That is **quite** a(n) (interesting) symphony.
  - Jan heeft **nogal** een (dik) boek gekozen. (Dutch)  
Jan has quite a thick book chosen

- This does not work for BEN:

- (29)
- \***ben** un llibre  
BEN a book
  - \***ben** un {llibre interessant / interessant llibre}  
BEN a book interesting interesting book

## BEN is bad in entailment-cancelling contexts

- (30)
- 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 **ben** contenta.  
if the Peter is BEN nice be.FUT.1SG glad

# Previous accounts of BEN

- Hernanz (1999, 2010): BEN (and Spanish *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?
  - Isn't there a deeper semantic (or pragmatic) explanation?

## Castroviejo and Gehrke (2015)

- ben/well* is an event modifier in all its uses:

$$(31) \quad \begin{array}{l} \text{a. } \llbracket \text{good} \rrbracket = \lambda d \lambda x. [\mathbf{good}(x) \geq d] \\ \text{b. } \llbracket \text{well} \rrbracket = \lambda d \lambda e. [\mathbf{good}(e) \geq d] \end{array}$$

- BEN modifies a saying event (building on Piñón 2013, on speech act modification) and involves self-evaluation of a property ascription:

$$(32) \quad \llbracket \text{BEN} \rrbracket = \lambda P \lambda z. [\mathbf{utterance}(C) = e \wedge \mathbf{speaker}(C) = x \wedge \mathbf{hearer}(C) = y \wedge \mathbf{say}(e, P(z)) \wedge \mathbf{now} \subseteq \tau(e) \wedge \mathbf{agent}(e, x) \wedge \mathbf{recipient}(e, y) \wedge \mathbf{good}(e)]$$

- $$(33) \quad \begin{array}{l} \text{a. } \text{En Joan és } \mathbf{ben} \text{ alt.} \\ \quad \text{the John is BEN tall} \\ \quad \text{'John is BEN tall.'} \\ \text{b. } \mathbf{utterance}(C) = e \wedge \mathbf{speaker}(C) = x \wedge \mathbf{hearer}(C) = \\ \quad y \wedge \mathbf{say}(e, \mathbf{POS-tall}(j)) \wedge \mathbf{now} \subseteq \\ \quad \tau(e) \wedge \mathbf{agent}(e, x) \wedge \mathbf{recipient}(e, y) \wedge \mathbf{good}(e) \end{array}$$



## Castroviejo and Gehrke (2015)

- Analogy to factive evaluative adverbs like *unfortunately* (Liu 2012, 2014): Add a conventional implicature that comes with a factive presupposition
- Infelicity in entailment-cancelling contexts: Contradiction between at-issue meaning and presupposition of the CI (34)
 

(34) \*En Pere no és **ben** simpàtic.  
       the Peter not is BEN nice

  - At-issue tier:  $\neg(\mathbf{nice}(p))$
  - CI tier: **nice** is well ascribed to Peter.
  - CI's presupposition: **nice**(p)
- Positively self-evaluating a property ascription yields an **emphatic** assertion.

# 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.)
    - it rather looks like some bleached evaluative repurposed
- 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.

(similar concerns with a possible veridicality account, in analogy to that of sentence-level adverbs in, e.g., Ernst 2009)

## Back to the general idea

- General format for intensifiers:

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

- Intuitions about BEN (work in progress):

- $x$  is POS-ADJ with respect to a comparison class & with respect to my own evoked alternatives/expectations (speaker is making herself be the judge of this predication)
  - General impression: The second conjunct should add something like ' $x$  is well in the POS-ADJ-range', according to any standards (could be the same effect as with *well into the woods*)
  - With relative As: A within-individual comparison (common for absolute adjectives) is evoked in the 2nd conjunct.
- Emphasis arises because POS-ADJ( $x$ ) is part of both conjuncts (in a way, you are saying the same thing twice)

# Towards an account

- Semantics of gradable *As* in Toledo and Sassoon (2011), e.g. relative *As*, such as *tall*:

$$(36) \quad \lambda x. [\mathbf{f}(\mathbf{A}_R, w)(x) > \mathbf{s}(\mathbf{C}(\mathbf{A}_R, x, w))]$$

E.g. if a girl is tall, this is true iff the height of the girl is above some midpoint standard,  $\mathbf{s}(\mathbf{C}(\mathbf{tall}, x, w))$ , within a comparison class ranging over different individuals (the girl's classmates, girls of her age, etc.).

- The intensifier *BEN* adds the proposition that  $x$ 's degree of  $\mathbf{A}$  in the actual world is higher than in any of the judge's expected worlds:

$$(37) \quad \lambda x. [\mathbf{f}(\mathbf{A}, w)(x) > \mathbf{s}(\mathbf{C}(\mathbf{A}, x, w))] \wedge [\forall w' \in \mathbf{Exp}_{w,j} [\mathbf{f}(\mathbf{A}, w)(x) > \mathbf{f}(\mathbf{A}, w')(x)]]$$

## Towards an account: Adding negation

- Negating this conjunction leads to a disjunction ( $\neg(p \wedge q) \equiv \neg p \vee \neg q$ ):

$$(38) \quad \lambda x. [\mathbf{f}(\mathbf{A}, w)(x) \leq \mathbf{s}(\mathbf{C}(\mathbf{A}, x, w))] \vee [\forall w' \in \mathbf{Exp}_{w,j} [\mathbf{f}(\mathbf{A}, w)(x) \leq \mathbf{f}(\mathbf{A}, w')(x)]]$$

Either  $x$ 's degree of  $\mathbf{A}$  is  $\leq$  than the contextual standard, or  $x$ 's degree of  $\mathbf{A}$  in the actual world is  $\leq$  than in the judge's expectation worlds.

- Disjunction obtains through the negation of a conjunction of two (partially overlapping) propositions  $\rightarrow$  **Not informative?**

# Competition with simpler unmodified ADJ?

- Solt (2018): *about 50 sheep* is bad under negation
  - Negating modified numerals leads to an expression that is less or equally informative as the non-modified alternative *50 sheep*  
→ preference for less complex expression
  - (Formal definitions of informativity, competition with alternatives)
- Possible extension to BEN?

$$(39) \quad \lambda x. [\mathbf{f}(\mathbf{A}, w)(x) \leq \mathbf{s}(\mathbf{C}(\mathbf{A}, x, w))] \vee [\forall w' \in \mathbf{Exp}_{w,j} [\mathbf{f}(\mathbf{A}, w)(x) \leq \mathbf{f}(\mathbf{A}, w')(x)]]$$

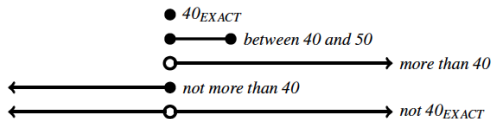
→ Is this less informative than just  $\neg \text{POS-ADJ}(x)$ ?

Some concern: BEN POS-ADJ(x) vs. POS-ADJ(x) feels different than ABOUT n x vs. n x:

- The latter contribute more or less the same meaning → competition & implicatures (including ignorance implicature)
- BEN adds more meaning & emphasis; no ignorance implicature

# 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
  - Explanation: Negation (with the exact-reading) leads to a non-convex meaning, which is generally banned (building on Gärdenfors 2004)



# Ban on non-convex meanings?

- Possible extension to BEN?
  - Non-modified As: greater/equal the standard – negating it should not be a problem (and it isn't: *She isn't tall.*)
  - BEN A: 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.



# More loose ends

- Contrast between relative and absolute As
- Contrast between predicative and attributive position

## Requirement for relative As: Subjective evaluation

- BEN + absolute A: fine out of the blue
- BEN (unlike e.g. *very*) does not felicitously modify a relative adjective out of the blue (40-a), unless the predication BEN(POS(ADJ)) addresses a question concerning a personal experience (40-b) or unless it is clearly a predicate of personal taste (PTT) (41).

- (40) a. A: Com és en Carles? B: {Molt / #Ben} intel.ligent.  
 how is the Charles very BEN intelligent  
 A: 'What is Charles like?' B: '{Very / #BEN} intelligent.'
- b. A: Què t'ha semblat en Carles? B: Ben intel.ligent.  
 what you.has seemed the Charles BEN intelligent  
 A: 'What do you think about Charles?' B: 'BEN intelligent.'
- (41) A: Com és el pastís? B: {Molt / Ben} bo.  
 how is the cake very BEN good  
 A: 'How do you like the cake?' B: 'Very / BEN tasty.'

## Requirement for relative As: Subjective evaluation

- Correlation in (in)compatibility with BEN and *trobar* 'find':

- (42)
- a. **ben** ridícul cf. El trobo ridícul.  
 BEN ridiculous him find.1SG ridiculous
- b. **#ben** just cf. \*El trobo just.  
 BEN fair him find.1SG just
- c. **#ben** solidari cf. \*El trobo solidari.  
 BEN solidary him find.1SG solidary

(same correlation for PPTs + *find*; cf. Umbach 2015, and literature cited therein)

## BEN involves subjective evaluation

- Other predicates become felicitous with BEN when there can be disagreement whether or not  $x$  is ADJ:

(43) A: Ahir m'ho vaig passar molt bé amb en Pere. És tan  
 yesterday me-it have.1SG passed very well with the Peter is so  
 divertit!  
 funny

'I had such a blast yesterday with Peter. He is so funny!'

B: Doncs jo el trobo **ben** avorrit.  
 actually I him find BEN boring  
 'Actually, I find him BEN boring.'

(44) La Mar porta un barret **ben** bonic. M'ha sorprès que tingui  
 the Mar wears a hat BEN pretty me-has surprised that has.SUBJ  
 tan bon gust.  
 that good taste  
 'Mar is wearing a BEN pretty hat. I am surprised that she has such good  
 taste.'

# The role of subjectivity

- BEN + relative A is intuitively more subjective than BEN + absolute A
  - For absolute As, it is easier to establish an objective threshold (a functional standard, in Stephanie's terminology), while for relative As you are establishing your own subjective ones?
  - The strong PPI behaviour (infelicity in all entailment-cancelling contexts) holds for BEN + relative As, but not necessarily for BEN + absolute As, which are infelicitous under negation but better in conditionals etc.
- Need for more systematic empirical investigation  
(relative vs. absolute As; unidimensional vs. multidimensional As; 'objective' vs. 'subjective'/evaluative As etc.)
- General impression in the literature (e.g. Ernst 2009, Nouwen 2013, Martin 2014, Umbach 2015): The more subjective the stronger the PPI behaviour
- Need to integrate the account in a discourse model

## PPI behaviour revisited

- BEN ADJ in predicative position (45) is worse in conditionals than BEN ADJ in attributive position (46)? [What about other entailment-cancelling contexts?]

(45) \*Si en Pere és **ben** simpàtic, estaré contenta.  
 if the Peter is BEN nice be.FUT.1SG glad

(46) Si vols aigua **ben** fresca a la font has d'anar, si  
 if want.2SG water BEN fresh to the fountain have.2SG of go if  
 el que vols és fer gresca un bon vi has de tastar.  
 the that want.2SG is do party a good wine have.2SG of taste  
 'If you want really fresh water, you should go to the fountain; if you  
 want to party, you have to taste a good wine.' [traditional song]

(47) ?Si l'aigua és **ben** fresca, posa-la a la gerra, que la servirem.  
 'If the water is BEN fresh, fill up the jar, so we can serve it.' (only  
 good under the interpretation: 'fresh enough')

## More data points

- (48) Si ens llevantem **ben** d'hora, **ben** d'hora i treballem,  
 if CL.1PL get-up.1PL BEN early BEN early and work.1PL  
 aquest país és imparable.  
 this country is unstoppable  
 'If we get up really really early and work, this country [Catalunya]  
 is unstoppable.' [Pep Guardiola; repetition is his, not needed]

(48) is not ad-adjectival, but ad-adverbial; similar to:

(49) well into the woods (cf. If you walk well into the woods, ...)

- (50) a. gut zwei Stunden 'well 2 hours' (German)  
 b. a good two hours

(examples with Catalan *bon* 'good': appendix)

# Summary

- Many intensifiers are bad under negation.
  - Low/middle-range ones might be generally bad
  - High-range ones give rise to a litotes meaning, and are possibly also bad when they are subjective-evaluative/expressive
- Catalan intensifier **BEN**
  - is unlike event modifier *well*, degree modifiers *very*, *completely*, distance intensifier *quite*
  - Requires a strictly gradable predicate as an input, where its standard is a matter of debate (contextually or because it is a predicate of personal taste)
  - BEN adds a proposition that can roughly be paraphrased as ‘and this is ADJ according to a standard that should not be under debate’ (or similar)

(Formalisation: Work in progress)



# Summary

More general research programme: Is there a principled explanation as to why intensifiers might be bad under negation?

- General idea: They all add a proposition to POS-ADJ(x)
- Negating this conjunction can have different effects, which might lead to:
  - Semantic clash / contradiction between the two conjuncts (possibly involving at-issue vs. non-at-issue meaning)
  - Non-convex meaning
  - Less or equal informativity in comparison to simpler unmodified POS-ADJ

→ Possibly different sources for PPI behaviour

# Evaluative intensification and positive polarity: Catalan good/well as a case study

**THANKS!**

**Elena Castroviejo**

<http://elena-castroviejo-miro.cat/>  
elena.castroviejo@ehu.eus

**Berit Gehrke**

<http://www.beritgehrke.com/>  
berit.gehrke@hu-berlin.de

## Extension to/from the adjective $BON_{int}$ ?

(cf. Castroviejo and Gehrke 2019)

- (51) la importància d'un **bon** esmorzar  
 the importance of a good breakfast  
 'the importance of a good breakfast'

→ plain evaluative 'good' vs.  $BON_{int} \approx$  'big' (German: 'ordentlich')

- (52) a. una **bona** dosi  
 a good dose  
 $\approx$  'a big dose'
- b. un **bon** ensurt  
 a good shock  
 $\approx$  'a big shock'
- c. una **bona** dormida  
 a.FEM good.FEM slept.FEM  
 $\approx$  'a long sleeping period'

## PPI behaviour of BON<sub>int</sub>

- (53) (#No) he menjat un bon tros de pa.  
 NEG have.I eaten a good piece of bread  
 'I have (#not) eaten a good piece of bread.'

Unlike BEN (to be qualified):

- (54) a. Si et prens una bona cullerada de sopa, et  
 if CL.2SG take.2SG a good spoonful of soup CL.2SG  
 posaràs bo.  
 put.FUT.2SG good  
 'If you take a good spoonful of soup, you'll get well.'
- b. Ja t'has banyat una bona estona?  
 already CL.2SG.have.2SG bathed a good while  
 'Have you already bathed for a good while?'

# BON<sub>int</sub> is not gradable

- (55)
- a. #un molt **bon** nombre / maldecap / esmorzar  
     a very good number   worry           breakfast
  - b. #un millor nombre / maldecap / esmorzar  
     a better number   worry           breakfast
  - c. #un més **bon** nombre / maldecap / esmorzar  
     a more good number   worry           breakfast

## There is no antonym $MAL_{int}$

- (56)
- a. #una mala dosi  
     a bad dose  
     ≈ 'a small dose'
  - b. #un mal tros  
     a bad piece  
     ≈ 'a small piece'

(unlike adverbial MAL in, e.g., Argentinian Spanish, see Mangialavori Rasia, poster session; similar: Dutch *erg*, German *arg* as adverbial intensifiers)

## Requirement: unidimensionality

- (57) a. una **bona** alçada  
 a good height  
 ≈ 'a big/large height'
- b. una **bona** salut  
 a good health  
 ≠ 'a big/large health'

Only plain evaluative with multidimensional sortal nouns:

- (58) un **bon** actor, un **bon** cotxe  
 a good actor a good car

Both readings with multidimensional Ns if one dimension (size) is salient + prosody/gesture:

- (59) un **bon** pernill, un **bon** massatge  
 a good ham a good massage

## Requirement: unidimensional noun

- Measure nouns:

(60) un bon nombre, una bona quantitat, un bon grapat  
 a good number a good quantity a good handful

- Degree nominalisations:

(61) una bona alçada, una bona amplada  
 a good height a good width

- Negative nouns:

(62) un bon maldecap, un bon ensurt, un bon problema  
 a good worry a good shock a good problem

- Evaluative, 'gradable' nouns:

(63) un bon idiota  
 a good idiot



# What is GOOD?

e.g. Szabo (2001)

- (64) Sue is a good dancer.
- a. There is a way in which Sue is good.
  - b. Sue is good in some respect.

e.g. Asher (2011)

- (65)
- a. This is a good rock **for skipping / throwing / carving**.
  - b. This is a good **skipping rock**.
  - c. This rock is good **as a skipping stone**.

# Intersective vs. subjective GOOD

- (66) a. un amic **bo**  
 a friend good  
 ≈ 'a kind-hearted friend'
- b. un **bon** amic  
 a good friend  
 ≈ 'a great friend'

INTERSECTIVE

SUBJECTIVE

$BON_{int}$  is necessarily subjective:

- (67) a. #un nombre/grapat/maldecap/ensurt/cop/idiota **bo**  
 a number/handful/headache/shock/idiot good
- b. #una quantitat/alçada/amplada **bona**  
 a quantity/height/width good.FEM

$BON_{int}$  is also not good in predicative use:

- (68) #L' esmorzar és **bo**.  
 the breakfast is good

## Castroviejo and Gehrke (2019)

- The CI account of BEN should not be extended to  $BON_{int}$ 
  - Reasons ...
- Monotonicity condition under which  $BON_{int}$  arises (69)
- Denotation of  $BON_{int}$  (70)

$$(69) \quad \forall x, y \in P [x \geq y \rightarrow (\mathbf{good-as}(P))(x) \geq (\mathbf{good-as}(P))(y)]$$

$$(70) \quad [[\mathbf{good}]] = \\ \lambda P \lambda x. \exists d [d > \mathbf{min}(S_{good}) \wedge (\mathbf{good-as}(P))(x) = d]$$

$$(71) \quad \forall P, x, y [(\mathbf{good-as}(P))(x) \wedge P(y) \wedge y \geq x \rightarrow \\ (\mathbf{good-as}(P))(y)]$$

$$(72) \quad \text{una bona dosi d'insulina} \\ \text{a good dose of insulin}$$

# PPI behaviour

Same explanation as for ban on  $MAL_{int}$ :

- (73) a. Aquest (#no) és un bon problema.  
           this    NEG   is a good problem  
           Intended: 'This is (#not) a big problem.'
- b. #Aquest és un mal problema.  
           this    is a bad problem

The key: Requirement for unidimensionality

# Sassoon (2013)

- 2 types of multidimensional adjectives: Conjunctive (74-a) vs. disjunctive (74-b)

$$(74) \quad \begin{array}{l} \text{a. } \lambda x. \forall Q \in \text{DIM}(\textit{healthy}) : Q(x) \\ \text{b. } \lambda x. \exists Q \in \text{DIM}(\textit{sick}) : Q(x) \end{array}$$

- *good* is conjunctive, *bad* is disjunctive

# GOOD/BON as a conjunctive A

(75)  $\lambda P \lambda x. \forall Q \in \text{DIM}(\mathbf{good-as}(P)) : Q(x)$

(76)  $[[\textit{good table}]] : \lambda x. \forall Q \in \text{DIM}(\mathbf{good-as}(\mathbf{table})) : Q(x)$

- a. materials
- b. robustness
- c. looks, ...

(77) a.  $\exists \text{DIM} \rightsquigarrow \neg \forall \text{DIM}$   
 b.  $\neg \forall \text{DIM} \rightsquigarrow \exists \text{DIM}' \neq \text{DIM}$

(78) #Aquest no és un mal problema.  
 this NEG is a bad problem  
**intended:** 'This isn't a big problem.'

## Ban on gradability

- (79)
- #molt bona dosi  $\rightsquigarrow$  infelicitous in any interpretation  
very good dose
  - molt bon esmorzar  $\rightsquigarrow$  plain evaluative interpretation only  
very good breakfast
- (80) Sassoon (2015, 18)
- Ann is more optimistic than Bill.
  - More( $\lambda d$ .Ann is  $d$ -optimistic,  $\lambda d$ .Bill is  $d$ -optimistic).
  - $[\lambda D \lambda D'. \text{MAX}(D') > \text{MAX}(D)](\lambda n. |\lambda R \in \text{DIM}_{\text{optimistic}}. \forall d \in I_R, R(d, \text{bill})| \geq n)$   
 $(\lambda n. |\lambda R \in \text{DIM}_{\text{optimistic}}. \forall d \in I_R, R(d, \text{ann})| \geq n)$
  - $\text{MAX}(\lambda n. |\lambda R \in \text{DIM}_{\text{optimistic}}. \forall d \in I_R, R(d, \text{ann})| \geq n) >$   
 $\text{MAX}(\lambda n. |\lambda R \in \text{DIM}_{\text{optimistic}}. \forall d \in I_R, R(d, \text{bill})| \geq n)$ .
  - False because  $|\{R_{\text{love}}, R_{\text{family}}, R_{\text{work}}, R_{\text{friends}}\}| < |\{R_{\text{love}}, R_{\text{family}}, R_{\text{work}}, R_{\text{friends}}, R_{\text{economy}}, R_{\text{pollution}}, R_{\text{peace}}\}|$
- (81)  $\lambda n. |\lambda R \in \text{DIM}_{\text{good-as-dose}}. \forall d \in I_R, R(d, \text{this})| \geq n$  is a large interval.

## Emphatic prosody

- (82) a. Tenim un sopar molt elegant, o sigui que anirem a la xarcuteria i comprarem un **bon** pernil; un de pota negra.  
 ‘We have an elegant dinner, so we’ll go to the butcher and buy a good ham; a Pata Negra ham.’
- b. Hem d’alimentar un munt de persones, o sigui que anirem a la xarcuteria i comprarem un **bon** pernil; la qualitat no importa.  
 ‘We have to feed a bunch of people, so we’ll go to the butcher and buy a (lit.) good ham; quality doesn’t matter.’
- (83) un **boon** esmorzar  
 ‘a good breakfast’ ≈ a big breakfast
- (84) Dóna’m un boon pernil, #però que sigui petit.  
 ‘Give me a good ham, but let it be small.’
- (85) La Maria creu que ha comprat “un boon pernil.”  
 the Mary believes that has bought a good.EMPH.PROS ham  
 ‘Mary believes that she has bought “a big ham”.’



## PPI behaviour revisited

- Recall previous example, which contained **measure Ns**:

- (87) a. Si et        prens        una **bona** cullerada de sopa, et  
 if CL.2SG take.2SG a    good spoonful of soup CL.2SG  
 posaràs        bo.  
 put.FUT.2SG good  
 'If you take a good spoonful of soup, you'll get well.'
- b. Ja        t'has                banyat una **bona** estona?  
 already CL.2SG.have.2SG bathed a    good while  
 'Have you already bathed for a good while?'

- With **multidimensional Ns**, for which size is salient (+ gesture & prosody):

- (88) ??Si a la xarcuteria hi veus un **BOOON** pernil, compra'l. La qualitat  
 no importa, però hem de fer molts entrepans.  
 'If you see a GOOD<sub>int</sub> ham at the butcher, buy it. Quality doesn't  
 matter, but we need to make a bunch of sandwiches.'

Elena: It's quite bad, but I'm not sure it's super bad; it's better than negation.

# References I

- Asher, N.: 2011, *Lexical Meaning in Context. A Web of Words*, Cambridge University Press, Cambridge.
- Bolinger, D.: 1972, *Degree Words*, Mouton, The Hague.
- 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.
- 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.
- 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.
- Laserson, 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.

# References II

- Liu, M.: 2014, The projective meaning of evaluative adverbs. Ms. University of Osnabrück.
- Martin, F.: 2014, Restrictive vs. nonrestrictive modification and evaluative predicates, *Lingua* **149A**, 34–54.
- Morzycski, M.: 2012, Adjectival extremeness: Degree modification and contextually restricted scales, *Natural Language and Linguistic Theory* **30**(2), 567–609.
- Nouwen, R.: 2013, Best nogal aardige middenmoters: de semantiek van graadadverbia van het middenbereik, *Nederlandse Taalkunde* **18**(2), 204–214.
- Piñón, C.: 2013, Speech-act adverbs as manner adverbs. Ms. Université Lille 3.
- Sassoon, G.: 2013, A typology of multidimensional adjectives, *Journal of Semantics* **30**(3), 225–280.
- Sassoon, G.: 2015, A degree-approach account of multidimensional gradability. Ms, Bar-Ilan University.
- Sassoon, G. and Toledo, A.: 2011, Absolute and relative adjectives and their comparison classes. Ms., University of Amsterdam & Utrecht University.
- Solt, S.: 2018, Approximators as a case study of attenuating polarity items, in S. Hucklebridge and M. Nelson (eds), *NELS 48: Proceedings of the 48th Annual Meeting of the North East Linguistic Society 3*, GLSA, Amherst, MA, pp. 91–104.
- Solt, S. and Waldon, B.: 2019, Numerals under negation: Empirical findings, *Glossa: a journal of general linguistics* **4**(1): 113, 1–31.
- Szabo, Z. G.: 2001, Adjectives in context, in R. Harnish and I. Kenesei (eds), *Perspectives on Semantics, Pragmatics, and Discourse*, John Benjamins, Amsterdam and Philadelphia, pp. 119–146.
- Toledo, A. and Sassoon, G.: 2011, Absolute vs. relative adjectives: Variance within vs. between individuals, *Proceedings of SALT 21*, Cornell University, Ithaca, NY, pp. 135–154.
- Umbach, C.: 2015, Evaluative propositions and subjective judgments, in J. van Wijnbergen-Huitink and C. Meier (eds), *Subjective Meaning*, De Gruyter, Berlin, pp. 127–168.