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All the news that you don't like: Cross-cutting exposure and political participation in the age of social media

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ABSTRACT

This study investigated the factors that affect the relationship between cross-cutting exposure and political participation. It was found that cross-cutting exposure to politically disagreeable news on Facebook, overall, was associated with increased political participation both online and offline. The association was stronger when the cross-cutting exposure came from weak ties, or acquaintances and strangers, and when the individuals were highly engaged with the cross-cutting news. Cross-cutting exposure from strong ties showed no significant relationship with political participation. It is suggested that cross-cutting exposure and political participation in the age of social media are different from those of the offline world, because they are supported by the norm of individual self-expression and take place in more anonymous and comfortable settings.

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1. Introduction

Exposure to disagreement or “cross-cutting exposure” (Mutz, 2006) is critical in democracy because when citizens are exposed to disagreement, they can have an “enlarged mind” and become more tolerant and understanding (Arendt, 1968). Theorists of democracy have argued that cross-cutting exposure and ensuing political discussion can generate norms and attitudes conducive to democracy such as increased political knowledge and trust (Gutmann & Thompson, 1996; 2004). Empirical studies also tend to support the positive effects of cross-cutting exposure such that it contributes to the formation of more deliberative opinions (Price, Cappella, & Nir, 2002), increases citizens' political knowledge (Eveland, 2004), makes opinions more sophisticated (Gastil & Dillard, 1999), and increases political efficacy (Fishkin & Luskin, 1999; Wohn & Bowe, 2016).

While it is theoretically and empirically well established that cross-cutting exposure and deliberative discussion involving opposing viewpoints is associated with increased political knowledge and other positive political attitudes, its effects on actual political participation remain relatively under-explored and

controversial. Furthermore, most prior studies were conducted in a face-to-face setting, whereas the overall geography of political participation is increasingly migrating to the social media and online sphere. This study attempts to find out cross-cutting exposure's impact on political participation considering the unique characteristics of social media today. It will also consider some contextual factors that may influence the relationship between cross-cutting exposure and political participation, which have seldom been explored before. We will consider 1) personal relationships – from whom the cross-cutting exposure comes from, and 2) how much individuals are actually engaged with cross-cutting information when they encounter one, both of which will illustrate the complex dynamics of cross-cutting exposure in the social media age.

2. Literature review

2.1. Mixed research findings

Studies of cross-cutting exposure and political participation have produced mixed results. In one of the most well-known studies, Mutz (2002, 2006) argues that cross-cutting exposure discourages political participation. She suggests, first, cross-cutting exposure creates competing opinions, which may make individuals ambivalent about their choices and this leads to decreased political participation, a position analogous to the seminal political campaign and participation study by Lazarsfeld (Lazarsfeld,

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Berelson, & Gaudet, 1944) and some other recent research (e.g., Dilliplane, 2011). Mutz (2006) also argues that people always value social harmony and those in the cross-cutting network will not engage in political action as doing so may offend others. Other scholars, however, did document positive effects of cross-cutting exposure on individuals' political participation. A series of studies by Scheufele and colleagues (Scheufele, Hardy, Brossard, Waismel-Manor, & Nisbet, 2006; 2010) found that heterogeneous discussion leads to increased willingness to participate in politics, as did a study by Kwak, Williams, Wang, and Lee (2005).

Those discrepancies in findings may have resulted from many different reasons. For one, how to define “cross-cutting exposure” matters such that some of the studies above adopted an operationalization closer to “diversity” or “heterogeneity” (e.g., Kwak et al., 2005; Scheufele, Nisbet, Brossard, & Nisbet, 2010), while others used one that measured a self's direct exposure to opposing viewpoints (e.g., Mutz, 2006). In the present study, we adopt an operationalization of cross-cutting exposure as the degree to which one is exposed to politically opposing viewpoints, known as the “ego-centric approach” (Choi, Lee, & Metzger, 2017). We will revisit this issue in more detail in the method section. Another definitional and operational issue involving this line of research is that researchers need to be more sensitive to the differences between cross-cutting “exposure” and cross-cutting “discussion.” These two are conceptually and operationally different. Simply being exposed to cross-cutting news does not necessarily mean that the information is seriously considered in determining one's political opinions (Lee, Choi, Kim, & Kim, 2014). Researchers thus have to make clear whether it is cross-cutting exposure or discussion that (de)mobilizes citizens. In the present study, we first adopt cross-cutting exposure as an independent variable, because exposure is the most predominant phenomenon on social media and an antecedent to discussion.

In addition to the definitional issue of cross-cutting exposure, the existence of moderating or mediating factors is another important reason for the controversial findings about the relationship between cross-cutting exposure and political participation. In recent years, scholars started to explore potential moderating variables such as individual traits and network social settings. For example, McClurg (2006) found that cross-cutting exposure demobilizes people who were in opinion minority status. More recently, Lee, Kwak, and Campbell (2015) focused on the characteristics of cross-cutting discussion networks, discovering that cross-cutting discussion and strong tie homogeneity interact to predict increased political participation. Choi et al. (2017) focused on a specific behavior by social media users – news sharing – and found that heterogeneous online social networks increase citizens' political participation for users active in sharing news with others. Matthes (2013) explored individual traits as a moderating variable. He found that cross-cutting exposure decreases political participation only for individuals who have low social trust. Another study by Matthes (2012) found that cross-cutting exposure delays political participation decisions for people with uncertain prior attitudes, whereas it accelerated the decisions for people with high attitude certainty. In other words, people's existing partisan attitudes moderated the effects of cross-cutting exposure on political participation.

As discussed above, scholars are increasingly paying attention to the variables that may moderate the effects of cross-cutting exposure on political participation. We attempt to advance this line of research by focusing on communication and social relational variables. The focus here is *how* the cross-cutting exposure is made. Many previous studies simply measured network size and frequency of cross-cutting exposure, ignoring various contexts and situational differences. But such measurement is not enough to

understand how we consume disagreement. For example, what if you are exposed to disagreement, only to mock it? It may be the case that some people read counter-attitudinal information less seriously, just for fun and enjoyment. For example, a liberal may enjoy reading conservative blogs as a goof. If that's the case, such cross-cutting exposure is less likely to exercise any meaningful effects on the person's political tolerance and participation. Similarly, by whom you are exposed to disagreement may matter such that disagreement from close friends and family members would have different effects from the one that coming from strangers. As Eveland, Morey, and Hutchens (2011) suggests in their study of heterogeneous political discussion, researchers have to study how faces are negotiated and how relationship affects cross-cutting exposure. Answering such a call, this study will explore some relationship variables that may moderate the association between cross-cutting exposure and political participation.

2.2. Cross-cutting exposure and political participation in social media

Most of the existing studies involve cross-cutting exposure taking place in the face-to-face context or in the general online context. Many of such studies document that cross-cutting exposure is less likely to happen as individuals tend to avoid dissonant information, creating the so-called “filter bubbles” (Pariser, 2011) or “echo chambers” (Sunstein, 2003; 2017). But the heightened use of social media in recent years is increasing people's cross-cutting exposure to political differences (Choi & Lee, 2015; Kim, 2011; Lee et al., 2014). While some other research (Himmelboim, McCreery, & Smith, 2013; Pew Research Center, 2014) suggests birds of a feather tend to flock together on social media as well, there is increasing evidence that suggests otherwise. For example, a large-scale study by Bakshy, Messing, and Adamic (2015) found Facebook tends to expose individuals to at least some ideologically cross-cutting information, although it can be limited by the composition of the like-minded friend network. Another recent study by Barnidge (2017) found people were more likely to experience cross-cutting exposure on social media than in face-to-face settings. This is because of the structure of social relationships and the social norms that value individual expression on social media. In fact, cross-cutting exposure is relatively uncommon in face-to-face settings because discussion is bound by similar local contexts, according to Barnidge. In other words, cross-cutting exposure on social media is not necessarily same as the one occurring in the face-to-face setting.

The concept of political participation also requires a revamp in the social media age. The participatory landscape in today's social media boasts unique characteristics that warrant close examination. First, individuals today tend to participate in more specialized, personal, and value-laden lifestyle issues where political participation has become more event-driven and protest-like (Chadwick, 2006; Shirky, 2008). The participants to such political action are not necessarily formal members of organizations based on bureaucratic structures, but a horizontal network of “weak ties” (Granovetter, 1973) based on specific issues (e.g., Tufekci & Wilson, 2012). They get mobilized through media networks easily to form an issue public, a phenomenon common on social media. Passion and individualized concerns rather than broad political philosophies are their chief mobilizing forces. This idea of political participation resembles what Schudson (1998) called “monitorial citizenship” where citizens scan, rather than acquire, the informational environment in a way so that they may be alerted on a wide variety of issues and then may be turned into an active engagement mode on some specific issues in a variety of ways. All these suggest that traditional political participation measurement items like voting,

donation, party membership, and persuasion cannot fully capture the more nuanced dynamics of new political participation occurring in social media. That being said, traditional offline political participation is still an important measure, prioritized in such prestigious national surveys as American National Election Studies. After all, voting, the essence of offline political participation, is the most prominent feature of liberal democracy we live in now. To summarize, offline and online political participation may present complementing, yet different aspects and it would be beneficial to measure both to capture a holistic picture of political participation. Therefore, we included both online and offline political participation as separate dependent variables in our study.

Considering the changed nature of cross-cutting exposure and political participation in social media, it will not be easy to untangle their relationship. Very few studies to date have investigated the actual impact of cross-cutting exposure on political and civic participation in the social media setting. And even the few existing research shows conflicting results. For example, studies by Kim and Chen (2016), and Choi et al. (2017) found positive relationship between social media cross-cutting exposure or heterogeneity and political participation. However, Lu, Heatherly, and Lee (2016) found cross-cutting discussion on social media inhibited political participation, both online and offline. Similarly, a study by Valenzuela, Kim, and Gil de Zúñiga (2012), produced a negative relationship between social media cross-cutting exposure and online political participation. The theoretical relationship between social media cross-cutting exposure and political participation is also ambiguous at best. On the one hand, it can be argued that social media cross-cutting exposure may create dissonance on individuals' minds and discourage their involvement in political conversation and participation, which has been a common finding in many studies involving cross-cutting exposure and political participation offline (Dilliplane, 2011; Lazarsfeld et al., 1944). It may be also the case that individuals on social media simply shun cross-cutting exposure and skip disagreeable information, producing no meaningful effects. On the other hand, it may be the case that cross-cutting exposure on social media sparks interest and excitement, which may lead to increased political conversation, knowledge, and participation. One may argue that by making users learn more about public affairs through exposure to diverse and cross-cutting perspectives, social media use via cross-cutting exposure can create opportunities for political participation, which was a chief finding in the study by Kim and Chen (2016). It should also be noted that paths to political expression and participation are easier and more diverse in social media that individuals who are exposed to disagreement may actually be encouraged to express their own views, which may correlate to increased political participation. In the present study, we first attempt to find out the general relationship between cross-cutting exposure and political participation both online and offline.

RQ: What is the general relationship between social media cross-cutting exposure and political participation both online and offline?

2.3. Relationship and engagement in cross-cutting exposure

Some political communication scholarship tends to reduce the dynamics of interpersonal communication to mere points of contact in social networks of political information (e.g., Huckfeldt, Beck, Dalton, & Levine, 1995; McLeod et al., 1999). But relationship is critical in determining the impact of cross-cutting exposure. One useful relationship factor explored in interpersonal communication scholarship is the distinction of “weak” vs. “strong” ties. In general, weak ties refer to a loose network of acquaintances and strangers whereas strong ties refer to a more close-knit, private-

oriented network of friends and families (Granovetter, 1973). It is likely that cross-cutting exposure coming from strong ties will have a different effect than the one coming from weak ties. On the first hand, disagreement coming from strong ties may have a chilling effect on political participation, as shown in the classic study of Lazarsfeld et al. (1944). After all, people take cross-cutting exposure from families and close friends more seriously and it can create some ambivalence on people's political action. On the other hand, it is generally believed that cross-cutting exposure from weak ties can be helpful in promoting individuals' political knowledge and mobilization, as suggested in the seminal study of Granovetter (1973). Granovetter found individuals with few weak ties were unlikely to mobilize effectively for collective action within their communities. The so-called “strength of weak ties” may well be applied to the current social media environment of “connective action,” which enables individuals' identity expression and the navigation of complex and changing social and political landscapes (Bennette & Segerberg, 2013). While cross-cutting information coming from strong ties may create a somewhat uncomfortable situation for many social media users, they can more freely explore, learn, and discuss cross-cutting information coming from weak ties. More emotionally detached, casual, and accidental social interactions are likely to take place with weak ties such that it creates opportunities for individuals to gather information, taste, and try out disagreement, which may also lead to increased political participation not just on social media but in the offline setting. Based on the rationale so far, the following hypotheses are presented:

H1a. Social media cross-cutting exposure from strong ties will be negatively associated with online political participation.

H1b. Social media cross-cutting exposure from strong ties will be negatively associated with offline political participation.

H2a. Social media cross-cutting exposure from weak ties will be positively associated with online political participation.

H2b. Social media cross-cutting exposure from weak ties will be positively associated with offline political participation.

It is also critical to understand how one behaves when exposed to cross-cutting information online. As shown in a Pew Internet and American Life survey (Pew Research Center, 2012), many people just ignore it when they see someone posting disagreeable information on social media. If people simply ignore disagreement, then effects of cross-cutting exposure on social media, if any, would dissipate. After all, how much individuals are paying attention to disagreement and engaging with it will moderate the effect of cross-cutting exposure on political participation. Those highly engaged with the disagreeing message will peruse the content, analyze it, and become better aware of their own and others' positions. This process of analyzing and integrating disagreement may create psychological excitement and reflective thinking, which translates to increased political participation, because as individuals attempt to re-evaluate and defend their own position, they may experience more concrete political beliefs and willingness to act (McLeod et al., 1999; Min, 2007). Therefore, we introduce the variable of engagement, which concerns the degree to which individuals pay attention to, actually read and process, and discussing (commenting on) the disagreeable information on social media. This engagement variable is similar to “discussion” but is more comprehensive. Interactions taking place on social media involve not only verbal discussion but also various other elements of expression unique to the medium and thus we decided to adopt the engagement variable rather than discussion. Based on the rationale so far, we present the third hypothesis:

H3a. Engagement with disagreement will moderate social media cross-cutting exposure's association with online political participation.

H3b. Engagement with disagreement will moderate social media cross-cutting exposure's association with offline political participation.

3. Method

3.1. Procedure and sample

This study employed a nationwide survey of Facebook users to understand their exposure to disagreeable information and subsequent behaviors. Between October 6 and 10, 2016, Qualtrics, a leading survey firm in the United States, recruited 625 American adults, and, eventually, 322 finished the survey, yielding the completion rate of 51.4%. Although it was not a random sample, it was close to the general U.S. population in terms of various demographic measurements. We limited the sample to Facebook users, because of the social media giant's dominance in news distribution. According to a recent Pew Research study, at least two thirds of Facebook users get news on the platform. Facebook, as the largest social networking site, reaches 67% of U.S. adults, and the two-thirds of Facebook users who get news there, then, amount to 44% of the general U.S. population (Mitchell, Gottfried, Barthel, & Shearer, 2016). The sample's average age was 40 years old and it was about 58% female. The racial makeup was about 76% White Caucasian, 11% Asian, 9% Black, and 7% Latino/a. Republicans and Democrats were even, each making 40% of the sample, while 20% identified as Independents. The average network size, or the number of friends, was 423, ranging from 0 to 5000 ($SD = 799$).

3.2. Variables and analysis

3.2.1. Political participation

Political participation, the dependent variable, was measured both in terms of online and offline. Online political participation was composed of six items exploring various dimensions of online civic participation, including encouraging other people to take action, encouraging others to vote, posting or reposting political contents and links for sharing, promoting materials related to political issues, (full survey questionnaire available upon request). This scale was adapted from the Pew Internet and American Life's Civic Engagement in the Digital Age study (Pew Research Center, 2013). Our analysis showed that it was internally very coherent (Cronbach's $\alpha = .94$). The six items were summed up to create an online political participation scale ($M = 14.5$, $SD = 5.75$ on a 24-point composite index). The offline political participation measure was adapted from traditional political science literature such as American National Election Studies. The five items were: discussing and advancing issue positions; voting; attending community meetings; working with others in community to solve local problems; and donating to political campaigns ($M = 12.41$, $SD = 3.33$ on a 20-point composite index). The reliability statistics (Cronbach's α) for this measure was 0.80.

3.2.2. Cross-cutting exposure

We operationalized social media cross-cutting exposure as the degree to which individuals are exposed to politically oppositional viewpoints. This operationalization is similar to that of Mutz (2002, 2006), which focused on the ego's perception of disagreement. It was different from measures of "heterogeneity" or "network diversity" that measured competition between differing opinions, attitudes, and demographics in networks (e.g., Nir, 2005; Scheufele

et al., 2010). We adopted the current operationalization because we were interested in how people react in the online social environment when they are exposed to disagreeable information, which is a common phenomenon but has not been explored enough. This "perceived disagreement" measure is more useful than actual disagreement in terms of its influence on political outcomes (Lu et al., 2016; Wojcieszak & Price, 2012). It is better than a third-party's judgment of incongruence, because, after all, if individuals do not perceive that disagreement has occurred, it will have less of an effect on their behavior (Barnidge, 2017). In the present study, cross-cutting exposure measured how often the participants get exposed to politically disagreeable information or news on Facebook from different sources including family, friends, spouse, colleagues, classmates, acquaintances and strangers ($M = 17.05$, $SD = 4.38$ on a 28-point composite index).

3.2.3. Weak vs. strong ties

The cross-cutting measure was later broken down to create a relationship variable. The relationship variable had two components: Strong ties was the degree to which the disagreeable information comes from romantic partners, family, and friends ($M = 7.21$, $SD = 2.04$ on a 12-point composite scale). Weak ties was the degree to which the disagreeable information comes from colleagues/classmates, acquaintances, public figures, and strangers ($M = 9.90$, $SD = 3.12$ on a 16-point composite scale). This theoretical distinction of strong vs. weak ties was supported by factor analysis: A principal component analysis with Varimax rotation yielded two factors with eigenvalues over 1. Romantic partners, family, and friends all produced loadings of at least 0.63 onto the first factor (and no significant loadings onto the second factor), and were subsequently labeled "strong ties." Together, they explained 41.8% of the variance. The second factor derived was labeled "weak ties," onto which classmates, co-workers, public figures, and strangers produced loadings of at least 0.56, and together they explained 17.6% of the variance. Taken together, the two factors explained about 60% of the variance. All in all, the distinction of strong vs. weak ties was justified.

3.2.4. Engagement with disagreement

Engagement measured the degree to which the participants engaged with the disagreeable information. It had three items: "When I see political news or information on Facebook that I disagree with, I pay attention to it"; "When I see political news or information on Facebook that I disagree with, I actually read it carefully"; "When I see political news or information on Facebook that I disagree with, I respond by posting my own comment." ($M = 8.04$ on a 12-point composite scale, $SD = 2.31$). The measurement was internally coherent ($\alpha = 0.83$).

3.2.5. Control variables

Lastly, political ideology and political interest were adopted from the American National Election Studies. For political ideology, respondents were asked, "How do you place yourself on the following scale in terms of both social and economic issues?" They were then asked to indicate their choice between 1 (extremely liberal) and 7 (extremely conservative) ($M = 3.87$, $SD = 1.72$). Political interest was a 4-point scale, with 4 being the highest, that asked respondents' level of interest in politics ($M = 3.07$, $SD = 0.83$). Network size, or the number of friends on Facebook ($M = 423$, $SD = 799$), and demographic variables were entered into the model as controls. White Caucasians and males were coded as 1, respectively, with all others as 0. Educational level (*Median* = some college) and income level (*Median* = \$50,000 to \$59,999) were entered as ordinal variables.

4. Results

The first research question was to find out the general association between social media cross-cutting exposure and political participation. We did analyses separately for online political participation and offline political participation. When the dependent variable of online political participation was regressed upon the independent variables, several factors turned out to be statistically important (Table 1, Model 1). Higher political interest, being more liberal, and higher engagement with disagreeable information were associated with increased political participation. Social media cross-cutting exposure, overall, was significantly positively associated with political participation ($\beta = 0.30$, $p < .001$). Similar results were obtained when the dependent variable was offline political participation (Table 2, Model 1), with social cross-cutting exposure as a significant factor again ($\beta = 0.10$, $p < .05$).

For Hypotheses 1a/1b and 2a/2b, relationship variables of strong ties and weak ties were entered into the equation. Hypotheses 1a and 1b were not supported as social media cross-cutting exposure from strong ties was not associated with either online or offline political participation. Social media cross-cutting exposure from weak ties, however, was positively associated with both online and offline political participation at statistically meaningful degrees. Hypotheses 2a and 2b were supported (Table 1, Model 2 & Table 2, Model 2).

Hypothesis 3a and 3b predicted that engagement with disagreement will moderate social media cross-cutting exposure's relationship with political participation. First, Hypothesis 3a was not supported as the interaction term of social media cross-cutting exposure and engagement was statistically not significantly associated with online political participation, although it was in the anticipated direction ($\beta = 0.03$, $p = .18$, Table 1, Model 3). Hypothesis 3b was supported, as the interactive term was statistically significant ($\beta = 0.03$, $p < .01$). To further probe how variations in engagement alter the relationship between social media cross-cutting exposure and offline political participation, a simple slope analysis was conducted. As illustrated in Fig. 1, the positive association between social media cross-cutting exposure and offline political participation was greater among those who were highly engaged with the message when compared to the less engaged.

It was clear from the results so far that social media cross-cutting exposure from weak ties and engagement with disagreement were significant factors associated with political participation. As a post-hoc analysis, an interaction term between social

media cross-cutting exposure from weak ties and engagement was entered into the regression model. The interaction was statistically significant for both online political participation (Table 1, Model 4, $\beta = 0.05$, $p = .07$), and offline political participation (Table 2, Model 4, $\beta = 0.04$, $p < .01$). A simple slope analysis, again, suggested that those highly engaged with disagreement from weak ties showed higher levels of political participation both online and offline when compared to the less engaged.

5. Discussion and conclusion

The relationship between cross-cutting exposure and political participation has been controversial in many previous studies. The issue has become even more elusive today as the social media sphere is increasingly becoming the primary place of cross-cutting exposure and political participation. This situation calls for a need to identify various contextual and communication variables that may affect the relationship. As part of such an effort, this study found some interesting results. Most of all, it was found that social media cross-cutting exposure, overall, turned out to be positively associated with political participation both online and offline. This appears at odds with many previous findings that documented negative effects of cross-cutting exposure on political participation in the face-to-face environment. This finding, however, is in line with some of the latest research (Kim & Chen, 2016; Lee & Meyers, 2016) that documents positive effects of cross-cutting exposure on political participation in the social media setting. One can argue that cross-cutting exposure and political participation in the social media setting are different from those taking place in the face-to-face setting. Cross-cutting exposure on social media is more frequent and it also takes place in a much more anonymous and comfortable setting (Barnidge, 2017). Ensuing political participation in social media, if any, is also less observable than in the face-to-face setting and is supported by the norm of individual expression on social media. Therefore, previous findings that documented negative effects of cross-cutting exposure on political participation in the face-to-face setting may not apply well to the online social media universe. Researchers studying cross-cutting exposure and political participation thus have to consider the social media's unique characteristics when they design and interpret a study.

Another notable finding was the existence of moderating variables. First, it was found that engagement with disagreement matters such that high engagement amplified the positive

Table 1
Online political participation regressed upon on independent variables.

| | Model 1 | | Model 2 | | Model 3 | | Model 4 | |
|--|---------|------|---------|------|---------|------|-------------------|------|
| | β | S.E. | B | S.E. | β | S.E. | β | S.E. |
| Political Interest | 1.07* | .42 | 1.05* | .42 | 1.08* | .42 | 1.01* | .42 |
| Political Ideology | -.27* | .15 | -.27* | .15 | -.27* | .15 | -.28 [†] | .15 |
| Age | -.01 | .02 | -.00 | .02 | -.00 | .02 | -.00 | .02 |
| Gender (Female) | -.46 | .56 | -.51 | .56 | -.44 | .55 | -.56 | .55 |
| Ethnicity (Non-White) | -.61 | .64 | -.58 | .64 | -.67 | .64 | -.69 | .64 |
| Education | .11 | .29 | .10 | .29 | .15 | .29 | .16 | .30 |
| Income | .04 | .09 | .04 | .09 | .04 | .09 | .08 | .08 |
| Network Size | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| Engagement | .96*** | .16 | .97*** | .16 | .99*** | .16 | 1.02*** | .15 |
| Cross-cutting Exposure | .30*** | .06 | | | .28*** | .07 | | |
| Cross-cutting via Weak ties | | | .36*** | .10 | | | .39*** | .09 |
| Cross-cutting via Strong ties | | | .18 | .14 | | | | |
| Cross-cutting x Engagement | | | | | .03 | .02 | | |
| Cross-cutting via Weak Ties x Engagement | | | | | | | .05 [†] | .03 |
| Model Fit (R ²) | | .43 | | .44 | | .44 | | .44 |

Note: $N = 322$; [†] $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$.

Table 2
Offline political participation regressed upon on independent variables.

| | Model 1 | | Model 2 | | Model 3 | | Model 4 | |
|--|------------------|------|------------------|------|---------|------|---------|------|
| | β | S.E. | β | S.E. | β | S.E. | β | S.E. |
| Political Interest | .81** | .23 | .81** | .23 | .81*** | .23 | .78** | .23 |
| Political Ideology | -.03 | .08 | -.03 | .08 | -.03 | .08 | -.03 | .08 |
| Age | .00 | .00 | .00 | .01 | .00 | .01 | .00 | .01 |
| Gender (Female) | .24 | .31 | -.23 | .31 | .26 | .31 | .20 | .31 |
| Ethnicity (Non-White) | -.79* | .35 | -.79* | .35 | -.80* | .35 | -.86* | .35 |
| Education | .30 [†] | .16 | .30 [†] | .16 | .34* | .16 | .35* | .17 |
| Income | .12* | .05 | .12* | .05 | .12* | .05 | .11* | .05 |
| Network Size | .00 [†] | .00 | .00 [†] | .00 | .00 | .00 | .00 | .00 |
| Engagement | .53*** | .09 | .53*** | .09 | .57*** | .09 | .57*** | .08 |
| Cross-cutting Exposure | .10** | .04 | | | .08* | .04 | | |
| Cross-cutting via Weak ties | | | .10* | .05 | | | .12** | .05 |
| Cross-cutting via Strong ties | | | .10 | .08 | | | | |
| Cross-cutting x Engagement | | | | | .03** | .02 | | |
| Cross-cutting via Weak ties x Engagement | | | | | | | .04** | .02 |
| Model Fit (R ²) | | .48 | | .48 | | .50 | | .49 |

Note: $N = 322$; [†] $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$.

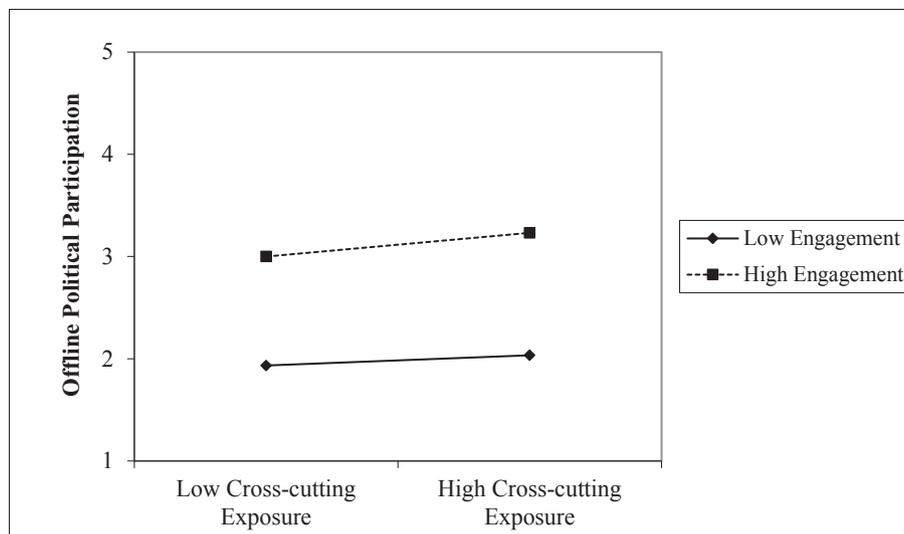


Fig. 1. Predicted values of offline political participation as a function of engagement and social media cross-cutting exposure. Note: Coefficients derived from Table 2, Model 3 (with interaction). Variables were standardized. Predicted values note low (=1) to high (=5) offline political participation.

association between social media cross-cutting exposure and offline political participation. A similar pattern was observed for online political participation, although it failed to reach a statistical significance. Taken together, one can argue that the manner individuals consume disagreement matters, in addition to the content. Second, it was of a particular interest to see social media cross-cutting exposure from weak ties was positively associated with political participation, whereas social media cross-cutting exposure from strong ties was not. This finding is in accordance with the classic sociology study (Granovetter, 1973) as well as recent literature that documented the importance of weak ties or loose coalition of acquaintances and strangers that can be mobilized on issue-to-issue basis (Chadwick, 2006; Shirky, 2008) and that can create awareness of topics not covered by legacy media (Wohn & Bowe, 2016). It is conceivable to think that although the information was cross-cutting and disagreeable, social media users can freely and safely explore and engage with it, if the information comes from weak ties with whom they do not share strong personal connections. That free exploration and engagement may have led to increased political knowledge, efficacy, and participation. By a similar logic, one reason that our Hypotheses 1a & 1b (that social

media cross-cutting exposure from strong ties will be negatively associated with political participation online and offline) were not supported could have been the fact that social media users who value the norms of free exploration and expression, were not hampered by the possibility of offending their strong tie friends and families through political participation. After all, strong ties are those who have already established trust and intimacy with each other (Kenny, 1994; Lu et al., 2016), and thus their expression of political disagreement may have been easily brushed off. This observation, however, is rather speculative, because our survey questionnaire and dataset were not detailed enough to tease out those intricacies. That being said, the findings from this research do point toward the rising importance of weak ties. While cross-cutting exposure from strong ties were deemed critical in the classic People's Choice study (Lazarsfeld et al., 1944), our research shows that perhaps it is weak ties that count more, in this age of social media.

Overall, we believe the findings from this study may provide some critical insights to the current debate surrounding social media and the political life. Social media is now being blamed for a place where fake news thrives and the so-called filter bubble, in

which people are exposed to only self-serving partisan information, is formed (Pariser, 2011; Sunstein, 2017). These phenomena are serious threats to the democratic public sphere. Our findings suggest cross-cutting exposure is a positive force that may help fight fake news and the filter bubble, as it promotes individuals' encounter with new and often opposing viewpoints and leads to political participation both online and offline. And our study implies that cross-cutting exposure is not uncommon on social media, especially when the individuals have more weak ties, or diverse networks of people. In fact, cross-cutting exposure is less likely to take place in offline because it can be more confrontational and uncomfortable, as some studies suggested (Barnidge, 2017; Messing & Westwood, 2014). What this means is that social media has a good potential for becoming a place of more frequent cross-cutting exposure. Technologists, media companies, and policy makers thus should strive to promote more cross-cutting exposure on social media. They can do so by, for example, constantly evaluating their filtering computer algorithms and make them transparent for public scrutiny. Individual users of social media, too, have an important task of enlarging their network to make its composition more diverse and voicing their opinion so that people in their network who are weak ties can be exposed to cross-cutting content. Diverse networks of people are bound to provide more cross-cutting information in a natural manner. Individuals should always keep in mind that their network structure influences their information diet and make conscious efforts to expand it.

We were able to study only a limited number of variables with a moderate sample size. What we found was correlational and does not prove any causality. However, we believe it produced some meaningful results, as they challenge the traditional findings of cross-cutting exposure studies. Future research needs to further probe the unique characteristics of social media and other contextual variables to better understand the complex association between cross-cutting exposure and political participation. As Song and Eveland (2015) convincingly argue, communication networks and their contextual settings should be more fully considered if we want to advance our understanding of effects of communication on people's political and psychological attitudes.

Declarations of interest

None.

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