Supplementary Information

Little change in a changing landscape: Tracking exposure to untrustworthy news in Germany from 2017 to 2024

March 24, 2026

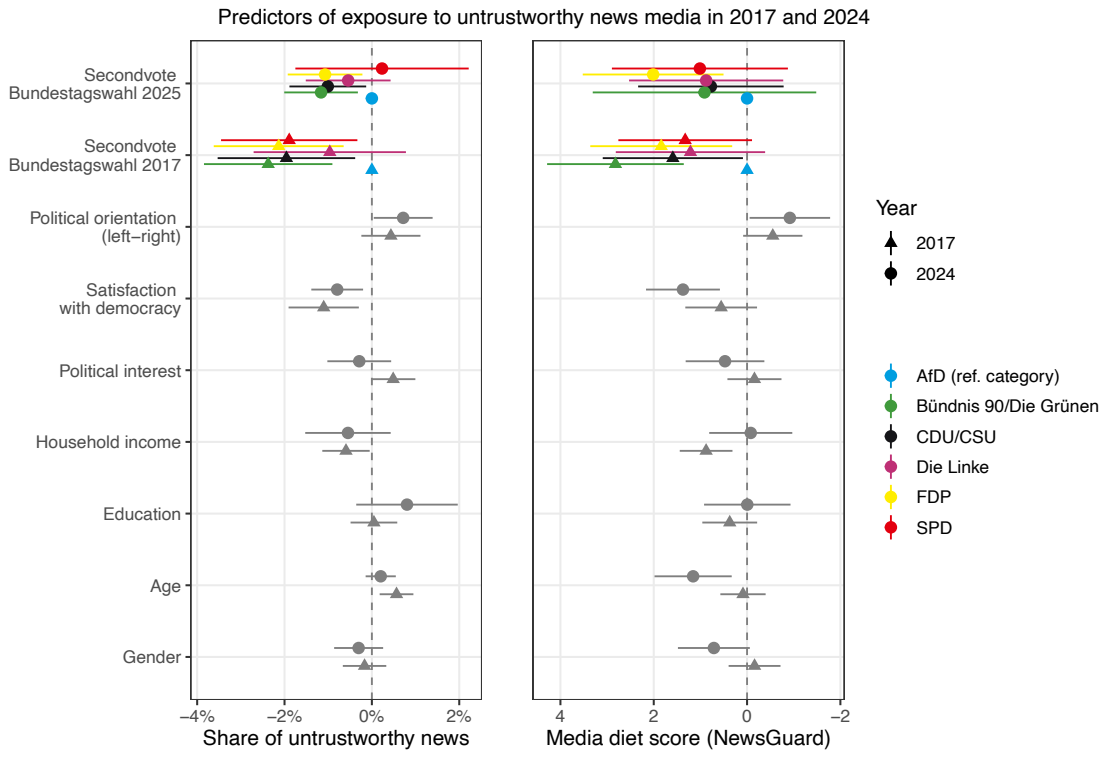

Figure S1: **Predictors of exposure to online untrustworthy news media.** Coefficients represent linear robust regression coefficients (implemented in R using the `lm_robust` function from the `estimatr` package Blair et al., 2022) of scaled variables (Gelman, 2008), each modeled separately in independent regression models, with triangles using data from 2017, diamonds using data from 2024. Models equivalent to those used to generate predicted group means reported in Fig. 1 of the main text.

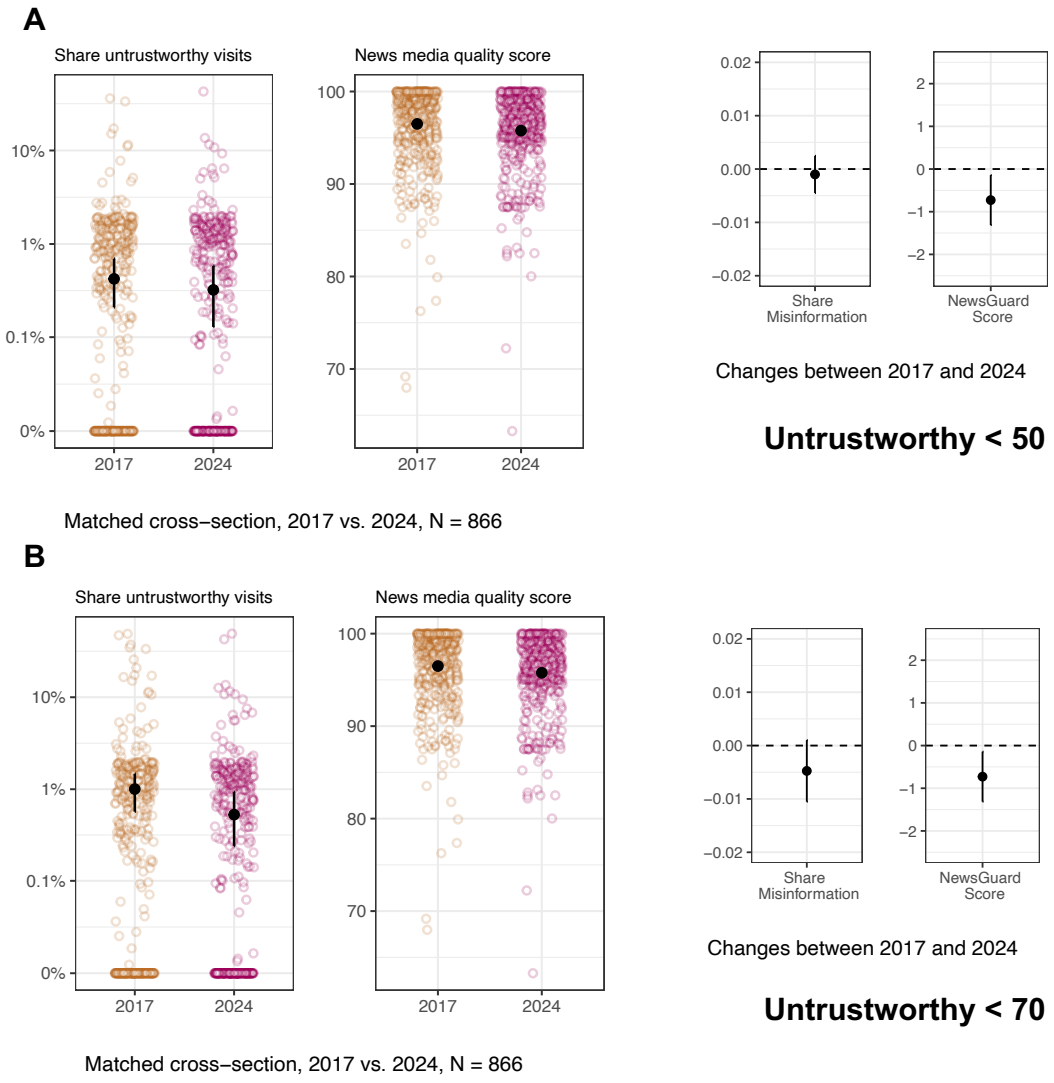

Figure S2: **Robustness towards different NewsGuard thresholds.** **A:** Results of the temporal comparison if NewsGuard Score threshold for what is classified as "untrustworthy news media" (overall score ranging from 0 = lowest trustworthiness to 100 = highest trustworthiness) set more loosely to 50 (instead of 60). **B:** Results if NewsGuard Score set more strictly to 70 (instead of 60, the threshold used by NewsGuard).

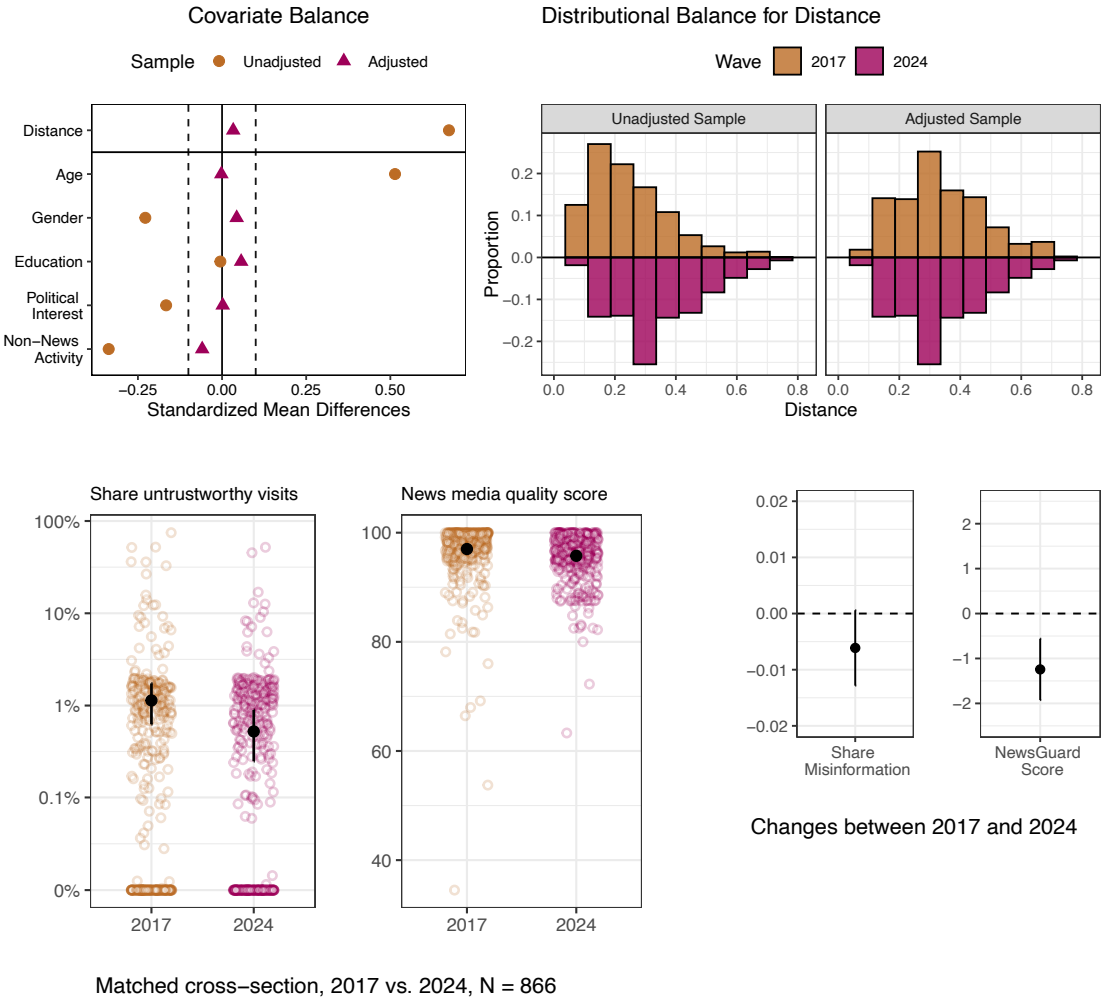

Figure S3: **Robustness of results towards leaving out top domain.** As presented in Fig. 1 of the main text, *bild.de* is the most visited news domain in both datasets. As the trustworthiness score of *bild.de* does not meet the NewsGuard threshold for "untrustworthy news media" but can clearly be characterized as tabloid, we test the robustness of our results towards removing this most visited news domain.

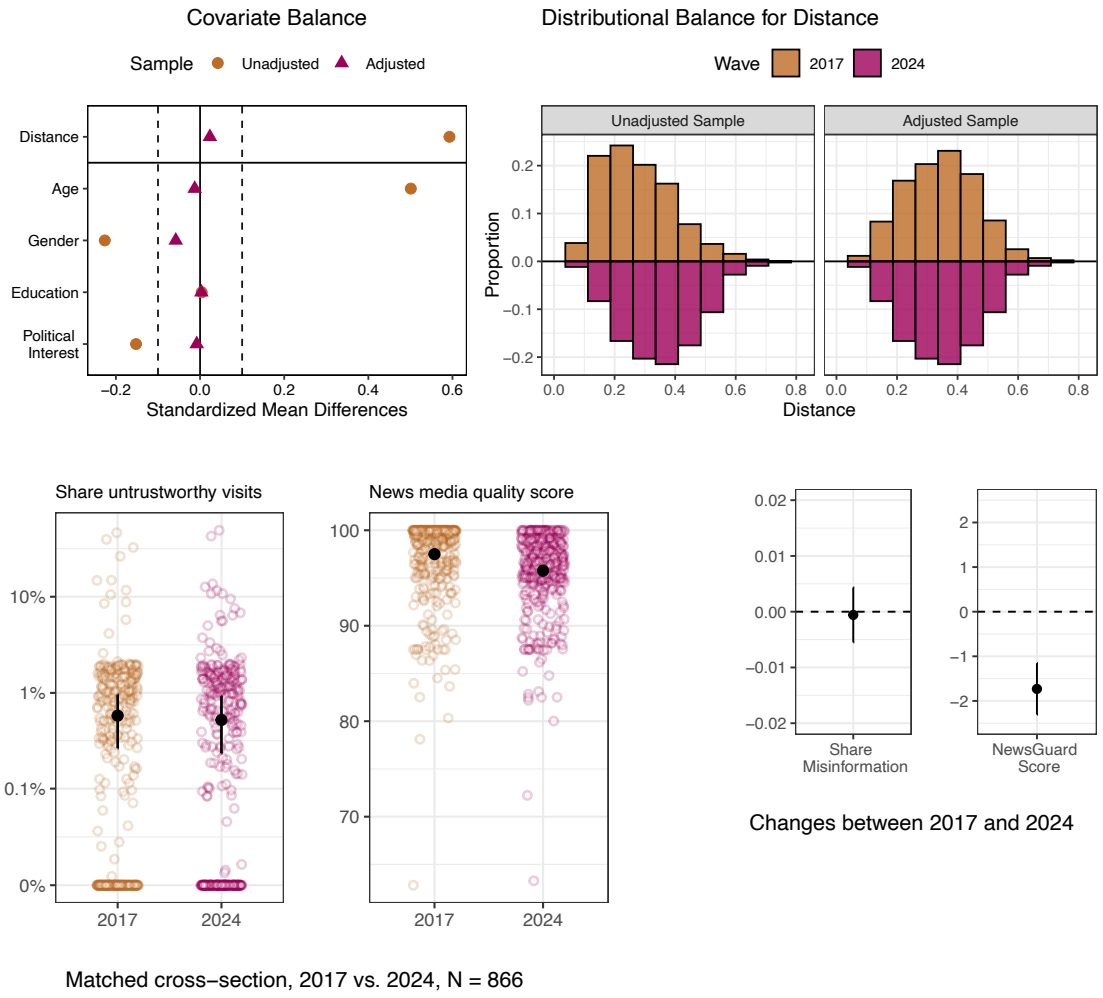

Figure S4: **Robustness of results towards excluding behavioral covariate.** We present results for a sample matched only on survey variables, but disregarding any other browsing activity, measured from web tracking data.

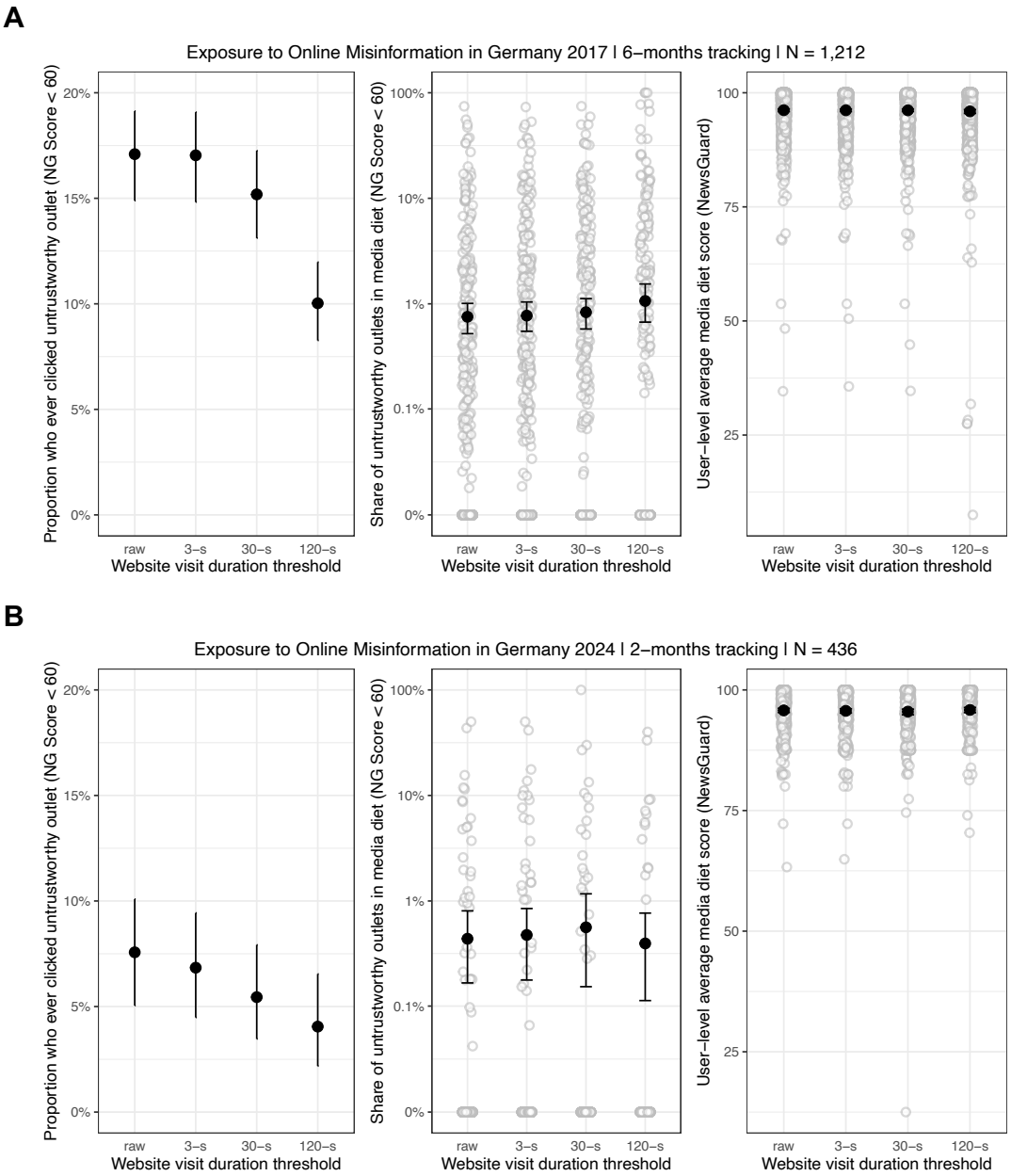

Figure S5: **Exposure thresholds. A:** Prevalence of exposure to online untrustworhty news media in German web tracking data from the 2017 full 6-months tracking period. From left: Proportion of participants who ever clicked untrustworthy outlets; Share of untrustworthy outlets in media diet (grey rings representing individual users, black points representing mean with 95% CI); Media diet scores (grey rings representing user-level averages, black points indicating sample mean with 95% CI). X-axis split for website visit duration thresholds applied in web tracking data preprocessing. **B:** Prevalence of exposure to online misinformation in German web tracking data from the 2024 2-months tracking period. The metric of *ever visiting untrustworthy outlets* is highly dependent on the duration of the overall tracking period (6-months vs. 2-months) and is the most sensitive to different visit-duration thresholds. Therefore, analyses were restricted to the two other metrics of exposure.

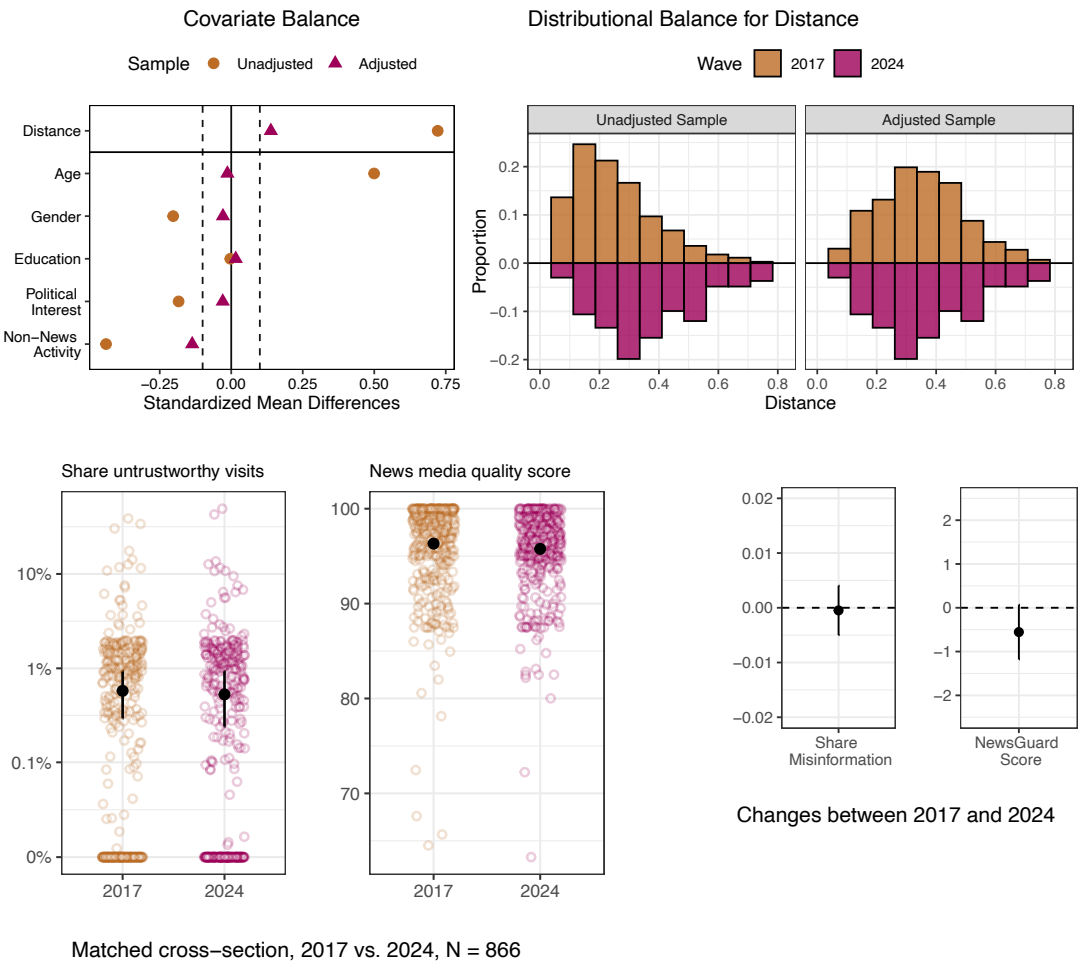

Figure S6: **Robustness of results towards restriction of tracking period.** Results if 2017 data is restricted to two-months pre-election period (matching the timeframe of the 2024 data).

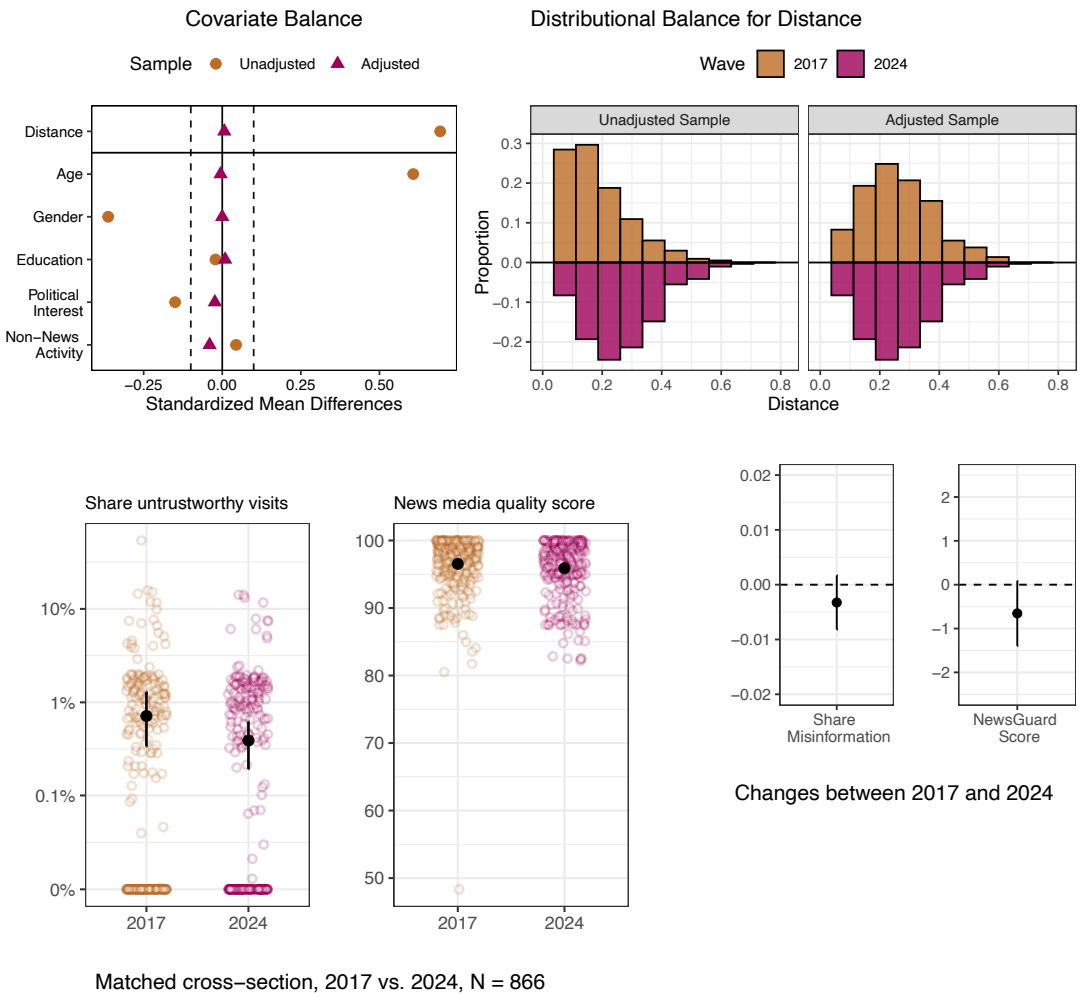

Figure S7: **Robustness of results towards excluding mobile tracking data.** Results if 2024 data is restricted to desktop-tracking only (2017 data only captures desktop-tracking).

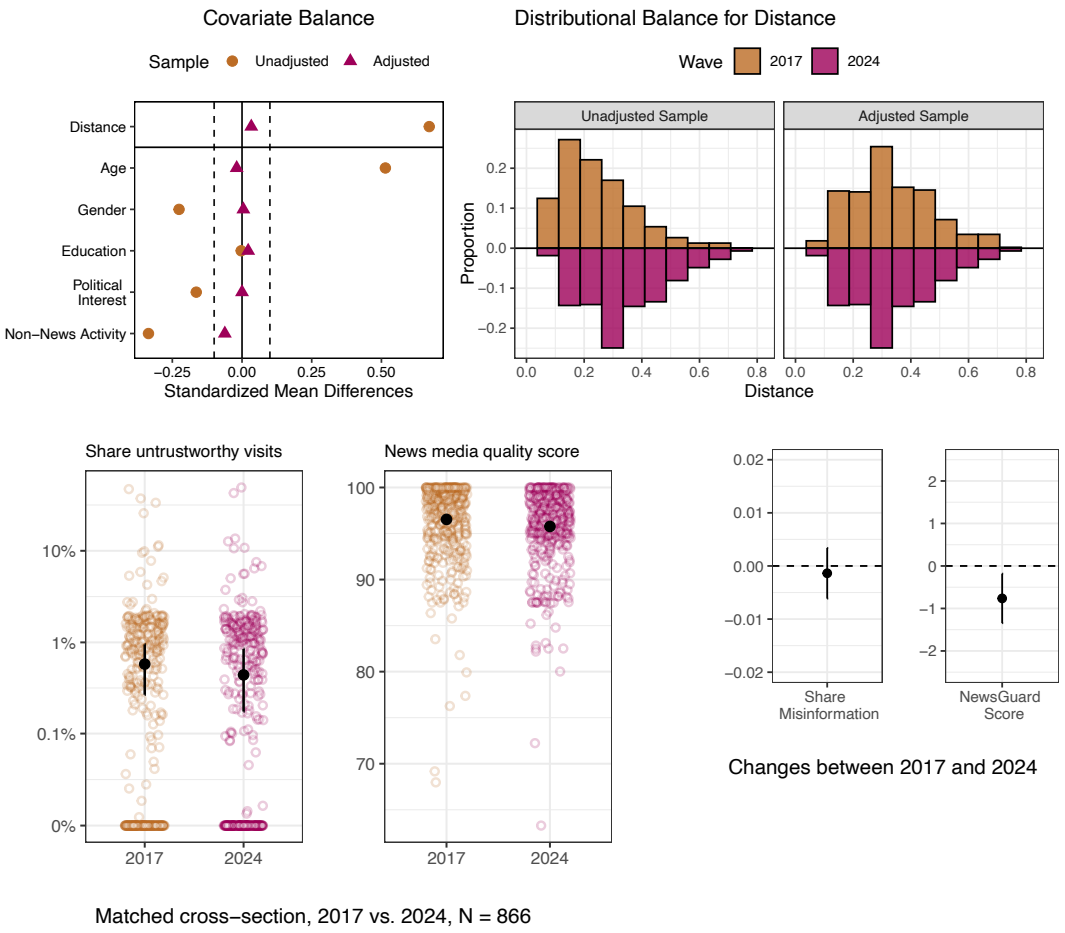

Figure S8: **Robustness of results towards very strict cleaning.** Results if excluding any untrustworthy domains used as stimuli in media literacy experiment (that was conducted in the course of data collection for the 2024 wave) from both waves. The original cleaning strategy includes the removal of visits to 12 experimental domains during the study-specific time windows based on individual survey start and completion times, extended by 6 hours.

Further sample descriptives and details regarding the sampling and data collection methods are reported in the supplementary materials of Munzert et al. (2021) for the 2017 data and Oswald et al. (2025) for the 2024 data.

References

Blair, G., Cooper, J., Coppock, A., Humphreys, M., Sonnet, L., Fultz, N., Medina, L., & Lenth, R. (2022, July). Estimatr: Fast Estimators for Design-Based Inference. Retrieved February 2, 2023, from https://CRAN.R-project.org/package=estimatr

Gelman, A. (2008). Scaling regression inputs by dividing by two standard deviations. *Statistics in medicine*, *27*(15), 2865–2873.

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Oswald, L., Kozyreva, A., Nickl, P. L., Herzog, S. M., & Hertwig, R. (2025). *Boosting media literacy using lateral reading and online search interven- tions* (tech. rep.). EU Horizon SoMe4Dem. https://files-www.mis.mpg.de/mpi-typo3/SoMe4Dem/Deliverables/D4.2_SoMe4Dem.pdf