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Does online incivility *cancel out* the spiral of silence? A moderated mediation model of willingness to speak out

Gina M Masullo
The University of Texas at Austin, USA

Shuning Lu
North Dakota State University, USA

Deepa Fadnis
University of Hartford, USA

Abstract
This study tested whether different negatively valenced emotional reactions—feeling angry or depressed—to incivility produce varying intentions to speak out. A related goal was to assess whether these emotional responses led to intentions to speak out regardless of whether one holds a minority or majority viewpoint. Results of an online experiment ($N = 1126$) showed that intentions to speak out varied based on the intensity of the emotional responses people had after being exposed to incivility. Specifically, when uncivil messages produced lower levels of either emotion—anger or depression—people were less likely to speak out, regardless of opinion climate. However, if emotional responses were more intense for either emotion, people were more likely to speak out, regardless of opinion climate.

Keywords
Incivility, news, online comments, spiral of silence

Corresponding author:
Gina M Masullo, School of Journalism and Media, Center for Media Engagement, The University of Texas at Austin, Austin, TX 78712, USA.
Email: Gina.masullo@austin.utexas.edu

Decades of research based on the spiral of silence theory show that people tend to stay silent both online and offline if they think they have a minority viewpoint, which is an opinion that they believe most people do not hold (e.g. Glynn et al., 1997; Hayes, 2007; Matthes et al., 2018). However, what is not well understood is whether people would stay silent—or speak out—when confronted with uncivil messages that provoke their negative emotions, regardless of whether they hold a minority or majority viewpoint. Thus, this study examines whether uncivil discourse that produces negative emotional responses may *cancel out*[1] the well-established effects of the spiral of silence. In essence, we test whether people speak out even when holding a minority viewpoint—if the tone of the message is aversive enough to elicit a burst of negative emotion.

We examined this question in the context of online comment sections, which have provided rich opportunities for people to express their opinions (Graham and Wright, 2014) but are also far from polite. We focus on comments that contain insults, profanity, and words in all capital letters to indicate yelling because they are the most frequent forms of aversive online discourse (Chen, 2017; Coe et al., 2014), compared to more harmful forms, such as threats, harassment, or slurs (Rossini, 2019, 2020; Stryker et al., 2016). While the impolite forms of incivility that we focus on are not inherently harmful (Chen et al., 2019; Rossini, 2019, 2020) or perceived as such (Stryker et al., 2016), they can produce negative emotional responses (Brooks and Geer, 2007; Chen, 2017; Chen and Lu, 2017; Gervais, 2015; Rösner et al., 2016), although effects vary based on how conflict avoidant people are (Sydnor, 2019). These negative emotional responses, we posit, may disinhibit people enough that they will speak out even when they hold a minority viewpoint, thereby partially canceling out the spiral of silence.

This leads to two interrelated questions that we address in this study. First, do different emotional reactions to online incivility engender varying intentions to speak out? Second, can these emotional responses lead to willingness to speak out even when one holds a minority viewpoint? To answer these questions, we conducted an experiment ($N = 1126$) that examined two discrete emotional responses (Nabi, 2010) to incivility—feelings of anger and depression. We chose these emotions because they are common responses to aversive speech (e.g. Bradley and Lang, 2000), although only anger has been tested directly in response to uncivil comments (Chen, 2017; Chen and Lu, 2017; Gervais, 2015; Rösner et al., 2016; Sydnor, 2019; Wang and Silva, 2018). However, we considered both emotional responses because the psychological literature demonstrates that they are two sides of one emotional coin of distress: Anger is an outward expression of distress, while depression turns distress inward (Galambos et al., 2018). Thus, there is great currency in exploring this untested area of how online incivility influences feelings of depression. Specifically, we tested a moderated mediation model that demonstrates that if online incivility makes people angry or depressed, and these emotions are intense, it will lead to differing intentions to speak out. This occurs regardless of whether people perceive that their opinions are aligned with the majority or minority.

Incivility versus civility online

In this study, we focus on civility and incivility in online comments. There is much debate in the literature over how to define these concepts. Papacharissi (2004) asserts

that incivility is speech that threatens democratic norms, such as stereotypes, slurs, and calls to overthrow the government. Others define incivility as akin to impoliteness (Coe et al., 2014; Muddiman, 2017; Mutz, 2015), marked by profanity, name-calling, or insults that make people feel diminished. Rossini (2019, 2020), for example, defines uncivil discourse as content with foul language or a harsh tone, which she contrasts with the more virulent intolerant speech that attacks individuals or groups. Notably, Stryker et al. (2016) examined 23 potential indicators of incivility among undergraduates, finding that incivility is a multi-faceted concept and that the types of incivility we examine (profanity, insults, and words in all capital letters to indicate yelling) are among the least harmful to online discussions. Indeed, frequent commenters may find incivility acceptable (Hmielowski et al., 2014).

In this study, we focus on impoliteness when defining incivility for several reasons. First, this is the type of incivility most prevalent online (Chen, 2017; Coe et al., 2014), so it offers realism and relevance to our project. Second, this form of incivility is a "rhetorical act that can serve different strategic goals in a political discussion" (Rossini, 2020: 2; see also Benson, 2011; Herbst, 2010) and offer the potential for discussion (Chen, 2017). In contrast, more virulent types of speech are perceived as more harmful (Stryker et al., 2016) and may derail conversations. Third, while impolite forms of incivility may be more benign than other types, they have been found to incite negative emotional responses (Chen, 2017; Chen and Lu, 2017; Gervais, 2015; Rösner et al., 2016; Sydnor, 2019; Wang and Silva, 2018), meeting the assumption of our study for testing the emotional responses to incivility. Specifically, in the context of news, uncivil comments may polarize people's attitudes toward public issues (Anderson et al., 2014) and diminish their perceptions of news stories (Anderson et al., 2018; Naab et al., 2020; Prochazka et al., 2018) or of journalists (Searles et al., 2018). Thus, incivility is important to consider because it is a potent motivator that influences discussions about the news. We define civility as lacking the disrespect and unreasonableness (Sobieraj and Berry, 2011) of incivility and having less potential to incite negative emotional responses (Chen, 2017; Chen and Lu, 2017; Gervais, 2015; Rösner et al., 2016; Sydnor, 2019).

Given the foregoing discussion, we examined people's responses to uncivil online comments about four politically polarizing issues in the United States, where the study was conducted. We did this to assess whether our results would be consistent across all four topics, not because we predicted differences between topics. In other words, the four topics were used only to assess the robustness of our results, not to theorize how different topics may influence results. The four topics of debate—childhood vaccines, the human papillomavirus (HPV) vaccine, immigration, and climate change—were considered because they were contentious issues in the United States at the time of the study. We focused on contentious topics for two reasons. First, people are more likely to comment online about contentious topics (Tenenboim and Cohen, 2015; Weber, 2013), so using these topics provides a more realistic experience. Second, a main premise of the spiral of silence is that people will remain silent if they hold a minority view because they fear social isolation for expressing that view (Noelle-Neumann, 2008), so the topics for this study had to be contentious enough to potentially elicit this mechanism. Under the spiral of silence, there is little evidence people would fear social isolation for speaking out about a non-contentious topic (Noelle-Neumann, 2008).

Emotional responses to incivility

In this study, we focus on emotional responses to incivility. We predicted that people would respond differently to incivility versus civility. Specifically, we expected that incivility, which has been shown to be more aversive than civility (Chen 2017; Chen and Lu, 2017; Brooks and Geer, 2007; Gervais, 2015; Mutz, 2015; Rösner et al., 2016; Sydnor, 2019) would provoke more intense negative emotions. Our rationale for this comes from a long line of research (e.g. Bradley and Lang, 2000) showing that media content can trigger emotional responses even if a person is merely observing the content. For example, Mutz (2015) found that watching uncivil political exchanges boosted people's emotional arousal. Sydnor's (2019) work has established that uncivil news clips increased both negative and positive emotions, depending on how comfortable people were with conflict. For people who tend to avoid conflict, incivility was more likely to produce negative emotions, such as disgust and anxiety, but it led to positive emotions, such as entertainment and amusement, in those who are more comfortable with conflict (Sydnor, 2019). Wang and Silva (2018) found that exposure to incivility on social media that was not targeted at a person still produced negative emotional experiences because incivility is innately aversive.

Furthermore, when people's negative emotions are aroused, they may become less inhibited (Chen 2017; Chen and Lu, 2017; Denson et al., 2018). As a result of the lack of inhibition, people may speak out or mobilize politically (Valentino et al., 2011). For example, one study (Chen and Lu, 2017) found that online incivility about abortion incited aggressive feelings, which in turn increased people's intentions to become politically engaged in the issue of abortion. Similarly, Gervais (2015) found that when exposed to uncivil messages, people got angry, and, as a result of the anger, were more likely to respond uncivilly. Conversely, if people are exposed to incivility that does not provoke a negative emotional response, they are more likely to stay silent (Ordoñez and Nekmat, 2019).

Emotions are relatively short-lived internal affective states that people are conscious of (Izard, 1977) and that surface in response to a particular stimulus, such as incivility. Emotions can be examined dimensionally, as just positive or negative, or discretely, as specific emotional states, such as anger or depression (Nabi, 2010). We considered the discrete emotions of anger and depression because discrete emotional states can have distinct goals (Izard, 1977; Nabi, 2010; Roseman et al., 1994). For example, people may feel anger when they witness injustice, and that anger may provoke them to stop the injustice (Izard, 1977). So even though anger and depression are considered negative emotional experiences, they may produce positive outcomes, depending on the situation and other factors (Izard, 1977; Solloway et al., 2013).

Feeling angry or depressed

According to discrete emotion theory, each basic emotion corresponds to distinct adaptive behaviors or behavioral inclinations (Roseman et al., 1994). We considered the effects of incivility on feeling angry or depressed because these are emotions people are likely to feel after being confronted with aversive media content (Bradley and Lang, 2000; Wang and Silva, 2018). It should be noted that we define depression in the

everyday way of a limited feeling of loss, rather than the clinical sense of a recurring disruptive disorder (Leventhal, 2008). Anger and depression are conceptually similar in that they both have negative valence and are approach responses (Solloway et al., 2013), meaning they are aimed at confronting a problem rather than avoiding it (Robinson et al., 2016). We considered both anger and depressive feelings because a long line of psychological research has shown that anger and depression are corollaries—anger is an outward sign of distress, while depression is distress targeted inwardly (e.g. Galambos et al., 2018; Gross et al., 2006). Thus, both are expressions of attempts to regulate negative feelings (Galambos et al., 2018)

However, anger and depression operate differently as approach responses. Anger is likely to lead to hostility, while depression can bring about reflection on the situation as a means to come to terms with it (Solloway et al., 2013). Both anger and depression are in the "family of related emotions" (Ekman, 2003: 58) and can vary in strength, but they produce opposite motivations in responses to aversive stimuli. For example, Valentino et al. (2011) found that anger, more than anxiety or enthusiasm, plays an important role in mobilizing people to participate in politics. It is notable that research on online incivility has focused on anger (e.g. Chen, 2017; Chen and Lu, 2017; Gervais, 2015; Rösner et al., 2016; Sydnor, 2019), but not depression. Thus, our work fills a notable gap in understanding how incivility may influence different types of negative emotions.

Therefore, we predicted that online incivility would increase anger because aversive media content has been found to lead to negative emotions even if the content is not directed at a person because incivility is innately upsetting (Wang and Silva, 2018). We predicted this anger would then lead to a greater intention to speak out because the emotional experience makes people less inhibited (Chen, 2017; Chen and Lu, 2017; Denson et al., 2018), and anger can mobilize people politically (Valentino et al., 2011). We conceptualized intention to speak out as a desire to respond in some way (Hayes, 2007; Liu and Fahmy, 2011; Nekmat and Gonzenbach, 2011) as a means to assert oneself. We proposed this would happen only for online incivility, not civility, because civility is not as aversive as incivility, so it should not provoke intense emotions (Chen 2017; Chen and Lu, 2017). Thus, we predicted,

H1. People who read uncivil comments will be more likely to speak out if the comments make them angry.

Next, we considered how incivility and feelings of depression influence the likelihood to speak out. The literature is not clear on whether depression would cause the same effects as we predicted for anger. It is possible that if incivility makes people feel depressed, that depression may make them more likely to stay silent as they reflect on the situation and come to terms with it (Solloway et al., 2013). Or depression may operate similarly to anger (e.g. Chen, 2017; Chen and Lu, 2017; Gervais, 2015; Valentino et al., 2011) and lead to greater willingness to speak out because people feel less inhibited (Denson et al., 2018). Because the literature does not support a directional hypothesis, we proposed the following research question:

RQ1. Will people who read uncivil comments be more likely to speak out if the comments make them depressed?

Spiral of silence

Next, we draw upon the spiral of silence theory to tackle the second main question of this study: Can an increase in anger or depression resulting from incivility lead to intentions to speak out, even when one holds a minority viewpoint? The spiral of silence theory (Noelle-Neumann, 2008) posits that people would be more likely to stay silent about their beliefs if they hold a minority opinion. If minority voices continue to stay silent, the minority opinions will end up extinguishing in public debate, which is known as the process of the spiral of silence (Hayes, 2007). One important assumption of this theory is that people's fear of social isolation triggers them to monitor their environments to see whether their own views fit into what is called the *opinion climate*. The opinion climate is basically people's assessment of the extent to which their own views conform to popular beliefs. Thus, they observe an opinion climate as *friendly* if they think most people agree with them, but they see it as *hostile* when they assess that most people disagree with them (Hayes, 2007). In the context of this study, we argue that online comments serve as a proxy (McGregor, 2019) for opinion climates that people assess.

The silencing effect implicit to this theory has been found to be robust both offline (Glynn et al., 1997) and online (Matthes et al., 2018). However, results of a small but growing number of studies in the context of online comments illustrate that attributes of these comments may alter how the original mechanism operates. For example, Wu and Atkin (2018) found that the spiral of silence phenomenon was reduced online because people perceived the comment platform as anonymous and other commenters as supportive. Along the same line, other studies revealed that exposure to uncivil comments led people to be less likely to speak out, particularly if they perceived the comments as hostile (Ordoñez and Nekmat, 2019) or feared attacks from other Internet users (Neubaum and Krämer, 2018). On the contrary, Pang et al. (2016) found that people tended to speak out more by liking a Facebook post if they were exposed to uncivil messages that were not congruent with their own opinions. One possible explanation for the inconsistent findings of the above studies is that none of them have teased out the role of emotional responses to uncivil messages in influencing the willingness to speak out online as our study does.

Our research builds on these studies in a significant way by introducing discrete emotional reactions to uncivil comments to examine whether the way the spiral of silence operates may change based on these emotional responses. Specifically, we predict that people confronted with incivility will express an intention to speak out regardless of whether they believe they are in a hostile or friendly environment if incivility makes them intensely feel at least one of two discrete emotions—anger and depression. Incivility alone would lead to less likelihood to speak out (Ordoñez and Nekmat, 2019), but we argue that if incivility provokes an intense emotional response, the opposite will happen for two reasons. First, because the intense emotional response lowers people's inhibitions (Chen, 2017; Chen and Lu, 2017; Denson et al., 2018) people feel they can disagree with other people. As a result, they temporarily ignore the fear of social isolation that the spiral of silence says would make them stay silent in a hostile opinion climate, so opinion climate would no longer matter. In other words, incivility would cancel out the spiral of silence effect, making speaking out equally likely for hostile or friendly opinion climates.

Second, people may not feel as socially isolated if they share minority opinions in the online environment because they may not see others online as part of their social group. Support for our argument comes from research that found people are likely to hold back their opinions online only when they encounter a personally relevant audience (Neubaum and Krämer, 2018). As a result, they feel more comfortable expressing a minority viewpoint. Spiral of silence theory posits that people stay mum when they hold a minority view, but we argue that the diminished inhibitions from emotional responses to incivility would outweigh the power of the fear of social isolation that grounds the theory. Therefore, we predicted that people exposed to incivility that makes them angry or depressed would be more likely to speak out regardless of opinion climate, even though the spiral of silence would predict the opposite:

H2. People who read uncivil comments that make them either (a) angry or (b) depressed will be more likely to speak out regardless of opinion climate.

Method

Design and procedures

The experiment employed a 2 (tone: civil vs uncivil) by 2 (opinion climate: friendly vs hostile) by 2 (stance: pro or anti the topic) by 4 (topic: childhood vaccines, HPV vaccine, immigration, climate change) between-subjects multifactorial design. To test our hypotheses, we used online comments posted on news stories about debates over childhood vaccines, HPV vaccine, immigration, and climate change. We used these four topics as a robustness check to assess the consistency of how the focal independent variables (tone of comments and opinion climate) perform on willingness to speak out across different topics. Thus, we did not predict differences between topics. The stories were presented with a byline from *The Associated Press*, which was chosen because we sought a news outlet that is not associated with a partisan audience (Mitchell et al., 2014). The stories the comments were posted on were real stories from the time period of the study that were shortened for the experiment (Table 1).

Participants ($N = 1126$) were randomly assigned to read one news story regarding one of the four topics. They were also randomly assigned to be exposed to either civil or uncivil comments posted on the story and either comments that supported (e.g. favored childhood vaccines) or did not support (e.g. opposed childhood vaccines), whichever topic they had been assigned. The pro- or anti-condition was used to ensure effects resulted from the tone or opinion climate manipulations and were not the result of either a pro- or anti-stance on each issue communicated in the comments.

Each participant read one news story with three comments posted on it. The particular comments participants were exposed to varied based on the experimental condition they were assigned. We used three comments per story because even a small number of comments can produce effects (Rösner et al., 2016), and we aimed for a short experiment to encourage completion. The three comments for each participant to read were drawn from a total of 48 comments (Table 2) with 12 comments for each of the four topics. The 12

Table 1. Participants were randomly assigned to see one of the articles below, which represent four topics. The topics, in the order shown below, are childhood vaccines, HPV vaccine, immigration, and climate change. The comments, which varied by condition, are in Table 2.

AP study examines nationwide childhood vaccination rate
Atlanta (AP)—A rising number of parents in more than half of states are opting out of shots for their kids. And in eight states, more than 1 in 20 public kindergartners do not get all the vaccines requires for attendance, an Associated Press analysis found. The AP found more than half of states have seen at least a slight rise in the rate of exemptions over the past five years. States with the highest exemption rates are in the West and Upper Midwest. Rules for exemptions vary by state and can include medical, religious—or in some states—philosophical reasons. **Three thoughts on "AP study examines nationwide childhood vaccination rates"**
Rhode Island to mandate HPV vaccine for all 7th-graders
Providence (AP)—Starting next year, seventh-graders in all public and private schools will be required to get a vaccine against a sexually transmitted virus linked to various genital cancers, especially cervical cancer in women. Students who fail to get the vaccine for HPV—the human papillomavirus—will be precluded from attending school unless their parents seek an exemption for medical or religious reasons. HPV is the most common sexually transmitted disease in the United States. It is widespread: There are more than 14 million new infections annually, according to the Kaiser Family Foundation. Some parents are already agitating against the vaccine, which they see as government intrusion. **Three thoughts on "Rhode Island to mandate HPV vaccine or all 7th-graders"**
Immigrants worry Trump will end "Dreamer" program
Olympia (AP)—Donald Trump's election to the presidency could have dire consequences for "Dreamers," undocumented immigrations brought here as children. With Trump threatening to end the program that allows them to stay legally in the United States, some feel shock, fear and an urgent desire to make themselves known. President Obama created the program, called the Deferred Action for Childhood Arrivals, or DACA, in 2012. Suddenly, with Trump's election, the legal status is up in the air for the so-called "dreamers." Trump's victory has "dire consequences for these kids," said Ricardo Sanchez, a member of the Washington State Commission on Hispanic Affairs. **Three thoughts on "Immigrants worry Trump will end 'Dreamer' program"**
California leads the way on climate change regulations
Sacramento (AP)—On the whole, state governments have been remarkably passive and uninventive in recent years on the matter of climate change. Indeed, at least a dozen states have challenged the Obama Administration's new rule regulating carbon dioxide emissions from power plants and have vowed to do everything they can to see it overturned in court. And then there is California, which stands apart in its commitment to a healthier, cleaner and less carbon-intensive energy future. It's demanding efficiency rules for appliances and equipment have become a de facto standard by driving manufacturers to improve their products. The same is true of the state's fuel economy standards, which have been more aggressive than any other state's and which played a decisive role in establishing the landmark federal fuel economy standards finalized by the Obama Administration in 2012. **Three thoughts on "California leads the way on climate change regulations"**

AP: Associated Press; HPV: human papillomavirus.

Table 2. Each participant saw a news story with three comments posted on it that were selected from the 48 comments below. Which comments each participant saw was related to the experimental condition they were assigned to. All 48 comments are shown below with means, standard deviations, and Cronbach's alphas for pretest participants' ratings of each comment on a 21-item scale to assess whether the comment was perceived as civil or uncivil.

Pro/Civil	Pro/Uncivil	Anti/Civil	Anti/Uncivil
Childhood Vaccines			
There are too many studies proving vaccines effective.there are many less, proving there are adverse side effects.	There are too many studies proving vaccines effective.there are many less, proving there are adverse side effects. Vaccines are safe. Vaccines are safe, F8CKING MORONS!!	There are not a lot of studies proving vaccines effective.there are many more, proving there are adverse effects. Vaccines are not safe.	There are not a lot of studies proving vaccines effective.there are many more, proving there are adverse effects. Vaccines are not safe, F8CKING MORONS!!
$M = 2.91$ $SD = 1.19$ $\alpha = .93$	$M = 5.88$ $SD = 1.33$ $\alpha = .97$	$M = 2.85$ $SD = 1.07$ $\alpha = .93$	$M = 5.43$ $SD = 1.15$ $\alpha = .92$
Those who believe not everyone should be vaccinated really don't have a case. The bottom line is, measles can kill and not getting vaccinated will kill more.	Those who believe not everyone should be vaccinated really don't have a F8CKING case. The bottom line is, measles can kill and not getting vaccinated will kill more, you STUPID ASSHATS!!!	Those who believe everyone should be vaccinated really don't have a case. The bottom line is, measles can kill and so can vaccines.	Those who believe everyone should be vaccinated really don't have a F8CKING case. The bottom line is, measles can kill and so can vaccines, you STUPID ASSHATS!!!
$M = 2.70$ $SD = 1.01$ $\alpha = .89$	$M = 5.80$ $SD = 1.30$ $\alpha = .84$	$M = 3.72$ $SD = 1.20$ $\alpha = .90$	$M = 5.82$ $SD = 0.99$ $\alpha = .88$
I believe we are making the right choice for our family to get our children vaccinated. From everything I've read, vaccines are safe.	I believe we are making the right choice for our family to get our children vaccinated. From everything I've read, vaccines are safe, DAMN A-HOLES!!	I believe we are making the right choice for our family not to get our children vaccinated. From everything I've read, vaccines are not safe.	I believe we are making the right choice for our family not to get our children vaccinated. From everything I've read, vaccines are not safe, DAMN A-HOLES!!
$M = 3.17$ $SD = 1.06$ $\alpha = .89$	$M = 5.82$ $SD = 1.26$ $\alpha = .95$	$M = 2.07$ $SD = 1.01$ $\alpha = .92$	$M = 5.81$ $SD = 0.91$ $\alpha = .91$
Immigration			
When will the madness Stop! We need to help all these illegal immigrants and their children flee their home countries.	When will the madness STOP! We need to help all these illegal immigrants and their children flee their home countries. Anti-Immigration folks are F*CKING A-HOLES.	When will the madness Stop! We need to deport all these poor illegal immigrants and their children back to whatever country they came from.	When will the madness STOP! We need to DEPORT all these poor illegal immigrants and their DAM children back to whatever country they came FROM. Pro-Immigration folks are F*CKING A-HOLES.
$M = 3.01$ $SD = 1.35$ $\alpha = .96$	$M = 5.41$ $SD = 0.91$ $\alpha = .87$	$M = 5.67$ $SD = 1.13$ $\alpha = .95$	$M = 6.09$ $SD = 1.09$ $\alpha = .96$

(Continued)

Table 2. (Continued)

Pro/Civil	Pro/Uncivil	Anti/Civil	Anti/Uncivil
Illegal immigrants and their children are not costing United States taxpayers billions of dollars.	Illegal immigrants and their children ARE NOT costing United States Taxpayers BILLIONS of Dollars, F*CKING IDIOTS.	Illegal immigrants and their children are costing United States taxpayers billions of dollars.	Illegal immigrants and their children ARE costing United States Taxpayers BILLIONS of Dollars, F*CKING IDIOTS.
$M = 2.63$ $SD = 0.67$ $\alpha = .89$	$M = 5.70$ $SD = 1.16$ $\alpha = .94$	$M = 4.66$ $SD = 0.95$ $\alpha = .92$	$M = 5.85$ $SD = 0.98$ $\alpha = .92$
I know many illegals and they are all nice and hardworking.	I know many illegals and they are NICE and HARDWORKING, you F8CKING MORONS.	I know many illegals and they are not all nice and hard working.	I know many illegals and they are NOT all NICE and HARD WORKING, F8CKING MORONS.
$M = 3.03$ $SD = 1.52$ $\alpha = .96$	$M = 5.85$ $SD = 0.89$ $\alpha = .92$	$M = 4.93$ $SD = 1.09$ $\alpha = .91$	$M = 5.61$ $SD = 1.21$ $\alpha = .93$
Climate Change			
What happened to global warming?? We shad record warm weather lately. People are to blame for what the Earth is doing.	What happened to GLOBAL WARNING?? We had record warm weather lately. People are to blame for what the Earth is doing you G*DDAMN RIGHT WING NUTS.	What happened to global warming?? We had record cold weather lately. You can't control what the Earth is going to do.	What happened to GLOBAL WARMING?? We had record cold weather lately. You can't control what the Earth is going to do you G*ODDAMN LEFT WING NUTS.
$M = 3.32$ $SD = 1.26$ $\alpha = .95$	$M = 6.05$ $SD = 0.86$ $\alpha = .94$	$M = 3.95$ $SD = 1.07$ $\alpha = .93$	$M = 6.44$ $SD = 0.52$ $\alpha = .81$
I believe we are seeing a change in the climate of the globe. The problem is man caused it and man can stop it and fix it.	I believe we are seeing a DAM BIG change in the climate of the globe. The problem is man caused it and man can stop it and fix it, you ASSHAT CLIMATE DENIERS.	I believe we are seeing a change in the climate of the globe. The problem is man did not cause it and man cannot stop it and fix it.	I believe we are seeing a DAM BIG change in the climate of the globe. The problem is man did not cause it and man cannot stop it and fix it, you ASSHAT CLIMATE CRAZIES.
$M = 2.66$ $SD = 1.61$ $\alpha = .95$	$M = 5.59$ $SD = 1.18$ $\alpha = .96$	$M = 2.75$ $SD = 0.93$ $\alpha = .96$	$M = 6.49$ $SD = 0.60$ $\alpha = .80$

(Continued)

Table 2. (Continued)

Pro/Civil	Pro/Uncivil	Anti/Civil	Anti/Uncivil
The conservatives want to ignore the impending doom if all our sources of power are derived from carbon/oil and only care about the costs it would cause for electricity costs.	The F*CKING STUPID CONSERVATIVES want to ignore the impending doom if all our sources of power are derived from carbon/oil and only care about the costs it would cause for electricity costs.	The liberals want to push this false sense of impending doom to shut down all our sources of power that are derived from carbon/oil and could care less about the costs it would cause for electricity costs.	The F*CKING STUPID LIBERALS want to push this false sense of impending doom to shut down all our sources of power that are derived from carbon/oil and care less about costs it would cause for electricity costs.
$M = 4.13$ $SD = 1.20$ $\alpha = .95$	$M = 5.70$ $SD = 1.31$ $\alpha = .94$	$M = 4.67$ $SD = 1.52$ $\alpha = .98$	$M = 5.95$ $SD = 1.12$ $\alpha = .94$
HPV Vaccine			
Some women's bodies can fight off the HPV virus, others cannot. I wish the vaccine had existed when I was a teen.	Some women's bodies can fight off the HPV virus, others cannot. I WISH the vaccine had existed when I was a teen, you STUPID F*CKING vaccine opponents.	Women's bodies can fight off the HPV virus, others cannot. There is no need for a vaccine for teens.	Women's bodies can fight off the HPV virus, others cannot. There is no need for a vaccine for teens, you STUPID F*CKING vaccine supporters.
$M = 2.30$ $SD = 1.13$ $\alpha = .95$	$M = 5.56$ $SD = 1.17$ $\alpha = .93$	$M = 4.05$ $SD = 1.28$ $\alpha = .93$	$M = 6.44$ $SD = 0.47$ $\alpha = .86$
Ninety-five percent of women who are infected with HPV never, ever get cervical cancer. But it is still a risk for the five percent who due. That's why we need a vaccine.	Ninety-five percent of women who are infected with HPV never, ever get cervical cancer. But it is still a risk for the five percent who due. That's why we need a F8CKING VACCINE, you IDIOTS!	Ninety-five percent of women who are infected with HPV never, ever get cervical cancer. So why do we need a vaccine?	Ninety-five percent of women who are infected with HPV never, ever get cervical cancer. So why do we need a F8CKING VACCINE, you IDIOTS?
$M = 2.32$ $SD = 1.39$ $\alpha = .97$	$M = 5.36$ $SD = 1.23$ $\alpha = .95$	$M = 3.44$ $SD = 0.75$ $\alpha = .80$	$M = 6.24$ $SD = 0.91$ $\alpha = .92$
Cervical cancer is almost 100% preventable with the HPV vaccine.	CERVICAL CANCER is almost 100% preventable with the HPV vaccine, F*CKING LOONIES.	Cervical cancer is almost 100% preventable. We don't need the HPV vaccine.	CERVICAL CANCER is almost 100% preventable. We don't the F*CKING HPV VACCINE, LOONIES.
$M = 2.50$ $SD = 0.70$ $\alpha = .86$	$M = 5.52$ $SD = 0.98$ $\alpha = .91$	$M = 3.93$ $SD = 1.15$ $\alpha = .92$	$M = 6.31$ $SD = 0.97$ $\alpha = .95$

SD: standard deviation; HPV: human papillomavirus.

comments for each topic corresponded to the four experimental conditions: uncivil/pro the topic, civil/pro the topic, uncivil/anti the topic, and civil/anti the topic.

Friendly and hostile conditions were created based on the participants' responses to screening questions at the beginning of the questionnaire that asked about their opinions on the topic of the story they would be assigned to read. For example, if people indicated on the screening question that they favored greater restrictions on immigration and they were randomly assigned to the pro-immigration regulation condition, they would become part of the friendly condition. Similarly, if people indicated they were opposed to restricting immigration and they were randomly assigned to the pro-immigration regulation condition, they would be part of the hostile condition. The same procedure was used for all the four topics. Comments in all conditions expressed a viewpoint regarding the topic, rather than being agreeable comments like "good point" or "I agree."

Recruitment of participants

Institutional Review Board approval for the project was granted on 24 June 2016. Participants were recruited through Dynata, an online survey panel company with 60 years' experience. Dynata,[2] which was called Research Now SSI at the time of our study, recruits potential survey participants through direct mail, online marketing, and targeted websites for marketing and academic research. Participants register to participate in survey panels by providing basic demographic information (e.g. age, gender, region) and then are directed to surveys for which they meet the eligibility requirements. Dynata rewards them with a range of incentives, including gift cards or products and services. In this study, we employed a quota-sampling strategy with demographic percentages that match the percentages of the US adult Internet population, based on a recent tracking survey by Pew Research Center's Internet and American Life Project. Once these quotas were met, Dynata stopped recruiting new participants, and all participants they provided to us completed the survey.

Participants had to be at least 18 years old and reside in the United States. Data collection took place in December 2016, yielding 1126 valid responses. Experiment participants were 43.84 years old on average ($SD = 16.68$; $Median = 42.50$). Because age was skewed, we recoded it into a categorical variable for ease of interpretation: 24.2% were 18–24 years old, 37.5% were 30–49, 24.6% were 50–64, and 13.6% were 65 or older. Women made up 54.1% of the sample. Most (83.3%) of the sample were White, followed by Black/African-American (11.1%), other races (4.5%), and 1.2% who did not respond to this question. Our sample included 30.1% with a household income of less than US$30,000 annually, 19.5% who earned US$30,001–US$50,000, 16% who made US$51,000–US$75,000, and 34.3% who made US$75,001 or more. On average, participants held moderate political beliefs ($M = 3.91$, $SD = 0.18$), which were measured on a 1(*strongly conservative*) to 7 (*strongly liberal*) scale.

Because most of our demographic variables were measured at the nominal level, and our manipulated conditions are also nominal-level variables, we conducted nine chi-square tests with Bonferroni pairwise comparisons to examine whether there were significant differences in demographics by the three conditions. For political beliefs, we conducted a multifactorial analysis of variance (ANOVA) with political beliefs as the dependent variable and the three manipulated experimental conditions as the

Table 3. Results of statistical tests that show no significant differences in demographics by manipulated conditions.

Manipulated conditions	Civil vs. uncivil		Topic of comments		Pro or con issue	
Chi-square[a]	χ^2	*p* value	χ^2	*p* value	χ^2	*p* value
Gender	0.02	.88	2.21	.53	0.03	.86
Age	6.34	.10	8.46	.49	1.53	.67
Income	6.35	.10	4.60	.87	2.96	.40
ANOVA[b]	*F*	*p* value	*F*	*p* value	*F*	*p* value
Political beliefs	0.42	.52	1.17	.32	1.24	.27
		Mean (*SE*)		*Mean*[c] (*SE*)		*Mean* (*SE*)
	Civil	3.97 (.09)	Vaccines	4.09 (.13)	Pro issue	4.09 (.08)
	Uncivil	4.06 (.09)	HPV	3.85 (.13)	Anti issue	3.94 (.11)
			Immigration	4.15 (.13)		
			Climate change	3.96 (.13)		

ANOVA: analysis of variance; *SE*: standard error; HPV: human papillomavirus.
[a]Because gender, age, and income were measured at the nominal level, chi-square tests with Bonferroni pairwise comparisons were used. The chi-square tests show there are no significant relationships between any of the manipulated conditions and any of the demographics. In addition, the Bonferroni pairwise comparisons show that there are no significant differences between the actual proportions in the chi-square results.
[b]A multifactorial analysis of variance (ANOVA) was conducted because political beliefs were measured at the interval level, and this analysis examined all three manipulated conditions in one statistical test.
[c]None of these means for the four topics differ significantly, based on Sidak post hoc corrections.

independent variables. We used this approach because it allowed us to examine all three manipulated conditions in one analysis. Results of both the ANOVA and the chi-square tests show no significant differences in any demographics by manipulated conditions (See Table 3), demonstrating random assignment was successful.

Stimuli construction

To construct the stimuli, a multi-step process was used. First, one of the researchers collected comments from real news sites, and these were edited so that uncivil ones contained three incivility indicators in computer-mediated speech—name-calling, profanity, and words in all capital letters to indicate yelling (Chen, 2017; Chen and Lu, 2017; Coe et al., 2014). Civil comments did not contain these attributes. For the sake of realism, spelling and grammatical errors in the original comments were retained. Non-letter characters were inserted into profanity to mimic the common way online commenters circumvent website profanity filters. For each condition, comments were the same except for the stance on the topic and whether they contained incivility.

Before the experiment, comments were pretested[3] using participants not involved in the experiment to ensure the comments were perceived as uncivil or civil as needed for

the design. Pretest participants rated each of the 48 comments on a 21-item scale (Cupach and Carson, 2002). On a 1 (*does not describe this comment at all*) to 7 (*describes this comment extremely well*) scale, the participants rated whether each comment was *not civil, impolite, rude, insensitive, disrespectful, hostile, would show contempt for the person receiving it, would damage a relationship between two people, would make a person look badly to others, negative, not supportive*, and *criticism*. They also rated whether the comments were *civil, polite, justified, would strengthen a relationship between two people, tactful, positive, would not bother someone at all, supportive*, and *not criticism*. These last items were reversed scored, so a higher number would mean greater incivility. The 21 items were averaged into an index for each comment. Reliability analyses of indices for all 48 comments yielded acceptable or high reliability, with Cronbach's alphas from .80 to .97 (Table 2). When participants viewed the comments, the comments were posted with a default avatar, indicating that the commenters have not uploaded a profile picture. All commenters had screen names that did not convey race or gender, so these factors would not influence results.

Dependent measure

The dependent variable, willingness to speak out, was operationalized using seven statements adapted from the literature (Hayes, 2007; Liu and Fahmy, 2011; Nekmat and Gonzenbach, 2011). For all statements, participants were asked to rate how likely they were to do each action in response to the comments they had read. The statements were: *Post a comment sharing your opinion on this topic in response, Share or like these comments on social media, Share your opinion on this topic in a blog post you write yourself, Share your opinion on this topic on Twitter, Share your opinion on this topic on your Facebook wall, Share your opinion on this topic in the comment thread of another news story, Share your opinion on this topic in the comment thread on a blog that favors your viewpoint, Share your opinion on this topic among your friends or other people close to you in person*, and *Share your opinion on this topic among strangers or the general public in person.* A principal component analysis (PCA) with promax rotation and a scree plot test showed these nine measures loaded on one factor, explaining 70.24% of variance. Table 4 provides the factor loadings. The items were averaged into an index with high reliability ($M = 3.26$, $SD = 1.74$, Cronbach's $\alpha = .95$).

Mediators

Emotions were operationalized using an adaption of the Positive Affect Negative Affect Scale (PANAS; Watson and Tellegen, 1988), a well-validated 10-item measure of emotions. Participants were asked to rate how *angry* ($M = 3.09$, $SD = 2.05$) and *depressed* ($M = 2.70$, $SD = 1.88$) they felt at that very moment on a 1 (*very slightly*) to 7 (*extremely well*) scale.

Manipulation check

After the dependent measures, a manipulation check was conducted to assess whether participants noticed differences in tone—civil versus uncivil—of the stimuli on a 1–7

Table 4. Principal components analysis (PCA) with promax rotation of nine measures of willingness to speak out.

Variables[a]	*M*	*SD*	*Factor loadings*
Post a comment sharing your opinion on this topic in response to these comments	3.31	2.14	.89
Share your opinion on this topic on your Facebook wall.	3.26	2.12	.88
Share your opinion on this topic in a comment thread on another news story.	3.17	2.03	.88
Share your opinion on this topic in the comment thread of a blog post that favors your viewpoint.	3.12	2.10	.88
Share or like these comments on social media.	3.24	2.19	.85
Share your opinion on this topic in a blog post you write yourself.	2.83	2.10	.85
Share your opinion on topic on Twitter.	2.70	2.10	.82
Share your opinion on this topic among strangers or the general public in person.	3.33	2.03	.81
Share your opinion on this topic among your friends or other people close to you in person.	4.35	2.0	.70
Kaiser–Meyer–Olkin (KMO)	.95		
Bartlett's test of sphericity	$\chi^2 = 8506.26$, $df = 36$, $p < .001$		
Eigenvalues	6.32		
Variance explained	70.24%		
Cronbach's α	.95		

SD: standard deviation; PCA: principal components analysis.
[a]For all statements, subjects rated how likely they were to perform each action in response to the comments on a news story regarding one of the four topics they had just read. They rated their intentions on a 7-point scale, with 7 indicating greatest likelihood.

scale, with a higher number indicating more civility. Overall, the manipulation was effective, $F(1, 1121) = 194.71$, $p < .001$, $\eta^2 = .15$. Those in the uncivil condition saw the comments as significantly less civil ($M = 3.11$, $SD = 2.04$) than those in the civil condition ($M = 4.68$, $SD = 1.67$).

Analytical strategy

Before hypothesis tests, we conducted a multifactorial ANOVA to understand our data. The ANOVA design mirrored the experimental design: 2 (tone: civil vs uncivil) by 2 (opinion climate: friendly vs hostile) by 2 (stance: pro or anti the topic) by 4 (topic: childhood vaccines, HPV vaccine, climate change, immigration) between-subjects analyses. Because our hypotheses involved only two of these factors (tone and opinion climate), we examined the other two factors (topic and stance) only to assess the consistency of our focal factors across the other two factors. Results showed no significant main effects on willingness to speak out across the four topics, $F(3, 1123) = 2.29$, $p = .08$, $\eta^2 = .006$, or across the two stances, $F(1, 1123) = 1.94$, $p = .16$, $\eta^2 = .002$. Sidak post hoc corrections showed no significant differences ($p > .05$) in willingness to speak out, regardless of

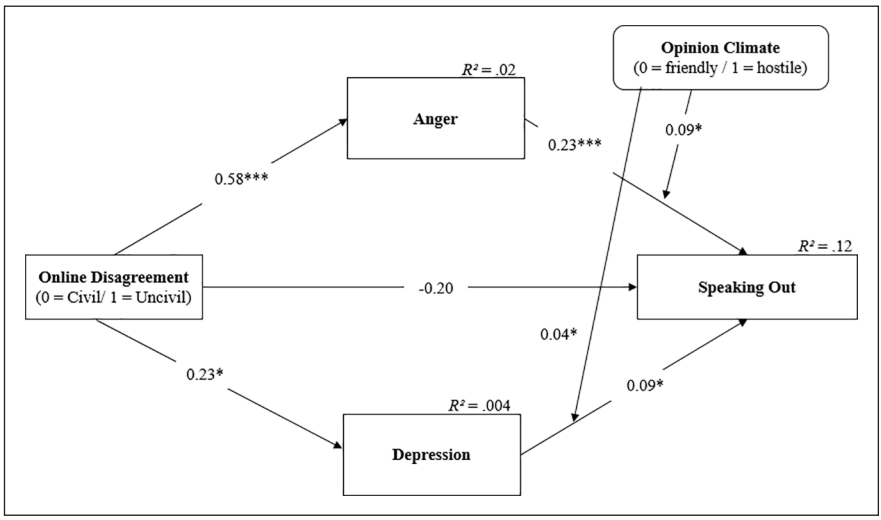

Figure 1. Moderated mediation model shows how exposure to online uncivil disagreement leads to speaking out, mediated through anger and depression, but not moderated by opinion climate.

Unstandardized coefficients were estimated with the PROCESS macro (model 15). Significance of effects were estimated with bootstrapping (5000 samples). Political beliefs was entered as a control variable but is not shown above.

*$p < .05$; **$p < .01$; ***$p < .001$.

whether participants were exposed to comments about childhood vaccines ($M = 3.36$, $SE = .11$), HPV ($M = 3.04$, $SE = .11$), immigration ($M = 3.37$, $SE = .11$), or climate change ($M = 3.12$, $SE = .11$). Also, willingness to speak out did not differ significantly regarding whether participants viewed comments in support of the topic ($M = 3.32$, $SE = .07$) or opposed to it ($M = 3.15$, $SE = .09$). These analyses confirmed that topic or stance did not confound our subsequent findings. As a result, in hypothesis tests, differences between topics or between stances were not examined.

We used PROCESS (Hayes, 2018), a macro added to SPSS that uses ordinary least squares (OLS) regression to calculate a path analysis model that estimates direct and indirect (mediation) effects, as well as moderated mediation. Mediation occurs when a third variable, *M*, changes how *X* (the independent variable) influences *Y* (the dependent variable). Moderation describes when a relationship between *X* and *Y* varies at the level of a third variable, *W*. Our analyses examined both: whether the tone of comments (*X*) would influence intention to speak out (*Y*) operating through two emotional states (*M*), anger and depression, and whether it would vary at the level of a third variable, opinion climate (*W*).

Therefore, to test H1 and H2 and answer RQ1, we estimated a moderated mediation model using PROCESS Model 15, which tests moderated mediation with parallel mediators (Figure 1). Tone of comments (civil = 0; uncivil = 1) was entered as the independent variable, anger and depression were entered as parallel mediators, opinion climate (friendly = 0; hostile = 1) was entered as the moderator, and willingness to speak out was

the dependent variable. Neither topic nor issue stance was entered into the model because no significant differences regarding these factors were predicted, and none were found in initial analyses explained earlier. We examined whether opinion climate would moderate only the mediation part of the model by entering it in the path between each emotion and willingness to speak out. Political beliefs was added as a control variable because initial ANOVAs showed it significantly interacted with opinion climate in predicting intention to speak out. The PROCESS macro tests mediation and moderation using 5000 bias-corrected bootstrap samples and 95% confidence intervals (CI), which indicates a statistically significant effect at $p < .05$ if the interval does not contain zero.

Results

H1 predicted that people exposed to uncivil comments would be more likely to want to speak out if the incivility made them angry. Our analysis showed support for this hypothesis.

As shown in Figure 1, exposure to online incivility increased people's anger ($B = .58$, $SE = .12$, $p < .001$, $CI = [.345, .820]$). This anger then led to greater intention to speak out ($B = .23$, $SE = .04$, $p < .001$, $CI = [.143, .308]$). This analysis demonstrated that incivility had an indirect effect on speaking out, mediated through anger for both friendly ($B = .13$, $SE = .04$, $CI = [.066, .211]$) and hostile ($B = .09$, $SE = .03$, $CI = [.034, .159]$) opinion climates. However, no moderation of the mediation effect was found ($B = -.05$, $SE = .04$, $CI = [-.124, .022]$), meaning there was no significant difference between the hostile and friendly conditions. This analysis showed the data supported H2a, which predicted that people who read uncivil comments that made them angry would be more likely to speak out regardless of opinion climate. We found people would speak out if the uncivil comments made them angry, regardless of opinion climate.

RQ1 asked whether people who read uncivil comments would be more likely to speak out if the comments make them depressed. The same PROCESS analysis was used to answer this question. Results showed that people exposed to uncivil comments had increased feelings of depression ($B = .23$, $SE = .11$, $p = .04$, $CI = [.007, .448]$), and these depressive feelings, in turn, led to greater likelihood to speak out ($B = .09$, $SE = .04$, $p = .04$, $CI = [.002, .175]$). Unlike for anger, incivility only had an indirect effect on speaking out, mediated through depression in the hostile condition ($B = .04$, $SE = .03$, $CI = [.002, .980]$), but not in the friendly condition ($B = .02$, $SE = .02$, $CI = [-.003, .055]$). H2b predicted that people who read uncivil comments that made them depressed would be more likely to speak out regardless of opinion climate. As our analysis showed that opinion climate did not moderate the path between depression and willingness to speak out, ($B = .02$, $SE = .02$, $CI = [-.001, .071]$), H2b is supported. Thus, our results indicated that people would speak out if uncivil comments made then depressed, regardless of opinion climate.

Put together, our findings revealed that intentions to speak out varied based on the intensity of the emotional responses people had after being exposed to online incivility (see Figure 2). Specifically, when uncivil messages produced lower levels of either emotion—anger or depression—people were less likely to speak out, regardless of opinion climate. However, if the two emotional responses were intense enough, people were more likely to speak out, regardless of opinion climate.

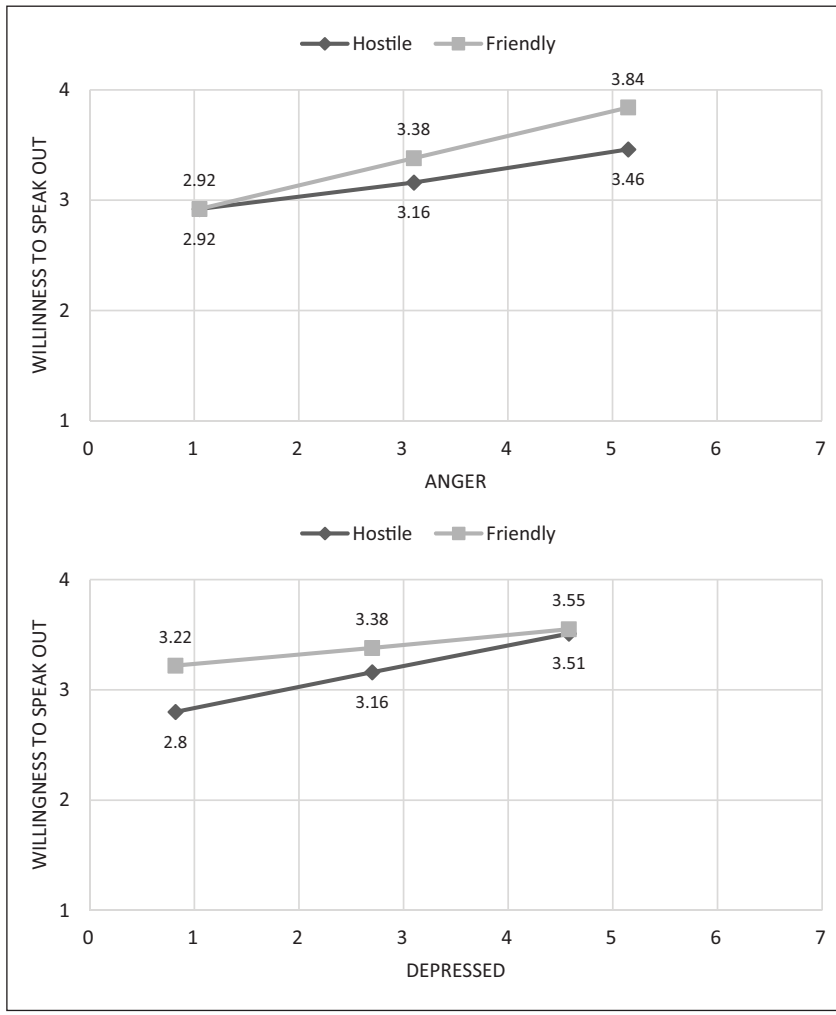

Figure 2. This graph plots how intentions to speak out increase if feelings of anger (top graph) and depression are at higher levels, regardless of opinion climate. Values are plotted at the mean, and one standard deviation above and below the mean, for the dependent variable, willingness to speak out. Tests of a moderated mediation model show that the means for hostile and friendly opinion climates are not significantly different at $p < .05$, showing opinion climate did not moderate the mediation effects shown.

Discussion

The main goal of this study was to test whether different negative emotional reactions—specifically anger and depression—to online incivility changed how likely people were to speak out. A related goal was to understand how these emotional responses led people to speak out regardless of whether they held a minority or majority viewpoint—essentially

canceling out the spiral of silence effect. To tackle the two questions, we theorized and tested an extension to the spiral of silence theory. Specifically, we posited that incivility could alter the traditional spiral of silence phenomenon that people do not speak out in a hostile opinion climate (Noelle-Neumann, 2008). Rather, we expected that people who were exposed to incivility would break the silence if they experienced negative emotions, regardless of opinion climate.

Our results showed that when people were exposed to uncivil online comments, they got both angry and depressed, as we predicted. We also found that if people felt either of these negative emotions—anger or depression—they were more likely to have an intention to speak out regarding the topic of the comments, supporting our main contention. We had also predicted that if incivility made people angry or depressed, they would be more likely to speak out regardless of whether they were in a hostile opinion climate (where they perceive that others disagreed with them) or a friendly opinion climate (where they perceive that others agreed with them). Our data did support this. We found that if people felt intense feelings of anger or depression, that made them more likely to speak out, regardless of the opinion climate.

We also found that both anger and depression led to different intentions to speak out, depending on the intensity of those emotional experiences. Specifically, when emotional responses to incivility were mild, intentions to speak out were lower. But when emotional responses were stronger, intentions to speak out were higher. In both cases, this happened regardless of whether people were in a hostile or friendly opinion climate. Thus, we confirm that incivility leads to speaking out regardless of opinion climate if it sparks powerful negative emotions, such as anger or depression.

Theoretical contributions

Our study offers notable new knowledge about how different negative emotions—anger and depression in particular—influence how likely people are to speak out. The traditional spiral of silence theory (Noelle-Neumann, 2008) predicts that people will remain silent in a hostile opinion climate where people perceive that others do not share their views. Our findings offer a new exception to the theory. We found that if incivility makes people experience higher levels of either anger or depression, this emotion may temporarily mute their natural worry about social isolation that the theory indicates most people would have. The reason for this effect may be that the incivility provokes a negative emotional response even if it is not targeted at a person because it is innately upsetting (Bradley and Lang, 2000; Wang and Silva, 2018). As a result, people feel uninhibited (Chen, 2017; Chen and Lu, 2017; Denson et al., 2018) and they are likely to speak out, regardless of opinion climate. Our findings show that the results we obtained were robust across four topics and were apparent regardless of whether the content of the comments supported or opposed an issue. This emphasizes the theoretical rigor of our extension to the spiral of silence theory.

Limitations and future research

Our study is limited by the fact that it created an experience of online commenting using a survey experiment on a mock news site. Future research should attempt to replicate

these results on a real news site in real time through field experiments, for instance. Also, while this study tested an extension of the spiral of silence theory using four topics in the United States, future research should replicate this model with other topics to further test the robustness of such effects. In addition, future research could vary the level of contentiousness of the topics to see if that produces differing results. Furthermore, while we considered two common emotional responses to incivility (e.g. Chen, 2017; Chen and Lu, 2017; Gervais, 2015; Rösner et al., 2016; Sydnor, 2019), more research is needed regarding other emotions. We also note that while self-reports are the predominant method of measuring emotions, this method is limited because asking people about a particular emotion could prime them to feel that emotion. Another limitation is that our experiment, like all experiments, captured a snapshot in time. Future studies should test whether our results replicate in different time periods, contexts, and countries.

Conclusion

The key theoretical contribution of this study is to demonstrate a new exception to the main premise of spiral of silence theory—that people will remain silent if they perceive that others around them disagree with them. Counter to that premise, we found that people will express an intention to speak out in a hostile or friendly opinion climate if they are confronted with incivility that makes them quite angry or depressed. However, if the incivility triggers only weak emotional responses of either anger or depression, people are more likely to remain silent, as the spiral of silence predicts. Our findings show that intense experiences of anger or depression changes the way the spiral of silence operates.

Author note

An earlier version of this manuscript was presented to the Mass Communication Division of the International Communication Association at its annual conference in Prague, Czech Republic, in May 2018, where it won a third-place top faculty paper award.

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ORCID iDs

Gina M Masullo https://orcid.org/0000-0002-4909-2116
Shuning Lu https://orcid.org/0000-0001-8259-7987

Notes

1. We thank an anonymous reviewer for coining this helpful term.
2. Information about Dynata's practices is provided at dynata.com and through the company's representative.
3. Pretest respondents ($N = 74$) were recruited from Amazon Mechanical Turk, and each were paid US$0.25 each for a few minutes of work rating the comments to help select which ones were most appropriate to use in the experiment. These participants had an average age of 33.53 years ($SD = 9.37$). More than half (55.4%) of them were male, and the majority (82.4%) were White. Asian/Pacific Islanders and Hispanic/Latino respondents each made up 5.4% of the sample, followed by Black/African-Americans at 4.1%. The rest were bi-racial or reported their race as "other."

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Author biographies

Gina M Masullo (PhD, Syracuse University, USA) is associate director of the Center for Media Engagement and an associate professor in the School of Journalism and Media, both at The University of Texas at Austin, USA. Her research focuses on how the digital space both connects and divides people and how that influences society, individuals, and journalism. She is the author of *Online Incivility and Public Debate: Nasty Talk* and co-editor of *Scandal in a Digital Age*.

Shuning Lu (PhD, The University of Texas at Austin, USA) is an assistant professor in the Department of Communication at North Dakota State University. Her research focuses on media use and effects, civic and political participation, and social and political implications of digital media. Her research has been published in *New Media & Society, International Journal of Communication*, and *Journal of Broadcasting & Electronic Media*, among other journals.

Deepa Fadnis (PhD, The University of Texas at Austin, USA) is an assistant professor of Digital Media and Journalism at the University of Hartford in Connecticut. Her research focuses on issues related to gender, intersectionality, and media. Her work has been published in *Feminist Media Studies, Howard Journal of Communications, International Journal of Press/Politics*, and *Journalism Studies.*