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Like-minded and cross-cutting talk, network characteristics, and political participation online and offline: A panel study

Abstract: We test the role of like-minded and cross-cutting political discussion as a facilitator of online and offline political participation and examine the role of strong versus weak network ties. Most prior research on the topic has employed cross-sectional designs that may lead to spurious relationships due to the lack of controlled variables. The findings of a two-wave panel survey controlling the autoregressive effects suggest that cross-cutting talk with weak ties significantly dampens online but not offline political participation. However, no such effects were detectable for cross-cutting talk with strong ties. In addition, we found no effect of discussions involving like-minded individuals in either weak or strong network connections on online and offline forms of political engagement. Implications are discussed.

Keywords: disagreement, like-minded and cross-cutting political discussion, political participation

1 Introduction

An abundance of research focuses on whether disagreement in political discussion may depress or foster political participation (Mutz, 2002; Nir, 2011). Despite this rich tradition, three important research gaps prevail: First, few studies compare the effects of cross-cutting versus opinion-friendly political discussion for political participation online *and* offline. Second, possible differences with regard to individuals' network ties have hardly been addressed, and research

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needs to examine the role that strong and weak ties play in online versus offline cross-cutting interpersonal political talk and subsequent effects on participation (e. g., Bernhard and Dohle, 2018). Third, our knowledge about the association between discussion disagreement and resulting behavioral outcomes is inconsistent (e. g., Bello, 2012; Matthes, 2012; Matthes, Knoll, Valenzuela, Hopmann, and von Sikorski, 2019; Nir, 2011) and rests on a "rather shaky foundation" (Klofstad, Sokhey, and McClurg, 2013, p. 132).

We believe that this is, in part, attributable to a lack of panel designs (Bello, 2012): With correlational data, the relationships between assumed independent and dependent variables may be spurious due to the lack of controlled variables and the missing control of autoregressive effects, and reverse relationships cannot be ruled out. Researchers have thus increasingly called for multi-wave surveys (e. g., Klofstad et al., 2013; Lu, Heatherly, and Lee, 2016). Moreover, a large body of research in this area has been conducted in a U.S. context, while studies have demonstrated that online communication patterns may be sensitive to different national and cultural context (Lee and Choi, 2018; but see Matthes et al., 2019). Using a two-wave panel design, we examine the influence of cross-cutting and like-minded interpersonal discussion with strong and weak network ties on participatory activities in online and offline environments in a Western European country.

Cross-cutting talk, like-minded talk, and political participation

Since the early work of Lazarsfeld and colleagues (1944), public opinion scholarship has been concerned with the impact that interpersonal discussion has on individuals' willingness and motivation to participate in activities that are relevant to society. Ideally, citizens should be confronted with both political views they agree with and opposing opinions, as this enables them to be as comprehensively informed as possible. However, confrontation with opposing attitudes and information may lead people to become less politically active, which is why homogenous networks, in theory, are better for the functioning of democracy (Matthes, 2012; Mutz, 2002). In line with this, Mutz (2002) argues that network-heterogeneity dampens political participation because disagreement within a close circle of family, friends, and acquaintances leads people to experience conflict and negative feelings. This, in turn, suppresses political action because individuals do not wish to offend their network. At the same time, cross-cutting in contrast to like-minded views offer new information, making people feel ambivalent (i. e., insecure) about their own positions, further dampening participation.

However, other studies have found no support for that claim (Bello, 2012; Pattie and Johnston, 2008)

In contrast to disagreement, opinion congruence can be assumed to encourage participation (e. g., Matthes and Marquart, 2015). However, most of the available research has focused on the effects of opinion disagreement, rather than of congruence. As two exceptions, Eveland and Hively (2009) as well as Valenzuela, Kim and Gil De Zuñiga (2012) found evidence for the notion that participation is positively affected by like-minded interpersonal discussion. Possibly, opinion-friendly talk reminds people of the benefits of their party alignment (McGhee and Sides, 2011), therefore prompting political engagement. As another explanation, spiral of silence theory (Noelle-Neumann, 1974) suggests that opinion-friendly talk is processed as a cue that the majority of citizens hold similar views, which may strengthen one's viewpoint or be a signal for normative pressure to do the right thing (Matthes and Marquart, 2015).

Strong vs. weak network ties

When looking at the impact of interpersonal discussion, it matters to *whom* individuals talk when they agree or disagree on a given issue. Accordingly, social network ties' strength plays an important role. Roch and colleagues (2000, p. 779), in reference to the seminal work by Granovetter (1973), define tie strength by the frequency of interaction between two individuals: "Strong ties generally reflect repeated interaction within a small group of family, relatives, or close friends [while] weak ties characterize the less frequent contacts that occur within more extensive, specialized networks". The latter entail relationships with co-workers, students at schools, or fellow members of other associations. Strong ties can be further distinguished from comparably weak connections by closer emotional bonds and reciprocity of service (Morey, Eveland, and Hutchens, 2012). These characteristics have consequences for the way in which citizens talk about politics with their network ties: Not only are individuals confronted with political disagreement more often when talking to their strong social network members (Morey et al., 2012), the effects of such interpersonal discussions also vary when compared to weak-tie cross-cutting talk.

When it comes to disagreement, there are two competing theoretical accounts: On the one hand, strong-tie connections are better able to withstand pressure from disagreement since such individuals most likely agree on other more important issues – mere disagreement on political topics does not constitute a threat to strong relationships per se. In addition, "spouses and family members contribute far more to exposure to *sustained* [emphasis added] disagreement" (Bello

and Rolfe, 2014, p. 145), which is to say that close relationships offer a safe place for interpersonal political discussions and remain stable over time; whether one agrees on political topics or not, family members are bound to stay.

On the other hand, citizens may avoid disagreement out of fear of social exclusion (e. g., Lu et al., 2016; Matthes, 2013; Mutz, 2002), which may be stronger when disagreement is faced with strong as opposed to weak ties. Torcal and Maldonado (2014), for instance, found cross-cutting discussions to affect political interest in different ways, depending on the strength of the respective personal relationship: Individuals become more apathetic about politics when their strong network ties (i. e., family and close friends) disagree with them. This effect is less pronounced for cross-cutting talk with weak ties because "it is more difficult to be interested in something that places the individual in conflict with family and friends" (Torcal and Maldonado, 2014, p. 696). While Torcal and Maldonado focused on political interest and did not investigate effects for participation, it may well be argued that political interest is an important prerequisite for any participatory behavior. Taken together, the role of strong versus weak ties in predicting the effects of cross-cutting interpersonal discussion is far from being entirely understood. When it comes to like-minded talk, we completely lack insights about the role of different network ties.

Online vs. offline participation

Offline participation refers to rather traditional forms of participation in political activities, such as voting, working in a party organization, attending speeches, or displaying campaign buttons. Typical forms of online participation are signing an online petition, sending a message to a public office holder, or sharing political messages on social networks (Bernhard and Dohle, 2018). When it comes to the effects of cross-cutting and like-minded discussions, we lack studies that compare online versus offline participation, and extant findings are far from being consistent (see Bello, 2012; Ikeda and Boase, 2011; Matthes et al., 2019).

On the one hand, cross-cutting talk's effects on participation may be weaker in online compared to offline participation contexts: The online environment allows for a huge variety of opinions, and individuals experiencing cross-pressures in their interpersonal network can easily find alternative opinion support online and participate there. When online settings are anonymous, unpopular opinions can be easily voiced without putting personal relationships at stake. For instance, so called "click speech" – "liking" and sharing content without having to produce one's own content (Pang et al., 2016) – does not necessitate much cognitive effort and commitment, and may not depend on interpersonal cross-pres-

sures. On the other hand, the boundaries between online and offline communication are becoming increasingly blurred (Bernhard and Dohle, 2018; Pang et al., 2016). For instance, Facebook contacts are often based on real-world social relationships, and online political participation may be visible to one's interpersonal network. It follows that cross-cutting or like-minded talk may determine whether citizens participate online or not.

Following the outlined literature, we propose two hypotheses and two research questions describing the relationship between political discussion and political participation. First, we assume that:

H1: Exposure to cross-cutting talk dampens participation.

H2: Exposure to like-minded talk increases participation.

Since these relationships may depend on network characteristics as well as the type of political participation (i. e., online vs. offline), and competing theoretical arguments prevail in the literature, we also ask:

RQ1: What are the differences between strong and weak network ties when it comes to the influence of political talk on participation?

RQ2: Are online and offline participation affected to different extents when it comes to the influence of cross-cutting and like-minded political talk?

2 Method

We conducted a two-wave online survey in Austria between May and July of 2015. Similar to previous research (e. g., Klofstad et al., 2013), the time lag between both waves was approximately four weeks, and a total number of $N = 336$ individuals completed both waves[1]. The panel study was conducted as part of a class at the University of Vienna's Communication Science Department, and recruitment of participants was organized by the students, who contacted their personal networks following quota assignments for the Austrian population. To encourage participation, respondents had the chance to take part in a lottery (gift vouchers).

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1 Initially, 693 participants completed the first wave, and 476 respondents completed wave two. Importantly, the second wave also included new participants that had not completed wave one. Based on a six-digit personal identification code, we matched 336 cases. Our analysis is based on those individuals who completed both waves (response rate of RR1 = 48.5 %).

The final sample slightly overrepresented females (61 %, n = 205), with a mean age of M = 36.6 years (SD = 16.97, range 15–88), and a slightly higher formal education than average in Austria (10.4 % primary school or similar degree, 12.8 % secondary school, 33.9 % high school diploma, 42.9 % university or similar tertiary degree).

Measurements

All measurements are listed in the Appendix. Our main independent variables asked participants about the frequency with which they were exposed to various interpersonal discussion partners that were in line with, or opposing, their own political position during the past four weeks (ranging from 1 = never to 5 = very often; adapted from Eveland and Hively [2009] and Valenzuela et al. [2012]).[2] It is important to note that these are formative measures, not reflexive measures (Kline, 2011). Items were summed up to create the following indices: cross-cutting talk with weak ties in W1 (M = 8.44, SD = 9.34) and W2 (M = 8.74, SD = 4.44), cross-cutting talk with strong ties in W1 (M = 6.54, SD = 2.24) and W2 (M = 6.44, SD = 2.33), like-minded talk with weak ties (W1: M = 9.98, SD = 4.48, W2: M = 10.53, SD = 4.89) and strong ties (W1: M = 10.23, SD = 2.76; W2: M = 10.32, SD = 2.83).[3]

In order to assess participatory activities, we asked respondents in both waves whether they had, first, engaged (no/yes) in any of nine *offline activities* which were summarized to one index measuring participatory activities offline (W1: α = .77, M = 1.86, SD = 2.08, range 0–8; W2: α = .76, M = 1.76, SD = 2.04, range 0–8; adapted from Vissers and Stolle, 2014). Participants' *online participation activities* were assessed by asking whether they had, during the past four weeks, engaged (no/yes) in any of four activities that were summed up to measure online participatory behavior (W1: α = .73, M = 1.32, SD = 1.35; W2: α = .69, M = 1.28, SD = 1.30; range 0–4, respectively). Online and offline political participation in wave 2 are our main dependent variables, and the panel analysis allows

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2 When assessing the frequency of respondents' cross-cutting and like-minded talk, we relied on predefined groups; respondents could not provide individual persons or roles here (e. g., 'my best friend at work'). Our decision was motivated by the amount of recoding and interpretation that would have been required from us as the researchers in this case, with potential biases resulting from false categorization.

3 Although cross-cutting and like-minded talk are comprised of formative indices, we additionally ran principal component analyses (PCAs, orthogonal oblique rotation, list-wise exclusion, eigenvalues > 1) for each wave and type of political talk separately. For both panel waves, results clearly provide two factors for each type of talk, one for weak and one for strong ties.

us to control for the respective autoregressive effect of former participatory activities in wave 1.

In addition to sociodemographics, we included a number of control variables from W1: newspaper ($M = 3.40$, $SD = 1.25$), television ($M = 3.60$, $SD = 1.21$), online news ($M = 3.71$, $SD = 1.33$), and social media use ($M = 2.88$, $SD = 1.49$; all ranging from 1 = not at all, to 5 = very often), political orientation ($M = 4.24$, $SD = 2.04$; range 1 = very left to 10 = very right), and general political interest ($M = 3.35$, $SD = 1.28$, range 1 = hardly interested to 5 = very interested) (Foos and de Rooj, 2016).

Data analysis

Data were analyzed using path analysis in Mplus. Since the dependent variables are count variables with clear signs of over-dispersion, OLS regression is not appropriate. We thus used negative binominal regression, controlling for the autoregressive states of offline and online participation (see Table 2).

3 Results

We hypothesized that cross-cutting political discussions dampen, and like-minded discussions foster, individuals' political participation. As can be seen in Table 1, these assumptions only find partial support. There were no effects of cross-cutting discussions on offline participation, neither for weak ($b = -.053$, $p = .50$) nor strong ties partners ($b = -.001$, $p = .99$). In addition, we found no effects of like-minded discussion, with either weak or strong ties, on online ($b_{weak} = .039$, ns.; $b_{strong} = -.029$, ns.) or offline participation ($b_{weak} = .065$, $p = .40$; $b_{strong} = -.042$, $p = .55$).

However, there was a significant negative effect of weak-ties cross-cutting discussion on online participation ($b = -.221$, $p < .05$). This suggests that cross-cutting talk with weak ties dampens online but not offline participation. It is important to note that we observed highly significant autoregressive effects for both types of political participation. That is, we tested a conservative model unlikely to overestimate the effects of cross-cutting and like-minded interpersonal discussion. In explaining this finding, one may argue that people refrain from engaging online with other people with whom they have less intense relationships (i. e., weak ties) because weak ties are threatened when disagreement is voiced (e. g., posting a political message on Facebook). One may further argue that strong ties,

by contrast, can withstand pressure from interpersonal disagreement because they are usually built on a stable basis unrelated to political topics.

Online participation explained offline participation (b = .24, p < .01), but offline participation did not predict online participation (b = .11, p = .26). As for the control variables, due to the strong autoregressive effects there were hardly any significant relationships except for political interest and its impact on offline participation (b = .31, p < .001). Political interest, however, did not explain online participation.

Table 1: Frequency of opinion-friendly and cross-cutting talk with different social groups in the previous four weeks to waves 1 and 2, respectively (range: 1 = never to 5 = very frequently).

	Wave 1 friendly talk M (SD)	Wave 2 friendly talk M (SD)	Wave 1 cross-cutting talk M (SD)	Wave 2 cross-cutting talk M (SD)
Partners or spouses	3.44 (1.48)	3.40 (1.43)	2.06 (1.08)	2.03 (0.99)
Friends	3.71 (1.18)	3.74 (1.12)	2.36 (1.04)	2.34 (1.01)
Family/other relatives	3.36 (1.18)	3.41 (1.18)	2.29 (1.00)	2.20 (1.00)
Neighbors	1.84 (1.17)	2.00 (1.21)	1.56 (0.96)	1.68 (1.00)
Colleagues	2.99 (1.31)	2.88 (1.29)	2.37 (1.16)	2.20 (1.05)
Teachers	2.20 (1.33)	2.27 (1.28)	1.81 (1.14)	1.79 (1.07)
Close online contacts	2.01 (1.32)	2.20 (1.38	1.71 (1.04)	1.81 (1.16)
Distant online contacts	1.61 (1.09)	1.88 (1.20)	1.65 (1.22)	1.87 (1.35)

Table 2: Standardized path coefficients explaining offline and online participation in wave 2.

	Participation offline t_2	Participation online t_2
Sex	.021 (.119)	-.012 (.151)
Age	-.019 (.077)	-.115 (.106)
Education	.090 (.080)	-.007 (.097)
News use (newspaper)	.057 (.072)	.022 (.090)
News use (TV)	-.109 (.066)	-.037 (.085)
News use (online)	-.016 (.073)	.044 (.101)
Social media use	-.127 (.078)	.158 (.107)
Political interest	.309 (.083)***	.078 (.105)
Political orientation	-.020 (.108)	-.118 (.164)
Cross-cutting political talk with strong ties t_1	-.001 (.068)	.013 (.088)
Cross-cutting political talk with weak ties t_1	-.053 (.077)	-.221 (.103)*

	Participation offline t_2	Participation online t_2
Opinion-friendly political talk with strong ties t_1	-.042 (.070)	-.029 (.093)
Opinion-friendly political talk with weak ties t_1	.065 (.076)	.039 (.100)
Participation offline t_1	.675 (.060)***	.107 (.088)
Participation online t_1	.235 (.077)**	.801 (.090)***

Note. Values represent parameter estimates; numbers in parentheses show standard errors.
*p < .05. **p < .01. ***p < .001.

4 Discussion

We aimed at providing new insights into the oftentimes contested relationship between exposure to cross-cutting political talk and resulting participation in political activities. In arguing that the "serious disagreement about disagreement" (Klofstad et al., 2013, p. 132) prevails in the scientific literature, we examined the different roles that network strengths play in exposure to cross-cutting and opinion-friendly political talk for online and offline participation. We also looked at the effects of friendly talk, an understudied area of research.

We argued that one of the main reasons for the inconsistent results in the research on political disagreement and participation is attributable to the lack of panel data. Importantly, correlational data stemming from cross-sectional surveys (a) may be spurious due to the lack of controlled variables and the missing strict control for causality over time, (b) can be diluted because autoregressive effects have not been accounted for, and (c) can be spurious because reverse relationships cannot be ruled out. Panel studies thus offer a valuable methodological alternative and provide conservative tests preventing spurious relationships.

The findings of our panel study suggest that the effects of cross-cutting and like-minded interpersonal discussion on participation are modest at best. Cross-cutting talk with weak ties negatively predicted online participation but did not affect offline participation. There are grounds to theorize that the former requires less effort compared to offline participation: Sharing a message online can be done more quickly and with less investment than taking part in a demonstration, working for a political organization, or trying to persuade other individuals of a political position. Hence, offline participation may be less volatile than its online counterpart and therefore less prone to influences from cross-pressures. Offline participation reflects rather stable tendencies, and our data show that offline but not online participation is explained by political interest. Our

results for offline participatory activities thus align with recent findings from a meta-analysis by Matthes and colleagues (2019, p. 11), which showed "no significant relationship between cross-cutting exposure and political participation". On the one hand, this is a good sign from a normative perspective, since our findings underline that when talking to people of different opinions face-to-face, no negative consequences for participatory democracy need to be feared. On the other hand, however, the increasing frequency with which citizens engage in political talk online and the potential negative effects of such weak-tie heterogeneous discussion on political participation need to be further examined.

Like-minded interpersonal discussion, no matter if cross-cutting or friendly, was unrelated to political participation. That is, a friendly opinion climate alone does not suffice to engage people. This finding resembles research on the spiral of silence demonstrating only small effects of the opinion climate (Glynn, Hayes, and Shanahan, 1997). We would like to stress that such null-findings are extremely important given the recent discussion of problematic publication biases and "sloppy science" in the field (Vermeulen and Hartmannn, 2015). A bias against null-findings may lead to erroneous conclusions about substantial research areas.

Limitations and future research

Clearly, panel studies with more waves are needed, preferably including comparative data from multiple countries. Similar to previous research (e. g., Klofstad et al., 2013), we used a time gap of four weeks between the waves which is fully sufficient to detect cross-lagged relationships. Furthermore, we measured disagreement within the interpersonal social network by *perceived* disagreement. Such a question does not allow us to assess *actual* opposition; however, it has repeatedly been argued that perceived disagreement is, in fact, more decisive in this context (e. g., Klofstad et al., 2013; Lu et al., 2016). While this has not been the focus here, we agree that inconsistencies also stem from operationalizing central concepts differently (e. g., Klofstad et al., 2013), and strongly urge future work to put more emphasis on uniform measurements. In addition, our questionnaire was limited in asking about the frequency of *political* discussion encounters only; as such, we are not able to assess how often respondents talk to other people in their network *in general*. Future work should include respective measures in order to account for a) general network sizes (and the amount of weak and strong ties) and b) the possibility that more recent conversations might bias respondents' memory. When doing so, scholars are also encouraged to take a closer look at study respondents' conversation partners: As we

argued here, the 'who' can play an important role when it comes to assessing the influence of talk to strong and weak network ties on participatory behavior. While we considered the frequency with which respondents in our sample were exposed to opinion-friendly and cross-cutting talk with predefined groups of conversation partners (e. g., spouses, relatives, teachers, or distant online contacts), individual perceptions of the importance of these groups might differ (see Eveland, Song, Hutchens, and Levitan, 2019). Social Network Analysis and the use of name generators in research can be beneficial here as well in order to identify central actors within networks (e. g., Miller, Bobkowski, Maliniak, and Rapoport, 2015; Nir, 2005). Moreover, we encourage data collection beyond the Austrian context of this study, and particularly recommend comparative designs to address questions related to cultural differences in political discussion setups as well. Research may also move beyond the simple online-offline distinction when it comes to political participation, but rather analyze high versus low effort forms (Knoll, Matthes, and Heiss, 2020).

Finally, scholars have stressed the importance of including moderating influences both at the individual and contextual level, arguing that interpersonal discussion heterogeneity may positively affect political behavior for some individuals while hindering participation for others. It was beyond the scope of this paper to further investigate the influence of such moderators, but we strongly encourage future work to take these into account in longitudinal data as well.

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Appendix

Cross-cutting talk: "When talking about politics with others, it can happen that others do not share your views. In the past four weeks, how often did it happen that the following persons voiced a political opinion you disagreed with?"
Strong ties: partners or spouses; friends; other family members or relatives.
Weak ties: neighbors; colleagues from work or fellow students at school; teachers, professors, or supervisors.

Like-minded talk: "When talking about politics with others, it can happen that others share your views. In the past four weeks, how often did it happen that the following persons voiced a political opinion you agreed with?"
Strong ties: partners or spouses; friends; other family members or relatives.
Weak ties: neighbors; colleagues from work or fellow students at school; teachers, professors, or supervisors.

Online participation: Signed an online petition, shared political content on social media, liked political content on social media, wrote a political article for social media.

Offline participation: Took part in a demonstration, worked for a political organization or politician, tried to persuade other individuals of a political position, tried to motivate other individuals to take political action, participated in a political event, worn a button or sticker of a political organization, publicly defended a political position, financially supported a political organization or group, and supported a political organization or group through work force.