Can Social Media Incivility Induce Enthusiasm?

Evidence from Survey Experiments

Spyros Kosmidis (Corresponding Author)

University of Oxford

Department of Politics & IR

Oxford OX1 3UQ

spyros.kosmidis@politics.ox.ac.uk

Tel: +44(0)7895631614

&

Yannis Theocharis

Centre for Media, Communication and Information Research (ZeMKI)

University of Bremen

Linzer Str. 4

28359 Bremen

Germany

yannis.theocharis@uni-bremen.de

Tel: +49 421 218 67650

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Author Note

Spyros Kosmidis is Lecturer in Quantitative Methods at the Department of Politics and International Relations, University of Oxford, Oxford, UK. He studies public opinion, elections and voters attitudes with a focus on political representation, political communication, and electoral accountability.

Yannis Theocharis is Professor of Communication and Media with Focus on Innovative Methods at the Centre for Media, Communication and Information Research, University of Bremen, Bremen, Germany. His research interests are in political behavior, political communication and computational social science

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Abstract

Most studies of online incivility report negative effects on attitudes and behaviors of both the victims and the audiences who are exposed to it. But while we have extensive insights about the attitudinal and behavioral consequences of incivility, less emphasis has been paid on its emotional effects. We conduct a series of survey experiments using statements posted on Twitter by elite actors along with the comments they receive and measure the emotional reactions of the public in relation to the content of the original post. We find that when the raw information is accompanied by uncivil commentary (compared to civil or no commentary), respondents express higher levels of positive and lower levels of negative emotions. Further analysis of heterogeneous effects focusing on partisanship shows that the effects are primarily driven by those who are generally expected to agree with the expert's claim. The broader consequences of incivility as entertainment on social media platforms are discussed.

"This morning, I challenge **@SenateMajLdr** McConnell to say that our climate change crisis is real, that it is caused by humans, and that Congress needs to act"

@SenSchumer (Senator Chuck Schumer on Twitter, 14 February 2019)

– **@SenSchumer**: "Its not real its not caused by humans and Congress doesn't need to do anything. You're a bunch of chicken littles. Its all about controlling the lives of we the people"

– **@SenSchumer** "#StopVotingStupid who keep going to climate change, global warming, or what ever BS words they want to use. Just a ploy to grab more money and power"

– **@SenSchumer**: "The only pollution is what comes out of your mouth"

Although research shows that incivility can sometimes mobilize citizens and increase their interest in politics (Brooks and Geer, 2007; Berry and Sobieraj 2014), most of the literature reports that incivility has a string of negative effects on attitudes and behaviors of both the victims and the audiences who are exposed to it (Massaro and Stryker 2012; Anderson et al. 2013; Gervais 2015). In the political arena, exposure to uncivil exchanges between politicians has been associated with the public's dissatisfaction with political institutions and negative attitudes towards politicians (Elving 1994; Capella and Jamieson 1997), and it has also been shown to damage the credibility of political information. Searles and colleagues (2018), for example, report significant negative effects on author credibility in articles that featured uncivil comments, as well as decline in intention to seek news from the specific author and outlet. Corrosive effects have also been manifested as polarization of individuals' views on diverse (especially scientific) topics (Anderson et al. 2013; Lyons and Veenstra 2016; Levendusky 2018; Druckman et al. 2019).

While research has provided extensive (if inconclusive) insights about the attitudinal and behavioral consequences of incivility, less emphasis has been paid on its emotional aspects (but see Gervais 2015, 2017, 2019). Yet, emotions such as anger, fear, hope or enthusiasm have been shown to have diverse (de)mobilizing effects on participation, political learning and other useful for democracy attitudes

and behaviours (Valentino et al. 2008). Social media is seen today as *the* primary venue for uncivil political discourse (Friedersdorf 2015; Oppenheimer 2018). Incivility on social media can be emotionally arousing in different ways and with important consequences. For example, offensive comments are oftentimes better received than civil ones in political discussions (Nithyanand et al. 2017), negative tonality can increase user engagement with an elite's post (Heiss et al. 2018), and uncivil clashes can even become a spectacle with positive consequences for those instigating controversies (Wu, 2017). In short, people's emotional and cognitive responses may vary as a result of exposure to incivility. As a recent study has shown (Muddiman and Stroud 2017, 601), while it is possible that people do not like uncivil comments, they in fact approve of incivility when it coincides with their views.

To further our understanding about public reactions to incivility, we conduct a series of survey experiments using statements posted on Twitter by elite actors along with comments they receive and measure the emotional reactions of the public in relation to the content of the original post. We find that when the raw information is accompanied by uncivil commentary (compared to civil or no commentary), the public expresses higher levels of positive (e.g. enthusiasm) and lower levels of negative (e.g. anger, disgust, anxiety) emotions. Further analysis of heterogeneous effects focusing on partisanship shows that the effects are primarily driven by those who are generally expected to agree with the expert's claim. A second study replicates the experiment and delves into the possible mechanisms behind incivility's effect on emotional reactions.

Incivility on Online Media

Over the last ten years, social media have become important tools for political communication. Both the demand and supply side of the political spectrum enjoy the benefits of these interactive environments, with Twitter having acquired particular

prominence for political campaigning and mobilization (Bode and Dalrymple 2016). On the demand side, citizens increasingly use Twitter for news consumption and make the most out of the newly acquired opportunity to follow and directly interact with formerly hard-to-reach individuals in the political elite (Newman et al. 2017). On the supply side, political elites have widely adopted Twitter as a tool for personalization, mobilization and promotion (Enli and Skogerbø 2013; Barberá and Zeitzoff 2017), journalists use it to fact-check politicians' statements (Lawrence et al. 2014), and scientists use it as a way of live-reporting from scientific conferences and engaging in political advocacy (Walter et al. 2017).

As incivility is situational and context-dependent it has been defined in various ways. While there is agreement that defining incivility is a complex issue (Herbst 2012, p. 12), scholars nevertheless generally agree that it describes a disrespectful discourse that silences or derogates alternative views (Jamieson et al. 2017, p.206). Different authors have considered "milder" forms of incivility that include name-calling, mockery, character assassination and belittling or insulting others (Sobieraj and Berry 2011; Borah 2012; Massaro and Stryker 2012; Anderson et al. 2013), while others have looked into "heavier" incivility that uses homophobic, racist and sexist language (Papacharissi 2004; Munger 2016; Theocharis et al. 2016). Incivility, thus, tends to often be perceived as a continuum in which civil language lies on one end, impoliteness or mildly uncivil language such as sarcasm and insults lie somewhere in the middle, and strongly uncivil language, such as racial slurs and obscenity, at the other end (Sydnor 2018, 99). Uncivil comments such as those posted in response to Senator Chuck Schumer's tweet quoted at the beginning of this article are now broadly considered rather particular to social media.

Theoretical Background

The Role of Twitter's Affordances

While the phenomenon of rising incivility has been studied within the formal political arena (Sigelman and Bullock 1991; Uslaner 1993; Funk 2001; Mutz and Reeves 2005; Mutz 2015), in political advertising (Finkel and Geer 1998), and the online realm in general (Anderson et al. 2013; Gervais 2015), social media communication and the varying affordances of different platforms (Evans et al. 2017) have added a new layer to it. And while research has shown that most exchanges on social media are civil (Rowe 2014; Anderson and Huntington 2017) the disproportionate attention Twitter has attracted as platform for incivility seems to have made it a special case. But what is it about Twitter that makes it so different?

We argue that insufficient theorizing has gone into Twitter as a platform with a distinct organizational structure among social media platforms and its role on activating specific emotions. We suspect that, when it comes to its capacity to enable discussion - even uncivil one, Twitter may not differ significantly from other social media platforms. Where it may actually differ significantly, is on what happens once incivility occurs. To explain this, one must focus not only on elements embedded in Twitter's architecture, but also on elements of the Twitter user culture itself.

In terms of technical affordances, Twitter opens up an entirely new line of direct communication with "powerful" individuals who were previously beyond most users' reach. This includes elites who, due to their high public status, have been historically targets of abuse, threats and violence (McLoughlin and Ward 2017), and others who benefit much through the use of Twitter as means of public outreach. From the point of view of elite actors, then, Twitter is the preferred online environment to engage, to see and to be seen, to be congratulated and be the center of praise, but also to be critiqued, harassed and be the epicenter of a shitstorm – all at your own peril. Merely on the basis of who is on it, then, Twitter offers an

environment of interactive possibilities and scaling that is rare or even not possible in other platforms.

Previous research has shown that people feel that Twitter is a venue in which only "informal" exchanges with others take place (Boczkowski et al. 2018), and in which the aim is to share information with strangers rather than with friends (Chen 2011). Most importantly, however, this sharing can happen in an environment in which one can remain largely anonymous. Anonymity does not necessarily imply more poisonous discussions, but it may enable a different set of motives for engaging with others. As Oz and colleagues have pointed out (2018, p. 3404), in such an environment it is easier to feel de-individuated, which may enhance one's sense of being hidden in the crowd and make one feel freer to perform socially undesirable behavior. They find that significantly higher levels of incivility occur in twitted responses when compared to Facebook posts (Oz et al. 2018, for studies offering similar findings in newspaper comments see Rowe 2014). Twitter also has an organizational structure that is geared towards short and direct messages, thus often forcing users to "strip the pleasantries away" (Sydnor 2018, p. 102) (but see how Twitter's change of character limit made discussions more polite and less informal -- Jaidka et al. 2018). Having been characterized as a platform that "privileges discourse that is simple, impulsive, and uncivil" (Ott 2017, p. 59), Twitter provides many opportunities for confrontational exchanges and uncivil behavior can occur without much precedent.

Once these aspects are considered together, it is hardly surprising that an insulting comment to a politician's post (or, for that matter, an outrageous post *from* a politician) with enough supporters to push back can trigger a massive quarrel, in which users of very different political affiliations and status are embroiled in outrageous exchanges of insults and memes. We cautiously suggest that *exactly because of the public input which occurs in the context of the affordances we*

summarized above, Twitter gives uncivil discussions a shape and a dynamic that makes it an entertaining show that is hard to attend elsewhere (Sydnor 2018).

Between Incivility and Outrage

The emotional consequences of witnessing incivility on Twitter are not fully understood. Based on the above theorizing, we are interested in *what* emotions this new dynamic elicits on those exposed to incivility and *why*. The emotional impact of incivility on Twitter is important not only because of its possible democratic ramifications (i.e. of it becoming "the new normal"), but also for its implications for political communication more broadly. The phenomenon we describe has been observed previously, albeit on a different platform, and with a more niche-audience. Referring to the genre represented by provocative and often outrageous TV shows such as the *Rush Limbaugh Show*, in their book "The Outrage Industry", Berry and Sobieraj describe what they call "outrage discourse" as something that involves efforts to provoke emotional responses such as anger, fear, and moral indignation. Such shows achieve this by serving their very particular audience with "overgeneralizations, sensationalism, misleading or patently inaccurate information, ad hominem attacks, and belittling ridicule of opponents" compounded by melodrama and mockery (Berry and Sobieraj 2014, p. 7). What makes outrage distinctive are the *tactics* used in an effort to provoke the emotions. We argue that this is a winning strategy for attention, be it on TV or on Twitter. As Berry and Sobieraj note, because of the conflict, the fervor, the drama, and the jokes, outrage succeeds in being highly engaging by eventually offering a "satisfying social and political experience" – especially to those who share the hosts' worldview (2014, p.150).

Now consider the following. In a *New York Times* article referring to the sitting US president's attention-grabbing political communication strategy, Wu (2017) argued that

Donald Trump is able to dominate national headlines by effectively creating a spectacle (a "Trump circus"). As Wells and colleagues have noted (2016, p.670), through a mix of distraction, score-settling, attacks and incendiary remarks, Trump is not only able to attract a large followership that could amplify him, but also achieve regular trending and give journalists "countless hooks" for stories, making press attention a powerful counterpart. This is a formula similar to what Berry and Sobieraj describe as outrage, but with two Twitter-specific differences that have significant implications. First, the audience of incivility on Twitter is no longer niche. Instead of (or in addition to) the dedicated fans of outrage talk shows, it consists of a variety of other actors, many of whom have significant ability to multiply a message. This can lead to a lot (un)desirable attention for virtually zero costs. Second, generating outrage is not any more a unique property of the Rush Limbaughs of this world, but rather of those most capable to generate and wield it. In light of this theoretical context, we argue that *if* Twitter incivility has similar emotional effects, this has important implications from the point of view of political strategy, but also for the quality of online debates.

Theoretical Expectations

Uncivil Interactions on Twitter and the Role of Emotions

Why do elites voicing opinions on divisive issues make for a prime case for investigating the emotional effects of incivility on Twitter? Political communication scholars have warned that we are "witnessing a development towards increasing relativism towards facts, evidence and empirical knowledge", whereby factual information increasingly comes to be perceived as a matter of opinion (Van Aelst et al. 2017). Social media stand often accused for facilitating the spread of misinformation across social networks, boosting misperceptions and, presumably, leading people to change their opinions, or at least inducing uncertainty. These developments acquire special importance on Twitter, where experts of all kinds voicing opinions on

controversial issues related to factual disputes are often attacked by users who offer their own evidence, or their emotionally charged perspectives. In this paper we study incivility in response to elite actors offering expert opinion on Twitter, an oft-cited target of incivility. Such actors openly address contentious issues, and these have been previously found to generate online discussions in which people feel passionately about the topics, and potentially have fully formed opinions about them making it hard to take a step back from their positions (Stroud et al. 2015). The central question driving our study is: *Which emotions do uncivil attacks elicit when directed on elites discussing contentious issues on Twitter?* We narrow down our focus to the specific group of experts but, theoretically, the mechanisms we discuss should work similarly for those who can generate the hypothesized emotions. We posit that being exposed to incivility aimed at elite actors in that platform elicits strong emotions which may have important consequences.

The two key literatures we borrow from are cognitive appraisal (CAT) and affective intelligence theories (AIT) of emotion. Although both theories discuss similar emotions, they are based on different foundations and make different predictions for each affective state. For example, CAT assume that individuals experience predominantly one emotion at a time (see Roseman 1991). The number of those discrete affective states of mind vary depending on the author or research program, but they include both positive and negative emotions. AIT (see Marcus et al. 2000) is based on neuroscience and posits that emotions like anger (or disgust) and enthusiasm (or pride) encourage individuals to rely on dispositions and predict habitual – partisan – behavior. Fear and anxiety, on the other hand, trigger the surveillance mode that encourages attitude change, persuasion, and deliberation. We tend to think that these distinctions are useful in our case and although we do not aspire to offer an experimental test examining which model best represents

consumers of social media incivility, we make use of the long literature to derive expectations regarding emotions more generally and enthusiasm in particular. The evolution of uncivil content online has psychological roots and is, thus, tightly connected to emotions. Virality, something so pronounced on social media for example, is partially driven by physiological arousal. Psychological studies have shown that content evoking high-arousal positive or negative emotions gets more viral than content that evokes low-arousal or deactivating emotions (such as sadness) (Berger and Milkman 2012, p. 196). The consequences of these effects for communication are not unknown to incivility researchers; Jamieson and colleagues (2017, p.209) have noted that "precisely because it evokes a strong emotional response, incivility is also a strategic tool in the arsenal of individuals seeking dramatic social or political change". According to this rationale, posting provocative or uncivil content on Twitter can stir a lot of (enthusiastic) contagious reaction. This is indeed consistent with findings from previous research. First, studies have shown that uncivil exchanges may often lead to increased interest in politics, which would explain the increased salience and reaction around uncivil tweets (Brooks and Geer 2007; Berry and Sobieraj, 2014). Second, while 60% of Americans find it stressful and frustrating to discuss politics on social media with people who they disagree with, 35% per cent nevertheless find it interesting and informative (Duggan and Smith 2016). Finally, uncivil exchanges specifically on Twitter, as opposed to other media platforms, have been found to elicit feelings of enthusiasm and entertainment (Sydnor 2018, 2019).

Yet, we have reasons to doubt that incivility has the same, uniform effect on everyone. First, according Berry and Sobieraj's study, fans of outrage shows are attracted to, and entertained by, these programs because they offer connections to those who share their worldview (Berry and Sobieraj 2014, p. 132). Moreover, Gervais (2015) has also shown

that when people are exposed to incivility that targets their in-group they are likely to be offended. Second, consider the case of Donald Trump's Twitter use[1]. According to both journalistic and academic accounts, amplification of incendiary remarks in this case is done by committed partisan followers. This offers some preliminary indication that exposure to incivility on Twitter may trigger high-arousal positive emotions such as enthusiasm, hope, pride or elation (Marcus et al. 2000), but perhaps *only for some*.

Possible Drivers of "Uncivil Enthusiasm"

Building on the framework explicated above, it is plausible that incivility in the platform may be leading to positive emotions because, plainly put, it is entertaining to watch (Mutz and Reeves 2005; Berry and Sobieraj 2014; Sydnor 2018). It is also worth remembering that Twitter is a tool for social networking and (micro)blogging about all sorts of things, and not necessarily an arena for political debate. As such when political conversation does take place, it tends to be unruly, may contain memes, can have an uncharacteristically exaggerated, conflict-oriented and emotional tone when compared to face-to-face conversations. In short, it might resemble in minimal ways (or not at all) what political discussion should normatively look like.

At the same time, as exposure to incivility can increase citizens' interest in politics (Berry and Sobieraj 2014; Brooks and Geer 2007), being exposed to it might lead to seeing the issue at hand as more interesting, memorable, and persuasive (Jaidka et al. 2018), thus, overall, as highly salient ("if they are arguing so viciously this must be important!"), and even feel that the uncivil attacks are a proof of legitimate debate (Stromer-Galley and Muhlberger 2009). Previous research has shown that when a

[1] Trump's tweets, which have at times included offensive, demeaning and even threatening language, are often characterized as uncivil – Ott 2017, p.57.

news story is commented upon in a blog in an uncivil manner, it is rated as more credible than when it is reported in a civil manner (Thorson et al. 2010), which implies that incivility might provide one with the overall sense that the person being attacked for her statement is actually credible. This, of course, might vary depending not only on the person's agreement with the original statement, but also on the emotion elicited (Thorson et al 2019, p.296).

Building on previous work on the role of emotions in response to incivility (Gervais 2015), partisanship (Valentino et al. 2008), and affective polarization (Druckman et al. 2019), we argue that it is plausible that when a clear delineation of two partisan sides exists about a contentious issue, emotional reactions will likely produce differential emotional and behavioral effects on different people on the basis of how much they identify with the person making the original statement. In an experimental study in which subjects were exposed to uncivil comments in message boards, for example, Gervais (2015, p.181) found that Democrats exposed to what he calls "disagreeable incivility" indicated feelings of anger with the message board and expressed aversion through reprimands of the uncivil perpetrator, with Republicans increasing their use of incivility when exposed to like-minded incivility.

In this study we argue that if one's partisan identification is consistent with the argument made by the person being attacked – and who is thus seen as in-group – then uncivil attacks may signal that the statement is a legitimate one. This can have two possible effects. First, it can raise the issue's salience and elicit enthusiasm in the individual who becomes intrigued about the commotion, and potentially feels more involved. But, second, this can also reaffirm to the person that he or she is on the right side of the argument (since the out-groups are attacking the in-group), feel validated instead of challenged (Berry and Sobieraj 2014, 141), and elicit enthusiasm – much like what is reportedly felt by Trump's enthusiastic followers on Twitter who amplify

him when he is attacked for being authentic or "speaking truth to power". Reversely, if the expert is seen as an out-group, then uncivil exchanges may be seen as a righteous reaction that delegitimizes the argument (Brooks and Geer 2007; Fridkin and Kenney 2008), leading to feelings of anger.

Empirical Analysis

Study I

Our first study was designed to measure emotional responses to specific claims put forward by policy experts. The study was conducted using a sample of 638 MTurk workers. The benefits and disadvantages of working with MTurk are well documented (Berinsky et al. 2012; Benoit et al. 2016) as is the stability of the average treatment effect in representative and self-selection samples (Mullinix et al. 2015). The sample comprised of 51% women and the average age was around 37 (with a standard deviation of 11). This design sets our experimental design apart from previous experimental approaches to incivility. This is not only because of our choice to use Twitter as a platform for incivility – as opposed to, for example, online message boards – but because we also consider uncivil commentary at the user level rather than uncivil statements by party representatives (Gervais 2015, 2017).

[Table 1 about here]

The study, conducted in the summer of 2017, included expert statements on climate change ("The evidence is overwhelming; global warming is caused by human activity") and the so-called "Muslim Ban" ("The Muslim Ban is plain wrong and it does not make any logical sense. Most Attacks are carried out by second generation Muslims"). To isolate the effects of incivility on emotional reactions, we randomly assigned respondents to 3 groups[2]; we also had a control group that only received the

[2] We also checked for platform effects; We exposed a group of respondents to the same information as in our

relevant expert statement. The other two groups were exposed to the same tweet but some respondents were exposed to public comments (arguments for and against) that were civil and the third group was exposed to the same arguments but this time with uncivil commentary and characterizations. Crucially, the comments were identical in terms but those shown in the *UncivilDebate* group were embellished by uncivil characterizations. We adapted actual examples we found on Twitter, and which combine both "mild" (such as CAPS, derogatory comments and mild insults) and "heavy" incidents of incivility (such as racist remarks). The setup of the experiment can be found on Table 1 and the civil and uncivil treatments are in the appendix (see Figure 6).

After reading each expert statement, respondents were prompted to think about the claim and report the extent to which a series of emotions describe their feelings about the claims. We made sure that the order of the emotions was randomized and we were explicit about the stimulus; we asked the respondents how they feel about the content of the original tweet. To our knowledge, there are three ways to measure emotions. A possible way to measure emotions would be to follow national election studies, and measure emotions discretely by encouraging respondents to choose which emotion best describes their current feelings (e.g. about the economy or foreign policy or a given candidate). Others have asked separate questions about each emotion using an *Agree-Disagree* Likert type of scale. We opted for 0-100 continuous scales (sliders) measuring each emotion separately, a valid and effective strategy as recent work suggests (Marcus et al. 2017).

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control group, but this time as part of a normal survey question that without a Twitter logo. The differences between the claims when given as a tweet (our current control group) and when given as part of the question are essentially zero. For results corresponding to alternative control groups, see Tables 6 and 7. Our results are unchanged.

Do our treatments change the average levels of our emotional reactions measures? The answers can be found in Table 2 that shows the effects of the treatments for both the climate change and Muslim Ban expert statements. From left to right we report OLS regression coefficients that reduce to simple mean differences between the treatments and the control group. Across our models we find a fairly consistent pattern. With only a few exceptions, the *UncivilDebate* produces substantive and statistically significant emotional changes to our respondents. The direction is fairly consistent as well; Enthusiasm is increased with incivility and most of the negative emotions are reduced, confirming our main expectation. There is a clear distinction between the two topics with climate change producing larger and more consistent effects compared to the Muslim Ban tweets. Anxiety is the only emotion that is largely unchanged across treatments.

Why do we observe an increase in positive emotion for respondents assigned to the uncivil treatment? Figure 1 can shed important light on this finding. The figure suggests that the effects are primarily driven by those who are generally expected to agree with the expert's claim. Democrats – more – and Independents – a bit less – are more like to think more positively about the claims when exposed to uncivil commentary (*UncivilDebate*).

To motivate this exercise further, consider the average treatment effects we estimated above. We identified a causal effect in emotional reactions with respondents being 'happier' when exposed to the incivility treatment. But why would a Republican report higher levels of enthusiasm when the main statement of the expert was clearly against her worldview? The analysis of heterogeneous effects can illuminate these patterns.

[Table 2 about here]

We begin the heterogeneous effects analysis by looking at partisanship as a

moderator of the average effects. We employ a pre-treatment party identification item that asked respondents, *"Generally speaking, do you consider yourself a Democrat, a Republican or an Independent?"*. We then collapse the 7-point scale to a Democrat, Independent and Republican categorical variable. To estimate the HTE we model the outcomes using simple interaction terms between the treatments and the collapsed party identification variable. The final step to estimate the effects comprises of extracting party identification specific treatment effects for Republicans, Independents and Democrats.

Beginning with emotional reactions to the treatments we estimate the same OLS models but we focus on incivility and how different partisans respond to it. To ease interpretation we rely on a simple visualization of the results that can be found in Figure 1. On the vertical axis we have the various emotional reactions and for each emotion we show the mean differences between the incivility treatment and the control group for Republicans, Independents and Democrats.

The pattern in the figure is clear; Democrats (predominantly) are the main drivers of the effects we show in the estimation of the average treatment effect. It appears that the incivility stimulus reduces negative emotions (and increases enthusiasm) if the main tweet was in line with the dispositions of the respondent – just as we proposed and as previous studies have suggested (Berry and Sobieraj 2014). We find that a Democrat in the *UncivilDebate* Group is more enthusiastic by almost 10.3 per cent (p-value= 0.008) compared to the control group, less disgusted by 19.6 per cent (p-value=0.000), less angry by 13.6 (p–value=0.000), and less fearful by 9.27 per cent (p-value= 0.04). Independents also seem to move to a similar direction with the Democrats, but we need to be aware of the following: our experiments are based on almost 200 people per treatment group and within each group we only have a small number of independents (22% per treatment) and a much larger for Democrats

(around 47%).

Given that most other – well-known from previous studies – effects of incivility have been successfully replicated in ours too (e.g. decrease in trust and lower probability of turning out for Independents), we do not focus on them here. We rather proceed with discussing the follow up study that allows us to replicate and explore the possible mechanisms underlying this finding.

[Figure 1 about here]

Study II

The second study consists of a follow-up experiment[3]. In Study I we chose to give respondents expert claims on Twitter using a liberal frame. In other words, it is very likely that respondents thought that both the climate change and the Muslim ban Tweets were drafted by a Liberal. In the second study, we kept the climate change experiment as it was (still written by the same Professor) and we gave respondents a second Tweet on immigration- a major matter of debate that was tightly connected with the discussion about Donald Trump's campaign promise to build a wall in the U.S. border with Mexico.[4] This time, we framed the immigration statement in a less liberal way ("#Immigration, undocumented or not, increases crime rates and unemployment. It is a reason to worry. Period.") and without making any reference to the expertise of the poster (see Figure 7 in the Appendix). We chose the more conservative frame to test whether our partisan effects are symmetric. We also added a manipulation check to ensure that our results are driven by incivility and not an unmeasured confounder. Finally, we added a number of new questions aimed at

[3] This research was conducted by the authors and supported by the University of Bremen's *Impulse fund* scheme

[4] Ideally, a manipulation check would also test whether respondents found the expert claim to be more credible. Future research should also vary the levels of expertise.

disentangling possible mechanisms that might drive the results. Other than that, the setup of the experiment is identical to Study I.

The results from the second experiment are reported in Tables 3 and 4.[5] The first rows report mean differences in emotions for those in the *CivilDebate* compared to the control group. The ATEs are estimated via OLS and clearly show that compared to the control group, those exposed to civil commentary in the climate change experiment reported much higher levels of negative emotions, all showing increases larger than 10%. The coefficient on enthusiasm is negative suggesting that those assigned to the *CivilDebate* treatment group were less enthusiastic about the expert claim. Moving to the second row that reports the equivalent ATEs for the *UncivilDebate*, we see that none of the "negative" emotions is changed and enthusiasm is significantly higher in the uncivil group than it is in the control group. The results related to enthusiasm clearly confirm Study I. What is more, when exploring the differences between uncivil and civil debate, it is clear that, on average, incivility makes respondents more enthusiastic and less angry/fearful, anxious etc. Tables 9 and 10 in the Appendix show the relevant results with the corresponding measures of dispersion.

[Table 3 about here]

Recall that in Study I we were unable to study partisan asymmetry. The design in Study II allows us to do so and the results can be found in Figure 2. The top panel on Figure 2 visualizes the means for enthusiasm across partisanship and treatment group. What is clear from the plot is that Democrats drive enthusiasm higher in the *UncivilDebate* group compared to the control group. The equivalent group means

[5] The manipulation check – which was successful – can be found in the Appendix, Table 8

for Republicans, on the other hand, seem to be statistically indistinguishable from the control group. On the bottom panel of Figure 2 we report the means by treatment and partisanship for our immigration experiment. The picture is now reversed, with Republicans in the *UncivilDebate* group being more enthusiastic when compared to the control group. In fact, when we contrast the coefficients for each partisan group across the *UncivilDebate* group and the control group in the climate change and the immigration experiments, we find perfect symmetry. A Democrat in the *UncivilDebate* treatment group exposed to the Climate change experiment has a 6.5 per cent higher level of enthusiasm compared to a Democrat in the control group (p-value=0.035). The equivalent for a republican exposed to incivility after the immigration Twitter post is 6.2 per cent (p-value=0.057). In both experiments, the differences are not apparent when examining the more negative emotions.

[Table 4 about here]

[Figure 2 about here]

Lineup of plots should be like:

[Figure 2a] [Figure 2b]

While the results are fairly consistent across our experiments, the exact mechanism underpinning the treatment effects remains unclear. Throughout the paper we have discussed various possible ways this effect can be explained. A key explanation was that incivility is entertaining, and thus exposed respondents would be more likely to see the Twitter interactions as fun; a spectacle of sorts. To test this hypothesis, we asked our respondents post treatment three question that could tap into this notion of a 'spectacle'. The plots depicted in Figure 3 visualize the null treatment effects for the three spectacle items (see wording in Figure Note). There is no mean increase in any

of our spectacle items for any of the partisan groups. As it is clear from the plots, additive models would again suggest a null treatment effect.

[Figure 3 about here]

Lineup of plots should be like:

[Figure 3a] [Figure 3b]

[Figure 3c] [Figure 3d]

[Figure 3e] [Figure 3f]

A second plausible hypothesis relates to enhanced issue salience; if people fight about this issue and the respondent agrees with the original tweet, then the salience of the issue will be enhanced in the uncivil group and co-partisans will be more likely to report higher issue salience. Figure 4 suggests that this not the case either. Sociotropic and egocentric salience do not vary across treatments or partisan groups.

[Figure 4 about here]

Lineup of plots should be like:

[Figure 4a] [Figure 4b]

[Figure 4c] [Figure 4d]

[Figure 5 about here]

As we suggested, however, incivility, could stimulate one's feelings of partisan identity. The expectation here is that exposure to incivility will heighten the differences between partisan groups (i.e. affective polarization). To test this, we

measured the extent to which each respondent "likes" people who support the Republicans and the Democrats. Using the 0-100 scale and calculating the absolute difference between Democrats and Republicans, we tested whether our treatment induce affective polarization. Figure 5 suggests that this is not the case either.[6]

Conclusions

In this study, we reported experimental findings to understand the affective consequences of expert comments on Twitter, and the accompanying uncivil response to them. The results of the first study show that respondents in the uncivil treatment experience an increase in enthusiasm when it comes to the expert statement, something we also find in Study II. But our further analysis shows that this is due to some respondents' inclination to support views like the ones we used in our experiments (e.g. that global warming is real or that immigration is bad).

Our study allowed us to delve deeper into possible mechanisms eliciting enthusiasm in our respondents in the uncivil conditions. Specifically, we reviewed three possible mechanisms connected with incivility as entertainment (Berry and Sobieraj 2014; Sydnor 2018, 2019), as issue salience and as a link to affective polarization (Druckman et al. 2019). The analysis does not offer support for any of those mechanisms, though it does provide evidence that partisanship may have an important role to play in how the original message is perceived.

With the attitudinal and behavioral consequences of incivility being consistent with those reported by previous studies (Mutz 2007),[7] our study adds to the growing

[6] Note that there is a difference between Democrats in the Civil and the Uncivil group. But our focus should be on the comparisons with the control group.

[7] In findings not reported here we find, for example, no change in the average level of political trust (as measured by trust in politicians) across our treatments, but a general decline in how trusting respondents are

research investigating the missaffordances of social media, and more specifically their capacity to accommodate uncivil discussion (Gervais, 2015, 2017; Theocharis et al. 2016). While social media have been praised for promoting direct conversation between citizens, as well as between citizens and elites, concerns about the quality of interactions unfolding in these platforms and their utility (or harm) for democracy are now prevalent. Our findings make an important contribution to the affordances literature (Evans et al. 2017) and raise an important question. That enthusiasm is a sentiment that is found to be triggered only in the uncivil condition, implies that there is something particular about the way in which Twitter can accommodate uncivil commentary – as opposed to the way in which it accommodates regular political commentary. This means that the default technical affordances of Twitter cannot fully account for this. While other platforms accommodate incivility too, based on existing studies (Rowe 2014; Gervais 2015; Anderson and Huntington 2017), it is unclear that they can accommodate the equivalent of Twitter's spectacle-style "uncivil circus" we described in detail earlier.

Our study's findings have implications for political communication, studies on emotions, and democracy more broadly. By triggering enthusiasm that is largely partisan-based, and potentially turning online debates into an engaging and entertaining spectacle, incivility on Twitter resembles what Berry and Sobieraj have called "Outrage". Outrage discourse involves efforts to provoke emotional responses from audiences in the political arena and is a form of discourse that entertains, informs and validates, but differs from other ways of emotional discourse by being

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when it comes to their fellow Americans' views and the levels of trust towards science and scientists. Our within-treatment analysis reveals that Republicans are the main drivers of the average effects we identify. Our final set of findings reveal that incivility carries important consequences for political behavior and, particularly, voter turnout.

used strategically as a *tactic* (Berry and Sobieraj 2014, p.7).

This has several important consequences. Strategically triggering a quarrel can be adopted as a tactic for attracting attention not only by individuals of high visibility, but also by anyone who is willing and able to wield Twitter well for that purpose. Our study provides evidence that the rationale behind intentional incivility on Twitter may pay off in terms of arousing sentiments of enthusiasm - an emotion that has been shown to stimulate mobilization - and potentially keeping people's attention and discussion around the person (but also the issue discussed). We believe that this sheds new empirical light in aspects of political communication strategies in the Twitter era.

Pushing the broader consequences even further, from a platform governance perspective outrage on Twitter can, paradoxically, be both harmful and profitable. While such discourse may undermine the potential of high-quality discourse in the platform, it also brings more attention and more engagement with it. As such, incivility as entertainment, audience enlargement strategy, or developer of issue salience probably still remains in line with the profit-making objectives of a social media company.

Supplementary Material

Online appendix is available at *Public Opinion Quarterly* online.

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Numbered list of Figure captions and notes

Figure 1: *Heterogeneous Treatment Effects on Emotions by Partisanship*

Note: The point estimates represent differences in effects of the Uncivil treatment under the Climate Change debate across partisans for the 5 emotions.

Figure 2: *Heterogeneous Treatment Effects on Enthusiasm by Partisanship*

Note: The figures present the means by treatment group and partisanship along with 95% Confidence intervals. See main text for statistical significance tests across partisans of different treatment groups.

Figure 3: *Means for spectacle items by treatment and partisanship*

Note: Row 1, *I really enjoy observing the views of other people on social media*, Row 2, *Political debates on social media are very interesting to watch* , Row 3 *Politics is so much fun when discussed on social media*. The α reliability score is above 0.85 for both groups of variables. Higher scores on the scale denote Strong Disagreement with the items

Figure 4: *Heterogeneous Treatment Effects on Salience by Partisanship*
Note: The left column corresponds to Climate Change issue salience and the right corresponds to the Immigration Issue. The measures based on Agree-Disagree scales on items stating that each issue important *for me personally* (egocentric) and for *the country as a whole* (sociotropic). Higher values denote more salience

Figure 5: *Heterogeneous Treatment Effects on Salience by Partisanship*

Table 1: *Experimental Treatments*

	Treatments
$control$	*Policy Statement- No Comments*
τ_1	*Civil Debate in Comments*
τ_2	*Uncivil Debate in Comments*

Table 2: *Average Treatment Effects on Emotional Responses to Statements on Twitter*

	(1) EnthusiasmCC	(2) EnthusiasmMB	(3) DisgustCC	(4) DisgustMB	(5) FearCC	(6) FearMB	(7) AnxietyCC	(8) AnxietyMB	(9) AngerCC	(10) AngerMB
CivilDebate	0.923	2.904	-4.781	2.286	-7.109**	0.184	-4.502	-0.603	-2.099	3.055
	(2.512)	(2.464)	(3.160)	(3.175)	(3.177)	(2.709)	(3.058)	(2.797)	(3.065)	(3.137)
UncivilDebate	5.640**	3.374	-9.298***	-2.600	-6.180*	-0.0413	-4.238	-2.650	-7.788**	-2.716
	(2.515)	(2.467)	(3.164)	(3.179)	(3.181)	(2.712)	(3.062)	(2.801)	(3.069)	(3.140)
Constant	16.82***	15.19***	38.71***	32.93***	43.14***	24.90***	41.82***	28.69***	36.43***	33.75***
	(1.783)	(1.748)	(2.242)	(2.253)	(2.255)	(1.922)	(2.170)	(1.985)	(2.175)	(2.226)
N	638	638	638	638	638	638	638	638	638	638

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 3: *Average treatment Effects on Emotions, Climate Change [Study II]*

	Dependent variable:				
	Enthusiasm	Disgust	Fear	Anger	Anxiety
	(1)	(2)	(3)	(4)	(5)
Civil Debate	-5.674**	14.331***	9.739***	12.814***	11.132***
	(2.227)	(2.665)	(2.609)	(2.610)	(2.535)
Uncivil Debate	5.620**	-2.073	-1.942	-0.295	-3.177
	(2.243)	(2.684)	(2.628)	(2.629)	(2.553)
Constant	21.017***	29.615***	33.688***	29.189***	34.791***
	(1.589)	(1.901)	(1.861)	(1.862)	(1.809)
N	916	916	916	916	916

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 4: *Average Treatment Effects on Emotion, Immigration [Study II]*

	Dependent variable:				
	Enthusiasm	Disgust	Fear	Anger	Anxiety
	(1)	(2)	(3)	(4)	(5)
Civil Debate	0.999	3.285	0.505	4.067	0.758
	(1.696)	(2.854)	(2.230)	(2.775)	(2.326)
Uncivil Debate	3.890**	-2.052	0.260	-0.972	1.158
	(1.709)	(2.875)	(2.246)	(2.795)	(2.343)
Constant	10.674***	44.907***	20.578***	42.817***	24.040***
	(1.210)	(2.036)	(1.591)	(1.979)	(1.659)
N	916	916	916	916	916

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1