UC Davis
UC Davis Electronic Theses and Dissertations

Title

The contextual role of diversity in partisan communication

Permalink

https://escholarship.org/uc/item/6hs0q6v1

Author

Lee, Seungsu

Publication Date

2023

Peer reviewed|Thesis/dissertation

The Contextual Role of Diversity in Partisan Communication

By

SEUNGSU LEE
DISSERTATION

Submitted in partial satisfaction of the requirements for the degree of

DOCTOR OF PHILOSOPHY

in

Communication

in the

OFFICE OF GRADUATE STUDIES

of the

UNIVERSITY OF CALIFORNIA

DAVIS

Approved:

Jaeho Cho, Chair

Wojcieszak Magdalena

Laramie Taylor

Committee in Charge

2023

i

Acknowledgments

I would like to express my deepest appreciation to my advisor and chair of my committee, Dr. Jaeho Cho, for his invaluable patience and feedback. I am also deeply indebted to my committee, Dr. Wojcieszak Magdalena and Dr. Laramie Taylor, who generously provided expertise and supported my research. They not only helped me complete my dissertation, but also trained me to become a communication scholar. Additionally, I would be remiss in not mentioning the Department of Communication that generously supported my doctoral studies and Dr. Yoo Jung Oh who shared her sincere friendship with me as a cohort.

Lastly, this endeavor would not have been possible without the countless love and support from my family; especially Sungsil, my beloved wife, and Logan and Loah, my children. Their belief in me has kept my spirits and motivation high during this journey. Without my family, I could not have completed my PhD degree. I would like to dedicate this work to my family.

Abstract

The role of diversity in shaping political communication was examined in the context of partisan media and audiences in the United States. In the first study, partisan diversity was conceptualized as a geographical context in terms of party preferences. Using a set of nationwide representative panel survey data (2012, 2016 and 2020 American National Election Studies: N = 10343) with multilevel modeling techniques, its effects on homogeneous political discussion, knowledge, and affective polarization were tested. The results revealed that county-level partisan diversity was negatively related to the average levels of like-minded political talk and affective polarization. The results also revealed that county-level partisan diversity attenuated the positive relationship between like-minded news use and homogeneous political discussion. Furthermore, its indirect moderating effects were found on political knowledge and affective polarization. In the second study, partisan diversity was defined as a communication context by which political information was surrounded. The online experiment (N = 574) was run by manipulating comments and emojis on social media posts that talked about abortion (pro-choice versus pro-life Facebook posts). Specifically, the number of like-minded/dissimilar comments and favorable/hostile emojis was manipulated to create three different contexts (homogeneous, balanced, and heterogeneous). The results revealed that the gaps of perceived bias between pro-attitudinal and counter-attitudinal posts were reduced when it came to a heterogeneous context. Furthermore, a heterogeneous context was found to indirectly mitigate discomfort toward out-party supporters and political participation intention through reducing the hostile media perception. Taken together, it was found that partisan diversity could alleviate democratically undesirable consequences of partisan media use and communication.

Table of Contents

I. Introduction

No human behavior happens in a social vacuum, and communication is not an exception. It has been long thought that patterns and effects of human communication are influenced by contextual factors, such as media environment and geographical location, as well as individual predispositions (Cho, 2011; Kim & Ball-Rokeach, 2006; Li et al., 2023; Suk et al., 2020). Media use and interpersonal discussion are embedded in a social context (e.g., neighborhood and local community), which is in part influenced by the place in which they have lived. For example, citizens living in different regions would be exposed to different amounts and types of information and discussion (Cho, 2008; Delli Carpini et al., 1994). In other words, communication should be understood as a multilevel phenomenon that individual-level orientations interact with higher-level contexts (McLeod et al., 2010; Pan & McLeod, 1991). Thus, an investigation into the role of the context in shaping communication patterns and their effects is required to enhance the understanding of communication.

Furthermore, multilevel communication research helps explicate a process of how the context influences on individuals' behavior through communication (Pan & McLeod, 1991). In other words, it can figure out the role of communication in linking a macro-level context to a micro-level phenomenon as citizens are informed about their environment and relate to each other via communication. For example, "diversity" or heterogeneity in politics is essential for healthy democracy and expected to result in socially desirable citizen behavior (Scheufele et al., 2006; Price et al., 2002). Given this, research on the contextual effect of diversity can explain a causal mechanism such that a diversity context influences political communication among citizens, which in turn shapes their attitude and behavior. In addition, practical suggestions can be provided for producing social goods through communication intervention. In summary, the

multilevel perspective on communication research not only enhances the understanding of communication, but also contributes to practical implications.

Considering this, my dissertation project examines roles of diversity in shaping political communication among partisan citizens. On the one hand, diversity is defined as a contextual factor in which news consumption and political conversation are cultivated and embedded, and it can appear as an aggregated form of voting preferences (Study I) and news comments (Study II). On the other hand, scholarly concerns are given to partisan citizens, who are subject to politically undesirable phenomena, such as hostility to the opposite side (e.g., affective polarization) and aggressive participation (e.g., January 6 U.S. Capitol attack). Furthermore, the role of diversity would be significant for them since they tend to disregard dissimilar opinions and devalue counter-attitudinal evidence (Taber & Lodge, 2006; Vallone et al., 1985). Taken together, this project investigates the role of diversity as a communication context, focusing on its effects on partisan communication and behavior, through two empirical studies.

The first study attempts to explicate a contextual effect of heterogeneity on political communication among partisan Americans. Partisan heterogeneity was conceptualized as geographical variations in terms of party preferences in the U.S. presidential elections. Combining nationally representative panel survey data (i.e., the American National Election Studies) with county-level statistics (i.e., the Census and American Community Survey), a multilevel process of partisan communication that individual-level news consumption and political discussion interact with county-level partisan heterogeneity was tested. At the individual level, political communication effects on knowledge and affective polarization were in part indirect. Specifically, like-minded and cross-cutting news use increased homogeneous political discussion, which was in turn positively related to political knowledge and polarization. Next, a

2

county-level context of partisan heterogeneity reduced the overall levels of like-minded political talk and affective polarization. In addition, it attenuated the positive relationship between like-minded news use and homogeneous political talk. The findings suggest that living in a politically diverse community is beneficial to mitigate concerns about partisan homophily (e.g., echo chamber) and animosity through breaking a homogeneous political communication cycle.

The second study investigates a contextual effect of heterogeneity on the hostile media perception (HMP) and its consequences in the case of abortion among partisan Americans. Partisan heterogeneity was conceptualized as a context of news consumption that consists of other users' responses on social media. The online experiment was conducted by manipulating a slant of Facebook posts (i.e., pro-choice versus pro-life) and homogeneity of other readers' responses, such as comments and emojis. The experiment revealed that exposure to counter-attitudinal social media posts (over pro-attitudinal posts) was indirectly and positively related to affective polarization and political participation through inducing HMP. Furthermore, the indirect effects were stronger when the posts were surrounded by like-minded comments and favorable emojis, while they were non-significant when the posts were accompanied with dissimilar comments and hostile emojis. A heterogeneous context attenuated the mediating role of HMP in augmenting social distance from political opponents and political participation. The findings suggest that diversity of opinion on social media can have depolarizing and demobilizing effects through reducing HMP.

The two studies were designed to be complementary and synergetic to explicate the contextual effects of partisan heterogeneity on political communication by employing different research methods (i.e., experiment and survey), frameworks (i.e., communication mediation and media effects) and outcome variables (e.g., political knowledge, polarization, and participation).

II. The Contextual Role of Diversity in Partisan Communication (1): Communication Effect on Political Knowledge and Affective Polarization

The role of media use and political discussion in shaping citizens' attitude and behavior has received a great deal of scholarly attention. For instance, news consumption is supposed to trigger political talk through which information from the media is shared and interpreted (Chaffee & Mutz, 1988; Kim et al., 1999; Shah et al., 2017), and the practice of reasoning during conversation in turn produces political learning and participation (Cho et al., 2009). The emergence of new media technologies and the change of political environment have reshaped the patterns of political communication, such as selective exposure to like-minded news and homophily on social media (Bennett & Iyengar, 2008; Himelboim et al., 2013; Stroud, 2011). It is a problem that the change of political communication may lead to undesirable outcomes in a democratic society. For instance, partisan news media are frequently named as a cause of exacerbating political polarization (Garrett et al., 2014; Levendusky, 2013; cf. Wojcieszak et al., 2023) and cultivating citizens incorrectly informed about politics (Garrett et al., 2016). To address this concern, communication scholars work on explaining the process of how partisan communication leads to the political outcomes and finding a solution of mitigating them.

Relating to the latter task, a context of heterogeneity has been intensively studied as it can mitigate polarizing effects of political communication. For example, heterogeneity in communication networks is found to attenuate the relationship between partisan media use and political polarization (Kim, 2015; Lee & Choi, 2020). Yet, relatively little attention has been given to the role of heterogeneity as a geographical context. In fact, patterns of political communication and their effects are in part influenced by a geographical location in which citizens have lived (Cho, 2011; Delli Carpini et al., 1994; Shah et al., 2001; Suk et al., 2020). As

a geographical location serves as a stable and ubiquitous context, its influence should be cumulative, long-term, and thus strong. For instance, heterogeneity in a local community would have a longer and stronger depolarizing effect than heterogeneity in an experimental setting. Taken together, I argue that an investigation into the role of heterogeneity in moderating political communication effects needs to be expanded to the geographical context. By adding a context of heterogeneity to the literature, the present study is expected to enhance our understanding of political communication effects and provide practical suggestions for healthy democracy.

The present study conceptualizes heterogeneity as a geographical context and examines its effects on political communication among partisan citizens. Specifically, partisan heterogeneity is defined as geographical variations in terms of party preferences in the U.S. presidential elections. Employing a set of representative panel survey data (i.e., the American National Election Studies) with county-level statistics, I investigate (1) whether and how a county-level context of heterogeneity influences individual partisans' political discussion, knowledge and affective polarization and (2) whether and how it moderates the relationships among partisan news use, homogeneous political talk, knowledge and polarization.

Literature Review

Two Types of News Consumption: Like-Minded versus Cross-Cutting

As communication technologies have been developed, citizens' patterns of news consumption in a digital age are different from those in the era of mass communication (Bennett & Iyengar, 2008; Shah et al., 2017). On the one hand, partisan journalism has become popular in the news system, replacing objective journalism (Waisbord, 2018). A lot of news channels increasingly provide slanted information catering to audiences' partisan taste, which is called partisan media (Levendusky, 2013). On the other hand, audiences can select and consume news

based on their political preferences with digital media providing a nearly infinite amount of information with partisan perspectives (Gil de Zúñiga et al., 2012; Peterson et al., 2021; Stroud, 2011; cf. Guess, 2021). Furthermore, recommendation algorithms of online platforms are likely to strengthen user selectivity, functioning as an invisible information filter (Cho et al., 2020). Taken together, the combination of media fragmentation and user selectivity has reshaped the ways citizens consume news.

As news consumption has been personalized, political predispositions motivate audiences to choose pro-attitudinal information over counter-attitudinal information – selective or like-minded news use (Garrett, 2009; Knobloch-Westerwick et al., 2020; Stroud, 2011). It is noted that the meaning of "selective" could differ depending on what motivations individuals have behind seeking information. That is, dissimilar news could be selected, and thus I employ the term "like-minded" news use to be more precise conceptually. Like-minded news use is known to be driven not only by desire to avoid cognitive dissonance (Festinger, 1957) but also by motivation to reinforce pre-existing political identity (Garrett, 2009). Evidence suggests that like-minded news use is a common pattern of news consumption across media platforms (Gil de Zúñiga et al., 2012; Himelboim et al., 2013; Iyengar & Hahn, 2009; Peterson et al., 2021). Yet, a body of research has shown that counter-attitudinal news consumption – cross-cutting news use – is not unusual (Bakshy et al., 2015; Beam et al., 2018; Yang et al., 2020). Citizens may seek information that challenges their political view based on accuracy motivation (Chen, 2018), or may encounter such news in the form of incidental exposure (Wojcieszak & Mutz, 2009). To summarize, extant research suggests that two distinct types of news consumption – like-minded and cross-cutting news use – co-exist (Garrett et al., 2013). Reflecting this, I distinguish overall

news use into like-minded and cross-cutting news use, which is more appropriate to capture the flow of partisan communication (Lee & Cho, 2023; Suk et al., 2022).

Partisan News Use to Homogeneous Political Discussion

It has been long thought that news consumption in general motivates citizens to engage in political discussion (Lazarsfeld et al., 1948; Shah et al., 2005). In fact, talking about what is learned from news is a likely and initial behavioral response after consuming news (Chaffee & Mutz, 1988). With news consumption differentiated between like-minded and cross-cutting news use, I hypothesize that two types of news consumption can lead to homogeneous political talk, but through distinct psychological mechanisms. First, like-minded news use is expected to increase homogeneous political discussion through reinforcing pre-existing partisan identity. As exposure to pro-attitudinal information is likely to strengthen the certainty of pre-existing political attitudes (Knobloch-Westerwick & Johnson, 2014; Levendusky, 2013), audiences would be more confident about their own attitudes (Lazarsfeld et al., 1948; Mutz, 2006). As a result, they likely express their opinions in public or engage in political discussion with like-minded others. Willingness to talk is able to be facilitated by like-minded news exposure to the extent that news audiences perceive the public opinion climate to be favorable to their own opinions. As notions of in-group favoritism (Hewstone et al., 2002) and biased information processing (Petty & Cacioppo, 1990) suggest, audiences tend to evaluate pro-attitudinal information to be more reasonable and more widely accepted than counter-attitudinal information. As the perception of holding valid and majority ideas can encourage political talk (Thurre et al., 2020; Wang et al., 2017), news audiences are more likely to engage in homogeneous political discussion through an increased favorable opinion climate perception induced by like-minded news use.

Second, cross-cutting news use can also result in homogeneous political discussion as attitude-incongruent information creates uncertainty and cognitive dissonance. A desire to reduce uncertainty is likely to lead news audiences to engage in further information seeking, including political discussion with others (Berger & Calabrese, 1975). Similarly, they would be motivated to resolve cognitive dissonance that resulted from cross-cutting news exposure by seeking confirmation of their pre-existing attitudes (Festinger, 1957). Both uncertainty and cognitive dissonance can be resolved by reinforcing their own attitudes, and homogeneous political talk is one way of reinforcement. Specifically, political conversation within everyday communication networks (e.g., political talk with family and friends) can offer an opportunity for them to validate their existing opinions and dismiss the opposite opinions (Finifter, 1974; Mutz, 2006), which can help resolve the dissonance. Thus, surveillance and defensive motivations spurred by cross-cutting news exposure are likely to drive political discussion with like-minded people. In short, like-minded news use is expected to increase homogenous political discussion through conviction or reinforcement, while cross-cutting news use can encourage it through uncertainty or dissonance.

H1: Like-minded news use will increase homogeneous political discussion.

H2: Cross-cutting news use will increase homogeneous political discussion.

Homogeneous Political Talk, Affective Polarization, and Political Knowledge

Everyday conversation about politics tends to be held among like-minded people (Huber & Malhotra, 2017; Ponder & Haridakis, 2015) as politics is barely considered an appropriate topic for an everyday casual conversation. Homogeneous political discussion within one's close network is expected to activate affective polarization, which is defined as "the extent to which partisans view [others who have different partisan perspectives] as a disliked out-group" (Iyengar

et al., 2012, p. 406). In American politics, affective polarization is understood as "the tendency of Democrats and Republicans to dislike and distrust one another" (Druckman & Levendusky, 2019, p. 114). When partisan audiences talk with like-minded people, they are likely to join a conversation which praises their side and/or criticizes the opposite side. Through the conversation, favorability toward the in-party and/or hostility toward the out-party could be renewed and reaffirmed by strengthening their pre-existing political view and through biased information processing (Druckman et al., 2018; Wojcieszak, 2010), which increased affective polarization. For example, Hutchens et al. (2019) found the spiral of reciprocal reinforcement between homogeneous political talk and affective polarization. That is, homogeneous political discussion increases affective polarization, which in turn provokes further like-minded political talk. In a related vein, research on expression effects also adds to this expectation. Expressing one's view itself may serve as a self-reinforcing force for the expresser, especially when the communication partner shares a similar view or the feedback from the listener does not challenge the expressed view (Cho et al., 2018; Valkenburg, 2017). Thus, one's pre-existing political identity and affective polarization are likely to harden as one expresses and shares opinions with like-minded others.

On the other hand, political conversation in general contributes to political knowledge as it provides opportunities to receive new information from others and elaborate on existing knowledge (Amsalem & Nir, 2021; Eveland & Thomson, 2006). As citizens may have different sets of knowledge, political discussion lets them be informed about what they are not aware of. They can also check and correct their existing knowledge through political conversation with other people. Furthermore, discussants are engaged in mental elaboration through the message reception and production processes that political discussion entails (Cho et al., 2018; Eveland,

2004). That is, discussants need to retrieve, consolidate, and reorganize prior knowledge while processing new information from others and planning and producing their utterance (Greene, 1984; Pingree, 2007). Through cognitive elaboration, knowledge is likely to be consolidated and updated. In short, political discussion serves as a place for citizens to be informed about politics further. Taken together, political talk with like-minded others is expected to enhance political knowledge and exacerbate affective polarization.

H3: Homogeneous political discussion will increase (a) political knowledge and (b) affective polarization.

Modeling Effects of News Use and Political Talk: Communication Mediation Model

The three hypotheses imply an indirect path from partisan news use (i.e., like-minded and cross-cutting) to political knowledge and affective polarization via homogeneous political talk. Given this, a long tradition of the communication mediation model (CMM; Shah et al., 2017) provides a theoretical framework connecting news use and interpersonal discussion to political outcomes. Specifically, the CMM posits that political conversation serves as a key mediator linking news consumption to the outcomes (Cho et al., 2009; Gil de Zúñiga et al., 2019; Shah et al., 2005; Sotirovic & McLeod, 2001). Political discussion provides an opportunity to comprehend the information from news and to be exposed to social influences from others (Eveland, 2004; Kim et al., 1999; Shah et al., 2017), which leads citizens to take part in politics. In other words, the effects of news consumption on political outcomes are in large part indirect and mediated by interpersonal discussion.

Based on the cognitive psychology model (Markus & Zajonc, 1985), the CMM originally concerns how citizens' background orientations and contexts shape political behavior through communication practices including news consumption and discussion (Shah et al., 2005;

Sotirovic & McLeod, 2001). For instance, news consumption, which is contextualized in structural and situational factors, induces psychological and communicative responses, which in turn results in political behavior (Cho et al., 2009). Ample evidence has shown the mediating role of political talk in the relationship between news use and political outcomes, including knowledge, polarization, and participation (Choi, 2022; Chen et al., 2022; Gill, 2022; Lee & Cho, 2023; Lee et al., 2013). In the present study, the CMM suggests that like-minded and cross-cutting news consumption is indirectly related to affective polarization and political knowledge through homogeneous political discussion.

Geographical Variations in Political Communication

Although the CMM primarily examines the effects of news consumption and discussion on political behavior at the individual level (Shah et al., 2005; Sotirovic & McLeod, 2001), recent research shows that processes of the CMM can vary by higher-level contexts, such as a country-level context of freedom of expression and the press (Borah et al., 2022; Gil de Zúñiga et al., 2019). In other words, political communication effects on individual citizens would be different depending on the country in which they reside. In fact, citizens' political communication and behavior is in part influenced by social contexts in which they are embedded (Cho, 2008; Huckfeldt & Sprague, 1995; Kim & Ball-Rokeach, 2006; Oliver, 1999; Suk et al., 2020). As communication is a multilevel phenomenon that individual and structural characteristics jointly influence (McLeod et al., 2010; Pan & McLeod, 1991), a contextual factor, such as geography, should be considered to fully understand citizens' political communication (Cramer, 2016; Cho, 2011; Li et al., 2023; Suk et al., 2020).

Among various social contexts, a geographical location or the place in which they have lived and interacted with others is expected to shape a way of consuming news media, talking

about politics, and expressing political opinion (Cho, 2008; Huckfeldt & Sprague, 1995). A geographical context is not only relatively stable, but also difficult to be controlled by an individual citizen. Furthermore, it is the geographical location that citizen communication repeatedly happens as a routine (Cramer, 2016). Accordingly, geographical characteristics should influence the patterns of political communication and their effects on behavior. For example, the total amount of political information (Cho, 2011; Olien et al., 1978), the overall level and kinds of political knowledge (Cho & McLeod, 2007; Delli Carpini et al., 1994), and the degree of political participation (Oliver, 1999; van Holm, 2019) could be influenced by a geopolitical context in which residents are located. Furthermore, Shah et al. (2001) found that effects of news consumption on civic participation were moderated by community-level characteristics. Similarly, Kim and Ball-Rokeach (2006) reported that the relationship between ICSN (i.e., individual-level integrated connectedness to a storytelling network) and civic engagement was moderated by neighborhood characteristics. Cho and McLeod (2007) found that a community context of cohesion reduced the gaps of participation among its residents. In short, where citizens have lived is expected to influence how they consume news and communicate with others about politics and further how such communication works.

Living in a Politically Diverse Community

It is known that heterogeneous communication networks in which citizens are exposed to dissimilar political views produce depolarizing effects on political discussion and behavior (Kim, 2015; Lu et al., 2016; Mutz, 2006). The previous studies define communication networks as a context in which individuals express and exchange their opinions with a relatively small number of others. Yet, heterogeneity in political preferences can be applied to a broad context, such as communities and countries (Cho, 2011; Li et al., 2023; Gil de Zúñiga et al., 2019). Given this,

partisan heterogeneity is defined in the present study as a geographical context in which dissimilar political preferences are competitive and evenly distributed within a community (Oliver, 1999; Scheufele, 2006). In other words, partisan heterogeneity refers to the degree of residents' diversity in terms of partisanship within a community. It could manifest as a form of electoral competition because candidates running in a heterogeneous district are engaged in intense competition to win the election. In addition, a politically diverse community can influence its residents in terms of political communication, knowledge and polarization, which is the focal question of the present study.

Multilevel research requires an auxiliary theory to relate macro-level factors (e.g., a county-level context of partisan heterogeneity) to micro-level phenomena (e.g., individual-level political discussion) (Cho, 2008; Pan & McLeod, 1991). That is, auxiliary theories explicate how partisan heterogeneity would influence citizens' political communication and behavior. By definition, a community with high levels of partisan heterogeneity is an environment in which partisan citizens are likely to encounter dissimilar political opinions. In other words, residents in a highly partisan-heterogeneous community are expected to experience cross-cutting exposure and discussion because a substantial number of residents have dissimilar political preferences. The information environment can provide more opportunities for cognitive dissonance (Festinger, 1957) and deliberation (Price et al., 2002), which leads them to reflect and accommodate their prior opinion. As a result, residents in such communities are likely to receive the desirable effects of cross-cutting news use and discussion, such as deliberation and depolarization (Mutz, 2006; Price et al., 2002; Scheufele et al., 2006; cf. Beam et al., 2018; Kim, 2019). In addition, a partisan-heterogeneous community can improve residents with motivation for seeking information. As various partisan preferences are evenly distributed around a

community, it is somewhat difficult to predict electoral outcomes (e.g., who will win?) and judge the majority side (e.g., which one is supported by the majority?). This high uncertainty can motivate partisan citizens to seek further information about politics and elections, such as consuming news media and engaging in political conversation (Berger & Calabrese, 1975). Furthermore, cognitive dissonance after cross-cutting exposure can also stimulate partisans to seek additional information to resolve the dissonance (Festinger, 1957; Knobloch-Westerwick et al., 2020). In other words, I expect residents in a heterogeneous community to have higher levels of information-seeking motivation than those in a homogeneous community. Taken together, a context of partisan heterogeneity not only provides a large amount of dissimilar political information, but also stimulates information seeking behavior.

Next, a partisan-heterogeneous community is expected to prime residents' partisan identity frequently. Residents in such communities are likely to experience political conflict because various political groups are competitive and conflict is acknowledged as an appropriate process to resolve problems in a diverse community (Donohue et al., 1985; Oliver, 1999). Whenever experiencing political conflict, partisan identity is likely to be primed as a situation of intergroup contrast arouses group-based social identity (Hogg & Reid, 2006; Reid, 2012). Accordingly, a partisan-heterogeneous community repeatedly reminds residents about partisanship-based intergroup conflict (e.g., Democrats versus Republicans). For instance, residents' partisan identity would be primed through stimulating the mind of in-party versus out-party when discussing politics with dissimilar others. As partisan identity is ready to be primed and thus salient, they are likely to engage in partisan communication, including like-minded news use and homogeneous political discussion (Stroud, 2011; Suk et al., 2022). In a similar vein, residents in a partisan-heterogeneous community are ready to think about politics because

they encounter political information and conversation frequently. In terms of cognition (Price & Tewksbury, 1997), they are chronically accessible to political information by associating and processing relevant political information and knowledge repeatedly. The information and knowledge are thus readily retrieved and available. In other words, citizens in a heterogeneous community are likely to have higher levels of accessibility and availability for thinking about politics than those in a homogenous community. Taken together, a context of partisan heterogeneity not only primes partisan identity of its residents, but also lets them have chronic accessibility to partisan information.

The four characteristics of a partisan-heterogeneous community (i.e., high likelihood of encountering dissimilar information, seeking additional information, priming partisan identity, and accessing partisan information) are able to jointly influence the key endogenous variables in the present study, including like-minded political discussion, political knowledge and affective polarization. First, the frequency of homogeneous political talk can be reduced as it may be replaced with a volume of heterogeneous political talk encountered in a diverse community. Furthermore, deliberation and depolarization that results from cross-cutting exposure mitigates the tendency of partisans to prefer like-minded discussion. However, homogeneous political discussion may increase because partisans can resolve cognitive dissonance and defend their pre-existing political view against the opposite side by engaging in political talk with like-minded others. Additionally, primed partisan identity and chronic accessibility to partisan information can stimulate partisan residents to communicate with others in the same party. Second, a partisan-heterogeneous community can make affective polarization worsen by priming partisanship-based intergroup conflict and facilitating biased information processing. In contrast, affective polarization may be attenuated through deliberation and depolarizing effects based on

exposure to cross-cutting information and discussion (Garrett et al., 2014). That is, encountering others who have dissimilar preferences in a community would enhance (via reinforcement effect) or reduce (via deliberation effect) the levels of affective polarization. Next, residents in a heterogeneous community are likely to be informed of contemporary politics due to increased information-seeking behavior and a large amount of available political information. Regardless of being persuaded by dissimilar opinions, they can provide information that they have not known (i.e., new information) and a chance to rethink their prior knowledge. Yet, experiencing dissimilar ideas may be negatively related to political knowledge because partisans tend to disregard and underestimate counter-attitudinal information (Petty & Cacioppo, 1990; Taber & Lodge, 2006). If so, the information from the opposite side would be discarded even if it is correct. Taken together, the characteristics of partisan-heterogeneous communities are able to influence political communication, knowledge and polarization in two differing ways. In other words, the overall levels of homogeneous political talk, knowledge and affective polarization are expected to differ between homogeneous and heterogeneous communities.

   H4: A county-level context of partisan heterogeneity will influence (a) homogeneous political discussion, (b) political knowledge, and (c) affective polarization.

   Additionally, I explore whether the hypothesized relationships between the individual-level variables (*H1* through *H3b*) are moderated by a context of partisan heterogeneity. In other words, the effects of partisan news use and homogeneous political talk could vary by county-level partisan heterogeneity through influencing psychological responses derived from them. For example, a positive effect of like-minded news use on homogeneous conversation can be different between homogeneous and heterogeneous communities. On the one hand, residents in the latter community are often exposed to dissimilar political opinions, and their attitudinal

ambivalence or understanding of the opposite side can be relatively high. Thus, partisan reinforcement and conviction derived from like-minded news use can be weakened. On the other hand, the same residents are sensitive to political conflict between in-party and out-party, and their partisan identity and motivation is ready to be primed. As a result, the reinforcement effect of like-minded news consumption can be strengthened. In other words, county-level partisan heterogeneity would moderate the direct path between news use and talk. In a similar vein, a positive relationship between cross-cutting news use and homogeneous political talk can vary. Citizens living in a heterogeneous community are familiar with or open to dissimilar political views, and thus they are less likely to engage in like-minded discussion after cross-cutting news use by enhancing deliberation and depolarization effects. Reversely, the same citizens can more join in homogenous political talk to resolve dissonance as they are chronically motivated to defend their side against their opponents in everyday communication in the heterogeneous community. In short, an individual's psyche is influenced by the four characteristics of a diverse community. Yet, given little evidence, I propose it as a research question.

RQ1: Will a county-level context of partisan heterogeneity moderate the relationship between like-minded news use and homogeneous political discussion?

RQ2: Will a county-level context of partisan heterogeneity will moderate the relationship between cross-cutting news use and homogeneous political discussion?

RQ3a: Will a county-level context of partisan heterogeneity moderate the relationship between homogeneous political discussion and political knowledge?

RQ3b: Will a county-level context of partisan heterogeneity moderate the relationship between homogeneous political discussion and affective polarization?

[Figure 1 and 2 here]

17

It is noted that partisan diversity in a local community (e.g., a county) is expected to be influential for partisan citizens although online communication is popular. For example, they are likely to see political signs in backyards and bumper stickers on automobiles, hear political discussion in the street, and encounter political demonstrations in public squares. These numerous cues in everyday life can influence their motivation, cognition, and behavior as a long-term, ubiquitous, and cumulative context, above and beyond individuals' media use.

Method

Data

For the present study, I employed two types of data involving individual-level and county-level variables. First, I used a set of nationwide panel survey data from the American National Election Studies (ANES), covering the three U.S. presidential elections (2012, 2016 and 2020), to create individual-level variables. The ANES, administered by the University of Michigan and Stanford University, has conducted two-wave panel surveys in every presidential election year. Drawing on a nationally representative sample, a pre-election survey (Wave 1) was conducted in late September and a post-election survey (Wave 2) in mid-November (N = 5,914 in 2012; N = 4,271 in 2016; N = 8,280 in 2020) (see Table A1 for survey methodology). Survey responses are publicly available for scholarly work (https://electionstudies.org/), but geographic information of the respondents (e.g., 5-digit FIPS county codes) is classified as confidential. I could access the geocode file through a pre-designed procedure by the University of Michigan, including an IRB approval from the University of California, Davis (ID: 1686003-1). Following the data protection plan, the geocode was only used to connect individual-level responses from the ANES to county-level variables, and all results reported here were aggregated statistics.

The reason I chose to use the ANES datasets is multi-fold. First, the datasets provide measures of a variety of attitudinal and behavioral constructs tested in the present study. In particular, ANES surveys, since its 2012 data collection, measure "news use" in a more nuanced way by asking respondents about their overall news use by medium (e.g., newspaper and television news) as well as their use of specific programs (e.g., *The Daily Show* and *nytimes.com*). These measurement items of specific program use allowed me to capture the extent of each respondent's like-minded and cross-cutting news use, which were individual-level predictors for the present study (see Table A2 for question wording). Next, the panel design of the surveys could in part help alleviate the issue of causality associated with cross-sectional survey data. The predictors and controls were measured in the pre-election survey, while mediating and dependent variables were measured in the post-election study. Furthermore, the dependent variables (i.e., political knowledge and affective polarization) were measured in both waves so that I could employ a lagged dependent variable regression model which includes autocorrelations and enhances causal inference (Eveland & Thomson, 2006; Shah et al., 2005). Last, the 2012, 2016 and 2020 datasets provide the same set of measures, making it feasible to test the hypotheses across three election cycles and through a large sample.

Second, I employed the Census and American Community Survey (ACS) data, covering basic demographic and socio-economic variables, including population, average age and household income, to construct county-level variables (www.census.gov). Census is conducted every ten years, and the 2010 Census geocode (i.e., 5-digit FIPS codes) was used in the 2012, 2016, and 2020 ANES data. Thus, the 2010 Census geocode was casted to link individual-level responses from the ANES to county-level variables from the Census and ACS. Meanwhile, ACS has a 5-year time frame to cover all counties in the U.S. That is, some counties were surveyed in

the first year, other counties in the second year, and then the last remaining counties in the fifth

year. Furthermore, the Census and ACS data provide estimated every-year statistics for all

counties. For example, the average age and household income of all counties for the year of 2012

was estimated, which is publicly available. I employed such (estimated) statistics for the year of

2012, 2016, and 2020, and then they were associated with each year's individual responses from

the ANES. Using the Census and ACS data, I created a couple of county-level variables for the

number of voters, median age and household income in the three election years.

Third, I used county-level voter turnout data from the MIT Election Data and Science

Lab (https://electionlab.mit.edu/) to compute the key variable of interest in the present study, that

is, partisan heterogeneity. The MIT Election Lab provides both county-level and state-level voter

turnout data for the three presidential election cycles. In particular, the total voter turnout, the

number of votes for Democratic presidential candidates, those for Republican presidential

candidates, and those for the third-party presidential candidates are publicly available, which was

used to calculate the degree of partisan heterogeneity.

Measures

Individual-level Variables

Like-minded and cross-cutting news use (Wave 1). Two variables of partisan news

consumption (like-minded and cross-cutting) were constructed through several steps. First, a set

of items asked respondents whether they regularly used each of a number of news programs pre-

selected by the ANES (1 = Yes, 0 = No). Drawing on past research that used the ANES data to

construct measures of partisan news use (Jacobson, 2015; Kim & Kim, 2018; Lu & Lee, 2019;

Song, 2017), these items were categorized into two groups – news consumption with liberal

versus conservative programs. A total of 22 news programs (11 each for liberal and

20

conservative) were commonly measured across the three ANES surveys, which were included

for this study (see Table A3 for details). Second, using an item that measures party identification,

each partisan respondent was coded as either a Democrat or a Republican, with independents

being excluded (13% in 2012; 14% in 2016; 12% in 2020). Next, based on party identification of

a respondent, each 11 items were summed up and coded into two variables of interest: like-

minded ($M = 1.13$, $SD = 1.75$ in 2012; $M = 1.51$, $SD = 1.88$ in 2016, $M = 1.15$, $SD = 1.65$ in

2020) and cross-cutting news use ($M = 0.30$, $SD = 0.76$ in 2012; $M = 0.47$, $SD = 1.00$ in 2016, M

$= 0.25$, $SD = 0.75$ in 2020). For example, for Republican respondents, like-minded news use was

measured as the sum of news consumption through conservative programs, whereas cross-cutting

news use as the sum of news consumption through liberal programs.

Homogeneous political discussion (Wave 2). Respondents were asked to indicate how

frequently they talked about politics with family or friends in the past week on an 8-point scale

($0 =$ none to $7 =$ everyday: $M = 1.84$, $SD = 2.05$ in 2012; $M = 3.57$, $SD = 2.62$ in 2016; $M = 3.80$,

$SD = 2.45$ in 2020). Although a single-item measure is in general less desirable as its

measurement reliability cannot be estimated, this behavioral measure of "days in past week"

discussing politics is relatively straightforward as compared to measures of attitudes and has

been widely used in past research about political discussion (e.g., Eveland, 2004; Nisbet &

Scheufele, 2004). In addition, someone may worry that political talk with family and friends is

not always homogeneous as family members and/or close friends could have dissimilar political

views. Yet, as previous research (e.g., Bode et al., 2018; Finifter, 1974; Wyatt et al., 2000)

suggests, it is still plausible to assume that, given the sensitiveness of the topic (i.e., politics),

everyday routine conversation within a close communication network, especially with family and

friends, tends to be politically homogeneous and safe.

Political knowledge (Wave 1 and 2). Each respondent's political knowledge was measured by counting the number of correct answers to four office-recall questions. Specifically, four open-ended questions asked them to recognize three current U.S. officeholders (i.e., the Vice President, the Speaker of the House, and the Chief Justice of the Supreme Court) and one foreign leader (e.g., the President of Russia). Per question, 1-point was given if the office was correctly recognized (otherwise = 0). An index of political knowledge was created by adding the four scores (KR-20 = .68, M = 1.94, SD = 1.23 in 2012; KR-20 = .67, M = 2.50, SD = 1.30 in 2016; KR-20 = .56, M = 3.04, SD = 0.99 in 2020 at Wave 2). In the pre-election survey, respondents were asked to answer to four multiple-choice questions about American politics, such as the year of Geer v. Connecticut (1896), one full-term of U.S. Senators (6 years), and the least U.S. governmental spending (foreign aid). Per question, 1-point was given if they correctly answered (otherwise = 0). An index of political knowledge was computed by summing the four scores up, and used as a lagged dependent variable (KR-20 = .68, M = 1.94, SD = 1.23 in 2012; KR-20 = .67, M = 2.50, SD = 1.30 in 2016; KR-20 = .56, M = 3.04, SD = 0.99 in 2020 at Wave 1).

Affective polarization (Wave 1 and 2). Drawing on past work (Garrett et al., 2014; Iyengar et al., 2012), I measured affective polarization by using feeling thermometer ratings for the presidential candidates. Respondents were asked to rate Democratic and Republican presidential candidates (Obama vs. Romney in 2012; Clinton vs. Trump in 2016; Biden vs. Trump in 2020) and vice-presidential candidates (Biden vs. Ryan in 2012; Kaine vs. Pence in 2016; Harris vs. Pence in 2020) on a 101-point scale (*0* = cold or very unfavorable through *100* = warm or very favorable). The absolute differences in ratings between the two presidential candidates and those between the two vice-presidential candidates were calculated. An index of affective polarization was then computed by averaging the two difference scores (Spearman-Brown coefficient = .76,

M = 51.53, *SD* = 27.04 in 2012; Spearman-Brown coefficient = .69, *M* = 50.60, *SD* = 26.57 in 2016; Spearman-Brown coefficient = .78, *M* = 69.08, *SD* = 26.54 in 2020 at Wave 2). In the same way, an index of affective polarization at Wave 1 (Spearman-Brown coefficient = .76, *M* = 51.53, *SD* = 27.04 in 2012; Spearman-Brown coefficient = .69, *M* = 50.60, *SD* = 26.57 in 2016; Spearman-Brown coefficient = .78, *M* = 69.08, *SD* = 26.54 in 2020) was computed and used as a lagged dependent variable.

Control variable. Four basic demographic variables were controlled: sex (female = 50% in 2012; 53% in 2016; 55% in 2020), age (in year: *M* = 50.34, *SD* = 16.42 in 2012; *M* = 48.87, *SD* = 17.29 in 2016; *M* = 51.30, *SD* = 16.81 in 2020), education (1 = high school diploma or lower to 5 = Master's degree or higher: *M* = 2.63, *SD* = 1.45 in 2012; *M* = 3.00, *SD* = 1.43 in 2016; *M* = 3.09, *SD* = 1.41 in 2020), and household income (1 = less than $5,000 to 28 = more than $250,000: *M* = 14.22, *SD* = 8.08 in 2012; *M* = 16.29, *SD* = 7.82 in 2016; *M* = 12.18, *SD* = 6.67 in 2020). Next, an index of political interest was created by averaging scores of two items rescaled from 0 to 1 (paying attention to politics; following campaigns) (Spearman-Brown coefficient = .78, *M* = 0.66, *SD* = 0.27 in 2012; Spearman-Brown coefficient = .77, *M* = 0.70, *SD* = 0.27 in 2016; Spearman-Brown coefficient = .75, *M* = 0.71, *SD* = 0.27 in 2020). Last, party identity was measured as a dummy variable (*0* = a Democrat and *1* = a Republican) (Democrats = 59% in 2012; 54% in 2016; 53% in 2020). Party identity strength was made by folding a 7-point party affiliation item (*0* = weak, *1*= not strong, *2* = strong) (*M* = 1.19, *SD* = 0.82 in 2012; *M* = 1.18, *SD* = 0.82 in 2016; *M* = 1.26, *SD* = 0.83 in 2020). It is noted that these control variables served as a covariate in a multilevel regression model, but not in a multilevel moderated mediation model.

County-level Variables

Partisan heterogeneity. Given the two-party system and mass polarization in the U.S. (i.e.,

Democrats versus Republicans), a county-level context of partisan heterogeneity was calculated

by using votes for the Democratic and Republican presidential candidates. It is because a third-

party candidate has nearly zero chances to win the election. By adopting the Simpson Index and

Herfindahl–Hirschman Index (HHI), a commonly used measure of concentration or

homogeneity, an index of partisan heterogeneity was calculated and standardized, as follows:

$$Index_{Heterogeneity_i} = 2\left[1 - \left\{\left(\frac{Dem_i}{Dem_i + Rep_i}\right)^2 + \left(\frac{Rep_i}{Dem_i + Rep_i}\right)^2\right\}\right]$$

Where Dem_i = votes for a Democratic presidential candidate in the year of i,

Rep_i = votes for a Republican presidential candidate in the year of i

The index of partisan heterogeneity has the maximum value (= 1) when the two parties'

candidates get the same votes (50% versus 50%), and the minimum value (= 0) when one gets all

votes and the other gets zero votes (100% versus 0%). It is noted that the index is not linear; for

example, the value would be 0.96 if one had 60% of the total votes and the other got 40%. As a

result, higher scores of the index indicated greater levels of partisan heterogeneity in a county (M

= 0.90, SD = 0.13 in 2012; M = 0.87, SD = 0.16 in 2016; M = 0.88, SD = 0.14 in 2020).

Voter turnout. As voting is a general way of taking part in politics for ordinary citizens, voter

turnout can be an approximate indicator of political engagement in a county. Voter turnout was

controlled as it could influence individual citizens' political communication beyond the effect of

partisan heterogeneity. The Census and ACS data provided the estimated population of residents

over 18, or (tentatively) eligible voters, and the MIT Election Lab data included the total number

of votes. Voter turnout was estimated by dividing the total votes by the number of eligible voters

(M = 0.76, SD = 0.03 in 2012; M = 0.71, SD = 0.06 in 2016; M = 0.72, SD = 0.06 in 2020).

Median age. As old citizens tend to engage in politics more than young citizens, there would be differences in political engagement between old and young counties. Given this, the average age of residents in a county was controlled. The Census and ACS data provided the estimated median age (in year) across all counties ($M = 37.2$, $SD = 3.96$ in 2012; $M = 38.2$, $SD = 4.25$ in 2016; $M = 38.8$, $SD = 4.38$ in 2020).

Median household income. As affluent communities could provide more socio-political resources for residents, there would be differences in political engagement between rich and poor counties. Addressing this, the Census and ACS data provided the estimated median household income (USD per year) across all counties. The median household income was log-transformed (e.g., *4* = $10,000 USD and *5* = $100,000 USD) ($M = 4.73$, $SD = 0.10$ in 2012; $M = 4.75$, $SD = 0.11$ in 2016; $M = 4.82$, $SD = 0.11$ in 2020).

State-level Variables

As the Census, ACS, and MIT Election Lab data also provide the same set of state-level statistics, I employed them to create state-level variables for an exploratory study. The four state-level variables were constructed in the same way as county-level variables were created.

Partisan heterogeneity. Higher scores of the index of partisan heterogeneity meant greater levels of partisan heterogeneity in a state ($M = 0.97$, $SD = 0.05$ in 2012; $M = 0.95$, $SD = 0.09$ in 2016; $M = 0.96$, $SD = 0.06$ in 2020).

Voter turnout. State-level voter turnout was calculated by dividing the total votes by the estimated number of eligible voters ($M = 0.54$, $SD = 0.08$ in 2012; $M = 0.55$, $SD = 0.07$ in 2016; $M = 0.62$, $SD = 0.06$ in 2020).

Median age. The median age was estimated (in year) ($M = 37.3$, $SD = 2.15$ in 2012; $M = 37.9$, $SD = 2.07$ in 2016; $M = 38.4$, $SD = 2.04$ in 2020).

Median household income. The median household income (USD per year) was log-transformed ($M = 4.73$, $SD = 0.06$ in 2012; $M = 4.75$, $SD = 0.06$ in 2016; $M = 4.81$, $SD = 0.07$ in 2020).

Analytic Strategy

Given a hierarchical structure of the data (e.g., an individual was embedded in a county), multilevel modeling techniques were employed to test the hypotheses (Hayes, 2006). First, a linear mixed-effects regression model (or a multilevel linear regression model) was run to examine the main effects of a county-level context of partisan heterogeneity on the individual-level variables, using the *lme4* package in R (Bates et al., 2015). Specifically, I ran a three-level regression model in which individual-level (e.g., like-minded and cross-cutting news use), county-level (i.e., partisan heterogeneity), and state-level predictors and controls were inputted to predict individual-level homogeneous political discussion, knowledge, and affective polarization. In other words, it was tested whether the overall levels of homogeneous political talk, knowledge, and affective polarization would vary by county-level partisan heterogeneity (*H4*). The multilevel linear regression model can estimate the bias-corrected contextual effects by adjusting standard errors (Raudenbush & Bryk, 2002).

Next, a multilevel moderated mediation model was conducted to investigate moderating roles of a county-level context of partisan heterogeneity, using the *MLMED* macro for SPSS (Hayes & Rockwood, 2020). In particular, I examined four cross-level moderation effects to test whether the four hypothesized relationships among individual-level variables would vary by county-level partisan heterogeneity (*RQ1* through *RQ3b*). The MLMED macro employs Monte Carlo resampling methods, which can provide bias-corrected estimates for cross-level indirect effects. It also involves within-group and between-group moderated mediation effects for both first-stage (e.g., like-minded news use → homogeneous political talk) and second-stage (e.g.,

homogeneous political talk → political knowledge) in the mediation model. Note that within-group indirect effects were of more interest in this study as they showed whether and how the process of individual-level political communication was moderated by a county-level factor (Hayes & Rockwood, 2020). Yet, only three covariates for each level are allowed in the MLMED macro. Given this constraint, three individual-level (i.e., cross-cutting news use [when like-minded news use was a focal predictor, and vice versa], political knowledge at Wave 1, and affective polarization at Wave 1) and three county-level control variables (i.e., voter turnout, median age and household income) were inputted (see also Borah et al., 2022).

In both models, restricted maximum likelihood (REML) was employed as an estimation method, and individual-level predictors and covariates were group-mean-centered by a county (Hayes & Rockwood, 2020). Lastly, the three ANES datasets were merged into one sample to enhance statistical power as multilevel modeling techniques require a large sample size in general (Raudenbush & Bryk, 2002). For example, it would be likely to miss a significant cross-level moderation effect if the sample size were not sufficiently large.

[Table 1 here]

Results

First, the hypothesized relationships of individual-level political communication were examined (*H1* through *H3*). A linear mixed-effects regression model revealed that like-minded news use increased homogeneous political discussion ($b = 0.19$, $SE = 0.01$, $p < .001$) and that cross-cutting news use enhanced it ($b = 0.11$, $SE = 0.03$, $p < .001$). That is, increases in one like-minded news program use led to political talk with family and friends about politics 0.2 days more. Similarly, increases in one cross-cutting news program use resulted in homogeneous political talk 0.1 days more. Furthermore, homogeneous political discussion was positively

related to political knowledge ($b = 0.05$, $SE = 0.004$, $p < .001$) and affective polarization ($b = 0.72$, $SE = 0.09$, $p < .001$). In other words, political talk within homogeneous social networks not only enhanced knowledge about politics, but also exacerbated affective polarization. Thus, *H1*, *H2*, *H3a* and *H3b* were supported. Additionally, albeit not hypothesized, it was found that like-minded news use directly increased political knowledge ($b = 0.07$, $SE = 0.01$, $p < .001$) and exacerbated affective polarization ($b = 0.91$, $SE = 0.12$, $p < .001$), above and beyond the effect of homogeneous political discussion. In contrast, cross-cutting news use directly reduced affective polarization ($b = -1.34$, $SE = 0.24$, $p < .001$), but had a non-significant direct effect on knowledge ($b = 0.02$, $SE = 0.01$, *ns*). Similar to the previous research (Garrett et al., 2014; Stroud, 2011), like-minded and cross-cutting news use had the opposing effects on affective polarization.

Next, the hypothesized effects of a county-level context of partisan heterogeneity were investigated. The linear mixed-effects regression model revealed that partisan heterogeneity was negatively related to homogeneous political discussion ($b = -0.53$, $SE = 0.02$, $p = .024$). That is, partisan citizens living in a heterogeneous county were less likely to talk about politics with family and friends (approximately 0.5 days) than those living in a homogeneous county. Furthermore, partisan heterogeneity was negatively related to affective polarization ($b = -5.98$, $SE = 2.93$, $p = .041$). Partisans who lived in a politically diverse county were less hostile to their political opponents and/or less favorable to their like-minded others than those who lived in a politically cohesive county. Yet, partisan heterogeneity was not significantly related to political knowledge ($b = -0.16$, $SE = 0.12$, *ns*). That is, no significant differences in knowledge between heterogeneous and homogeneous counties were found. In short, living in partisan-heterogeneous counties would provide opportunities to reduce homogeneous political communication and attenuate affective polarization. Thus, *H4a* and *H4c* were supported, but *H4b* was not supported.

It is noted that a state-level context of partisan heterogeneity did not significantly influence the levels of homogeneous political talk ($b = -0.80$, $SE = 1.19$, ns), political knowledge ($b = -0.68$, $SE = 0.38$, ns), and affective polarization ($b = -4.14$, $SE = 9.68$, ns). Additionally, the results were not significantly changed when excluding the state-level variables (see Table A4). Thus, a county seems to be a more critical geographical unit of political communication than a state.

[Table 2 here]

A multilevel moderated mediation model tested a moderating role of a county-level context of partisan heterogeneity in the four paths among individual-level variables (see Figure 2 and Table 3), involving both within-group and between-group effects. When it came to within-group moderation effects, the relationship between like-minded news use and homogeneous political discussion was moderated by partisan heterogeneity ($b = -0.25$, $SE = 0.09$, $p = .009$). That is, the positive effect of like-minded news use on political talk with family and friends was weakened when living in a politically diverse county (*RQ1*). The similar moderation pattern was found in the relationship between cross-cutting news use and homogeneous political discussion, but it was not statistically significant ($b = -0.39$, $SE = 0.20$, $p = .056$). That is, the positive relationship between them was not significantly different between homogeneous and heterogeneous counties (*RQ2*). Neither the relationship between homogeneous political discussion and knowledge ($b = 0.01$, $SE = 0.03$, ns) nor that between homogeneous political talk and affective polarization ($b = 0.66$, $SE = 0.55$, ns) was significantly moderated by a county-level context of partisan heterogeneity (*RQ3a* and *RQ3b*).

Next, between-group moderation effects, which were estimated by aggregating individual responses into a county, were examined. The positive relationship between like-minded news use and homogeneous political talk was reduced when it came to a diverse county, but it was not

statistically significant (b = -0.46, SE = 0.24, p = .055; *RQ1*). Yet, a significant moderation effect

was found in the relationship between cross-cutting news use and homogeneous political

discussion (b = -1.10, SE = 0.54, p = .041; *RQ2*). That is, the positive effect of cross-cutting

news use on political talk with family and friends was weakened when living in a partisan-

heterogeneous county. In addition, the relationship between homogeneous political discussion

and knowledge was moderated by partisan heterogeneity (b = -0.17, SE = 0.07, p = .015; *RQ3a*).

Yet, the relationship between political talk with like-minded others and affective polarization

was not significantly different between homogeneous and heterogeneous counties (b = -1.21, *SE*

= 1.11, *ns*; *RQ3b*). In short, a county-level context of partisan heterogeneity mitigated the

positive effect of like-minded news use on homogeneous political discussion when it came to

within-group effects, and attenuated the positive effect of cross-cutting news use on

homogeneous political talk when it came to between-group effects.

[Table 3 and 4 here]

The index of moderated mediation revealed similar results (see Table 4). Regarding

within-group indirect effects, the path from like-minded news use to homogeneous political talk

was significantly moderated by partisan heterogeneity, which in turn moderated the whole

mediated relationships (like-minded news use → political talk → knowledge: 95% CI = [-0.037,

-0.006]; like-minded news use → political talk → affective polarization: 95% CI = [-0.488, -

0.072]). Yet, the other three within-group moderated mediation effects were non-significant.

With regard to between-group indirect effects, the path from cross-cutting news use to

homogeneous political discussion was significantly moderated by partisan heterogeneity, which

led to moderating the mediated relationships (cross-cutting news use → political talk →

knowledge: 95% CI = [-0.250, -0.006]; cross-cutting news use → political talk → affective

polarization: 95% CI = [-2.600, -0.049]).

Discussion

The present study attempts to explicate a contextual effect of heterogeneity on political

communication among partisan Americans. At the individual level, political communication

effects on knowledge and polarization were in part indirect. Specifically, like-minded and cross-

cutting news use increased homogeneous political discussion, which was in turn positively

related to political knowledge and polarization. Next, a county-level context of partisan

heterogeneity reduced the overall levels of homogeneous political talk and affective polarization.

In addition, the partisan-heterogeneous context attenuated the relationship between like-minded

news consumption and homogeneous political talk. The findings suggest that living in a

politically diverse community could be beneficial to mitigate concerns about partisan eco-

chambers and animosity through reducing like-minded political communication.

Regarding contextual effects, partisan heterogeneity had a significant negative effect on

affective polarization, but little influence on political knowledge. It implies that the benefits of

living in a diverse community could alleviate partisan affect (e.g., hostility and discomfort), but

not enhance knowledge about politics. As a politically heterogeneous community provides more

opportunities of cross-cutting exposure and inter-party interactions, increased attitudinal

ambivalence, social accountability and/or perceived commonality would lead to soften negative

feelings toward political opponents (Mutz, 2006; Wojcieszak & Warner, 2020). Yet, these

psychological responses may not be sufficient to enhance political learning because cognitive

elaboration or sophisticated information processing is required to enhance political knowledge

(e.g., knowledge stored in long-term memory) (Delli Carpini & Keeper, 1996; Eveland, 2004).

Although a partisan-heterogeneous community provides rich information and stimulates information-seeking motivation, political learning may not be guaranteed without cognitive elaboration (Eveland, 2002). Thus, within the same county, some partisan citizens could get more political learning than others (e.g., high levels of need for cognition, prior knowledge, and/or cognitive elaboration). Future research will need to examine their mediating or moderating roles in linking a partisan-heterogeneous context to political knowledge.

Interestingly, a context of partisan heterogeneity reduced the average frequency of homogeneous political discussion, but did not moderate the effects of homogenous talk on political knowledge and affective polarization. It implies that living in a diverse community could reduce the opportunities of political talk with like-minded others, but residents' psychological responses during homogeneous talk may be independent from the community context once they were engaged in the discussion. This finding implies the boundary of geographical factors or the structure of multilevel communication effects. That is, a geographical location can shape the communication environment that news consumption and interpersonal discussion occur (e.g., the first orientation in the CMM), but the outcomes of political communication are more likely to depend on the individual-level psychological processes (e.g., the second orientation in the CMM). Future research will further examine the relative roles of individual-level versus context-level factors in shaping political communication and behavior.

Partisan citizens are likely to engage in homogeneous political communication as people tend to prefer like-minded information and interaction for cognitive consistency and/or partisan motivation (Festinger, 1957; Garrett, 2009; Taber & Lodge, 2006). Due to the human tendency, it would be difficult for partisan audiences to seek cross-cutting information and hear the other side voluntarily (cf. Beam et al., 2018; Yang et al., 2020). Given this, the current finding

32

suggests that a geographical context of partisan heterogeneity mitigates like-minded political communication and partisan hostility, above and beyond the individual-level political predispositions. In other words, partisan citizens living in a heterogeneous community are expected to be more open and less polarized than those living in a homogeneous community. Although where we live is in large part determined by exogenous factors (e.g., family and job), we can have the benefits of partisan heterogeneity by making our current community more diverse. It is noted that I do not argue that effort for educating and informing individual partisan citizens is useless, but geographical intervention should be considered alongside it.

Last, albeit not examined here, a country's political system would influence the findings. The concept of diversity or heterogeneity would be endogenously limited in a two-party system (e.g., the United States and South Korea) because citizens in those countries had only two choices. Although there have been third-party candidates in the two-party politics, nearly zero chances were given to them to win the election and thus only two candidates from the two major parties could be an effective option for voters. In addition, a baseline opportunity of like-minded political communication would be different between two-party and multi-party systems as residents in the latter are more likely to encounter dissimilar others. Accordingly, it will be fruitful to extend the current examination into a multi-party system country, such as Germany.

Limitations and Concluding Remarks

Still, the present study has several limitations. First, a geographical context consists of various characteristics, and thus other contextual factors beyond partisan heterogeneity could have influenced the findings. To address this concern, I controlled a couple of contextual factors such as political engagement (e.g., voter turnout) and socio-economic status (e.g., median household income), but other county-level variables might have worked. For example, the

amount of political advertising could impact residents' political communication and behavior (Cho et al., 2009). It is recommended for future studies to include such relevant contextual factors. In addition, a geographical location could be an endogenous factor as it is in part determined by individuals' characteristics, such as personality and socio-economic status. Second, it would have resulted in stronger evidence if more comprehensive measures of the individual-level variables had been employed. Although the ANES asked respondents to indicate their regular consumption of a certain news program as well as overall news use, the list of news programs could not cover all available news sources. It would be better to employ a more comprehensive list of news programs for future research. Similarly, the measures of homogeneous political discussion and knowledge will need to be strengthened by adopting multiple items or additional questions. Furthermore, heterogeneous political discussion should be considered and tested in future studies. Third, non-significant effects of partisan heterogeneity could have resulted from the sample size. Although this study employed more than ten-thousand individual samples, statistical power might be insufficient because multilevel modeling in general requires a large sample size. For instance, as the number of counties was over one thousand, more individual samples would need to be collected to detect a cross-level moderation effect. Fourth, the self-reported responses could be biased due to social desirability bias as well as a recall error. For example, cross-cutting news use might be overestimated as it is considered desirable, whereas affective polarization might be underestimated as it is regarded as undesirable. This should be considered when interpreting the findings. Last, psychological mechanisms (e.g., information-seeking motivation and attitudinal ambivalence) were assumed to explain the hypothesized contextual effects, but they were not measured. Future research will

have to manipulate or measure the psychological variables to formally examine such mechanisms.

Despite the limitations, the present study can add our knowledge about the benefits of diversity in the context of political communication. Specifically, partisan diversity in terms of a geographical location is found to attenuate the patterns and outcomes of homogeneous political communication among partisan citizens. In other words, living in a diverse community provides democratic benefits by breaking a partisan communication cycle and depolarizing partisan affect. The next step behind this study will be to find a way of making our community diverse.

III. The Contextual Role of Diversity in Partisan Communication (2):

Hostile Media Effect on Affective Polarization and Political Participation

Owing to their influence on audiences' cognition and behavior, perceptions of media bias are a subject of formal investigation. As partisan media and polarized politics are increasingly concerned, scholarly attention has been given to the question of how partisan audiences judge bias in biased political information (Gunther et al., 2017; Hyun & Seo, 2021). In addition, the perceived bias can motivate them to take part in politics, and thus it is able to affect the democratic process beyond judgment of media (Barnidge et al., 2020; Rojas, 2010). Yet, perceptions of media bias are in large part influenced by audiences' partisanship (e.g., hostile media perception [HMP]; Vallone et al., 1985) and thus it is concerned that their biased or mis-perceptions could lead to politically worrying behavior, including affective polarization (Zheng & Lu, 2021). To address this concern, scholars seek a way of mitigating HMP, such as media literacy (Vraga & Tully, 2015) and opinion heterogeneity (Gearhart et al., 2020). Yet, there is relatively little evidence of whether and how they can also influence the consequences of HMP.

Given this, the present study examines a moderating role of heterogeneity on HMP and its consequences in the case of abortion among partisan citizens. Specifically, heterogeneity is conceptualized as a context of news consumption that consists of other users' responses on social media. The online experiment is designed by manipulating a slant of Facebook posts (pro-life versus pro-choice content) and other readers' comments and emojis on the posts (like-minded, balanced, and dissimilar), and participants' perceived bias to the posts, social distance from political opponents, and intention to participation are measured. Through the experiment (N = 574), I investigate (1) whether and how a heterogeneous context moderates the relationship

between exposure to partisan information and HMP and (2) whether and how it indirectly

influences the effect of HMP on affective polarization and political participation intention.

Literature Review

It has been long studied how partisan audiences judge a communication message as it is

in large part influenced by their partisanship rather than the message itself. HMP captures the

bias perception of partisans such that they perceive a neutral message to be biased against their

side (Vallone et al., 1985). In other words, the message is judged to be hostile or biased against

one's side due to a partisan's bias, not the news's bias. For example, a neutral news story

delivering a controversial issue is perceived to be favorable to the opposite side (or hostile to

one's side) by partisan audiences on both sides (Perloff, 1989; Vallone et al., 1985). Due to

HMP, partisans tend to blame the news media, based on the perceived bias even if bipartisan

news reporting was a standard practice in journalism. Moreover, it is a problem that the tendency

of partisans to view news hostile has become more evident in an era of partisan news.

Partisan News and Hostile Media Perception

Based on increased media fragmentation and user selectivity, ordinary citizens are likely

to encounter slanted political information (Bennett & Iyengar, 2008; Shah et al., 2017). The

emergence of partisan media provides a great deal of partisan information to them (Levendusky,

2013; Stroud, 2011), and thus their bias perceptions of partisan news are also influenced

substantially. For instance, partisan audiences on both sides may agree that the news is one-

sided, but the strength of the perceived bias is different between the two sides (i.e., a relative

HMP; Gunther et al., 2001). In other words, partisans do not reach the same bias judgment even

though they are exposed to the identically biased news. A body of research has shown that

partisan news induces (relative) HMP (Arpan & Raney, 2003; Gunther et al., 2017; Reid, 2012;

Zheng & Lu, 2021). For example, partisan audiences tend to judge counter-attitudinal news to be more hostile than pro-attitudinal news.

According to the social judgment theory, two differing perceptual effects are expected as persuasive communication messages are located in one of three latitudes of attitudes (Sherif & Sherif, 1967). When the messages are in the latitude of acceptance, an assimilation effect is expected, whereby their slants are judged to be closer to one's own side. For example, an assimilation effect lets partisan audiences judge pro-attitudinal news to be more favorable to their side than it actually is (biased assimilation; Lord et al., 1979 or favorable media perception [FMP]; Lee, 2015). In contrast, when they are in the latitude of rejection, a contrast effect is predicted, whereby the messages are judged to be further from their side (or HMP). Thus, counter-attitudinal news is perceived to be more hostile to their side than it actually is. Furthermore, for highly involved audiences, their latitude of rejection tends to be longer, and thus HMP is more likely to occur than non-partisan audiences or lowly involved counterparts (Choi et al., 2009; Reid, 2012). For example, a news story that supports President Biden is perceived to be more hostile for Republicans and results in strong HMP through contrast effects. Conversely, the same news story leads to strong FMP for Democrats through assimilation effects as it is pro-attitudinal for them.

On the other hand, social identity theory also predicts counter-attitudinal news to be judged as hostile, while pro-attitudinal news as favorable by partisan audiences. When partisan identity is primed, audiences tend to recognize others and media in terms of group membership; that is, in-group sharing the same social identity versus out-group having the opposite identity (Hogg & Reid, 2006). Given this, audiences are likely to judge news bias by comparing their political leanings to the partisanship presented by the news (Arpan & Raney, 2003; Reid, 2012).

Through the lens of their primed social identity (e.g., party identity), attitude-congruent news stories are perceived to favor the in-group and support its view, and thus FMP is expected due to in-group favoritism and perceived within-group similarities (Hewstone et al., 2002; Hogg & Reid, 2006). Reversely, attitude-incongruent news stories are perceived to favor the out-group and advocate its view. Accordingly, HMP is anticipated due to intergroup contrast and perceived between-group differences (Reid, 2012). As a politically controversial issue can prime partisan identity and remind intergroup contrast, partisan news about the issue is likely to be judged as either in-group or out-group messages (Lee & Kim, 2023). Taken together, both social judgment and social identity theories predict the same direction of perceived bias toward partisan news, including partisan messages on social media.

H1: Counter-attitudinal social media posts will be perceived to be more hostile than pro-attitudinal social media posts.

HMP, Affective Polarization, and Political Participation

Media effects research suggests that perceptions of media lead to behavioral consequences (McLeod et al., 2017), and HMP also has such behavioral effects. Specifically, HMP can cross over from perceptions of news bias to political outcomes, such as political discussion and participation (Barnidge & Rojas, 2014; Feldman et al., 2017; Hyun & Seo, 2021). In fact, it is not a brand-new idea that HMP can influence citizens' cognition and behavior (Gunther et al., 2001; Tsfati & Cohen, 2005). According to the corrective action hypothesis (Rojas, 2010), partisan audiences are motivated to take actions in response to media messages that are perceived to be hostile toward their view. As hostile news can influence other citizens, including non-partisans, their judgment about the controversial issue is anticipated to become unfavorable to one's side and/or favorable to the opposite side. In other words, partisan

audiences are concerned about a potential influence of the hostile news on public opinion such that it leads public opinion to become unfavorable to their side (Gunther, 1998; Gunther & Schmitt, 2004). As a result, they are likely to be motivated to counterbalance the influence of the news to advocate their side and/or to defeat the opposite side, which is conceptualized as "corrective action" (Rojas, 2010). For example, partisan audiences attempt to correct the hostile media influence in the public sphere by taking action, such as political persuasion (Barnidge & Rojas, 2014). In short, HMP is expected to motivate partisans to take part in politics, as various forms of participation (Feldman et al., 2017; Hyun & Seo, 2021; Wintterlin et al., 2021).

On the other hand, HMP can lead partisan audiences to have more negative feelings toward their opponents. In other words, perceived hostility toward counter-attitudinal news may spill over to others on the opposite side. According to the spillover effect of emotion, negative affect toward one could be related to negative affect toward the other through mental activation. For instance, negative emotional responses to partisan information can spill over to their trust toward political parties or government in general (Lee, 2018; von Sikorski et al., 2020). As HMP is driven by both cognitive and affective processing (Matthes, 2013), HMP would involve negative emotional responses to the news. Furthermore, HMP can stimulate partisan audiences to think about the impact of the news on others, including their opposite side (Gunther & Schmitt, 2004). Accordingly, HMP is expected to stimulate partisans' negative affect toward their opponents. For example, Zheng and Lu (2021) found that a relative HMP was positively related to affective polarization, based on Taiwan survey data. As affective polarization is understood as the tendency of partisan citizens to dislike and distrust out-party members (Druckman & Levendusky, 2019; Kingzette et al., 2021), HMP toward partisan news is likely to exacerbate affective polarization.

H2: HMP will be positively related to (a) affective polarization and (b) political participation.

As content slants of partisan news influence HMP, it can indirectly encourage partisan audiences to take part in politics and feel hostility toward their opponents via HMP. In a long tradition of the S-O-R framework (Stimulus – Organism – Response), media exposure effects on attitude and behavior have been thought to be mediated by psychological responses. For example, the effect of like-minded exposure on political participation is mediated by strengthening pre-existing partisan identity (Knobloch-Westerwick & Johnson, 2014). Relevantly, pro-attitudinal news exposure indirectly enhances political participation through a couple of cognitive and affective responses, such as attitude strength and anger (Wojcieszak et al., 2016). As HMP is a cognitive and affective response in terms of media bias judgment (Choi et al., 2009; Matthes, 2013; Reid, 2012), it has a mediating role in connecting partisan news exposure and political outcomes (e.g., partisan news exposure [S] → HMP [O] → participation [R]). In a similar vein, for instance, Hyun and Seo (2021) found that HMP had a such mediating role in the relationship between political ideology and participation. Accordingly, it is expected that exposure to partisan social media posts is indirectly related to affective polarization and political participation through inducing HMP.

HMP in a Heterogeneous Communication Context

Perceptions of media bias are not only determined by individual characteristics, but also influenced by socio-contextual factors (Eveland & Shah, 2003; Lee, 2012). In fact, individuals' social perceptions, including perceptions of media, are in large part depending on others' perceptions (Cialdini, 2021). When judging media bias, partisan audiences are influenced by others' judgment, regardless of whether it is expressed by others (e.g., social media comment:

Lee, 2012; Yun et al., 2018) or guessed by themselves (e.g., projection: Gunther et al., 2001).

First, partisans are expected to judge a neutral message as hostile (i.e., HMP), but the bias perception is likely to be affected by others. At first glance, a neutral message looks less partisan compared to an explicitly slanted message, and thus audiences would be susceptible to others' judgment of its bias. In other words, the bias of a nonpartisan message is somewhat uncertain to be judged, compared to a partisan message. Given this uncertainty, partisans would be likely to rely on others' judgment and adjust their perception accordingly (Cialdini, 2021). For example, the magnitude of HMP to neutral news could be reduced if others evaluated it as neutral. That is, others' evaluation of the message can moderate the degree of HMP, serving as additional evidence for the bias.

In addition, perceptions of partisan news bias are also influenced by others (Cooks & Bolland, 2021; Gearhart et al., 2020). Even though partisan news stories are explicitly slanted, others' evaluation of the news could affect the magnitude of HMP. According to the group dynamics theory, other people in a group setting can have two differing social influences; that is, informational and normative influences (Deutsch & Gerald, 1955; Price et al., 2006). First, others' opinions provide additional information to evaluate a message, serving as an informational reference. If others' judgment is consistent with one's own judgment, it would be reinforced because it works as social proof (Cialdini, 2021). Second, others' judgment can serve as a subjective norm that a person in a particular situation should be expected to do. For example, if the majority of readers judged the news as biased in a particular way, a reader would perceive the bias in the same way. Although news users in a certain online platform (e.g., blogs and websites) or experimental setting (e.g., small group discussion) might not be considered a cohesive group, other users' responses to the news are enough to be perceived as a tentative

social norm that a reader is expected to react to the news. Furthermore, it is psychologically

hesitant to disregard and/or oppose the majority side (Asch, 1955; Noelle-Neumann, 1974).

Taken together, audiences' judgment of news bias is expected to be influenced by others'

evaluation of the news, such as comments on the news (Gearhart et al., 2020; Lee, 2012; cf. Yun

et al., 2018).

Other users' responses to a political message are expected to influence one's perception

of its bias (e.g., comments: Cooks & Bolland, 2021; Gearhart et al., 2020; Lee, 2012) as they can

serve as additional information or a normative expectation to judge the bias. As the present study

focuses on a heterogeneous context by which news is surrounded, I highlight valence (i.e.,

favorable versus hostile) and balance (i.e., the relative number of favorable versus hostile

comments) of the comments and emojis. Specifically, a homogeneous context is defined as a

situation in which most comments and emojis to news are favorable to the news, while a

heterogeneous context as a situation in which most of them are hostile to the news. In the former,

a biased message is delivered to partisan audiences with like-minded contextual cues, and thus

their perceived bias toward the message will be likely to strengthened (e.g., from moderate to

strong HMP). Because the message and context are congruent, there is little confusion to assess

the bias, and audiences would have strong confidence in their bias perception of the message

(i.e., double-dose effect). In contrast, dissimilar contextual cues in the latter can let them adjust

their bias perception toward the message because the message and context are incongruent (e.g.,

from strong to moderate HMP). As such heterogeneous cues may serve as counter-evidence,

their perceived bias would likely to be adjusted in the opposite direction by reflecting others'

comments. For instance, a liberal user is likely to judge conservative news to be strongly hostile

when it is accompanied with conservative comments, but weakly hostile when it is surrounded

by liberal comments. That is, it is expected that pro-attitudinal news is perceived to be more favorable while counter-attitudinal news is judged to be more hostile when it comes to a homogeneous context. In contrast, pro-attitudinal news is perceived to be less favorable while counter-attitudinal news is judged to be less hostile in a heterogeneous context. In other words, a heterogeneous context is expected to reduce the gap of perceived bias between attitude-congruent and attitude-incongruent messages.

H3: Differences in HMP between pro-attitudinal and counter-attitudinal social media posts will be smaller when they are embedded in a heterogeneous context.

Furthermore, a news context that consists of others' comments and responses to the news (i.e., homogeneous versus heterogeneous) can indirectly influence affective polarization and political participation through moderating HMP (i.e., moderated mediation: see Figure 3). The large gap of perceived bias between pro-attitudinal and counter-attitudinal news stories would motivate partisan audiences to dislike their opponents further and take part in politics more (*H1* and *H2*). Hostile news is perceived as more hostile and favorable news is perceived as more favorable in the case of a homogeneous context, whereas the former news is judged as less hostile and the latter news is judged as less favorable in the case of a heterogeneous context. Thus, the mediating role of HMP in connecting partisan news exposure to affective polarization and political participation is expected to be different between homogeneous and heterogeneous contexts. In particular, a heterogeneous context (e.g., dissimilar comments and unfavorable emojis) is expected to attenuate the indirect relationships by reducing HMP.

H4a: An indirect relationship between partisan social media posts and affective polarization via HMP will be weaker when they are embedded in a heterogeneous context.

44

H4b: An indirect relationship between partisan social media posts and political participation via HMP will be weaker when they are embedded in a heterogenous context.

[Figure 3 here]

Method

Participants

A total of 624 participants were recruited from Amazon Mechanical Turk (MTurk), a crowdsourcing marketplace through which researchers can outsource jobs to a distributed workforce who can perform virtual tasks. Participants were self-selected into the MTurk database and monetarily compensated for participating in this online experiment ($1.20 USD). Once they accepted this task, they automatically moved to the online experiment run by Qualtrics, an online survey platform, and then electronically consented for their participation. After completing the experiment, they were debriefed and compensated (durations in minutes: $M = 20.5$). The responses from 50 participants were removed through the data screening. Specifically, twenty responses were omitted due to failure of the attention task, and thirty samples were dropped due to their incomplete responses to the key variables. Finally, 574 samples were analyzed: sex (male = 62%), age ($M = 35$ in year), race (White = 86%, African American = 5%, others = 9%), education (1 = high school diploma or lower, 5 = master's degree or higher: $M = 3.84$, $SD = 1.03$, $Median = 4$ [4-year college degree]), and household income (per year: 1 = less than $30,000 USD, 7 = more than $200,000 USD, $M = 3.12$, $SD = 1.29$, $Median = 3$ [$60,000 – $89,999]).

As partisan audiences' bias perception is the interest of the present study, non-partisans or independents were filtered out before joining in the experiment. That is, 574 participants were classified as either Democrats ($n = 366$, 64%) or Republicans. Regarding demographics, a post-

hoc randomization check was satisfactory across six conditions: sex ($\chi^2(5) = 4.99$, *ns*), age ($F(5, 568) = 1.01$, *ns*), race ($\chi^2(10) = 5.10$, *ns*), education ($F(5, 568) = 1.90$, *ns*), household income ($F(5, 568) = 1.41$, *ns*), and partisanship ($\chi^2(5) = 2.21$, *ns*). It is noted that the data collection began after the IRB approval by the University of California, Davis (ID: 2025682-1).

Issue Background: Abortion (Roe v. Wade Overturned)

Although a right to abortion had been acknowledged as a constitutional right since Roe v. Wade (1973), abortion is one of the most politically controversial issues in the United States. Generally speaking, Democrats and liberals are favorable to pro-abortion rights, enlarging a right to abortion further (e.g., allowing women to abort without restrictions), whereas Republicans and conservatives are friendly to anti-abortion activities, limiting the right (e.g., prohibiting abortion with few exceptions). In 2018, the Mississippi state law banned abortion operations after the first 15 weeks of pregnancy. Jackson Women's Health Organization had sued Thomas E. Dobbs, a state health officer, and lower courts enjoined enforcement of the law. However, the U.S Supreme Court overturned Roe v. Wade in June 2022, holding that the Constitution does not confer a right to abortion. This decision allowed a state government to regulate a right to abortion by itself. The decision was issued by a vote of 6–3, that is, the majority was appointed by Republican presidents. It immediately caused fiery controversy nationwide. For example, Democratic leaders (e.g., President Biden and the House speaker Pelosi) expressed outrage and strong opposition to the decision, and pro-choice rights protesters condemned it. In contrast, Republican leaders (e.g., former President Trump) and pro-life activists supported the decision. After the decision, Democratic states have imposed a state law to protect a right to abortion, whereas Republican states have enacted the opposite law. It has been controversial around the one-year anniversary of the decision, or the data collection period (July 2023).

Experimental Design and Stimuli

A 2 (content manipulation: supporting [pro-choice] versus opposing [pro-life] a right to abortion) × 3 (context manipulation: homogeneous, balanced, and heterogeneous) between-subject experimental design was employed. As a result, six experimental conditions were created. A participant was randomly assigned to one of the six conditions. They were asked to read a hypothetical Facebook post that spoke about overturning Roe v. Wade, including two relevant photos, four comments and 110 emojis. They were forced to be exposed to the post for one minute. When it came to the content manipulation, a pro-choice post expressed strong opposition to the Supreme Court's decision and argued for protection of a right to abortion, including two photos of pro-choice protesters. In contrast, a pro-life post expressed strong support for the decision and insisted prohibition of abortion, including two photos of pro-life activists. The posts were manipulated to seem like a real Facebook post.

For the context manipulation, comments and emojis on the Facebook posts were manipulated. All six posts had four comments and 110 emojis (e.g., like, love, and/or angry). In the case of a homogeneous condition, three of the four comments agreed with the post (i.e., like-minded comments), and 101 emojis were favorable (the left side in Figure 4). In a balanced condition, two of the four comments agree with the post while the other two opposed it. Similarly, 55 emojis were favorable while the other half of emojis were unfavorable (the middle in Figure 4). In the case of a heterogeneous condition, three of the four comments disagreed with the post (i.e., dissimilar comments), and only 9 emojis were favorable (the right side in Figure 4). When it came to pro-choice posts, for instance, the homogeneous post had three comments supporting a right to abortion with 101 favorable emojis (i.e., like and love), the balanced post

had two agreeable comments with 55 favorable emojis, and the heterogenous post had only one such comment with 9 favorable emojis.

In the analysis, the experimental design was recoded into a 2 (content slant: pro-attitudinal versus counter-attitudinal post) × 3 (context manipulation) between-subject design to test the hypotheses. Specifically, the two Facebook posts (pro-choice versus pro-life) were recoded into pro-attitudinal versus counter-attitudinal posts based on participants' party identification. For Democrats, the pro-choice post was coded as pro-attitudinal and the pro-life post as counter-attitudinal. For Republicans, reversely, the former post was coded as counter-attitudinal and the latter post as pro-attitudinal. That is, the six conditions in the analysis were exposure to a pro-attitudinal post in a homogeneous context (1), a balanced context (2), and a heterogeneous context (3), and exposure to a counter-attitudinal post in a homogeneous context (4), a balanced context (5), and a heterogeneous context (6).

Measures

Hostile Media Perception (HMP)

Three items were casted to measure participants' perceived bias toward the post. After being exposed to the manipulated Facebook post, they were asked to judge its bias when it came to (1) overall content, (2) arguments, and (3) photos in the post, separately (see Table A12 for question wording). Specifically, they rated the bias on a 7-point scale (-3 = strongly biased in favor of Pro-Life, 0 = strictly neutral, $+3$ = strongly biased in favor of Pro-Choice), and their responses to the three items were averaged to indicate the overall perceived bias (Cronbach's a = .80, $M = 0.57$, $SD = 1.29$). To construct an indicator of HMP, it was recoded to indicate that higher scores meant higher levels of HMP. Specifically, the score was used for Republicans without converting, while the reversed score was employed for Democrats. For both sides, a

positive value of the HMP indicator meant HMP, and a negative value indicated FMP (*-3* =

strongly biased in favor of one' side, *+3* = strongly biased against one's side; *M* = 0.16. *SD* =

1.40).

Affective Polarization (Social Distance from Out-party Supporter)

Political polarization among citizens is not a new phenomenon, but partisan citizens not

only disagree with their opponents but also dislike them. Beyond ideology, people on both sides

dislike or feel uncomfortable with one another (Iyengar et al., 2012). Due to its harmful influence

on democracy, scholarly attention has been given to affective polarization (Kingzette et al., 2021;

Levendusky, 2018). Although feeling thermometers (e.g., a 101-point scale indicating feeling of

warm/cool toward political figures) are generally used to measure affective polarization, social

distance from out-group members is another indicator of affective polarization (Druckman &

Levendusky, 2019; Iyengar et al., 2012). As partisans are likely to hesitate interpersonal

interaction with out-party supporters due to hostility and unfavorability toward them, perceived

social distance from them should be large. To measure the social distance, participants were

asked to indicate their feeling of comfort if out-party supporters would be their (1) close friends

and (2) neighbors in the same street on a 4-point scale (*1* = extremely comfortable, *4* = not

comfortable at all). Specifically, Democrat participants rated their closeness to Republican

supporters while Republican participants did to Democratic supporters (i.e., social distance from

out-party supporters). Given significant correlations between the two items (Spearman-Brown

coefficient = .64 [Republicans] and .65 [Democrats]), an index of affective polarization was

computed by averaging them (*M* = 2.96, *SD* = 0.68). Higher scores meant greater social distance

from out-party supporters, or higher levels of affective polarization.

Political Participation Intention

Given its contribution to healthy democracy, scholarly attention has been given to political participation (Putnam, 2000). Political participation may be separated into voting and other forms of participation. The former, as a planned behavior, is perceived as a citizens' duty, whereas the latter is considered a citizens' virtue or voluntary (Barnidge et al., 2020; Teorell et al., 2007). Given an off-year election of 2023, five participatory behaviors were employed. Participants were asked to indicate their willingness to take part in those behaviors, such as political persuasion, rallies/meetings/speeches, campaign buttons/stickers/signs, donation and volunteering work for political parties and candidates, on a 4-point scale (1 = none at all, 4 = very much). As a principal component analysis (PCA) confirmed one-component (eigenvalue = 2.05, the total explained variances = .41, factor loadings = .56 ~ .74), the five items were averaged to compute an index of political participation (a = .64, M = 3.01, SD = 0.48). Higher scores meant greater intentions to participate in politics. It is noted that HMP was positively correlated to both social distance from out-party supporters (r = .15, $p < .001$) and political participation intention (r = .17, $p < .001$).

Control Variables

Four variables of political involvement were controlled. An index of political interest was computed by averaging the two 4-point scale items (paying attention to politics; following politics on media) (1 = not at all, 4 = most of the time: Spearman-Brown coefficient = .68, M = 3.03, SD = 0.70). Political knowledge was measured by four multiple-choice items that asked participants about American politics, including the year of Geer v. Connecticut (1896), one full-term of U.S. Senators (6 years), the least U.S. governmental spending (foreign aid), and office-recall of John Roberts (Chief Justice of the Supreme Court). 1-point was given to a correct answer per question (otherwise = 0). As a PCA confirmed one-component (eigenvalue = 1.89,

the total explained variances = .47, factor loadings = .32 ~ .78), an index of political knowledge

was computed by summing the four scores up (a = .60, M = 2.71, SD = 1.08). Political ideology

was measured by a 5-point scale item (1 = extremely liberal, 5 = extremely conservative: M =

2.91, SD = 1.27). Last, news media use was measured by asking the participants to indicate their

news use frequency in various media (newspaper, radio, television, and Internet/social media) on

a 4-point scale (1 = never, 4 = most of the time). To capture the total amount of news media use,

the four items were summed up to compute an index of news media use (M = 12.56, SD = 1.81).

The four variables were controlled across all statistical models.

Analytic Strategy

To test the hypotheses, a moderated mediation model was run by using PROCESS v3

Macro for SPSS (Hayes, 2018, Model #7). Specifically, two moderated mediation models in

which content slant (0 = pro-attitudinal versus 1 = counter-attitudinal) served as a predictor,

HMP as a mediator, and heterogeneous context as a moderator (-1 = homogeneous, 0 = balanced,

1 = heterogeneous) were run to examine their effects on affective polarization and political

participation, separately (see Figure 3 and Table 5). Indirect effects and 95% confidence

intervals were calculated based on 10,000 bias-corrected bootstrap samples.

[Figure 4 here]

Results

The OLS regression model on HMP (see the first column in Table 5) revealed that

counter-attitudinal social media posts were perceived to be more hostile than pro-attitudinal

social media posts (b = 0.24, SE = 0.11, p = .036). Specifically, counter-attitudinal posts were

perceived as hostile (M = 0.29, SD = 1.40, Cohen's d = 0.21), whereas pro-attitudinal posts as

nearly neutral (M = 0.02, SD = 1.39, d = 0.01). Next, HMP was significantly positively related to

social distance from out-party supporters ($b = 0.06$, $SE = 0.02$, $p = .001$; see the second column in Table 5) and political participation intention ($b = 0.03$, $SE = 0.01$, $p = .005$; see the third column in Table 5). That is, greater HMP led partisan audiences to feel less comfortable to interact with political opponents and to take part in politics more. Thus, *H1*, *H2a* and *H2b* were supported.

[Table 5 and 6 here]

Regarding the contextual effect of heterogeneity, a significant moderating effect in the relationship between exposure to partisan social media posts and HMP was found ($b = -0.34$, *SE* $= 0.14$, $p = .016$ in the first column in Table 5). Specifically, the difference in HMP between pro-attitudinal and counter-attitudinal posts was reduced when the posts were embedded in the heterogeneous context. In other words, the gaps of perceived bias between the two posts were small when they were accompanied with dissimilar comments and unfavorable emojis. Oppositely, the gaps were large when the posts were surrounded by like-minded comments and favorable emojis. In short, the perceived bias of both pro-attitudinal and counter-attitudinal posts was moved to close to neutral from large HMP or FMP (see Figure 5). Thus, *H3* was supported. It is noted that the main effect of content slants ($F(1, 564) = 4.61$, $p = .032$, $\eta_p^2 = .008$) and the interaction effect ($F(2, 564) = 3.08$, $p = .047$, $\eta_p^2 = .011$) were not significantly changed when the ANCOVA on HMP was run (see Table A13).

[Figure 5 here]

Next, I examined whether the heterogeneous context would influence the mediating role of HMP in shaping affective polarization and political participation (i.e., moderated mediation: see Table 5 and 6). When it came to social distance from out-party supporters, a significant moderated mediation effect was found (*Index* $= -0.022$, *SE* $= 0.012$, 95% CI $= [-0.049, -0.003]$).

A positive indirect effect between exposure to partisan posts and affective polarization via HMP was reduced when the posts were embedded in the heterogeneous context. Specifically, the polarizing effect of partisan social media posts through HMP was largest when it came to the homogeneous context ($b = 0.037$, $SE = 0.018$, 95% CI = [0.008, 0.076]), modest when it came to the balanced context ($b = 0.015$, $SE = 0.009$, 95% CI = [0.001, 0.036]), and non-significant when it came to the heterogeneous context ($b = -0.006$, $SE = 0.012$, 95% CI = [-0.033, 0.016]). In other words, the heterogeneous context was found to have depolarizing effects via HMP.

The similar mediated moderation pattern was found when it came to political participation intention (*Index* = -0.012, $SE = 0.007$, 95% CI = [-0.027, -0.001]). A positive indirect effect between exposure to partisan posts and political participation via HMP was reduced when the posts were surrounded by dissimilar comments and hostile emojis. Specifically, the mobilizing effect of partisan social media posts through HMP was largest when it came to the homogeneous context ($b = 0.020$, $SE = 0.011$, 95% CI = [0.003, 0.044]), modest when it came to the balanced context ($b = 0.008$, $SE = 0.005$, 95% CI = [0.001, 0.020]), and non-significant when it came to the heterogeneous context ($b = -0.003$, $SE = 0.007$, 95% CI = [-0.018, 0.009]). In other words, the heterogeneous context was found to have demobilizing effects via HMP. In short, HMP had a mediating role in connecting exposure to counter-attitudinal posts to affective polarization and political participation when the posts accompanied with like-minded comments and favorable emojis, whereas HMP did not have when the posts were surrounded by dissimilar comments and hostile emojis. Taken together, *H4a* and *H4b* were supported.

Alternatively, HMP may indirectly increase political participation intention through affective polarization, which was tested as an additional analysis. As affective polarization can bring partisan audiences to take part in politics (Iyengar & Krupenkin, 2018; Ward & Tavits,

2019), it was tested whether a two-step mediation process (i.e., exposure to counter-attitudinal posts → HMP → affective polarization → political participation) would be moderated by the heterogeneous context. The very similar moderating role of heterogeneity was found. That is, the indirect path was largest when it came to the homogeneous context ($b = 0.005$, $SE = 0.002$), modest when it came to the balanced context ($b = 0.002$, $SE = 0.001$), and non-significant when it came to the heterogeneous context ($b = -0.001$, $SE = 0.002$) (see Table A14 and Figure A1).

Discussion

The present study attempts to explicate a contextual effect of heterogeneity on HMP and its consequences in the case of abortion among partisan Americans. The online experiment revealed that exposure to counter-attitudinal social media posts over pro-attitudinal posts were indirectly related to affective polarization and political participation intention through inducing HMP. In addition, the indirect effects were stronger when the posts were surrounded by like-minded responses, while they were non-significant when the posts accompanied with dissimilar responses. That is, a heterogeneous context attenuated the mediating role of HMP in augmenting hostility toward political opponents and stimulating political participation. In short, a heterogeneous communication context on social media has depolarizing and demobilizing effects through reducing HMP.

In realms of the corrective action hypothesis, little scholarly attention has been given to the role of HMP in exacerbating affective polarization (cf. Zhang & Lu, 2021). The positive relationship between the two affective phenomena was expected through the spillover of emotions and priming partisanship, which was found in this study. This study adds HMP as another mediator to the literature of the relationships between partisan news exposure and affective polarization (Gill, 2022; Lu & Lee, 2019). In fact, media scholars are concerned about

HMP as it could reduce credibility and trust to general media systems (Choi et al., 2009; Tsfati & Cohen, 2005). Given this, the current finding adds another concern in that HMP could exacerbate affective polarization. As scholarly attention has been given to a solution to mitigate affective polarization (Levendusky, 2018; Wojcieszak & Warner, 2020), future research will need to examine the link between HMP and affective polarization and find the ways of curtailing it.

On the other hand, cross-cutting exposure is in general expected to reduce political participation by increasing ambivalence (Lu et al., 2016; Mutz, 2006; cf. Matthes et al., 2019). Yet, the current finding provides evidence of its mobilizing effects through HMP, which is similar to the mediating role of negative affect in connecting counter-attitudinal exposure to participatory behavior (Chen et al., 2017; Gill, 2022). It suggests that cross-cutting news exposure can indirectly stimulate political participation via (negative) affective responses to the news. Taken together, consuming partisan information on social media has two differing effects on partisan users through inducing HMP. In other words, HMP could increase political participation while exacerbating affective polarization. Relating to a dilemma between deliberative and participatory democracy (Mutz, 2006), it implies that partisan audiences' political participation, as a form of the corrective action, is derived from negative emotions to their opposite side rather than informed citizenship. Similar to mobilizing effects of negative affect (e.g., anger: Liu & Lu, 2019; Wojcieszak et al., 2016), HMP can motivate partisans to take part in politics to fight against their opponents. Although citizens' participation in politics is in general regarded as socially desirable (Putnam, 2000), it is questionable that participatory behavior with hostility is indeed good for healthy democracy.

More importantly, HMP toward partisan social media posts was mitigated when the posts were accompanied with dissimilar comments and unfavorable emojis. It could be explained by

depolarization or deliberation effects of cross-cutting exposure (Mutz, 2006; Price et al., 2002) in terms of other users' responses. After being exposed to disagreeable responses to the posts, partisan audiences were likely to deal with and reflect them to judge the bias. Accordingly, the magnitude or extremity of the perceived bias (either favorable or hostile) was moved to close to neutral. In other words, the gaps of perceived bias between pro-attitudinal and counter-attitudinal posts were reduced in the context of heterogeneity. Practically, it can be applied to other partisan news platforms. For example, the differential perceptions of bias between liberal and conservative news channels (e.g., *MSNBC* versus *Fox News*) could be reduced when reading unfavorable feedback from other users in the websites. Yet, political communication tends to be homogeneous, including blogs and social media (Colleoni et al., 2014; Himelboim et al., 2013), and thus the gap of perceived bias is not likely to be reduced. Rather, liberal and conservative news sources would be perceived to be largely polarized by partisan citizens.

Furthermore, it also moderates the mediating roles of HMP on both affective polarization and political participation. A heterogeneous context made the indirect paths from partisan media exposure to social distance from political opponents non-significant, which suggests that a diverse communication environment could break a hostile chain of HMP, affective polarization, and hostility-driven participation. The findings show democratic benefits of diversity in the context of corrective actions, and provide practical implications for partisan communication on social media. For instance, open discussion forums and news aggregators are recommended for partisan audiences as a place of consuming news rather than slanted news sites and blogs where like-minded comments and feedback is usually predominant. In summary, this study adds the moderating role of partisan heterogeneity to the literature of HMP and corrective actions. Despite little evidence of a contextual moderator in the corrective action research, partisan heterogeneity

can have such moderating roles at various levels, such as diversity in party preferences in a community and political freedom of a country (Borah et al., 2022).

Limitations and Concluding Remarks

Still, this study has several limitations. First, a one-shot experiment with one specific issue cannot guarantee generalizability. Abortion has been long considered a controversial issue for both partisans, so it could stimulate the mind of in-party versus out-party. However, other issues, such as affirmative action and climate crisis, are somewhat blurred to divide both sides. Thus, the moderating role of opinion heterogeneity in HMP may be weaker than the current study. Relatedly, the sample in this study was not representative in terms of some demographics, such as gender and race. Although external validity is less concerned in experimental research, it is recommended for future research to employ more representative samples and different issues for replication and generalizability. Second, a neutral or unbiased message condition is not included in the present experiment. As it can serve as a baseline for judging media bias, future research will need to include it to compare it to partisan message conditions (e.g., Gunther et al., 2017). Relating to an experimental design, other contextual cues on social media will need to be manipulated and examined (e.g., the profile photo and the number of shares). Third, it would be better if the measures of affective polarization and political participation had higher reliability. Relevantly, it is recommended for future research to employ another measure of the two dependent variables (e.g., feeling thermometer and trait ratings for affective polarization and observing actual behavior for political participation) alongside the current measures to enhance measurement validity. Fourth, a couple of psychological mechanisms were nominated to explain the hypothesized relationships, but they were not measured in the present study. Future research

will need to examine whether such mechanisms work as assumed. A multi-step experiment or longitudinal design will be helpful to test the mechanisms.

Despite the limitations, the present study contributes to our understanding about the role of diversity in media effects. Specifically, HMP, a biased perception of news bias, and its worrying consequences are attenuated when the news is accompanied with heterogeneous opinions. It is reaffirmed that political communication with dissimilar others can be a way of mitigating concerns about partisan media and polarized audiences. For example, co-watching partisan news with dissimilar others and talking about politics with diverse people will be democratically desirable through reducing HMP.

IV. Conclusion

This project examined the contextual role of diversity in shaping political communication through the two empirical studies. In the first study, partisan diversity was conceptualized as a geographical context in terms of political preferences, and nationwide representative panel survey data were employed to test their effects through multilevel modeling techniques. The results revealed a multilevel structure of political communication effects. For example, individual-level news use and county-level partisan diversity jointly influenced homogeneous political discussion and affective polarization. Furthermore, partisan diversity was found to have depolarizing effects, such as attenuating political talk with like-minded others and hostility toward political opponents. In the second study, partisan diversity was defined as a communication context by which political information is surrounded, and specifically the online experiment was run by manipulating comments and emojis on social media posts. The results revealed that the gaps of perceived bias between pro-attitudinal and counter-attitudinal posts were reduced when it came to a dissimilar context. In addition, a heterogeneous communication environment was found to indirectly mitigate discomfort toward political opponents and political participation through reducing HMP. Taken together, the roles of partisan diversity in alleviating democratically undesirable consequences of partisan media use and communication were found.

Theoretically, this project adds a contextual factor of diversity to the literature of political communication and media effects. Given its importance in a democratic society, diversity has received great scholarly attention, including communication scholars. Yet, most empirical research has conceptualized and tested diversity in the context of interpersonal relationships and small group discussions. Given this, the first study asks a call for theorizing the role of diversity in communication as a geographical context. Media use and interpersonal communication are

embedded in a specific geographical location, and its influence is relatively stable and long-term. Thus, a geographical context of diversity should be considered to fully understand the roles of diversity in political communication. On the other hand, the second study provides a mechanism of how diversity influences political attitude and behavior; for example, perceptions of media bias. Given that media effects can serve as connecting individuals' predispositions to contextual factors, it will be fruitful for future research to examine other kinds of perceptions of media, such as the presumed media influence and perceived opinion climate, to explicate the contextual effect of diversity in political communication.

Practically, this project provides evidence of why a diverse society is desirable and pursued. It is concerned that homophily in political communication (e.g., echo chamber), affective polarization, and hostility-driven participation (e.g., violent protest) have increased in a democratic society. In this respect, diversity as the context of communication can mitigate such concerns above and beyond citizens' predispositions. Yet, a communication context could not be easily changed by individual citizens, and thus the next step for social scientists and policy makers will be to find a way of making a diverse context. For example, expanding communication infrastructure and supporting communication fee to help underrepresented citizens access to the public sphere and express their voice, and designing social media architecture for users to encounter dissimilar opinions from various groups.

In conclusion, this project helps enhance our understanding about the roles of diversity in relation to political communication and stimulate our effort to make a diverse society.

References

Amsalem, E., & Nir, L. (2021). Does interpersonal discussion increase political knowledge? A meta-analysis. *Communication Research, 48*(5), 619-641. https://doi.org/10.1177/0093650219866357

Arpan, L. M., & Raney, A. A. (2003). An experimental investigation of news source and the hostile media effect. *Journalism & Mass Communication Quarterly, 80*(2), 265-281. https://doi.org/10.1177/107769900308000203

Asch, S. E. (1955). Opinions and social pressure. *Scientific American, 193*(5), 31-35. https://www.jstor.org/stable/24943779

Bail, C. A., Argyle, L. P., Brown, T. W., Bumpus, J. P., Chen, H., Fallin Hunzaker, M. B., Lee, J., Mann, M., Merhout, F., & Volfovsky, A. (2018). Exposure to opposing news on social media can increase political polarization. *PNAS, 115*(37), 9216-9221. https://doi.org/10.1073/pnas.1804840115

Bakshy, E., Messing, S., & Adamic, L. A. (2015). Exposure to ideologically diverse news and opinion on Facebook. *Science*, *348*(6239), 1130-1132. https://doi.org/10.1126/science.aaa1160

Barnidge, M., & Rojas, H. (2014). Hostile media perceptions, presumed media influence, and political talk: Expanding the corrective action hypothesis. *International Journal of Public Opinion Research, 26*(2), 135–155. https://doi.org/10.1093/ijpor/edto32

Barnidge, M., Rojas, H., Beck, P. A., & Schmitt-Beck, R. (2020). Comparative corrective action: Perceived media bias and political action in 17 countries. *International Journal of Public Opinion Research, 32*(4), 732-749. https://doi.org/10.1093/ijpor/edz043

Bates, D., Mächler, M., Bolker, B. M., & Walker, S. C. (2015). Fitting linear mixed-effects

models using lme4. *Journal of Statistical Software, 67*(1), 1-48.

https://doi.org/10.48550/arXiv.1406.5823

Beam, M. A., Hutchens, M. J., & Hmielowski, J. D. (2018). Facebook news and (de)polarization:

Reinforcing spirals in the 2016 US election. *Information, Communication & Society,*

21(7), 940-958. https://doi.org/10.1080/1369118X.2018.1444783

Bennett, W. L., & Iyengar, S. (2008). A new era of minimal effects? The changing foundations

of political communication. *Journal of Communication, 58*(4), 707-731.

https://doi.org/10.1111/j.1460-2466.2008.00410.x

Berger, C. R., & Calabrese, R. J. (1975). Some explorations in initial interaction and beyond:

Toward a developmental theory of interpersonal communication. *Human Communication*

Research, 1(2), 99-112. https://doi.org/10.1111/j.1468-2958.1975.tb00258.x

Bode, L., Edgerly, S., Wells, C., Gabay, I., Franklin, C., Friedland, L., & Shah, D. V. (2018).

Participation in contentious politics: Rethinking the roles of news, social media, and

conversation amid divisiveness. *Journal of Information Technology & Politics, 15*(3),

215-229. https://doi.org/10.1080/19331681.2018.1485607

Borah, P., Barnidge, M., & Rojas, H. (2022). The contexts of political participation: The

communication mediation model under varying structural conditions of the public sphere.

The International Journal of Press/Politics, 27(4), 942-962.

https://doi.org/10.1177/19401612211029466

Chaffee, S. H., & Mutz, D. (1988). Comparing mediated and interpersonal communication data.

In R. P. Hawkins, J. M. Wiemann, & S. Pingree (Eds.), *Advancing communication*

science: Merging mass and interpersonal processes (pp. 19-43). Sage.

Chen, H.-T. (2018). Personal issue importance and motivated-reasoning goals for pro- and

    counterattitudinal exposure: A moderated mediation model of motivations and

    information selectivity on elaborative reasoning. *International Journal of Public Opinion*

    Research, 30(4), 607-630. https://doi.org/10.1093/ijpor/edx016

Chen, H.-T., Gan, C., & Sun, P. (2017). How does political satire influence political

    participation? Examining the role of counter- and pro-attitudinal exposure, anger, and

    personal issue importance. *International Journal of Communication, 11*, 3011-3029.

    https://ijoc.org/index.php/ijoc/article/view/6158

Chen, H.-T., Kim, Y., & Chan, M. (2022). Just a glance, or more? Pathways from counter-

    attitudinal incidental exposure to attitude (de)polarization through response behaviors and

    cognitive elaboration. *Journal of Communication, 72*(1), 83-110.

    https://doi.org/10.1093/joc/jqab046

Cho, J. (2008). Political ads and citizen communication. *Communication Research, 35*(4), 423-

    451. https://doi.org/10.1177/0093650208315976

Cho, J. (2011). The geography of political communication: Effects of regional variations in

    campaign advertising on citizen communication. *Human Communication Research,*

    37(3), 434-462. https://doi.org/10.1111/j.1468-2958.2011.01406.x

Cho, J., Ahmed, S., Hilbert, M., Liu, B., & Luu, J. (2020). Do search algorithms endanger

    democracy? An experimental investigation of algorithm effects on political polarization.

    Journal of Broadcasting & Electronic Media, 64(2), 150-172.

    https://doi.org/10.1080/08838151.2020.1757365

Cho, J., Ahmed, S., Keum, H., Choi, Y. J., & Lee, J. H. (2018). Influencing myself: Self-reinforcement through online political expression. *Communication Research, 45*(1), 83-111. https://doi.org/10.1177/0093650216644020

Cho, J., & McLeod, D. M. (2007). Structural antecedents of knowledge and participation: Extending the knowledge gap concept to participation. *Journal of Communication, 57*(2), 205-228. https://doi.org/10.1111/j.1460-2466.2007.00340.x

Cho, J., Shah, D. V., McLeod, J. M., McLeod, D. M., Scholl, R. M., & Gotlieb, M. R. (2009). Campaigns, reflection, and deliberation: Advancing an O-S-R-O-R model of communication effects. *Communication Theory, 19*(1), 66-88. https://doi.org/10.1111/j.1468-2885.2008.01333.x

Choi, H. (2022). How partisan cable news mobilizes viewers: Partisan media, discussion networks and political participation. *Journal of Broadcasting & Electronic Media, 66*(1), 129-152. https://doi.org/10.1080/08838151.2021.2013220

Choi, J., Yang, M., & Chang, J. J. (2009). Elaboration of the hostile media phenomenon: The roles of involvement, media skepticism, congruency of perceived media influence, and perceived opinion climate. *Communication Research, 36*(1), 54-75. https://doi.org/10.1177/0093650208326462

Cialdini, R. B. (2021). *Influence: The psychology of persuasion*. Harper Business.

Colleoni, E., Rozza, A., & Arvidsson, A. (2014). Echo chamber or public sphere? Predicting political orientation and measuring political homophily in Twitter using big data. *Journal of Communication, 64*(2), 317-332.

Cooks, E. J., & Bolland, A. (2021). Hostile media perception on Twitter: The effect of mediated

    social identity cues on biased perception. *Journal of Broadcasting & Electronic Media,*

    65(4), 435-456. https://doi.org/10.1080/08838151.2021.1996362

Cramer, K. J. (2016). *The politics of resentment: Rural consciousness in Wisconsin and the rise*

    of Scott Walker. The University of Chicago Press.

Delli Carpini, M. X., & Keeter, S. (1996). *What Americans know about politics and why it*

    matters. Yale University Press.

Delli Carpini, M. X., Keeter, S., & Kennamar, J. D. (1994). Effects of the news media

    environment on citizen knowledge of state politics and government. *Journalism*

    Quarterly, 71(2), 443-456. https://doi.org/10.1177/107769909407100217

Deutsch, M., & Gerald, H. B. (1955). A study of normative and informational social influences

    upon individual judgment. *Journal of Abnormal and Social Psychology, 51*(3), 629-636.

    https://doi.org/10.1037/h0046408

Donohue, G. A., Olien, C. N., & Tichenor, P. J. (1985). Reporting conflict by pluralism,

    newspaper type and ownership. *Journalism Quarterly, 62*(3), 489-499. https://doi.org/

    10.1177/107769908506200305

Druckman, J. N., & Levendusky, M. S. (2019). What do we measure when we measure affective

    polarization? *Public Opinion Quarterly, 83*(1), 114-122.

    https://doi.org/10.1093/poq/nfz003

Druckman, J. N., Levendusky, M. S., & McLain, A. (2018). No need to watch: How the effects

    of partisan media can spread via interpersonal discussions. *American Journal of Political*

    Science, 62(1), 99-112. https://doi.org/10.1111/ajps.12325

Eveland, W. P. Jr. (2002). News information processing as mediator of the relationship between

    motivations and political knowledge. *Journalism & Mass Communication Quarterly,*

    79(1), 26-40. https://doi.org/10.1177/107769900207900103

Eveland, W. P. Jr. (2004). The effect of political discussion in producing informed citizens: The

    roles of information, motivation, and elaboration. *Political Communication, 21*(2), 177-

    193. https://doi.org/10.1080/10584600490443877

Eveland, W. P. Jr., & Shah, D. V. (2003). The impact of individual and interpersonal factors on

    perceived news media bias. *Political Psychology, 24*(1), 101-117.

    https://doi.org/10.1111/0162-895X.00318

Eveland, W. P. Jr., & Thomson, T. (2006). Is it talking, thinking, or both? A lagged dependent

    variable model of discussion effects on political knowledge. *Journal of Communication,*

    56(3), 523-542. https://doi.org/10.1111/j.1460-2466.2006.00299.x

Feldman, L., Hart, P. S., Leiserowitz, A., Maibach, E., & Roser-Renouf, C. (2017). Do hostile

    media perceptions lead to action? The role of hostile media perceptions, political

    efficacy, and ideology in predicting climate change activism. *Communication Research,*

    44(8), 1099-1124. https://doi.org/10.1177/0093650214565914

Festinger, L. (1957). *A theory of cognitive dissonance*. Stanford University Press.

Finifter, A. W. (1974). The friendship group as a protective environment for political deviants.

    American Political Science Review, 68(2), 607-625. https://doi.org/10.2307/1959508

Garrett, R. K. (2009). Politically motivated reinforcement seeking: Reframing the selective

    exposure debate. *Journal of Communication, 59*(4), 676-699.

    https://doi.org/10.1111/j.1460-2466.2009.01452.x

Garrett, R. K., Carnahan, D., & Lynch, E. K. (2013). A turn toward avoidance? Selective

    exposure to online political information, 2004-2008. *Political Behavior, 35*, 113-134.

    https://doi.org/10.1007/s11109-011-9185-6

Garrett, R. K., Dvir Gvirsman, S., Johnson, B. K., Tsfati, Y., Neo, R., & Dal, A. (2014).

    Implications of pro- and coutnerattitudinal information exposure for affective

    polarization. *Human Communication Research, 40*(3), 309-332.

    https://doi.org/10.1111/hcre.12028

Garrett, R. K., Weeks, B. E., & Neo, R. L. (2016). Driving a wedge between evidence and

    beliefs: How online ideological news exposure promotes political misperceptions.

    Journal of Computer-Mediated Communication, 21(5), 331-348.

    https://doi.org/10.1111/jcc4.12164

Gearhart, S., Moe, A., & Zhang, B. (2020). Hostile media bias on social media: Testing the

    effect of user comments on perceptions of news bias and credibility. *Human Behavior*

    and Emerging Technologies, 2(2), 140-148. https://doi.org/10.1002/hbe2.185

Gil de Zúñiga, H., Correa, T., & Valenzuela, S. (2012). Likeminded exposure to cable news and

    immigration in the U.S.: The relationship between Fox News, CNN, and attitudes toward

    Mexican immigrants. *Journal of Broadcasting & Electronic Media, 56*(4), 597-615.

    https://doi.org/10.1080/08838151.2012.732138

Gil de Zúñiga, H., Diehl, T., Huber, B., & Liu, J. H. (2019). The citizen communication

    mediation model across countries: A multilevel mediation model of news use and

    discussion on political participation. *Journal of Communication, 69*(2), 144-167.

    https://doi.org/10.1093/joc/jqz002

Gill, H. (2022). Testing the effect of cross-cutting exposure to cable TV news on affective

      polarization: Evidence from the 2020 U.S. presidential election. *Journal of Broadcasting*

      & Electronic Media, 66(2), 320-339. https://doi.org/10.1080/08838151.2022.2087653

Greene, J. O. (1984). A cognitive approach to human communication: An action assembly

      theory. *Communication Monographs, 51*(4), 289-306.

      https://doi.org/10.1080/03637758409390203

Guess, A. M. (2021). (Almost) Everything in moderation: New evidence on Americans' online

      media diets. *American Journal of Political Science, 65*(4), 1007-1022.

      https://doi.org/10.1111/ajps.12589

Gunther, A. C. (1998). The persuasive press influence: Effects of mass media on perceived

      public opinion. *Communication Research, 25*(5), 486-504.

      https://doi.org/10.1177/009365098025005002

Gunther, A. C., Christen, C. T., Liebhart, J. L., & Chia, S. C.-Y. (2001). Congenial public,

      contrary press, and biased estimates of the climate of opinion. *Public Opinion Quarterly,*

      65(3), 295-320. https://doi.org/10.1086/322846

Gunther, A. C., McLaughlin, B., Gotlieb, M. R., & Wise, D. (2017). Who says what to whom:

      Content versus source in the hostile media effect. *International Journal of Public*

      Opinion Research, 29(3), 363-383. https://doi.org/10.1093/ijpor/edw009

Gunther, A. C., & Schmitt, K. (2004). Mapping boundaries of the hostile media effect. *Journal of*

      Communication, 54(1), 55-70. https://doi.org/10.1111/j.1460-2466.2004.tb02613.x

Hayes, A. F. (2006). A primer on multilevel modeling. *Human Communication Research, 32*(4),

      385-410. https://doi.org/10.1111/j.1468-2958.2006.00281.x

Hayes, A. F. (2018). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach* (2nd ed.). The Guilford Press.

Hayes, A. F., & Rockwood, N. J. (2020). Conditional process analysis: Concepts, computation, and advances in the modeling of the contingencies of mechanisms. *American Behavioral Scientist, 64*(1), 19-54. https://doi.org/10.1177/0002764219859633

Hewstone, M., Rubin, M., & Willis, H. (2002). *Intergroup bias. Annual Review of Psychology, 53*, 575-604. https://doi.org/10.1146/annurev.psych.53.100901.135109

Himelboim, I., McCreery, S., & Smith, M. (2013). Birds of a feather tweet together: Integrating network and content analyses to examine cross-ideology exposure on Twitter. *Journal of Computer-Mediated Communication, 18*(2), 154-174. https://doi.org/10.1111/jcc4.12001

Hogg, M. A., & Reid, S. A. (2006). Social identity, self-categorization, and the communication of group norms. *Communication Theory, 16*(1), 7-30. https://doi.org/10.1111/j.1468-2885.2006.00003.x

Huber, G. A., & Malhotra, N. (2017). Political homophily in social relationships: Evidence from online dating behavior. *The Journal of Politics, 79*(1), 269-283. https://doi.org/10.1086/687533

Huckfeldt, R. (1979). Political participation and the neighborhood social context. *American Journal of Political Science, 23*(3), 579-592. https://doi.org/10.2307/2111030

Huckfeldt, R., & Sprague, J. (1995). *Citizens, politics, and social communication: Information and influence in an election campaign*. Cambridge University Press.

Hutchens, M. J., Hmielowski, J. D., & Beam, M. A. (2019). Reinforcing spirals of political discussion and affective polarization. *Communication Monographs, 86*(3), 357-376. https://doi.org/10.1080/03637751.2019.1575255

Hyun, K. D., & Seo, M. (2021). The effects of HMP and TPP on political participation in the

    partisan media context. *Communication Research, 48*(5), 665-686.

    https://doi.org/10.1177/0093650218820229

Iyengar, S., & Hanh, K. S. (2009). Red media, blue media: Evidence of ideological selectivity in

    media use. *Journal of Communication, 59*(1), 19-39. https://doi.org/10.1111/j.1460-

    2466.2008.01402.x

Iyengar, S., & Krupenkin, M. (2018). The strengthening of partisan affect. *Political Psychology,*

    39(S1), 201-218. https://doi.org/10.1111/pops.12487

Iyengar, S., Sood, G., & Lelkes, Y. (2012). Affect, not ideology: A social identity perspective on

    polarization. *Public Opinion Quarterly, 76*(3), 405-431.

    https://doi.org/10.1093/poq/nfs038

Jacobson, G. C. (2015). Partisan media and electoral polarization in 2012: Evidence from the

    American National Election Study. In J. A. Thurber & A. Yoshinaka (Eds.), *American*

    Gridlock: The sources, character, and impact of political polarization (pp. 259-286).

    Cambridge University Press.

Kim, J., Wyatt, R. O., & Katz, E. (1999). News, talk, opinion, participation: The part played by

    conversation in deliberative democracy. *Political Communication, 16*(4), 361-385.

    https://doi.org/10.1080/105846099198541

Kim, M., & Kim, C. (2018). Personality basis for partisan news media use: Openness to

    experience and consumption of liberal news media. *Mass Communication and Society,*

    21(6), 814-833. https://doi.org/10.1080/15205436.2018.1506035

Kim, Y. (2015). Does disagreement mitigate polarization? How selective exposure and

disagreement affect political polarization. *Journalism & Mass Communication Quarterly,*

92(4), 915-937. https://doi.org/10.1177/1077699015596328

Kim, Y. (2019). How cross-cutting news exposure relates to candidate issue stance knowledge,

political polarization, and participation: The moderating role of political sophistication.

International Journal of Public Opinion Research, 31(4), 626-648.

https://doi.org/10.1093/ijpor/edy032

Kim, Y.-C., & Ball-Rokeach, S. J. (2006). Community storytelling network, neighborhood

context, and civic engagement: A multilevel approach. *Human Communication Research,*

32(4), 411-439. https://doi.org/10.1111/j.1468-2958.2006.00282.x

Kingzette, J., Druckman, J. N., Klar, S., Krupnikov, Y., Levendusky, M., & Ryan, J. B. (2021).

How affective polarization undermines support for democratic norms. *Public Opinion*

Quarterly, 85(2), 663-677. https://doi.org/10.1093/poq/nfab029

Knobloch-Westerwick, S., & Johnson, B. K. (2014). Likeminded exposure for better or worse:

Its mediating role for online news' impact on political participation. *Journal of*

Computer-Mediated Communication, 19(2), 184-196. https://doi.org/10.1111/jcc4.12036

Knobloch-Westerwick, S., Mothes, C., & Polavin, N. (2020). Confirmation bias, ingroup bias,

and negativity bias in selective exposure to political information. *Communication*

Research, 47(1), 104-124. https://doi.org/10.1177/0093650217719596

Lazarsfeld, P. F., Berelson, B., & Gaudet, H. (1948). *The people's choice: How the voter makes*

up his mind in a presidential campaign (2nd ed.). Columbia University Press.

Lee, E.-J. (2012). That's not the way it is: How user-generated comments on the news affect

   perceived media bias. *Journal of Computer-Mediated Communication, 18*(1), 32-45.

   https://doi.org/10.1111/j.1083-6101.2012.01597.x

Lee, F. L. F. (2018). The spillover effects of political scandals: The moderating role of cynicism

   and social media communications. *Journalism & Mass Communication Quarterly, 95*(3),

   714-733. https://doi.org/10.1177/1077699017723604

Lee, J., & Choi, Y. (2020). Effects of network heterogeneity on social media on opinion

   polarization among South Koreans: Focusing on fear and political orientation.

   International Communication Gazette, 82(2), 119-139.

   https://doi.org/10.1177/1748048518820499

Lee, J. H. (2015). The effect of news audience's biased media perception on their evaluation of

   the media's fairness: A comparative analysis among congenial, neutral, and hostile

   media. *Korean Journal of Journalism and Communication Studies, 59*(1), 7-36.

Lee, N.-J., Shah, D. V., & McLeod, J. M. (2013). Processes of political socialization: A

   communication mediation approach to youth civic engagement. *Communication

   Research, 40*(5), 669-697. https://doi.org/10.1177/0093650212436712

Lee, S., & Cho, J. (2023). Communication mediation in an era of partisan selectivity: Modeling

   effects of information and discussion on participation. *International Journal of Public

   Opinion Research*, *35*(3), edad020. https://doi.org/10.1093/ijpor/edad020

Lee, S., & Kim, K. (2023). Perceived influence of partisan news and online news participation:

   Third-person effect, hostile media phenomenon, and cognitive elaboration.

   Communication Research, 50(7), 854-878. https://doi.org/10.1177/00936502221127494

Levendusky, M. (2013). *How partisan media polarize America*. The University of Chicago

Press.

Levendusky, M. S. (2018). Americans, not partisans: Can priming American national identity

reduce affective polarization? *The Journal of Politics, 80*(1), 59-70.

https://doi.org/10.1086/693987

Li, Q., Bond, R. M., & Garrett, R. K. (2023). Misperceptions in sociopolitical context: Belief

sensitivity's relationship with battleground state status and partisan segregation. *Journal

of Communication*. Advance online publication. https://doi.org/10.1093/joc/jqad017

Lord, C. G., Ross, L., & Lepper, M. R. (1979). Biased assimilation and attitude polarization: The

effect of prior theories on subsequently considered evidence. *Journal of Personality and

Social Psychology, 37*(11), 2098-2109. https://doi.org/10.1037/0022-3514.37.11.2098

Lu, Y., Heatherly, K. A., & Lee, J. K. (2016). Cross-cutting exposure on social networking sites:

The effects of SNS discussion disagreement on political participation. *Computers in

Human Behavior, 59*, 74-81. https://doi.org/10.1016/j.chb.2016.01.030

Lu, Y., & Lee, J. K. (2019). Partisan information sources and affective polarization: Panel

analysis of the mediating role of anger and fear. *Journalism & Mass Communication

Quarterly*, 96(3), 767-783. https://doi.org/10.1177/1077699018811295

Markus, H., & Zajonc, R. B. (1985). The cognitive perspective in social psychology. In G.

Lindzey & E. Aronson (Eds.), *The handbook of social psychology* (3rd ed., pp. 137-229).

Random House.

Matthes, J. (2013). The affective underpinnings of hostile media perceptions: Exploring the

distinct effects of affective and cognitive involvement. *Communication Research, 40*(3),

360-387. https://doi.org/10.1177/0093650211420255

Matthes, J., Knoll, J., Valenzuela, S., Hopmann, D. N., & von Sikorski, C. (2019). A meta-analysis of the effects of cross-cutting exposure on political participation. *Political Communication, 36*(4), 523-542. https://doi.org/10.1080/10584609.2019.1619638

McLeod, D. M., Wise, D., & Perryman, M. (2017). Thinking about the media: A review of theory and research on media perceptions, media effects perceptions, and their consequences. *Review of Communication Research, 5*, 35-83. https://doi.org/10.12840/issn.2255-4165.2017.05.01.013

McLeod, J. M., Kosicki, G. M., & McLeod, D. M. (2010). Levels of analysis and communication science. In C. R. Berger, M. E. Roloff, & D. R. Roskos-Ewoldsen (Eds.), *The handbook of communication science* (2nd ed.) (pp. 183-200). Sage.

Mutz, D. C. (2006). *Hearing the other side: Deliberative versus participatory democracy*. Cambridge University Press.

Nisbet, M. C., & Scheufele, D. A. (2004). Political talk as a catalyst for online citizenship. *Journalism & Mass Communication Quarterly, 81*(4), 877-896. https://doi.org/10.1177/107769900408100410

Noelle-Neumann, E. (1974). The spiral of silence: A theory of public opinion. *Journal of Communication, 24*(2), 43-51. https://doi.org/10.1111/j.1460-2466.1974.tb00367.x

Olien, C. N., Donohue, G. A., & Tichenor, P. J. (1978). Community structure and media use. *Journalism Quarterly, 55*(3), 445-455. https://doi.org/10.1177/107769907805500304

Oliver, J. E. (1999). The effects of metropolitan economic segregation on local civic participation. *American Journal of Political Science, 43*(1), 186-212. https://doi.org/10.2307/2991790

Pan, Z., & McLeod, J. M. (1991). Multilevel analysis in mass communication research. *Communication Research, 18*(2), 140-173. https://doi.org/10.1177/009365091018002002

Perloff, R. M. (1989). Ego-involvement and the third person effect of televised news coverage. *Communication Research, 16*(2), 236-262. https://doi.org/10.1177/009365089016002004

Peterson, E., Goel, S., & Iyengar, S. (2021). Partisan likeminded exposure in online news consumption: Evidence from the 2016 presidential campaign. *Political Science Research and Methods, 9*(2), 242-258. https://doi.org/10.1017/psrm.2019.55

Petty, R. E., &, Cacioppo, J. T. (1990). Involvement and persuasion: Tradition versus integration. *Psychological Bulletin, 107*(3), 367-374. https://doi.org/10.1037/0033-2909.107.3.367

Pingree, R. J. (2007). How messages affect their senders: A more general model of message effects and implications for deliberation. *Communication Theory, 17*(4), 439-461. https://doi.org/10.1111/j.1468-2885.2007.00306.x

Ponder, J. D., & Haridakis, P. (2015). Likemindedly social politics: The differing roles of media use on political discussion. *Mass Communication and Society, 18*(3), 281-302. https://doi.org/10.1080/15205436.2014.940977

Price, V., Cappella, J. N., & Nir, L. (2002). Does disagreement contribute to more deliberative opinion? *Political Communication, 19*(1), 95-112. https://doi.org/10.1080/105846002317246506

Price, V., Nir, L., & Cappella, J. N. (2006). Normative and informational influences in online political discussions. *Communication Theory, 16*(1), 47-74. https://doi.org/10.1111/j.1468-2885.2006.00005.x

Price, V., & Tewksbury, D. (1997). News values and public opinion: A theoretical account of

    media priming and framing. In G. A. Barett & F. J. Boster (Eds.), *Progress in*

    communication sciences: Advances in persuasion (Vol. 13) (pp. 173 – 212). Ablex.

Putnam, R. D. (2000). *Bowling alone: The collapse and revival of American community*. Simon

    & Schuster.

Raudenbush, S. W., & Bryk, A. S. (2002). *Hierarchical linear models: Applications and data*

    analysis methods (2nd ed.). Sage.

Reid, S. A. (2012). A self-categorization explanation for the hostile media effect. *Journal of*

    Communication, *62*(3), 381–399. https://doi.org/10.1111/j.1460-2466.2012.01647.x

Rojas, H. (2010). "Corrective" actions in the public sphere: How perceptions of media and media

    effects shape political behaviors. *International Journal of Public Opinion Research,*

    22(3), 343-363. https://doi.org/10.1093/ijpor/edq018

Scheufele, D. A., Hardy, B. W., Brossard, D., Waismel-Manor, I. S., & Nisbet, E. (2006).

    Democracy based on difference: Examining the links between structural heterogeneity,

    heterogeneity of discussion networks, and democratic citizenship. *Journal of*

    Communication, 56(4), 728-753. https://doi.org/10.1111/j.1460-2466.2006.00317.x

Shah, D. V., Cho, J., Eveland, W. P. Jr., & Kwak, N. (2005). Information and expression in a

    digital age: Modeling Internet effects on civic participation. *Communication Research,*

    32(5), 531-565. https://doi.org/10.1177/0093650205279209

Shah, D. V., McLeod, D. M., Rojas, H., Cho, J., Wagner, M. W., & Friedland, L. A. (2017).

    Revising the communication mediation model for a new political communication

    ecology. *Human Communication Research, 43*(4), 491-504.

    https://doi.org/10.1111/hcre.12115

Shah, D. V., McLeod, J. M., & Yoon, S-H. (2001). Communication, context, and community:

    An exploration of print, broadcast, and Internet influences. *Communication Research,*

    28(4), 464-506. https://doi.org/10.1177/009365001028004005

Sherif, C. W., & Sherif, M. (1967). *Attitude, ego-involvement, and change*. Wiley.

Song, H. (2017). Why do people (sometimes) become likeminded about news? The role of

    emotions and partisan differences in likeminded approach and avoidance. *Mass*

    Communication and Society, 20(1), 47-67.

    https://doi.org/10.1080/15205436.2016.1187755

Sotirovic, M., & McLeod, J. M. (2001). Values, communication behavior, and political

    participation. *Political Communication, 18*(3), 273-300.

    https://doi.org/10.1080/10584600152400347

Stroud, N. J. (2011). *Niche news: The politics of news choice*. Oxford University Press.

Suk, J., Shah, D. V., & McLeod, D. M. (2022). Breaking the "virtuous circle": How partisan

    communication flows can erode social trust but drive participation. *Human*

    Communication Research, 48(1), 88-115. https://doi.org/10.1093/hcr/hqab015

Suk, J., Shah, D. V., Wells, C., Wagner, M. W., Friedland, L. A., Cramer, K. J., Hughes, C., &

    Franklin, C. (2020). Do improving conditions harden partisan preferences? Lived

    experiences, imagined communities, and polarized evaluations. *International Journal of*

    Public Opinion Quarterly, 32(4), 750-768. https://doi.org/10.1093/ijpor/edz051

Taber, C. S., & Lodge, M. (2006). Motivated skepticism in the evaluation of political beliefs.

    American Journal of Political Science, 50(3), 755-769. https://doi.org/10.1111/j.1540-

    5907.2006.00214.x

Teorell, J., Torcal, M., & Montero, J. R. (2007). Political participation. In J. W. Van Deth, J. R. Montero, & A. Westholm (Eds.), *Citizenship and involvement in European democracies: A comparative analysis* (pp. 334–357). Routledge.

Thurre, F. O., Gale, J., & Staerklé, C. (2020). Speaking up or silencing out in the face of rising right-wing populism: A dynamic test of the spiral of silence across 15 European countries. *International Journal of Public Opinion Research, 32*(3), 547-568. https://doi.org/10.1093/ijpor/edz034

Tsfati, Y., & Cohen, J. (2005). Democratic consequences of hostile media perceptions: The case of Gaza settlers. *Harvard International Journal of Press/Politics, 10*(4), 28-51. https://doi.org/10.1177/1081180X05280776

Valkenburg, P. M. (2017). Understanding self-effects in social media. *Human Communication Research, 43*(4), 477-490. https://doi.org/10.1111/hcre.12113

Vallone, R. P., Ross, L., & Lepper, M. R. (1985). The hostile media phenomenon: Biased perception and perceptions of media bias in coverage of the Beirut massacre. *Journal of Personality and Social Psychology, 49*(3), 577-585. https://doi.org/10.1037/0022-3514.49.3.577

van Holm, E. J. (2019). Unequal cities, unequal participation: The effect of income equality on civic engagement. *American Review of Public Administration, 49*(2), 135-144. https://doi.org/10.1177/0275074018791217

von Sikorski, C., Heiss, R., & Matthes, J. (2020). How political scandals affect the electorate: Tracing the eroding and spillover effects of scandals with a panel study. *Political Psychology, 41*(3), 549-568. https://doi.org/10.1111/pops.12638

Vraga, E. K., & Tully, M. (2015). Media literacy messages and hostile media perceptions: Processing of nonpartisan versus partisan political information. *Mass Communication and Society, 18*(4), 422-448. https://doi.org/10.1080/15205436.2014.1001910

Waisbord, S. (2018). Truth is what happens to news: On journalism, fake news, and post-truth. *Journalism Studies, 19*(13), 1866-1878. https://doi.org/10.1080/1461670X.2018.1492881

Wang, M. Y., Hmielowski, J. D., Hutchens, M. J., & Beam, M. A. (2017). Extending the spiral of silence: Partisan media, perceived support, and sharing opinions online. *Journal of Information Technology & Politics, 14*(3), 248-262. https://doi.org/10.1080/19331681.2017.1338980

Ward, D. G., & Tavits, M. (2019). How partisan affect shapes citizens' perception of the political world. *Electoral Studies, 60*, 102045. https://doi.org/10.1016/j.electstud.2019.04.009

Wintterlin, F., Frischlich, L., Boberg, S., Schatto-Eckrodt, T., Reer, F., & Quandt, T. (2021). Corrective actions in the information disorder: The role of presumed media influence and hostile media perceptions for the countering of distorted user-generated content. *Political Communication, 38*(6), 773-791. https://doi.org/10.1080/10584609.2021.1888829

Wojcieszak, M. (2010). 'Don't talk to me': Effects of ideologically homogeneous online groups and politically dissimilar offline ties on extremism. *New Media & Society, 12*(4), 637-655. https://doi.org/10.1177/1461444809342775

Wojcieszak, M., Bimber, B., Feldman, L., & Stroud, N. J. (2016). Partisan news and political participation: Exploring mediated relationships. *Political Communication, 36*(2), 241-260. https://doi.org/10.1080/10584609.2015.1051608

Wojcieszak, M., de Leeuw, S., Menchen-Trevino, E., Lee, S., Huang-Isherwood, K. M., & Weeks, B. (2023). No polarization from partisan news: Evidence from trace data. *The*

International Journal of Press/Politics, 28(3), 601-626.

https://doi.org/10.1177/19401612211047194

Wojcieszak, M. E., & Mutz, D. C. (2009). Online groups and political discourse: Do online

discussion spaces facilitate exposure to political disagreement? *Journal of*

Communication, 59(1), 40-56. https://doi.org/10.1111/j.1460-2466.2008.01403.x

Wojcieszak, M., & Warner, B. R. (2020). Can interparty contact reduce affective polarization? A

systematic test of different forms of intergroup contact. *Political Communication, 37*(6),

789-811. https://doi.org/10.1080/10584609.2020.1760406

Wyatt, R. O., Kim, J., & Katz, E. (2000). How feeling free to talk affects ordinary political

conversation, purposeful argumentation, and civic participation. *Journalism & Mass*

Communication Quarterly, 77(1), 99-114. https://doi.org/10.1177/107769900007700108

Yang, T., Majo-Vazquez, S., Nielsen, R. K., & Gonzalez-Bailon, S. (2020). Exposure to news

grows less fragmented with an increase in mobile access. *PNAS, 117*(46), 28678-28683.

https://doi.org/10.1073/pnas.2006089117

Yun, G. W., Park, S.-Y., Lee, S., & Flynn, M. A. (2018). Hostile media or hostile source? Bias

perception of shard news. *Social Science Computer Review, 36*(1), 21-35.

https://doi.org/10.1177/0894439316684481

Zheng, X., & Lu, Y. (2021). News consumption and affective polarization in Taiwan: The

mediating roles of like-minded discussion and relative hostile media perception. *The*

Social Science Journal. https://doi.org/10.1080/03623319.2021.1933877

Table 1

Descriptive Statistics of Key Variables

Unit of Analysis	Variable	*M*	*SD*	*range*
Level-1 (Individual)	Like-minded news use (W1)	1.28	1.78	0-10
	Cross-cutting news use (W1)	0.32	0.83	0-9
	Homogeneous political discussion (W2)	3.09	2.53	0-7
	Political knowledge (W2)	2.41	1.24	0-4
	Affective polarization (W2)	59.64	27.88	0-100
	Political knowledge (W1: lagged DV)	2.39	1.09	0-4
	Affective polarization (W1: lagged DV)	57.89	27.54	0-100
Level-2 (County)	Partisan heterogeneity	0.89	0.14	0.16-1.00
	Voter turnout	0.73	0.05	0.46-0.91
	Age (median; in year)	38.08	4.27	22.7-68.0
	Household income (median; logged USD)	4.77	0.12	4.32-5.17
Level-3 (State)	Partisan heterogeneity	0.96	0.06	0.16-1.00
	Voter turnout	0.58	0.08	0.38-0.75
	Age (median; in year)	37.90	2.14	29.3-44.8
	Household income (median; logged USD)	4.77	0.07	4.59-4.94

Note. The 2012, 2016, and 2020 ANES datasets were merged. The number of cases = 10,343 (Level-1: individual respondent), 1,576 (Level-2: county), and 51 (Level-3: state). W1 = pre-election ANES survey, W2 = post-election ANES survey.

Table 2

Three-level Regressions on Political Talk, Knowledge, and Affective Polarization

Fixed Effects	Political Talk (W2)	Political Knowledge (W2)	Affective Polarization (W2)
Level-1: Individual (N = 10,343)			
Intercept	-80.62 (6.25)***	-10.39 (1.59)***	-229.20 (40.50)***
LMNU (W1)	0.19 (0.01)***	0.07 (0.01)***	0.91 (0.12)***
CCNU (W1)	0.11 (0.03)***	0.02 (0.01)	-1.34 (0.24)***
Political Talk (W2)	-	0.05 (0.004)***	0.72 (0.09)***
Level-1 Covariates			
Sex (1=female: W1)	0.18 (0.04)***	-0.15 (0.02)***	1.67 (0.37)***
Age (in year: W1)	-0.005 (0.002)**	0.01 (0.001)***	-0.01 (0.01)
Education (W1)	0.09 (0.02)***	0.10 (0.01)***	0.10 (0.15)
Income (W1)	0.03 (0.003)***	0.02 (0.002)***	-0.01 (0.03)
Political Interest (W1)	2.59 (0.10)***	0.62 (0.05)***	2.76 (0.86)**
PID (1=Republican: W1)	-0.08 (0.05)	0.02 (0.02)	-1.42 (0.39)***
PID strength (W1)	-0.01 (0.03)	-0.10 (0.01)***	1.92 (0.25)***
Knowledge (W1)	0.05 (0.02)*	0.26 (0.01)***	-0.02 (0.19)
Polarization (W1)	0.007 (0.001)***	0.005 (0.001)***	0.68 (0.01)***
Level-2: County (N = 1,576)			
Partisan Heterogeneity	-0.53 (0.02)*	-0.16 (0.12)	-5.98 (2.93)*
Level-2 covariates			
Voter Turnout	-5.07 (0.66)***	-1.38 (0.30)***	-1.05 (6.06)
Income (log: median)	0.71 (0.33)*	1.17 (0.18)***	-0.08 (4.38)
Age (in year: median)	0.02 (0.01)**	0.01 (0.004)***	0.15 (0.10)
Level-3: State (N = 51)[a]			
Partisan Heterogeneity	-0.80 (1.19)	-0.68 (0.38)	-4.14 (9.68)
Level-3 covariates			
Voter Turnout	-8.66 (1.53)***	0.47 (0.35)	20.51 (10.68)
Income (log: median)	13.69 (1.45)***	1.28 (0.35)***	52.23 (10.33)***
Age (in year: median)	0.64 (0.07)***	0.06 (0.01)***	0.88 (0.41)*
Random Effects			
Level-1 variance (SD)	4.566 (2.137)	0.960 (0.980)	305.030 (17.465)
Level-2 variance (SD)	0.274 (0.523)	0.144 (0.379)	140.350 (11.847)
Level-3 variance (SD)	2.045 (1.430)	0.010 (0.099)	31.990 (5.656)

Note[1]. LMNU = Like-minded News Use, CCNU = Cross-cutting News Use, PID = Party Identification. The entries were unstandardized regression coefficients with standard errors in the parentheses through a linear mixed model using the *lme4* package in R (Bates et al., 2015). Level-1 predictors and covariates were group-mean-centered by a county (Level-2 unit) (* $p < .05$, ** $p < .01$, *** $p < .001$).

Note[2]. a = 50 states plus Washington D.C.

Table 3

Cross-level Moderation Effect on Political Discussion, Knowledge, and Affective Polarization

	DV = Political Knowledge (W2)		DV = Affective Polarization (W2)	
	Model 1 FP = LMNU (W1)	Model 2 FP = CCNU (W1)	Model 3 FP = LMNU (W1)	Model 4 FP = CCNU (W1)
Cross-level Moderation				
Within-group				
LMNU (Lv1: W1) × Heterogeneity (Lv2)	-0.249 (0.095)** 95% CI = [-0.435, -0.064]	-	-0.249 (0.095)** 95% CI = [-0.435, -0.064]	-
CCNU (Lv1: W1) × Heterogeneity (Lv2)	-	-0.389 (0.203)† 95% CI = [-0.786, 0.009]	-	-0.389 (0.203)† 95% CI = [-0.786, 0.009]
Political Talk (Lv1: W2) × Heterogeneity (Lv2)	0.005 (0.032) 95% CI = [-0.057, 0.068]	0.0054 (0.032) 95% CI = [-0.057, 0.068]	0.657 (0.549) 95% CI = [-0.420, 1.734]	0.657 (0.549) 95% CI = [-0.420, 1.734]
Between-group				
LMNU (Lv1: W1) × Heterogeneity (Lv2)	-0.462 (0.240)† 95% CI = [-0.933, 0.009]	-	-0.462 (0.240)† 95% CI = [-0.933, 0.009]	-
CCNU (Lv1: W1) × Heterogeneity (Lv2)	-	-1.103 (0.540)* 95% CI = [-2.162, -0.045]	-	-1.103 (0.540)* 95% CI = [-2.162, -0.045]
Political Talk (Lv1: W2) × Heterogeneity (Lv2)	-0.165 (0.068)* 95% CI = [-0.298, -0.032]	-0.165 (0.068)* 95% CI = [-0.298, -0.032]	-1.205 (1.114) 95% CI = [-3.389, 0.978]	-1.205 (1.114) 95% CI = [-3.389, 0.978]
Model Fit				
-2×Log Likelihood	76743.08	76742.89	135320.70	135320.50
AIC	76751.08	76750.89	135328.70	135328.50
BIC	76782.82	76782.63	135360.40	135360.20

Note. FP = Focal Predictor, DV = Dependent Variable, LMNU = Like-minded News Use, CCNU = Cross-cutting News Use, Heterogeneity = County-level Partisan Heterogeneity. The entries were unstandardized coefficients with standardized errors in the parentheses. Monte Carlo confidence intervals were calculated from a linear mixed model using the MLMED macro in SPSS (Hayes & Rockwood, 2020). Three level-1 covariates (cross-cutting news use [or like-minded news use in Model 2 and 4], political knowledge, and affective polarization at Wave1) and three level-2 covariates (voter turnout, median age and household income) were controlled. N = 10,343 (Level-1) and the number of counties = 1,576 (Level-2). † $p < .06$, * $p < .05$, ** $p < .01$, *** $p < .001$

Table 4

Indices of Moderated Mediation by County-level Context of Partisan Heterogeneity

Index of Moderated Mediation	DV = Political Knowledge (W2)	DV = Affective Polarization (W2)
Within-group		
1st stage (LMNU → Political talk)	[-0.037, -0.006]	[-0.488, -0.072]
2nd stage (Political talk → DV)	[-0.016, 0.019]	[-0.119, 0.483]
1st stage (CCNU → Political talk)	[-0.067, 0.001]	[-0.891, 0.014]
2nd stage (Political talk → DV)	[-0.010, 0.012]	[-0.076, 0.329]
Between-group		
1st stage (LMNU → Political talk)	[-0.109, 0.001]	[-1.110, 0.006]
2nd stage (Political talk → DV)	[-0.126, -0.013]	[-1.406, 0.435]
1st stage (CCNU → Political talk)	[-0.250, -0.006]	[-2.600, -0.049]
2nd stage (Political talk → DV)	[-0.067, 0.004]	[-0.700, 0.155]

Note. DV = Dependent Variable, LMNU = Like-minded News Use, CCNU = Cross-cutting News Use, Political talk = Homogeneous Political Discussion. The entries were Monte Carlo confidence intervals that were calculated from a linear mixed model using the MLMED macro in SPSS (Hayes & Rockwood, 2020). Three level-1 covariates (cross-cutting news use [or like-minded news use in Model 2], political knowledge, and affective polarization at Wave1) and three level-2 covariates (voter turnout, median household income, and median age) were controlled. N = 10,343 (Level-1) and the number of counties = 1,576 (Level-2).

Table 5

OLS Regressions on HMP, Affective Polarization, and Political Participation

	Model 1 (DV = HMP)	Model 2 (DV = Social distance from out-party supporter)	Model 3 (DV = Political participation intention)
Intercept	-1.36 (0.47)**	2.05 (0.22)***	1.22 (0.14)***
Content slant (1=counter-attitudinal)	0.24 (0.12)*	-0.16 (0.05)**	-0.04 (0.03)
Heterogeneous context	0.16 (0.10)	-	-
Content slant × Heterogeneous context	-0.34 (0.14)*	-	-
Mediator			
HMP	-	0.06 (0.02)**	0.03 (0.01)**
Covariates			
Political interest	0.08 (0.08)	-0.08 (0.04)*	0.01 (0.02)
Political knowledge	-0.10 (0.05)	-0.08 (0.02)**	-0.02 (0.02)
Political ideology	0.15 (0.05)**	-0.03 (0.02)	0.01 (0.01)
News media use	0.08 (0.03)*	0.12 (0.02)***	0.14 (0.01)***
Model fit			
F-value	4.30***	15.50***	43.06***
R^2	.051	.141	.313
Index of moderated mediation			
		Index (SE)	95% CI
Model 2 (Moderator: Heterogeneous context) Content slant → HMP → Social distance		-0.022 (0.012)	[-0.049, -0.003]
Model 3 (Moderator: Heterogeneous context) Content slant → HMP → Participation		-0.012 (0.007)	[-0.027, -0.001]

Note. N = 574. HMP = Hostile Media Perception, DV = Dependent Variable, × = interaction. The entries were unstandardized regression coefficients with their standard errors in the parentheses. Indirect effects and 95% confidence intervals were calculated based on 10,000 bootstrap samples (Hayes, 2018, Model #7) (* $p < .05$, ** $p < .01$, *** $p < .001$).

Table 6

Conditional Mediation Effects of HMP on Affective Polarization and Political Participation

Level of Heterogeneity	Mediation Effect (Bootstrapped SE)	95% CI
DV = Social distance from out-party supporter		
-1 (homogeneous)	0.037 (0.018)	[0.008, 0.076]
0 (balanced)	0.015 (0.009)	[0.001, 0.036]
+1 (heterogeneous)	-0.006 (0.012)	[-0.033, 0.016]
DV = Political participation intention		
-1 (homogeneous)	0.020 (0.010)	[0.003, 0.044]
0 (balanced)	0.008 (0.005)	[0.001, 0.020]
+1 (heterogeneous)	-0.003 (0.007)	[-0.018, 0.009]

Note. N = 574. Indirect effects and 95% confidence intervals were calculated based on 10,000 bias-corrected bootstrap samples (Hayes, 2018, Model #7).

Figure 1

Effects of County-level Partisan Heterogeneity on Political Talk, Knowledge, and Polarization
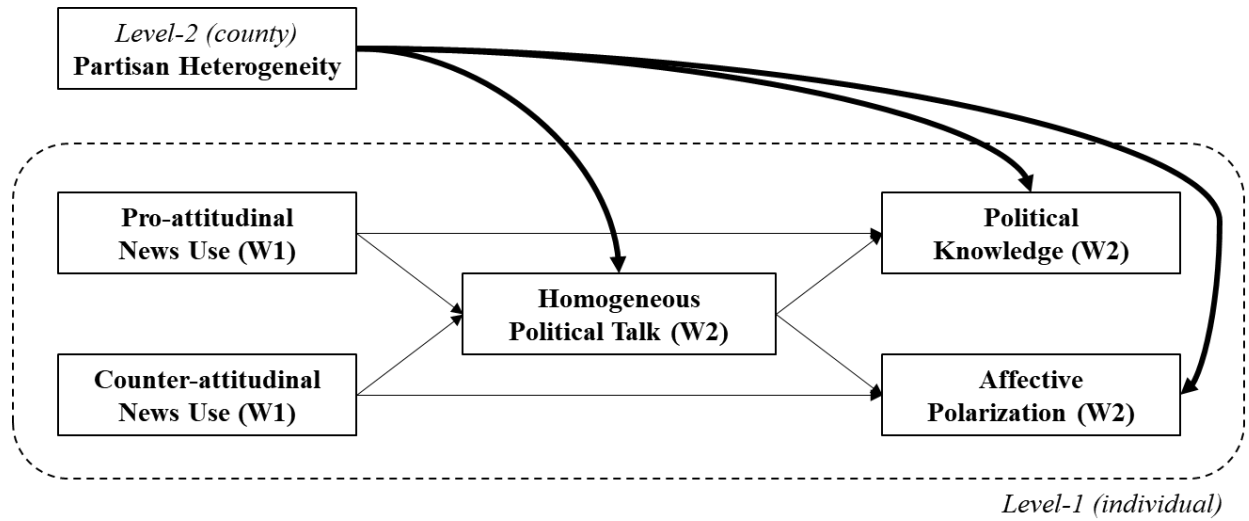
Figure 2

Cross-level Moderation Effects by County-level Partisan Heterogeneity
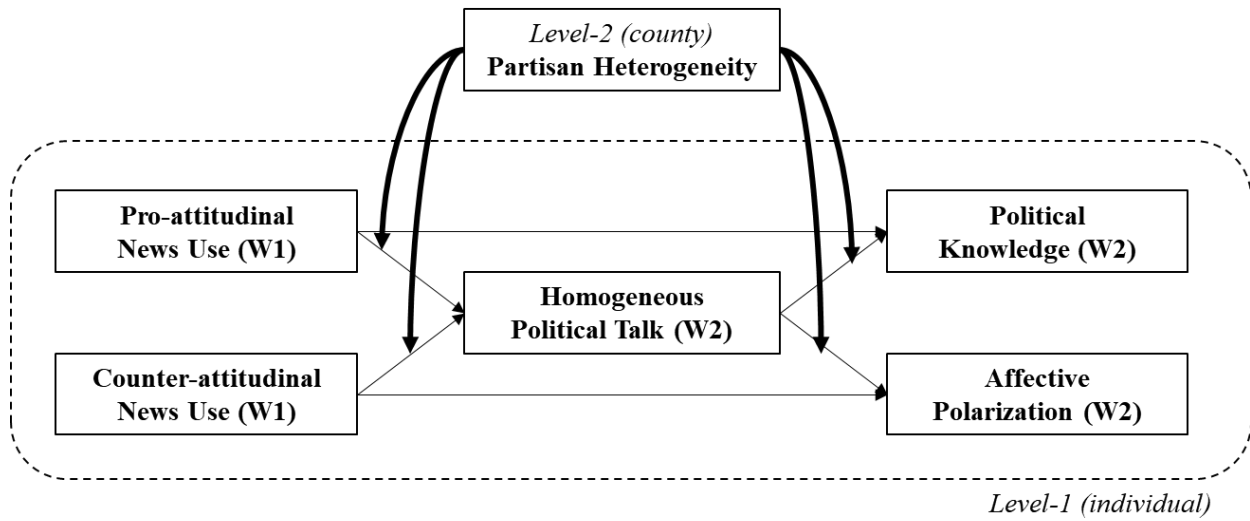
Figure 3

The Hypothesized Model
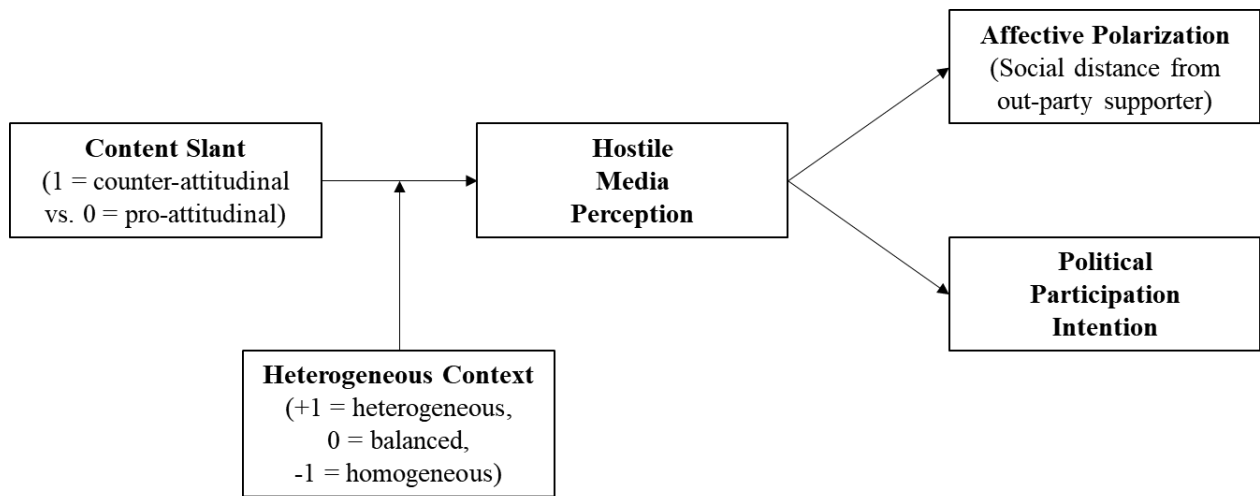
Figure 4

Experimental Stimuli
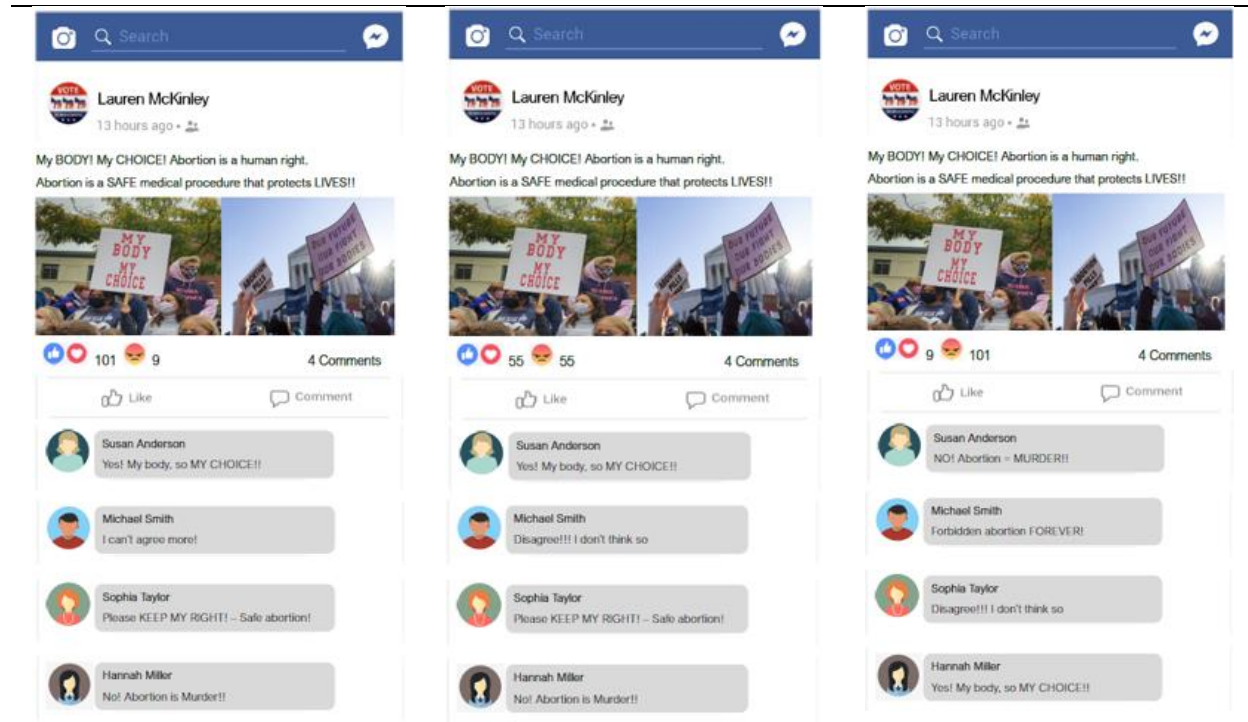
Liberal posts with like-minded (left), balanced (middle), and dissimilar comments (right)
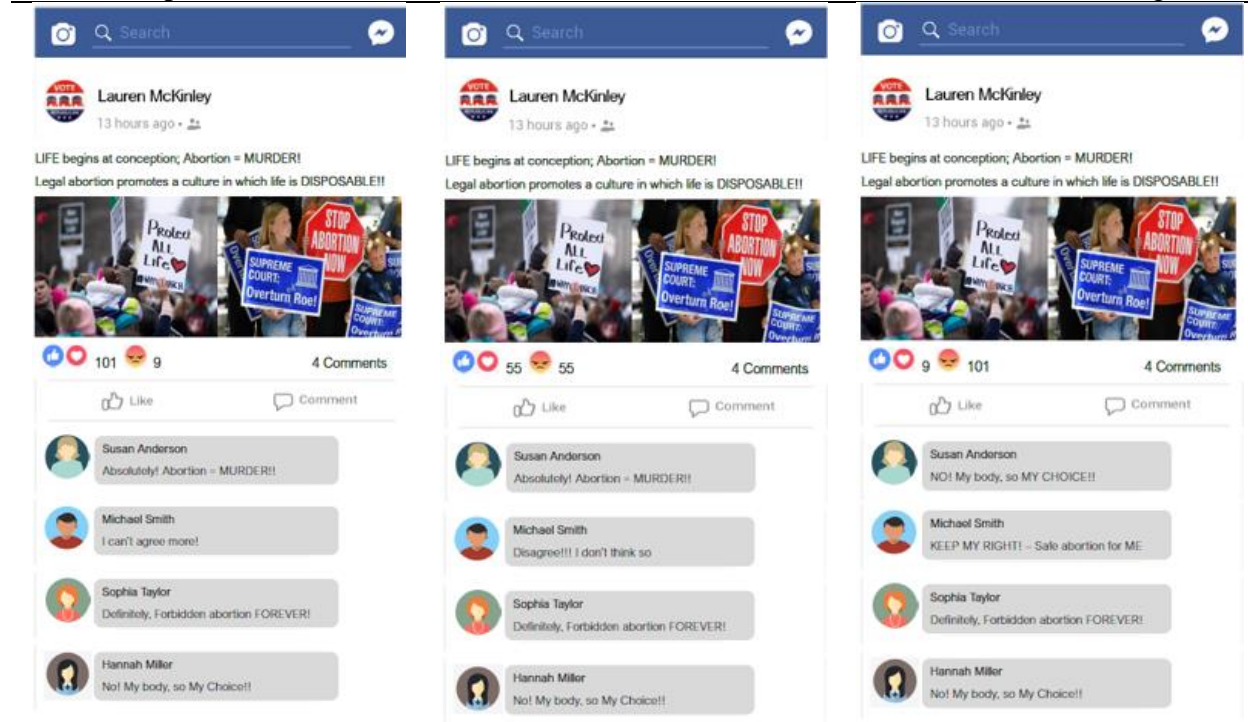
Conservative posts with like-minded (left), balanced (middle), and dissimilar comments (right)

Figure 5

Interaction Effect of Content Slant and Heterogeneous Context on HMP
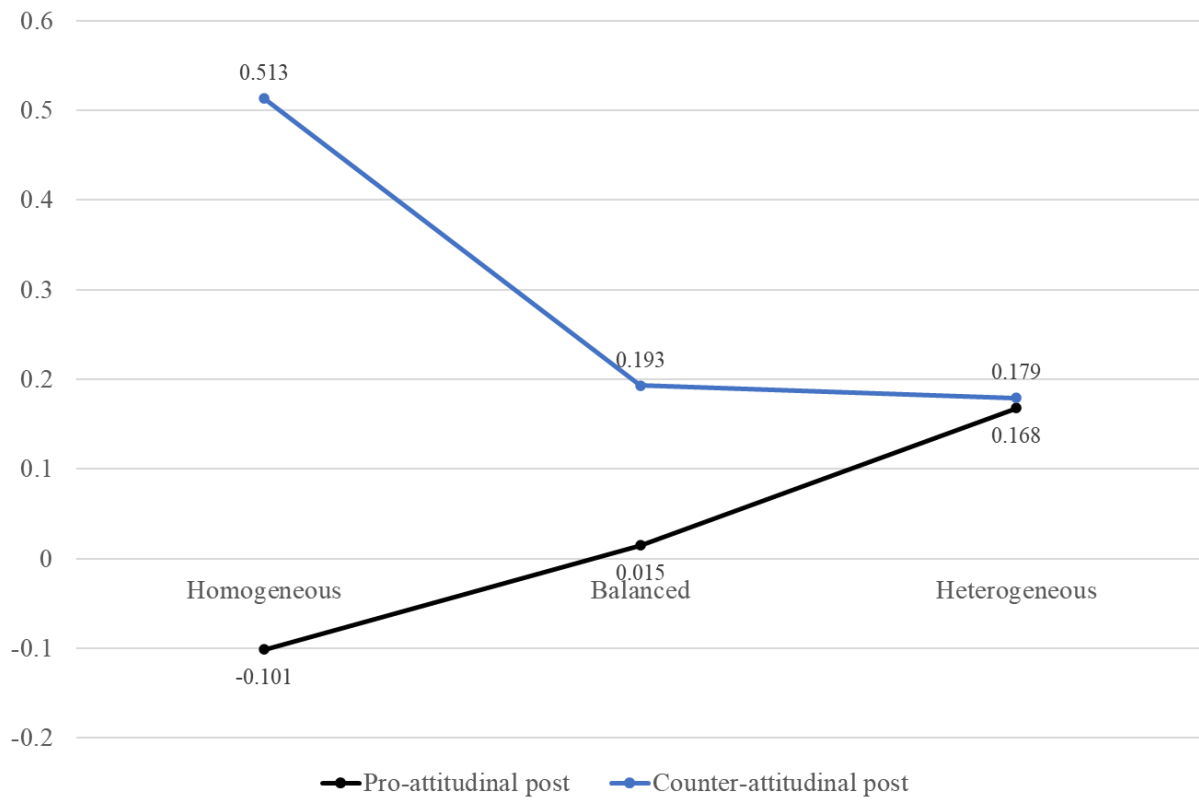
Note. *y*-axis and the numbers refer to the level of hostile media perception (HMP) (-3 = strongly biased in favor of one's side, 0 = strictly neutral, +3 = strongly biased against one's side).

Appendix

Table A1

The Summary of Survey Methodology (Study I)

	ANES 2012	**ANES 2016**	**ANES 2020**
Modes	Face-to-face; Internet (CASI)	Face-to-face; Internet (CASI)	Mixed modes (Internet, Phone, Video)
Population	U.S. citizens age 18 or older		

Data Collection Periods	Pre-election:
	  Sep 8 – Nov 6, 2012
	Post-election:
	  Nov 7 – Jan 24, 2013
		Pre-election:
		  Sep 7 – Nov 7, 2016
		Post-election:
		  Nov 9 – Jan 8, 2017
			Pre-election:
			  Aug 18 – Nov 3, 2020
			Post-election:
			  Nov 8 – Jan 4, 2021

Sample Size	Pre-election:
	  N = 5,914
	Post-election:
	  N = 5,510
		Pre-election:
		  N = 4,270
		Post-election:
		  N = 3,648
			Pre-election:
			  N = 8,280
			Post-election:
			  N = 7,449

Response Rates*	Face-to-face: 38% Internet: 2%	Face-to-face: 50% Internet: 44%	Overall: 37%
Re-interview Rates for Post-election interview	Face-to-face: 94% Internet: 93%	Face-to-face: 90% Internet: 84%	Overall: 90%

Note. * AAPOR Response Rate 1. Full information about methodology is available on the ANES website (https://electionstudies.org/).

Table A2

Question Wording (Study I)

News Media Use (Pre-election: W1)

- Which of the following television programs do you watch regularly? Please check any that you watch at least once a month.
   1 = Yes, 2 = No
- Which of the following radio programs do you listen regularly? Please check any that you listen to at least once a month.
   1 = Yes, 2 = No
- Which of the following websites do you visit regularly? Please check any that you visit at least once a month.
   1 = Yes, 2 = No
- Which of the following newspapers do you read online or in print regularly? Please check any that you read at least once a month.
   1 = Yes, 2 = No
※ List of television and radio programs, websites, and newspapers are available in Table A3

Homogeneous Political Discussion (Post-election: W2)

- Do you ever discuss politics with your family or friends?
   1 = Yes, 2 = No
- How many days in the past week did you talk about politics with family or friends?
   0 = Zero days, 1 = One day, 2 = Two days, 3 = Three days, 4 = Four days, 5 = Five days,
   6 = Six days, 7 = Seven days

Affective Polarization (Pre- & Post-election: W1 and W2)

Please look at the graphic below.
   We would like to get your feelings toward some of our political leaders and other people who are in the news these days. We will show the name of a person and we'd like you to rate that person using something we call the feeling thermometer.
   Ratings between 50 degrees and 100 degrees mean that you feel favorable and warm toward the person. Ratings between 0 degrees and 50 degrees mean that you don't feel favorable toward the person that you don't care too much for that person. You would rate the person at the 50-degree mark if you don't feel particularly warm or cold toward the person.
   If we come to a person whose name you don't recognize, you don't need to rate that person. Just click "Next" and we'll move on to the next one.
 	
- 100° Very warm or favorable feeling
- 85°   Quite warm or favorable feeling
- 70°   Fairly warm or favorable feeling
- 60°   A bit more warm or favorable feeling than cold feeling
- 50°   No feeling at all
- 40°   A bit more cold or unfavorable feeling than warm feeling
- 30°   Fairly cold or unfavorable feeling
- 15°   Quite cold or unfavorable feeling
- 0°   Very cold or unfavorable feeling

Political Knowledge (Pre-election: W1)

- 2012
  1. Do you happen to know how many times an individual can be elected President of the United States under current laws?
  2. For how many years is a United States Senator elected – that is, how many years are there in one full term of office for a U.S. Senator?
  3. What is Medicare?
     1 = A program run by the U.S. federal government to pay for old people's health care
     2 = A program run by state governments to provide health care to poor people
     3 = A private health insurance plan sold to individuals in all 50 states
     4 = A private, non-profit organization that runs free health clinics
  4. On which of the following does the U.S federal government currently spend the least?
     1 = Foreign aid, 2 = Medicare, 3 = National defense, 4 = Social security

- 2016
  1. For how many years is a United States Senator elected – that is, how many years are there in one full term of office for a U.S. Senator?
  2. On which of the following does the U.S. federal government currently spend the least?
     1 = Foreign aid, 2 = Medicare, 3 = National defense, 4 = Social security
  3. Do you happen to know which party currently has the most members in the U.S. House of Representatives in Washington?
     1 = Democrats, 2 = Republicans
  4. Do you happen to know which party currently has the most members in the U.S. Senate?
     1 = Democrats, 2 = Republicans

- 2020
  1. In what year did the Supreme Court of the United States decide Geer v. Connecticut?
  2. For how many years is a United States Senator elected – that is, how many years are there in one full term of office for a U.S. Senator?
  3. On which of the following does the U.S. federal government currently spend the least?
     1 = Foreign aid, 2 = Medicare, 3 = National defense, 4 = Social security
  4. Do you happen to know which party currently has the most members in the U.S. House of Representatives in Washington?
     1 = Democrats, 2 = Republicans

Political Knowledge (Post-election: W2)

We have a set of questions concerning various public figures. We want to see how much information about them gets out to the public from television, newspapers and the like. What job or political office does he [she] now hold?

- 2012
  Joe Biden (the Vice President of the United States)
  John Boehner (the Speaker of the U.S. House Representatives)
  David Cameron (the Prime Minister of the United Kingdom)
  John Roberts (the Chief Justice of the United States Supreme Court)

- 2016
  Joe Biden (the Vice President of the United States)
  Paul Ryan (the Speaker of the U.S. House Representatives)
  Vladimir Putin (the President of Russia)
  John Roberts (the Chief Justice of the United States Supreme Court)

- 2020
  Mick Pence (the Vice President of the United States)
  Nancy Pelosi (the Speaker of the U.S. House Representatives)
  Vladimir Putin (the President of Russia)
  John Roberts (the Chief Justice of the United States Supreme Court)

Note. Source = 2012, 2016 and 2020 ANES data.

Table A3

List of Partisan News Programs (Study I)

Liberal Program	Conservative Program
Anderson Cooper 360	*Foxnews.com*
All Things Considered	*Hannity*
Chris Matthews Show	*On the Record*
CNN.com	*O'Reilly Factor*
Fresh Air	*The Glenn Beck Program*
Huffingtonpost.com	*The Mark Levin Show*
Morning Edition	*The Rush Limbaugh Show*
New York Times	*The Savage Nation*
NYTimes.com	*The Sean Hannity Show*
Washington Post	*Wall Street Journal*
Washingtonpost.com	*WSJ.com*

Note. Source = 2012, 2016, and 2020 ANES data.

Table A4

Two-level Regressions on Political Talk, Knowledge, and Affective Polarization (Study I)

Fixed Effects	Political Talk (W2)	Political Knowledge (W2)	Affective Polarization (W2)
Level-1: Individual (N = 10,343)			
Intercept	-7.97 (1.59)***	-6.07 (0.77)***	-55.35 (17.34)***
LMNU (W1)	0.17 (0.01)***	0.06 (0.01)***	0.78 (0.12)***
CCNU (W1)	0.10 (0.03)***	0.02 (0.01)	-1.41 (0.24)***
Political Talk (W2)	-	0.05 (0.004)***	0.88 (0.09)***
Level-1 Covariates			
Sex (1=female: W1)	0.21 (0.05)***	-0.14 (0.02)***	1.67 (0.38)***
Age (in year: W1)	-0.01 (0.002)***	0.01 (0.001)***	-0.01 (0.01)
Education (W1)	0.14 (0.02)***	0.11 (0.01)***	0.30 (0.15)*
Income (W1)	0.02 (0.003)***	0.02 (0.002)***	-0.07 (0.03)*
Political Interest (W1)	2.59 (0.10)***	0.60 (0.05)***	2.14 (0.86)*
PID (1=Republican: W1)	-0.07 (0.05)	0.01 (0.02)	-1.39 (0.39)***
PID strength (W1)	-0.03 (0.03)	-0.10 (0.01)***	1.81 (0.25)***
Knowledge (W1)	0.02 (0.02)	0.26 (0.01)***	-0.11 (0.19)
Polarization (W1)	0.01 (0.001)***	0.005 (0.001)***	0.69 (0.01)***
Level-2: County (N = 1,576)			
Partisan Heterogeneity	-1.03 (0.24)***	-0.13 (0.12)	-8.93 (2.77)**
Level-2 covariates			
Voter Turnout	-9.74 (0.62)***	-1.82 (0.29)***	-23.94 (5.75)***
Income (log: median)	3.25 (0.30)***	1.86 (0.14)***	25.38 (3.31)***
Age (in year: median)	0.09 (0.01)***	0.03 (0.004)***	0.55 (0.09)***
Random Effects			
Level-1 variance (SD)	4.672 (2.162)	0.963 (0.981)	305.900 (17.490)
Level-2 variance (SD)	0.588 (0.767)	0.164 (0.405)	170.800 (13.070)

Note. LMNU = Like-minded News Use, CCNU = Cross-cutting News Use, PID = Party Identification. The entries were unstandardized regression coefficients with standard errors in the parentheses through a linear mixed model using the *lme4* package in R (Bates et al., 2015). Level-1 predictors and covariates were group-mean-centered by a county (Level-2 unit) (* $p < .05$, ** $p < .01$, *** $p < .001$).

Table A5

Three-level Regressions on Like-minded and Cross-cutting News Use (Study I)

Fixed Effects	Like-minded News Use (W1)	Cross-cutting News Use (W1)
Level-1: Individual (N = 10,343)		
Intercept	8.10 (3.06)**	0.94 (1.01)
Level-1 Covariates		
Sex (1=female: W1)	-0.03 (0.03)	-0.06 (0.02)***
Age (in year: W1)	-0.003 (0.001)**	-0.003 (0.001)***
Education (W1)	0.14 (0.01)***	0.04 (0.01)***
Income (W1)	0.02 (0.002)***	0.01 (0.001)***
Political Interest (W1)	1.64 (0.07)***	0.46 (0.04)***
PID (1=Republican: W1)	-0.24 (0.03)***	0.28 (0.02)***
PID strength (W1)	-0.07 (0.02)**	-0.05 (0.01)***
Political knowledge (W1)	0.19 (0.02)***	0.01 (0.01)
Affective polarization (W1)	0.01 (0.001)***	-0.004 (0.001)***
Level-2: County (N = 1,576)		
Partisan Heterogeneity	-0.42 (0.17)*	-0.04 (0.07)
Level-2 covariates		
Voter Turnout	-1.28 (0.45)**	-0.40 (0.21)
Income (log: median)	1.48 (0.24)***	0.35 (0.10)***
Age (in year: median)	0.001 (0.006)	-0.003 (0.002)
Level-3: State (N = 51)[a]		
Partisan Heterogeneity	-0.82 (0.60)	-0.21 (0.21)
Level-3 covariates		
Voter Turnout	-2.32 (0.73)**	-0.58 (0.22)*
Income (log: median)	-2.66 (0.67)***	-0.38 (0.21)
Age (in year: median)	0.06 (0.03)*	0.01 (0.01)
Random Effects		
Level-1 variance (SD)	2.468 (1.571)	0.628 (0.792)
Level-2 variance (SD)	0.140 (0.374)	0.009 (0.095)
Level-3 variance (SD)	0.111 (0.333)	0.004 (0.065)

Note[1]. SD = Standard Deviation. The entries were unstandardized regression coefficients with standard errors in the parentheses through a linear mixed model using the *lme4* package in R (Bates et al., 2015). Level-1 predictors and covariates were group-mean-centered by a county (Level-2 unit) (* $p < .05$, ** $p < .01$, *** $p < .001$).
Note[2]. a = 50 states plus Washington D.C.

Table A6

Three-level Regressions on Political Talk

Fixed Effects	Model 1	Model 2	Model 3
Level-1: Individual (N = 10,343)			
Intercept	3.10 (0.04)***	3.00 (0.06)***	-80.62 (6.25)***
LMNU (W1)		0.17 (0.02)***	0.19 (0.01)***
CCNU (W1)		0.10 (0.03)**	0.11 (0.03)***
Political Talk (W2)		-	-
Level-1 Covariates			
Sex (1=female: W1)		0.20 (0.05)***	0.18 (0.04)***
Age (in year: W1)		-0.01 (0.002)***	-0.005 (0.002)**
Education (W1)		0.20 (0.02)***	0.09 (0.02)***
Income (W1)		0.01 (0.004)*	0.03 (0.003)***
Political Interest (W1)		2.67 (0.11)***	2.59 (0.10)***
PID (1=Republican: W1)		-0.03 (0.05)	-0.08 (0.05)
PID strength (W1)		-0.04 (0.03)	-0.01 (0.03)
Knowledge (W1)		-0.02 (0.02)	0.05 (0.02)*
Polarization (W1)		0.01 (0.001)***	0.007 (0.001)***
Level-2: County (N = 1,576)			
Partisan Heterogeneity			-0.53 (0.02)*
Level-2 covariates			
Voter Turnout			-5.07 (0.66)***
Income (log: median)			0.71 (0.33)*
Age (in year: median)			0.02 (0.01)**
Level-3: State (N = 51)[a]			
Partisan Heterogeneity			-0.80 (1.19)
Level-3 covariates			
Voter Turnout			-8.66 (1.53)***
Income (log: median)			13.69 (1.45)***
Age (in year: median)			0.64 (0.07)***
Random Effects			
Level-1 variance (SD)	6.206 (2.491)	5.101 (2.259)	4.566 (2.137)
Level-2 variance (SD)	0.180 (0.425)	0.308 (0.555)	0.274 (0.523)
Level-3 variance (SD)	0.022 (0.149)	0.020 (0.142)	2.045 (1.430)
Model Fit			
AIC	48681.08	46910.41	45754.18
BIC	48710.07	47019.13	45920.80

Note. LMNU = Like-minded News Use, CCNU = Cross-cutting News Use, PID = Party Identification. The entries were unstandardized regression coefficients with standard errors in the parentheses through a linear mixed model using the *lme4* package in R (Bates et al., 2015). Level-1 predictors and covariates were group-mean-centered by a county (Level-2 unit) (* p < .05, ** p < .01, *** p < .001).

Table A7

Three-level Regressions on Political Knowledge

Fixed Effects	Model 1	Model 2	Model 3
Level-1: Individual (N = 10,343)			
Intercept	2.41 (0.02)***	2.47 (0.03)***	-10.39 (1.59)***
LMNU (W1)		0.06 (0.01)***	0.07 (0.01)***
CCNU (W1)		0.02 (0.01)	0.02 (0.01)
Political Talk (W2)		0.07 (0.004)***	0.05 (0.004)***
Level-1 Covariates			
Sex (1=female: W1)		-0.15 (0.02)***	-0.15 (0.02)***
Age (in year: W1)		0.01 (0.001)***	0.01 (0.001)***
Education (W1)		0.13 (0.01)***	0.10 (0.01)***
Income (W1)		0.02 (0.002)***	0.02 (0.002)***
Political Interest (W1)		0.57 (0.05)***	0.62 (0.05)***
PID (1=Republican: W1)		0.02 (0.02)	0.02 (0.02)
PID strength (W1)		-0.10 (0.01)***	-0.10 (0.01)***
Knowledge (W1)		0.24 (0.01)***	0.26 (0.01)***
Polarization (W1)		0.005 (0.001)***	0.005 (0.001)***
Level-2: County (N = 1,576)			
Partisan Heterogeneity			-0.16 (0.12)
Level-2 covariates			
Voter Turnout			-1.38 (0.30)***
Income (log: median)			1.17 (0.18)***
Age (in year: median)			0.01 (0.004)***
Level-3: State (N = 51)[a]			
Partisan Heterogeneity			-0.68 (0.38)
Level-3 covariates			
Voter Turnout			0.47 (0.35)
Income (log: median)			1.28 (0.35)***
Age (in year: median)			0.06 (0.01)***
Random Effects			
Level-1 variance (SD)	1.437 (1.120)	0.990 (0.995)	0.960 (0.980)
Level-2 variance (SD)	0.098 (0.313)	0.175 (0.418)	0.144 (0.379)
Level-3 variance (SD)	0.012 (0.111)	0.014 (0.117)	0.010 (0.099)
Model Fit			
AIC	33721.15	30395.42	29904.88
BIC	33750.15	30511.39	30078.74

Note. LMNU = Like-minded News Use, CCNU = Cross-cutting News Use, PID = Party Identification. The entries were unstandardized regression coefficients with standard errors in the parentheses through a linear mixed model using the *lme4* package in R (Bates et al., 2015). Level-1 predictors and covariates were group-mean-centered by a county (Level-2 unit) (* $p < .05$, ** $p < .01$, *** $p < .001$).

Table A8

Three-level Regressions on Affective Polarization

Fixed Effects	Model 1	Model 2	Model 3
Level-1: Individual (N = 10,343)			
Intercept	60.15 (0.42)***	60.72 (0.53)***	-229.20 (40.50)***
LMNU (W1)		0.72 (0.12)***	0.91 (0.12)***
CCNU (W1)		-1.47 (0.24)***	-1.34 (0.24)***
Political Talk (W2)		1.14 (0.08)***	0.72 (0.09)***
Level-1 Covariates			
Sex (1=female: W1)		1.68 (0.38)***	1.67 (0.37)***
Age (in year: W1)		-0.01 (0.01)	-0.01 (0.01)
Education (W1)		0.54 (0.15)***	0.10 (0.15)
Income (W1)		-0.12 (0.03)***	-0.01 (0.03)
Political Interest (W1)		1.72 (0.87)*	2.76 (0.86)**
PID (1=Republican: W1)		-1.15 (0.40)**	-1.42 (0.39)***
PID strength (W1)		1.75 (0.25)***	1.92 (0.25)***
Knowledge (W1)		-0.29 (0.19)	-0.02 (0.19)
Polarization (W1)		0.70 (0.01)***	0.68 (0.01)***
Level-2: County (N = 1,576)			
Partisan Heterogeneity			-5.98 (2.93)*
Level-2 covariates			
Voter Turnout			-1.05 (6.06)
Income (log: median)			-0.08 (4.38)
Age (in year: median)			0.15 (0.10)
Level-3: State (N = 51)[a]			
Partisan Heterogeneity			-4.14 (9.68)
Level-3 covariates			
Voter Turnout			20.51 (10.68)
Income (log: median)			52.23 (10.33)***
Age (in year: median)			0.88 (0.41)*
Random Effects			
Level-1 variance (SD)	763.362 (27.629)	313.878 (17.717)	305.030 (17.465)
Level-2 variance (SD)	12.723 (3.567)	155.795 (12.482)	140.350 (11.847)
Level-3 variance (SD)	2.486 (1.577)	0.427 (0.653)	31.980 (5.656)
Model Fit			
AIC	98555.06	90854.39	90186.78
BIC	98584.05	90970.36	90360.64

Note. LMNU = Like-minded News Use, CCNU = Cross-cutting News Use, PID = Party Identification. The entries were unstandardized regression coefficients with standard errors in the parentheses through a linear mixed model using the *lme4* package in R (Bates et al., 2015). Level-1 predictors and covariates were group-mean-centered by a county (Level-2 unit) (* $p < .05$, ** $p < .01$, *** $p < .001$).

Table A9

Three-level Regressions on Political Talk, Knowledge, and Affective Polarization (2012)

Fixed Effects	Political Talk (W2)	Political Knowledge (W2)	Affective Polarization (W2)
Level-1: Individual (N = 3,816)			
Intercept	-4.18 (3.39)	-7.40 (2.27)**	174.61 (52.74)***
LMNU (W1)	0.21 (0.02)***	0.09 (0.01)***	0.67 (0.22)**
CCNU (W1)	0.12 (0.05)**	0.02 (0.02)	-1.59 (0.44)***
Political Talk (W2)		0.04 (0.01)***	0.90 (0.18)***
Level-1 Covariates			
Sex (1=female: W1)	0.07 (0.06)	-0.15 (0.03)***	0.26 (0.62)
Age (in year: W1)	0.002 (0.002)	0.002 (0.001)	-0.03 (0.02)
Education (W1)	0.03 (0.03)	0.09 (0.01)***	0.11 (0.26)
Income (W1)	0.01 (0.005)*	0.03 (0.003)***	-0.03 (0.05)
Political Interest (W1)	2.29 (0.01)***	0.65 (0.08)***	3.09 (1.46)*
PID (1=Republican: W1)	0.20 (0.06)**	0.03 (0.04)	-2.94 (0.66)***
PID strength (W1)	-0.05 (0.05)	-0.11 (0.02)***	1.97 (0.43)***
Knowledge (W1)	-0.04 (0.04)	0.29 (0.02)***	-0.29 (0.38)
Polarization (W1)	0.01 (0.001)***	0.005 (0.001)***	0.69 (0.01)***
Level-2: County (N = 950)			
Partisan Heterogeneity	-0.09 (0.31)	0.11 (0.20)	-2.90 (5.31)
Level-2 covariates			
Voter Turnout	2.21 (1.55)	5.05 (0.96)***	30.91 (24.11)
Income (log: median)	0.86 (0.41)*	1.63 (0.26)***	5.26 (6.57)
Age (in year: median)	-0.01 (0.01)	-0.01 (0.01)	0.03 (0.16)
Level-3: State (N = 51)[a]			
Partisan Heterogeneity	0.55 (0.85)	0.78 (0.57)	-7.95 (14.36)
Level-3 covariates			
Voter Turnout	-0.15 (0.58)	0.41 (0.41)	10.12 (9.18)
Income (log: median)	-0.15 (0.74)	-0.47 (0.49)	-31.20 (11.76)**
Age (in year: median)	0.02 (0.03)	-0.02 (0.02)	-0.47 (0.40)
Random Effects			
Level-1 variance (SD)	3.36 (1.83)	0.99 (0.99)	302.90 (17.40)
Level-2 variance (SD)	0.18 (0.42)	0.12 (0.35)	171.10 (13.08)
Level-3 variance (SD)	0.0001 (0.0001)	0.005 (0.07)	0.0001 (0.0001)

Note[1]. LMNU = Like-minded News Use, CCNU = Cross-cutting News Use, PID = Party Identification. The entries were unstandardized regression coefficients with standard errors in the parentheses through a linear mixed model using the *lme4* package in R (Bates et al., 2015). Level-1 predictors and covariates were group-mean-centered by a county (Level-2 unit) (* $p < .05$, ** $p < .01$, *** $p < .001$).

Note[2]. a = 50 states plus Washington D.C.

Table A10

Three-level Regressions on Political Talk, Knowledge, and Affective Polarization (2016)

Fixed Effects	Political Talk (W2)	Political Knowledge (W2)	Affective Polarization (W2)
Level-1: Individual (N = 2,010)			
Intercept	-7.43 (5.79)	-7.44 (3.09)*	158.63 (68.14)*
LMNU (W1)	0.09 (0.04)*	0.05 (0.02)**	1.52 (0.30)***
CCNU (W1)	0.07 (0.06)	0.05 (0.03)	-1.77 (0.48)***
Political Talk (W2)		0.06 (0.01)***	1.02 (0.21)***
Level-1 Covariates			
Sex (1=female: W1)	0.13 (0.11)	-0.09 (0.05)	3.52 (0.89)***
Age (in year: W1)	-0.01 (0.004)*	0.01 (0.002)***	-0.04 (0.03)
Education (W1)	0.16 (0.05)**	0.05 (0.02)*	-0.20 (0.40)
Income (W1)	0.03 (0.01)***	0.02 (0.004)***	0.08 (0.07)
Political Interest (W1)	2.95 (0.32)***	0.46 (0.14)**	1.67 (2.44)
PID (1=Republican: W1)	-0.27 (0.11)*	0.08 (0.05)	4.50 (0.93)***
PID strength (W1)	0.07 (0.09)	-0.13 (0.04)***	1.91 (0.64)**
Knowledge (W1)	0.14 (0.07)*	0.27 (0.03)***	0.60 (0.49)
Polarization (W1)	0.01 (0.003)***	0.01 (0.001)***	0.66 (0.02)***
Level-2: County (N = 750)			
Partisan Heterogeneity	-0.74 (0.45)	-0.36 (0.25)	-2.55 (5.47)
Level-2 covariates			
Voter Turnout	-0.66 (1.61)	2.47 (0.88)**	-21.82 (19.56)
Income (log: median)	2.18 (0.71)**	1.65 (0.37)***	3.32 (8.21)
Age (in year: median)	0.001 (0.02)	-0.01 (0.01)	0.23 (0.21)
Level-3: State (N = 50)			
Partisan Heterogeneity	-0.76 (0.98)	0.09 (0.06)	-2.42 (14.41)
Level-3 covariates			
Voter Turnout	-1.99 (1.32)	-0.98 (0.70)	2.33 (15.41)
Income (log: median)	0.39 (1.24)	0.19 (0.65)	-23.69 (14.23)
Age (in year: median)	0.05 (0.04)	0.02 (0.02)	-0.08 (0.50)
Random Effects			
Level-1 variance (SD)	5.54 (2.35)	1.05 (1.03)	302.80 (17.40)
Level-2 variance (SD)	0.34 (0.58)	0.26 (0.51)	215.40 (14.68)
Level-3 variance (SD)	0.0001 (0.0001)	0.0001 (0.0001)	0.0001 (0.0001)

Note. LMNU = Like-minded News Use, CCNU = Cross-cutting News Use, PID = Party Identification. The entries were unstandardized regression coefficients with standard errors in the parentheses through a linear mixed model using the *lme4* package in R (Bates et al., 2015). Level-1 predictors and covariates were group-mean-centered by a county (Level-2 unit) (* $p < .05$, ** $p < .01$, *** $p < .001$).

Table A11

Three-level Regressions on Political Talk, Knowledge, and Affective Polarization (2020)

Fixed Effects	Political Talk (W2)	Political Knowledge (W2)	Affective Polarization (W2)
Level-1: Individual (N = 4,517)			
Intercept	-13.23 (4.32)**	-8.64 (2.08)***	82.37 (56.87)
LMNU (W1)	0.14 (0.03)***	0.06 (0.01)***	0.82 (0.21)***
CCNU (W1)	0.13 (0.05)*	0.01 (0.02)	-0.68 (0.43)
Political Talk (W2)		0.03 (0.01)***	0.64 (0.14)***
Level-1 Covariates			
Sex (1=female: W1)	0.20 (0.07)**	-0.22 (0.03)***	1.95 (0.60)**
Age (in year: W1)	-0.01 (0.003)**	0.01 (0.001)***	0.03 (0.02)
Education (W1)	0.10 (0.03)**	0.12 (0.01)***	0.09 (0.25)
Income (W1)	0.04 (0.01)***	0.02 (0.003)***	-0.03 (0.05)
Political Interest (W1)	2.53 (0.18)***	0.60 (0.08)***	1.91 (1.45)
PID (1=Republican: W1)	-0.29 (0.07)***	-0.06 (0.03)*	-2.86 (0.63)***
PID strength (W1)	0.02 (0.05)	-0.10 (0.02)***	1.86 (0.40)***
Knowledge (W1)	0.10 (0.04)*	0.25 (0.02)***	0.15 (0.30)
Polarization (W1)	0.01 (0.002)***	0.004 (0.001)***	0.67 (0.01)***
Level-2: County (N = 1,238)			
Partisan Heterogeneity	-0.38 (0.29)	0.01 (0.01)	-4.31 (3.76)
Level-2 covariates			
Voter Turnout	1.92 (1.03)	0.33 (0.52)	-11.88 (14.11)
Income (log: median)	1.04 (0.43)*	1.26 (0.21)***	-12.09 (5.59)*
Age (in year: median)	-0.01 (0.01)	0.01 (0.005)	0.19 (0.13)
Level-3: State (N = 49)			
Partisan Heterogeneity	0.55 (1.19)	0.24 (0.06)	3.62 (16.25)
Level-3 covariates			
Voter Turnout	-1.90 (0.88)*	0.12 (0.43)	3.59 (12.32)
Income (log: median)	1.90 (0.81)*	0.73 (0.39)	6.64 (10.77)
Age (in year: median)	0.08 (0.03)**	0.03 (0.01)*	0.33 (0.36)
Random Effects			
Level-1 variance (SD)	5.01 (2.24)	0.89 (0.94)	319.45 (17.87)
Level-2 variance (SD)	0.16 (0.40)	0.10 (0.31)	150.43 (12.27)
Level-3 variance (SD)	0.0001 (0.0001)	0.0001 (0.0001)	1.77 (1.33)

Note. LMNU = Like-minded News Use, CCNU = Cross-cutting News Use, PID = Party Identification. The entries were unstandardized regression coefficients with standard errors in the parentheses through a linear mixed model using the *lme4* package in R (Bates et al., 2015). Level-1 predictors and covariates were group-mean-centered by a county (Level-2 unit) (* *p* < .05, ** *p* < .01, *** *p* < .001).

Table A12

Question Wording (Study II)

Hostile Media Perception

- Would you say that the post you just read was neutral, or biased one way (in favor of pro-choice) or another (in favor of pro-life)?
  - 1 = strongly biased in favor of Pro-Life (opposing abortion)
  - 4 = strictly neutral
  - 7 = strongly biased in favor of Pro-Choice (favoring abortion)
- Do you think the arguments in the post leans more toward one side than the other?
  - 1 = strongly biased in favor of Pro-Life (opposing abortion)
  - 4 = strictly neutral
  - 7 = strongly biased in favor of Pro-Choice (favoring abortion)
- Do you think the photos in the post was neutral, or biased one way (in favor of pro-choice) or another (in favor of pro-life)?
  - 1 = strongly biased in favor of Pro-Life (opposing abortion)
  - 4 = strictly neutral
  - 7 = strongly biased in favor of Pro-Choice (favoring abortion)

Social Distance from Out-party Supporter

- How comfortable are you having close personal friends who are <u>a Democratic supporter</u> [if participant = Republican; otherwise, <u>a Republican supporter</u>]
  - 1 = Extremely comfortable
  - 2 = somewhat comfortable
  - 3 = a little comfortable
  - 4 = not at all comfortable
- How comfortable are you having neighbors who are <u>a Democratic supporter</u> [if participant = Republican; otherwise, <u>a Republican supporter</u>]
  - 1 = Extremely comfortable
  - 2 = somewhat comfortable
  - 3 = a little comfortable
  - 4 = not at all comfortable

Political Participation Intention

How much would you be willing to do the following activities?
- Talk to anyone about politics to persuade them
- Participate in any political meetings, rallies, speeches, dinners, and fundraisers
- Wear a campaign button, put a campaign sticker on your car, or place a sign in your window or in front of your house
- Give money to an individual candidate or political party
- Do any work for an individual candidate or political party

1 = none at all
2 = a little
3 = a moderate amount
4 = a great deal

Table A13

Two-way ANCOVA on Hostile Media Perception (Study II)

Source	df	F-value	p	η_p^2
Content slant (1=counter-attitudinal)	1	4.61	.032	.008
Heterogeneous context	2	0.47	.625	.002
Content slant × Heterogeneous context	2	3.08	.047	.011
Covariates				
Political interest	1	0.74	.390	.001
Political knowledge	1	3.15	.076	.006
Political ideology	1	10.70	.001	.019
News media use	1	5.71	.017	.010
Error	564	(1.89)		
Model fit				
R^2	.053			

*Note.* N = 574. The number in the parenthesis = MSE, × = interaction.

Table A14

OLS Regressions for the Alternative Model (Study II)

	Model 1 (DV = HMP)	Model 2 (DV = Social distance from out-party supporter)	Model 3 (DV = Political participation intention)
Intercept	-1.36 (0.47)**	2.05 (0.22)***	0.95 (0.15)***
Content slant (1=counter-attitudinal)	0.24 (0.12)*	-0.16 (0.05)**	-0.02 (0.03)
Heterogeneous context	0.16 (0.10)	-	-
Content slant × Heterogeneous context	-0.34 (0.14)*	-	-
Mediator			
HMP	-	0.06 (0.02)**	0.03 (0.01)*
Social distance	-	-	0.13 (0.03)***
Covariates			
Political interest	0.08 (0.08)	-0.08 (0.04)*	0.02 (0.02)
Political knowledge	-0.10 (0.05)	-0.08 (0.02)**	-0.01 (0.02)
Political ideology	0.15 (0.05)**	-0.03 (0.02)	0.02 (0.01)
News media use	0.08 (0.03)*	0.12 (0.02)***	0.13 (0.01)***
Model fit			
F-value	4.30***	15.50***	42.02***
R^2	.051	.141	.342
Index of moderated mediation			
Moderator: Heterogeneous context		Index (SE)	95% CI
Content slant → HMP → Social distance → Political participation		-0.003 (0.002)	[-0.007, -0.001]
Level of Heterogeneity		**Mediation (SE)**	**95% CI**
-1 (homogeneous)		0.005 (0.002)	[0.001, 0.011]
0 (balanced)		0.002 (0.001)	[0.001, 0.005]
+1 (heterogeneous)		-0.001 (0.002)	[-0.004, 0.002]

Note. N = 574. HMP = Hostile Media Perception, DV = Dependent Variable, × = interaction. The entries were unstandardized regression coefficients with their standard errors in the parentheses. Indirect effects and 95% confidence intervals were calculated based on 10,000 bootstrap samples (Hayes, 2018, the customized model) (* $p < .05$, ** $p < .01$, *** $p < .001$).

Figure A1

The Alternative Model (Study II)
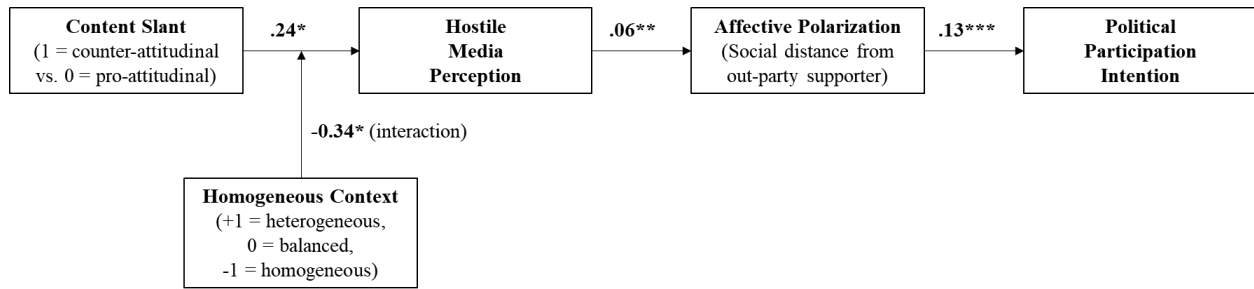
Note. N = 574. The numbers were unstandardized regression coefficients (* $p < .05$, ** $p < .01$, *** $p < .001$).