

Does sentimental gender bias influence media literacy?

This project paper explores the relationship between sentimental gender bias and media literacy on Reddit, operationalized through post complexity.

We first aim to reproduce the findings of (Marjanovic et al., 2022) concerning sentimental gender bias in the data set by applying a state-of-the-art sentiment analysis method. This will allow for a comparison between the authors' original lexicon classification and true sentiment scores, which we will use to recompute measures for valence and dominance present in the posts. We expect our findings to correlate with the authors' original scores.

To validate our findings, we will use a second operationalization of sentimental gender bias by assessing the posts' level of toxicity as measured by Perspective API. Given that toxicity can be part of gender bias and especially hostile sexism (Glick & Fiske, 1996) but does not have to be present in a post for it to be classified as gender biased, we will expect a positive correlation between the sentimental bias- and toxicity scores.

After establishing the validity and robustness of our findings regarding sentimental gender bias, we will take a look at the possible interaction of media literacy with sentimental gender bias. We operationalize media literacy as the complexity of Reddit posts by following the classification of text complexity as proposed by Kayam (2018). We expect posts that contain higher sentimental gender bias scores to display lower text complexity and posts that are neutral/positive in connotation to reflect higher text complexity.

References

- Glick, P., & Fiske, S. T. (1996). *The Ambivalent Sexism Inventory: Differentiating hostile and benevolent sexism*. 70 (3), 491–512.
- Kayam, O. (2018). The Readability and Simplicity of Donald Trump's Language. *Political Studies Review*, 16(1), 73–88. <https://doi.org/10.1177/1478929917706844>
- Marjanovic, S., Stańczak, K., & Augenstein, I. (2022). Quantifying gender biases towards politicians on Reddit (N. J. Shook, Ed.). *PLOS ONE*, 17(10), e0274317. <https://doi.org/10.1371/journal.pone.0274317>