

# “You Need to Calm Down”: Heated Tones Drive Aversion to Political Discussions

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**Abstract.** Political discussions—especially when they involve disagreement—can decrease polarization and better inform the public. Yet people are strongly averse to them. We propose that this aversion is driven by a dislike of heated tones rather than disagreement. Using three pre-registered survey experiments (N=1,804; N=1,000; N=391), we indeed find that heated tones drive discussion aversion, surpassing even the deterrent effect of disagreement. In other words, people would rather take part in a calm, *disagreeable* discussion than a heated, agreeable one. Our findings suggest that political discussions only have the power to decrease polarization and inform the public if they are calm enough for people to want to engage in the interaction.

**Key Words:** political discussion; political disagreement; polarization

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## Introduction

There are myriad concerns about today's political climate. One of the most prominent of these is psychological polarization—partisans disliking, distrusting, and avoiding out-partisans (Iyengar et al. 2019)—which can lead to the dehumanization of out-partisans (Cassese 2021; Martherus et al. 2021) and political sectarianism, or the “othering, aversion, and moralization” of political groups (Finkel et al. 2020). Other related concerns include partisans having party-aligned policy views (Webster and Abramowitz 2017; but see Fiorina, Abrams, and Pope 2008), people's (in)ability to navigate politics and fake news susceptibility, and an increase in anti-democratic attitudes and support for political violence (Finkel et al. 2020; Kingzette et al. 2021; but see Broockman, Kalla, and Westwood 2020).

One potential solution to these concerns is more political discussion, especially across party lines. Political discussions can increase tolerance of others and their views (Allport 1954; Kalla and Broockman 2020; Levendusky and Stecula 2021; Mutz 2006; Pettigrew and Tropp 2006; Ros-siter 2022), moderate political attitudes (Klar 2014), decrease partisan motivated reasoning (Klar 2014), and increase learning (Ognyanova 2020), as people often learn about politics through discussion (Carlson 2019). These findings align with research noting that discussing politics is vital to democracy (Almond and Verba 1963; Delli Carpini, Cook, and Jacobs 2004). In fact, Iyengar et al. (2019) recommend “constructive engagement” across party lines to mitigate polarization:

One potentially promising strand of research is to build on the insights of intergroup contact theory (Pettigrew & Tropp 2011) and examine whether constructive engagement between Democrats and Republicans could potentially reduce partisan animus. This is also related to a long tradition of work showing that diverse social networks—which expose individuals to different political points of view—foster tolerance for opposing viewpoints, which should also ameliorate affective polarization (Mutz 2002).

Yet people are averse to discussing politics (Carlson and Settle 2022; Huckfeldt et al. 2013; Mutz 2002, 2006), both with in-partisans (Klar, Krupnikov, and Ryan 2018) and *especially* with out-partisans (Carlson and Settle 2022; Settle and Carlson 2019). Research even finds that partisans feel less out-party animus when told out-partisans rarely discuss politics (Druckman et al. 2022; see also Klar et al. 2018), further demonstrating people's distaste for political discussion. This aversion has two important implications. First, it harms social relationships (Chen and Rohla 2018; Frimer and Skitka 2020; Warner, Colaner, and Park 2021). Second, it suggests that political discussions may not cure democratic ills, given how averse people are to having them.

We propose, though, that there is one important piece missing from research on political discussion that could influence people's discussion aversion: the tone with which political discussions occur. Heated tones, we argue, could deter people from discussing politics—and people's aversion to disagreement could largely reflect an assumption that disagreements are heated, with *tone* (rather than the disagreement itself) driving the aversion. Finding that tone is as important as (or more important than) disagreement in motivating discussion aversion would suggest that research has overestimated the importance of disagreement—and underestimated the importance of tone—in people's desire to discuss politics.

Given the dearth of research on tone in political discussion, we first explore tone as a concept—attempting to conceptualize tone in political discussion and contextualize it by examining the types of political discussions people have. Next, we assess if tone drives discussion aversion

and among whom this occurs. Across three pre-registered survey experiments, we find that tone indeed drives discussion aversion and that it is a stronger deterrent than even disagreement.

While this is merely a first step towards understanding how tone shapes discussion, our findings have important implications for understanding polarization and political interactions. Our results demonstrate that although past research focuses acutely on *disagreement* in discussion aversion, disagreement is not necessarily what is driving people away from political discussions—it is a dislike (and perhaps anticipation) of the heated tone with which political discussions, especially when they involve disagreement, can occur. Thus, *how* we talk about politics is vitally important to if people want to engage in political discussion.

## Theoretical Expectations

***Political Discussions.*** We focus here on informal political discussions—or “everyday talk” (Mansbridge 1999). This is different from political deliberation (Elster and Przeworski 1998), which is more formal and requires certain conditions be met.<sup>1</sup> The discussions we instead examine include informal in-person and online discussions with friends, family, acquaintances, or even strangers (Walsh 2004).<sup>2</sup> As Mansbridge (1999) explains, “Everyday talk, if not always deliberative, is nevertheless a crucial part of the full deliberative system” (pg. 211).

Scholars have long believed discussions are important for political information transmission, attitude moderation, outgroup feelings, and social relationships, with Delli Carpini et al. (2004) claiming they are an “indicator of democratic health.” Downs (1957), for example, identifies discussion as a “free” information source that helps individuals make political choices.<sup>3</sup> And Ognyanova (2020) finds that high-frequency discussion partners can spread political knowledge—which can also mitigate information losses and distortions from single-channel political communication (Carlson 2018, 2019). In fact, even the *anticipation* of political conversation can improve political knowledge as much as the actual discussion itself (Eveland 2004). Although homogeneous political discussions can *exacerbate* polarization (Druckman, Levendusky and McClain 2018), when these discussions are cross-cutting they can promote learning (Eveland and Hively 2009), moderate attitudes (Klar 2014), and decrease partisan motivated reasoning (Klar 2014).

Beyond learning and attitude moderation, cross-cutting political discussions can improve outgroup feelings, something noted by Allport’s (1954) classic intergroup contact hypothesis. These discussions can increase people’s value in the free exchange of ideas and thus tolerance of others and their ideas (Huckfeldt, Mendez, and Osborn 2004; Huckfeldt et al. 2013; Mutz 2002, 2006; Mutz and Mondak 2006; Pattie and Johnston 2008). For example, Kalla and Broockman (2020) find that face-to-face conversations can reduce exclusionary attitudes and Levendusky and Stecula (2021), Rossiter (2022), and Wojcieszak and Warner (2020) find that they can decrease

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<sup>1</sup> Although we do not examine this, we expect that moderators and rules in deliberations should keep tone largely calm—making tone less important because it does not vary much.

<sup>2</sup> We expect tone to matter similarly in each context, although we leave this examination for future research. Briefly examining the online versus in-person dynamic, we find that online discussions are more heated than in-person discussions (see also Barnidge 2017; Coe, Kenski, and Rains 2014), likely because they do not have the same social norms that guide in-person discussions (Bail 2021). This suggests that people could be more averse to online political discussions, something that should be examined.

<sup>3</sup> Although see Connors, Pietryka, and Ryan (2022) for how motivations influence these interactions’ usefulness (see also Ahn, Huckfeldt, and Ryan 2014).

affective polarization (but see Busby 2021). These types of findings are behind Iyengar et al.'s (2019) recommendation for interparty contact to improve out-party attitudes.

Lastly, discussing politics—especially when there is disagreement—is important to our social lives. Political disagreement in relationships can lead to social strain. Research has found, for example, that politically diverse Thanksgiving dinners were shorter than uniform ones, controlling for other factors (Frimer and Skitka 2020). Behavioral data confirms this, finding that people speak less to out-party family members, especially after contentious elections (Chen and Rohla 2018). Similarly, Warner et al. (2021) explain how familial political disagreements can lead people to avoid political discussion and communication generally, which ultimately hurts shared family identity.

Although scholars note the trade-off of disagreeable discussions for participation (Mutz 2006; though see Bello 2012; Nir 2011; Sumaktoyo 2021) as well as identify ways in which these discussions can instead *increase* identity salience and negative out-group feelings (Walsh 2004; see also Settle 2018; Wojcieszak and Warner 2020),<sup>4</sup> many of these results indicate that discussing politics, especially when there is disagreement, is beneficial to society (e.g., Mutz and Mondak 2006; Kwak et al. 2005; Minozzi et al. 2020; Pattie and Johnston 2008). As Mutz (2006) explains, “hearing the other side has long been considered important for democratic citizens” (pg. 9).

However, research finds that people are quite averse to discussing politics<sup>5</sup> (Carlson and Settle 2022; Huckfeldt et al. 2013), even distancing themselves from people in their social network who *do* discuss politics (Klar et al. 2018) and lowering their out-party animus to those who do *not* do so (Druckman et al. 2022). Although this “disappointing frequency of cross-cutting conversations” (Mutz 2006, pg. 61) is not just driven by disagreement, disagreement within these discussions makes people even *more* averse to them (Settle and Carlson 2019). People even use apolitical cues to draw inferences about people’s political beliefs and then use those to decide whether they will interact with them—when they infer disagreement, they are less likely to do so (Lee 2021; see also Carlson and Settle 2022; Huckfeldt and Sprague 1995).

This tendency to avoid cross-cutting political discussions is driven by various factors, largely related to the idea that these discussions are often uncomfortable and costly (Carlson and Settle 2022). This can be true for those both politically- and socially-motivated. For those *politically*-motivated, avoiding the “other side’s” opinions (Frimer, Skitka, and Motyl 2017) can help meet affirmation goals and maintain social distance from outpartisans (Iyengar et al. 2019). For those *socially*-motivated, these discussions can feel especially uncomfortable and risky (Carlson and Settle 2022)—a feeling that is exacerbated when covering divisive topics that provoke visceral reactions (Goodin 2006)<sup>6</sup> and for those who do not feel especially competent (Conover, Searing, and Crewe 2002), are not especially interested in politics (Klar and Krupnikov 2016), or are in the interaction’s opinion minority (Carlson and Settle 2022). Further, as polarization increases, individuals with contrasting views are even *less* likely to converse with those with which they disagree (Wells et al. 2017). Thus, the very discussions researchers hope could *reduce* polarization will happen less often *because* of polarization.

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<sup>4</sup> This also suggests there are conditions under which political discussions are useful versus detrimental (Allport 1954; Carlson and Settle 2022). In fact, Connors et al. (2022) find that individual motivations shape whether interpersonal interactions are beneficial or harmful. It is also possible that tone affects this as well, something that should be examined in future research.

<sup>5</sup> Walsh (2004), however, notes that people often discuss politics without realizing they are doing so, and Carlson and Settle (2022) note that political discussions occur quite often.

<sup>6</sup> Although, conversely, emotions can also *motivate* political discussion (Wolak and Sokhey 2022).

Research also finds that discussion aversion varies with one’s level of conflict orientation (Ulbig and Funk 1999; see also Testa, Hibbing, and Ritchie 2014). Conflict orientation measures one’s comfort with conflict, where people range from conflict averse to conflict acceptant. Thus, this trait can shape how often people engage in, how people act in, and the outcomes of political discussion (Carlson and Settle 2022; Conover et al. 2002; Doherty et al. 2019; Huckfeldt and Mendez 2008; Mutz 2006; Sydnor 2019a).

Doherty et al. (2019), for example, find that conflict averse individuals believe disagreeable discussions are less interesting and informative while more stressful and frustrating—suggesting that the conversational risks noted earlier are (perceived to be) higher among the conflict averse. Indeed, Carlson and Settle (2022) find that the conflict averse perceive more risks and less value in certain conversations and are more likely to deflect or avoid them. Lastly, Sydnor (2019a) finds that conflict orientation shapes how people respond to discussion incivility. This research highlights the importance of conflict orientation in discussion aversion, noting perhaps the most important individual trait in determining how likely someone is to engage in political discussion.

Thus, people are averse to discussing politics. This aversion is shaped by individual variation (e.g. conflict orientation), general context (e.g. societal polarization), and discussion-specific context (e.g. discussion disagreement). We propose, though, that there is another important driver of political discussion aversion that has been overlooked: the tone of the discussion.

***Tone.*** We expect that people’s desire to participate in political discussions is determined not just by the aforementioned variables—including whether the discussion is disagreeable<sup>7</sup>—but by the *tone* of the conversation (i.e. whether it is heated or calm). By “tone” we mean the overall *feel* of the discussion—this could involve incivility (Mutz and Reeves 2005), anger (Webster 2020; Webster, Connors, and Sinclair 2022) and other emotions, and/or even the volume with which the discussion occurs and intensity with which people are speaking. While we *do* examine people’s conceptions of heated versus calm discussions using these and other variables, we leave dissecting the *effect* of each of these pieces for future research. Because this research is a first step, instead we focus on understanding tone more broadly and examining its general effect on discussion aversion.

Previous research suggests tone should matter (e.g. Sydnor 2019a). First, research finds that people react to tone-related behavior at the elite level. Mutz and Reeves (2005), for example, show how witnessing others’ incivility on TV reduces trust in government, and Druckman et al. (2019) show that media incivility influences polarization—where out-party incivility polarizes and in-party incivility *depolarizes*. Similarly, Huddy and Yair (2021) find that witnessing elites’ either hostile or warm interactions influences affective polarization.

Second—and more relevant to our endeavor—research finds that tone-related behavior can drive people away from politics, suggesting it could also drive people away from political discussion. Studies have shown that the intensity of today’s political climate motivates people’s dislike of politics and the politically engaged (Krupnikov and Ryan 2022; see also Klar et al. 2018; Klar and Krupnikov 2016). Similarly, Bor and Petersen (2022) find that the hostility of online political discussions—driven by the strategic visibility of hostile individuals—leads people to infer that all types of political discussions are going to be hostile. And in examining why people distance themselves from disagreeable others in their social network, Carlson and Settle (2022) note that people do this to “avoid discussions that led to anger, frustration, and confrontation” (pg. 189).

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<sup>7</sup> For ease of understanding tone’s effect, we conceptualize disagreement as dichotomous—yet note that other research uses a more nuanced approach by conceptualizing it as continuous (Klofstad et al. 2013).

Lastly, research demonstrates that political interactions' success depends on variables related to tone. For example, Warner et al. (2021) find that “respecting divergent opinions”—including respecting one’s beliefs and active listening—is the only effective strategy to deal with political disagreement. Similarly, Masullo and Kim (2021) show that when comments attempting to correct misinformation are uncivil, people increase their dislike of out-partisans. Further, Peacock (2019) finds that conflict causes people to avoid expressing their opinions in conversations, especially when their conversation partner is perceived as being uncivil. Even in Kalla and Broockman’s (2020) findings on reducing exclusionary attitudes with conversations, they note that the conversations must involve “non-judgmentally exchanging narratives.” Lastly, Levendusky and Stecula’s (2021) finding that these discussions can reduce affective polarization have the nuance that their most influential treatment was engaging in “civil discussion” across party lines.

Indeed, Carlson and Settle (2022) note that goals of accuracy, affirmation, and (mostly) affiliation shape people’s willingness to engage (and how they act) in political discussion—a heated tone could cripple at least two of these goals, as people might learn less (accuracy) and relationships might be threatened (affiliation) in heated discussions. This further suggests that heated tones should shape people’s discussion desire, as these tones may attenuate the effect of accuracy goals in motivating engagement (if people assume they will learn less in heated conversations) as well as heighten concerns about affiliation. In fact, Conover et al. (2002) note how social concerns about discussions can be exacerbated when discussions become heated, explaining: “A few people ‘like heated discussions’...But far more worry about the social consequences of contentiousness” (pg. 55).

Inspired by these findings, we expect tone to matter in people’s desire to discuss politics. In particular, we expect people to be more averse to heated than calm discussions (all else equal) and tone to be as important as (or more important than) disagreement in shaping discussion aversion.

## **Empirical Approach**

We examine tone and discussion aversion with three pre-registered online survey experiments using U.S. adults—using both convenience samples (Lucid and Prolific) and a national stratified sample from YouGov (Cooperative Election Study [CES]). Discussion of platforms, data quality, and sample demographics are in the Appendix.

All three studies asked respondents about past or hypothetical future experiences, relying on research finding that imagined experiences can elicit emotional responses to real-world situations (Dadds et al. 1997) and imagined intergroup contact functions largely the same way as it does in the real world (Crisp and Turner 2009). Although our designs did not assign respondents to “real” discussions, they allowed us increased control over treatments—increasing our internal validity—as well as to not be restricted by geographic limitations—increasing our external validity (Shadish, Cook, and Campbell 2002). In particular, Study 1 (Lucid; N=1,804) asked respondents: 1) to conceptualize different discussions, varying disagreement and tone; 2) the proportion of online or in-person political disagreements they have had that are heated versus calm; and 3) about political discussion desire, controlling for issue content (Rossiter 2021) and disagreement. Studies 2 (CES; N=1,000) and 3 (Prolific; N=391) asked respondents about discussion desire, varying tone and disagreement and incorporating conflict orientation (Ulbig and Funk 1999). Study 2 also asked respondents the proportion of political disagreements they have had that are heated versus calm. Full questionnaires are in the Appendix.

We present study details and findings in two empirical sections—first exploring tone conceptually and contextually (using Studies 1 and 2) and then testing if heated tones drive discussion aversion and among whom this occurs (using Studies 1, 2, and 3). In the first empirical section, we examine how people think about heated and calm political discussions. For tone to be as important as we propose it is, people should conceptualize heated and calm political discussions differently and the former should be more negative than the latter. This is indeed what we find. Relatedly, we ask if people report having disagreements that are both calm and heated. If all disagreements are heated, then we are conflating disagreement and tone, but if people report having calm *and* heated disagreements, this suggests that *within* disagreement tone can vary—this is, again, what we find.

After exploring tone conceptually and contextually, we address our main research question: do heated tones drive discussion aversion? To address this, we first examine if after controlling for disagreement and topic, people are more averse to heated than calm political discussions. Next, we test the *relative* aversion to tone and disagreement to see which more strongly drives discussion aversion. Lastly, we examine which individual traits shape aversion to heated tones and then focus in particular on conflict orientation—testing if the more conflict averse are also more averse heated tones, as they typically are to disagreement, and examining how the conflict *acceptant* react to heated tones. Together, our findings demonstrate that people are even more averse to heated tones than they are to disagreement, suggesting that past research may have overestimated the effect of disagreement on discussion aversion.

## Conceptualizing and Contextualizing Tone

In this section we use Studies 1 and 2 to conceptualize tone and assess the proportion of political disagreements that are heated versus calm. We do this as a conceptualization endeavor, but also to examine where respondents see dividing lines in political discussions: by disagreement, by tone, or by both? Further, here we can address the worry that all disagreements are perceived as heated—if this were the case, respondents would report that most or all disagreements are heated, which would suggest that tone and disagreement cannot be disentangled. Yet this is not the case: people *do* recognize the difference between calm and heated disagreements—and they have both. We also note the likelihood that tone is correlated with level of disagreement and discussion topic, and our next empirical section (“Does Tone Drive Discussion Aversion?”) addresses this.

**Conceptualizing Tone.** We first use Study 1 (Lucid, N=1,804), where we randomly assigned respondents to one of four conditions, asking respondents: “What do you think of when you think of a [heated/calm] political discussion where people [agree/disagree]?” Respondents were given a variety of words to choose from and could choose as many as they liked (see Appendix A). The most chosen descriptors (Table 1) illustrate what happens in these discussions. Although there is some heterogeneity in people’s perceptions that should be investigated in future research, here we focus on the general associational differences between these four types of discussions. Heated political discussions are associated with loud voices, anger, and lack of reason—and heated *disagreeable* discussions also include incivility and anxiety, while heated *agreeable* discussions also include interest and people listening. Calm political discussions—both agreeable and disagreeable—are associated with respect, civility, people listening, reason, and interest.

These data also demonstrate quantitatively (Table A1) that across all 16 descriptors, heated discussions are more negative than calm discussions *and* that the effect of tone on these descriptors

is stronger than that of disagreement—sometimes more than 4 or 5 times the size or significant when disagreement is not. Heated discussions have less people listening and are louder, angrier, more anxiety-ridden, sadder, more emotional, more terrible, and less reasonable, civil, fun, interesting, enjoyable, and respectful.

**Table 1.** Descriptors of Political Discussions

Condition	Word 1	Word 2	Word 3	Word 4	Word 5
<b>Heated, Agree</b>	Loud voices (188)	Interesting (144)	Anger (121)	People listening (111)	Unreasonable (101)
<b>Heated, Disagree</b>	Loud voices (273)	Anger (231)	Uncivil (205)	Unreasonable (191)	Anxiety (174)
<b>Calm, Agree</b>	Respect (288)	Civil (249)	People listening (249)	Reasoned (222)	Interesting (208)
<b>Calm, Disagree</b>	Respect (276)	People listening (257)	Civil (250)	Reasoned (232)	Interesting (202)

Table shows the most chosen descriptors in each condition along with the number of respondents who chose that descriptor.

**Contextualizing Tone.** We next examine the proportion of heated versus calm disagreements that people report having. Study 2 (CES) asked a third of respondents (N=348) to estimate the proportion of political disagreements they have had that have been calm versus heated. On a scale from “all have been heated” (1) to “all have been calm” (100), the average response (using survey weights) was 53.55 (SD=22.29)—demonstrating that people are largely having a mix of heated and calm disagreements, but that they are actually having more *calm* than *heated* disagreements ( $p=.030$ ). Study 1 (Lucid, N=1,804) asked the same question, but randomized participants to be asked about online or in-person conversations. On a scale from “all have been heated” (0) to “all have been calm” (100), the average response in both conditions was 57.63 (SD=24.91)—demonstrating again that people have more calm political disagreements ( $p<.001$ ). Splitting this up by condition, we find that people have more heated disagreements online (55.38, SD=25.64) than in-person (59.75, SD=24.00; difference:  $p<.001$ ), although both are more often calm than heated ( $p<.001$ ).<sup>8</sup>

Together, these data help to conceptualize tone as well as demonstrate that people have *both* calm and heated political disagreements. This demonstrates that it is possible to have calm political disagreements—in fact, people have them more often than heated political disagreements—and that when political disagreements occur, people are not necessarily inferring a heated tone. Instead, they seem able to differentiate heated disagreements from calm disagreements and to conceptualize the two differently.

<sup>8</sup> These data suggest a fair amount of heated political disagreements occur, even though people would rather avoid them. This makes sense, as people often participate in political discussion when they would rather not (Carlson and Settle 2022). Indeed, as Huckfeldt et al. (2013) note in referencing Walsh (2004): “Political discussion is often unplanned. When talking, people jump from topic to topic, as different statements cue new thoughts and recollections” (pg. 676). They continue: “avoidance is not always a practical or even viable option” (pg. 678). Given research on political disagreements, this could be viewed as positive. Yet these data suggest heated political discussions may not be the ideal discussions researchers often imagine, and having these conversations could actually be detrimental. This is left for future research.

## Does Tone Drive Discussion Aversion?

In this section we use Studies 1, 2, and 3 to examine our main research question: does tone drive discussion aversion? Using these studies, we first examine if tone shapes discussion desire while controlling for disagreement and topic. We then test the relative effect of tone to that of disagreement on discussion desire. Next, we look at individual factors that potentially shape aversion to heated tones in discussion. Lastly, we incorporate the potentially most important individual trait in political discussion aversion: conflict orientation (Ulbig and Funk 1999). Across all three studies, we present consistent findings that people do not want to participate in heated political discussions and that this—even more than disagreement—drives political discussion aversion.

***Controlling for Disagreement and Topic, Does Tone Matter?*** First, we asked respondents in Study 1 (Lucid, N=1,804) if they would “rather take part in a political discussion that is *calm* or one that is *heated*, assuming the **issue** being discussed and level of **disagreement** was **the exact same**?” providing them a sliding scale from 0 (the calm discussion) to 100 (the heated discussion), with “either/neither” at the mid-point (50). We use a continuous scale here to not just measure the choice people make, but also to capture additional variance that should suggest how strongly they endorse that preference. Further, although “either” and “neither” are certainly distinct responses (Carlson and Settle 2022), the goal of this exercise was to compare the desire to participate in heated versus calm political discussions. Having a mid-point that indicated no preference for one over the other could accomplish this task—people choosing the midpoint (either/neither) would indicate that respondents view these conversations similarly, while people choosing one side of the scale would indicate that people view one as preferable to the other.

Our findings suggests the latter: responses were significantly different from the midpoint (35.47, SD=30.03;  $p < .001$ ). In particular, 8.10% chose the mid-point (50), 31.92% chose the heated conversation (below 50), and 59.98% chose the calm conversation (above 50). Examining this another way, while only 2.46% gave the most extreme response endorsing the heated conversation, 15.65% gave the most extreme response endorsing the *calm* conversation. Thus, given equal conversations on dimensions of topic and disagreement, almost twice as many respondents chose the calm conversation and over *six* times as many strongly endorsed the calm conversation.

***Does Tone Matter More than Disagreement?*** Studies 2 (CES, N=1,000) and 3 (Prolific, N=391) take this further, and—rather than controlling for disagreement and having respondents choose between conversations—*manipulate* both tone and disagreement and then measure discussion desire. Participants were randomly assigned to be asked about their desire to participate in a *calm* or *heated, agreeable* or *disagreeable* political discussion. To measure discussion desire, they were given a 100-point scale from “I would not like to participate” to “I would like to participate.” This design allowed us to directly compare the effect of tone to that of disagreement. If heated tones could make people choose disagreement *over* agreement, this would suggest that research has overestimated the importance of disagreement and missed an integral factor in discussion aversion.

Using OLS models to predict discussion desire by tone and agreement (Tables B1 and C1), we find that heated tone makes participants 24.00 points (Study 2) and 28.46 points (Study 3) less likely to want to participate ( $p < .001$ ), while disagreement (compared to agreement) makes participants only 5.21 points (Study 2) and 7.41 points (Study 3) less likely ( $p = .004$  and  $p = .015$ , respec-

tively). Our results demonstrate that tone matters even more than disagreement: people would rather take part in a calm, *disagreeable* discussion than a heated, *agreeable* (likely with their co-partisans) one (Figure 1).<sup>9</sup> The effect size of tone was about four times that of disagreement.

**Figure 1.** Discussion Desire by Tone and Agreement

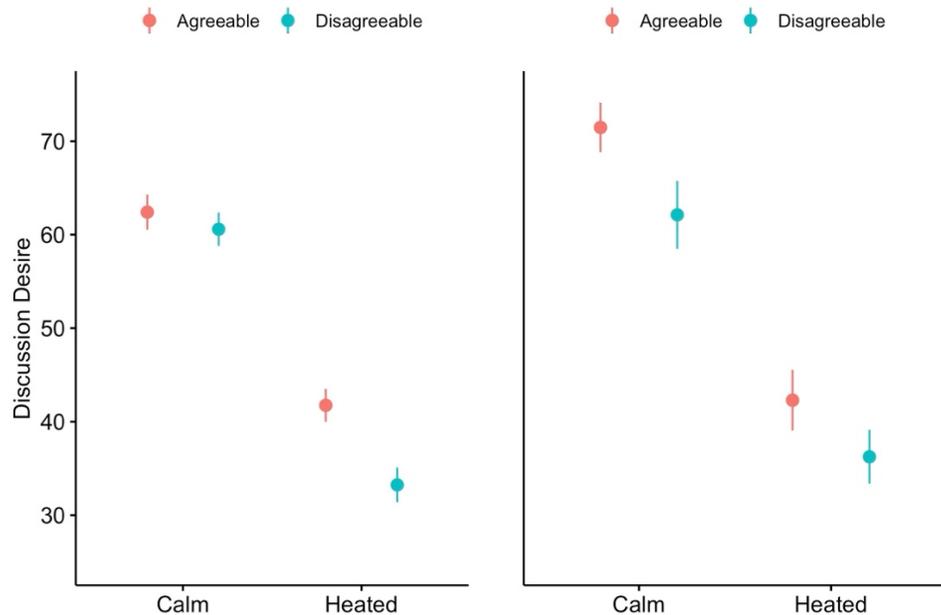


Figure shows mean responses in each condition for both studies. Dependent variable: “not like to participate” (0) → “like to participate” (100). Left: Study 2. Right: Study 3. 95% confidence intervals. Models in Tables B1 and C1.

**Which Individual-Level Factors Matter?** Next, we examine *who* is more likely to choose heated versus calm conversations. It is possible that while *most* do not enjoy heated political discussions, those who are very interested in politics and stronger partisans (the “deeply involved”—Krupnikov and Ryan 2022) actually enjoy these discussions. Thus, using the results from Study 1 (Lucid, N=1,804), we run an OLS regression (Table A2) predicting discussion choice by partisanship, ideology, gender, race, age, education, political knowledge, and deep involvement (Krupnikov and Ryan 2022). We find that respondents who are liberal ( $p=.003$ ), women ( $p<.001$ ), non-binary ( $p=.006$ ), older ( $p<.001$ ), more knowledgeable ( $p=.001$ ; with one measure—see Appendix A), Republican ( $p=.003$ ), weaker partisans ( $p=.016$ ), and less deeply involved ( $p<.001$ ) are more likely than their counterparts to choose the calm conversation. Importantly, though, even among those who are more *likely* to choose the heated conversation, most *still* prefer the calm conversation—they are simply *less* averse to the heated conversation.<sup>10</sup>

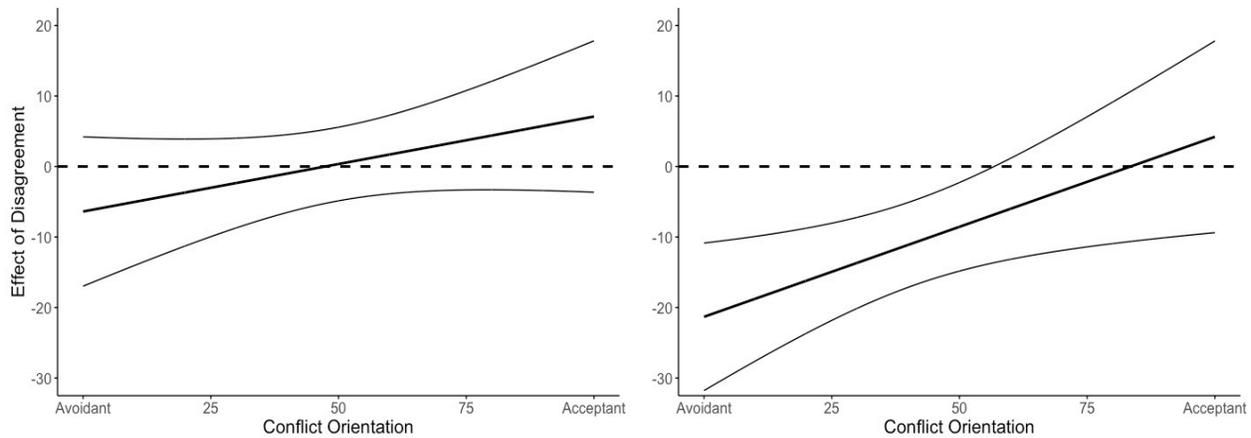
<sup>9</sup> Of course, some individuals may actually enjoy heated discussions with co-partisans. Indeed, in the previous section, respondents said heated, agreeable discussion could be interesting. Here, though, we see that on average, people would still rather take part in calm discussions.

<sup>10</sup> The *only* case in which respondents choose the heated conversation is with the deeply involved.

**How Does Conflict Orientation Matter?** We next explore conflict orientation (Ulbig and Funk 1999), which should influence people’s discussion desire. Here we use Studies 2 (CES, N=327)<sup>11</sup> and 3 (Prolific, N=391)—which included a measure adapted from Ulbig and Funk (1999)<sup>12</sup>—to examine if conflict orientation both moderates the effect of tone on discussion aversion and, as a comparison, moderates the effect of *disagreement* on discussion aversion (Tables B1 and C1).

We examine if this trait moderates treatment effects by modeling two interactions (separate models) between each treatment and conflict orientation (0 to 100, most to least conflict averse; Figure 2). We find that in Study 3—aligning with previous research—disagreement only decreases discussion desire for the conflict averse (the effect of disagreement is only significant at 57 or below on the scale—interaction coefficient: .23,  $p=.026$ ). However, in Study 2, there is no significant interaction ( $p=.157$ ), although this might be a result of the small sample.<sup>13</sup>

**Figure 2.** Effect of Disagreement on Discussion Desire by Conflict Orientation



Dependent variable: “not like to participate” (0) → “like to participate” (100). Conflict orientation: avoidant (0) → acceptant (100). Disagreement: in comparison to agreement. Left: Study 2. Right: Study 3. 95% confidence intervals. Models in Tables B1 and C1.

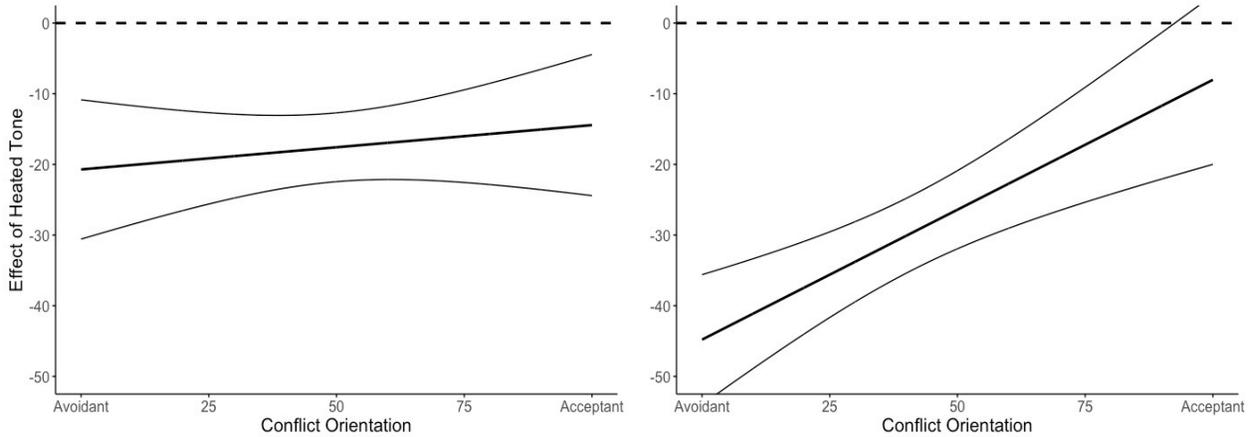
In comparison, as shown in Figure 3, a heated tone decreases discussion desire for *all* participants: even the conflict *acceptant*, who are less averse (or not averse at all) to disagreement are repelled by heated tones. Further, in Study 3 the effect is even stronger among the conflict averse (interaction coefficient: 0.35,  $p<.001$ ), although this interaction is not significant in Study 2 ( $p=.477$ ).

<sup>11</sup> For Study 2, only a random third of participants were asked this question.

<sup>12</sup> We slightly adapt this scale to capture more variance by making response options continuous.

<sup>13</sup> In this model, the more conflict averse are less likely to want to participate in discussion ( $p<.001$ ), while neither disagreement ( $p=.238$ ) nor the interaction ( $p=.157$ ) is significant.

**Figure 3.** Effect of Heated Tone on Discussion Desire by Conflict Orientation



Dependent variable: “not like to participate” (0) → “like to participate” (100). Conflict orientation: avoidant (0) → acceptant (100). Heated: in comparison to calm. Left: Study 2. Right: Study 3. 95% confidence intervals. Models in Tables B1 and C1.

Together, these findings suggest that conflict aversion is indeed about aversion to disagreement—and that this varies by individual—but that a more universal trait is aversion to heated discussions. While some may avoid political discussions because of fear of disagreement, both the conflict averse *and* acceptant avoid them because of fear of a heated discussion. Further, even among the most conflict averse, tone is more important than disagreement (Figures 2 and 3): for the most conflict averse, the marginal effect of disagreement in the previous interaction model was -6.39 (Study 2) and -20.76 (Study 3), but the marginal effect of the heated tone was -20.71 (Study 2) and -44.74 (Study 3)—over twice the magnitude.

## Discussion & Conclusion

We began this manuscript noting that political discussions—especially those that involve disagreement—are vital to democracy, but that people are averse to them. We then examined how tone shapes this aversion and found that people are especially averse to heated political discussions over calm ones—that this can even lead people to choose *disagreement* over *agreement*. Between the three studies, we replicated our findings across different points in time, samples, and designs. This speaks to the robustness and applicability of our findings, as they do not seem to be driven by any one design or measurement choice, but by the strong effect of tone. Further, although each of our samples underrepresented Republican respondents, this weakness suggests we actually *underestimated* the effect of heated tones, as Republicans are more averse to them than Democrats and independents.

Our findings also help to explain what makes people averse to heated political disagreements: people associate these discussions with loud voices, anger, anxiety, incivility, and lack of reason. They are (at least perceived to be) unenjoyable, unconstructive, and stressful. It is no surprise people want to avoid them. Unfortunately, it is possible that when people imagine political discussions, they imagine these types of worst case scenario discussions—they not only imagine *conflict* in the discussion, but also *heated* conflict (see also Groenendyk et al. 2024). This misconceptualization of politics and of conflict could lead people to err on the side of discussion avoidance, successfully evading heated discussions but also missing out on the calmer and more

beneficial discussions that researchers recommend. Future research should examine how people conceptualize conflict and if their conceptualization deviates from simply conflicting viewpoints to a broader definition that is entangled with heated tones.

Our findings open up future research on tone and political discussion. Although we find that tone—even more than disagreement—decreases discussion desire, our findings also show that while people do not *want* to have heated discussions, they still occur. When they do, tone may then influence how they unfold, including whether people actively participate in the discussion (Carlson and Settle 2022, pg. 115) and whether people glean the benefits researchers hope they will from cross-cutting discussions. It is possible that heated disagreements do not lead to the positive effects such as learning, moderation, and tolerance that calm disagreements can lead to—or that they even backfire, deepening (rather than mitigating) polarization.<sup>14</sup> This could help to explain why certain settings exacerbate, rather than reduce, affective polarization (Settle 2018; Wojcieszak and Warner 2020)—it could be that tone dictates which of these outcomes occur. In fact, Carlson and Settle (2022) note that people distance themselves from those they disagree with to avoid heated discussions (pg. 189), suggesting that even the *anticipation* of heated political discussions can deepen social polarization. Thus, future research should examine if heated disagreements are less likely than calm disagreements to increase learning and attitude moderation and decrease polarization.

Future research should also extend our findings by isolating effects of different aspects of tone and examining how discussion participants, certain topics, and particular settings could shape perceptions of tone, the likelihood a conversation gets heated, and reactions in heated discussions. Certain participants, issues, and contexts could mitigate the chance the conversation gets heated (or is perceived to be heated), as well as change reactions in a heated discussion—for example, affiliation concerns could deter strong ties from letting discussions get heated (Conover et al. 2002, pg. 57) or make people react less negatively to heated tones. In particular, future research should examine if people perceive and react differently to tone depending on the gender (Djupe, McClurg, and Sokhey 2016; Wolak 2022) and race of potential discussion partners, as well as whether the discussion is in-person versus online, dyadic versus group, and with stronger versus weaker ties. We leave these questions for future research.

## References

- Ahn, T. K., Robert Huckfeldt, and John Barry Ryan. 2014. *Experts, Activists, and Interdependent Citizens: Are Electorates Self-Educating?* New York, NY: Cambridge University Press.
- Allport, Gordon W. 1954. *The Nature of Prejudice*. Addison-Wesley.
- Almond, Gabriel Abraham, and Sidney Verba. 1963. *The Civic Culture: Political Attitudes and Democracy in Five Nations*. Princeton University Press.
- Bail, Christopher A. 2021. *Breaking the Social Media Prism: How to Make our Platforms less Polarizing*. Princeton, NJ: Princeton University Press.
- Barnidge, Matthew. 2017. “Exposure to Political Disagreement in Social Media Versus Face-to-Face and Anonymous Online Settings.” *Political Communication* 34(2):302–21.
- Bello, Jason. 2012. “The Dark Side of Disagreement? Revisiting the Effect of Disagreement on Political Participation.” *Electoral Studies* 31(4):782-795.

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<sup>14</sup> Although there could be times when heated discussions are beneficial—perhaps, for example, to communicate that an issue is important. Sydnor (2019b) similarly argues that there are cases where *incivility* could be useful.

- Bor, Alexander, and Michael Bang Petersen. 2022. "The Psychology of Online Political Hostility: A Comprehensive, Cross-National Test of the Mismatch Hypothesis." *American Political Science Review* 116(1):1-18.
- Broockman, David E., Joshua L. Kalla, and Sean J. Westwood. 2020. "Does Affective Polarization Undermine Democratic Norms or Accountability? Maybe Not." *American Journal of Political Science*.
- Busby, Ethan. 2021. *Should You Stay Away from Strangers? Experiments on the Political Consequences of Intergroup Contact*. Cambridge: Cambridge University Press.
- Carlson, Taylor N. 2018. "Modeling Political Information Transmission as a Game of Telephone." *The Journal of Politics* 80(1):348-352.
- Carlson, Taylor N. 2019. "Through the Grapevine: Informational Consequences of Interpersonal Political Communication." *American Political Science Review* 113(2):325-339.
- Carlson, Taylor N., and Jaime E. Settle. 2016. "Political Chameleons: An Exploration of Conformity in Political Discussions." *Political Behavior* 38(4):817-59.
- Carlson, Taylor N. and Jaime Settle. 2022. *What Goes Without Saying: Navigating Political Discussion in America*. Cambridge University Press: New York.
- Connors, Elizabeth C., Matthew T. Pietryka, and John Barry Ryan. 2022. *Examining Motivations in Interpersonal Communication Experiments*. Cambridge University Press, Cambridge Elements in Experimental Political Science.
- Conover, Pamela Johnston, Donald D. Searing, and Ivor M. Crewe. 2002. "The Deliberative Potential of Political Discussion." *British Journal of Political Science* 32(1):21-62.
- Cassese, Erin C. 2021. "Partisan Dehumanization in American Politics." *Political Behavior* 43(1):29-50.
- Chen, M. Keith and Ryne Rohla. 2018. "The Effect of Partisanship and Political Advertising on Close Family Ties." *Science* 260(6392):1020-1024.
- Coe, Kevin, Kate Kenski, and Stephen A. Rains. 2014. "Online and Uncivil? Patterns and Determinants of Incivility in Newspaper Website Comments." *Journal of Communication* 64(4):658-79.
- Crisp, Richard J., and Rhiannon N. Turner. 2009. "Can Imagined Interactions Produce Positive Perceptions?: Reducing Prejudice Through Simulated Social Contact." *American Psychologist* 64(4):231.
- Dadds, Mark R., Dana H. Bovbjerg, William H. Redd, and Tim R.H. Cutmore. 1997. "Imagery in Human Classical Conditioning." *Psychological Bulletin* 122(1):89.
- Delli Carpini, Michael X., Fay Lomax Cook, and Lawrence R. Jacobs. 2004. "Public Deliberation, Discursive Participation, and Citizen Engagement: A Review of the Empirical Literature." *Annual Review of Political Science* 7:315-344.
- Djupe, Paul, Scott Mcclurg, and Anand Edward Sokhey. 2016. "The Political Consequences of Gender in Social Networks." *British Journal of Political Science* 48(3):1-22.
- Doherty, Carrol et al. 2019. "Public Highly Critical of State of Political Discourse in the U.S." Pew Research Center Report. Available at [www.pewresearch.org/politics/2019/06/19/public-highly-critical-of-state-of-political-discourse-in-the-u-s](http://www.pewresearch.org/politics/2019/06/19/public-highly-critical-of-state-of-political-discourse-in-the-u-s).
- Downs, Anthony. 1957. "An Economic Theory of Political Action in a Democracy." *Journal of Political Economy* 65(2):135-50.
- Druckman, James N., S.R. Gubitz, Matthew S. Levendusky, and Ashley M. Lloyd. 2019. "How Incivility on Partisan Media (De)Polarizes the Electorate." *Journal of Politics* 81(1):291-5.

- Druckman, James N., Samara Klar, Yanna Krupnikov, Matthew S. Levendusky, and John Barry Ryan. 2022. "(Mis)Estimating Affective Polarization." *The Journal of Politics* 84(2):1106-1117.
- Druckman, James N., Matthew S. Levendusky, and Audrey McClain. 2018. "No Need to Watch: How the Effects of Partisan Media Can Spread via Interpersonal Discussions." *American Journal of Political Science* 62(1):99-112.
- Elster, Jon, and Adam Przeworski. 1998. *Deliberative Democracy*. Cambridge University Press.
- Eveland, William P. Jr. 2004. "The Effect of Political Discussion in Producing Informed Citizens: The Roles of Information, Motivation, and Elaboration." *Political Communication* 21(2):177-193.
- Eveland Jr, William P., and Myiah Hutchens Hively. 2009. "Political Discussion Frequency, Network Size, and "Heterogeneity" of Discussion as Predictors of Political Knowledge and Participation." *Journal of Communication* 59: 205-224.
- Finkel, Eli J., Christopher A. Bail, Mina Cikara, Peter H. Ditto, et al. 2020. "Political Sectarianism in America." *Science* 370(6516):533-536.
- Fiorina, Morris P., Samuel A. Abrams, and Jeremy C. Pope. 2008. "Polarization in the American Public: Misconceptions and Misreadings." *The Journal of Politics* 70 (2):556–560.
- Frimer, Jeremy A., and Linda J. Skitka. 2020. "Are Politically Diverse Thanksgiving Dinners Shorter than Politically Uniform Ones?" *Plos one* 15(10):e0239988.
- Frimer, Jeremy A., Linda J. Skitka, and Matt Motyl. 2017. "Liberals and Conservatives are Similarly Motivated to Avoid Exposure to one Another's Opinions." *Journal of Experimental Social Psychology* 72:1-12.
- Goodin, Robert E. 2006. "Talking Politics: Perils and Promise." *European Journal of Political Research* 45(2):235–61.
- Groenendyk, Eric, Yanna Krupnikov, John Barry Ryan, and Elizabeth C. Connors. 2024. "Selecting Out of 'Politics': The Self-Fulfilling Role of Conflict Expectation." *American Political Science Review*, forthcoming.
- Huckfeldt, Robert, and Jeanette Morehouse Mendez. 2008. "Moths, Flames, and Political Engagement: Managing Disagreement Within Communication Networks." *The Journal of Politics* 70(1):83-96.
- Huckfeldt, Robert, Jeanette Morehouse Mendez, and Tracy Osborn. 2004. "Disagreement, Ambivalence, and Engagement: The Political Consequences of Heterogeneous Networks." *Political Psychology* 25(1):65–95.
- Huckfeldt, Robert, Jeffrey J. Mondak, Matthew Hayes, Matthew T. Pietryka, and Jack Reilly. 2013. "Networks, Interdependence, and Social Influence in Politics." In *The Oxford Handbook of Political Psychology*, edited by Leonie Huddy, David O. Sears, and Jack S. Levy. Oxford University Press.
- Huckfeldt, R. Robert, and John Sprague. 1995. *Citizens, Politics and Social Communication: Information and Influence in an Election Campaign*. Cambridge University Press.
- Huddy, Leonie, and Omer Yair. 2021. "Reducing Affective Polarization: Warm Group Relations or Policy Compromise?" *Political Psychology* 42(2):291-309.
- Iyengar, Shanto, Yphtach Lelkes, Matthew Levendusky, Neil Malhotra, and Sean J. Westwood. 2019. "The Origins and Consequences of Affective Polarization in the United States." *Annual Review of Political Science* 22:129-146.

- Kalla, Joshua L., and David E. Broockman. 2020. "Reducing Exclusionary Attitudes through Interpersonal Conversation: Evidence from Three Field Experiments." *American Political Science Review* 114(2):410–25.
- Kingzette, Jon, James N. Druckman, Samara Klar, Yanna Krupnikov, Matthew Levendusky, and John Barry Ryan. 2021. "How Affective Polarization Undermines Support for Democratic Norms." *Public Opinion Quarterly* 85(2):663-677.
- Klar, Samara. 2014. "Partisanship in a Social Setting." *American Journal of Political Science* 58(3):687-704.
- Klar, Samara, and Yanna Krupnikov. 2016. *Independent Politics: How American Disdain for Parties Leads to Political Inaction*. New York: Cambridge University Press.
- Klar, Samara, Yanna Krupnikov, and John Barry Ryan. 2018. "Affective Polarization or Partisan Disdain? Untangling a Dislike for the Opposing Party from a Dislike of Partisanship." *Public Opinion Quarterly* 82(2):379–90.
- Klofstad, Casey A., Anand Sokhey, and Scott D. McClurg. 2013. "Disagreeing about Disagreement: How Conflict in Social Networks Affects Political Behavior." *American Journal of Political Science* 57(1):120-134.
- Krupnikov, Yanna, and John Barry Ryan. 2022. *The Other Divide: Polarization and Disengagement in American Politics*. Cambridge University Press.
- Kwak, Nojin, Ann E. Williams, Xiaoru Wang, and Hoon Lee. 2005. "Talking Politics and Engaging Politics: An Examination of the Interactive Relationships Between Structural Features of Political Talk and Discussion Engagement." *Communication Research* 32(1):87–111.
- Lee, Amber Hye-Yon. 2021. "How the Politicization of Everyday Activities Affects the Public Sphere: The Effects of Partisan Stereotypes on Cross-Cutting Interactions." *Political Communication* 38(5):499-518.
- Levendusky, Matthew and Dominik Stecula. 2021. "We Need to Talk: How Cross-Party Dialogue Reduces Affective Polarization." Cambridge University Press, Cambridge Elements in Experimental Political Science.
- Mansbridge, Jane. 1999. "On the Idea That Participation Makes Better Citizens." *Citizen Competence and Democratic Institutions*:291–325.
- Martherus, James L., Andres G. Martinez, Paul K. Piff, and Alexander G. Theodoridis. 2021. "Party Animals? Extreme Partisan Polarization and Dehumanization." *Political Behavior* 43(2):517-540.
- Masullo, Gina M., and Jiwon Kim. 2021. "Exploring 'Angry' and 'Like' Reactions on Uncivil Facebook Comments That Correct Misinformation in the News." *Digital Journalism* 9(8):1103-1122.
- Minozzi, William, Hyunjin Song, David M. J. Lazer, Michael A. Neblo, and Katherine Ognyanova. 2020. "The Incidental Pundit: Who Talks Politics with Whom, and Why?" *American Journal of Political Science* 64(1):135-151.
- Mutz, Diana C. 2002. "Cross-Cutting Social Networks: Testing Democratic Theory in Practice." *American Political Science Review* 96:111-126.
- Mutz, Diana C. 2006. *Hearing the Other Side: Deliberative versus Participatory Democracy*. Cambridge University Press.
- Mutz, Diana C., and Jeffery J. Mondak. 2006. "The Workplace as a Context for Cross-Cutting Political Discourse." *The Journal of Politics* 68(1):140–55.
- Mutz, Diana C., and Byron Reeves. 2005. "The New Videomalaise: Effects of Televised Incivility on Political Trust." *American Political Science Review*:1–15.

- Neblo, Michael A. 2015. *Deliberative Democracy Between Theory and Practice*. Cambridge University Press.
- Nir, Lilach. 2011. "Disagreement and Opposition in Social Networks: Does Disagreement Discourage Turnout?" *Political Studies* 59(3):674-692.
- Ognyanova, Katherine. 2020. "Contagious Politics: Tie Strength and the Spread of Political Knowledge." *Communication Research* 49(1):116-138.
- Pattie, Charles J., and Ron J. Johnston. 2008. "It's Good to Talk: Talk, Disagreement, and Tolerance." *British Journal of Political Science* 38(4):677-698.
- Peacock, Cynthia. 2019. "(Not) Talking Politics: Motivations and Strategies for Avoiding the Expression of Political Opinions." *Western Journal of Communication* 83(5):581-599.
- Pettigrew, Thomas F., and Linda R. Tropp. 2006. "A Meta-Analytic Test of Intergroup Contact Theory." *Journal of Personality and Social Psychology* 90(5):751.
- Rossiter, Erin L. 2021. "Measuring Agenda Setting in Interactive Political Communication." *American Journal of Political Science* 66(2):337-351.
- Rossiter, Erin L. 2022. "The Consequences of Interparty Conversation of Outparty Affect and Stereotypes." *Working paper*: <http://erossiter.com/files/conversations.pdf>.
- Settle, Jaime. E. 2018. *Frenemies: How Social Media Polarizes America*. Cambridge: Cambridge University Press.
- Settle, Jaime E., and Taylor N. Carlson. 2019. "Opting out of Political Discussions." *Political Communication* 36(3):476-96.
- Shadish, William R., Thomas D. Cook, and Donald T. Campbell. 2002. *Experimental and Quasi-Experimental Designs for Generalized Causal Inference*. Boston: Houghton Mifflin.
- Sumaktoyo, Nathanael Gratias. 2021. "Friends from Across the Aisle: The Effects of Partisan Bonding, Partisan Bridging, and Network Disagreement on Outparty Attitudes and Political Engagement." *Political Behavior* 43:223-245.
- Sydnor, Emily. 2019a. *Disrespectful Democracy: The Interaction of Political Incivility and Psychological Conflict Orientation*. New York: Columbia University Press.
- Sydnor, Emily. 2019b. "Signaling Incivility: The Role of Speaker, Substance, and Tone." In *A Crisis of Incivility? Contemporary Research on Civility, Incivility, and Political Discourse*, edited by Robert G. Boatright, Timothy J. Shaffer, Sarah Sobieraj, and Dannagal Goldthwaite Young. New York: Routledge.
- Testa, Paul F., Matthew V. Hibbing, and Melinda Ritchie. 2014. "Orientations Toward Conflict and the Conditional Effects of Political Disagreement." *The Journal of Politics* 76(3):770-785.
- Ulbig, Stacy G., and Carolyn L. Funk. 1999. "Conflict Avoidance and Political Participation." *Political Behavior* 21(3):265-282.
- Walsh, Katherine. 2004. *Talking about Politics: Informal Groups and Social Identity in American Life*. Chicago, IL: University of Chicago Press.
- Warner, Benjamin R., Colleen Warner Colaner, and Jihye Park. 2021. "Political Difference and Polarization in the Family: The Role of (Non) Accommodating Communication for Navigating Identity Differences." *Journal of Social and Personal Relationships* 38(2):564-585.
- Webster, Steven W. 2020. *American Rage: How Anger Shapes Our Politics*. Cambridge University Press.
- Webster, Steven W., and Alan I. Abramowitz. 2017. "The Ideological Foundations of Affective Polarization in the U.S., Electorate." *American Politics Research* 45(4):621-647.

- Webster, Steven W., Elizabeth C. Connors, and Betsy Sinclair. 2022. "The Social Consequences of Political Anger." *The Journal of Politics* 84(3).
- Wells, Chris, Katherine Cramer, Michael Wagner, German Alvarez, Dhavan Shah, Leticia Bode, Stephanie Edgerly, Itay Gabay, and Charles Franklin. 2017. "When We Stop Talking Politics: The Maintenance and Closing of Conversation in Contentious Times." *Journal of Communication* 67(1):131–57.
- Wolak, Jennifer. 2022. "Conflict Avoidance and Gender Gaps in Political Engagement." *Political Behavior* 44:133-156.
- Wolak, Jennifer, and Anand Edward Sokhey. 2022. "Enraged and Engaged? Emotions as Motives for Discussing Politics." *American Politics Research* 50(2):186-198.
- Wojcieszak, Magdalena, and Benjamin R. Warner. 2020. "Can Interparty Contact Reduce Affective Polarization? A Systematic Test of Different Forms of Intergroup Contact." *Political Communication* 37(6):789-811.

## Appendix A: Study 1 (Lucid), May 2022

### Sample Information:

Lucid is a survey platform where participants sign up to get paid \$1 to take surveys that are 15 minutes or less—this compensation is decided by Lucid (for more information, see <https://luc.id/theorem> and Coppock and McClellan, 2019). The average response time for our survey was less than 15 minutes (12 and a half minutes). After recruiting participants from Lucid, participants were redirected to take the survey on Qualtrics and given a consent form. They were told that they would be taking part in a research study for \$1 where they would respond to questions about their views and that continuing with the survey would indicate their informed consent. Bot detection, relevant ID, and preventing multiple submissions options were selected on Qualtrics and participants had to pass captcha in hopes to eliminate bots. Lastly, participants were given an attention check question at the beginning of the survey (asking respondents to click two options) and 1,804 participants passed this check and continued on to take the survey.

Of this sample, 50.76% were Democrats, 31.62% were Republicans, and 17.62% were pure independents. The sample had a mean ideology of 3.93 and standard deviation of 1.80 from extremely liberal (1) to extremely conservative (7) with 6.64% saying “don’t know.” It was 52.02% women, 47.20% men, and 0.78% other; had a mean age of 45.85 with a standard deviation of 16.90; and was 71.84% white and 28.16% either mixed or full minority. As a comparison, American National Election Studies (ANES) 2020 data has the following breakdown. The sample was 46.53% Democrats, 41.73% Republicans, and 11.74% pure independents; with a mean of 4.09 and standard deviation of 1.67 on a scale from 1 (extremely liberal) to 7 (extremely conservative). It was 53.74% female, 45.45% male, and 0.81% NA; had a mean age of 51.59 with standard deviation of 17.21; and was 72.92% white and 27.08% either mixed or full minority.

See the following tables for discussion of non-response and attrition. For Table A1 (discussion descriptors), 1,738 were left in the survey to be randomly assigned but an additional 3 did not respond to the dependent variable question. For Table A2 (choosing heated versus calm discussions), 1,629 participants responded to the dependent variable question. Lastly, for the analysis looking at the proportion of heated versus calm conversations online versus in-person (from Empirics 1), 1,737 respondents were left in the survey but an additional 38 did not respond to the question (leaving 1,699 for the analysis).

### Survey:

*Note: this survey was combined with other surveys, and thus some of the demographic and political questions are randomized to different conditions. Details of these conditions are given for transparency.*

1. [gender] What is your gender? [man / woman / non-binary]
2. [age] What is your age? [ ]
3. [race] What racial or ethnic group or groups best describes you? [white / black / Hispanic / Asian / Native American / other (please specify): \_\_\_]
4. [education] What is the highest level of education that you have completed? [did not complete a high school degree / high school degree / some college / Associate’s degree / Bachelor’s degree / graduate or professional degree]
5. [self-monitoring 1] When you are with other people, how often do you put on a show to impress or entertain them? [always / most of the time / some of the time / once in a while / never]
6. [self-monitoring 2] When you are in a group of people, how often are you the center of

- attention? [always / most of the time / some of the time / once in a while / never]
7. [self-monitoring 3] How good or poor of an actor would you be? [excellent / good / fair / poor / very poor]
  8. [self-monitoring 4] I have trouble changing my behavior to suit different people and different situations. [very true / mostly true / somewhat true / not true] [high = not true]
  9. [self-monitoring 5] Even if I am not enjoying myself, I often pretend to be having a good time. [very true / mostly true / somewhat true / not true] [high = very true]
  10. [self-monitoring 6] When I am uncertain how to act in a social situation, I look to the behavior of others for cues. [very true / mostly true / somewhat true / not true] [high = very true]
  11. [self-monitoring 7] At parties and social gatherings, I do not attempt to do or say things that others will like. [very true / mostly true / somewhat true / not true] [high = not true]
  12. [self-monitoring 8] I find it hard to imitate the behavior of other people. [very true / mostly true / somewhat true / not true] [high = not true]
  13. [attention check] Please answer the following question with “cheese” and “none of the above”. What food do you like? (click all that apply) [cheese / bread / meat / vegetables / none of the above]
- [don't show questions 14-17 to those in “dampen political salience” condition below]
14. [PID] Generally speaking, do you think of yourself as a Republican, a Democrat, an Independent, or what? [Republican / Democrat / independent / something else [\_\_\_\_\_]]
    - a. [if Democrat or Republican] Would you call yourself a strong [Democrat/Republican] or a not very strong [Democrat/Republican]? [strong [Democrat/Republican] / not very strong [Democrat/Republican]]
    - b. [if independent or something else] Do you think of yourself as closer to the Republican Party or the Democratic Party? [closer to the Republican Party / closer to the Democratic Party / neither]
  15. [ideology] We hear a lot of talk these days about liberals and conservatives. Here is a 7-point scale on which the political views that people might hold are arranged from extremely liberal to extremely conservative. Where would you place yourself on this scale, or haven't you thought much about this? [extremely liberal / liberal / slightly liberal / moderate / slightly conservative / conservative / extremely conservative / don't know]
  16. [deep involvement 1] It is important to share your political opinions with others. [strongly agree / agree / somewhat agree / neither agree nor disagree / somewhat disagree / disagree / strongly disagree]
  17. [deep involvement 2] It is important to share political news stories with other people. [strongly agree / agree / somewhat agree / neither agree nor disagree / somewhat disagree / disagree / strongly disagree]
  18. [randomize to one of the following 7 conditions – leave on page for 5 seconds and keep at top of page for DV questions]
    - a. [control] *The following questions will ask you about your interest and engagement in political matters.*
    - b. [“integrity of research” intervention] *The following questions will ask you about your interest and engagement in political matters. Please answer these questions **accurately**: the statistical validity of this study depends on having accurate answers about political matters from respondents like yourself.*
    - c. [“self-interest” intervention] *The following questions will ask you about your interest and engagement in political matters. Please answer these questions **accurately**: the*

*political questions you receive later in the survey may be based on how you answer the following questions.*

- d. [“face-saving” intervention] *The following questions will ask you about your interest and engagement in political matters. Please answer these questions **accurately**. After answering these questions, you will be given a chance to explain your answers, if you like, but you certainly do not have to offer any reason for your answers.*
- e. [“shame reduction” intervention] *The following questions will ask you about your interest and engagement in political matters. Please answer these questions **accurately**. There is absolutely no shame in not being interested in politics. In fact, many Americans, for a variety of reasons, pay barely any attention to politics and don’t engage in political matters at all.*
- f. [“shame augmentation” intervention] *The following questions will ask you about your interest and engagement in political matters. Unfortunately, some Americans, for a variety of reasons, pay barely any attention to politics and don’t engage in political matters at all. This is absolutely shameful.*
- g. [“dampen political salience” intervention] *The following questions will ask you about how you spend your time and energy – between work, relationships, and other activities. Please answer these questions **accurately**.*
  - i. [media & discuss] In a typical week, how often do you do the following: [columns: talk to friends or family / work at your job / exercise / watch TV / practice hobbies / cook / watch, read, or listen to news on the Internet, not including sports / watch news on TV, not including sports / read news in a printed newspaper, not including sports / listen to news on the radio, not including sports / discuss politics with your family or friends; rows: none / one day / two days / three days / four days / five days / six days / seven days]
  - ii. [vote] In a typical year, do you usually do the following (click all that apply): [go on a trip / get sick / try to change your job / pick up a new hobby / make a new friend / vote in November’s elections]
  - iii. [interest] How interested are you in the following: [columns: cooking / movies and shows / exercising / social activities / travel / what’s going on in government and politics; rows: extremely interested / very interested / moderately interested / slightly interested / not at all interested]
  - iv. [political knowledge 1] *Please respond **without** looking up the answer.* Do you happen to know which party has the most members in the U.S. House of Representatives in Washington? [Democrats / Republicans / don’t know]
  - v. [political knowledge 2] *Please respond **without** looking up the answer.* Do you happen to know who the U.S. Senate Majority Leader is? [Mitch McConnell / Harry Reid / Chuck Schumer / Nancy Pelosi / Jim Jordan / don’t know]

[don’t show questions 19-24 to those in “dampen political salience” condition]

19. [media] During a typical week, how many days do you watch, read, or listen to news, not including sports, on the following medium: [columns: the Internet, TV, a printed newspaper, the radio; rows: none / one day / two days / three days / four days / five days / six days / seven days]
20. [discuss] During a typical week, how many days do you discuss politics with your family or friends? [none / one day / two days / three days / four days / five days / six days / seven days]

21. [vote] Which of the following best describes what you did in the elections that were held in November? [definitely did not vote in the elections / definitely voted in person at a polling place on election day / definitely voted in person at a polling place before election day / definitely voted by mailing a ballot to elections officials before the election / definitely voted in some other way / not completely sure whether you voted or not]
  22. [interest] How interested are you in information about what’s going on in government and politics? [extremely interested / very interested / moderately interested / slightly interested / not at all interested]
  23. [political knowledge 1] *Please respond **without** looking up the answer.* Do you happen to know which party has the most members in the U.S. House of Representatives in Washington? [Democrats / Republicans / don’t know]
  24. [political knowledge 2] *Please respond **without** looking up the answer.* Do you happen to know who the U.S. Senate Majority Leader is? [Mitch McConnell / Harry Reid / Chuck Schumer / Nancy Pelosi / Jim Jordan / don’t know]
  25. [for control and “integrity of research” intervention – manipulation check] To what extent does the validity of this study depend upon having accurate answers to questions about your interest and engagement in political matters? [not at all / a small amount / a moderate amount / a moderately large amount / a great deal]
  26. [for control and “self-interest” intervention – manipulation check] To what extent were the later questions you received about your interest and engagement in political matters based on how you answered earlier questions about your interest and engagement in political matters? [not at all / a small amount / a moderate amount / a moderately large amount / a great deal]
  27. [for control and “face-saving” intervention – manipulation check] Do you believe you will have an opportunity to explain your answers regarding your interest and engagement in political matters? [no / not sure / yes]
  28. [for control, “shame reduction,” and “shame augmentation” interventions – manipulation check] To what extent is it shameful that many Americans are not interested in politics and don’t engage in political matters at all? [not at all / a small amount / a moderate amount / a moderately large amount / a great deal]
  29. [for control and “dampen political salience” intervention – manipulation check] To what extent do you think this survey is primarily focused on your political interest and involvement? [not at all / a small amount / a moderate amount / a moderately large amount / a great deal]
  30. [for “face-saving” intervention] If you like, please use this space to explain any of your answers regarding your interest and engagement in political matters. You do not need to write anything if you don’t want to. [open-ended]
- [show questions 31-34 to those in “dampen political salience” condition]
31. [PID] Generally speaking, do you think of yourself as a Republican, a Democrat, an Independent, or what? [Republican / Democrat / independent / something else [\_\_\_\_\_]]
    - a. [if Democrat or Republican] Would you call yourself a strong [Democrat/Republican] or a not very strong [Democrat/Republican]? [strong [Democrat/Republican] / not very strong [Democrat/Republican]]
    - b. [if independent or something else] Do you think of yourself as closer to the Republican Party or the Democratic Party? [closer to the Republican Party / closer to the Democratic Party / neither]
  32. [ideology] We hear a lot of talk these days about liberals and conservatives. Here is a 7-point

scale on which the political views that people might hold are arranged from extremely liberal to extremely conservative. Where would you place yourself on this scale, or haven't you thought much about this? [extremely liberal / liberal / slightly liberal / moderate / slightly conservative / conservative / extremely conservative / don't know]

33. [deep involvement 1] It is important to share your political opinions with others. [strongly agree / agree / somewhat agree / neither agree nor disagree / somewhat disagree / disagree / strongly disagree]
34. [deep involvement 2] It is important to share political news stories with other people. [strongly agree / agree / somewhat agree / neither agree nor disagree / somewhat disagree / disagree / strongly disagree]
35. [randomize to heated, agree / heated, disagree / calm, agree / calm, disagree]
  - a. [heated, agree] What do you think of when you think of a **heated** political discussion where people **agree**? (click all that apply) [loud voices / quiet voices / anger / anxiety / sadness / non-emotional / reasoned / unreasonable / uncivil / civil / fun / interesting / unenjoyable / terrible / people listening / respect / other: \_\_\_\_]
  - b. [heated, disagree] What do you think of when you think of a **heated** political discussion where people **disagree**? (click all that apply) [loud voices / quiet voices / anger / anxiety / sadness / non-emotional / reasoned / unreasonable / uncivil / civil / fun / interesting / unenjoyable / terrible / people listening / respect / other: \_\_\_\_]
  - c. [calm, agree] What do you think of when you think of a **calm** political discussion where people **agree**? (click all that apply) [loud voices / quiet voices / anger / anxiety / sadness / non-emotional / reasoned / unreasonable / uncivil / civil / fun / interesting / unenjoyable / terrible / people listening / respect / other: \_\_\_\_]
  - d. [calm, disagree] What do you think of when you think of a **calm** political discussion where people **disagree**? (click all that apply) [loud voices / quiet voices / anger / anxiety / sadness / non-emotional / reasoned / unreasonable / uncivil / civil / fun / interesting / unenjoyable / terrible / people listening / respect / other: \_\_\_\_]
36. [randomize to online or in-person]
  - a. [online] Think about the political disagreements you've had in your life that were **online (not in person)**. In terms of the tone of these discussions, what do you think the proportion of heated versus calm discussions is? [scale: all have been heated → all have been calm]
  - b. [in-person] Think about the political disagreements you've had in your life that were **in person (not online)**. In terms of the tone of these discussions, what do you think the proportion of heated versus calm discussions is? [scale: all have been heated → all have been calm]
37. Would you rather take part in a political discussion that is *calm* or one that is *heated*, assuming the **issue** being discussed and level of **disagreement** was **the exact same**? [sliding scale: the calm discussion → either/neither → the heated discussion]
38. Thank you for your participation! While you took the survey did you have any ideas of what the study was about? [open-ended]
39. If you would like to add comments or feedback? [open-ended]

**Table A1. Predicting Descriptors by Tone and Disagreement**

Variables	Loud	Quiet	Anger	Anxiety	Sadness	Nonemotional	Reasoned	Unreasoned
<b>Heated</b>	3.00 (.17)	-2.07 (.16)	2.79 (.18)	1.80 (.15)	1.08 (.22)	-1.49 (.15)	-1.96 (.12)	2.43 (.18)
<b>Disagree</b>	0.69 (.13)	0.04 (.13)	0.96 (.13)	0.77 (.13)	0.74 (.21)	0.03 (.14)	-0.33 (.11)	0.79 (.14)
<b>Constant</b>	-3.23 (.17)	-0.77 (.10)	-3.69 (.19)	-3.05 (.16)	-3.79 (.24)	-1.11 (.10)	0.26 (.09)	-3.55 (.19)
<b>N</b>	1,735	1,735	1,735	1,735	1,735	1,735	1,735	1,735

**Table A1. Predicting Descriptors by Tone and Disagreement (continued)**

Variables	Uncivil	Civil	Fun	Interesting	Unenjoyable	Terrible	Listening	Respect
<b>Heated</b>	2.71 (.20)	-2.10 (.12)	-0.55 (.14)	-0.94 (.10)	1.88 (.16)	1.80 (.19)	-1.82 (.11)	-2.24 (.12)
<b>Disagree</b>	1.04 (.14)	-0.44 (.11)	-0.32 (.14)	-0.39 (.10)	0.70 (.13)	0.85 (.16)	-0.34 (.11)	-0.43 (.11)
<b>Constant</b>	-3.97 (.21)	0.54 (.09)	-1.37 (.11)	0.09 (.09)	-3.09 (.17)	-3.67 (.21)	0.52 (.09)	0.86 (.09)
<b>N</b>	1,735	1,735	1,735	1,735	1,735	1,735	1,735	1,735

Dependent variables are binary (1 if respondent clicked descriptor and 0 if not) and thus logistic regressions are estimated. Note: neither heated nor disagree predict saying “other” ( $p=.232$  and  $p=.670$ , respectively). Heated is in comparison to calm, and disagreement is in comparison to agreement. Only 1,738 respondents remained in the survey at this point and were thus randomly assigned to one of the four conditions. 3 more respondents did not answer this question, leading to  $N=1,735$  in this analysis.

Note that across all 16 descriptors, heated discussions are more negative than calm discussions *and* that the effect of tone on these descriptors is stronger than that of disagreement—sometimes more than 4 or 5 times the size (*reasoned*, *civil*, *people listening*, and *respect*) or significant when disagreement is not (*quiet* and *non-emotional*).

**Table A2. Predicting Discussion Choice (Heated versus Calm)**

Variables	Discussion Choice
<b>Democrat</b>	6.22 (2.09)
<b>Independent</b>	10.13 (3.28)
<b>Partisan Strength</b>	7.81 (3.23)
<b>Liberal</b>	-6.49 (2.22)
<b>Moderate</b>	5.92 (3.05)
<b>Ideological Extremity</b>	4.98 (3.63)
<b>Woman</b>	-7.19 (1.44)

<b>Non-Binary</b>	-25.15 (9.15)
<b>White</b>	-2.28 (1.65)
<b>Age</b>	-41.28 (4.39)
<b>Education</b>	-0.19 (0.50)
<b>Political Knowledge 1</b>	-2.07 (1.70)
<b>Political Knowledge 2</b>	-5.47 (1.58)
<b>Deep Involvement</b>	32.20 (3.00)
<b>Constant</b>	33.96 (4.21)
<b>N</b>	1,470

Dependent variable (discussion choice) is from 0 (“the calm discussion”) to 100 (“the heated discussion”) and OLS regression is estimated. Democrat and independent are in comparison to Republican, partisan strength is recoded 0-1 (pure independent to strong partisan), liberal and moderate are in comparison to conservative, ideological extremity is recoded 0-1 (moderate to extreme ideologue), woman and non-binary are in comparison to men, white is coded as 1=white and 0=other, education is recoded 0-1 (did not complete high school to graduate or professional degree), political knowledge is coded as 1=correct and 0=incorrect, and deep involvement is a summary variable of both questions recoded 0-1 (low involvement to deep involvement).

1,629 respondents answered the dependent variable question. However, additionally, 62 respondents did not answer partisanship, 93 did not answer ideology, 1 did not answer gender, 1 did not answer education, and 2 did not answer deep involvement. Thus, the final model was N=1,474. To see if not answering the dependent variable question was related to any pre-treatment variables, we ran logistic regression predicting non-response (1=non-response, 0=response) by pre-treatment variables (partisanship, partisan strength, ideology, ideological extremity, gender, race, age, education, political knowledge, and deep involvement). Being an independent (-1.44,  $p=.007$ ), a strong partisan (-1.12,  $p=.015$ ), and older (-2.17,  $p=.003$ ) predicts responding to the question while being a woman predicts *not* responding to the question (0.93,  $p<.001$ ). Recall that being an independent and a strong partisan predicts choosing the heated conversation, while being older and a woman predicts choosing the calm conversation.

Note that the only case in which respondents choose the heated conversation is with the deeply involved. Those at the highest two values (11 and 12 on a scale from 0 to 12) are at 50 or above: 50.22 and 55.79, respectively.

## Preregistration:



### CONFIDENTIAL - FOR PEER-REVIEW ONLY Tone, Lucid 2022 (#96637)

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**1) Have any data been collected for this study already?**

No, no data have been collected for this study yet.

**2) What's the main question being asked or hypothesis being tested in this study?**

Question 1: what do people think about when they imagine heated versus calm political discussions (both those with agreement and disagreement)?

Question 2: do people have more heated than calm political disagreements online as compared to in person?

**3) Describe the key dependent variable(s) specifying how they will be measured.**

For question 1: potential descriptors of the four types of conversation: loud voices, quiet voices, anger, anxiety, sadness, non-emotional, reasoned, unreasonable, uncivil, civil, fun, interesting, unenjoyable, terrible. For question 2: the proportion of heated versus calm political disagreements online versus in person (sliding scale).

**4) How many and which conditions will participants be assigned to?**

First, participants will be randomly assigned to one of four conditions (for question 1):

- 1) What do you think of when you think of a heated political discussion where people agree?
- 2) What do you think of when you think of a heated political discussion where people disagree?
- 3) What do you think of when you think of a calm political discussion where people agree?
- 4) What do you think of when you think of a calm political discussion where people disagree?

They will then be given the descriptors listed above as options and can choose as many descriptors as they'd like. Then, participants will be randomly assigned to one of two conditions (for question 2):

- 1) Think about the political disagreements you've had in your life that were online (not in person). In terms of the tone of these discussions, what do you think the proportion of heated versus calm discussions is?
- 2) Think about the political disagreements you've had in your life that were in person (not online). In terms of the tone of these discussions, what do you think the proportion of heated versus calm discussions is?

They will then be given a sliding scale from "all have been heated" to "all have been calm."

**5) Specify exactly which analyses you will conduct to examine the main question/hypothesis.**

For question 1: we will run OLS predicting each descriptor by tone (heated versus calm) and agreement (agreement versus disagreement). For question 2: we will run OLS predicting the proportion of heated versus calm political disagreements by condition (online versus in person).

**6) Describe exactly how outliers will be defined and handled, and your precise rule(s) for excluding observations.**

We will not remove any outliers or exclude any participants. There will be an attention check at the beginning of the study that may remove participants, but this will be before participants answer any of the questions of interest (or are randomly assigned).

**7) How many observations will be collected or what will determine sample size? No need to justify decision, but be precise about exactly how the number will be determined.**

1750 participants will be recruited through Lucid and randomly assigned to one of the four treatment groups (question 1) and then one of the two treatment groups (question 2). This sample size was decided to have enough power for a survey that will be given prior to this survey.

**8) Anything else you would like to pre-register? (e.g., secondary analyses, variables collected for exploratory purposes, unusual analyses planned?)**

We will examine if those who are deeply involved (measured with two questions) have different perceptions of conversations and/or have more heated conversations (both online and in person).

## Appendix B: Study 2 (Cooperative Election Study [CES]), November and December 2021

### Sample Information:

The Cooperative Election Study (CES) was formerly the Cooperative Congressional Election Study (CCES) and uses a national stratified sample from YouGov (for more information, see <https://cces.gov.harvard.edu>), a well-respected, representative sample. CES recruits participants through advertisements and referrals and are then compensated by points (determined by CES) after each survey they take. Respondents can then exchange points for giftcards and other prizes (see <https://cces.gov.harvard.edu/frequently-asked-questions>).

Of the sample (N=1,000), 51.40% were Democrats, 30.57% were Republicans, and 18.03% were pure independents. The sample had a mean ideology of 2.96 and standard deviation of 1.20 from extremely liberal (1) to extremely conservative (7). It was 58.46% women, 41.54% men; had a mean age of 48.73 with a standard deviation of 17.61; and was 64% white and 36% either mixed or full minority. As a comparison, American National Election Studies (ANES) 2020 data has the following breakdown. The sample was 46.53% Democrats, 41.73% Republicans, and 11.74% pure independents; with a mean of 4.09 and standard deviation of 1.67 on a scale from 1 (extremely liberal) to 7 (extremely conservative). It was 53.74% female, 45.45% male, and 0.81% NA; had a mean age of 51.59 with standard deviation of 17.21; and was 72.92% white and 27.08% either mixed or full minority.

### Survey:

1. [tone—1/3 of respondents received this question] Think about the political discussions that involved disagreement you've had in your life. In terms of the tone of these discussions, what do you think the proportion of heated versus calm discussions is? [scale: all have been heated → half have been heated and half have been calm → all have been calm]
2. [conflict orientation—1/3 of respondents received this question] Some people try to avoid getting into political discussions because they think that people can get into arguments and it can get unpleasant. Other people enjoy discussing politics even though it sometimes leads to arguments. What if your feeling on this—do you usually try to avoid political discussions, do you enjoy them, or are you somewhere in between? [scale: I avoid them → somewhere in between → I enjoy them]
3. [random assignment to a, b, c, or d]
  - a. How much would you like to participate in a political discussion where people **agree** and the tone is **calm**? [scale: I would not like to participate → I would like to participate]
  - b. How much would you like to participate in a political discussion where people **agree** but the tone is **heated**? [scale: I would not like to participate → I would like to participate]
  - c. How much would you like to participate in a political discussion where people **disagree** but the tone is **calm**? [scale: I would not like to participate → I would like to participate]
  - d. How much would you like to participate in a political discussion where people **disagree** and the tone is **heated**? [scale: I would not like to participate → I would like to participate]

**Table B1.** Predicting Discussion Desire by Treatments and Conflict Aversion

<b>Variables</b>	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>	<b>Model 4</b>
<b>Disagreement</b>	-5.21 (1.82)	-0.22 (2.49)	-6.39 (5.40)	- -
<b>Heated</b>	-24.00 (1.82)	-17.61 (2.49)	- -	-20.71 (5.03)
<b>Conflict Avoidance</b>	-	0.68 (.04)	0.63 (.06)	0.65 (.06)
<b>Disagreement X Conflict Avoidance</b>	-	-	0.13 (.09)	-
<b>Heated X Conflict Avoidance</b>	-	-	-	0.06 (.09)
<b>Constant</b>	64.12 (1.61)	25.08 (3.09)	19.09 (3.71)	26.49 (3.53)
<b>N</b>	1000	327	327	327

Dependent variable (discussion desire) is from 1 (“I would not like to participate”) to 100 (“I would like to participate”). All models are OLS regressions. Model 1 regresses discussion desire on the heated (compared to calm) and disagreement (as compared to agreement) treatment. Model 2 regresses discussion desire on the heated (compared to calm) treatment, the disagreement (as compared to agreement) treatment, and conflict avoidance. Model 3 regresses discussion desire on an interaction between the disagreement (as compared to agreement) treatment and conflict avoidance. Model 4 regresses discussion desire on an interaction between the heated (as compared to calm) treatment and conflict avoidance. Models 2, 3, and 4 include conflict aversion, and since only 327 respondents were assigned to answer this question, these models are N=327.

## Preregistration:



### CONFIDENTIAL - FOR PEER-REVIEW ONLY Tone, CES 2021 (#84567)

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**1) Have any data been collected for this study already?**

No, no data have been collected for this study yet.

**2) What's the main question being asked or hypothesis being tested in this study?**

Does agreement (versus disagreement) or tone (heated versus calm) matter more in people's desire to take part in political discussions?

**3) Describe the key dependent variable(s) specifying how they will be measured.**

Participation desire, measured as "How much would you like to participate in a political discussion" (scale from "I would not like to participate" [0] to "I would like to participate" [100]).

**4) How many and which conditions will participants be assigned to?**

Four randomly assigned conditions:

- 1) How much would you like to participate in a political discussion where people agree and the tone is calm?
- 2) How much would you like to participate in a political discussion where people agree but the tone is heated?
- 3) How much would you like to participate in a political discussion where people disagree but the tone is calm?
- 4) How much would you like to participate in a political discussion where people disagree and the tone is heated?

**5) Specify exactly which analyses you will conduct to examine the main question/hypothesis.**

We will run OLS predicting participation desire by tone (heated versus calm) and agreement (agreement versus disagreement).

**6) Describe exactly how outliers will be defined and handled, and your precise rule(s) for excluding observations.**

We will not remove any outliers or exclude any participants.

**7) How many observations will be collected or what will determine sample size? No need to justify decision, but be precise about exactly how the number will be determined.**

1000 participants will be recruited through CES and randomly assigned to one of the four treatment groups. Only one third of participants will receive the conflict orientation question.

**8) Anything else you would like to pre-register? (e.g., secondary analyses, variables collected for exploratory purposes, unusual analyses planned?)**

We will examine if conflict avoidance moderates the effect of tone and/or agreement on participation desire.

## Appendix C: Study 3 (Prolific), November 2021

### Sample Information:

Prolific is a survey platform where participants sign up to get paid to take surveys (for more information, see <https://www.prolific.co>). Respondents were paid \$0.95 for the 6-minute survey based on an average hourly rate of \$9.50 (which is above the federal minimum wage of \$7.25). The median time for the survey was actually 5 and a half minutes, meaning respondents were paid an average hourly rate of \$10.30. After recruiting participants from Prolific, participants were redirected to take the survey on Qualtrics and given a consent form. They were told that they would be taking part in a research study for \$0.95 where they would respond to questions about their views and that continuing with the survey would indicate their informed consent. Bot detection and preventing multiple submissions options were selected on Qualtrics and participants had to pass captcha in hopes to eliminate bots.

Of this sample (N=391), 66.92% were Democrats, 20.55% were Republicans, and 12.53% were pure independents. The sample had a mean ideology of 2.95 and standard deviation of 1.64 from extremely liberal (1) to extremely conservative (7) with 2.50% saying “don’t know.” It was 48.46% women, 51.54% men, and 2.50% other; had a mean age of 34 with a standard deviation of 13.92; and was 64.25% white and 35.75% either mixed or full minority. As a comparison, American National Election Studies (ANES) 2020 data has the following breakdown. The sample was 46.53% Democrats, 41.73% Republicans, and 11.74% pure independents; with a mean of 4.09 and standard deviation of 1.67 on a scale from 1 (extremely liberal) to 7 (extremely conservative). It was 53.74% female, 45.45% male, and 0.81% NA; had a mean age of 51.59 with standard deviation of 17.21; and was 72.92% white and 27.08% either mixed or full minority.

### Survey:

1. [PID] Generally speaking, do you think of yourself as a Republican, a Democrat, an Independent, or what? [Republican / Democrat / independent / something else [\_\_\_\_]]
  - a. [if Democrat or Republican] Would you call yourself a strong [Democrat/Republican] or a not very strong [Democrat/Republican]? [strong [Democrat/Republican] / not very strong [Democrat/Republican]]
  - b. [if independent or something else] Do you think of yourself as closer to the Republican Party or the Democratic Party? [Republican / Democrat / neither]
2. [identity] How important is being a [Democrat / Republican] to your identity? [not at all important / a little important / moderately important / very important / extremely important]
3. [ideology] We hear a lot of talk these days about liberals and conservatives. Here is a 7-point scale on which the political views that people might hold are arranged from extremely liberal to extremely conservative. Where would you place yourself on this scale, or haven’t you thought much about this? [extremely liberal / liberal / slightly liberal / moderate / slightly conservative / conservative / extremely conservative / don’t know]
4. [interest] Some people don’t pay much attention to political news. How about you? Would you say that you are very much interested, somewhat interested, or not interested at all interested in political news? [not at all interested / somewhat interested / very much interested]
5. [media] During a typical week, how many days do you watch, read, or listen to news on the following medium: (the internet (including online newspapers), the TV, print newspapers, the radio) [0 days / 1 day / 2 days / 3 days / 4 days / 5 days / 6 days / 7 days]
6. [discuss] During a typical week, how many days do you discuss politics with your family

and/or friends? [0 days / 1 day / 2 days / 3 days / 4 days / 5 days / 6 days / 7 days]

7. [general confidence] How often do you feel **confident** in your knowledge and opinions in politics? [sliding scale from 0 to 100, from never to always]
  8. [discussion confidence] Think about the **political conversations** you've had in your life. In terms of your **confidence** in your knowledge and/or opinions in these discussions, what do you think the proportion of discussions where you were confident versus were not confident is? [scale: I've been **not** confident in all of them → I've been confident in all of them]
  9. [general strength] How often do you feel **strongly** about your opinions in politics? [sliding scale from 0 to 100, from never to always]
  10. [discussion strength] Think about the **political conversations** you've had in your life. In terms of your attitude **strength** in these discussions, what do you think the proportion of discussions where you held strong attitudes versus did not hold strong attitudes is? [scale: I've had **not** strong attitudes in all of them → I've had strong attitudes in all of them]
  11. [conflict orientation] Some people try to avoid getting into political discussions because they think that people can get into arguments and it can get unpleasant. Other people enjoy discussing politics even though it sometimes leads to arguments. What is your feeling on this—do you usually try to **avoid** political discussions, do you **enjoy** them, or are you somewhere in between? [scale: I avoid them → somewhere in between → I enjoy them]
- [random assignment to a, b, c, or d]
12. [tone 1] How much would you like to participate in a political discussion where people **agree** and the tone is **calm**? [scale: I would not like to participate → I would like to participate]
  13. [tone 2] How much would you like to participate in a political discussion where people **agree** but the tone is **heated**? [scale: I would not like to participate → I would like to participate]
  14. [tone 3] How much would you like to participate in a political discussion where people **disagree** but the tone is **calm**? [scale: I would not like to participate → I would like to participate]
  15. [tone 4] How much would you like to participate in a political discussion where people **disagree** and the tone is **heated**? [scale: I would not like to participate → I would like to participate]
  16. [gender] What is your gender? [man / woman / other [\_\_\_\_\_]]
  17. [age] What is your age? [ ]
  18. [race] What racial or ethnic group or groups best describes you? (select all that apply) [white / black / Hispanic / Asian / Native American / other (please specify):\_\_\_\_\_]
  19. [education] What is the highest level of education that you have completed? [did not complete a high school degree / high school degree / some college / Associate's degree / Bachelor's degree / graduate or professional degree]
  20. [self-monitoring 1] When you are with other people, how often do you put on a show to impress or entertain them? [always / most of the time / some of the time / once in a while / never]
  21. [self-monitoring 2] When you are in a group of people, how often are you the center of attention? [always / most of the time / some of the time / once in a while / never]
  22. [self-monitoring 3] How good or poor of an actor would you be? [excellent / good / fair / poor / very poor]
  23. Thank you for your participation! If you have any comments or feedback, add them below (if not, leave blank): [\_\_\_\_\_]

**Table C1. Predicting Discussion Desire by Treatments and Conflict Aversion**

<b>Variables</b>	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>	<b>Model 4</b>
<b>Disagreement</b>	-7.41 (3.04)	-6.92 (2.70)	-20.76 (5.28)	- -
<b>Heated</b>	-28.46 (3.04)	-29.24 (2.70)	- -	-44.74 (4.59)
<b>Conflict Avoidance</b>	-	0.49 (.05)	0.35 (.08)	0.31 (.07)
<b>Disagreement X Conflict Avoidance</b>	-	-	0.23 (.10)	-
<b>Heated X Conflict Avoidance</b>	-	-	-	0.35 (.09)
<b>Constant</b>	72.34 (2.51)	52.26 (2.92)	45.35 (3.83)	56.49 (3.25)
<b>N</b>	391	385	385	385

Dependent variable (discussion desire) is from 1 (“I would not like to participate”) to 100 (“I would like to participate”). All models are OLS regressions. Model 1 regresses discussion desire on the heated (compared to calm) and disagreement (as compared to agreement) treatment. Model 2 regresses discussion desire on the heated (compared to calm) treatment, the disagreement (as compared to agreement) treatment, and conflict avoidance. Model 3 regresses discussion desire on an interaction between the disagreement (as compared to agreement) treatment and conflict avoidance. Model 4 regresses discussion desire on an interaction between the heated (as compared to calm) treatment and conflict avoidance. Out of the 391 respondents who answered the dependent variable question, 6 respondents did not answer the conflict avoidance question and thus Models 2, 3, and 4 are N=385.

## Preregistration:



### CONFIDENTIAL - FOR PEER-REVIEW ONLY Tone, Prolific 2021 (#81134)

Created: 11/26/2021 08:07 AM (PT)

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This is an anonymized copy (without author names) of the pre-registration. It was created by the author(s) to use during peer-review. A non-anonymized version (containing author names) should be made available by the authors when the work it supports is made public.

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**1) Have any data been collected for this study already?**

No, no data have been collected for this study yet.

**2) What's the main question being asked or hypothesis being tested in this study?**

Does agreement (versus disagreement) or tone (heated versus calm) matter more in people's desire to take part in political discussions?

**3) Describe the key dependent variable(s) specifying how they will be measured.**

Participation desire, measured as "How much would you like to participate in a political discussion" (scale from "I would not like to participate" [0] to "I would like to participate" [100]).

**4) How many and which conditions will participants be assigned to?**

Four randomly assigned conditions:

- 1) How much would you like to participate in a political discussion where people agree and the tone is calm?
- 2) How much would you like to participate in a political discussion where people agree but the tone is heated?
- 3) How much would you like to participate in a political discussion where people disagree but the tone is calm?
- 4) How much would you like to participate in a political discussion where people disagree and the tone is heated?

**5) Specify exactly which analyses you will conduct to examine the main question/hypothesis.**

We will run OLS predicting participation desire by tone (heated versus calm) and agreement (agreement versus disagreement).

**6) Describe exactly how outliers will be defined and handled, and your precise rule(s) for excluding observations.**

Only those over 18, in the US, and with a 95% approval rating on Prolific will be recruited to take the survey. Because of previous concerns on Prolific, the sample will be 50% male and 50% female.

**7) How many observations will be collected or what will determine sample size? No need to justify decision, but be precise about exactly how the number will be determined.**

400 people will be recruited from Prolific.

**8) Anything else you would like to pre-register? (e.g., secondary analyses, variables collected for exploratory purposes, unusual analyses planned?)**

We will examine if conflict avoidance moderates the effect of tone and/or agreement on participation desire.

## Appendix References

Coppock, Alexander, and Oliver A. McClellan. 2019. "Validating the Demographic, Political, Psychological, and Experimental Results Obtained from a New Source of Online Survey Respondents." *Research & Politics* 6(1):1-14.