Politeness and negative strengthening

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This work investigates the role of politeness in the interpretation of negated antonyms. Utterances like 'John is not tall' (where 'tall' is a gradable adjective) are often interpreted as conveying a pragmatically strengthened meaning, e.g. *John is rather short*. This 'negative strengthening' is typically described as asymmetric: the negation of a positive antonym ("not tall") is more likely to be strengthened (to *rather short*) than the negation of a negative antonym ("not short" to *rather tall*). A classical explanation of the polarity asymmetry of negative strengthening relies on the notion of politeness (Horn, 1989, Brown & Levinson, 1978). The negation of a positive antonym is a politeness strategy to convey a negative evaluation while mitigating the face-threat towards the addressee. We test this explanation in two experiments manipulating politeness in the following ways: (1) by inverting the power relation between the speaker and the hearer and (2) by manipulating their social distance. Our main hypothesis is that the politeness explanation predicts an interaction between polarity and politeness such that politeness considerations mainly play a role for negative strengthening of positive adjectives.

Methods. Each experiment used a 2 (polarity) x 2 (politeness) Latin square design. We embedded 20 negated antonym pairs (e.g., "not tall" and "not short") in a context involving two dialog partners. Participants were asked to judge the speaker's intended meaning on a 1-7 point Likert scale ranging with 1 representing the adjective used in the original (negated) statement (e.g., *tall*) and 7 representing its antonym (e.g., *short*). Table 1 below displays an example item. In addition, participants were presented with 8 filler statements not involving negation. Each participant completed 40 critical trials with either the positive or negative adjective used in the speaker`s statement. We recruited 60 native English participants on Mechanical Turk for each experiment (totaling in 2400 critical observations). All results were analyzed with mixed models involving contrast coding of the factors polarity and politeness. We pre-registered experiments on OSF with the main prediction of an interaction between polarity and politeness. Alternatively, we predicted main effects of polarity and politeness but no interaction indicating that additional factors play a role in negative strengthening (based on a previous study by Gotzner et al., 2018).

Results (Exp. 1): The first experiment investigated the role of power in negative strengthening for positive and negative adjectives by inverting the power relation between the speaker and the hearer (e.g., the professor talking to a student and vice versa). The results showed a main effect of polarity with positive adjectives involving a higher degree of negative strengthening than negative ones ($p < .001$). This finding replicates the polarity asymmetry discussed in previous work (e.g., Ruytenbeeck et al., 2017). In addition, there was a main effect of power relations with a higher degree of negative strengthening for speakers in a low power position than in a high power position, showing that the politeness manipulation was effective. The interaction between polarity and politeness was not significant ($p=.6$). As an exploratory analysis, we computed a model with participant gender as an additional variable and found an interaction between gender and polarity ($p<.0001$) as well as a marginal three-way interaction of polarity, politeness and participant gender ($p=.09$), see Figure 1 (left). These interactions indicate that female participants showed the predicted asymmetry across positive and negative adjectives with respect to the power manipulation while male participants mainly reacted to negative adjectives.

Results (Exp. 2): The second experiment manipulated social distance with speaker and hearer being either close friends (low social distance) or having just met (high social distance). Again, we replicated the polarity effect ($p<.001$). In addition, there was an effect of social distance with a higher degree of negative strengthening for socially close dialog partners. The

distance effect was most pronounced for negative adjectives but the interaction between polarity and social distance was not significant (p=.18). Based on the participant gender effects in Experiment 1, we also included a manipulation of the gender of the dialog partners in Experiment 2. The results showed an interaction between polarity and speaker gender (p<.0001), politeness and speaker gender (p<.05) as well as a three-way interaction among all factors (p<.05). These interactions indicated that female names did not elicit social distance effects. For male names, negative strengthening of negative adjectives occurred more likely for socially-close dialog partners while positive adjectives showed the opposite pattern. Participant gender showed a convergent pattern, results are displayed in Figure 1 (right).

Conclusions: In two experiments, we replicated the asymmetry between positive and negative adjectives with respect to negative strengthening. Interestingly, we found that the social contexts (manipulated through power relations in Experiment 1 and social distance in Experiment 2) affected the degree of negative strengthening of both positive and negative adjectives. Overall, the results indicate that different mechanisms underlie the strengthening of positive and negative adjectives. We discuss our findings in term of two face management strategies - *Minimize face threat* and *Maximize face boost* - which interact differently with power relations and social distance, as well as gender. While politeness does affect the degree of negative strengthening (in line with Horn, 1989), we surmise that negative strengthening is the result of wider face-management considerations. These concern both the speaker's intention to mitigate the threat towards the face of the addressee (*Minimize face threat*) and the speaker's intention to positively enhance the addressee's face (*Maximize face boost*).

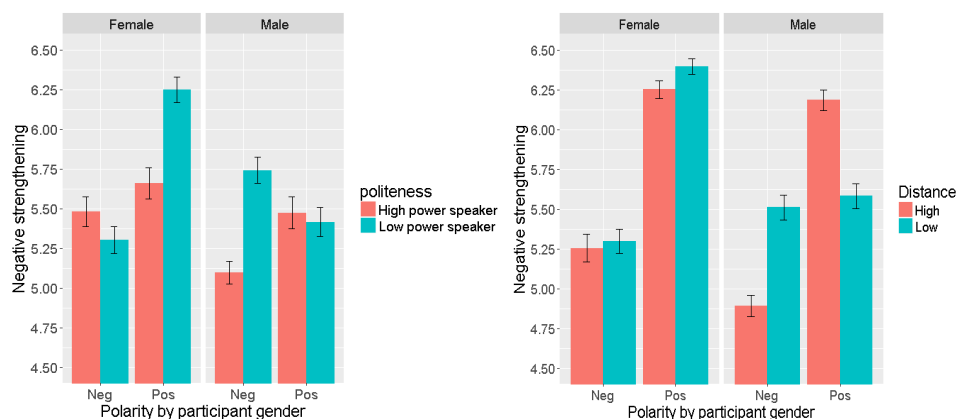| Table 1: Example of item [from Experiment 1, Positive polarity, Low power speaker] |
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| At a staff gathering in the factory meeting room, the boss has presented the work-schedule he prepared for that day. The boss asks an employee: How do you find the schedule? The employee replies: "Your schedule is not fair"

According to the employee, the schedule is:
<div align="center">*fair* 1 2 3 4 5 6 7 *unfair*</div> |

Figure 1: Mean degree of negative strengthening in Exp.1 (left) and Exp. 2 (right)

Selected references

Brown, P., & Levinson, S. C. (1987). *Politeness: Some universals in language usage*. Cambridge university press. I Gotzner, N., Solt, S. & Benz, A. (2018). Scalar Diversity, Negative Strengthening, and Adjectival Semantics. *Frontiers in Psychology, 9*. I Horn, L. (1989). *A Natural History of Negation*. University of Chicago Press, Chicago. I Ruytenbeek, N., Verheyen, S., & Spector, B. (2017). Asymmetric inference towards the antonym: Experiments into the polarity and morphology of negated adjectives. *Glossa*: *A Journal of General Linguistics, 2(1),* 92.