Content-expressive behavior and ideological extremity: An examination of the roles of emotional intelligence and information network heterogeneity

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Abstract
One thriving area of research on participatory media revolves around political expression and the creation of political content. This study analyzes the connections between these behaviors, heterogeneous information networks, and ideological extremity while accounting for the role of emotional intelligence. Results from a two-wave-panel survey of US adults show that people who engage in content-expressive behavior are embedded in heterogeneous information networks and that emotional intelligence moderates the relationship between content-expressive behavior and ideological extremity.

Political expression has blossomed online, particularly fueled by social media and other online participatory media, which afford their users the ability to express themselves and/or create content about politics in new ways. These affordances include not only posting about politics (Gil de Zúñiga et al., 2014; Shah, 2016; Vaccari et al., 2015) but

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also creating and disseminating original content (Blank, 2013; Hargittai and Walejko, 2008; Livingstone, 2008; Weeks et al., 2015). People who engage in these behaviors play an increasingly substantial role in shaping public narratives about political issues, taking on the role of opinion leaders who curate and create online political content (Thorson, 2014; Weeks et al., 2015).

The emergence of these content-expressive behaviors reveals a range of important questions related to affective trends in the contemporary public sphere (e.g. Papacharissi, 2012, 2014; Valenzuela and Bachmann, 2015). For example, do emotional responses to these emerging media practices affect people's political ideologies? As people process the sociocultural experiences that arise from the politics of everyday encounters in digital and online spaces (see Lutz and White, 1986), what role does emotional intelligence (Mayer and Geher, 1996) play in shaping people's ideological perspectives? Does content creation occur only in political echo chambers—social and information networks characterized by the homogeneity of political ideas (e.g. Sunstein, 2007)—or does it also occur in relatively heterogeneous information networks? (Halpern and Gibbs, 2013; Vraga et al., 2015). If so, how does the act of creating content in such an environment affect the political ideologies of the creators (Gruzd and Roy, 2014; Hanna et al., 2013), accounting for individuals' awareness of their own emotional responses to disagreement?

This study takes a first step toward answering these important questions. It first assesses the extent to which content-expressive individuals are embedded in diverse information networks. It then examines whether content expression results in more extreme political ideologies. Finally, the article also seeks to advance specific mechanisms by which content-expressive behavior may also differently relate to ideological extremism by introducing emotional intelligence as a moderator. In doing so, the study investigates a key element of affective publics: the emotional aspect of creating content and engaging in political expression in participatory media environments.

Content-expressive behavior

Online media, especially social media, afford people greater ability to express themselves, often through the creation of original political or news media content, as compared to the pre-Internet era (Vaccari et al., 2015). In particular, online participatory media afford users greater ability to collaborate in the co-production of information not necessarily created for market purposes because they lower the cost of information production (Benkler, 2006; Dahlgren, 2005).

In light of these affordances, several distinct, but closely related, communication practices involving political expression and/or political content creation have emerged in participatory media contexts. These practices include political expression on social media (e.g. Gil de Zúñiga et al., 2014), online citizen journalism (Goode, 2009), and online political content creation (Nooney and Portwood-Stacer, 2014). While these practices may take distinct forms, some scholars have argued that they tap into similar social and communicative processes, that is, they are a function of the same underlying tendency toward active engagement and expression in participatory media (Weeks et al., 2015). In recognition of the close connections between these emergent forms of online expression, this article groups three forms of content-expressive behaviors together

(future practices could be included as they emerge) under a single concept encompassing political news and public affairs topics: content-expressive behavior (see also, Blank, 2013; Hargittai and Walejko, 2008).

Political expression on social media typically takes the form of posting and/or commenting on news articles (Gil de Zúñiga et al., 2014; Halpern and Gibbs, 2013; Valenzuela, 2013; Weeks et al., 2015). This type of expression certainly involves "publishing" viewpoints and ideas; however, strictly speaking, political expression on social media does not only require the creation of original content but also includes posting links or content created by others. Therefore, political expression on social media arguably requires the lowest level of creative input from the "publisher."

By contrast, citizen/participatory journalism published on blogs or produced in collaboration with mainstream news organizations is a more restrictive form of publication that specifically applies to the creation of original news content via interviewing, reporting, or analyzing news events (Carr et al., 2014; Goode, 2009; Johnson et al., 2007; Kaufhold et al., 2010). Citizen/participatory journalism, therefore, requires a relatively high level of creative input from its practitioners, and, by definition, its output adheres to a particular set of norms and rules.

But participatory media also facilitate the creation of original online content that does not necessarily fit the relatively restrictive definition of citizen/participatory journalism. For example, it has become increasingly common for social media users to creating visual or video graphics called "memes," "gifs," or "Vines" (Highfield and Duguay, 2014; Johnson, 2007; Nooney and Portwood-Stacer, 2014; Weeks et al., 2015). Sites dedicated to creating these image-based media have proliferated in recent years, offering users the ability to re-appropriate photos or video content for political purposes (Nooney and Portwood-Stacer, 2014). Arguably, this third form of content-expressive behavior requires more creative input than mere expression, but less creative input or elaboration than citizen/participatory journalism, and therefore occupies a "middle ground" in terms of creative involvement.

Social media news use

Social media have grown in importance as news sources (Bakshy et al., 2012; Barberá, 2014; Barnidge, 2015; Gil de Zúñiga et al., 2012). In fact, about 50% of adult web users in the United States report using social media for news (Barberá, 2014), a number that has grown in recent years. And while most news is posted by a few "power" users (20–30% of users, see Hampton et al., 2014a, 2014b), the average user is exposed to more news than they post because of this minority.

Research generally supports the idea that all three forms of content-expressive behavior are related to the use of news in online platforms, especially social media. For example, a growing body of literature shows that people who use social media for news are more likely to post or comment regularly (Gil de Zúñiga et al., 2012, 2014; Valenzuela, 2013). Additionally, research shows that people who engage in citizen journalism are, themselves, frequent consumers of news who see themselves as opinion leaders (Robinson and Deshano, 2011; Weeks et al., 2015). Finally, online news use provides the raw material that users can "remix" into re-appropriated graphical content (Highfield and

Duguay, 2014). Given that these three forms of content-expressive behavior are positively associated with the use of news, as well as the growing importance of social media platforms as sources of news, we test the following hypothesis:

H1. Social media news use will be positively related to content-expressive behavior.

Information network heterogeneity

There are good theoretical reasons to believe that people engage in content-expressive behavior as a response to heterogeneous information in their social networks. First, research shows that some people engage in "corrective action" when they encounter disagreeable political ideas (Barnidge and Rojas, 2014; Rojas et al., 2016; Sun et al., 2008). In an effort to correct perceived wrongs in the public sphere, some people may create content or express themselves to "set the record straight." Importantly, this kind of behavior is often combative—it results from a belief that a particular piece of information is wrong or inaccurate (Sun et al., 2008). Second, recent research shows that content-expressive individuals often engage in direct attempts to persuade others (Thorson, 2014; Weeks et al., 2015)—a finding that implies these individuals try to convince others who disagree that their perspective is correct. Third, some scholars have suggested that content-expressive behavior is driven by identity-based processes (Correa and Jeong, 2011; Livingstone, 2008; Papacharissi, 2011). Content-expressive individuals may therefore engage in these behaviors in an effort to represent their identities, which they believe have heretofore gone unrepresented in public conversations. There is one prominent counter-argument to the idea that content-expressive behavior should occur in response to heterogeneous information networks. The spiral of silence theory (Noelle-Neumann, 1993) suggests that people who perceive they are in the minority will fall silent out of fear of social isolation, especially if they perceive that minority is losing ground compared to the majority. However, it is important to note that perceiving informational diversity is not the same as perceiving oneself in a minority that is losing ground; rather, informational diversity simply implies the perception that different opinions exist within a given network. Moreover, recent research has found that computer-mediated communication may not be as susceptible to spiral of silence processes as face-to-face communication (Ho and McLeod, 2008).

For these reasons, the spiral of silence counter-argument is not sufficient to predict that informational heterogeneity will suppress content-expressive behavior. Meanwhile, three theoretical responses to heterogeneous political ideas—correction, persuasion, and representation—all point toward a similar hypothesis: that the individuals who engage in content-expressive behavior are largely embedded in relatively heterogeneous offline and online social networks.

Analytically, this claim implies an interaction between social network composition and news use, reflecting the idea that news and information are increasingly filtered through social networks. Recently, scholars have noted the growing isomorphism between social networks and information networks (Rojas, 2015, 2016). This isomorphism means that both offline and online social networks have become increasingly similar in their composition—an observation that fits with previous scholarship asserting

that many social media sites move from offline social connection to online relational articulation (boyd and Ellison, 2007). Therefore, both offline and online social networks increasingly shape the informational environments in which individuals are embedded, which means that the content-expressive behavior likely respond, to some degree, to the information that flows through both their online and offline social networks:

> *H2.* Social media news use will be more strongly related to content-expressive behavior among individuals with heterogeneous social networks than it will be among individuals with homogeneous social networks.

Ideological extremity

The effects of creating media content are arguably just as important as exposure in participatory media environments. Called "sender effects" by some scholars (e.g. Pingree, 2007, 2015), the act of creating and disseminating messages could have just as much influence over the creator as they do on the creator's audience (Rojas and Puig-i-Abril, 2009). Emergent research generally supports this proposition—several studies show that people who frequently post about politics on Twitter either result in polarization (Gruzd and Roy, 2014) or arise from polarized environments (Hanna et al., 2013).

Theory provides conflicting predictions regarding whether content-expressive behavior promotes ideological extremity. First, research shows that the act of public expression promotes cognitive reflection and results, on one hand, in more well-formed attitudes (Cho et al., 2009). Second, because the social media and online political communication environments are generally contentious (Hanna et al., 2013), content expression could attract political disagreement with others (Himelboim, et al., 2009). Exposure to such disagreement, especially regarding one's own original content, could result in contrast effects (Gunther et al., 2009; Sherif and Hovland, 1961)—whereby people contrast their own views with those of the other side. Both of these ideas suggest that content-expressive behavior could result in more extreme ideologies.

On the other hand, expression can also result in greater understanding of and tolerance for the oppositional arguments (Rojas, 2008). Additionally, many citizen journalists adopt journalistic norms (Goode, 2009; Kaufhold et al., 2010), which could soften ideas and depolarize people. Finally, disagreement could also produce "assimilation effects," whereby people incorporate oppositional ideas into their own views (Gunther et al., 2009). These ideas suggest content-expressive behavior could reduce ideological extremity. Because theory offers conflicting viewpoints on the subject of content expression and ideological extremity, we pose a research question rather than a hypothesis:

> *RQ1.* Does content-expressive behavior contribute to ideological extremity?

Emotional intelligence

Scholars have recently argued that there is an affective dimension to political polarization (Garrett et al., 2014; Iyengar et al., 2012). Because content-expressive behavior is highly personalized (Livingstone, 2008; Papacharissi, 2011), people may feel stronger

emotional responses to creating it (Papacharissi, 2012). In fact, emotions have communicative dimensions, as they reflect sociocultural tensions arising from everyday interaction (Lutz and White, 1986), and therefore personalized political expression could potentially involve a stronger role for affective processes in shaping people's political ideologies. For example, Kuntsman (2012) describes how affective states resulting from communication about the Arab Spring reflect sociocultural tensions over identity and power in other societies, and reverberate through digital content creation about related social and political issues. Thus, emotions that arise from real sociocultural tensions can shape and color the nature of online expression and content creation more generally.

Emotional intelligence is the extent to which an individual understands their emotional responses to stimuli (e.g. Mayer and Geher, 1996), and thus it is a way of characterizing individuals' conscientiousness about their own affective reactions. Prior research has shown that emotional intelligence is associated with learning (e.g. Abe, 2011; Zeidner et al., 2012) and communication effectiveness (e.g. Jorfi et al., 2011; Troth et al., 2012).

Of particular interest to this study, research shows that emotional intelligence helps people to more effectively resolve conflicts (Jordan and Troth, 2004), which could have implications for how people respond to political disagreement in heterogeneous information networks through creating content. If people understand their own emotional responses, they may be more likely to understand sociocultural tensions arising from content expression (Lutz and White, 1986), and potentially they would incorporate these ambivalent considerations into their overall political perspectives. If people do not understand their own emotions, they may be more affected by sociocultural tensions and incorporate negative considerations about the other side into their overall perspectives. Therefore, it is reasonable to inquire as to whether emotional intelligence will moderate the relationship content-expressive behavior and ideological extremity, with the tentative expectation that content expression should have a negative effect on ideological extremity where emotional intelligence is high, but a positive effect where emotional intelligence is low. However, because there is no prior research about the relationships among content-expressive behavior, emotional intelligence, and political ideology, we pose a research question rather than a formal hypothesis:

> *RQ2.* Does emotional intelligence moderate the relationship between content-expressive behavior and ideological extremity?

Methods

Sample and data

This study uses data from a national, online, two-wave panel survey conducted in the United States. The media polling group Nielsen was contracted to recruit respondents using a stratified quota-sampling method. Survey respondents were selected from a pool of over 200,000 people who registered to participate in an online panel. To ensure a sample that closely resembles the demographic distribution reported by the US Census, Nielsen uses a quota based on gender, age, education, and income. Both waves of the survey were administered using the online survey software, Qualtrics. Wave 1 of the

survey was collected in December 2013 from an initial sample of 5000 participants. In total, 2060 participants responded to the first wave, and 247 respondents' data were deleted because they were incomplete or invalid. Based on calculations from the American Association of Public Opinion Research (AAPOR) (Response Rate 3), the response rate was 34.6% (AAPOR, 2011), indicating a relatively high level of survey participation for online panels (see Bosnjak et al., 2015). Totally, 1024 participants provided data in Wave 2 (57% retention rate), which was gathered in March 2014. The retention rate is also within an acceptable range to maintain valid data and representation, a key goal when using panel data (see Watson and Wooden, 2006).

The sample is diverse and comparable with the US national population and surveys that use random sampling strategies (see Pew Research Center for the People and the Press, 2013) in terms of age (mean [M]=52.7, standard deviation [SD]=14.7), education (range of scale: 1–8, M=3.61, SD=1.44, median [Mdn]=some college), income (range of scale: 1–8, M=4.46, SD=1.44, Mdn=US\$50,000–US\$59,000), sex (49.9% female), and race (78% White). However, there were a few differences of note. The sample is slightly younger, more educated, and included fewer Hispanics compared with the US Census (see Appendix 1).

Measures

Ideological extremity. In order to advance the study's research question about political extremity, two survey items in each wave measured respondent's political ideology. These items, which form a reliable scale (Spearman–Brown=.90 in Wave 1 and Wave 2), asked respondents to place their ideology about (a) social issues and (b) economic issues on 11-point scales (0=*strong liberal*, 10=*strong conservative*). The items were averaged and folded to capture to what extent individuals are more polarized to their opinions or more ideological extreme (Garrett and Stroud, 2014; Wave 1: M=3.12, SD=1.75; Wave 2: M=3.08, SD=1.77).

Content-expressive behavior. Based on previous literature (Weeks et al., 2015), we grouped the various forms of content-expressive behavior into a single measure. Initially, two variables were created: political expression on social media and online content creation. However, these variables were highly correlated (r=.79, $p<.001$), and so they were ultimately combined after a principal axis factor analysis confirmed that all items load onto a single factor with a minimum loading of .65 (66% of variance explained, eigenvalue=5.25). The variable uses eight items (1=*never*, 10=*all the time*) asking respondents how often they (a) take part in posting personal experiences related to politics or campaigning; (b) take part in posting or sharing thoughts about current events or politics; (c) take part in posting or sharing photos, videos, memes, or gifs created by others that relate to current events or politics; (d) take part in forwarding someone else's political commentary to other people; (e) post [their] thoughts about current events or politics; (f) post [their] experiences related to politics or campaigning; (g) take part in posting or sharing photos, videos, memes, or gifs created by [them] that relate to current events or politics; and (h) created posts for [their] own blog about current events or public affairs. These items were averaged (Cronbach's alpha=.94, M=1.99, SD=1.65).

Emotional intelligence. Emotional intelligence (see Austin et al., 2004; Bar-On, 1997; Jordan and Troth, 2004; Schutte et al., 1998) was measured with three Wave-1 items asking respondents whether they *agree* (10) or *disagree* (1) with the following statements: (a) "I know why my emotions change"; (b) "I am aware of my emotions as I experience them"; and (c) "I have control over my emotions" (Cronbach's alpha = .82, $M = 7.33$, $SD = 1.76$).

Political discussion network heterogeneity. The heterogeneity of respondents' political discussion networks was measured in Wave 1 with four items (1 = *never*, 10 = *very often*) based on previous research (Diehl et al., 2015) that asked respondents how often they discuss politics with (a) people who disagree with [them], (b) people whose political views are different from [theirs], (c) people from a different race or ethnicity, and (d) people from a different social class (Cronbach's alpha = .94, $M = 3.59$, $SD = 2.43$).

Social media news use. News use on social media (see Gil de Zúñiga et al., 2012) was measured in Wave 1 with four items (1 = *never*, 10 = *all the time*) asking respondents how often they use Facebook for getting news, use Twitter for getting news, use social media to stay informed about current events and public affairs, and use social media to get news from mainstream media (Cronbach's alpha = .82, $M = 2.67$, $SD = 2.04$).

Online news use. The online news use variable (see Weeks et al., 2015) was constructed with five items measured on 10-point scales (1 = *never*, 10 = *very often*) asking respondents how often they get news from online news sites (e.g. Gawker, Politico, BuzzFeed), citizen journalism sites (e.g. CNN's iReport, Examiner.com), and hyperlocal news sites (e.g. Patch.com or other sites dedicated to news in your local community), as well as how often they use a computer web browser (laptop or desktop) and news aggregators (e.g. Google News) to get news (Cronbach's alpha = .712, $M = 3.39$, $SD = 1.68$).

Offline news use. Offline news use (see Gil de Zúñiga et al., 2010) was measured in Wave 1 with 10 survey items (1 = *never*, 10 = *all the time*) asking respondents how often they get news from Network TV news (e.g. ABC, CBS, NBC), local television news (local affiliate stations), fake news programs (e.g. Daily Show, Colbert Report), national newspapers (e.g. *New York Times*, *Washington Post*, *USA Today*), local newspapers (e.g. *Oregonian*, *Houston Chronicle*, *Miami Herald*), cable news (e.g. CNN, Fox News, MSNBC), radio news (e.g. NPR, talk shows), print media, television media, and radio (Cronbach's alpha = .76, $M = 4.98$, $SD = 1.69$).

Discussion frequency. Political discussion frequency (see Eveland and Hivey, 2009) was measured in Wave 1 with nine survey items (1 = *never*, 10 = *all the time*) asking respondents how often they talk about politics or public affairs with their spouse or partner, family relatives, friends, acquaintances, strangers, neighbors they know well, neighbors they don't know well, coworkers they know well, and coworkers they don't know well (Cronbach's alpha = .87, $M = 3.27$, $SD = 1.70$).

Discussion network size. The size of respondents' discussion networks (see Eveland and Hivey, 2009) was measured in Wave 1 with two items asking respondents about how

many total people they have talked about politics or public affairs with (a) face-to-face or over the phone and (b) via the Internet ($M=9.79$, $SD=32.84$). A constant (1) was added in order to apply a log transformation to the skewed variable (min$=0.00$, max$=6.31$).

Strength of partisanship. Strength of partisanship (see Barnidge and Rojas, 2014) was measured in Wave 1 with a single survey item that asked respondents whether they usually think of themselves as a Republican, a Democrat, or an Independent (0$=$*strong Democrat*, 10$=$*strong Republican*). This item was folded ($M=3.10$, $SD=1.88$).

Political efficacy. Political efficacy was measured in Wave 1 with three items derived from prior research (Niemi et al., 1991) that asked respondents the extent they agree (1$=$*strongly disagree*, 10$=$*strongly agree*) that (a) people like them can influence government, (b) they consider themselves well-qualified to participate in politics, and (c) they have a good understanding of the important political issues facing the country (Cronbach's alpha$=.78$, $M=5.17$, $SD=2.24$).

Political interest. Political interest (see Verba et al., 1995) was measured in Wave 1 with two items (10-point scales) asking respondents how interested they are in information about what's going on in politics and public affairs and how closely do they pay attention to information about what's going on in politics and public affairs (Spearman–Brown$=.96$, $M=6.67$, $SD=2.68$).

Political knowledge. The political knowledge variable was derived from previous research (Delli Carpini and Keeter, 1996) and was measured in Wave 1 with eight survey items asking respondents questions with factually correct answers about the people, institutions, and processes of American government (Cronbach's alpha$=.75$, $M=4.57$, $SD=2.07$).

Demographics. The analysis controls for age, sex (1$=$female), education, annual household income, and race (1$=$minority). See above for descriptive statistics.

Analysis and results

First, the cross-sectional relationships between social media news use and content-expressive behavior were assessed using ordinary least squares (OLS) regression. Results, shown in Table 1, show that social media news use is positively related to content-expressive behavior ($\beta=.49$, $p<.001$). These results support H1.

Next, the interaction between social media news use and discussion network heterogeneity on these same outcomes was tested using OLS. Results, shown in Table 1, show a positive interaction between social media news use and discussion network heterogeneity on content-expressive behavior ($\beta=.56$, $p<.001$). Figure 1, which illustrates this interaction, shows that the relationship between social media news use and content-expressive behavior becomes stronger as discussion networks become more heterogeneous. These results support H2.

Table 1. Cross-sectional relationships between social media news use, political talk heterogeneity, and content-expressive behavior.
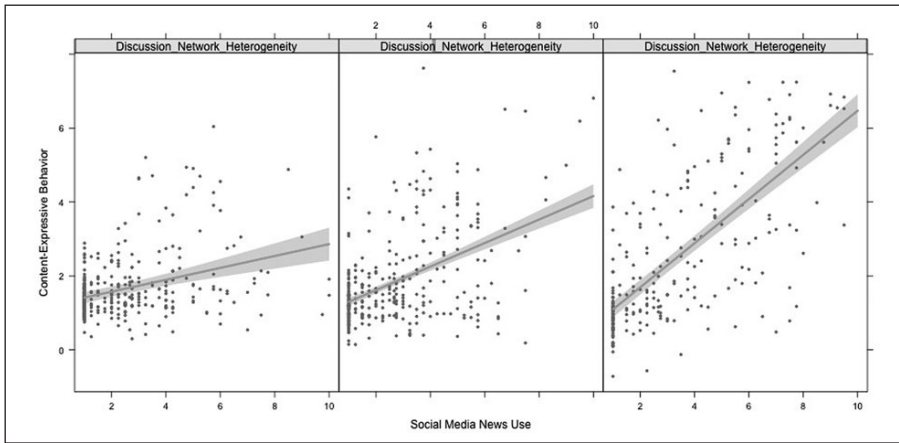
Variable	Content-expressive behavior	
	Main	Interaction
Block 1: Demographics		
Age	−.10***	−.10***
Gender (1 = female)	−.05*	−.04
Education	−.03	−.02
Income	−.06*	−.05*
Race (1 = minority)	.00	−.01
R^2 change	5.9%	
Block 2: Political orientations		
Political knowledge	−.03	−.04
Political interest	−.02	−.01
Political efficacy	.10**	.09**
Strength of partisanship	.01	.00
Ideological extremity	.01	.02
R^2 change	11.6%	
Block 3: Discussion networks		
Discussion network size (logged)	.05	.06**
Discussion frequency	.19***	.14***
Discussion network heterogeneity	.09**	−.18
R^2 change	13.9%	
Block 4: News use		
Traditional news use	−.03	−.02
Online news use	.11***	.10***
Social media news use	.49***	.11***
R^2 change	20.5%	
Interaction term		
Social media news use × discussion network heterogeneity	–	.56***
R^2 change	–	5.2%
Total R^2	51.9%	57.1%

Cell entries are standardized beta coefficients (β) from ordinary least squares (OLS) regression. $N = 1002$. All results are from analysis of Wave 1 data.
*$p < .05$; **$p < .01$; ***$p < .001$ (two-tailed tests).

Next, the over-time effects of content-expressive behavior on ideological extremity were assessed using an autoregressive panel model that estimates effects on the dependent variable at Time 2 while controlling for the same variable at Time 1. Results, reported in Table 2, show that content-expressive behavior is not significantly related to ideological extremity without accounting for the moderating role of emotional intelligence ($\beta = .01$, n.s.). These results lead to a negative answer of RQ1, at least when intervening variables are not accounted for.

Figure 1. The interaction between social media news use and discussion network heterogeneity on content-expressive behavior. These relationships are estimated from the interaction model shown in Table 1.

Table 2. Autoregressive panel effects of content-expressive behavior and emotional intelligence on ideological extremity.

Variable	Ideological extremity[T2]	
	Main	Interaction
Block 1: Demographics[T1]		
Age	.02	.02
Sex (1 = female)	.01	.01
Education	.00	−.01
Income	−.01	.00
Race (1 = minority)	−.02	−.02
R² change	2.7%	
Block 2: Political orientations[T1]		
Political knowledge	.02	.02
Political interest	.02	.02
Political efficacy	.05	.05
Strength of partisanship	.11***	.11**
R² change	28.0%	
Block 3: Discussion networks[T1]		
Discussion network size (logged)	−.01	−.01
Discussion frequency	−.03	−.03
Discussion network heterogeneity	.04	.04
R² change	.2%	
Block 4: News use[T1]		
Traditional news use	−.05*	−.05*
Online news use	−.01	.01

(Continued)

Table 2. (Continued)

Variable	Ideological extremity[T2]	
	Main	Interaction
Social media news use	−.03	−.02
R^2 change	1.7%	
Block 5: Autoregressive term[T1]		
Ideological extremity	.73***	.73***
R^2 change	35.1%	
Block 5: Content-expressive behavior[T1]		
and emotional intelligence[T1]		
Content-expressive behavior	.01	.17*
Emotional intelligence	.02	.07*
R^2 change	.1%	
Interaction term[T1]		
Content-expressive		−.17*
behavior × emotional intelligence		
R^2 change	–	0.2%
Total R^2	67.7%	67.9%

T1: Time 1; T2: Time 2.
Cell entries are standardized beta coefficients (β) from ordinary least squares (OLS) regression. $N = 1002$.
*$p < .05$; **$p < .01$; ***$p < .001$ (two-tailed tests).

Finally, the interaction between content-expressive behavior and emotional intelligence on ideological extremity was tested in the autoregressive framework (see Table 2). Results show a negative interaction between content-expressive behavior and emotional intelligence over ideological extremity (β = −.17, $p < .05$). Figure 2 shows that when emotional intelligence is high, the relationship between content-expressive behavior and ideological extremity is negative; however, where emotional intelligence is low, the relationship is positive. These results provide an affirmative answer to RQ2: emotional intelligence does moderate the relationship between content expression and ideological extremity. The more people know and understand their emotions, the more likely it is that content-expressive behavior will result in more moderate ideologies. On the other hand, with less emotional understanding comes a higher likelihood that it polarizes ideologies.[1]

Discussion

Online participatory media afford people the ability to express themselves about politics in new ways, including not only posting and commenting about political news on social media (Gil de Zúñiga et al., 2014; Halpern and Gibbs, 2013) but also creating content in both journalistic (Carr et al., 2014; Kaufhold et al., 2010) and non-journalistic formats (Blank, 2013; Hargittai and Walejko, 2008; Livingstone, 2008; Nooney and Portwood-Stacer, 2014; Weeks et al., 2015). Taking advantages of these affordances, content-expressive individuals have increasingly influenced public narratives about political and
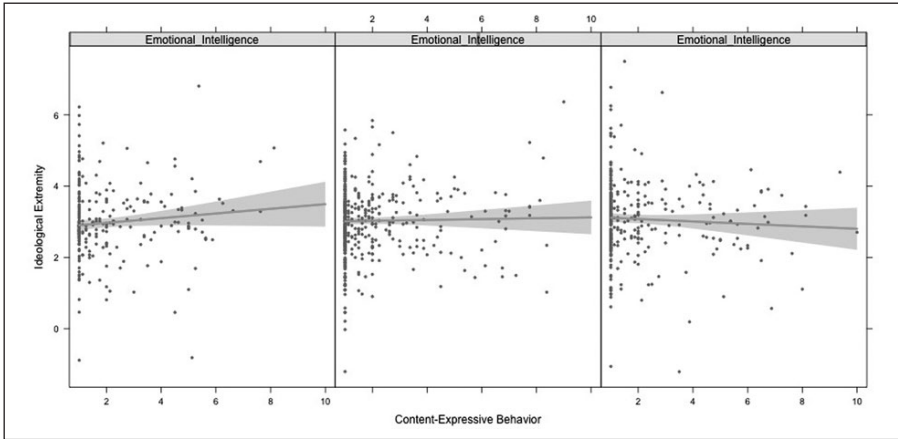
Figure 2. The interaction between content-expressive behavior and emotional intelligence at Time 1 and on ideological extremity at Time 2. These relationships are estimated from the interaction model shown in Table 2.

social issues (Weeks et al., 2015). Drawing from the idea of "affective publics" (Papacharissi, 2012, 2014), this article examined the role that emotional intelligence plays in moderating ideological change in response to sociocultural tensions arising from expression via emerging media technologies.

First, the analysis shows a positive relationship between news use on social media and content-expressive behavior, lending empirical support to the notion that these behaviors are more common among those who frequently use news in online platforms such as social media. News use on social media promotes not only political expression on social media in the form of posting and commenting (Gil de Zúñiga et al., 2012; Valenzuela, 2013) but also the re-appropriation of images and graphics (Highfield and Duguay, 2014), as well as the creation of original journalistic content (Weeks et al., 2015). These relationships between news use and content expression are stronger among those embedded in heterogeneous social networks both online and offline. Therefore, results suggest that content-expressive citizens are, for the most part, not solely embedded in political echo chambers (Sunstein, 2007), but are rather situated in social networks characterized by relatively high levels of political difference (Halpern and Gibbs, 2013; Vraga et al., 2015). This is true not only in terms of online social and information networks but also in terms of offline networks, reflecting the growing isomorphism between these two realms of social life (Rojas, 2015; Rojas et al., 2016).

Several mechanisms could potentially explain the relationship between information network heterogeneity and content-expressive behavior. First, some people may attempt to "correct" perceived wrongs they encounter in the public sphere by expressing their own views on particular topics (Barnidge and Rojas, 2014; Rojas et al., 2016; Sun et al., 2008). Second, others may engage in direct attempts to persuade others who have different political perspectives (Weeks et al., 2015). Finally, some people may attempt to represent their political identities, which they believe are largely unrepresented by existing political content

(Correa and Jeong, 2011; Livingstone, 2008; Papacharissi, 2011). Future research should focus on testing these proposed mechanisms, both directly and as intervening variables.

Results show no main effects of content expression on ideological extremity. However, they do show conditional relationships based on emotional intelligence. Among those high in emotional intelligence, content expression reduces extremity; however, among those low in emotional intelligence, these behaviors contribute to extremity. Therefore, results point toward the conclusion that "sender effects" (Pingree, 2007, 2015; Rojas and Puig-i-Abril, 2009) based on content-expressive behavior depend on particular individuals' ability to recognize their own emotional responses to media-based stimuli and conflict within their information networks (Jordan and Troth, 2004; Mayer and Geher, 1996). Thus, content-expressive behavior could contribute to ideological extremity among individuals who are largely unaware of their emotional responses to media stimuli, potentially because they are more affected by sociocultural tensions arising from communication processes. These findings reflect the affective dimension to political ideology (e.g. Garrett et al., 2014; Iyengar et al., 2012) and suggest that affective responses can also influence cognitive reactions to media and information. More broadly, these results have implications for ideas about affective publics (Papacharissi, 2012, 2014; Valenzuela and Bachmann, 2015). Awareness of emotional responses to emerging media practices could help to shape people's political perspectives over time, potentially in a long-lasting way.

The results of this study are limited in several important ways. First, although the panel data used in this study establish causal order with regard to the relationship between content-expressive behavior and political polarization, it cannot control for every potential confounding variable. Further analysis of these relationships is warranted to replicate the findings reported in this study. Second, this study focuses on the adult population of the United States; however, it is possible that different populations or subsets of populations could be characterized by different relationships among the key variables. In particular, young people could be especially likely to engage in content-expressive behavior, and future research should focus on studying the youth and/or young adult populations. Third, effect sizes for political polarization are relatively small; however, they could potentially be substantive if they make an individual more likely to support a particular candidate or less likely to interact with the other side. Fourth, while this study has examined several types of content-expressive behavior facilitated by online participatory media, it cannot account for emergent forms of content expression in the future. Future research should focus on examining emerging behaviors as they appear and integrate them into both construct measurement and address theoretical changes derived from new forms of content expression. Another limitation stems from the measurement of emotional intelligence. While the prevailing measurement strategy in psychology is to use large question batteries—sometimes up to 30 items—our measurement of emotional intelligence was limited by available space in the survey, and therefore relies on only three items. However, despite this limitation, the current measure meets acceptable thresholds for reliability and has a high degree of construct validity—that is, the expected relationships materialized in the study. Likewise, a more comprehensive measurement of the emotion intelligence construct may yield even stronger effects. Finally, content-expressive behavior may promote ideological extremity during political campaigns to a greater

extent than during time frames in which campaigns have not occurred. This study has focused on the latter scenario in order to isolate the relationship between content-expressive behavior and extremity. In that sense, the effects reported here could be interpreted as conservative, and larger effects might be expected for content expression that occurs in response to campaign activities or political events.

Despite these limitations, this study provides empirical evidence regarding the social networks of content-expressive individuals, as well as the effects of content-expressive behavior on political ideology. It shows that these individuals are largely embedded in politically heterogeneous information networks. Additionally, it shows that engaging in content-expressive behavior contributes to ideological extremity among people low in emotional intelligence, but that these behaviors reduce extremity among people high in emotional intelligence. In general, these findings contribute to the understanding of emergent participatory media and their effects on the public sphere in the United States and suggest a growing role for both technology-based expression and affective communication processes.

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Note

1. This study also tested strength of partisanship as an additional indicator of political polarization. These tests found no significant main effect of content-expressive behavior on strength of partisanship ($\beta = .01$, n.s.) nor did they find a significant interaction with emotional intelligence ($\beta = -.12$, n.s.).

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Appendix 1. Demographic profile of study survey and other comparable surveys.

	Study survey December 2013 to January 2014	Study survey Second wave: March 2014	Pew Research Center for the People and the Press Political survey July 2013	US Census American community survey 2012 (1-year estimates)
	(%)	(%)	(%)	(%)
Age (years)				
18–24	5.0	2.7	10.1	10.0
25–34	13.5	11.1	11.3	13.4
35–44	15.7	14.7	11.9	13.0
45–64	43.0	47.5	38.8	26.4
65 or more	22.8	24.1	28.6	13.7
Gender				
Male	50.0	51.0	49.9	49.2
Female	50.0	49.0	50.1	50.8
Race/ethnicity				
White	76.2	79.1	72.2	73.9
Hispanic	7.5	5.2	11.2	16.9
African American	10.5	9.6	10.3	12.6
Asian	2.9	2.9	2.5	5.0
Education				
High school or less	19.3	18.4	32.5	41.6
Some college	34.5	33.9	27.6	29.2
Bachelor's degree	30.5	31.9	22.6	18.2
Graduate degree	8.8	11.4	14.9	10.9
Household income				
Less than US$49,999	46.0	44.3	45.9	51.9
US$50,000–US$99,999	36.5	37.8	26.1	32.7
US$100,000 or more	17.4	17.9	17.2	15.4