Exposure to Difference on Facebook, Trust, and Political Knowledge

Toby Hopp, Patrick Ferrucci, Jolene Fisher & Chris J. Vargo

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Abstract: Building off of literatures in the areas of network heterogeneity, oppositional networks, cross-cutting exposure, incidental information exposure, and trust, we suggested that Facebook networks characterized by inclusion of people different from the self have the potential to facilitate the inflow of diverse and attitudinally-dissonant information, and, as such, have potential for political knowledge obtainment. We further theorized that this relationship would be conditioned on forms of social and institutional trust that serve as important attention- and elaboration-inducing cues. The results generally supported these contentions, indicating that the relationship between maintenance of Facebook networks comprised of people perceived to be different than the self and political knowledge was moderated by social trust, trust in knowledge-producing institutions, and news trust. Subsequent analyses suggested that the moderating effects of news trust on the relationship between ego-network difference and political knowledge may be further conditioned on political ideology.

Keywords: Political Knowledge, Incidental Exposure, Trust
Exposure to Difference on Facebook, Trust, and Political Knowledge

As audience behaviors veer away from the purposeful, deliberate, and regular consumption of news (Gil de Zúñiga & Diehl, 2019), scholars have increasingly focused on how incidental and ambient interactions with news and user-generated political content are related to democratic and political outcomes (e.g., Oeldorf-Hirsch, 2018; Weeks, Lane, Kim, Lee, & Kwak, 2017). Such focus has been spurred in large part by the emergence and diffusion of online social networking platforms where users have the theoretical ability to construct networks comprised of those different from the self (Bakshy, Messing, & Adamic, 2015), and where information inflows tend to be complex amalgams of socially and institutionally produced information (Thorson, Cotter, Medeiros, & Pak, 2019). This line of inquiry is set against a broader backdrop of declining levels of trust in traditional news institutions, institutions of knowledge production, and, in some cases, social others (e.g., Edelman, 2018; Pew, 2019a). When trust in and engagement with traditional institutions of knowledge production is in decline, and when social trust seems increasingly fragmented along partisan and demographic lines, when, where, and how does political knowledge acquisition take place?

In light of these questions, this study explored the degree to which the maintenance of Facebook networks comprised of people different from the self encouraged the obtainment of political knowledge. Building on prior research (e.g., Lee & Kim, 2017, Himelboim, Larisey, Tinkham, & Sweetser, 2012), we suggested that Facebook networks characterized by inclusion of people different from the self have the potential to facilitate the inflow of diverse and sometimes attitudinally dissonant political and social information. Moreover, because research shows that people can learn from incidental, digitally-mediated exposure to political information (e.g., Lu & Lee, 2019; Tewksbury, Weaver, & Maddex, 2001), we further suggested that exposure to information emanating from associations with those different from the self should
result in enhanced political learning. However, we theorized that this relationship is conditioned on forms of social and institutional trust that serve as important attention and elaboration-inducing cues (Himelboim et al., 2012; Tsfati & Capella, 2003; Sterrett et al., 2019).

Such investigation contributes to the literature in several critical ways. First, given calls for further conceptual clarification of measures pertaining to exposure to diverse viewpoints (Hutchens, Eveland, Morey, & Sokhey, 2018), this study drew upon prior theorizing in the areas of network heterogeneity, oppositional networks, and cross-cutting exposure to present a measure of Facebook-based ego-network difference, or the degree to which an individual assembles and maintains Facebook networks comprised of people different from the self. In contrast to some prior approaches, this concept takes into account the affordances and patterns of use associated with social networking sites such as Facebook. Second, this study investigated the degree to which ego-network difference is associated with political-knowledge obtainment. Our focus on political knowledge reflects the fact that democratic enactment fundamentally relies on informed citizens. Moreover, such inquiry into political knowledge seems especially timely given concerns over contemporary society’s so-called post-truth status (e.g., Waisbord, 2018). Third, political outcomes are complex. This fact leaves ample reason to believe that the relationship between exposure to political and social difference and positive democratic outcomes may be conditioned on individual- and social-level variables. In this study, we suggest that trust—a critical variable that affects all social interactions (e.g., Simmel, 1950)—may play an instrumental role in determining the conditions under which people do and do not learn from those different from the self. Finally, the present study’s focus on Facebook is important. Facebook is one of the most accessed websites in America (Zephoria, 2018), the most popular
Political knowledge can be defined as “the various bits of information about politics that citizens hold” (Delli Carpini & Keeter, 1993, p. 1179). A politically knowledgeable citizenry is an important part of a healthy democracy (Galston, 2001; Kleinberg & Lau, 2019). Heightened levels of political knowledge have previously been associated with factors such as internal political efficacy, political discussion frequency, civic engagement, ideological constraint, involvement with political campaigns, and voting behaviors (e.g., Dimitrova, Shehata, Strömbäck, & Nord, 2014; Galston, 2001; Kleinberg & Lau, 2019; Nicholson, Pantoja, & Segura, 2006; Reichert, 2016). For these reasons, “general political knowledge is one of the most valuable resources that any citizen in a democracy can possess” and a “central variable in American politics research” (Kleinberg & Lau, 2019, p. 338).

Ego-Network Difference

For the purposes of this work, ego-network difference can be understood as the degree to which a person (the ego) maintains digital social networks (here Facebook) comprised of actors (or alters) that are different from the self. Our concept of ego-network difference is largely derived from the inter-related literatures on network heterogeneity (e.g., McLeod et al., 1999), oppositional networks (e.g., Bello, 2012), and cross-cutting exposure (e.g., Mutz, 2002). That said, the present construct, which is digitally oriented and focuses specifically on difference relative to the ego, can be distinguished from traditional approaches to network heterogeneity that speak to the degree to which “a person’s local discussion network is composed of
participants who are in varying degrees dissimilar from one another in terms of factors such as political ideology, demographic features, economic status, and cultural background (McLeod et al., 1999, p. 747; emphasis added). For its part, the oppositional network concept speaks to “divergence between the preference of the main respondent and all other discussants in the network” (Nir, 2011, p. 675; emphasis added). The present construct acknowledges the reality that networks assembled on platforms such as Facebook are unlikely to ever truly be oppositional in nature (and, indeed, generally trend toward homophily), but may instead encompass varying degrees of dissimilarity and, in some cases, disagreement (Lupton & Thornton, 2017). Likewise, ego-network difference can be differentiated from cross-cutting exposure, which is typically concerned with an ego’s nonincidental exposure to political commentary that is attitudinally dissonant (Matthes et al., 2019). In this way, the conceptualization employed here can also be distinguished from prior studies in regard to its generalized emphasis on the assembly of online social networks rather than on active discussion networks. In other words, instead of focusing on discussion frequency (a factor that tends to be a central interest in the network heterogeneity literature), the ego-difference concept speaks to the simple formation of a network inclusive of ego-different alters. Thus, the current measure of ego-network difference reflects observed audience shifts “toward the socially mediated, multi-platform media environment” (Gil de Zúñiga & Diehl, 2019, p.1253) and, therein, a perhaps increasing reliance on the incidental knowledge-gain potentials afforded by online network assemblages.

**Facebook Ego-Network Difference and Incidental News and Information Exposure**

Incidental information exposure pertains to scenarios “where individuals encounter certain information (e.g., political news) without the intention to seek out or in the absence of instructions” (Lu & Lee, 2019, p. 249). Unlike deliberate information exposure, incidental exposure is not guided by instrumental information-seeking motivations. Incidental information
exposure is not, strictly speaking, an online phenomenon. However, as pointed out by Tewksbury et al. (2001) nearly 20 years ago, the Internet’s affordances greatly increase the frequency with which people unintentionally stumble upon news and related information. This realization, according to Boczkowski, Mitchelstein and Matassi (2018) “has triggered more interest on incidental news due to the realization of an uptake in exposure to current events information as a by-product of using these [Internet-based social media] platforms” (p. 3525). Indeed, the topic of online-specific incidental information exposure has received frequent scholarly attention in recent years (e.g., Ardèvol-Abreu, Diehl, & Gil de Zúñiga, 2019; Gil de Zúñiga, & Diehl, 2019; Lu & Lee, 2019; Oeldorf-Hirsch, 2018; Weeks et al., 2017).

As it pertains to the present study, research provides evidence that exposure to those different from the self helps encourage incidental political information exposure. For instance, Goyanes’ (2019) summary of the topic remarked that “the network heterogeneity allowed by social media positively correlates with incidental exposure to news in the online environment…especially when one’s social network is more heterogeneous than homogeneous” (p. 5). Perhaps, more specifically, a 2018 study conducted by Ahmadi and Wohn found that those with more diverse networks were indeed statistically more likely to incidentally consume information online. In another example, Lee and Kim’s (2017) study assessed the degree to which participants possessed heterogeneous social media networks (i.e., networks characterized by frequent communication with a diversity of alters) and social media networks comprised of weak ties (i.e., the percentage of social network friends not considered close by respondents) and found that those with heterogeneous social media networks and those with social media networks characterized by weak-tie maintenance were increasingly likely to report being exposed to news on an incidental basis.
Notably, while a large percentage of the incidental exposure literature has focused specifically on news, operational approaches used in many of these studies acknowledge incidental exposure processes result in exposure to a wide range of institutional content (e.g., professionally produced news material) and user-generated commentary and opinion (e.g., Heiss & Matthes, 2019; Lu & Lee, 2018; Weeks et al., 2017). Moreover, political information consumed on an incidental basis can be counter-attitudinal, but may also be information that the ego was not aware of or on topics in which the ego does not have clarified opinions on (e.g., Boczkowksi et al., 2018).

**Ego-Network Difference, Incidental Information Exposure and Political Knowledge**

Above, we argued that the maintenance of social-media based networks comprised of those different from the self is likely to encourage non-purposeful exposure to a wide array of political content. Building upon this, we next argue that one important consequence of such exposure is enhanced factual knowledge of political and social events. Prior scholarly work on social capital, for instance, suggests that the maintenance of weak ties allows individuals to construct wider and broader nets for information collection, and that such information capture aids factual knowledge levels (e.g., Granovetter, 1983). In a similar vein, Brundidge (2010) noted that “exposure to political difference has several tangible benefits, including accuracy in people's perception of the distribution of public opinion” and “the facilitation of certain forms of political learning” (p. 682).

Despite the seemingly straightforward theoretical relationship between exposure to differing perspectives and political knowledge obtainment, empirical research testing this link has yielded mixed results. A study on exposure to, and engagement with, offline political disagreement conducted by Eveland and Hively (2009) failed to identify a relationship between discussing politics with attitudinally-dissonant others and levels of factual political knowledge.
Conversely, Scheufele et al. (2006) found that people who maintained diverse interpersonal offline discussion networks not only scored higher on a political knowledge measure, but were more likely to consume the news and participate politically. Jung, Kim, & Gil de Zúñiga (2011) found a positive association between a measure tapping into offline discussion with a wide range of alters (including those attitudinally-dissonant and ethnically diverse) and a brief measure of factual political knowledge.

Several factors could contribute to these inconsistent findings. First, the aforementioned studies all focused somewhat specifically on discussion. While there are numerous reasons to believe that political discussion helps encourage political knowledge, these reasons tend to centrally cohere around conversation’s potential to stimulate political information seeking and related exposure behaviors (e.g., Eveland, 2004; Ferrucci, Hopp & Vargo, 2020). In social media environments, it thus seems that thinking specifically about exposure to those different than the self might serve as a more direct and, ultimately, reliable predictor of political knowledge. Second, as the Internet continues to re-shape how Americans engage politically, it stands to reason that research conducted in face-to-face or otherwise offline contexts may not directly or reliably hold in online scenarios, which are governed by different social and technical structures of interaction. Finally, with some limited, albeit important exceptions, researchers have generally not explored potential moderating factors.

Exploration of conditioning variables might be especially important in incidental exposure scenarios. Incidental inflows of information simply represent an opportunity for knowledge acquisition (Fletcher & Nielsen, 2018). For the knowledge-building potential of such exposure to be realized, users must notice, pay attention to, and, in some cases, elaborate upon information appearing in their newsfeeds. Importantly, attention can be distinguished from
exposure, and refers specifically to “the amount of mental focus given to the news or even to particular types of stories (such as campaign stories) in the news” (Eveland, Shah, & Kwak, 2003, p. 363). Elaboration, for its part, “moves one step beyond attention to represent the use of news information to make cognitive connections to past experience and prior knowledge and to derive new implications from news content” (Eveland et al., 2003, p. 363). Prior work on information exposure and political learning suggests that both low-resource behaviors such as glancing at/noticing content and comparatively high-resource behaviors such as depth reading of and elaboration on information content may support knowledge-gain (e.g., Bode, 2016; Eveland et al., 2003; Lee & Kim, 2017). In the present case, we suggest that incidental exposure to varied information may open a number of learning pathways ranging from simply making note of an interesting fact of user comment to clicking on news hyperlinks and engaging in close reading and cognitive elaboration.

**Trust and Knowledge Obtainment from Ego-Different Facebook Networks**

What factors might aid the conversion of incidental knowledge-gain opportunities into attention, elaboration, and, ultimately, knowledge obtainment? While there are many potentially important factors, trust may be especially critical. Trust is fundamentally necessary for the completion of social interactions at various levels and to the overall functioning of society (e.g., Simmel, 1950; Twenge, Campbell, & Carter, 2014). There are two entities necessary for a trusting relationship: the entity that places trust and the entity that receives trust (Tsfati & Capella, 2003). Research in the social sciences has, however, often conceptualized trust as a perception held by an individual relative to external entities.

Trusted sources of information are understood as communicators of relevant information (Doney & Cannon, 1997). According to Tsfati and Capella (2003), people will choose to focus cognitive energies on “the stimuli for which the expected benefits are high relative to the costs”
In this way, the perception that an external entity is trustworthy serves as an orienting cue and communicates that attention to and engagement is likely to be worth resource expenditure (e.g., Doney & Cannon, 1997; Metzger & Flanagan, 2013). Trust may be an especially important factor on social networking sites, which are a complex and interacting bricolage of social and institutional bits of information. Indeed, according to Sterrett et al. (2019), when people evaluate news and related information in social media contexts, they use trust in the information sharer and trust in the source of shared information to guide attentional patterns. Accordingly, we suggest that generalized trust in social others and trust in institutional information sources both play important roles in understanding the linkage between ego-network difference and knowledge acquisition.

**Social Trust**

Definitions of social trust generally center on feelings of social mutuality, reciprocity, and the expectancy that social others can be relied upon to do the right thing (e.g., Putnam, 1993; Yamagishi, 1986). Feelings of trust encourage perceptions of mutuality and positive attitudes toward others (Putnam, 1993). Himelboim et al. (2012) remarked that high trust results in a “standing decision” to give a wider array of social others “the benefit of the doubt” (p. 96). Reticence to assume negative intentions on the part of a network alter results in an increased willingness to listen/pay attention to external political opinions and arguments. As a result, there is reason to believe that the presence of social trust can, potentially, mitigate the tendency to selectively expose one’s self only to agreeable people or information. Thus, we suggest that those with high levels of social trust are comparatively less likely to aggressively filter out attitudinally incongruent alters and, as such, may be more likely to engage with (e.g., click on, read, or think about) attitudinally inconsistent informational inflows on Facebook. Notably, in
the context of Facebook, manual filtering actions can take on any number of forms, ranging from simply ignoring content or users to blocking, muting, or, in extreme cases, unfriending a connection that is deemed too annoying, obnoxious, or upsetting (e.g., Bode, Vraga, & Troller-Renfree, 2017; Yang, Barnidge, & Rojas, 2017).

Notably, the contention here isn’t that the presence of social trust mitigates all forms of social filtering or that all viewpoints expressed within a given network will be given substantial consideration. Instead, we simply propose that trust enables users to perceive a wider array of alters as reasonable, and, as such, that attentional—and presumably elaborative—resources will, on average, be allocated to a broader corpus of socially-transmitted information, ultimately resulting in enhanced political knowledge. This assertion is informed by prior research that suggests that social trust helps people override partisan biases (Carlin & Love, 2013) and cultural differences (Ryzhova, 2017), that people are more likely to engage with online information emanating from those they trust (Sterrett et al., 2019), and that social and interpersonal trust plays an important role in facilitating knowledge acquisition and dissemination (Andrews & Delahay, 2000; Levin & Cross, 2004).

To summarize, the foregoing literature suggests that those high in social trust are comparatively more likely to pay attention to information emanating from a body of dissimilar others. Such non-particularized attentional patterns should, we predict, allow those high in social trust to better take advantage of the learning potential of the incidental information inflows afforded by ego-different Facebook networks, ultimately resulting in higher levels of political knowledge.

**Hypothesis 1:** Social trust will moderate the relationship between Facebook ego-network difference and political knowledge such that the relationship between the latter two variables will be positive and increasingly strong at higher levels of social trust.
Institutional Trust

We focus on two institutions critical to the construction and dissemination of knowledge: (1) institutions that produce scientific and policy knowledge (e.g., organizations, universities, scientific organizations, intergovernmental organizations such as the United Nations, and charitable organizations) and (2) news organizations that both produce political/social knowledge and, perhaps most importantly, disseminate it to the citizenry. Taken together, these institutions serve as epistemic authorities within the public sphere (Kreiss, 2017). According to Miller (2007), such epistemic authorities are assumed to have the capacity and capability to generate the knowledge necessary to respond effectively to societal- and civilization-level problems. From a normative perspective, traditional institutional knowledge producers are generally nonpartisan in nature. While those within the organization may have political leanings and certain segments of the citizenry might infer the presence of partisan bias, informational outputs normatively seek to be objective (e.g., McNair, 1998).

A lack of trust in institutional sources of authority creates challenges to the functioning of society. Citizens rely on institutional bodies to generate the knowledge necessary for navigating a world rife with social and political complexity (Ardèvol-Abreu & Gil de Zúñiga, 2017). Prior research has linked trust in institutional sources to information consumption decisions. In specific regards to the mainstream press, research has shown that trust in the news has potentially critical implications for its consumption (e.g., Kalogeropoulos, Suiter, Udris, & Eisenegger, 2019; Tsfati & Ariely, 2014; Tsfati & Capella, 2003). While people may consume news content from sources they do not trust on a conditional basis (Tsfati & Capella, 2005), trust in the media is, generally speaking, an important antecedent to habitual news consumption (Tsfati & Capella, 2003). For instance, a longitudinal study conducted by Ardèvol-Abreu and Gil de Zúñiga (2017)
found that perceptions of news media bias were negatively associated with traditional news consumption and the use of social media for the specific purposes of news acquisition. A study conducted by Fletcher and Park (2017) found that people with low trust in the news media were increasingly likely to demonstrate a preference for non-mainstream media over more traditional sources of news information. According to the authors, such non-mainstream sources tend to be partisan in nature, potentially contributing a polarized and, therein, less objectively knowledgeable citizenry. Such assessment comports with recent research by Hopp, Ferrucci, and Vargo (2020) that provided evidence that people who do not trust the news media tend to spread false and hyper-partisan news-like information on social media. This finding was built, in large part, on the assumption that those who do not trust the mainstream news media will seek out alternative sources of information. Williams (2012) broke the concept of “media trust” into three categories: trust of news information, trust of those who report the news, and trust of new media corporations. The results of a series of regression analyses suggested that trust of news information and trust of news producers were especially important predictors of news attention; however, these effects varied across platform such that trust of news reporters was predictive of attention to newspapers and trust of news information was predictive of attention to television news. In their summary of the to-date literature on the relationship between news trust and news consumption, Strömbäck et al. (2020) noted that while the relationship between news trust and news attention and consumption may be situationally complex and is in need of further exploration, the mass communication literature broadly assumes “that levels of news media trust influences people’s news media use as well” (p. 7). And, of course, consumption of the news is a critical way that people gain political knowledge (Lecheler & de Vreese, 2017). Notably, while the foregoing commentary has predominantly focused on the “news,” we argue that trust in the
news and trust in knowledge-producing institutions will function in largely the same manner. The news is not produced in a vacuum. It is, instead, the end-product of a series of complex relationships between intertwined institutional entities (Compton & Benedetti, 2010).

To conclude, in the context of Facebook networks containing alters different from the ego, a synthesis of the literature suggests that people who have high levels of trust in the news and in knowledge-producing institutions may be disproportionally suited to take advantage of incidental, institutionally-produced information appearing in one’s newsfeed. This is because trust effectively serves as a heuristic that can be used to guide decisions regarding behavior and cognition (e.g., Doney & Cannon, 1997; Tsfati & Capella, 2003). Because consuming and thinking about institutionally-produced news and related information is associated with knowledge acquisition (e.g., Eveland, 2004; Lechler & de Vreese, 2017), high-trust users should demonstrate higher levels of overall political knowledge. Accordingly, we suggest that the relationship between ego-network difference and political knowledge is moderated by institutional trust levels:

**Hypothesis 2:** Trust in knowledge-producing institutions will moderate the relationship between Facebook ego-network difference and political knowledge such that the relationship between the latter two variables will be positive and increasingly strong at higher levels of trust in knowledge-producing institutions.

**Hypothesis 3:** News trust will moderate the relationship between Facebook ego-network difference and political knowledge such that the relationship between the latter two variables will be positive and increasingly strong at higher levels of news trust.

**Method**

Study recruitment was conducted by Qualtrics. A quota-based convenience sampling approach was employed. Weighted data taken from Pew Research’s (2018) Core Trends Survey was used to establish demographic estimates of the US-based Facebook-using population. Quotas were employed for age, education, income, biological sex, and racial/ethnic identification. To confirm that respondents were current/active Facebook users, we built a web application that verified
each respondent had created at least 50 content items on Facebook. To accomplish this, the following information was extracted from the Facebook application programming interface: `mobile_status_update`, `created_note`, `shared_story`, `created_event`, `wall_post`, `app_created_story`, `published_story`. If respondents had at least 50 posted bits of content, they were piped into the survey environment. Otherwise, they were not permitted to participate in the survey. Self-report and social media data were joined using an anonymous identification code that was assigned by the web application. We did not capture newsfeed information or friend information. The University of Colorado’s Institutional Review Board approved the project in June of 2018. The data collection period was July through September of 2018.

Measures

Focal variables.

Political knowledge. Political knowledge was measured using 10 items taken from Pew Research Center’s News IQ Quiz. These questions pertained to news/political issues. Consistent with prior research (Dimitrova, Shehata, Strömbäck, & Ward, 2014), each question had a time limit of 20 seconds. If a response was not entered at the end of the 20-second window, the survey proceeded to the next question. Each question had five response categories, including a “Don’t Know” option. None of the questions were forced response. Responses were coded as 0=correct answer not provided and 1=correct answer provided and summed.

Ego-network difference. Obtaining accurate estimates of within-network difference is a complex theoretical and methodological issue and exists as an ongoing area of scholarly exploration (e.g., Hutchens et al., 2018). In this study, we asked respondents to provide an estimate of the degree to which their Facebook network was comprised of people who are different from themselves in terms of political ideology, social and cultural background, and economic status. When seeking to measure network context, scholars must choose between
observed and perceived (i.e., self-reported) measures. In the present case, we measured the degree to which respondents perceived their network to be comprised of those different from the self. This approach is consistent with most prior work on discussion networks, which has tended to ask study participants to generally recollect the degree to which they were exposed to or communicated with various types of discussion partners (e.g., Eveland & Hively, 2009; Kwak et al., 2005; Scheufele et al., 2006). Our focus on perception may be especially important in the current context. In social media contexts, a wide array of filtering mechanisms play critical roles in determining what content appears in a user’s timeline (e.g., Bakshy et al., 2015; Bucher, 2017; Flaxman, Goel, & Rao, 2016; Thorson et al., 2019). In addition to the manual filtering mechanisms discussed above, platforms deploy algorithmic “guesses” of the types of content and voices that users are likely to desire. Finally, alter inactivity can mask within-network dissimilarity. By assessing the degree to which ego-network difference is perceived, this study sought to account for the mechanisms that may limit the inclusion of ego-different voices within a given social network. The ego-network difference scale was comprised of 5 questions, all on 7-point scales. In their original form, the questions were oriented such that higher scores indicated a greater degree of homogeneity; these items were subsequently recoded and collapsed into a single index.

**Social trust.** Social trust was measured using nine questions, all on 7-point scales, that assessed the degree to which respondents perceived people to be generally trustworthy. Items were taken from the American National Election Study (1964) and Yamagishi (1986).

**Trust in knowledge-producing institutions.** Trust in knowledge-producing institutions was assessed by asking respondents to indicate their levels of trust in universities, scientific
organizations, the United Nations, and charitable organizations. These items were all on seven-point scales where higher scores were indicative of higher levels of institutional trust.

**News trust.** Trust in the news was measured using 12 items (each on 7-point scales) from Kohring and Matthes’ (2007) news trust measure. These items were collapsed into a single composite measure.

Complete wording for the primary measures is provided in Appendix A. Descriptive statistics and correlations for the primary measures is provided in Table 1.

![Table 1 Here]

**Control variables.**

*Socio-demographic variables.* Age (years as of respondent’s last birthday), years of formal educational obtainment (1=1-5 years, 2=6-10 years, 3=11-15 years, 4=16-20 years, 5=21-25 years, 6=26 years or more), annual income (1=$0-$25,000, 2=$25,001-$50,000, 3=$50,001-$75,000, 4=$75,001-$100,000, 5=$100,001-$150,000, 6=$150,001-$200,000, 7=Greater than 200,000), biological sex (0=male, 1=female), and racial/ethnic identity (1=Non-Hispanic White/Caucasian, 2=Non-Hispanic Black/African-American, 3=Hispanic, 4=Asian/Asian-American, 5=A Racial/Ethnic Group Not Named/More than 1 Race) were measured. The racial/ethnic identity variable was coded into a dummy variable with Non-Hispanic White/Caucasian set as the contrast category.

*General political variables.* Political party affiliation was assessed by asking respondents if they were a democrat or leaned democrat, if they were a republican or leaned republican, if they were an independent, or if they were a member of another political party. We observed a very small number of other party members; as such, this category was combined with the independent category. These variables were then converted into dummy variables, with the democrat/lean democrat set as the contrast category. Conservatism was measured by asking a
single question about the respondent’s general political orientation (1 = very liberal, 11= very conservative). A measure of ideological extremity measure was formed by recoding the conservatism scale such that extreme scores on either end of the political spectrum were assigned higher scores (1=ideologically moderate, 6=ideologically extreme). Political interest was measured by asking respondents to assess the statement “I’m interested in politics” (1= strongly disagree, 7 = strongly agree). Political interest and political identity factors were especially important to account for as prior research shows that political knowledge tends to be higher among those highly interested in politics and those that identify as democrats/liberals (e.g., Cacciatore et al., 2018; Lecheler & de Vreese, 2017).

**Media consumption/use variables.** Prior research shows that habitual consumption of the news is associated with political knowledge (e.g., Lecheler & de Vreese, 2017). Because this study was concerned with incidental information exposure and political knowledge, we believed it critical to account for news consumption habits. To that end, the survey asked participants to describe their habitual/normal use (1=very infrequently, 7=very frequently) of the newspaper (hardcopy or online), of cable news, broadcast news, and news blogs. We also asked respondents to characterize the frequency with which they obtain the news on social media in general, and how frequently they specifically use Facebook to learn about political issues. Additionally, because prior research suggests that generalized (i.e., non-political) social media platform use may have implications for political knowledge (e.g., Cacciatore et al., 2018), we measured Facebook usage intensity by asking respondents to indicate how frequently they log into the site (1=very infrequently, 7=very frequently). Prior work suggests that knowledge acquisition in technological context might be influenced by self-efficacy beliefs (Wang, Shannon, & Ross, 2013); as such, Facebook self-efficacy was assessed using seven items (all on seven-point scales.
where higher scores indicate higher self-efficacy levels) tapping confidence in performing common tasks on Facebook.

**Political talk variables.** Political talk and expression is associated with political learning and knowledge (e.g., Eveland, 2004). Because this study was interested in *exposure* processes, we assessed political talk habits both generally (“I enjoy talking about politics with others”; 1=strongly disagree, 7=strongly agree) and on Facebook (“How often do you use Facebook to express your political views”; 1=very infrequently, 7=very frequently).

**Sample**

A total of 1,176 complete and valid responses were obtained. The average age of the sample was 42.63 years (SD=15.03 years). The median number of years of formal education was 11-15 years (M= 3.20, SD=1.06). The median reported income level was $25,001-$50,000 (M=2.95, SD=2.06). The sample skewed slightly female (55.3%). In terms of race, 60.1% identified as Non-Hispanic White/Caucasian, 13.9% identified as Non-Hispanic Black/African-American, 20.2% identified as Hispanic, 3.3% identified as Asian/Asian-American, and 2.5% identified with a racial/ethnic group not listed. The demographic breakdown of the sample was broadly consistent with the weighted Pew (2018) estimates of the demographic composition of the population of Facebook-using American adults in terms of age (56.7% 44 years or younger vs. 55.5% in Pew sample), education (33.5% with 4-year degree or higher vs. 33.3% in Pew sample), income (75.7% with an annual income of $75,000 or less vs. 64.2% in Pew sample), sex (55.3% female vs. 55.4% in Pew sample), and race (60.1% White/Caucasian vs. 61.6% in Pew sample). In terms of party identification, 45.0% of the sample identified as a democrat/lean democrat, 27.9% identified as a republican/lean republican, and 27.1% identified as an independent or with another party. The average score on the conservatism scale was 6.03 (SD=2.93) while the mean on the ideological extremity measure was 3.21 (SD=1.93). Across the
sample, political interest was high (M=5.23, SD=1.64). Descriptive statistics for the news and information consumptions variables were: read the news: M=3.97, SD=2.15; watch cable news: M=4.41, SD=2.15; watch broadcast news: M=4.73, SD=2.03; read news blogs: M=3.68, SD=2.08; check social media for news: M=4.52, SD=2.04; and use Facebook to learn about politics: M=3.90, SD=2.11. The sample was comprised of frequent Facebook users (M=5.79, SD=1.76) with high levels of platform self-efficacy (M=6.14, SD=1.11). Finally, the mean scores for the general and Facebook-specific political talk variables were 4.71 (SD=1.76) and 3.67 (SD=2.15).

Hypothesis Testing Strategy

To test Hypotheses 1-3, a series of ordinary least squares regression models were estimated. In all models, robust (HC3) standard errors were used. Model 1 evaluated the relationship between ego-network difference and political knowledge without the inclusion of any interaction terms. Models 2-4 were used to test Hypotheses 1-3. For all models, continuous predictors were centered at their scale means. Moderation effects were decomposed by visually plotting the slopes between Facebook ego-network difference and political knowledge at selected values of the trust variables and by examining the simple slope coefficient and significance values across the scale ranges of the trust variables. The R package jtools (Long, 2018) was instrumental in decomposition of interaction effects.

Results

Hypothesis Tests

As shown in Table 2, Model 1 indicated the presence of a positive and statistically significant relationship between Facebook ego-network difference and scores on the political knowledge measure, $b=0.22$, se=0.06, $p<.001$. However, as shown in Models 2-4, this relationship was conditioned on trust levels. In Model 2, the interaction term comprised of the product of
Facebook ego-network difference and social trust measures was significantly associated with political knowledge, $b=0.13$, $se=0.04$, $p<.01$. As Figure 1 shows, the slope describing the relationship between Facebook ego-network difference and political knowledge becomes increasingly steep at higher levels of social trust. Table 3 quantifies this effect. These results support Hypothesis 1.

Next, and as shown in Table 2, the interaction term comprised of Facebook ego-network difference and trust in knowledge-producing institutions was positively related to political knowledge, $b=0.12$, $se=0.04$, $p<.001$. Decomposition of this effect (Figure 1, Table 3) showed that the strength of the relationship between Facebook ego-network difference and political knowledge increased as a function of scores on the measure describing trust in knowledge-producing institutions. These findings supported Hypothesis 2.

Hypothesis 3 was also supported. Table 2 (Model 4) shows that that the interaction term comprised of the Facebook ego-network difference and news trust measures was significantly related to political knowledge, $b=0.09$, $se=0.04$, $p<.05$. Closer examination of the effect (Figure 1, Table 3) shows that as scores jointly increase on the Facebook ego-network difference and news trust measures, so too do scores on the political knowledge measure.

Follow-Up Analyses

Table 2 shows that conservatives were less likely than liberals to score highly on the political knowledge measure. While prior scholarly research does not provide enough information to inform specific predictions about the potential conditioning effects of ideology on the relationship between ego-network difference, trust, and political knowledge, recent public polling data has increasingly shown stark partisan and ideological differences in the degree to which...
which media and scientific organizations are trusted (e.g., Edelman, 2018; Gallup, 2019). Accordingly, we wondered if the interaction effects observed in this study might not be further conditioned on political ideology. To assess this, three additional OLS models were generated. These models explored the degree to which a three-way interaction between ego-network difference, trust, and political ideology might be present. All variables in Model 1 were included in these analyses.

We did not observe statistically significant three-way interactions in the models exploring the conditioning effects of conservatism for either the social trust model or the model focused on trust in knowledge-producing institutions. We did, however, identify a significant three-way interaction effect in the news trust model (Table 4). As seen in Figure 2 and in Table 5, among very liberal and moderate respondents, news trust positively amplified the relationship between Facebook ego-network difference and political knowledge. However, among very conservative respondents, trust in the news did not meaningfully influence the relationship between Facebook ego-network difference and political knowledge. Stated differently, the results of this analysis suggested that the pattern observed in relation to Hypothesis 3 may be most applicable to those who are ideologically moderate or liberal.

Discussion

This study set out to better understand the conditions in which the maintenance of Facebook networks comprised of ego-different alters is associated with political knowledge acquisition. Focusing on both social and institutional trust factors, we predicted that those with ego-different Facebook networks and high levels of trust in social others, knowledge-producing institutions, and the news would feature comparatively high levels of political knowledge. Support was found
for these predictions. Further analyses suggested that the moderating effects of news trust on the relationship between Facebook ego-network difference and political knowledge may be further conditioned on political ideology.

The current findings provide some tentative indication that social media, under specific conditions, can help facilitate political knowledge acquisition. In so doing, this study has important implications for the study of incidental information exposure as it suggests that audiences’ ability to capitalize on the learning potential of incidental information inflows may be conditioned by trust (and, presumably, a host of other social political factors). In this way, the current findings modify prior works which suggested a direct link between incidental information exposure and learning (e.g., Lu & Lee, 2019; Tewksbury et al., 2001) and, perhaps more importantly, may help explain why some studies have failed to find a positive relationship between the two constructs (e.g., Gil de Zúñiga, Weeks, & Ardèvol-Abreu, 2017; Oeldorf-Hirsch, 2018; Tewksbury et al., 2001). The evidence presented here provides reason to believe that incidental exposure opportunities may be disproportionally made available to users on the basis of their network composition, and, therein, may be disproportionally converted into knowledge on the basis of individual-level factors.

The current findings underscore the importance of trust in the acquisition of political knowledge. Trust is a complex variable, and one that is likely to play any number of antecedent, consequential, and reciprocating roles in behavioral and perceptive processes. If, as this work suggests, trust plays an important role in political knowledge obtainment, it seems important to focus on ways to address social and institutional trust deficits. This is easier said than done. News organizations, for instance, have been associated with declining levels of trust for the last several decades, and, despite best efforts, have been largely unable to regain audience
confidence. This study’s finding that social trust helps facilitate knowledge obtainment might present a potential, albeit limited, way forward. Specifically, the results presented here suggested that people might learn from others even if they don’t trust or have affinity for the “news.” Presumably, over long periods of time, repeated socially facilitated information exposure may, for some users high in social trust, help facilitate repeated exposure to institutionally produced information, thereby potentially creating conditions conducive to re-building trust.

This study also identified an interesting interaction effect interrelating ideology, news trust, ego-network difference, and political knowledge. We found that trust in the news boosts the political knowledge potential of ego-different Facebook networks for liberals and moderates, but had no effect for conservatives. This finding is consistent with prior research that illustrates the powerful role played by partisan and ideological variables, and may partially help explain some recent, social media-specific findings that show that conservative/republican users have lower levels of political knowledge than liberal/democrat users (e.g., Cacciatore et al., 2018).

More broadly, some prior research suggests that social media platforms may have negative or inconsequential implications for political learning (e.g., Cacciatore et al., 2018). In some important ways, the currently presented data supported these contentions. Specifically, we observed a negative relationship between Facebook usage intensity and political knowledge scores (Table 2). Moreover, we failed to find evidence that using social media generally or Facebook specifically for habitual political information consumption results in enhanced political knowledge levels (Table 2). Cacciatore et al. (2018) suggested that the connection between social media use and decreased levels of political knowledge could be explained by how these platforms are used. Our findings further suggest that knowledge outcomes may also be contingent upon who is using the platform and who is included in one’s network. Stated
differently, our data show that Facebook offers the potential for political knowledge gain, but that such learning is contingent upon high-trust users who—purposefully or otherwise—use the site to connect with a variety of alters.

Prior studies on network heterogeneity, network diversity, and crosscutting exposure have come to varying conclusions on the degree to which exposure to dissimilar others results in democratically-desirable outcomes such as political knowledge. While there may be many reasons for this lack of consistency, one potentially important factor relates to the varied conceptualization and operationalization processes employed by researchers (Hutchens et al., 2018). This study built on prior research to develop and deploy a measure that specifically describes the degree to which one’s Facebook network is comprised of people perceived to be different from the self. Such theorization is important in light of movement toward an information ecosystem in which an increasingly large amount of information consumption is incidental in nature (e.g., Gil de Zúñiga & Diehl, 2019). Importantly, the findings presented in this study indicate that the assembly of ego-different networks may play an important role in learning from online social platforms. As seen in Table 2, the measure of Facebook ego-network difference was significantly associated with political knowledge while more commonly studied factors such as frequent political talk and habitual news media consumption were not.

This study is subject to limitations. First, the cross-sectional nature of this work limits the ability to make causal claims. It is reasonable to assume that many of the variables employed in this study have reciprocal relationships with one another (e.g., Lecheler & de Vreese, 2017). Second, there are limitations associated with some of our measurement decisions. We measured political knowledge using a series of closed-ended multiple choice questions. This approach captures “a rather narrow dimension of public information levels” and may not speak to more
abstract understandings of the political and social world (Cacciatore et al., 2018, p. 418). Moreover, prior research has drawn a distinction between factual and structural political knowledge (Beam, Hutchens, & Hmielowksi, 2016). In this study, we focused specifically on factual political knowledge, which has been shown to be directly associated with a range of important political behaviors (e.g., Galston, 2001). Future research might consider exploration of the relationship between ego-network difference and structural knowledge. Our measure of ego-network difference also has limitations. The wording of the inventory items restricts our ability to derive estimates of the exact degree to which a given user network was oppositional/agreeable in nature. And, manual and automated filtering processes greatly impact what appears in a user’s newsfeed. Moreover, many members of an ego’s social network, different or otherwise, may be inactive. While we believe that perceptive-level measures have both validity and utility, it is unclear to what degree perceptive and objective measures of network-based difference correspond to each other and, therein, how a lack of correspondence to the two may have affected our results. Future research should combine trace and self-report data (e.g., Thorson et al., 2019) to better understand the degree to which people can accurately perceive network-based difference and diversity. Third, it also seems appropriate to remark that the results observed here might not hold in cross-national contexts. Concepts such as trust in the news vary—sometimes greatly – across national contexts (e.g., Hanitzsch, van Dalen, & Steindl, 2017; Tsfati, & Ariely, 2014.). It is important that future research seeks to understand the varied ways in which social and institutional trust factors influence political outcomes (such as knowledge) in cross-national contexts. Finally, this study focused specifically on Facebook. It may be the case that the results observed here are not neatly transferable to other social network contexts. Future research should explore how divergent platforms’ affordances might affect the results observed here.
Notes

1. Approximately 95% of the sample created a Facebook content item after 01/01/2016, 93% of the sample created a Facebook content item after 01/01/2017, and 87% of the sample created a Facebook content item after 01/01/2018.

2. An additional measure assessing highest degree earned was included in the survey for the purposes of comparison to the Pew (2018) sample.

3. While the political knowledge measure was technically a count variable, the distribution was approximately normal. Regression diagnostics did not indicate serious issues with the use of OLS estimation. Finally, Poisson and negative binomial regression models were shown to be poor fits for the data.
References


American National Election Study (1964). *Inter-University Consortium for Political Research, University of Michigan.*


Figure 1. Graphical depiction of the moderating effects of various forms of trust on the relationship between Facebook ego-network difference and political knowledge.
Figure 2. Graphical depiction of the moderating effect of news trust on the relationship between Facebook ego-network difference and political knowledge at various levels of conservatism
### Table 1

**Descriptive statistics for focal measures**

<table>
<thead>
<tr>
<th>Measure</th>
<th>M</th>
<th>SD</th>
<th>Alpha</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Political Knowledge (1)</td>
<td>4.76</td>
<td>2.87</td>
<td>.80</td>
<td>---</td>
<td>.04</td>
<td>.13***</td>
<td>.03</td>
<td>-.06*</td>
</tr>
<tr>
<td>Facebook Ego-Network Difference (2)</td>
<td>3.31</td>
<td>1.46</td>
<td>.88</td>
<td>.15***</td>
<td>---</td>
<td>-28***</td>
<td>-27***</td>
<td>-32***</td>
</tr>
<tr>
<td>Social Trust (3)</td>
<td>4.40</td>
<td>1.14</td>
<td>.89</td>
<td>.06*</td>
<td>-24***</td>
<td>---</td>
<td>.41***</td>
<td>.34***</td>
</tr>
<tr>
<td>Trust in Knowledge-Producing Institutions (4)</td>
<td>4.51</td>
<td>1.32</td>
<td>.82</td>
<td>-.06</td>
<td>-25***</td>
<td>.39***</td>
<td>---</td>
<td>.54***</td>
</tr>
<tr>
<td>News Trust (5)</td>
<td>4.16</td>
<td>1.37</td>
<td>.95</td>
<td>-.15***</td>
<td>-29***</td>
<td>.32***</td>
<td>.53***</td>
<td>---</td>
</tr>
</tbody>
</table>

**Notes:** * p<.05, ** p<.01, *** p<.001; for the political knowledge measure, the reported reliability alpha is based on the KR-20 formula while all other reliability statistics were derived using Cronbach’s alpha; correlations above the diagonal are zero-order Pearson correlations while correlations below the diagonal are partial correlations controlling for political interest.
Table 2

Ordinary least squares regression models predicting political knowledge

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>b</td>
<td>se</td>
<td>p</td>
<td>VIF</td>
</tr>
<tr>
<td>Socio-Demographic Variables</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>0.03</td>
<td>0.01</td>
<td>**</td>
<td>1.48</td>
</tr>
<tr>
<td>Education</td>
<td>0.30</td>
<td>0.07</td>
<td>**</td>
<td>1.18</td>
</tr>
<tr>
<td>Income</td>
<td>0.12</td>
<td>0.04</td>
<td>**</td>
<td>1.27</td>
</tr>
<tr>
<td>Sex (⋯-Male, ⋆-Female)</td>
<td>-0.93</td>
<td>0.15</td>
<td>**</td>
<td>1.20</td>
</tr>
<tr>
<td>White(⋯)-Black(⋯) Contrast</td>
<td>-0.37</td>
<td>0.21</td>
<td>&gt;.05</td>
<td>1.28</td>
</tr>
<tr>
<td>White(⋯)-Hispanic(⋯) Contrast</td>
<td>-0.20</td>
<td>0.19</td>
<td>&gt;.05</td>
<td>1.28</td>
</tr>
<tr>
<td>White(⋯)-Asian(⋯) Contrast</td>
<td>-0.15</td>
<td>0.54</td>
<td>&gt;.05</td>
<td>1.07</td>
</tr>
<tr>
<td>White(⋯)-Other/More than 1 Race(⋯) Contrast</td>
<td>-0.37</td>
<td>0.45</td>
<td>&gt;.05</td>
<td>1.05</td>
</tr>
<tr>
<td>General Political Variables</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Democrat(⋯)-Republican(⋯) Contrast</td>
<td>-0.32</td>
<td>0.21</td>
<td>&gt;.05</td>
<td>1.90</td>
</tr>
<tr>
<td>Democrat(⋯)-Independent/Other Party(⋯) Contrast</td>
<td>-0.09</td>
<td>0.19</td>
<td>&gt;.05</td>
<td>1.51</td>
</tr>
<tr>
<td>Conservatism</td>
<td>-0.14</td>
<td>0.03</td>
<td>**</td>
<td>1.47</td>
</tr>
<tr>
<td>Ideological Extremity</td>
<td>0.20</td>
<td>0.04</td>
<td>**</td>
<td>1.20</td>
</tr>
<tr>
<td>Political Interest</td>
<td>0.52</td>
<td>0.07</td>
<td>**</td>
<td>2.43</td>
</tr>
<tr>
<td>Media Consumption Variables</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>News Consumption Habits</td>
<td>0.07</td>
<td>0.04</td>
<td>&gt;.05</td>
<td>1.62</td>
</tr>
<tr>
<td>Broadcast News Consumption Habits</td>
<td>0.19</td>
<td>0.05</td>
<td>**</td>
<td>1.99</td>
</tr>
<tr>
<td>News Blog Consumption Habits</td>
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<td>0.05</td>
<td>&gt;.05</td>
<td>1.96</td>
</tr>
<tr>
<td>Social Media News Consumption Habits</td>
<td>-0.07</td>
<td>0.05</td>
<td>&gt;.05</td>
<td>2.27</td>
</tr>
<tr>
<td>Facebook Political Information Search Habits</td>
<td>-0.05</td>
<td>0.05</td>
<td>&gt;.05</td>
<td>2.66</td>
</tr>
<tr>
<td>Facebook Usage Intensity</td>
<td>-0.11</td>
<td>0.05</td>
<td>*</td>
<td>1.45</td>
</tr>
<tr>
<td>Facebook Self-Efficacy</td>
<td>0.16</td>
<td>0.07</td>
<td></td>
<td>1.34</td>
</tr>
<tr>
<td>Political Talk Variables</td>
<td>0.04</td>
<td>0.06</td>
<td>&gt;.05</td>
<td>2.66</td>
</tr>
<tr>
<td>Facebook Political Talk Habits</td>
<td>0.03</td>
<td>0.05</td>
<td>&gt;.05</td>
<td>2.37</td>
</tr>
<tr>
<td>Focal Variables</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facebook Ego-Network Difference</td>
<td>0.22</td>
<td>0.06</td>
<td>**</td>
<td>1.39</td>
</tr>
<tr>
<td>Social Trust</td>
<td>0.13</td>
<td>0.07</td>
<td>&gt;.05</td>
<td>1.46</td>
</tr>
<tr>
<td>Trust in Knowledge-Producing Institutions</td>
<td>-0.09</td>
<td>0.07</td>
<td>&gt;.05</td>
<td>1.66</td>
</tr>
<tr>
<td>Facebook Ego-Network Difference x Social Trust</td>
<td>0.13</td>
<td>0.04</td>
<td>**</td>
<td>1.09</td>
</tr>
<tr>
<td>Facebook Ego-Network Difference x Trust in Knowledge-Producing Institutions</td>
<td>0.12</td>
<td>0.04</td>
<td>**</td>
<td>1.09</td>
</tr>
<tr>
<td>Facebook Ego-Network Difference x News Trust</td>
<td>0.09</td>
<td>0.04</td>
<td>*</td>
<td>1.10</td>
</tr>
<tr>
<td>F2</td>
<td>(27,1148)=24.65***</td>
<td>(28,1147)=24.38***</td>
<td>(28,1147)=24.53</td>
<td>(28,1147)=24.17***</td>
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<tr>
<td>R2</td>
<td>.37</td>
<td>.37</td>
<td>.37</td>
<td>.37</td>
</tr>
</tbody>
</table>

Notes: * p<.05, ** p<.01, *** p<.001; coefficients are unstandardized.
Table 3

Simple slope values for moderation models (Models 2–4)

<table>
<thead>
<tr>
<th>Scale Value</th>
<th>Social Trust (Model 2)</th>
<th>Trust in Knowledge-Producing Institutions (Model 3)</th>
<th>News Trust (Model 4)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>b</td>
<td>se</td>
<td>p</td>
</tr>
<tr>
<td>7</td>
<td>0.58</td>
<td>0.12</td>
<td>***</td>
</tr>
<tr>
<td>6</td>
<td>0.45</td>
<td>0.09</td>
<td>***</td>
</tr>
<tr>
<td>5</td>
<td>0.32</td>
<td>0.07</td>
<td>***</td>
</tr>
<tr>
<td>4</td>
<td>0.19</td>
<td>0.06</td>
<td>**</td>
</tr>
<tr>
<td>3</td>
<td>0.07</td>
<td>0.07</td>
<td>&gt;.05</td>
</tr>
<tr>
<td>2</td>
<td>-0.06</td>
<td>0.10</td>
<td>&gt;.05</td>
</tr>
<tr>
<td>1</td>
<td>-0.19</td>
<td>0.13</td>
<td>&gt;.05</td>
</tr>
</tbody>
</table>

Notes: * p<.05; ** p<.01; *** p<.001; beta (b) values represent the slope estimates describing the relationship between Facebook ego-network difference and political knowledge at various values of social trust, trust in knowledge-producing institutions, and news trust; coefficients are unstandardized.
Table 4

Results of a three-way interaction analysis exploring the relationship between political knowledge and Facebook ego-network difference, news trust, and conservatism

<table>
<thead>
<tr>
<th></th>
<th>b</th>
<th>se</th>
<th>p</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conservatism</td>
<td>-0.14</td>
<td>0.03</td>
<td>***</td>
<td>1.71</td>
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<td>Facebook Ego-Network Difference</td>
<td>0.21</td>
<td>0.06</td>
<td>***</td>
<td>1.41</td>
</tr>
<tr>
<td>News Trust</td>
<td>-0.23</td>
<td>0.06</td>
<td>***</td>
<td>1.78</td>
</tr>
<tr>
<td>Facebook Ego-Network Difference x News Trust</td>
<td>0.09</td>
<td>0.04</td>
<td>*</td>
<td>1.16</td>
</tr>
<tr>
<td>Facebook Ego-Network Difference x Conservatism</td>
<td>0.00</td>
<td>0.02</td>
<td>&gt;.05</td>
<td>1.33</td>
</tr>
<tr>
<td>News Trust x Conservatism</td>
<td>-0.08</td>
<td>0.02</td>
<td>***</td>
<td>1.47</td>
</tr>
<tr>
<td>Facebook Ego-Network Difference x News Trust x Conservatism</td>
<td>-0.02</td>
<td>0.01</td>
<td>*</td>
<td>1.30</td>
</tr>
</tbody>
</table>

\[
F (31, 1144) = 23.24^{***}
\]

\[
R^2 \quad .39
\]

Notes: * p<.05, *** p<.001; all Model 1 predictors included in the model but not reported for readability purposes; coefficients are unstandardized
Table 5

Simple slopes for the relationship between Facebook ego-network difference and political knowledge at various levels of news trust and conservatism

<table>
<thead>
<tr>
<th>News Trust Scale Value</th>
<th>Strong Liberal (Conservatism=1)</th>
<th>Moderate (Conservatism=6)</th>
<th>Strong Conservatism (Conservatism=11)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>b</td>
<td>se</td>
<td>p</td>
</tr>
<tr>
<td>7</td>
<td>0.82</td>
<td>0.21</td>
<td>***</td>
</tr>
<tr>
<td>6</td>
<td>0.61</td>
<td>0.15</td>
<td>***</td>
</tr>
<tr>
<td>5</td>
<td>0.40</td>
<td>0.12</td>
<td>**</td>
</tr>
<tr>
<td>4</td>
<td>0.19</td>
<td>0.11</td>
<td>&gt;.05</td>
</tr>
<tr>
<td>3</td>
<td>-0.02</td>
<td>0.13</td>
<td>&gt;.05</td>
</tr>
<tr>
<td>2</td>
<td>-0.23</td>
<td>0.18</td>
<td>&gt;.05</td>
</tr>
<tr>
<td>1</td>
<td>-0.44</td>
<td>0.24</td>
<td>&gt;.05</td>
</tr>
</tbody>
</table>

Notes: * p < .05; ** p < .01; *** p < .001; coefficients are unstandardized
### Appendix A

#### Focal Measure Indicators

<table>
<thead>
<tr>
<th>Scale Name</th>
<th>Item Wording</th>
<th>Response Categories</th>
</tr>
</thead>
</table>
| *Political Knowledge* | Who is the current speaker of the U.S. House of Representatives? | 1=Nancy Pelosi  
2=Paul Ryan*  
3=Jason Chaffetz  
4= Mitch McConnell |
|             | The tap water in Flint, Michigan, is unsafe because it contains too much … | 1=Lead*  
2=Arsenic  
3=Asbestos  
4=Mold |
|             | Who is the current president of France?                                        | 1=Justin Trudeau  
2=Malcolm Turnbull  
3=Emmanuel Macron*  
4=Theresa May |
|             | Is Neil Gorsuch...                                                             | 1=A Senator  
2=A Supreme Court Justice*  
3=The solicitor general  
4=Head of the EPA |
|             | Is the national unemployment rate as reported by the government currently closer to …? | 1=4%*  
2=7%  
3=12%  
4=17% |
|             | Who was the Trump administration’s first Secretary of State?                   | 1=Mitt Romney  
2=John Kerry  
3=Rex Tillerson*  
4=Scott Pruitt |
|             | According to the Centers for Disease Control (CDC), humans are infected with the Zika virus primarily by… | 1=Rodents  
2=Spoiled Food  
3=Mosquitos* |

*Note: Asterisk indicates the correct answer.*
Who is leading the Justice Department's investigation into Russian involvement in the 2016 election?

1=Robert Mueller*
2=James Comey
3=Sean Spicer
4=Sally Yates

Which of the following countries has officially started the process of leaving the European Union?

1=Greece,  
2=Germany,  
3=The United Kingdom*  
4=Hungary

Many conservative Republicans in the House of Representatives are members of which of the following group?

1=The Tuesday Group,  
2=The Freedom Caucus*  
3=The Lincoln Group  
4=The Blue Dogs

My Facebook friends…are very similar to me.  
…and I hold similar political views.  
…and I am "people like me."  
…and I are from similar cultural backgrounds.  
…and I are from similar economic backgrounds.

1=Strongly Disagree-  
7=Strongly Agree

Most people are…basically honest.  
…trustworthy.  
…basically good.  
…trustful of others.  
I would describe myself as a trustful person.  
Most people will respond in kind when they are trusted by others.  
Generally speaking, would you say that most people can be trusted or that you cannot be too careful in dealing with people?  
Would you say that most of the time, people try to be helpful, or that they are mostly just looking out for themselves?  
Do you think that most people would try to take advantage of you if they got the chance or would they try to be fair?

1=You can't be too careful dealing with people-  
7=Most people can be trusted
1=People mostly look out for themselves-  
7=People mostly try to be helpful
1=Most people would try to take advantage of me-  
7=Most people would try to be fair

Please rate your overall levels of trust in the following…Universities/institutions of higher learning  
…Scientific organizations  
…Charitable Organizations  
…The United Nations

1=Very little trust-  
7=A great deal of trust
### News Trust

<table>
<thead>
<tr>
<th>Statement</th>
<th>1=Strongly disagree</th>
<th>7=Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>News media give necessary attention to important issues.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The most important issues are given adequate status by news media.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The frequency with which important issues are covered in the news media is sufficient.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Media reports include all the important facts.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Media stories emphasize the most important facts.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>News reporting includes different points of view.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information found in news reports is verifiable.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The information in news reports is true.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>News reports recount the facts truthfully.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The conclusions reached in news reports are justifiable.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opinions expressed in the news media are well-founded.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Criticism is expressed in an adequate manner by the news media.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes:** for the political knowledge measures, answers marked with an asterisk (*) are correct; all political knowledge items had a “don’t know” option; bolded items reverse coded