

Negative Descriptive Social Norms and the Motivation to Take Political Action: Nobody's Taking Action, So You Should^{*}

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Abstract

Individuals learn about the actions or behaviors of other people through the use of descriptive social norms. Previous work has argued that the use of negative descriptive norms in describing political activity depresses participation. We argue that at least under certain circumstances this is incorrect. To study this we use two experiments examining the willingness of individuals to take public action. In the first, we invite individuals to write a letter to be sent to a local city official about city policy and in the second, we ask individuals to sign a petition advocating a specific policy to be sent to an administrator at a large public university in the southern United States. We experimentally vary these requests to include a positive descriptive norm (many people are working together to solve the issue) or a negative descriptive norm (many people are failing to take action to solve the issue). We found that, contrary to previous scholarship, individuals were more likely to act when presented with the negative descriptive norm. We show that this effect stems from the anger the negative descriptive norms elicits. Consistent with past research, we also found that the effects varied by the familiarity individuals felt towards political action. As such, more careful consideration of framing of the desired action is necessary in order to inspire, rather than to discourage, people to act politically.

Abstract Word Count: 227

Word Count: 8,141

^{*} We are grateful for the advice, assistance, and helpful comments given to us by Molly Abbattista, Carmen Black, Elissa Karim, Adam Levine, Michelle Ngirbabul, Akash Surti, and participants at the 2016 Midwest Political Science Association Conference. All errors, of course, remain our own.

“There are less than 36 hours before our mid-month membership deadline, and as hard as we're working, we still aren't able to close the gap to hit our goals. This is make or break time. Help us elect a Democratic Majority in 2016 by activating your membership.”

-House Majority PAC, April 14, 2016 email to supporters

Knowing how to encourage positive behaviors by tapping into our predilections and shared psyche as social creatures can help achieve better societal outcomes and encourage political engagement. Recent work on persuasive strategies has focused on the power of social normative information—the innate rules guiding individual and group behavior and thought in the social sphere—in shaping both political and non-political behavior. The perceptions we have about the norms of society—what others do and what is socially acceptable—help form our beliefs about appropriate actions and ultimately shape our own behaviors (Cialdini 2003).

Social norms, as conveyed through strategic messaging, can have a strong influence on political behavior (Gerber, Green, and Larimer 2008; Gerber and Rogers 2009; Panagopoulos 2010). Social pressure can encourage others to follow the action (or inaction) of others around them. Previous research has demonstrated the power of positively-framed descriptive norms in encouraging desired action. People are motivated when they learn what other people are doing and thus are more likely to participate in the congruent behavior. Emphasizing the desired behavior encourages the audience to join their peers in engaging in that action (Cialdini et al. 2006; Gerber and Rogers 2009).

However, political organizations and campaigns often eschew the flippant use of this positive descriptive normative information in messaging. Contrary to established political science research, many political campaigns have had success using negative framing of descriptive norms, which indicate what other people are neglecting to do, with an implication that this behavior is not socially acceptable. Many campaigns are successful at leveraging

perceived drops in support to their financial advantage (Miller and Krosnick 2004; Mutz 1995). As the call-to-action that headlines this paper shows, political campaigns often emphasize the undesirable actions (or lack of action) of fellow supporters as a means of motivating the message recipient to deviate from that described norm.¹

The success of such messaging contradicts expected outcomes. Previous research on political behavior (and other social behaviors) has found that this joining of negative descriptive norms (what people are not doing) with injunctive norms (what people should do) is detrimental to encouraging a desired political behavior (Gerber and Rogers 2009). So, why do campaigns and other political organizations continue to use negative descriptive norms in their messaging to great success if previous political science research suggests that such messaging is detrimental to their desired outcomes?

The lack of a definite consensus between the findings of practitioners and scholars on the effects of social normative information on behavior requires further investigation. What we argue here is that positive social normative appeals do not necessarily work best at eliciting desired behaviors under all circumstances. While not explicitly testing the effect of campaign messaging using negative descriptive norms, other research has shown that many individuals are motivated to act when they perceive their preferred outcome is losing ground while others prefer to join an already winning movement (Mutz 1995). Likewise, others have found that the

¹ Perhaps even more notable was a prominent fundraising email of the 2012 re-election campaign of President Barack Obama which led with the statement “I will be outspent.” This statement not only implied that donors were not giving enough to his campaign, but that many people were giving more to his political opponent, Mitt Romney. In the tests that the Obama campaign ran before sending the email, this appeal outperformed other options by over a half million dollars (Green 2012). While this email could be construed more as an indication of what Obama’s opponents were doing, it is only one example of campaigns’ continued use of negative descriptive norms (the House Majority PACs email described above being another) that are prominent in political calls to action (see also Gerber and Rogers 2009 for more examples of the prominence of negative descriptive norms in calls to action).

emotional arousal of anger, a logical result of negative descriptive norms describing undesirable actions or lack of action, increases engagement (Schuck and de Vreese 2012; Valentino et al. 2011). In this paper, we explore the use of negative and positive descriptive social norms in a political setting to motivate individual behavior beyond voting. We find that, in the case of encouraging individuals to engage in public advocacy of policy directed at policymakers, negative descriptive norms have a bigger influence on political action than positive descriptive norms. In addition, we also find that an individual's response varies with the individual's relationship to that activity. Individuals who are not as comfortable with political activism are more likely to respond to negative descriptive norms than to positive descriptive norms. In contrast, we find that the impact of negative descriptive norms on behavior relative to the effect of positive descriptive norms is eliminated for those individuals who familiar with political activism.

Descriptive Social Norms and Behaviors

Norms have been classified into two different types. Our focus in this work is descriptive social norms, or the norm as described by what most people do. Previous work has found that the description of what others in society are doing, either through explicit or implicit means, has a strong effect on individual behavior. Descriptive norms, which indicate what behaviors are typically performed, come from perceptions of others' behaviors in certain contexts (Cialdini, Reno, and Kallgren 1990). These perceptions then have a strong effect to encourage behavior that conforms to what others are doing.

The other set of norms are injunctive norms, which entail the perceptions of the socially-sanctioned expectations for individual norms. Injunctive norms come from what is perceived to be socially acceptable or desired behavior (Cialdini, Reno, and Kallgren 1990). With these

norms, there is an implicit presence of societal disapproval (or approval) of an action, with an awareness of accompanying social punishments (or rewards) for conforming to that expectation.

In practice, descriptive and injunctive norms often agree and, when they do, they work together to reinforce the desired behavior (Rimal and Real 2005). Yet, social efforts that emphasize the frequent occurrence of socially undesirable actions (the mixture of an injunctive norm and a negative descriptive norm) have been shown to backfire and increase the chance of socially undesirable action occurring (Cialdini, Reno, and Kallgren 1990; Cialdini 2003; Cialdini et al. 2006; Schultz et al. 2007). The conclusions from these studies place emphasis on the detrimental effects of using descriptive norms that focus on the prevalence of undesired behavior—even when accompanied with a clear communication of the societal disapproval of the unwanted behavior. Negative descriptive norms, even when paired with an injunctive norm, reduce the occurrence of the desired behavior because they send the message that many individuals are engaged in the socially undesirable behavior.

These findings in psychology, which were first applied to areas of environmental and health behavior, have more recently been applied to political behaviors as well. Gerber and Rogers (2009) use two get-out-the-vote field experiments designed to test the effect of using positive or negative descriptive norm messages (in conjunction with injunctive norms) on voter turnout. Consistent with other research about other non-political behaviors, the self-reported intention to vote was higher among individuals who were sent the message that highlighted positive descriptive norms about voter participation. People are more likely to at least report that they will vote when they hear that lots of others are going to the polls, rather than when they hear a message bemoaning low voter turnout.

Studies of individual behavior largely agree that describing what other people do, whether that action is deemed socially acceptable or not, encourages others to mimic that behavior. Yet sometimes, as outlined above, political campaigns and movements blatantly ignore these findings to great success. In addition, research on aggregate political behaviors is not as bullish on the effects of information about what others are doing on individual behavior. In some cases, the perception that a preferred outcome is failing to attract people to the cause encourages supporters to act (Mutz 1995). Labeled by Mutz as the “underdog effect,” a downtick in perceived support by others only encouraged potential donors to give to presidential primary candidates. Likewise, threat, often arising out of a lack of action on the part of others, is a strong motivator of political activity (Miller and Krosnick 2004; Tam Cho, Gimpel, and Wu 2006)

We argue below that the context of the situation and the action encouraged may change the relative influence of positive and negative descriptive norms on political behavior. These factors change the relative influence of these two types of descriptive norms. The presence of other moderators implicit in calls-to-action and the desired behaviors themselves affect the influence of the descriptive social normative information used. We outline here two relevant considerations for addressing how the efficacy of normative information may vary depending on the behavior requested, and generate a set of hypotheses.

Moderators of Social Behavior

Type of Behavior and Outcome Expectations

From the work on normative influence comes the theory of normative social behavior, which distinguishes between descriptive norms and the moderators present in social normative situations that may affect the influence of the descriptive norm on behaviors (Rimal and Real

2005). One of these cognitive mechanisms that moderates descriptive normative influence on behavioral intentions is outcome expectations (Rimal and Real 2005). This aspect of social cognitive theory posits that an individual's beliefs of the benefits of an action will guide behavior towards that action (Bandura 1986). Thus, the expectation of the effects of an action shapes the influence of injunctive and descriptive norms.

One of the key characteristics of different types of behaviors is whether the action also has a subsequent impact on the behaviors of others. Previous research on the positive effect of positive descriptive norms has focused on self-centered actions where the behavior of an individual has little effect on the actions of others around them. Increasing voter turnout (Gerber and Rogers 2009), not littering (Cialdini, Reno, and Kallgren 1990), not taking small souvenirs of national forest property (Cialdini et al. 2006), and decreasing average energy consumption (Schultz et al. 2007) are self-centered actions where the change in behavior does not subsequently influence the behavior of others. Each of these actions has little influence on the overall outcome, thus limiting the purposive benefits for participation.

This is not the case for most political actions. Most political behavior is done with the intent of changing policies that affect the actions and behaviors of others (Miller and Krosnick 2004; Patterson and Singer 2002). The use of negative descriptive norms in political instances highlights the fact that the behaviors of others need to be changed. This framework highlights purposive motives or the motive to participate to change an outcome and the feeling that one is an influential component in change an outcome or achieving a goal. While civic duty or other moral obligations may drive voter turnout and other civic responsibilities, purposive motives are a key component of influencing people to engage in other political activities (Barber 2016; Francia et al. 2003; Hassell and Monson 2014). Thus, it is reasonable to expect that negative

descriptive social norms should affect actions that affect only oneself in one way, and actions that have the potential to change the behavior of others in another. This leads us to our first hypothesis:

Hypothesis 1: Negative social descriptive norms will be more effective than positive descriptive norms at encouraging political action for actions that are framed as influencing others and changing political outcomes.

For activities where the impact of action on outcomes on other individuals is minimal (such as an individual turning out to vote affecting others' turnout) and purposive motives are scant, positive descriptive norms should work effectively.² For activities where the action has the potential for a substantial effect on the behavior of others and societal well-being (such as advocating public officials who control policy) and purposive motives are plentiful, negative descriptive norms combined with injunctive norms should work more effectively.

Emotional Activation

Part of the motivation behind these differences in the response to appeals aimed at purposive and non-purposive activities is the emotion that is elicited when action is not being taken. Negative descriptive norms around purposive activities should elicit anger, a characteristic that is critical to motivating political behavior with the intent to change the behavior of others (Miller and Krosnick 2004; Schuck and de Vreese 2012; Valentino et al. 2011).³ The possible positive effect of negative descriptive norms could be the result of the ways that these norms encourage certain emotional reactions.

² It is important to note that in our results we do not find any moderating effects of ideology on the outcomes that we describe, however, the purposive benefits associated with the issues that we use are not strongly associated with one ideology or political party.

³ Gerber and Rogers (2009) actually note that for those who regularly vote negative descriptive norms are marginally more effective at increasing vote intentions (but not significantly

Hypothesis 2a: The presence of negative social descriptive norms in a political call-to-action will elicit more emotional anger.

Hypothesis 2b: The anger associated with the presences of negative descriptive norms will encourage individuals to take public political action on behalf of a political cause.

Familiarity with the Activity

In addition, previous work on framing effects has found that the influence of norms or other framing treatments is more influential for those individuals who are less likely to be involved in that activity (Gerber and Rogers 2009; Hassell and Settle 2016). When people find a decision or action more difficult they are more likely to be influenced by the frame of the appeal or other considerations than those individuals who find the activity relatively easy (Ansolabehere and Iyengar 1995; Baron, Vandello, and Brunzman 1996; Frey et al. 2016; Hassell and Settle 2016). In short, those most vulnerable to the influence of the use of norms as a means to drive participation are those who are least likely to engage in the activity. This leads us to our third hypothesis:

Hypothesis 3: The effect of the social descriptive norm framing will be muted for those individuals who are less likely to engage in activism.

In summary, the basis of this study rests on challenging more recent findings about the power of positive descriptive norms in affecting behavior and tries to explain the mixed success of these norms in persuasive messaging. It indicates that descriptive social normative messaging designed to instill certain behaviors also relies on the nature of the action requested itself, rather than just relying on the type (negative or positive) of normative information used. We also argue

significant using a very small sample size ($n < 80$). This may be because descriptions of low turnout raises anger levels for individuals who have a high sense of civic duty. These individuals become are more likely to become incensed when they hear that others are not turning out to vote thus increasing their likelihood of voting. The same would not be the case for those with low levels of civic duty.

that the requested behavior of signing a petition communicates a higher impact of action on one's community and thus is more responsive to a normative description of what others in the community are not doing.

Data and Results

To test the effect of positive and negative descriptive norms on emotional reactions and political behavior, we rely on two different tests: an online survey experiment, which allows us to control for a variety of outside factors, and a field experiment. Using these two mechanisms allows us to be more confident that our findings are both internally and externally valid.

Online Experiment

To test our hypothesis about the differential effects of social norms on political participation, we first begin with an online survey experiment in which we recruited 1,506 subjects who live in the United States through Amazon's Mechanical Turk website in April of 2015. Amazon's Mechanical Turk is a website where individuals can publish tasks (termed Human Intelligence Tasks or HITs) and provide a small payment to those who complete those tasks in a way that is similar to other web-based approaches such as YouGov that maintain a panel of respondents and invite respondents to participate in exchange for payment or other incentives. Those who post a task or survey can limit the availability of the task to respondents who meet certain qualifications or criteria, such as age or location. For our experiment, we limited respondents to residents of the United States who were 18 years or older. Studies using data from Mechanical Turk have been shown to replicate important experimental findings in psychology and other disciplines (Berinsky, Huber, and Lenz 2012; Clifford, Jewell, and

Waggoner 2015; Krupnikov and Levine 2014; Mullinix et al. 2016). As such, it has become a common means and widely accepted platform to run social science experiments.

We do recognize that there are limitations of Mechanical Turk. Mechanical Turk routinely provides samples that are more liberal and Democratic, younger, better educated, and poorer than national samples, although they are more representative than other convenience samples gathered on college campuses or through other online mechanisms (Berinsky, Huber, and Lenz 2012; Buhrmester, Kwang, and Gosling 2011; Krupnikov and Levine 2014; Paolacci, Chandler, and Stern 2010). However, although a sample may not be entirely representative of the general population, which Mechanical Turk is not, its usefulness depends on the variation along key moderating characteristics (Druckman and Kam 2011). In this case, the key variable that we are interested in is political behavior and activism. Table 1 compares our sample recruited on Mechanical Turk to the 2014 Pew Political Polarization National Survey. As Table 1 indicates, while our sample is younger, more liberal, more educated, and poorer than a typical national sample, consistent with other Mechanical Turk Samples, our sample does provide a good representation of political activity outside the ballot booth. The percentage of individuals who had volunteered for a campaign, contacted an elected official, or attended a campaign rally is only a little higher than the national average.

Because individuals who are active in politics beyond the ballot box are fewer than those who vote, in this case, the unique characteristics of Mechanical Turk actually work to our benefit by providing a slightly larger number of individuals who are involved in politics beyond the ballot booth. While our study population is slightly more politically active outside the ballot box, this allows us to generate a subsample of activists that provides enough statistical power to test our hypotheses. In addition, campaigns and interest groups routinely target individuals who have

a past history of participation in efforts to generate political action (Grant and Rudolph 2002; Hassell and Monson 2014).

Table 1: Comparison of Survey Sample to 2014 Pew Political Polarization Nationally Representative Survey

| | Survey Sample | Pew Survey 2014 |
|-------------------------------------|---------------|-----------------|
| % Volunteered for Campaign | 9% | 8% |
| % Contacted Elected Official | 34% | 28% |
| % Attended Campaign Event | 19% | 15% |
| % Republican | 18% | 24% |
| % Conservative or Very Conservative | 20% | 37% |
| % College Degree | 59% | 41% |
| % Under 35 | 65% | 22% |
| % Income under \$40K | 58% | 37% |

To test the effect of different types of descriptive norms on the decision to take public political action, we utilize the Mechanical Turk sample described above. Specifically, because we are interested in the effect that comfort with engaging in political activism has on the willingness of individuals to become politically involved, we specifically asked individuals whether they identified as an activist.⁴ Of the 1,560 that responded, 22% identified as an activist.⁵ After gathering basic political information, along with other information about past

⁴ We use self-reported identity as an activist as the key moderating variable for identifying comfort with political activity rather than a measure of political activity itself because many people engage in politics without ever feeling comfortable with it (Han 2014). In addition, there is a distinct difference in understanding activists and those who participate in politics, a difference that originates in the level of comfort and sense of obligation to act (Han 2014; Teske 1997). Of the different activities, being an activist correlated at .44 with attending an rally in the last two years, at .34 with having written a public official in the last two years, and at .31 with having volunteered for a campaign. Using any of these variables instead does not change the effect of the social norms. Consistent with the results shown below, individuals who have not participated in these activities continue to respond significantly more to the negative descriptive norm while those who have engaged in these activities previously do not show any response to variation in the framing of the call-to-action.

⁵ Respondents were asked whether they would describe themselves as an activist and were given the options of “No,” “Yes, somewhat,” and “Yes, definitely.” For the purposes of this analysis

political behavior and political efficacy, we implemented a single factor experiment with two levels. Prior to asking about how different appeals invoked different emotions and separated by a number of unrelated questions, respondents were randomly assigned through Qualtrics's complete randomization process to be presented with one of two texts that discussed the importance of recycling, the need to conserve natural resources, and how recycling creates job growth in their community.

Embedded in the test was either a positive or negative descriptive norm about the political behaviors of others surrounding this issue. Respondents in the first group saw a commentary about how few individuals care about recycling and explained that few individuals were engaged in a meaningful way with their community to encourage recycling. This text was designed to establish the social descriptive norm that few individual are participating or engaged in pursuing the politically favorable outcome, consistent with previous work (Cialdini et al. 2006; Kallgren, Reno, and Cialdini 2000).

Respondents randomly assigned to the second group read the exact same text, but that text had a positive descriptive social norm instead of a negative descriptive social norm embedded within the call to action. Respondents in this treatment group read about how lots of people were taking a stand around the country and that many were actively getting involved in their community to increase recycling options. The text of the call to action with both embedded social descriptive norms is available in the appendix.

At the bottom of both texts was the call to action that invited respondents to write a letter that would be sent to their local city official encouraging their municipality to engage with local waste management companies to provide more recycling options. If individuals indicated that

we have combined those who indicated "Yes, somewhat" and "Yes, definitely" because less than 4% of respondents indicated that they definitely identified as an activist.

they were willing to write a letter to their local official, they were directed to a page with a link to an online petition where they filled out their address and personal information and supplied the text that would be sent to their local city official. In order to ensure that respondents who indicated that they were willing to act actually did take the time to fill out the form to be sent to their local official, we coded individuals who spent less than 20 seconds (about the amount of time it took the authors to fill out the information the form and consistent with other previous similar studies (Hassell and Visalvanich 2015)) on the website containing the online form as not having actually sent the letter to their local public official.⁶

Survey Experiment Results

We begin by comparing the overall willingness of individuals to contact their local official under the two different conditions. Table 2 shows the percentage of individuals who filled out the form to contact their local city official to encourage them to engage local waste management companies in providing additional recycling opportunities in their community. As Table 1 indicates, consistent with Hypothesis 1, those individuals who were presented the negative social descriptive norm were 3.5 percentage points more likely to fill out the letter to

⁶ Although organizations regularly use click-through rates to analyze the effectiveness of their messages sent to organizational members (Congressional Management Foundation 2008), because we did not have the ability to assess whether individuals actually signed the petition, we were forced to rely on an assumption that individuals did fill out the form and then returned to the survey. Respondents were asked to fill out their name, address, and to enter a short text to send to their local official. Respondents who spent more than 20 seconds spent a minute and a half on average before returning to the survey, with the longest spending 6 minutes filling out the form. Of the 384 individuals who indicated that they were willing to write a letter to their local official, 308 (80%) of them spent twenty seconds or more. Although, ideally, we would prefer to have more complete measures of participation, conversations with colleagues working in issue advocacy grassroots efforts indicated that our click-through to conversion percentage is roughly in line, or perhaps a little higher than the results that advocacy organizations get from email solicitations, and in line with previous informal analysis (Congressional Management Foundation 2008). Raising the minimum amount of time necessary to be considered as having completed the form to 30 or 60 seconds (lowering the completion rate to 74% and 60% respectively) has no significant effect on the outcomes.

contact their local official than were those in the positive social descriptive norm, increasing the likelihood of writing their local official from 18.7% to 22.2%, a difference significant at the $p < .05$ level on a one-tailed test.

Table 2: Effect of Positive and Negative Descriptive Social Norms on Respondent Willingness to Write Letter to Local Public Official

| | Positive Descriptive | | Negative Descriptive | | |
|-----------------|----------------------|-----|----------------------|-----|-----|
| | Social Norm | N | Social Norm | N | |
| All Individuals | 18.7% | 754 | 22.2% | 752 | ** |
| Activists | 34.3% | 166 | 28.7% | 164 | |
| Non-Activists | 14.3% | 588 | 20.4% | 588 | *** |

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$, one-tailed test

These differences are even starker if we examine only individuals who do not identify as activists and as such would be more familiar and comfortable taking such political action. Consistent with Hypothesis 3, Table 2 shows that individuals who did not identify as activists were 6.1 percentage points more likely to write a letter to their local public official, increasing their likelihood of participation from 14.3% to 20.4%, a difference significant at the $p < .001$ level on a one-tailed test. Individuals who identified as activists, however, were slightly less likely to participate (decreasing from 34.3% to 28.7%), although these differences did not quite reach standard levels of significance.

Because identifying as an activist correlates with other behavioral and attitudinal variables, we also wanted to control for those variables in order to understand whether identity as an activist was critical to understanding the differences in responses. Table 3 displays a logit regression controlling for political efficacy and socio-economic factors commonly associated with political action (Verba, Schlozman, and Brady 1995).

Table 3: Likelihood of Individual Contacting Local Official

| | (1) Wrote Local Official | (2) Wrote Local Official |
|----------------------------------|--------------------------------|--------------------------------|
| Positive Descriptive Social Norm | -0.431*** (0.156) | -0.417*** (0.157) |
| Activist | 0.449** (0.201) | 0.441** (0.202) |
| Positive Norm x Activist | 0.695** (0.284) | 0.668** (0.286) |
| Political Efficacy | | 0.158 (0.112) |
| College Education | | -0.059 (0.139) |
| Income 40 to 80K | | 0.317** (0.144) |
| Income 80K+ | | 0.320 (0.223) |
| Constant | -1.361*** (0.102) | -1.461*** (0.138) |
| Observations | 1,506 | 1,506 |
| Pseudo R-Squared | 0.0252 | 0.0305 |
| Log-Likelihood | -743.7 | -739.7 |

Logit Coefficients. Standard errors in parentheses.

*** p<0.01, ** p<0.05, * p<0.1, two tailed test

Even after controlling for other factors that correlate with identifying as an activist, we still continue to find that identifying as an activist moderates the effect of the type of the positive or negative descriptive norm. While negative descriptive norms have a large effect on those who are not activists compared to positive descriptive norms, that effect disappears for activists.

The Role of Emotion

We next move to testing the mechanism by which negative social descriptive norms encourage individuals to take political action on behalf of a cause. To do so, we rely on the same Mechanical Turk sample described above. Because we did not want to prime individuals to think of their emotions before being asked to take action, after being presented with the call to action and a series of other unrelated questions, respondents were presented with one of two short texts that were also about an environmentally related issue. These brief texts either described the actions that people were taking or were not taking to combat the problem of littering. One text contained a positive descriptive social norm which described the many things Americans were doing to clean up litter and to encourage others in their community to change their behaviors. The other text contained a negative descriptive norm that described how many people were failing to act to change behaviors in their community. Again, the full text of the appeals is available in the appendix. After showing respondents one of these two texts, we asked them how these descriptions made them feel and asked them to indicate the extent to which the statement made them feel anger and enthusiasm on a five point scale.

Table 4 presents the differences in the emotional response between respondents who saw the text that used the negative descriptive norm and those who saw text using the positive descriptive norm. Consistent with Hypothesis 2a, negative descriptive norms caused individuals to feel significantly more anger and, also at the same time, significantly less enthusiasm.⁷

⁷ These results are almost identical if we only compare individuals who saw the same type of appeal in the recycling call to action and in the littering descriptive text. Likewise, there is no difference in the increase of anger of self-identified activists and non-activists.

Table 4: The Effect of Positive and Negative Descriptive Norms on Emotional Responses

| | Positive Social | | Negative Social | | |
|------------|------------------|-----|------------------|-----|-----|
| | Descriptive Norm | N | Descriptive Norm | N | |
| Anger | 2.32 | 698 | 2.85 | 736 | *** |
| Enthusiasm | 2.12 | 698 | 1.56 | 736 | *** |

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$, two-tailed test

But just showing that these different appeals cause different emotional responses from individuals is not sufficient. To attempt to link the emotional response of individuals to certain types of appeals, we examine the population of individuals who were shown the same descriptive information (either positive or negative) in both the call-to-action and the other environmental text. Under the assumption that the littering text and the recycling text will elicit the same emotions, we can examine the mediating effect of emotion on the call to action.

Table 5 shows the logistic regression of the likelihood of writing a letter to a local official about engaging waste management companies about increasing recycling options similar to that in Table 3. In Table 5, however, we also include the emotional response of individuals to the same descriptive norm in regards to the other environmental concern (again, note that only respondents that were shown the same type of descriptive norm for both texts are included).

Consistent with Hypothesis 2b, as Table 5 shows, when we add the emotional response to the descriptive norm shown the respondent, the direct link between the type of descriptive social norm shown in the appeal and the individual's action to write a local official about an environmental topic fades away. More importantly, we find a strong relationship between anger (but not enthusiasm) and the decision of an individual to take action. The more the environmental appeal prompted feelings of anger about the prevalence of inaction, the more likely individuals were to engage their local public officials.

Table 5: The Mediation of Negative Descriptive Norms through Anger

| | (1) Wrote Local Official | (2) Wrote Local Official (Non-Activists) | (3) Wrote Local Official (Activists) |
|----------------------------------|--------------------------------|--|--|
| Positive Descriptive Social Norm | -0.145 (0.205) | -0.484 (0.253) | 0.686 (0.399) |
| Anger Response to Message | 0.255*** (0.085) | 0.293*** (0.103) | 0.150 (0.159) |
| Enthusiasm Response to Message | 0.080 (0.091) | 0.143 (0.118) | -0.114 (0.155) |
| Political Efficacy | 0.125 (0.159) | 0.108 (0.190) | -0.058 (0.316) |
| College Education | 0.008 (0.204) | -0.130 (0.243) | 0.578 (0.408) |
| Income 40 to 80K | 0.213 (0.210) | 0.328 (0.285) | -0.253 (0.410) |
| Income 80K+ | 0.107 (0.337) | 0.328 (0.376) | -0.968 (0.839) |
| Constant | -2.255*** (0.344) | -2.439*** (0.420) | -1.779** (0.699) |
| Observations | 729 | 563 | 166 |
| Pseudo R-Squared | 0.021 | 0.039 | 0.028 |
| Log-Likelihood | -354.8 | -315.4 | -201.3 |

Logit Coefficients. Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1, two-tailed test

Interestingly, as noted in models 2 and 3 in Table 5, we find a strong relationship between the anger individuals feel and their engagement on the issue for non-activists, but no relationship for activists.⁸ This suggests that while emotion can drive action, when that action is already familiar and comfortable, it does not have as large of an impact. This is consistent with other studies applying social norms to politics, where appeals have large effects for those who do not participate on a regular basis, while having little effect on those who do (Gerber and Rogers

⁸ We also note that none of these effects change if we eliminate the controls from the model.

2009). While negative descriptive norms change a number of emotional responses among respondents, it appears that they are effective because they increase the anger that respondents feel.

Field Experiment

One might argue that the responses to the above online survey experiment were not representative of real life decisions, because individuals could perceive the request as inconsequential since it did not directly come from a recognized organization and respondents were directed to a Change.org petition, which virtually anyone can set up. We understand concerns about whether this finding transfers to real life situations. For this reason, we also cooperated with a student organization at a large university in the South to test the effect of positive and negative descriptive social norms on the willingness of students to sign a petition advocating a change in university policy.

The student organization that collaborated with us on this project was local chapter of a larger national organization advocating for changes in dining and residential policies affecting students in the fall of 2014. Students in the local chapter were in the process of gathering information on student support of changes in policy to present to the administration as part of the advocacy effort to encourage the desired changes in university policy. As part of this process, the organization emailed a random selected sample of 8000 students on campus a brief eight-question survey. The survey generated 843 responses for a 10.5% response rate. While this small response rate may raise some concerns about the generalizability to another field experiment that is able to reach a full identified population, we believe this presents a conservative test of our hypothesis about the influence of appeals that use negative descriptive norms. As demonstrated in the survey experiment, the effect of negative descriptive norms was greatest among those

individuals who did not identify as activists. Because this was explicitly a survey about the policy goals of the organization and the organization was identified in the original email, the sample is most likely overpopulated with individuals who are engaged on related issues and are more likely to be comfortable with political activism. As was shown previously, these individuals are less likely to be moved by negative descriptive norms. As such, finding any evidence of the effect of negative descriptive norms here can only be expected to be magnified in a situation where the message reaches individuals indiscriminately.

In the survey, students were asked to list their name if they were in support of the organization's proposed policy change. In the email and in the survey, the organization indicated specifically that the information shared with the organization would be passed on to the university's administration. The 843 students who took the survey were randomly assigned to one of two calls to action that invited them to sign the petition that would be presented to the university's administration. One half of the respondents (422) were presented with a call to action that included a positive descriptive social norm about political action and the respondents in the other half (421) were presented a call to action that included a negative descriptive social norm about political action. The full texts of both of these calls to action are included in the appendix.

Table 6 presents the responses of the 843 students who were presented with the call to action, inviting them to sign their name to the petition that would be presented to the university administration. As before, negative social descriptive norms encouraged action at a higher rate than positive social descriptive norms. Compared to students who were shown the positive descriptive social norm as part of the call to action, students who were shown the negative descriptive social norm were almost 4 percent more likely to sign the petition (81.9 percent of

students compared to 78.0 percent), a difference significant at the $p < .1$ level. This suggests that, in the real world, calls to action for this particular political activity are more effective when they contain negative descriptive social norms than when they have positive descriptive social norms.

Table 6: Effect of Positive and Negative Descriptive Social Norms on Student Willingness to Sign Petition to University Administration Advocating University Policy Change

| Positive Social Descriptive | | Negative Social Descriptive | | |
|-----------------------------|-----|-----------------------------|-----|---|
| Norm | N | Norm | N | |
| 78.0% | 422 | 81.9% | 421 | * |

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$, one-tailed test

We acknowledge that the effect we find in the field experiment is only marginally significant and by itself is not sufficient evidence to document these effects by itself or to fully confirm the effects demonstrated in the survey experiment. However, we believe this is important evidence for two reasons. First, we find this marginal effect in a sample that is smaller than the survey experiment where effects should be more salient and controllable compared to the effects found in the real environment. Using a smaller sample limits our ability to detect real world effects which are usually weaker than controlled effects. Second, as we mentioned before, this is a conservative test of the effects because of the type of individual who most likely put themselves in a position to sign the survey. Because the petition was part of a larger survey about a campus policy that was sent to students, those who participated in the survey and were asked if they would like to sign the petition were likely those who cared more about the policy issue. As such, the sample is likely overpopulated with individuals who identify with those who would advocate for policy changes as the positive descriptive norm indicated. As documented in the lab experiment, those who identify with the social group whose actions are described are less likely to respond to the negative descriptive norm. Thus, finding any effect in the field experiment is a more challenging test. Finding this marginal effect, buoyed by the results in the online

experiment suggests that this is not a chance occurrence, and that negative descriptive appeals can be significantly more effective at encouraging political action under certain circumstances.

Conclusion and Discussion

We have shown here that previous conclusions about the power of positive descriptive norms relative to their negative descriptive counterparts are incorrect. While positive descriptive norms are effective, their relative influence is not universal and instead appears dependent on the action encouraged and the group identity of the individual receiving the normative information. The reason that campaigns and political movements continue to rely on calls to actions that use negative descriptive norms is that, under the right circumstances, they appear to be more effective than positive descriptive norms.

Contrary to previous political research that has found a dampening effect on participation through the use of negative descriptive norms, we argue that this effect is not universal. In the case of contacting a local official to advocate for a particular policy change, we find that negative descriptive norms are actually more effective than positive descriptive norms. We argue that these findings are the result of the difference in the nature of the objective of the appeals. Previous work on the positive effect of positive descriptive norms has focused on activities that are largely self-centered, where the actions taken have no effect on the behaviors of others. Increasing voter turnout to strengthen democracy (Gerber and Rogers 2009) and decreasing average energy consumption (Schultz et al. 2007) among others (Cialdini 2003) are actions where an individual's behavior does not have any effect on the behavior of others or on changing policy that affects others. On the other hand, taking a public action to advocate for a policy change, if successful, can have a lasting impact on the behavior and actions of others. As

previous work has also shown, the perception of the possible failure of a cause due to inaction on the part of others can be a powerful motivator because of the emotions they trigger (Miller and Krosnick 2004; Mutz 1995; Valentino et al. 2011). Describing what people are not—but should be—doing prompts anger at much higher levels than indicators that people are acting to combat a problem.

In addition to the influence of the type of activity, we also find that the familiarity of the individual with the activity plays a significant role in the effect of the frame on the decision to act. While positive descriptive norms are less effective than negative descriptive norms at getting the general public to engage in activist behavior through signing a petition or writing a local public official, the same is not the case with individuals who identify as activists. Because of their familiarity in engaging in politics they are less susceptible to the effects of normative frames in shaping their behavior.

Previous work has argued that citizens' expectations of other political activity have a causal impact on the likelihood of voting by describing the norm that causes people to participate. If this was the case, the expected behavior of political movements would be to highlight the volume of activity of individuals engaged in making a difference. This is clearly not the case—and for good reason. In areas of political behavior where one's participation has an influence on the behaviors and actions of others, highlighting positive descriptive norms is less effective compared to negative descriptive norms. Moreover, this increase in participation through the use of negative descriptive norms is greatest among those who are less likely to participate; those individuals who are not self-described activists. The use of negative descriptive norms then encourages greater political participation among those least active in politics.

The power of descriptive norms in influencing behavior is not as straightforward as previously thought. While under certain circumstances positive descriptive norms can prompt individuals to become politically engaged better than negative descriptive norms can, we show that, at other times, negative descriptive norms are more effective. In the instance of motivating individuals to contact a local policy maker and advocate for action to be taken, we find that negative descriptive norms are more effective than positive descriptive norms. Simply, complaining that no one is acting and that someone should act can be a powerful motivator to change.

Appendix

Online Survey Experiment Call to Action

The texts of the two calls to action in the survey experiment are below. The italicized portions are the experimentally manipulated sections of the call to action.

Call to Action (Positive Descriptive Social Norm Version)

Our communities need to be more sustainable. Many of our natural resources are being depleted faster than they are reproduced. We need to stop that. Recycling helps. Recycling reduces our dependence on raw materials. Recycling is an essential part of maintaining and protecting the earth. It also helps protect us and it provides needed jobs in a struggling economy. By recycling, we reduce the size of landfills, which can contaminate our water supply. If we don't work to protect the resources we have, we will suffer the consequences. *Yet, millions of people across the country are working to better our environment by promoting responsible recycling programs in their local communities. There are lots of people across the country who are taking a stand to better the environment and protect our natural resources. Lots of people realize the importance of this issue and are helping by getting involved in their local community.* Will YOU make a difference? We need your help to protect the resources we have and to make a difference in our community. You can make a difference by letting your local public officials know that the public cares about recycling. We need you to act! If you are willing to write a letter to the public officials in your town encouraging them to engage with local waste management companies to provide more recycling options in your community, please check yes below.

If you are willing to write a letter to the public officials in your town encouraging them to engage with local waste management companies to provide more recycling options in your community, please check yes below.

- Yes, I want to send this message to my local public officials to encourage local waste management companies to provide more recycling options in my community.
- I am not interested in sending a message to my local public officials.

Call to Action (Negative Descriptive Social Norm Version)

Our communities need to be more sustainable. Many of our natural resources are being depleted faster than they are reproduced. We need to stop that. Recycling helps. Recycling reduces our dependence on raw materials. Recycling is an essential part of maintaining and protecting the earth. It also helps protect us and it provides needed jobs in a struggling economy. By recycling, we reduce the size of landfills, which can contaminate our water supply. If we don't work to protect the resources we have, we will suffer the consequences. *Yet, millions of people don't recycle and aren't concerned or even aware of the terrible consequences. There are lots of people across the country who just don't care about the environment or our natural resources and the difference recycling can make. These people don't care and aren't helping in their local community.* Will YOU make a difference? We need your help to protect the resources we have and to make a difference in our community. You can make a difference by letting your local public officials know that the public cares about recycling. We need you to act! If you are willing to write a letter to the public officials in your town encouraging them to engage with local waste

management companies to provide more recycling options in your community, please check yes below.

If you are willing to write a letter to the public officials in your town encouraging them to engage with local waste management companies to provide more recycling options in your community, please check yes below.

- Yes, I want to send this message to my local public officials to encourage local waste management companies to provide more recycling options in my community.
- I am not interested in sending a message to my local public officials.

Online Littering Text

The two descriptive texts about littering in the online survey experiment are below. The italicized portions are the experimentally manipulated sections.

Positive Descriptive Norm

Litter is a big problem in our communities. *Many Americans actively work to limit the amount of littering that occurs in their communities. For some, this includes spreading messages about of the harms of littering, while others join together to act to change behaviors to solve the litter problem that costs the US \$11.5 billion a year to clean up.*

Littering is a big problem in our communities. *Many Americans actively ignore, and contribute to, the problem of littering in their communities. For some, this includes ignoring messages about of the harms of littering, while others fail to act to change behaviors in their community, contributing to the litter problem that costs the US \$11.5 billion a year to clean up.*

Field Experiment Call to Action

The text of the two versions of the field experiment invitation to sign the petition are below. The italicized portions are the experimentally manipulated sections.

Call to Action (Positive Descriptive Social Norm)

Thousands of students across the country are working to enact change by bringing [policy goal] to their campuses to better our environment and sustainability. Let's better our community together. If you are in support of getting [policy goal] on campus at [University Campus], please list your name.

Call to Action (Negative Descriptive Social Norm)

Because students across the country haven't cared about [policy goal] on their campuses it is hurting our environment and sustainability. Let's better our community together. If you are in support of getting [policy goal] on campus at [University Campus], please list your name.

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