Online Appendix for:

**Assessing (In)accuracy and Cognitive Biases in Self-reported Measure of Exposure to Disagreement: Evidence from Digital Trace Data**

***Table A1.*** *Predicting over-reporting as a function of social desirability bias, cognitive burden, and public opinion perception.*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **OLS W2** | **GLM W2** | **OLS W3** | **GLM W3** |
| **Social desirability** |  |  |  |  |
|  |  |  |  |  |
| Discussion norm W2/W3 | 0.008 | 0.296· | 0.007 | 0.138 |
|  | (0.012) | (0.178) | (0.013) | (0.150) |
| Need for socl approval W2/W3 | -0.004 | -0.112 | -0.019\* | -0.099 |
|  | (0.008) | (0.125) | (0.009) | (0.108) |
| **Cognitive burden** |  |  |  |  |
|  |  |  |  |  |
| Interest W2/W3 | 0.017 | 0.061 | 0.004 | -0.021 |
|  | (0.011) | (0.163) | (0.012) | (0.143) |
| Knowledge | -0.006 | 0.015 | -0.001 | 0.106 |
|  | (0.005) | (0.072) | (0.005) | (0.067) |
| **Opinion Climate** |  |  |  |  |
|  |  |  |  |  |
| Prcvd Op Climate W2/W3 | -0.004\*\*\* | -0.042\*\*\* | -0.004\*\*\* | -0.038\*\*\* |
|  | (0.001) | (0.010) | (0.001) | (0.009) |
| **Controls** |  |  |  |  |
|  |  |  |  |  |
| Candidate pref W2/W3 | 0.333\*\*\* | 2.767\*\*\* | 0.189\*\*\* | 1.435\*\*\* |
|  | (0.025) | (0.403) | (0.030) | (0.382) |
| Ideo Strength W2/W3 | -0.052\*\*\* | -0.283 | -0.041\*\* | -0.161 |
|  | (0.012) | (0.179) | (0.013) | (0.159) |
| Total Exp W1/W2 (log) | -0.013· | -0.051 | -0.015· | 0.019 |
|  | (0.008) | (0.109) | (0.008) | (0.097) |
| Media Exposure | 0.004 | -0.026 | 0.000 | -0.163\* |
|  | (0.006) | (0.084) | (0.007) | (0.073) |
| **Demographics** |  |  |  |  |
|  |  |  |  |  |
| Age (in years) | 0.001 | 0.013 | 0.002· | 0.023 |
|  | (0.001) | (0.015) | (0.001) | (0.014) |
| Female | 0.008 | 0.230 | -0.011 | 0.119 |
|  | (0.021) | (0.307) | (0.023) | (0.277) |
| Education | -0.010 | 0.326\* | -0.005 | -0.101 |
|  | (0.010) | (0.148) | (0.011) | (0.145) |
| HH income | 0.005 | -0.069 | -0.006 | -0.119 |
|  | (0.006) | (0.081) | (0.006) | (0.075) |
| **(Intercept)** | 0.164 | -2.087 | 0.349\*\* | 2.121 |
|  | (0.123) | (1.721) | (0.129) | (1.654) |
| R2 / Nagelkerke R2 | 0.398 | 0.328 | 0.184 | 0.184 |
| AIC |  | 323.529 |  | 371.729 |
| BIC |  | 377.175 |  | 425.375 |
| Log Likelihood |  | -147.764 |  | -171.865 |
| Deviance |  | 295.529 |  | 343.729 |
| \*\*\*p < 0.001, \*\*p < 0.01, \*p < 0.05, ·p < 0.1 | | | | |

**Table A2**. Models predicting over-reporting, comparisons of cumulative exposure during entire wave vs. most recent (i.e., three-day) exposure.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **OLS W2** | **OLS W2**  **RECENT** | **OLS W3** | **OLS W3**  **RECENT** | |
| **Social desirability** |  |  |  |  | |
|  |  |  |  |  | |
| Discussion norm W2/W3 | 0.008 | 0.017 | 0.007 | 0.011 | |
|  | (0.012) | (0.014) | (0.013) | (0.013) | |
| Need for socl approval W2/W3 | -0.004 | 0.003 | -0.019\* | -0.014 | |
|  | (0.008) | (0.009) | (0.009) | (0.009) | |
| **Cognitive burden** |  |  |  |  | |
|  |  |  |  |  | |
| Interest W2/W3 | 0.017 | 0.016 | 0.004 | -0.008 | |
|  | (0.011) | (0.012) | (0.012) | (0.012) | |
| Knowledge | -0.006 | -0.006 | -0.001 | -0.000 | |
|  | (0.005) | (0.006) | (0.005) | (0.006) | |
| **Opinion Climate** |  |  |  |  | |
|  |  |  |  |  | |
| Prcvd Op Climate W2/W3 | -0.004\*\*\* | -0.004\*\*\* | -0.004\*\*\* | -0.004\*\*\* | |
|  | (0.001) | (0.001) | (0.001) | (0.001) | |
| **Controls** |  |  |  |  | |
|  |  |  |  |  | |
| Candidate pref W2/W3 | 0.333\*\*\* | 0.299\*\*\* | 0.189\*\*\* | 0.225\*\*\* | |
|  | (0.025) | (0.028) | (0.030) | (0.032) | |
| Ideo Strength W2/W3 | -0.052\*\*\* | -0.057\*\*\* | -0.041\*\* | -0.040\*\* | |
|  | (0.012) | (0.014) | (0.013) | (0.014) | |
| Total Exp W1/W2 (log) | -0.013· | -0.019· | -0.015· | 0.006 | |
|  | (0.008) | (0.011) | (0.008) | (0.010) | |
| Media Exposure | 0.004 | 0.001 | 0.000 | -0.002 | |
|  | (0.006) | (0.007) | (0.007) | (0.007) | |
| **Demographics** |  |  |  |  | |
|  |  |  |  |  | |
| Age (in years) | 0.001 | 0.001 | 0.002· | 0.001 | |
|  | (0.001) | (0.001) | (0.001) | (0.001) | |
| Female | 0.008 | 0.007 | -0.011 | -0.010 | |
|  | (0.021) | (0.024) | (0.023) | (0.024) | |
| Education | -0.010 | -0.004 | -0.005 | -0.008 | |
|  | (0.010) | (0.012) | (0.011) | (0.012) | |
| HH income | 0.005 | 0.001 | -0.006 | -0.008 | |
|  | (0.006) | (0.006) | (0.006) | (0.007) | |
| **(Intercept)** | 0.164 | 0.097 | 0.349\*\* | 0.322\* | |
|  | (0.123) | (0.139) | (0.129) | (0.138) | |
| R2 | 0.398 | 0.316 | 0.184 | 0.189 | |
| Adj. R2 | 0.374 | 0.289 | 0.152 | 0.156 | |
| Num. obs. | 341 | 341 | 341 | 337 | |
| RMSE | 0.187 | 0.210 | 0.200 | 0.212 | |
| \*\*\*p < 0.001, \*\*p < 0.01, \*p < 0.05, ·p < 0.1 | | | | |

|  |  |  |
| --- | --- | --- |
|  | **Pref Cernty Sbj** | **Pref Cernty Obj** |
| **Lagged DV** |  |  |
|  |  |  |
| Pref Certainty W2 | 0.517\*\*\* | 0.523\*\*\* |
|  | (0.046) | (0.046) |
| **Focal predictor** |  |  |
|  |  |  |
| Exp Disagree (Sbj) | -0.520 |  |
|  | (0.266) |  |
| Exp Disagree (Obj) |  | -0.769\* |
|  |  | (0.340) |
| **Correlates** |  |  |
|  |  |  |
| Total Exp W2 (log) | 0.009 | 0.015 |
|  | (0.035) | (0.035) |
| Candidate pref | -0.198 | -0.301\* |
|  | (0.118) | (0.140) |
| Interest | -0.007 | 0.006 |
|  | (0.052) | (0.052) |
| Knowledge | 0.059\* | 0.056\* |
|  | (0.025) | (0.025) |
| Ideo Strength | 0.074 | 0.077 |
|  | (0.060) | (0.060) |
| Efficacy | 0.091\* | 0.083 |
|  | (0.044) | (0.044) |
| Media Exposure | -0.011 | -0.009 |
|  | (0.029) | (0.029) |
| **Demographics** |  |  |
|  |  |  |
| Age (in years) | -0.007 | -0.008 |
|  | (0.005) | (0.005) |
| Female | 0.175 | 0.185 |
|  | (0.099) | (0.098) |
| Education | 0.066 | 0.063 |
|  | (0.053) | (0.053) |
| HH income | -0.015 | -0.013 |
|  | (0.028) | (0.028) |
| **(Intercept)** | 2.193\*\*\* | 2.273\*\*\* |
|  | (0.575) | (0.575) |
| R2 | 0.412 | 0.414 |
| Adj. R2 | 0.387 | 0.389 |
| Num. obs. | 320 | 320 |
| RMSE | 0.858 | 0.856 |
| \*\*\*p < 0.001, \*\*p < 0.01, \*p < 0.05 | | |