

Supplementary Materials 2

To assess the extremity of the positive and negative events contained in the narrative text developed by Bebbington et al. (2017) 55 participants (undergraduate students from the University of Western Australia) rated the valence of each positive and negative event. Participants first read the narrative text to provide context for the subsequent event ratings. Next, each event was presented (in a random order) and participants rated the event in response to the question, “How positive or negative is the event described?”. Participants entered their response using a slider that ranged from -50 to 50.

Data visualization identified outliers for the positive events ratings (10 ratings, or 2.27% of ratings) and for the negative event ratings (16 ratings, or 3.63% ratings) (see Figure 1A). These were winsorized following the interquartile range rule (with a 1.5 multiplier). As per Bebbington et al. (2017) the positive events were rated as positive on average ($M = 34.39$, $SD = 15.30$) and the negative events were rated as negative on average ($M = -32.81$, $SD = 15.67$) (see Figure 1B). The negative event ratings were then reverse coded and compared to the positive event ratings using a cumulative link mixed effects model (a method recommended when analysing responses made on Likert scales and other ordinal datasets; McElreath, 2020) using the ordinal package in R (Christensen, 2019). There was no statistical evidence of a difference in the rated extremity of the positive and negative events ($p = .721$; see Table 1 and Figure 2C). So, the extremity of the positive and negative events was deemed to be comparable.

Table 1. Rated valence (-50 to 50) of the positive and negative events (reverse coded) from the narrative text developed by Bebbington et al. (2017): Results of the cumulative link mixed effects model.

Positive Vs. Negative Events				
Fixed Effects	Estimate	Standard Error	z value	Pr(> z)
Valence	0.09	0.26	0.36	.721

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clmm (Strength_ReverseCoded.F ~ Valence + (1 + Valence | pID) + (1 | Event),
data=EventValenceRatings)
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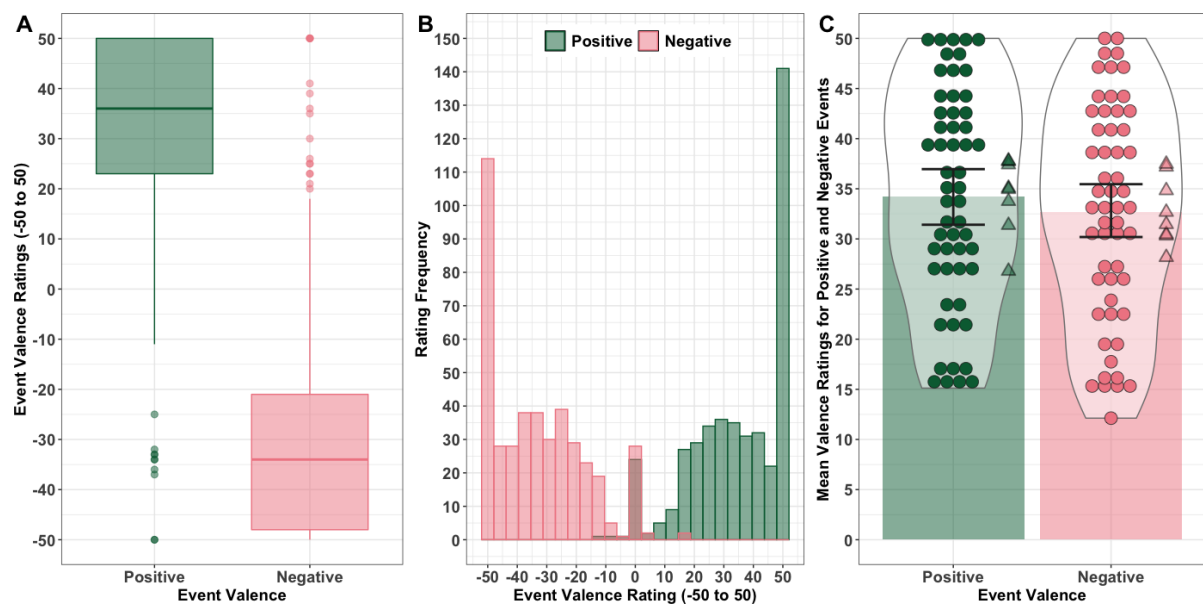


Figure 1. Boxplot (A) and Histogram (outliers winsorized) (B) of the valence ratings for the positive and negative events contained in the narrative text developed by Bebbington et al. (2017) (rated from -50 to 50). (C) The rated valence of the positive and negative events contained in the narrative text developed by Bebbington et al. (2017) (rated from -50 to 50 with the negative events ratings reverse scored). The coloured bars indicate the overall mean valence score for positive and negative events, the dot points indicate the mean positive and negative event valence score for each rater (N=55) and the triangle points (offset to the right) indicate the mean valence score for each event (8 positive and 8 negative). The violins provide distributional information and the error bars are the 95% CIs.

References

- Bebbington, K., MacLeod, C., Ellison, T. M., & Fay, N. (2017). The sky is falling: Evidence of a negativity bias in the social transmission of information. *Evolution and Human Behavior*, 38(1), 92–101. <https://doi.org/10.1016/j.evolhumbehav.2016.07.004>
- Christensen, R. H. B. (2019). Ordinal-regression models for ordinal data. R package version 2019.12-10. <https://CRAN.R-project.org/package=ordinal>
- McElreath, R. (2020). Statistical rethinking: A Bayesian course with examples in R and Stan. CRC Press.