

Changing Deliberative Norms on News Organizations' Facebook Sites

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Comments posted to news sites do not always live up to the ideals of deliberative theorists. Drawing from theories about deliberation and group norms, this study investigates whether news organizations can affect comment section norms by engaging directly with commenters. We conducted a field study with a local television station in a top-50 Designated Market Area. For 70 political posts made on different days, we randomized whether an unidentified staff member from the station, a recognizable political reporter, or no one engaged with commenters. We assessed if these changes affected whether the comments ($n = 2,403$) were civil, were relevant, contained genuine questions, and provided evidence. The findings indicate that a news organization can affect the deliberative behavior of commenters.

Keywords: Online Forums, Deliberation, Journalism, Civility, News.

doi:10.1111/jcc4.12104

Comments posted in response to news stories, whether on a Facebook page or in a comment section beneath an article, do not always live up to the ideals of deliberative theorists. As opposed to instances of thoughtful, reasoned discourse, comments are often irrelevant, uncivil, and misleading (Coe, Kenski, &

The authors thank the Democracy Fund for funding this project and our news station partner for making this research possible as part of the Engaging News Project and Cynthia Peacock for her coding assistance.

Editorial Record: First manuscript received on March 08, 2014. Revisions received on July 01, 2014. Accepted by Jennifer Stromer-Galley on August 01, 2014. Final manuscript received on August 08, 2014. First published online on October 15, 2014.

Correction made after online publication October 15, 2014: Natalie Jomini Stroud's name has been updated.

Rains, 2014; Diakopoulos, & Naaman, 2011). User comments can be consequential for how site visitors interpret the information that precedes them (Anderson, Brossard, Scheufele, Xenos, & Ladwig, 2014; Houston, Hansen, & Nisbett, 2011; Lee, 2012; Shi, Messaris, & Cappella, 2014). Uncivil comments, for instance, can result in attitude polarization (Anderson et al., 2014).

Despite frequently less-than-deliberative content, comment sections commonly appear on news websites. Although their presence continues the legacy-based practice of allowing news audiences to comment through forums like letters to the editor, comments are a novel form of computer-mediated communication (CMC). They require less planning, are more plentiful, and are less curated than letters to the editor. Comment sections also provide more leeway for news consumers, as opposed to news producers, to determine the norms of communication.

The freedom communication technologies afford commenters presents challenges for news outlets. Journalists are divided on whether comment sections are a helpful part of news sites (Domingo, 2008; Nielsen, 2012; Santana, 2011). Some outlets, like *Popular Science*, have eliminated comment sections, while others, like the *New York Times*, have pioneered new ways of engaging commenters. How outlets can better manage their comment sections and foster deliberative norms in online comment spaces is the purpose of this study.

Several studies have analyzed whether newsrooms can manage the quality of user-generated content. Sites where commenters are required to use real names when leaving comments have lower levels of incivility compared to sites allowing visitors to leave comments anonymously (Santana, 2014). Premoderated comment sections, where comments are assessed for their appropriateness before appearing on a site, contain more relevant comments than those relying on site visitors to alert news staff of inappropriate comments (Ruiz et al., 2011). Other strategies for changing the conversational norms of comment spaces have been left unexplored.

This study investigates one means by which a news outlet could influence a comment section: interacting with commenters to change comment section norms. Norms are cultural products, such as values, customs, and traditions (Sherif, 1936). The influence of norms on behavior has been widely documented (e.g., Cialdini, 2003; Sherif, 1936). Online, we know that behavioral norms exist (e.g., Postmes, Spears, & Lea, 1998) and can be affected by what others post (Sukumaran, Vezich, McHugh, & Nass, 2011). Drawing from research on norms, we conducted a study to evaluate whether having a news organization or journalist interact with commenters on their social media site changes the deliberative qualities of the comments. The results of our quasi-experiment show that having a journalist engage with commenters changed the tone of the comments, making the space more deliberative.

Norms in Face-to-Face and Computer-Mediated Contexts

Norms represent individuals' basic knowledge of what others do and what others think that they should do (Cialdini, 2003). Norms are situational, or "mental representations of appropriate behavior that guide behavior in a *certain situation or environment*" (Aarts & Dijksterhuis, 2003, p. 18, emphasis added; see also Hogg & Reid, 2006). They exist as collective representations of acceptable group conduct as well as individual perceptions of particular group conduct (Lapinski & Rimal, 2005).

Norms are important because they can guide behavior. Normative messages have successfully changed behaviors, such as curbing alcohol use (Collins, Carey, & Sliwinski, 2002), increasing voter turnout (Gerber & Rogers, 2009), and reducing theft of petrified wood from a national forest (Cialdini et al., 2006). Although messages can directly target norms (e.g. a message describing high levels of voter turnout to encourage more turnout), norms also can be changed based on the observed behavior of others. In Sherif's (1936) classic studies of social norms, one confederate was able to affect the development of a group norm related to the autokinetic effect. Other studies confirm that a single person's

behavior can highlight a norm and subsequently influence how others behave. Cialdini, Reno, and Kallgren (1990), for instance, found that the presence of one confederate who littered in a litter-filled environment was able to reinforce the norm that littering was permissible and increase subjects' littering behavior.

Group norms also operate in CMC contexts. Individuals participating in online courses (Postmes, Spears, & Lea, 2000) and posting on ideological blogs (Yun et al., 2013) establish and abide by norms about how to interact in these groups. Although early theories of CMC norms proposed that anonymity and a lack of social cues would give rise to antinormative behaviors, the evidence was more complicated (Postmes, Spears, & Lea, 1998). Flaming, for instance, was considered an "intentional negative violations of interactional norms," (O'Sullivan & Flanagan, 2003, p. 84) but was considered appropriate in some virtual communities (Cenite & Zhang, 2010; Postmes et al., 1998). The social identity model of deindividuation effects (SIDE) accounts for these findings by demonstrating that online behaviors vary depending on which norms and identities are salient in a given context (Postmes et al., 1998; Spears & Lea, 1994). Research confirmed that anonymity, for instance, increases the influence of contextual norms, such as cooperativeness (Postmes et al., 1998). Later research added that salient norms and social identities can affect behavior even in nonanonymous CMC situations (Spears, Lea, Postmes, & Wolbert, 2011). Overall, SIDE illustrates that norms can affect online behaviors.

News organizations do not universally convey norms of appropriate behavior in their CMC spaces. Only half of local television news sites warn commenters about which types of comments are acceptable (e.g., "Keep your comments civil"; Stroud, Muddiman, & Scacco, in press). Even with guidance from news organizations, individuals may follow the normative lead of other commenters. As Lapinski and Rimal (2005) argue, collective norms develop among individuals in communicative interactions. Sukumaran et al. (2011) conducted an experiment where study participants were asked to leave comments in response to an article. Participants were randomly assigned to a comment section consisting mainly of thoughtful comments or to one containing mainly unthoughtful comments. Participants left more substantive comments in the thoughtful condition than the unthoughtful condition, suggesting that the comments left by others can affect subsequent comments. We extend this work by conducting a study in a real-world context and by examining whether a news organization can affect the normative substance of comments left.

Cultivating Deliberative Norms via News Organization Involvement

Deliberation is a frequently referenced normative ideal for online citizen engagement (Halpern & Gibbs, 2013; Ruiz et al., 2011; Stromer-Galley, 2007). Various definitions of deliberation exist, yet many share the basic idea that deliberation involves people exchanging views on a matter of public importance in a respectful manner, reasoning through their claims, and listening to the perspectives of others (e.g., Price, 1992). Participation in deliberative forums has been shown to increase knowledge, create stronger links between knowledge and attitudes, and increase familiarity with different views (Cappella, Price, & Nir, 2002; Fishkin & Luskin, 2005). Although deliberation can have important democratic benefits, news commenters do not always abide by norms of civility and deliberative discourse (Freelon, in press). This study aims to find out whether deliberative norms – as indicated by the presence of civility, relevance, genuine questions, and evidence (Halpern & Gibbs, 2013; Papacharissi, 2004; Ruiz et al., 2011; Stromer-Galley, 2007) – can be encouraged in news organizations' comment spaces.

Few studies have analyzed news organization engagement with site contributors directly, although related work suggests that newsroom involvement can have desirable outcomes. Wise, Hamman, and Thorson (2006), for instance, created two versions of a mock site that were identical except that one site

included indicators that the site was moderated and the other did not. Site visitors expressed greater intentions to participate in the site that indicated moderation. Even more directly related, Marchionni (2013) compared participant reactions to a site that had no comments, a site with comments only from citizens, and a site with comments from citizens and journalists. Those seeing the site with the journalist comments rated the journalist as more friendly and present compared to those seeing the other site versions.

Both the Wise et al. (2006) and Marchionni (2013) studies suggest that newsroom involvement in comment spaces may have benefits, although neither examined whether newsroom involvement changes the *substance* of the comments left by site visitors. Looking specifically at the comments left by site visitors in five cross-national newspapers, Ruiz et al. (2011) found that newsroom involvement via moderation can affect the comments. Comments left on sites that premoderated their content were more relevant than comments left on sites that did not engage in premoderation. Although moderation is different from a representative of a news organization directly engaging in comment spaces, the research by Ruiz et al. suggests that newsroom involvement may have benefits for the relevance of comments left by site visitors.

Involvement by a representative of a news organization on a news site could change the deliberative norms in a comment section. This could be the result of either external or internal normative influences (see Hogg & Reid, 2006). Externally, the possibility that others are watching can encourage normative behaviors. As reviewed by Spears and Lea (1994), “A central principle of normative influence is that people will conform under the direct surveillance of others. When surveillance of others is removed, individuals are less likely to conform” (p. 436). Providing evidence for this notion, Lapinski and Rimal (2005) stated that public behaviors are more subject to normative influence than private behaviors. When a member of a news organization interacts in the comment section, it may highlight expected deliberative norms by reminding site visitors that someone is watching. Yet norms can operate even in the absence of clear social sanctions. The SIDE model proposes that the salience of different identities affects how people behave based on an internalized notion of how members of a salient group behave (Spears & Lea, 1994). The presence of someone from a newsroom may make the social category of “news audience” more salient, and this identity may trigger more deliberative behaviors. We evaluate these ideas by analyzing whether the comments change in response to the presence of a representative of a news organization, a practice that has received little research attention.

H1: When a representative of a news organization engages with commenters in a comment section, the comments will be more deliberative than if a news representative did not engage.

In addition to analyzing whether a representative of a news organization can change the deliberative norms of a comment section, we also propose that a *recognizable* individual from the news organization, such as a station’s political reporter (e.g. “Andrea Mitchell”), will have more success in changing the tone compared to an unidentified staff member posting using a news organization’s insignia (e.g. “NBC News”). Several rationales support this suggestion. From a normative perspective, the reporter arguably cues greater status and power compared to the unidentified member of the news organization. Leaders embodying important group attributes can be more influential when group membership is salient (Hogg & Reid, 2006). Second, a recognizable reporter may be more trusted, hence more capable of affecting norms. More trusted sources are more successful at framing messages (e.g., Druckman, 2001), which arguably is related to increased effectiveness in setting norms. Third, research shows that institutional evaluations can be more critical than evaluations of individual members of the institution. Congress, for example, is evaluated more poorly than one’s member of Congress, in part because personality factors

are used to judge people, but not institutions (Mendes, 2013; Parker & Davidson, 1979). The same may hold true for a representative of a media organization (i.e. a reporter), as opposed to an institutional indicator of the organization (i.e. an unidentified representative). Fourth, research has found that opinion leaders are more effective at changing norms and behaviors than members of an organization who are not opinion leaders (Lam & Schaubroeck, 2000). An identified reporter is more likely to be recognized as an opinion leader than an unidentified staff member. Based on these previous findings, we hypothesize that:

H2: When an identified reporter engages with commenters in a comment section, the comments will be more deliberative than if an unidentified member of the news organization engages, or no one from the news organization engages.

Post Characteristics and Deliberative Norms

In addition to analyzing the effects of journalistic engagement, other factors may influence the degree of deliberativeness in the comment section. Research based on the SIDE model showcases that the CMC context can influence the extent to which people follow group norms. The topic under discussion, for instance, can affect people's behaviors (Lea, Spears, & Watt, 2007; Spears & Lea, 2011). We consider two factors: the presence of a conversational prompt, such as a question posed of commenters, and the topic of the post.

Prompts that ask commenters a question, or otherwise guide the trajectory of the comments, may affect the comments that people leave (Hermida & Thurman, 2008). We examine two different ways in which a newsroom can direct the comment section conversation: (1) Posing a closed-ended question prior to the comments, or (2) Inviting people to leave comments without a question (e.g. "Tell us your thoughts."), which we call a discussion starter.¹ Previous literature has not explored the effects of these techniques in affecting comment section discussion, hence we pose the following research question:

RQ1: Do the deliberative qualities of the comments vary based on the presence of conversation prompts (e.g. closed-ended questions and discussion starters)?

We also examine whether the tone of comments varies based on the news topic, as suggested in recent research (Coe et al., 2014; Halpern & Gibbs, 2013). Halpern and Gibbs (2013), for instance, unexpectedly found more deliberative comments left on the White House Facebook page and YouTube channel for sensitive topics, like gay marriage, than for less emotionally-charged subjects. Coe et al. (2014) found more incivility in comments associated with hard, as opposed to soft, news articles. Although both previous studies find variability by topic, their samples differ from our emphasis on comments left in response to political posts on a news organization's Facebook page. Without strong theoretical guidance on which topics should affect the tone of the comments, we asked the following question:

RQ2: Do the deliberative qualities of the comments vary based on the topic of the post?

Method

We partnered with a local television news station with a vibrant Facebook community to conduct a field study. The station was an affiliate of a major television network in a top-50 Designated Market Area. Over

40,000 people had liked the station's Facebook page. The study took place between December 2012 and April 2013.² As part of the study, members of the newsroom would post a political story on Facebook each day and then vary their engagement with commenters according to a randomized schedule.³ Each of the 70 posts associated with this study was randomly assigned to one of three conditions: (1) The station's well-known political reporter would comment and respond to commenters, (2) The station's web team, using the station's insignia as their identity, would interact in the comment section, or (3) No one from the station would interject in the comment section.

We gave the reporter and the station several tips for engaging with commenters.⁴ First, we encouraged them to respond to legitimate questions (e.g., "Good question, Laura. I believe the Nebraska bill does include exceptions for the life of the mother."). Second, we recommended asking related questions (e.g., "We hear from both sides, in the article, about the issue of undocumented immigrants being released from federal custody. What are your thoughts?"). Third, we noted that the reporter or station could share more information (e.g., "FYI, here's the text of the bill."). Fourth, and finally, we recommended encouraging and highlighting good discussion (e.g., "Susan you bring up something interesting: This issue gets framed as 'Democrats vs. Republicans' as often as it does 'Pro-Choice vs. Pro-Life.' I'm curious, do any of you consider yourselves pro-choice Republicans or pro-life Democrats?").

This study is appropriately understood as a quasi-experiment. Although we randomly assigned the type of engagement (i.e., whether the station engaged with commenters, a reporter engaged with commenters, or neither), other factors, such as the topic of the post, were not under our control. To answer our research questions, and to take into account post-level variability that was beyond our control, we include both the post topic and conversation prompt in our analyses.

We conducted a content analysis of the 70 posts left by the station on the Facebook page and the 2,403 comments left in response to these posts. Our procedure is described below, and descriptive and reliability statistics can be found in Table 1.

Post Attributes

We first coded each of the 70 political posts according to topic and conversation prompt.

Topic.

We recorded whether the posts discussed crime or guns, education, the economy, and health or abortion. Posts could be coded for multiple categories; for example, a post about how budget cuts might affect education would fall under the economy and the education codes.

Conversation prompt.

We coded for how the post encouraged people to get involved. First, some posts posed a closed-ended question, such as: "The rules proposed today would ban the sale of almost all candy on campus. Good idea or bad idea?" Second, some posts invited people to leave a comment without asking a question, a practice we call a discussion starter. For example: "Let us know what you think about this bill and feel free to ask any questions you may have!" This discussion starter encouraged commenters to respond but did not pose an explicit question. We coded for the presence or absence of each type of conversation prompt.

Comment Attributes

Next, we looked at all 2,403 comments that were left on the site in response to the 70 station posts. After monitoring the site, we noticed that commenting generally subsided within 2 days of a post's publication.

Table 1 Reliability and Descriptive Statistics

	Percent (of posts/comments)	Krippendorff's alpha
Post-Level		
Crime or guns	26%	0.79
Economy	26%	1.00
Education	30%	1.00
Health or abortion	23%	0.77
Conversation prompt		
Closed-ended	26%	1.00
Discussion starter	31%	0.86
Comment-Level		
Incivility	47%	0.77
Provision of evidence	10%	0.80
Relevance	24%	0.86
Genuine question	11%	0.77
Reporter or station comment	5%	0.93

Notes: Krippendorff's alpha is a measure of reliability that adjusts for chance agreement among coders. Values closer to 1.00 indicate more reliable coding, with values in excess of 0.80 considered particularly strong and values in excess of 0.67 considered acceptable. Krippendorff's alpha was computed based on 80 comments and 35 posts. Halfway through the coding process, we checked reliability again to ensure consistency on a new sample of 30 comments. Reliabilities were similar; data for both assessments are combined in the table above.

Comments were archived 3 days after each post was published. As described below, each comment was coded for four deliberative attributes.

Incivility.

To develop a list of characteristics that signaled incivility, we drew from past research on the characteristics of uncivil discourse (Papacharissi, 2004; Sobieraj & Berry, 2011). To be coded as uncivil, the comment needed to include one or more of the following attributes: (1) Obscene language / vulgarity (e.g. "A@#\$***les"), (2) Insulting language / name calling (e.g. "you idiots"), (3) Ideologically extreme language (e.g. "Liberal potheads"), (4) Stereotyping (e.g. "Deport them illegals"), or (5) An exaggerated argument (e.g. "It's very easy to solve all of this just keep your legs closed if you don't want a baby."). Comments containing any one of these characteristics were coded as uncivil.⁵

Provision of evidence.

Providing evidence for one's claims also has been considered an important element of deliberation (Halpern & Gibbs, 2013; Stromer-Galley, 2007). Coders were asked to record whether each comment contained a hyperlink to more information (e.g. "www.whitehousedossier.com") or whether the comment described publicly searchable information, or information that could be retrieved from the media, research, or government documents (e.g. "We've looked at PP's [Planned Parenthood's] annual reports.").

Relevance.

Drawing from previous work, comments were coded as to whether they were relevant to the topic of the post (Ruiz et al., 2011; Stromer-Galley, 2007; Stromer-Galley & Martinson, 2009). Comments that did not match the topic of the post, or that included only a term (e.g. “sad”) were coded as not relevant. For instance, a post asking for opinions on a U.S. senator’s job performance prompted irrelevant comments about Davy Crockett.

Genuine question.

Drawing from Stromer-Galley (2007), we analyzed whether respondents asked questions that were designed to elicit opinions or information. For example, in response to a post about a state budget surplus, one commenter asked, “Where is the money coming from? Increased taxes?” This was coded as a genuine question. The question “You have no idea how limiting Medicaid coverage can be, do you?” was not counted as a genuine question because the question was rhetorical, rather than seeking an opinion or information.

Reporter/Station comment.

We recorded whether each comment made was by the reporter, the station, or a Facebook user. The reporter and station comments ($n = 111$) were removed from our analyses since the comments left by the reporter and station were always civil and relevant, and frequently contained genuine questions and the provision of evidence. Not removing the comments would artificially provide evidence for H1.

Results

Logistic hierarchical linear models with a random intercept for each post were used to analyze the data because the dependent variables were dichotomous and the comment data were clustered by post. All variables were entered into the model and then nonsignificant topic and conversation prompt variables were removed.⁶

H1 posited that engagement by a newsroom representative would make comments more deliberative. Coefficients from the first two rows of Table 2 provide partial support for the hypothesis. In two of four instances, reporter engagement had a statistically significant effect on the deliberative tone of the comments. Reporter engagement in the comment section decreased the probability of an uncivil comment ($B = -0.70$, $SE = 0.32$, $p < .05$) and increased the probability that commenters provided evidence ($B = 1.23$, $SE = 0.58$, $p < .05$). Converting the coefficients to probabilities and holding the other variables constant at their mean or modal values, the probability of an uncivil comment *decreased* by 0.17 and the probability of providing evidence *increased* by 0.15 when the reporter engaged with commenters compared to having no newsroom interaction. In the other two analyses, the reporter did not have a statistically significant effect, but the coefficients were in the predicted direction both for the probability of commenters leaving relevant comments ($B = 0.47$, $SE = 0.29$, $p = .10$) and asking genuine questions ($B = 0.52$, $SE = 0.33$, $p = .11$).

The evidence supports H2, which proposed that the reporter would have a stronger effect on the substance of the comments than the station. In no instance was the station coefficient significant, or approaching significance, and in two of the four analyses (incivility, genuine question), the coefficient was in the opposite of the predicted direction. Rerunning the analyses in Table 2 with “reporter engagement” as the omitted category confirmed that when the reporter engaged with commenters, the probability of incivility declined and the probability of genuine questions increased relative to having the

Table 2 Random-Intercept Logistic Models Coefficient (SE)¹⁰

	Incivility	Provision of Evidence	Relevance	Genuine Question
News engagement				
Reporter	-.70* (.32)	1.23* (.58)	.47 (.29)	.52 (.33)
Station	.10 (.20)	.24 (.39)	.14 (.30)	-.32 (.36)
No engagement (omitted category)	--	--	--	--
Conversation prompt				
Closed-ended	-.34+ (.18)	-.62+ (.34)	--	-.66+ (.34)
Discussion starter	.50+ (.29)	-1.05+ (.55)	--	--
Topic				
Health or abortion	.36+ (.19)	--	.66* (.29)	-1.06** (.36)
Education	-.77** (.19)	--	.86** (.29)	--
Crime or guns	--	--	--	-.66* (.31)
Economy	--	-.76* (.39)	--	--
Intercept	-.01 (.13)	-2.39** (.23)	.94** (.19)	-1.93** (.24)
Variance of random intercepts	.18	.58	.50	.55
Chi-square	$\chi^2(6) = 22, p < .01$ $\chi^2(5) = 12, p < .05$ $\chi^2(4) = 17, p < .01$ $\chi^2(5) = 18, p < .01$			

+ $p < .10$, * $p < .05$, ** $p < .01$.

Non-significant covariates were removed from the models (—). Number of comments = 2,292; Number of posts = 64. Chi-square value contrasts the full model (displayed) and the null model containing a random intercept. ¹⁰To verify that these independent variables were distinct, we ran correlations among the dependent variables. The strongest correlation was -0.10, between incivility and relevance.

station engage. Comments left when the reporter engaged also were more likely to include evidence than comments left when the station engaged, but the difference was only marginally significant.

RQ1 asked whether the deliberative tone would vary as a consequence of the conversation prompt used. All effects of the conversation prompts were only marginally significant. Closed-ended questions were less likely to yield comments containing genuine questions ($B = -0.66$, $SE = 0.34$, $p < .10$) or comments providing evidence ($B = -0.62$, $SE = 0.34$, $p < .10$). They also reduced the probability of an uncivil comment ($B = -0.34$, $SE = 0.18$, $p < .10$). Discussion starters reduced the probability of providing evidence ($B = -1.05$, $SE = 0.55$, $p < .10$) and increased the probability of an uncivil comment ($B = 0.50$, $SE = 0.29$, $p < .10$).

RQ2 asked whether the deliberative tone varied by topic. Comments about health or abortion had a higher probability of being relevant ($B = 0.66$, $SE = 0.29$, $p < .05$) and a lower probability of containing a genuine question ($B = -1.06$, $SE = 0.36$, $p < .01$). Converting the coefficients to probabilities and holding all other variables in the model constant, posts about health or abortion increased the probability of a relevant comment by 0.11 and reduced the probability of a genuine question by 0.08 compared to posts about other topics. Posts about health or abortion also had a marginally significant relationship with incivility ($B = 0.36$, $SE = 0.19$, $p < .10$) such that these posts elicited more incivility in the comments. Posts about education increased the probability of relevant ($B = 0.86$, $SE = 0.29$, $p < .01$) and civil ($B = 0.77$, $SE = 0.19$, $p < .01$) comments. Again converting the coefficients to probabilities, posts about education

increased the probability of a relevant comment by 0.11 and decreased the probability of an uncivil comment by 0.18 compared to posts on other topics. Posts about crime or guns inspired fewer genuine questions ($B = -0.66$, $SE = 0.31$, $p < .05$), reducing the probability of a genuine question by 0.06.⁷ Finally, when the topic of the post was the economy, commenters were less likely to include evidence ($B = -0.76$, $SE = 0.39$, $p < .05$). The probability of comments including evidence was 0.04 less for an economic post compared to other posts. Answering RQ2, there was variability in the deliberative criteria considered here by topic.

Discussion

The results of this study suggest that a single person can affect the deliberative norms on a news organization's social media site. Answering H1 and H2, having an identified reporter engage with commenters affected the deliberative tone of the comments left. Reporter involvement was related to lower levels of incivility and greater use of evidence from commenters. The other coefficients were not statistically significant; however, they were in the direction of the reporter increasing relevant comments and genuine questions. Although the reporter had demonstrable effects on the comments left, station engagement had no significant effects.

Three explanations may account for this pattern of findings. First, the reporter commented more frequently than the station. For posts where the station interacted with commenters, the station wrote an average of 1.13 comments. When the reporter interacted with commenters, he wrote 4.48 comments on average. Higher rates of commenting may explain why the reporter, and not the station, affected the quality of the comment section. We reran our analyses including a covariate for how many times the reporter or station interacted, however, and the coefficient was not significant in any of our models.⁸

Second, differences in how the reporter and the station interacted with the commenters could explain the findings. We analyzed the station and the reporter comments for the four tips we gave for engaging commenters (respond to questions, ask questions, share information, and encourage good discussion).⁹ The station and reporter were comparable in how frequently they responded to questions (station: 11.8%; reporter: 7.4%) and encouraged discussion (station: 23.5%; reporter: 14.9%). The reporter was, however, more likely to share information (52.1%) than the station (29.4%) and the station was more likely to ask a question (76.5%) than the reporter (45.7%). It is possible that these differences account for the observed patterns.

Third, it is possible that seeing reporter from the news broadcast – as opposed to a generic station logo – was responsible for the effects. Prior research shows that opinion leaders can have a greater effect on shaping norms than other members of an organization (Lam & Schaubroeck, 2000) and that group leaders can affect norms when group membership is salient (Hogg & Reid, 2006). The reporter could have been seen as a leader and could have increased the salience of commenters' group status as a news audience. This study cannot sort out which of these explanations account for the effects, yet it is clear that having a reporter engage with commenters can affect the deliberative tenor of the comments.

Although we randomly assigned the form of engagement (i.e. reporter, station, or no engagement), other factors not under our control varied across the posts. We analyzed two possible factors as covariates in the models: conversation prompts and the issue focus of each post. Turning first to the conversation prompts used by the station (RQ1), the effects were only marginally significant, leading us to a cautious interpretation. Although closed-ended prompts may decrease incivility, they also may reduce other forms of engagement such as asking genuine questions and providing evidence. When prompting respondents to make yes/no judgments, these results suggest that there may be less substantive discussion. Discussion starters have little benefit from the perspective of deliberative democracy. Discussion

starters were related to increased incivility and reduced chances of offering evidence, although again, the effects are only marginally significant. Overall, the pattern of findings suggests that conversation prompts have marginal influence in directing the deliberative quality of the accompanying comments.

The topic of the post also affected the quality of the comments (RQ2). Posts about health or abortion were related to increased chances of uncivil and relevant comments, and lower probabilities of genuine questions. Posts about education decreased the chances of incivility and increased chances of relevant comments. Posts about crime or guns resulted in fewer genuine questions. Posts about the economy were less likely to yield evidence in the comments. Several other studies also have uncovered differences among comments depending on the topics (Coe et al., 2014; Halpern & Gibbs, 2013). The complex findings across multiple studies signal the need for theory development on why different topics elicit different reactions. One promising starting point may be SIDE research on the salience of social identities. Topics like health and abortion may trigger group identities that people believe they must defend in comparison to topics like education. Future research could examine whether social identity salience helps to explain why the deliberative tone of the comments varies across topics.

This study represents an important step in examining normative influences in comment sections. It draws from work on deliberation to identify desirable commenting attributes, such as civility and the provision of evidence. We do not know, however, how much of each attribute is best. One possible way to decide would be to examine how comment sections influence audiences. Anderson et al. (2014) began this work by demonstrating that incivility in the comment section can polarize audiences, but more research is needed. How much incivility and which types affect levels of polarization? And how do other attributes of comments, such as the provision of evidence, affect audiences? In addition to examining the effects of comments on news audiences, it also would be possible to evaluate the effects of these comment attributes on journalists. We know that journalists at least occasionally read online comments (Santana, 2011), but are they affected by different comment attributes? More broadly, journalist interaction is only one way in which comment section norms can be affected. Research comparing other strategies could have practical import for newsrooms and theoretical import for understanding the conditions under which behaviors are shaped by norms.

Several limitations of this study must be noted. First, this study uses data from a single television station's Facebook page and analyzes the effects of a single reporter. It is not possible to know if the results are generalizable to other markets, other reporters, and other types of comment spaces. However, participation in this sort of field research involves a considerable commitment from a news organization, making this an important first effort at systematically examining the effects of journalist interaction in a comment section. We are encouraged that anecdotal evidence from the *Washington Post* suggests similar findings, at least with respect to the effects of journalist involvement on incivility. Former *Washington Post* interactivity editor Jon DeNunzio explained, "I can say from personal experience that when I have gone into threads to explain how our comments work or help users with questions/issues they might have, the tone changes simply because the user realizes someone from *The Post* is listening" (Phelps, 2012). With this said, additional research is necessary to understand how broadly these results apply.

Second, the theoretical justification for our results is that the reporter was able to successfully change the norms of the comment section, which in turn affected commenters' behaviors. This rationale draws from research on norms and SIDE, which suggest that salient social identities affect adherence to norms. Consistent with other research on norms, we see evidence of a change in behavior based on the comments left, but we do not have a direct measure of people's perceptions of the norms (e.g., Cialdini et al., 1990; Yun et al., 2013). Although directly measuring norms was not possible in this study design, other methods could be used to ask participants about their normative beliefs in future research to verify the proposed relationship (e.g. Lam & Schaubroeck, 2000; Sukumaran et al., 2011).

Third, this study is a quasi-experiment, not a full experiment. As it was conducted in the field with an actual media partner, more factors varied across posts than whether the station or reporter interacted. We controlled for the post topic and the presence of a question or discussion starter in our analysis, but other explanations cannot be ruled out. Despite these limitations, this research represents the first systematic, real-world analysis of newsroom engagement in the comment sections of which we are aware. As such, it represents an important advancement in understanding how newsrooms can affect the substance of comment sections.

The present study makes key theoretical and methodological contributions. First, previous research has focused on analyzing the content of comments (e.g., Coe et al., 2014; Freelon, in press) and how citizens respond to comments (e.g., Anderson et al., 2014; Houston et al., 2011; Lee, 2012; Shi et al., 2014; Sukumaran et al., 2011). Comparatively fewer scholars have analyzed newsroom practices that may affect the deliberative content of these spaces (Ruiz et al., 2011; Santana, 2014). This study adds to research focused on understanding the dynamics of online discussion and does so by drawing on theories about normative influence, which provide a rationale for anticipating changes in commenting behavior.

Second, our quasi-experimental design adds to the methods that have been used to examine the deliberative properties of news comment sections. Some studies have analyzed the effects of comment section practices using cross-sectional content analyses of different news websites (Ruiz et al., 2011; Santana, 2014). These studies establish covariation, but do not sort out possible causal relationships. Other studies of comment sections experimentally vary the content of the comment section and measure how study participants respond (Marchionni, 2013; Wise et al., 2006). These studies more stringently capture causal dynamics, but raise questions about external validity. Adding to the variety of methods that have been employed, we use a quasi-experimental design. Although there are limitations, as described earlier, the method has considerable benefits of allowing a degree of experimental control in a real-world setting.

Third, this study advances our understanding of how norms operate in computer-mediated contexts by demonstrating that a single individual can affect behavioral norms in a comment section. Previous research has shown that norms affect online behavior (Postmes et al., 2000; Yun et al., 2013), that a single individual can affect normative behaviors (Cialdini et al., 1990), and that opinion leaders may be particularly successful at changing norms (Lam & Schaubroeck, 2000). This study adds that an opinion leader can affect the quality of comments left by social media site visitors. To be sure, the reporter did not completely transform the space, but there were significant changes in the comments left by Facebook visitors when he commented. Thus we conclude that the reporter modified commenters' behavioral norms.

In sum, a normative approach to user-generated content in online news spaces reveals important insights into how comment sections can move closer to a deliberative ideal. To our theoretical understanding of norms, this study provides evidence that an individual can affect norms in online comment spaces. And to a goal of promoting deliberative discussion online, this study offers support for a practice that can be enacted – engaging with commenters.

Notes

- 1 We also analyzed the presence of open-ended questions such as “What are your thoughts on the bills?” Forty-four percent of posts contained an open-ended question and the associated reliability was 0.88. Across all posts, 31 percent did not include an open-ended question, a closed-ended question, or a discussion starter. In no analysis was the presence or absence of an open-ended question significant, and we thus do not discuss it further.
- 2 Note that we did not conduct the study on weekends, holidays, or days when there was breaking news that prevented the station from taking part.

- 3 On two occasions, the station engaged with commenters, even though they were not assigned to interact. In general, the results do not change if we treat these posts as “station engagement” (as in the models) or as “no engagement.” In the “Genuine question” model, the station engagement coefficient is significant ($B = -0.77$, $SE = 0.38$, $p < .05$), but opposite of the predicted direction.
- 4 As we discuss later, the reporter and station used these techniques differently.
- 5 The incivility index was reliable; however, the subcategories were not consistently reliable.
- 6 This strategy was used to present a more parsimonious model. Including all of the predictor variables yields similar results with three exceptions: (1) In the incivility analysis, the discussion starter coefficient moved from marginal to nonsignificance. (2) In the provision of evidence analysis, the coefficient for closed questions moved from marginal to nonsignificance. (3) In the relevance analysis, the coefficient for the reporter moved from nonsignificance to marginal significance, in line with our hypotheses (.87, $SE = 0.49$, $p = .07$).
- 7 We examined whether the post topics and conversation prompts interacted with news engagement. In all instances but two, the results were not significant. For crime and guns posts, the station (.10) and the reporter (.15) significantly increased the probability of a genuine question relative to no one engaging with the commenters (.05). For health and abortion posts, the station increased the probability of a genuine question (.09) relative to the reporter (.06) and having no one interact (.05).
- 8 When controlling for the number of times the reporter or station interacted in a given story, nearly all coefficients remained in the same direction and at the same significance level, with two exceptions. First, in the incivility analysis, the reporter coefficient remained in the same direction, but fell to marginal significance (-0.78 , $SE = 0.43$, $p = .07$). Second, in the provision of evidence analysis, the coefficient for economy-related posts remained in the same direction, but fell to marginal significance (-0.73 , $SE = 0.38$, $p = .054$).
- 9 Using Krippendorff's alpha, reliabilities were 1.00 for responding to a question, 1.00 for asking a question, 0.80 for sharing information, and 0.87 for encouraging discussion.

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