**Methods**

**Sample and Data**

This study uses an online survey dataset fielded by Qualtrics in 2021 (May 10-17). The survey was designed to study the social aspects of news consumption (*N* = 932). It is based on samples of the U.S. adult population, and it employs quotas for age, gender, race, and census region based on population parameters from the U.S. Census Bureau’s 2016 American Community Survey (ACS). The cooperation rate was approximately 70%. Data were filtered by Facebook use and available data from the name generators, resulting in analytic sample size of *n* = 404. For analyses involving the name generator variables, the data were transformed into a “long” version (*n* = 1,114).

**Measures**

***Cross-Cutting Exposure***

The study measures *cross-cutting exposure* in two ways. First, respondents were asked two general questions about how often they encounter news or public affairs on Facebook that (a) disagrees with their political views and (b) agrees with their political views (1 = Never, 5 = Several times a day). The agreement item was subtracted from the disagreement item to form a cross-cutting index. Second, in the name generator section of the survey, respondents were asked whether their political views are the same, somewhat different, or very different to the person they named (1 = Much the same, 5 = Very different). This question was repeated for each named person, and the three items were combined listwise to create the final variable.

***Engagement***

Likewise, *news engagement* was measured in two ways. First, respondents were asked four general questions about how often they engage in specific news-related behaviors on Facebook, including clicking, scanning, reading, and seeking out additional information. These items were measured on 5-point scales (1 = Never, 5 = Several times a day), and they were combined to create the final variable. Second, in the name generator section of the survey, respondents were asked whether they typically engage in each of seven behaviors (0 = No, 1 = Yes, occasionally, 2 = Yes, often) when the person they named posts on Facebook. These questions were repeated for each named person. To create the final variable, the items were first combined for each name, and the resulting three scales were then combined listwise.

***Outcomes***

The study includes six outcomes, three of which were measured in the general portion of the survey and three of which were measured in the name generator portion. *Social connectedness* was measured using Facebook connectedness scale (Grieve et al., 2013), which employs 5-point Likert scales (1 = Strongly disagree, 5 = Strongly agree). *Community belongingness* is based on items in which respondents indicate how solidly they feel they belong (1 = Not at all, 5 = A great deal) in their online and offline communities (Toikko & Pehkonen, 2018). Social trust is measured with three items. The first is measured on a semantic differential scales asking respondents whether, in general, most people can be trusted (7) or whether you can’t be too careful in dealing with people (1). The second and third questions rely on 5-point Likert scales (1 = None at all/Never, 5 = A great deal/Always), and asked respondents whether they trust people they first meet and whether they typically trust the people they know. These items were standardized (*M =* 0, *SD* = 1) and combined.

The name generator portion included measures of *perceived similarity*, *liking*, and *closeness*. The perceived similarity variable was measured by asking respondents how much they have in common with the person they named in the survey, aside from politics (1 = None at all, 5 = A great deal). Liking was measured by asking how much they like the person they named (1 = Dislike a great deal, 5 = Like a great deal). Closeness was measured with the self-in-other scale—a visual measure featuring a series of overlapping circles (1 = No overlap, 7 = Near complete overlap), with more overlap indicator a closer relationship. These three questions were repeated for each person named in the survey, and the answers were combined listwise to create the final variables.

***Controls***

The study includes demographic controls, including *age*, *gender* (1 = female), *race* (1 = person of color), *education* (1 = No high school diploma, 7 = post-graduate degree), and *income* (1 = < $15,000 per year, 8 = > $150,000 per year). Additionally, the study controls for *Facebook use frequency* (1 = Less than 30 minutes per day, 6 = More than 3 hours per day), *network size* (1 = Less than 50, 6 = More than 2,000), and *network diversity* (previously validated index of 22 binary items asking whether respondents know people who work in various occupations). See Table 1 for descriptive statistics.

**Plan of Analysis**

The analysis unfolds in four stages. First, we estimate the frequency of cross-cutting exposure using a series of *t*-tests and χ2-tests. Second, we test the relationships between cross-cutting exposure and the outcomes using ordinary least squares (OLS) regression and multi-level modeling (MLM). Third, we test the relationship between cross-cutting exposure and news engagement with correlations and ANOVA. Finally, we test the interactions between cross-cutting exposure and engagement with OLS and MLM.

**Results**

First, we assessed the extent of cross-cutting exposure in reported news use with descriptive statistics, *t*-tests, and χ2-tests. The mean of the general cross-cutting exposure variable is *M* = -0.18 (*SD* = 1.18), and the mean of the name generator variable is *M* = -0.41 (*SD* = 1.44). Zero is the midpoint on the scales for both measures, and the negative means indicate that people report more like-minded exposure than cross-cutting exposure (see Figure 1). One-sample *t*-tests confirm that these means are significantly below the scale midpoints. For the general measure, the test statistic is *t* (403) = -3.00 (*p* < .01); for the name generator measure, it is *t* (1113) = -9.47 (*p* < .001). These differences amount to approximately 4% and 8% of the respective scales. For the name generator measure, it is also worth looking at how many names respondents reported were like-minded versus cross-cutting (see Figure 2). Respondents named 1.99 times more like-minded posters (634, in total, or 57%) than cross-cutting posters (319, in total, or 29%), and this difference is statistically significant with a test statistic of χ2 (1) = 72.51 (*p* < .001). The remaining names were reported as neutral (161, or 14%).

Second, we tested the relationship between cross-cutting exposure and the outcome variables (see Table 2). The coefficients for the general outcomes are relatively small, but two out of three are statistically significant. All coefficients are negative, indicating that the outcomes are more likely to be related to like-minded exposure rather than cross-cutting exposure (see Figure 3). For social connectedness, the effect is β = -0.05 (*SE =* 0.02, *p* < .05). For community belongingness, it is β = -0.06 (*SE =* 0.03, *n.s.*). Finally, for social trust, it is β = -0.08 (*SE =* 0.02, *p* < .001). Larger negative effects are observed for the name generator outcomes, with the largest being for perceived similarity, which has an effect of β = -0.43 (*SE =* 0.02, *p* < .001), followed by closeness, with an effect of β = -0.48 (*SE* = 0.04, *p* < .001). The effect for liking is the smallest of the three, with a coefficient of β = -0.27 (*SE =* 0.02, *p* < .001). These results support the idea that exposure to cross-cutting news on Facebook is negatively related to a variety of interpersonal outcomes relevant for the formation and maintenance of community.

Third, we evaluated the strength of the relationship between cross-cutting exposure and news engagement. The two general variables have a weak negative correlation (*r* = -.16, *p* < .001), while the relationship between the two name generator variables is stronger (*r* = -.53, *p* < .001). These results suggest that people tend to engage more with like-minded content than they do with cross-cutting content. To confirm this finding, we performed an ANOVA with the name generator measures, treating the engagement variable as the outcome and the count measure of cross-cutting exposure as a categorical factor (see Figure 4). Results show a significant difference between the like-minded names and the neutral and cross-cutting names. The omnibus test is statistically significant with *F* (2, 1111) = 206.70, *p* < .001. Meanwhile, Tukey HSD pairwise comparisons show that the mean engagement in the like-minded category (*M*  = 2.27) is significantly higher (*p* < .001) than the means in the neutral (*M* = 1.64) and cross-cutting (*M* = 1.63) categories, which are not significantly different from one another. In all, these results confirm that people report higher levels of engagement with like-minded news posters.

Finally, we tested whether news engagement moderates the above relationships. Only two of the six interactions we tested were statistically significant. For social trust, the interaction coefficient is β = 0.07 (*SE =* 0.03, *p* < .05); for perceived similarity, it is β = 0.09 (*SE =* 0.04, *p* < .01). Both of these are positive, indicating that the negative effect of cross-cutting exposure is weakest at the highest levels of engagement (see Figures 5 and 6). In all, these results suggest that engagement may counteract the negative effects of cross-cutting exposure.

**References**

Grieve, R., Indian, M., Witteveen, K., Tolan, G. A., & Marrington, J. (2013). Face-to-face or Facebook: Can social connectedness be derived online? *Computers in Human Behavior, 29*, 604-609.

Toikko, T., & Pehkonen, A. (2018). Community belongingness and subjective well-being among unemployed people in a Finnish community. *International Journal of Sociology and Social Policy*.

**List of Tables and Figures**

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| --- | --- | --- | --- | --- | --- |
| Table 1  *Descriptive Statistics* |  |  |  |  |  |
| Variable | No. of Items | Scale | Cronbach’s Alpha | *M* (%) | *SD* |
| Cross-Cutting Exposure (wide) | 2 | -4-4 | NA (index) | -0.18 | 1.18 |
| Cross-Cutting Exposure (long) | 3 (1 per name) | -2-2 | .75 | -0.41 | 1.44 |
| Engagement (wide) | 4 | 1-5 | .91 | 3.05 | 1.16 |
| Engagement (long) | 21 (7 per name) | 1-3 | .96 | 2.00 | 0.60 |
| Social Connectedness | 20 | 1-5 | .74 | 3.29 | 0.53 |
| Community Belongingness | 6 | 1-5 | .90 | 3.32 | 1.03 |
| Social Trust | 3 | 1-5 and 1-7 (standardized) | .85 | 0.01 | 0.91 |
| Perceived Similarity | 3 (1 per name) | 1-5 | .80 | 3.46 | 1.27 |
| Liking | 3 (1 per name) | 1-5 | .74 | 4.19 | 0.97 |
| Closeness | 3 (1 per name) | 1-7 | .79 | 3.81 | 2.10 |
| Network Diversity | 22 | 0-1 | NA (index) | 9.55 | 6.09 |
| Network Size | 1 | 1-7 | NA | 3.91 | 1.41 |
| Facebook Use Frequency | 1 | 1-6 | NA | 3.39 | 1.65 |
| Income | 1 | 1-8 | NA | 4.43 | 2.28 |
| Education | 1 | 1-7 | NA | 4.54 | 1.86 |
| Race | 1 | 0-1 | NA | (44.8) | NA |
| Gender | 1 | 0-1 | NA | (50.3) | NA |
| Age | 1 | 18-87 | NA | 44.28 | 16.03 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Table 2  *Regression Results* | | | | | | |
|  | Social Connectedness | Community Belongingness | Social Trust | Perceived Similarity | Liking | Closeness |
| Variable | β (*SE*) | β (*SE*) | β (*SE*) | β (*SE*) | β (*SE*) | β (*SE*) |
| Intercept | 2.76 (0.15)\*\*\* | 2.34 (0.26)\*\*\* | -0.11 (0.24) | 2.78 (0.25)\*\*\* | 3.15 (0.20)\*\*\* | 2.36 (0.50)\*\*\* |
| Age | -0.00 (0.00) | -0.00 (0.00) | -0.01 (0.00)\* | 0.00 (0.00) | 0.01 (0.00)\*\*\* | 0.00 (0.01) |
| Gender (1 = Female) | 0.03 (0.06) | -0.37 (0.10)\*\*\* | -0.47 (0.09)\*\*\* | -0.15 (0.09) | -0.00 (0.08) | 0.13 (0.19) |
| Race (1 = Person of Color) | -0.06 (0.05) | -0.05 (0.09) | -0.19 (0.08)\* | 0.00 (0.09) | 0.15 (0.07)\* | 0.08 (0.18) |
| Education | 0.02 (0.02) | 0.08 (0.03)\* | 0.07 (0.03)\*\* | 0.01 (0.03) | 0.00 (0.02) | -0.02 (0.06) |
| Income | -0.00 (0.010 | 0.09 (0.02)\*\*\* | 0.03 (0.02) | 0.04 (0.02) | 0.02 (0.02) | 0.13 (0.05)\*\* |
| Facebook Use Frequency | 0.07 (0.02)\*\*\* | 0.10 (0.03)\*\*\* | 0.05 (0.03) | 0.01 (0.03) | -0.00 (0.00) | 0.04 (0.06) |
| Network Size | 0.06 (0.02)\*\* | 0.00 (0.04) | -0.02 (0.03) | 0.06 (0.04) | 0.01 (0.03) | 0.04 (0.07) |
| Network Diversity | -0.00 (0.00) | 0.03 (0.01)\*\*\* | 0.02 (0.01)\* | 0.01 (0.01) | 0.01 (0.01) | 0.02 (0.02) |
| **Cross-Cutting Exposure (wide)** | **-0.05 (0.02)\*** | **-0.06 (0.03)** | **-0.08 (0.03)\*** |  |  |  |
| **Cross-Cutting Exposure (long)** |  |  |  | **-0.43 (0.02)\*\*\*** | **-0.27 (0.02)\*\*\*** | **-0.48 (0.04)\*\*\*** |
| SD Intercept |  |  |  | 0.68 | 0.53 | 1.45 |
| SD Residual |  |  |  | 0.78 | 0.67 | 1.35 |
| *R*2 | 0.14 | 0.32 | 0.25 |  |  |  |
| *LL* |  |  |  | -1558.68 | -1364.29 | -2214.82 |
| *N* | 404 | 404 | 404 | 1114 | 1114 | 1114 |
| *Note:* Cell entries are estimates from ordinary least squares (OLS) regression models (Columns 2-4) and multilevel models (Columns 5-7).  \**p* < .05, \*\**p* < .01, \*\*\**p* < .001. | | | | | | |

Figure 1

*Sample Distributions of Cross-Cutting Exposure Measures*

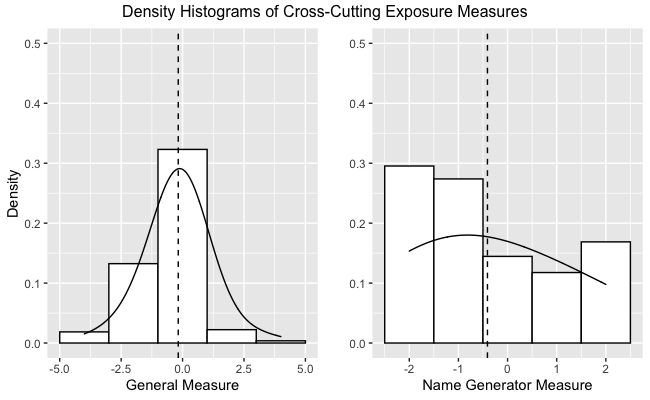


Figure 2

*Bar Plot of Counts for Cross-Cutting (CCE), Neutral (NEU), and Like-Minded (LME) Names in the Name Generator Portion of the Survey*

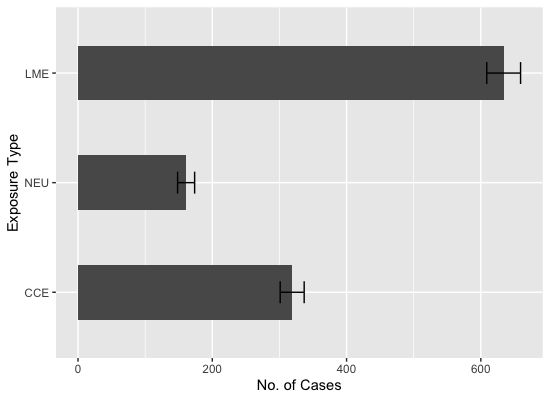


Figure 3

*Effect Estimates from Regression Models*

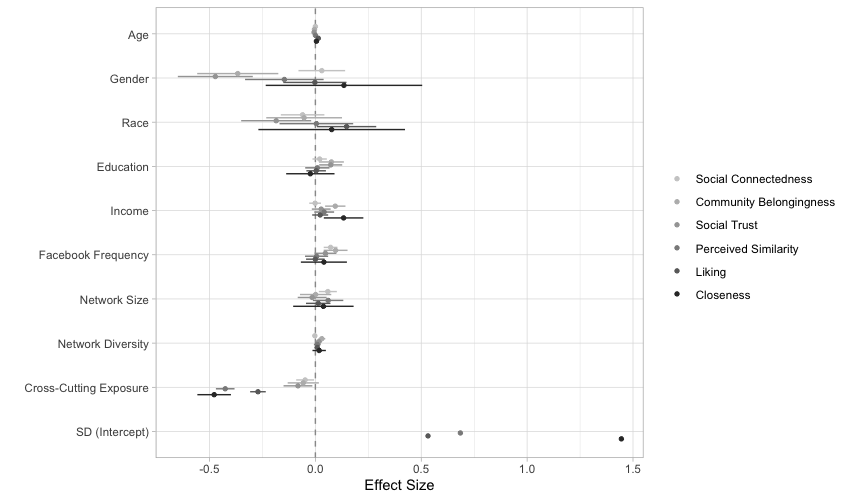


Figure 4

*Box Plot of Engagement by Exposure Type (CCE: Cross-Cutting Exposure; NEU: Neutral; LME: Like-Minded Exposure)*

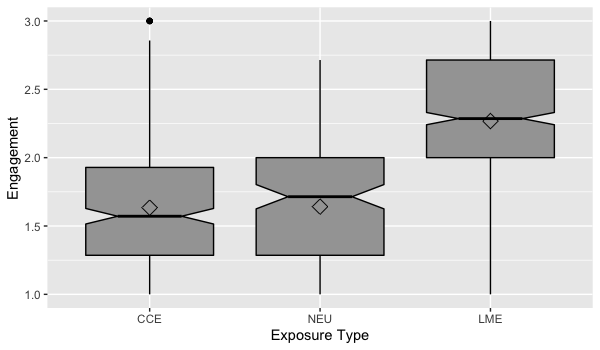


Figure 5

*Relationship between Cross-Cutting Exposure and Social Trust at Low, Medium, and High Levels of News Engagement*

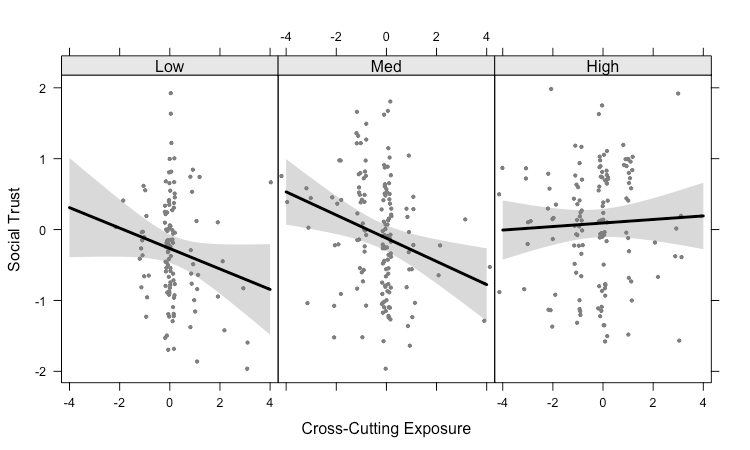


Figure 6

*Conditional Relationship between Cross-Cutting Exposure and Perceived Similarity at Low, Medium, and High Levels of News Engagement*

