# Replicating #No2Sectarianism

Jess Esplin, J. Clinton Rooker, and Ethan vanderWilden

10 December 2020 | PS812 | UW-Madison

# Setting and Question

- What kinds of interventions reduce sectarian online hate speech?
- Arab Twittersphere experiment & counter-speech interventions
- Identity recategorization & in-group norms

# Data and Methods

- Original data collected from Twitter following counter-speech interventions with a "sock-puppet"

- 5 treatments, 1 control group
  - Elite Common Religious Identity
  - Elite Common National Identity
  - Common Religious Identity
  - Common National Identity
  - No prime; only the sanction
  - Control; no tweet reply/intervention

- Difference in means tests, confidence intervals

# Hypotheses

- General Form:
  - let $x$ = pre-treatment sectarian tweets - post-treatment sectarian tweets
  - $H_0$: $\bar{x}_{treatment} - \bar{x}_{control} \geq 0$
  - $H_A$: $\bar{x}_{treatment} - \bar{x}_{control} < 0$
- Example of treatment hypothesis: "Receiving a response to a hateful sectarian message that primes a common Muslim religious identity and highlights support from religious leaders will make individuals less likely to tweet hateful sectarian messages in the future" (841)

# Results



Effect of Treatment on Volume of Anti–Shia Tweets, 90 and 95% CIs
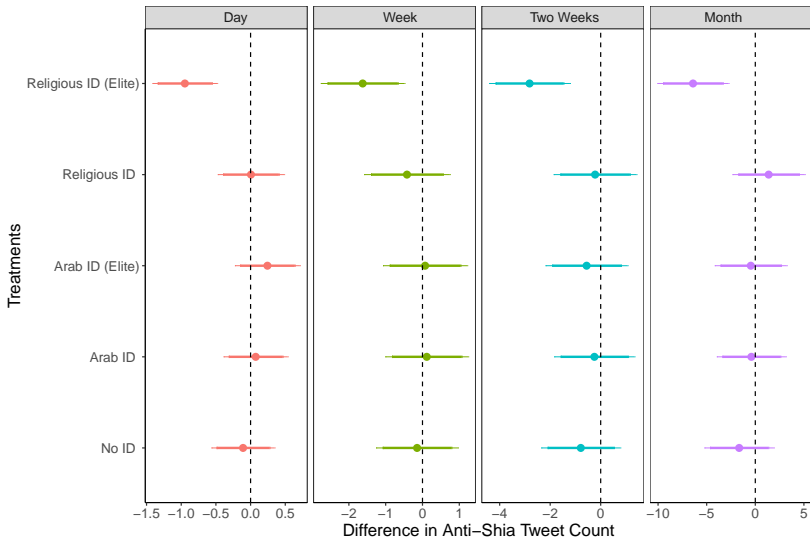
# Conclusion and Steps Forward

- ▶ Support for elite-endorsed common religious identity prime hypothesis
    - ▶ Cannot reject the null for other treatments
- ▶ Results hold up to robustness checks
- ▶ Pathways Forward
    - ▶ Multiple interventions
    - ▶ Other social media platforms
    - ▶ Anti-Shia network saturation

# Appendix: Tables and Robustness Checks

1) Main Figure Regression Table

2) Median Follower Subset Figure

3) Median Follower Subset Regression Table

4) Low Anti-Shia Saturation Figure

5) Low Anti-Shia Saturation Regression Table

6) High Anti-Shia Saturation Figure

7) High Anti-Shia Saturation Regression Table

# 1. Main Figure Regression Table

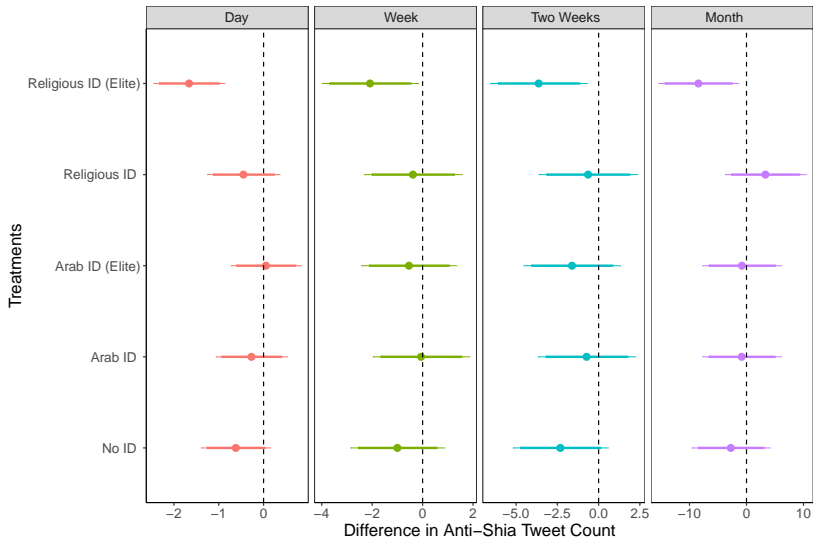Table 1: Effect of Treatment on Volume of Anti-Shia Tweets

| | Day | Week | Two Weeks | One Month |
|---|---|---|---|---|
| | Difference in Anti-Shiea Tweets | | | |
| | (1) | (2) | (3) | (4) |
| Arab ID | 0.074 | 0.116 | −0.249 | −0.403 |
| | (0.236) | (0.574) | (0.811) | (1.811) |
| Religious ID | 0.006 | −0.421 | −0.221 | 1.376 |
| | (0.244) | (0.594) | (0.836) | (1.896) |
| Arab ID (elite) | 0.243 | 0.072 | −0.557 | −0.461 |
| | (0.239) | (0.584) | (0.828) | (1.889) |
| Religious ID (elite) | −0.948*** | −1.625*** | −2.817*** | −6.405*** |
| | (0.238) | (0.580) | (0.816) | (1.867) |
| No ID | −0.108 | −0.147 | −0.787 | −1.657 |
| | (0.232) | (0.567) | (0.798) | (1.820) |
| Constant | 0.015 | 0.298 | 1.304** | 1.816 |
| | (0.176) | (0.431) | (0.612) | (1.404) |
| Observations | 952 | 944 | 922 | 795 |
| $R^2$ | 0.035 | 0.015 | 0.019 | 0.029 |
| Adjusted $R^2$ | 0.030 | 0.010 | 0.014 | 0.023 |
| *Note:* | | | $^{*}p<0.1; ^{**}p<0.05; ^{***}p<0.01$ | |

# 2. Robustness (Less than Median Followers)



Effect of Treatment on Volume of Anti–Shia Tweets (Median or Fewer Follo...

# 3. Regression Table, Median Robustness Check

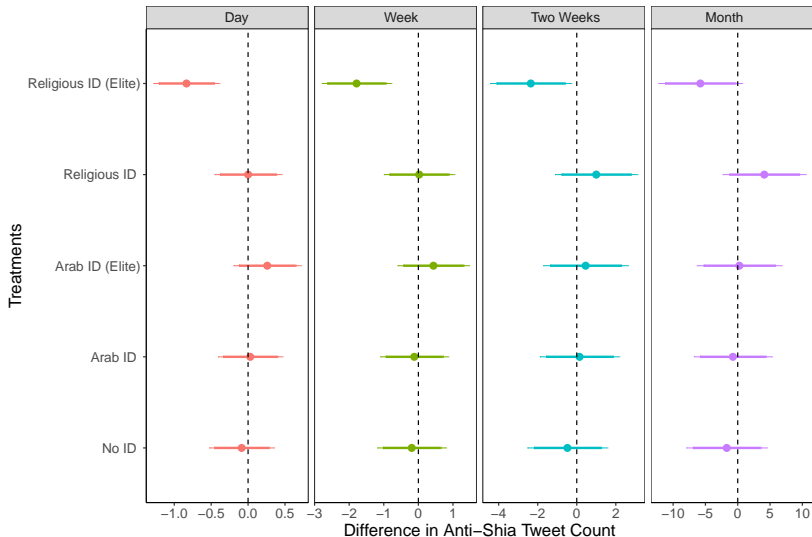Table 2: Effect of Treatment on Volume of Anti-Shia Tweets (Median or Fewer Follower Subset)

|                      | Difference in Anti-Shiea Tweets | | | |
|----------------------|-------------|-------------|-------------|-------------|
|                      | One Day     | One Week    | Two Weeks   | One Month   |
|                      | (1)         | (2)         | (3)         | (4)         |
| Arab ID              | −0.271      | −0.061      | −0.727      | −0.838      |
|                      | (0.405)     | (0.974)     | (1.504)     | (3.518)     |
|                      |             |             |             |             |
| Religious ID         | −0.450      | −0.384      | −0.637      | 3.316       |
|                      | (0.411)     | (0.990)     | (1.527)     | (3.614)     |
|                      |             |             |             |             |
| Arab ID (elite)      | 0.052       | −0.541      | −1.614      | −0.806      |
|                      | (0.398)     | (0.960)     | (1.490)     | (3.527)     |
|                      |             |             |             |             |
| Religious ID (elite) | −1.662***   | −2.086**    | −3.630**    | −8.441**    |
|                      | (0.404)     | (0.974)     | (1.501)     | (3.573)     |
|                      |             |             |             |             |
| No ID                | −0.620      | −0.999      | −2.318      | −2.751      |
|                      | (0.392)     | (0.946)     | (1.466)     | (3.494)     |
|                      |             |             |             |             |
| Constant             | 0.357       | 0.691       | 1.840       | 2.238       |
|                      | (0.311)     | (0.752)     | (1.180)     | (2.817)     |
| Observations         | 477         | 473         | 461         | 403         |
| $R^2$                | 0.058       | 0.016       | 0.020       | 0.037       |
| Adjusted $R^2$       | 0.048       | 0.005       | 0.009       | 0.025       |
| *Note:*              |             |             | *$p<0.1$; **$p<0.05$; ***$p<0.01$ | | |

# 4. Robustness Checks (Network Saturation - Low)



Effect of Treatment on Volume of Anti–Shia Tweets (Median or Less Saturn

# 5. Regression Table, Low Anti-Shia Network Saturation

Table 3: Effect of Treatment on Volume of Anti-Shia Tweets (Median or Less Saturnated Network Subset)
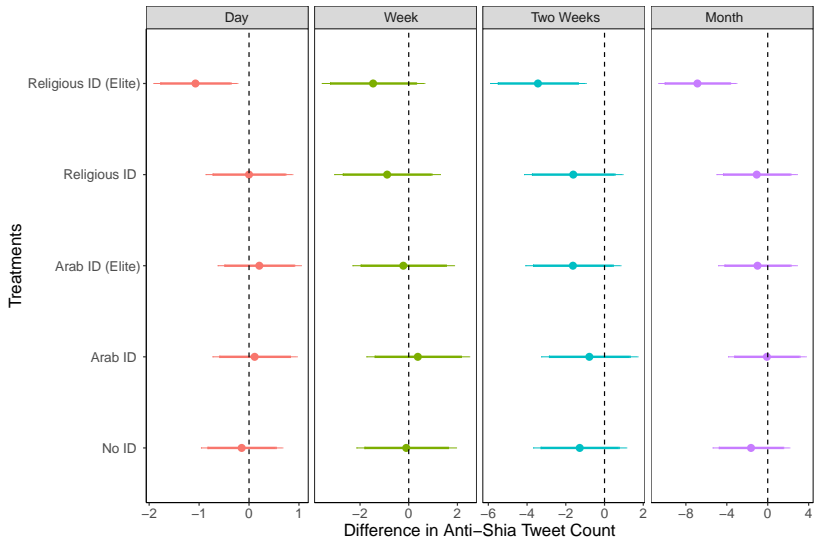
|  | Difference in Anti-Shiea Tweets | | | |
|  | One Day | One Week | Two Weeks | One Month |
|  | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| Arab ID | 0.029 | −0.118 | 0.144 | −0.738 |
|  | (0.223) | (0.501) | (1.037) | (3.084) |
| Religious ID | 0.001 | 0.023 | 0.997 | 4.109 |
|  | (0.231) | (0.520) | (1.078) | (3.279) |
| Arab ID (elite) | 0.260 | 0.436 | 0.453 | 0.248 |
|  | (0.233) | (0.527) | (1.106) | (3.352) |
| Religious ID (elite) | −0.834$^{***}$ | −1.786$^{***}$ | −2.357$^{**}$ | −5.789$^{*}$ |
|  | (0.228) | (0.512) | (1.061) | (3.307) |
| No ID | −0.087 | −0.192 | −0.479 | −1.700 |
|  | (0.224) | (0.506) | (1.043) | (3.181) |
| Constant | −0.041 | 0.311 | 0.729 | 1.789 |
|  | (0.164) | (0.369) | (0.770) | (2.338) |
| Observations | 476 | 472 | 457 | 371 |
| $R^2$ | 0.056 | 0.047 | 0.027 | 0.026 |
| Adjusted $R^2$ | 0.046 | 0.037 | 0.016 | 0.012 |

*Note:* $^{*}$p<0.1; $^{**}$p<0.05; $^{***}$p<0.01

# 6. Robustness Checks (Network Saturation - High)



Effect of Treatment on Volume of Anti–Shia Tweets (Median or Greater Sat...

Table 4: Effect of Treatment on Volume of Anti-Shia Tweets (Median or Greater Saturnated Network Subset)

|  | Difference in Anti-Shiea Tweets | | | |
|  | One Day | One Week | Two Weeks | One Month |
|  | (1) | (2) | (3) | (4) |
|---|---|---|---|---|
| Arab ID | 0.113 | 0.374 | $-0.783$ | $-0.079$ |
|  | (0.430) | (1.077) | (1.269) | (1.938) |
| Religious ID | $-0.0002$ | $-0.886$ | $-1.614$ | $-1.075$ |
|  | (0.443) | (1.108) | (1.298) | (2.003) |
| Arab ID (elite) | 0.206 | $-0.223$ | $-1.632$ | $-0.999$ |
|  | (0.425) | (1.064) | (1.253) | (1.963) |
| Religious ID (elite) | $-1.073^{**}$ | $-1.464$ | $-3.439^{***}$ | $-6.874^{***}$ |
|  | (0.428) | (1.074) | (1.259) | (1.943) |
| No ID | $-0.147$ | $-0.102$ | $-1.281$ | $-1.634$ |
|  | (0.416) | (1.044) | (1.226) | (1.912) |
| Constant | 0.085 | 0.281 | $2.036^{**}$ | 1.848 |
|  | (0.327) | (0.825) | (0.974) | (1.537) |
| Observations | 476 | 472 | 465 | 424 |
| $R^2$ | 0.029 | 0.010 | 0.020 | 0.051 |
| Adjusted $R^2$ | 0.019 | $-0.001$ | 0.009 | 0.040 |

*Note:*                                                           $^{*}p<0.1$; $^{**}p<0.05$; $^{***}p<0.01$