



Polarity and standards of comparison: absolute adjectives in the *not very* construction

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EMPIRICAL AND THEORETICAL PERSPECTIVES)

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Denotation and valence



“In formal linguistics, the focus is on denotative meanings, which are generally void of affective content” (Nouwen, 2021: 1)

Psychology/computational linguistics: Affective content (e.g. valence) at the core of meaning (e.g. Osgood et al., 1956)

Interplay of denotation and valence (e.g., modification)

Negation and valence



Diana: How did the talk go?

Nicole: (1) Not bad ~ okay

(2) Not good ~ bad



Speakers exploit negation and vagueness for social purposes

Absolute adjectives

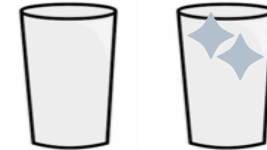


(3) The glass is not clean \Rightarrow dirty



(4) The glass is not very clean \rightsquigarrow dirty

(5) The glass is not very dirty \rightsquigarrow clean but not pristine



**What notion of polarity drives this interpretative asymmetry?
How does it interact with scale structure?**

Roadmap



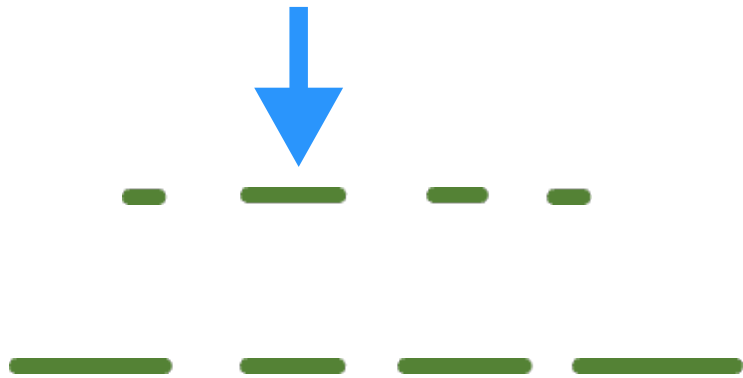
1. Theoretical background: Antonyms, scale structure and pragmatic inferences
2. Experiments on polarity and scale structure
3. Outlook: Verbal alternatives

Context and standard of comparison



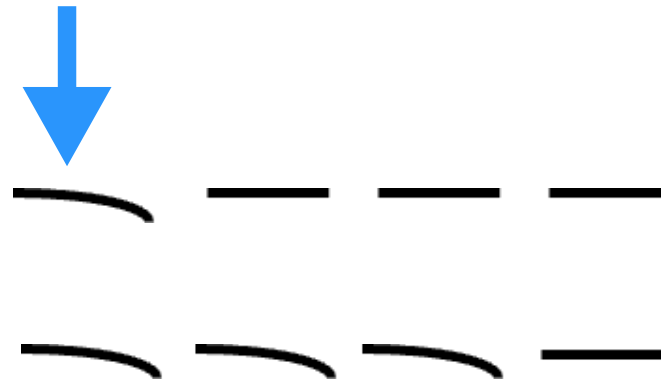
Relative: context-dependent standard

long - short, good - bad



Absolute: fixed standard

bent - straight, dirty - clean



Antonyms and entailments



Relative: contextual standard of comparison

(7) The line is not long \Rightarrow it is short

Middle ground?



Absolute: fixed standard (minimum or maximum degree)

(8) The glass is not clean \Leftrightarrow it is dirty



(9) The glass is not very clean \Rightarrow it is dirty



Scale structure and implicature



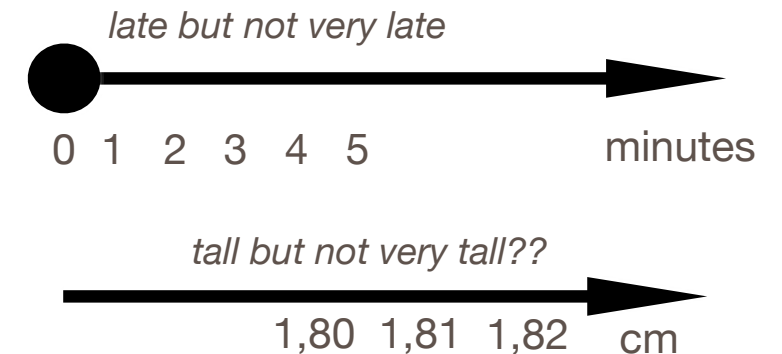
Gotzner, Solt & Benz (2018):

Scale structure affects pragmatic inferences

Leffel et al. (2019): Borderline constraint

(10) John was not very late \rightsquigarrow late (min)

(11) John is not very tall \rightsquigarrow short (relative)



Role of polarity



Valence could still play a role!

(12) Context: Jack invites Sue for dinner. He takes out some glasses from the dish washer.

Sue says: Your glasses are not very clean

Polarity and negative strengthening



(13) John is not tall \rightsquigarrow short (**negative strengthening**)

... in fact, he is not short either

(14) John is not short $\not\rightsquigarrow$ tall

Polarity asymmetry: *not* positive > *not* negative

Explanations of polarity asymmetry



(13) John is not tall ALT: short

(14) John is not short ALT: tall

Politeness explanation: Use of more complex expression to mitigate face-threat posed by simpler (negative) utterance (e.g., Brown & Levinson, 1987; Horn, 1989)

Positivity bias: Universal human tendency to prefer positive expressions (Boucher & Osgood, 1969; Terkourafi & Weissmann, 2020)

Negated statements are less informative but communicatively useful

Experimental evidence: Polarity and politeness



Politeness considerations modulate pragmatic inferences (interplay of power relation, social distance and gender: Gotzner & Mazzarella, 2021)

Polarity asymmetry is found in contexts where the negative expression is **not face threatening** (Mazzarella & Gotzner, 2021)

Speakers avoid straightforwardly negative expressions (adjective valence!)



Current study

ABSOLUTE ADJECTIVES IN THE *NOT VERY*
CONSTRUCTION

Research questions



What notion of polarity is relevant for the asymmetry in negative strengthening?

How do polarity and scale structure jointly contribute to inference making?

Different notions of polarity



Evaluative: subjective judgements of desirability (valence)

Dimensional: underlying dimension of measurement

A shirt with more dirt, counts as dirtier

Polarity mismatches



Adjective /polarity	dirty	clean
evaluative	E-	E+
dimensional	Dim+	Dim-

Exp. 1: Methods and Predictions



“Joe’s suit is not very **dirty**”

According to the statement, Joe’s suit is:
dirty 1 2 3 4 5 6 7 clean

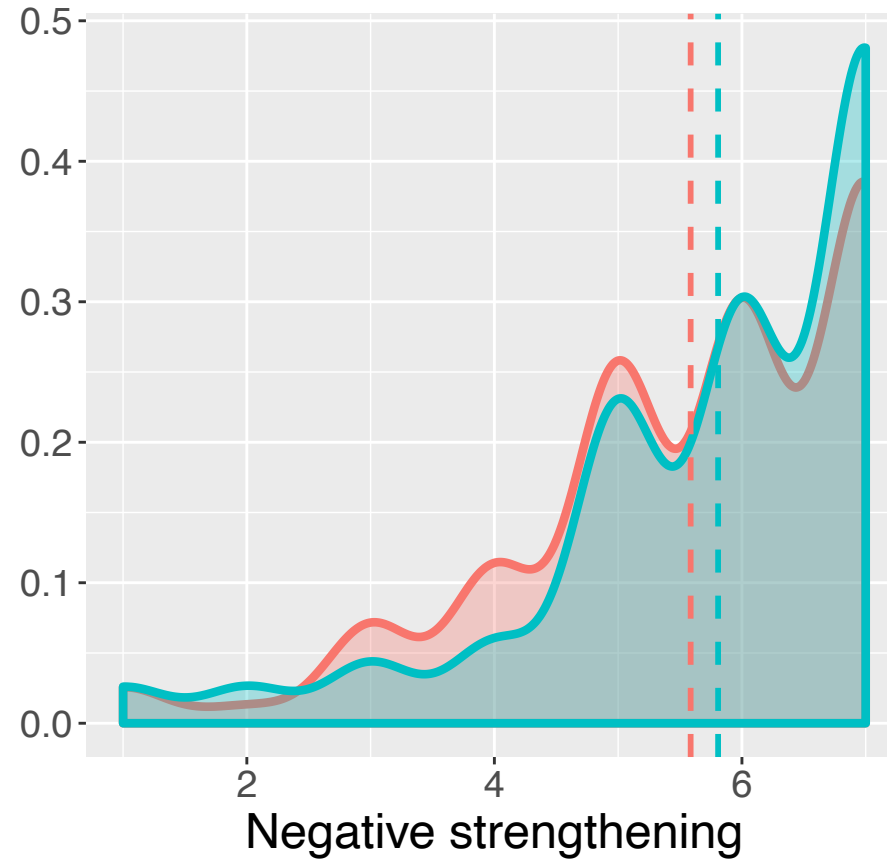
Items: 9 antonym pairs (selected based on entailment pretest and linguistic tests for polarity and scale structure)

Design: 2 Polarity (E+, Dim- vs. E-, Dim+)



Participants: 75 (power analysis)

Prediction: E+, Dim- > E-, Dim+ if evaluative polarity is driving the asymmetry osf.io/t7ar6

Results (Exp. 1)



Polarity

-  E-, Dim +
-  E+, Dim -

Clmm:
Estimate SE z-value p-value
- -0.32 0.1 -3.14 0.001

Asymmetry aligns with evaluative and not dimensional polarity

Exp. 2: Polarity and adjective type



Test sentence	Polarity	Adjective type
The shirt is not very dirty	E-, Dim +	minimum standard
The shirt is not very clean	E+, Dim -	maximum standard
The door is not very open	E+, Dim+	minimum standard
The door is not very closed	E-, Dim-	maximum standard

Exp. 2: Methods



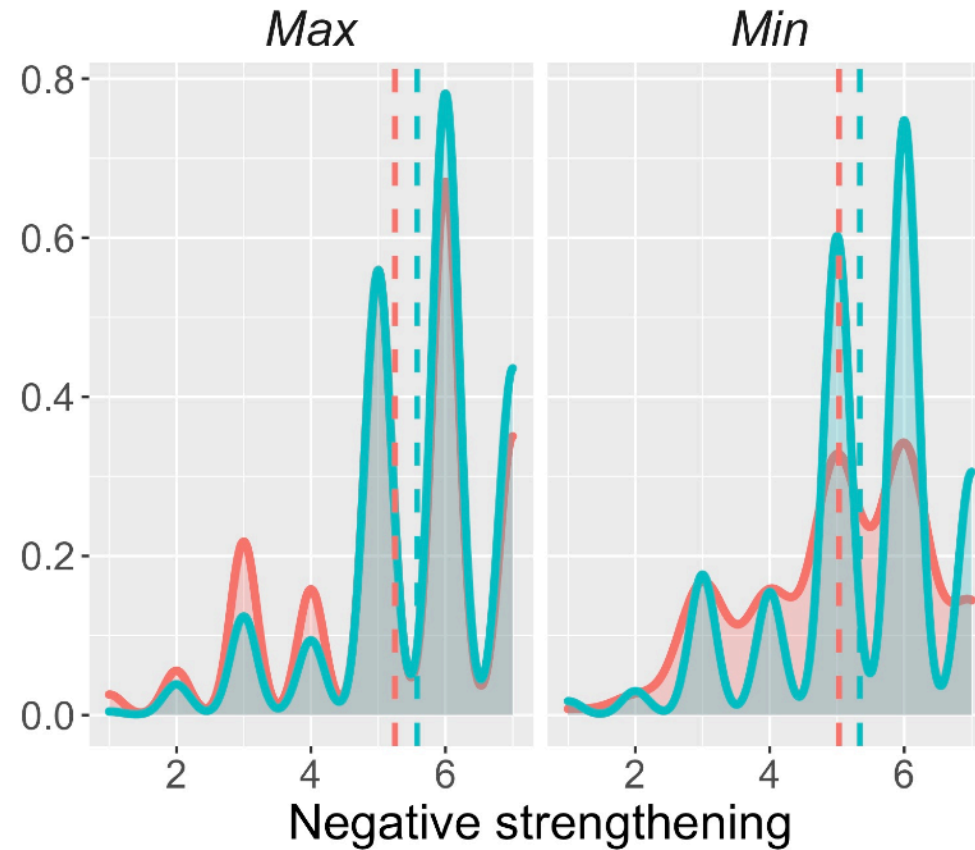
Items: 10 antonym pairs (5 from Exp. 1 selected based valence corpus, Mohammed, 2018; 5 additional pairs with opposite polarity)

Design: 2 Polarity (E+ vs. E-) x 2 adjective type (max vs. min)

Participants: 96 (power analysis)

Predictions: E+ > E-; min > max, interaction of polarity and adjective type? osf.io/t7ar6

Results (Exp. 2)



Polarity 0.31774 0.06394 4.969 0.001
Type -0.32783 0.06547 -5.008 0.001
Type:polarity 0.02126 0.13431 0.158 0.8

Evaluative polarity and scale structure modulate negative strengthening

Discussion: Evaluative polarity



Asymmetry in negative strengthening aligns with evaluative, not dimensional polarity

Generalized role of evaluative polarity:

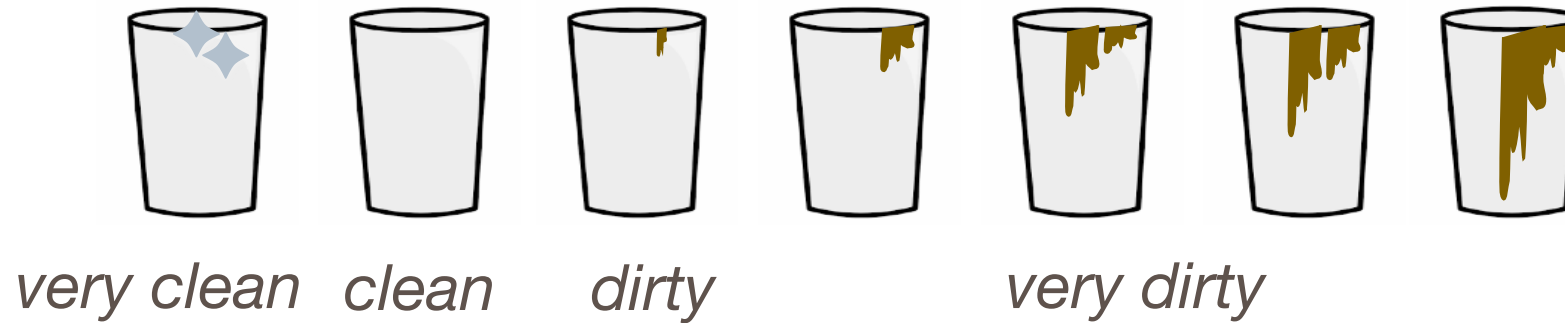
Strong associations between adjectives and evaluative polarity even for adjectives that are not evaluative (Implicit associations: Paradis et al., 2012 and valence corpora: Mohammed, 2018)

Positivity bias extends to complex expressions

Discussion: Scale structure



Maximum standard adjectives are more likely to be strengthened than minimum standard ones (see also Alexandropoulou & Gotzner, this workshop)



Effect of scale structure



Verbal scales

Verbal Horn scales and neg raising



Mary likes broccoli \sim Mary does not love broccoli
? Mary loves broccoli but she does not like it

Mary does not love broccoli \sim Mary hates broccoli
Mary does not hate broccoli $\not\sim$ Mary loves broccoli

Mary does not think that it's raining \sim Mary thinks it's not raining
Mary does not know that it's raining $\not\sim$ Mary knows it's not raining

Scales cross-linguistically



Cross-linguistic variability in the realization of scalar meaning (overview: Hohaus & Bochnak, 2020)

Languages that express adjectival properties verbally (e.g., Dixon & Aikhenvald, 2004)

-> Talks at this workshop!

Conclusions



Evaluative polarity drives asymmetry in negative strengthening

Polarity and scale structure jointly modulate pragmatic inferences

Denotation and valence are more intertwined than standardly assumed