

Comparing Negative and Positive Campaign Messages

Evidence From Two Field Experiments

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Considerable research indicates that personal contact from political campaigns can mobilize people to vote, but little attention has been given to whether the tone of the message matters. Studies of message tone have mostly been confined to mass media campaigns and ignored the growing role grassroots techniques play in contemporary political campaigns. Two randomized field experiments were conducted to determine the importance of message tone in grassroots contact. We find evidence that personally delivered messages can be effective at influencing voting preferences, but neither experiment uncovered a systematic difference between the effects of negative and positive messages on voter turnout or political attitudes.

Keywords: *field experiments; political campaigns; campaign communications; grassroots mobilization; turnout; voting*

A great deal of research demonstrates that personal contact from campaigns can effectively mobilize people to vote (e.g., Gerber & Green, 2000; Green, Gerber, & Nickerson, 2003; Nickerson, 2006, 2007; Rosenstone & Hansen, 1993; Vavreck, Spiliotes, & Fowler, 2002) and can even affect for whom they vote (Arceneaux, 2007). Extant evidence, though, suggests that the stylistic aspects of personally delivered messages,

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such as their tone or argumentation, do not make a difference (Green & Gerber 2004, p. 36). Nonetheless, campaigns behave as if the tone of messages matters because they are quite strategic in when and where to employ positively and negatively framed appeals (Damore, 2002; Sigelman & Buell, 2003). Yet, studies of campaign message tone have focused almost exclusively on messages disseminated through the mass media, such as television commercials (e.g., Ansolabehere & Iyengar, 1995; Clinton & Lapinski, 2004; Finkel & Geer, 1998; Freedman & Goldstein, 1999; Kahn & Kenney, 1999; Lau & Pomper, 2002; Wattenberg & Brians, 1999).¹

The preoccupation with mass-based appeals is understandable since they are the most visible form of campaigning and constitute the largest expense for national political campaigns. However, it is important to recognize that campaigns also rely on grassroots tactics to contact voters. Bergan, Gerber, Green, and Panagopoulos (2005) report that the two major party presidential campaigns knocked on a combined 17.1 million doors and completed 50.7 million volunteer phone calls during the 2004 race.² In an analysis of the use of soft money by political parties in 2000, La Raja and Jarvis-Shean (2001, Table 1) discovered that the national parties spent only 25% less on voter mobilization and grassroots outreach than on media. While state parties devoted a larger percentage of soft money to media (44%) than mobilization (15%), local parties spent 7.5 times more soft money on mobilization than on media.³ Old-style shoe leather campaigning may not be as glamorous as television commercials, but it is a well-worn message-delivery tool used across a variety of settings, from sleepy local elections to the all-consuming U.S. presidential race.

We investigate how the tone of personally delivered campaign messages affects voting behavior with the help of two randomized field experiments. The first experiment presents undecided voters with either positive information about a party or negative information about the opposing party. The assignment is randomly determined and the information is tailored to a topic in which the voter expressed interest. Rather than present partisan information in a positive or negative light, the second experiment exposes participants to information on ballot initiatives either in terms of loss or in terms of gain. Together, the two experiments explore how tone can be used to frame political debates and persuade voters.

Despite consistent evidence from laboratory experiments that negatively framed messages are more persuasive than positively framed messages, we contend that the peculiarities of grassroots campaigning make it difficult to observe this finding in the field. By exogenously manipulating the type of

message participants receive, we are able to isolate the causal effects of message tone on voting behavior, much like a laboratory experiment. Yet, because our experiment is conducted in the field, we are able to estimate the effects of message tone in the context of an actual campaign. We find little evidence that the specific tone of campaign messages matters much apart from the general content. Simply delivering a campaign message in a personal way appears to be enough to influence voting behavior.

Why Should Message Tone Matter?

At a general level, there is consistent evidence that people weigh negative information more heavily than positive information in the formation of attitudes and that negative attitudes are more likely than positive attitudes to motivate behavior (Jordan, 1965; Lau, 1982). The asymmetric effect of negative and positive attitudes leads many scholars of voting behavior to conclude as Key (1966, p. 60) so succinctly put it, “. . . people only vote against, never for” (cf. Bloom & Price, 1975; Cover, 1986; Doherty & Gimpel, 1997; Kernell, 1977; Lau, 1982; but see Fiorina & Shepsel, 1989).

These findings dovetail with numerous experiments showing that negatively framed arguments are consistently more persuasive than positively framed arguments, even when advocating the same position (cf. Cobb & Kuklinski, 1997; Levin, Schneider, & Gaeth, 1998). Borrowing from the expectancy-value model of attitude formation, students of framing effects use the following model to explain framing effects (see Chong & Druckman, 2007; Nelson, Oxley, & Clawson, 1997):

$$A = \sum v_i w_i,$$

where A represents an attitude about some object in the environment (e.g., political candidate or issue), v = a positive or negative evaluation of the attitude object for each evaluative dimension i , and w is an importance weight for each v_i . According to this model, individuals construct an overall attitude by averaging across the various considerations attached to the attitude object, which are weighted by a subjective estimate of how important each consideration is. Framing works by altering w_i . It causes people to place more weight on some considerations than others, changing the attitude in the process. Negatively framed arguments tend to be more effective than positively framed ones because individuals are more likely to attend to

negative information than they are to positive information (Ohman & Mineka, 2001; Phelps, 2005), especially if the negative information emphasizes the possibility of losing something of value. Because people weight losses more than gains, individuals tend to be more receptive to appeals that emphasize how the recommended behavior avoids losses than appeals that emphasize how it achieves gains (Kahneman & Tversky, 1979).

Nonetheless, studies of framing in both psychology and political science demonstrate that negative frames are not always more effective than positive frames. Framing works on a subconscious level by affecting the weight of considerations prior to attitude construction (Fazio, 2000). Yet, when individuals are motivated to process information more deeply, they spend more time focusing on less salient information, which may allow them time to consciously reweight the available considerations (cf. Takemura, 1994). Accordingly, when participants in an experiment are asked to provide rationales for their choices or to think for three minutes before answering the question, the relative effectiveness of negative frames over positive frames disappears (Miller & Fagley, 1991; Takemura, 1994). In political settings, being exposed to competing frames—that is, ones that argue for different positions—motivates people to engage in higher levels of cognitive elaboration so that they can weigh the two frames and make a decision (Chong & Druckman, 2007). In line with the proposition that thinking minimizes framing effects, negative frames are no more influential than positive frames when people are confronted with both (Druckman, 2004).⁴

It is likely that the factors that minimize framing effects in the laboratory are also present in an actual campaign. With the exception of low-salience campaigns, individuals are exposed to competing messages as Election Day approaches. In a campaign setting, participants in a field experiment encounter frames that are actively being contested in the information environment. If opinions have already been shaped by competing frames, then this pretreatment effect will vitiate the effect of frames presented in the field experiment (Druckman, 2007). Moreover, even if participants are not influenced by a pretreatment effect, personally delivered messages may encourage higher levels of elaboration, similar to laboratory experiments in which participants are encouraged to think about their opinion. Personally delivered campaign messages are not unidirectional appeals where a participant passively reads or listens to the message. They are conversations where the sake of politeness, even if it is only for participant, must exchange words with the campaign worker. Such a situation increases the probability that people may systematically process the information they are presented.

Aside from the aspects of campaign settings that affect information processing, personally delivered campaign appeals may have an affective dimension that one does not observe in most laboratory framing experiments. Positively framed messages delivered to participants who sympathize with the messenger may actually engender enthusiasm about the recommended behavior (i.e., vote for our candidate). To the extent that positively framed messages are received as enthusiasm appeals, extant research suggests that it will enhance the effectiveness of the positively framed message and neutralize framing effects, at least in terms of motivating people to engage in the recommended behavior (cf. Brader, 2006). Thus, it is unclear whether campaigns should expect voters to respond differently to negatively framed messages than positively framed messages delivered through grassroots techniques. We conducted two field experiments to test this hypothesis.

Study 1: Minnesota Youth Voting Project Campaign

Data and Protocols

In the 2004 presidential contest, the 21st Century Democrats targeted undecided voters between the ages of 18 and 29 living in Minnesota, using conversational phone scripts in an effort to increase support for the Democratic ticket. Previous research has demonstrated that these types of phone scripts can influence voting behavior (Nickerson, 2006; Nickerson, Friedrichs, & King, 2006). The 21st Century Democrats identified their target universe using two approaches. One set of names was harvested by standing at sites where young people congregate (e.g., concerts, retail spaces, clubs, and bus stops), and the other set was obtained by purchasing contact information from a vendor. Beginning in early September, the campaign identified undecided voters and determined their particular issue of concern.⁵ In the harvested sample, this was done by asking people questions while collecting their contact information, and in the purchased sample, it was accomplished with an initial phone call a month prior to the election. The weekend prior to Election Day, campaign volunteers called these undecided voters and delivered a persuasive script specially tailored to the issue area deemed most important by the participant.⁶

While limiting the campaign to purely undecided voters decreases the number of participants in the experiment, it minimizes the noise associated with the estimate (i.e., maximizes efficiency) by focusing only on those

participants who could be persuaded to vote for the Democratic ticket. Consequently, if the negative tone of scripts has a differential persuasive effect, we expect to observe it among this population of persuadable voters who, thus, act much like canaries in a coal mine.

In collaboration with the campaign, scripts were crafted to isolate the effects of negatively framed messages. Both positive and negative scripts focus on a single issue and are phrased in nearly identical ways, pointing out similar pieces of information. The messages differed only in whether the information critiques the incumbent Republican administration (negative frame) or extols the benefits of Democratic proposals (positive frame). We present the scripts in Appendix A. In this way, our negative messages closely mirror the coding scheme of the Wisconsin Advertising Project (Goldstein, Franz, & Ridout, 2002), which is often used to study the effects of tone in political commercials.⁷ In short, by holding the structure and issue content of the messages constant and only manipulating the tone of the messages, we are able to isolate the effects of negatively framed messages vis-à-vis positively framed messages.⁸

Participants were randomly assigned to a positive ($n = 3,084$) or negative message group ($n = 3,122$; total $N = 6,206$).⁹ The random assignment of participants means there are no *ex ante* differences between groups (within sampling variability). Thus, if we find differences between the groups, it constitutes strong evidence that participants responded differentially to the frame of the message. In keeping with the majority of the extant laboratory and observational studies of framing effects, a control group was not included in this design, and we are only able to test expectations regarding the effects of negatively framed messages vis-à-vis positively framed messages.

Immediately after the election, a telephone survey was conducted by an independent professional polling firm to measure the vote choice of the participants in the experiment (see Appendix B for question wording). The overall response rate was 22% ($n[\text{positive group}] = 680$; $n[\text{negative group}] = 705$; total $N = 1,385$).¹⁰ Such a low response rate raises concerns about nonresponse bias. Because treatment was randomly assigned, the low contact rate should not affect the internal validity of the experiment. Within the pool of survey respondents, the participants receiving the positive script should have equal prestudy propensities to vote and support President Bush as the participants receiving the negative script, and this expectation is bolstered by the fact that participants assigned to the positive and negative groups were equally likely to respond to the survey.¹¹ All of this, of course, does not eliminate concerns about external validity, since it is impossible to know how nonrespondents felt about the candidates. Yet, similar to all

Table 1
Voter Turnout by Randomly Assigned Message Tone, Study 1

	Harvested	Purchased	Pooled
Turnout in negative frame group	55.7% [911]	39.3% [2,211]	
Turnout in positive frame group	52.5% [910]	39.8% [2,174]	
Difference (Negative–positive)	+3.1% (2.3)	–.5% (1.5)	+6% (1.3)
<i>p</i> value (two-tailed)	.18	.74	.65

Note: Numbers in brackets represent *N*. Numbers in parentheses represent standard errors.

studies that use observational survey data, we can only make inferences about the impact of message tone on voting preferences to the population of survey takers. In contrast to most observational studies, we verify voter turnout for all of the participants in the experiment using the official turnout lists of the Minnesota Secretary of State. Consequently, our findings with regard to voter turnout unequivocally generalize to our full target population.

Findings

Because the harvested and purchased target populations were formed using different approaches, it is conceivable that participants from each population may respond differently to the messages. Random assignment neutralizes differences between treatment groups, but heterogeneity may exist across individuals in their response to the treatment. To account for this possibility, we present separate results for the harvested and purchased populations in addition to pooling them. We begin our discussion of the results with the effects of message tone on observed turnout, which are shown in Table 1. Because treatment groups were formed randomly and participants from each group were called by volunteers using similar scripts, a straightforward comparison of mean voting rates between groups provides an unbiased estimate of the average treatment effect.

We do find evidence that negative messages caused a modest 3.1 percentage point boost in turnout relative to positive messages in the harvested group, but this fails to reach traditional thresholds for statistical significance (standard error = 2.3, *p* = .18, two-tailed). However, we do not find any evidence of a mobilization effect among participants whose names and numbers were purchased (see Table 1, column 2), and, thus, only find marginal evidence of a mobilization effect from the negative frame in the pooled data (Table 1, column 3).¹²

Turning to the effects of message tone on vote preferences, we report results from data on attitudes toward Kerry and Bush collected in the postelection survey. We measured voting preferences by asking respondents to rate the major presidential candidates on a 4-point scale and identify which presidential candidate they preferred in a head-to-head matchup. These results are displayed in Table 2. The negative message did not appreciably increase support for the Democratic candidate, John Kerry, but did slightly (though not significantly) decrease support for Republican George W. Bush relative to the positive message. Taken together, these results corroborate our hypothesis that negatively framed personal messages, at best, have a weak (i.e., small and statistically insignificant) positive effect on turnout and support for the sponsor.

Study 2: Los Angeles Ballot Proposition Campaign

Data and Protocols

Study 2 was conducted in Los Angeles, California, where a different nonprofit organization targeted minority voters of all adult ages in an effort to boost support for two statewide ballot propositions. One ballot proposition aimed at relaxing the “three-strikes” law, by making it so that only a violent offense on the “third strike” would qualify for a life sentence. The other proposition would have required that large companies pay at least 80% of employees’ health insurance. Study 2 differs from Study 1 in a number of important ways. First, the negative message focuses exclusively on losses and costs, while the positive frame only focuses on gains and benefits. In this way, Study 2 is more consistent with the sorts of frames used in laboratory experiments, especially those in psychology that find that negative frames are more persuasive than positive frames *even when both frames advocate the same result* (cf. Levin et al., 1998, pp. 167-178). Second, Study 2 investigates the impact of framing on voting preferences with respect to a ballot proposition. In this way, Study 2 minimizes the confounding influence of partisan and image cues that may be present in studies of candidate vote choice. Finally, Study 2 included a control group that received neither a positive nor a negative frame, allowing us to test the overall effectiveness of the frames—not just their effectiveness relative to one another.

The randomization protocol was a two-stage process. In the first stage, we randomly assigned households on the target list to receive

Table 2
Voter Preference and Favorability Ratings by Randomly Assigned Message Tone, Study 1

	Harvested	Purchased	Pooled
a. Vote preference			
Percentage voting Kerry in negative frame group	57.3% [262]	72.9% [443]	
Percentage voting Kerry in positive frame group	59.6% [277]	72.9% [403]	
Difference (Negative–positive)	–2.3% (4.3)	0.0% (3.1)	–.8% (2.5)
<i>p</i> value (two-tailed)	.60	1.00	.75
b. Kerry favorability ratings			
Average favorable Kerry rating in negative frame group	2.81 [254]	2.97 [436]	
Average favorable Kerry rating in positive frame group	2.81 [267]	2.96 [397]	
Difference (Negative–positive)	–0.00 (.07)	.01 (.06)	0.00 (.05)
<i>p</i> value (two-tailed)	1.00	.87	1.00
c. Bush favorability ratings			
Average favorable Bush rating in negative frame group	2.20 [255]	1.77 [434]	
Average favorable Bush rating in positive frame group	2.31 [271]	1.74 [399]	
Difference (Negative–positive)	–.10 (.09)	+.03 (.07)	+.02 (.06)
<i>p</i> value (two-tailed)	.27	.67	.74

Note: Numbers in brackets represent *N*. Numbers in parentheses represent standard errors. Rating scale is 1 = *very unfavorable*; 2 = *somewhat unfavorable*; 3 = *somewhat favorable*; 4 = *very favorable*.

campaign contact (*N* = 54,332 individuals) or not (*N* = 9,022 individuals). In the second, we randomly assigned precincts to receive either positively or negatively framed messages (*N*[positive] = 29,694 individuals; *N*[negative] = 24,638 individuals).¹³ Consequently, individuals assigned to the treatment or control group lived in each precinct, but treatment group participants in each precinct only heard a positive or negative frame. We adopted this two-stage randomization approach for two reasons. First, it allowed canvassers to spend the entire day delivering one message, which reduced errors that might have occurred if they were asked to switch between messages in the field. Second, it kept message tone confined to a geographic area, which reduced the possibility that participants could hear

the competing messages through cross-contamination (e.g., from a neighbor). Because the precincts were randomly assigned, it poses no threat to internal validity but does require special care be taken when estimating the standard errors of the treatment effect estimates (see Arceneaux, 2005).¹⁴

The group's get-out-the-vote strategy unfolded in two stages. In the first stage, both paid and volunteer door-to-door canvassers attempted to contact participants assigned to the treatment group to ascertain their level of support for the ballot proposition and deliver a persuasive message regardless of support. In the second stage, which occurred in the week prior to the election, canvassers returned to deliver the persuasive message only to supporters and undecided voters and encourage these individuals to vote on Election Day (see Appendix A for wording of scripts). Canvassers were able to reach 15,083 participants in the treatment groups (27.8%), which is a respectable contact rate in a door-to-door operation.

Consonant with Study 1, actual voter turnout was measured using official records obtained from the State of California after the election, and vote choice was measured with a postelection survey conducted by a professional polling firm (see Appendix B for question wording). Given the sheer size of the experiment, we randomly sampled 6,756 individuals to be called by the independent polling firm (3,416 were drawn from the treatment group and 3,340 from the control) and completed 359 interviews ($n[\text{positive}] = 107$; $n[\text{negative}] = 79$; $n[\text{control}] = 173$). The overall response rate was quite low (5.3%), but as discussed above, this does not compromise the internal validity of the experiment since random assignment ensures that participants in even the survey sample are identical (within sampling variability) save for the intervention of the campaign message.¹⁵

Method

The experimental design of Study 2 offers a few complications not encountered in Study 1, which require a brief description of the methods we employ to estimate quantities of interest. Because random assignment took place at the precinct level in Study 2, it is necessary to adjust the individual-level standard errors to account for the fact that individual-level outcomes are correlated within clusters. Failure to do so will result in underestimating the standard errors, biasing t statistics upward. Following the practice of scholars who conduct cluster-randomized experiments in education and medical research, we use a clustered robust estimator to adjust the standard errors (Arceneaux, 2005). To compensate for the loss in effective N , we include covariates (age, indicator for females, indicator for newly registered

voters, and previous voting behavior in the past five elections) to increase the precision of these estimates. Note that the inclusion or exclusion of these covariates does not affect the treatment effect estimates themselves because treatment assignment is orthogonal to these variables.

The campaign, like all campaigns, was not able to deliver a message to everyone in the treatment group, creating a classic failure-to-treat problem. An inappropriate identification strategy would be to compare those whom the campaign contacted to those whom it did not. Contacted individuals may be different from uncontacted individuals in ways that are confounded with outcome variables of interest, which raises the issue of endogeneity bias inherent in observational studies.¹⁶ In contrast, we adopt two different (but related) approaches to calculate unbiased causal estimates. One approach compares all individuals of the treatment groups to those in the other groups, regardless of contact. This causal estimate is commonly referred to as the intent-to-treat (ITT) effect. Substantively, this quantity indicates how many individuals the campaign induced to vote (or support a proposition), given the total number of individuals it *attempted* to contact. The other approach estimates the causal effect among those *exposed* to the message, which is accomplished by adjusting the ITT estimate by the contact rate and is called the average treatment-on-treated (ATT) effect.¹⁷

Results

The ITT and ATT estimates for voter turnout and vote preferences regarding both ballot propositions are shown in Table 3. In terms of turnout, neither the positive nor the negative message had a statistically significant effect (see column 1 of Table 3). Participants in the negative message treatment group were actually 0.2 percentage points less likely to vote than participants in the control group, although this quantity is not statistically different from zero ($p = .86$, two-tailed t test). By testing for a difference between the ATT coefficients, we are able to compare the messages to one another, as we did in Study 1. Here we find evidence that those exposed to the negatively toned message were, as expected, slightly more likely to vote (+1 percentage point), but this difference is statistically insignificant ($F[1, 116] = 0.04, p = .84$).¹⁸

The last two columns of Table 3 display the treatment effect estimates with respect to voting preferences. Overall, the campaign was able to increase support for the three-strikes-you're-out ballot proposition but not the health care proposition. The negative frame increased support for the three-strikes proposition by roughly 10.2 percentage points over support in

Table 3
ITT and ATT Estimates for the Causal Effect of Message Tone on
Turnout and Voting Preferences in Los Angeles, Study 2

	ITT Effects			ATT Effects		
	Turnout	Three Strikes	Health Care	Turnout	Three Strikes	Health Care
Negative frame	-.002 (.011)	.102 (.060)	.021 (.056)	-.009 (.041)	.238 (.141)	.049 (.133)
Positive frame	-.006 (.008)	.063 (.068)	-.001 (.053)	-.02 (.030)	.127 (.137)	-.002 (.100)
Age	-.0002 (.000)	-.003 (.002)	-.001 (.002)	-.0002 (.000)	-.003 (.002)	-.001 (.002)
Female	.034 (.003)	.078 (.058)	.062 (.043)	.034 (.003)	.07 (.058)	.061 (.043)
Age missing	-.034 (.008)	-.207 (.148)	-.214 (.142)	-.032 (.008)	-.225 (.149)	-.218 (.144)
Female missing	-.01 (.010)	.169 (.168)	.217 (.068)	-.01 (.010)	.176 (.160)	.219 (.067)
Newly registered	.087 (.006)	.123 (.067)	.045 (.059)	.087 (.006)	.116 (.066)	.045 (.060)
Vote1	.296 (.010)	.09 (.095)	-.008 (.099)	.297 (.010)	.067 (.098)	-.011 (.099)
Vote2	.427 (.011)	.167 (.097)	.077 (.081)	.428 (.011)	.144 (.098)	.075 (.082)
Vote3	.491 (.011)	.164 (.105)	-.071 (.088)	.492 (.011)	.14 (.107)	-.073 (.090)
Vote4	.518 (.011)	.164 (.121)	.062 (.098)	.52 (.011)	.127 (.124)	.059 (.102)
Vote5	.555 (.010)	.169 (.117)	.018 (.107)	.558 (.011)	.148 (.118)	.017 (.108)
Constant	.357 (.014)	.735 (.134)	.884 (.098)	.353 (.013)	.772 (.137)	.887 (.102)
N	63,354	333	312	63,354	333	312
Adjusted R^2	.19	.06	.06	.19	.07	.06

Note: ITT (intent-to-treat) effect parameters were estimated with ordinary least squares regression and ATT (average treatment-on-treated) effect parameter were estimated with 2SLS using random assignment as an instrument. Fixed effects for randomization strata not shown. *Vote1* = 1 if participant voted in one of the previous five elections, *Vote2* = 1 if participant voted in two of the previous five elections, and so on. Numbers in parentheses represent clustered standard errors.

the control group ($p = .05$, one-tailed t test). Among those actually exposed to the negative message, the average treatment effect is 23.8 percentage points ($p = .05$, one-tailed t test). However, the positive message also

generated positive treatment effects and an F test demonstrates that the coefficients for the positive and negative treatment groups are not statistically different from one another ($F[1, 110] = 0.26, p = .61$ for ITT coefficients, and $F[1, 110] = 0.46, p = .50$ for ATT coefficients). Consequently, we find that simply receiving a positive or negative message is sufficient to boost support for the sponsor.¹⁹

Discussion

By personally delivering messages, campaigns are able to target their appeals in a way that it is difficult, if not impossible, with mass communication strategies. The question explored in this article is whether campaigns benefit by crafting messages to focus on the shortcomings of their opponent rather than the positive aspects of their platform. Not only does cognitive research find that individuals are more likely to heed negative information (Lau, 1982; Ohman & Mineka, 2001; Phelps, 2005), but there also is some evidence that citizens tend to vote against candidates and causes, rather than for them (Key, 1966). Consequently, it seems intuitive that by personally delivering negatively framed messages to a targeted audience, a campaign would have better success motivating citizens to vote for their cause or candidate than a more positive approach.

However, we find that exposure to a negatively framed message, at best, causes a modest boost in turnout relative to a positive message and does not appear especially effective at persuading individuals to support the sponsor of the message. These findings are consistent with our expectation that cacophonous campaign environments may minimize the effects of changes in argument framing and add to the growing number of studies that find limitations to framing effects in political settings (e.g., Druckman, 2001, 2004). We recognize that a simple response to our findings is that our treatments were not “strong enough” to detect more arresting differential effects. Yet, we believe that three aspects of these studies minimize the persuasiveness of this critique. First, both campaigns remarked to us after the study that the negative messages were in some sense easier for volunteers to deliver, which, if anything, should have boosted their effectiveness. Second, both experimental studies have a great deal of statistical power. With more than 6,000 participants in Study 1 and 63,000 in Study 2, the sample sizes of these experiments are enormous compared to laboratory experiments.

Finally, we do detect *general* message effects. Being exposed to either a positive or negative message did boost support for one of the propositions

in Study 2. Moreover, there is considerable evidence that personal contact is capable of increasing one's probability of voting (Gerber & Green, 2000; Green et al., 2003; Nickerson, 2006; Nickerson et al., 2006). So it is not simply the case that a single message is unable to appreciably affect people's voting behavior. Of course, the only way to be certain about the effects of message tone is through further replication. Aside from replicating these results in other settings, it will be important to vary other aspects of the environment, such as the incumbency status of the sponsor, which have been suggested by observational studies as conditioning the effects of message tone (Fridkin & Kenney, 2004; Lau & Pomper, 2002).

While few would disagree with the statement that replication is essential for scientific progress, scholars often tout the ability of nationally representative observational studies to resolve questions. This perception is unfortunate because it is often used to extol the benefits of national surveys vis-à-vis more localized experiments. We hope political scientists come to reject this reasoning on several grounds. First, as is roundly accepted by now, randomized experiments routinely provide a level of internal validity that cannot be reached in even the best observational studies. Second, external validity is important, but it is not clear that biased causal estimates from a nationally representative observational study are somehow more "generalizable" than unbiased estimates from a local experiment. Third, and more to the point, external validity is best attained through replication of unbiased research designs. Therefore, we do not believe that these two field experiments provide the final word on the effects of personally delivered message tone, nor do we believe *any* single study could reasonably claim to do so. We provide an initial foray into the topic and anticipate that future field experiments will only add to our understanding.

We hope scholars will continue to use field experiments as a way to extend findings established in laboratories into more real-world settings. Laboratory experimentation is well suited at identifying the microprocesses underlying human cognition and behavior and is an invaluable tool to political scientists. Field experiments complement laboratory studies by helping scholars investigate how political stimuli operate in complex real-world environments where overlapping, interacting, and counteracting forces affect individuals. Not only will field experiments help scholars understand the limitations of laboratory findings, but they may also inform additional theory building and, ultimately, additional laboratory experiments.

Appendix A

Scripts Used in Study 1 (Minnesota)

Negative	Positive
<p>1. Hi, is this _____? Hi, _____, my name is _____ and I am a volunteer with the Minnesota Young Voter Project.</p> <p>How are you tonight? Great, I am calling you tonight because you signed a pledge with us to cast your ballot in the upcoming election and when we last spoke, you mentioned you were still not sure who you were planning on supporting this November.</p> <p>2. If the election were held today, who would you support? (If they have changed their mind, notate it under ID on call sheet. Do not continue script with those who identify as strong Bush—say thank you, and hang up. Feel free to continue w/lean Bush)</p> <p>3. ➤ If “I don’t know: Are you leaning in a particular direction? (If still undecided, or only leaning, go to talking point below.)</p> <p>➤ If a strong Kerry supporter (1): Thanks, that’s fantastic. As young people, we need to make our voice heard for change on November 2nd. Please remember to Vote.</p> <p>➤ ****If still leaning Kerry, or undecided – 2,3,4,6,7: I just wanted to take a minute to talk a little about _____ (their issue) _____. This election will have major</p>	<p>1. Hi, is this _____? Hi, _____, my name is _____ and I am a volunteer with the Minnesota Young Voter Project.</p> <p>How are you tonight? Great, I am calling you tonight because you signed a pledge with us to cast your ballot in the upcoming election and when we last spoke, you mentioned you were still not sure who you were planning on supporting this November.</p> <p>2. If the election were held today, who would you support? (If they have changed their mind, notate it under ID on call sheet. Do not continue script with those who identify as strong Bush—say thank you, and hang up. Feel free to continue w/lean Bush)</p> <p>3. ➤ If “I don’t know: Are you leaning in a particular direction? (If still undecided, or only leaning, go to talking point below.)</p> <p>➤ If a strong Kerry supporter (1): Thanks, that’s fantastic. As young people, we need to make our voice heard for change on November 2nd. Please remember to Vote.</p> <p>➤ ****If still leaning Kerry, or undecided – 2,3,4,6,7: I just wanted to take a minute to talk a little about _____ (their issue) _____. This election will have major</p>

(continued)

Appendix A (continued)

Negative	Positive
<p>implications for young people and we are calling you tonight to share with you how this decision will impact the issues that affect our lives:</p> <p><u>(Please go to the issue that corresponds to the issue identified on your call sheet. If they do not have an issue—Use Jobs/Wages)</u></p> <p><u>Jobs/Wages- 1</u></p> <p>Do you know someone who has lost a job? You know the job market is really tight for young people because we've lost 1.8 million jobs over the past 4 years and now it's even harder to find good paying jobs that provide health insurance. Minnesota's unemployment rate is up by 33% and nationally there are fewer young people working now than at any time since the government began tracking such data in 1948. This will be the first time since the Great Depression that any president will lose jobs over the course of his term. As young people, we deserve good jobs with good wages and health insurance. We deserve better leadership.</p> <p>[Sources: U.S. Department of Labor, Bureau of Labor Statistics, January 2001 & May 2004; Northeastern University youth unemployment study 2004 National Economic Council, October 2000.]</p>	<p>implications for young people and we are calling you tonight to share with you how this decision will impact the issues that affect our lives:</p> <p><u>(Please go to the issue that corresponds to the issue identified on your call sheet. If they do not have an issue—Use Jobs/Wages)</u></p> <p><u>Jobs/Wages- 1</u></p> <p>Do you know someone who has lost a job? The job market is really tight for young people because we've lost 1.8 million jobs over the past 4 years. We need to change that. Looking at the alternative, Clinton created more than 22 million new jobs when he was in office and Democrats have pledged to create 10 million new jobs by closing tax loopholes that encourage foreign outsourcing. As young people, we deserve good jobs with good wages and health insurance.</p> <p>[Source: U.S. Department of Labor, Bureau of Labor Statistics, January 2001 & May 2004; Northeastern University youth unemployment study 2004 National Economic Council, October 2000.]</p>
<p><u>Cost of College/2:</u></p> <p>Do you know someone who is paying college loans? In the last four years tuition at public universities has skyrocketed—Minnesota</p>	<p><u>Cost of College/2:</u></p> <p>Do you know someone who is paying college loans? In Minnesota students and their families have seen tuition costs rise by 35% in</p>

(continued)

Appendix A (continued)

Negative	Positive
<p>students and their families are paying over 35% more in tuition than they were just four years ago. Over 4 years, the Republicans have refused to fund over \$33 billion for public education and on top of that, here in Minnesota the Republican budget denied the \$102.5 million in tuition grant money that had been promised to the state. We deserve a quality education that we can afford. We deserve better leadership.</p> <p>[Sources: Congressional Budget Office, February 2004, "Another Education President?" National Association of College and University Business Officers, February 2001; "From Capitol to Campus," National Education Association, May 2001; "FY04 Education Funding Charts: State-by-State Information," "Bush's Tax Shakedown," Progressive Policy Institute, June 30, 2003; "Public College Tuition Soars, Higher Education Appropriations Plummet – College Affordability in Jeopardy," National Center for Public Policy in Higher Education, February 11, 2003; <i>USA Today</i>, January 4, 2004.]</p>	<p>just 4 years! We need to change that. Democrats will help college students and their families afford tuition by offering a college opportunity tax credit of up to \$4,000 for every year of college. They plan on offering four years of tuition-free college for people willing to serve America for 2 years in a school, health care center or strengthening America's security. We need leadership that will make college more affordable, so Minnesota students can attend and complete college.</p> <p>[Sources: Congressional Budget Office, February 2004, "Another Education President?" National Association of College and University Business Officers, February 2001; "From Capitol to Campus," National Education Association, May 2001; "FY04 Education Funding Charts: State-by-State Information," "Bush's Tax Shakedown," Progressive Policy Institute, June 30, 2003; "Public College Tuition Soars, Higher Education Appropriations Plummet – College Affordability in Jeopardy," National Center for Public Policy in Higher Education, February 11, 2003; <i>USA Today</i>, January 4, 2004.]</p>

Economy/3:

In the last four years, we've lost 1.8 million jobs and Minnesota's household income has declined by \$1,251 since 2000. Republicans claim that huge tax cuts for the rich are helping boost the economy, but the economy is 2 million jobs short of what was promised. In 6

Economy/3:

In the last four years we have gone from record surpluses to a record deficit of over \$420 billion (U.S. Treasury Department) and as young people, we will be left to pay for this mounting debt. We need to change that. Democrats will work to improve the economy

(continued)

Appendix A (continued)

Negative	Positive
<p>of the past 7 months, wages have actually decreased and the jobs that are being created make 23% less and are less likely to have health benefits. Additionally, Republican leadership opposes raising the minimum wage for the more than 17.3 million U.S. workers. We deserve good quality jobs and opportunities for the future. We deserve better leadership.</p> <p>[Sources: Bureau of Labor Statistics, January 2001 to June 2004, http://jec.senate.gov/democrats/ber.htm, Economy.com, July 2004, and the U.S. Census Bureau, Economic Policy Institute, July 16, 2004, Economic Policy Institute, March 2001 through March 2004.]</p>	<p>improve the economy by ending the tax cuts for the rich and getting rid of corporate giveaways. Also, Democrats are going create 10 million new jobs and close tax loopholes that encourage foreign outsourcing. As young people we deserve a healthy economy, good jobs and the opportunity to succeed.</p>
<p><u>Education/4:</u></p> <p>Over four years, Minnesota has been deprived of over \$344 million in federal education funding. Republicans failed to fund their own "Leave No Child Behind" law and stuck Minnesotans with the cost. Over the last four years, nearly one-third of American students are allowed to drop out of high school and on top of that funding for after-school programs, vocational education and bilingual educational programs has been slashed. We deserve good quality public education and opportunities for the future. We deserve better leadership.</p> <p>[Sources: "Passing Down the Deficit," Center on Budget and Policy Priorities, May 12, 2004, http://www.cbpp.org/5-12-04sfp.htm; <i>Education Week</i>, July 28, 2004.]</p>	<p><u>Education/4:</u></p> <p>Quality public education is the foundation for a strong economy and a successful future. By fully funding the No Child Left Behind Act, Democrats plan to provide more resources, smaller class sizes and more textbooks to public schools. They will invest 1.5 billion additional dollars in after-school programs giving 3.5 million kids a safe and quality place to go after school. We need to insure that every child receives a good education.</p>

(continued)

Appendix A (continued)

Negative	Positive
<p><u>Iraq/Draft/Security/5:</u></p> <p>The war in Iraq has cost Minnesotan's \$3.4 billion; that's money that could have been invested here at home. As young people we are the ones fighting the war and we are the ones who will bear the burden of paying for it. With that \$3.4 billion, we could have provided health care for almost 1.5 million children or hired more than 64,000 elementary schoolteachers.</p> <p>And instead of finishing the job in Afghanistan to capture Bin Laden, Republican leadership redirected troops to Iraq. We have still not caught Osama Bin Laden and Iraq has been growing more instable and violent by the month. We need to change the direction of this country. As young people, we need leadership that will protect our future at home and abroad.</p> <p>[Sources: "Growing Pessimism on Iraq: Doubts Increase Within U.S. Security Agencies" by Dana Priest and Thomas E. Ricks, <i>Washington Post</i>, Wednesday, September 29, 2004; Page A01; "Federal Budget Trade-Offs," National Priorities Project, May 2004.]</p>	<p><u>Iraq/Draft/Security/5:</u></p> <p>The situation in Iraq has had a huge impact on our generation. We are the ones fighting the war and we are the ones who will pay the costs. In order to stabilize the situation and to prevent more deaths, we need to build alliances around the world, not bully and alienate our allies. To do this we need a change in leadership. Democratic leadership will reach out and rebuild alliances to help share the burden in tracking down Al-Qaeda and rebuilding Iraq. As young people, we deserve to live in a safe world.</p>
<p><u>Environment/6:</u></p> <p>In the last four years, the Republicans have gutted the Clean Air Act and abandoned federal regulations meant to protect endangered species, selling public lands to oil and logging companies and allowing polluting industries to write the laws that are meant to</p>	<p><u>Environment/6:</u></p> <p>Today, almost 50% of our water does not meet "drinkable, swimmable and fishable" standard set out by the Clean Water Act 30 years ago. We're backtracking and we need to change that. Democrats have a strong record on the environment and plan to</p>

(continued)

Appendix A (continued)

Negative	Positive
<p>[regulate] their activities. And here in Minnesota, rising mercury levels in our lakes and rivers are having a severe impact on our economy and our way of life. As young people, we deserve water we can drink and air we can breathe. We deserve better leadership.</p> <p>[Sources: Published in the December 11, 2003, issue of <i>Rolling Stone</i>, “Crimes Against Nature” by Robert F. Kennedy Jr.]</p>	<p>implement a “Restore America’s Waters” campaign to protect our precious, limited water resources. And they will close loopholes in the Clean Air Act to reduce acid rain and mercury emissions. As young people, we deserve clean air and water and need to protect our quality of life.</p>
<p><u>Tolerance/Equality Issues/7:</u></p> <p>In the last four years, the equal rights of gay Americans has been under attack. By advancing the Defense of Marriage Act, Republican leadership wants to pass a constitutional amendment denying more than 1,100 rights, protections and benefits to millions of devoted couples and their children. Additionally, Republican leadership has begun working to remove hard won protections for gay and lesbian workers from civil service labor contracts. As young people, we deserve leadership that honors and protects the rights of all of its citizens. We deserve better leadership.</p>	<p><u>Tolerance/Equality Issues/7:</u></p> <p>In the last four years, the equal rights of gay Americans has been under attack. As young people we need to change that. Democrats have introduced legislation prohibiting discrimination on the basis of sexual orientation and have played a leadership role in protecting the rights of all Americans in their workplace and in their communities. As young people, we deserve a nation that honors and protects the rights of all of its citizens.</p>
<p><u>Health Care/8:</u></p> <p>Do you know someone without health care? In the last four years, more than 3.8 million Americans have lost their health insurance. In 2002 alone, the number of uninsured increased by 2.4 million—the largest one-year increase in a decade. And 18-35 year olds are the most under-insured population—17.9 million of us (18-35) do not</p>	<p><u>Health Care/8:</u></p> <p>Do you know someone without health care? 17.9 million 18-35 year olds don’t have health insurance and we need to change that. Well, Democrats have a plan to cover over 95% of all Americans and provide health care to all children. According to an independent analysis done by Emory University, their plan would provide health</p>

(continued)

Appendix A (continued)

Negative	Positive
<p>have health insurance and those of us who do have insurance have seen premiums increase by an average of \$2,600. As young people, we deserve to have health insurance that we can afford. We deserve better leadership.</p> <p>[Sources: Census Bureau, Sept. 2003 report; "Census Finds Many More Lack Health Insurance," <i>Washington Post</i>, September 30, 2003, Kaiser Family Foundation, 2004.]</p>	<p>insurance coverage to nearly 27 million Americans who now do not have health insurance. They will push to reduce the price of prescription drugs through the reimportation of cheaper drugs from Canada. As young people, we deserve to have access to quality and affordable health insurance.</p>
<p>4. At this point, do you know who you'll be supporting in the upcoming presidential election? <i>(Let them respond, and be sure to re-ID them as necessary. Be precise in choosing an ID code, and don't be afraid to ask again.)</i></p> <p>➤ If No Issue Identified: And what issue is most important to you in the upcoming election?</p>	<p>4. At this point, do you know who you'll be supporting in the upcoming presidential election? <i>(Let them respond, and be sure to re-ID them as necessary. Be precise in choosing an ID code, and don't be afraid to ask again.)</i></p> <p>➤ If No Issue Identified: And what issue is most important to you in the upcoming election?</p>
<p>5. Just two more questions:</p> <ul style="list-style-type: none">• What is your current address? Are you registered to vote at this address?• And, what is your date of birth? <p>Thanks, have a great day!</p>	<p>5. Just two more questions:</p> <ul style="list-style-type: none">• What is your current address? Are you registered to vote at this address?• And, what is your date of birth? <p>Thanks, have a great day!</p>

Appendix A

Scripts Used in Study 2 (Los Angeles)

Negative	Positive
<p>Hello, my name is _____, I'm with <i>Neighborhoods United</i>. We're talking to our neighbors today about the November election and how it will impact our communities.</p> <p>Of course there is the Presidential election, but there are also some Statewide Propositions on the ballot that will have a major impact on our community. Here are some things you should know about Prop 66:</p> <ul style="list-style-type: none"> • Proposition 66 gives us a chance to slow down the mass incarcerations in our community caused by the Three Strikes Law. • The Three Strikes Law is discriminatory and criminalizes our community. • It sends people to jail for 25 years to life for nonviolent offenses such as shop-lifting. • Currently 30,000 second and third strikers have been sentenced for petty crimes! • The additional cost to taxpayers for all of this is \$500,000 per year. 	<p>Hello, my name is _____, I'm with <i>Neighborhoods United</i>. We're talking to our neighbors today about the November election and how it will impact our communities.</p> <p>Of course there is the Presidential election, but there are also some Statewide Propositions on the ballot that will have a major impact on our community. Let me tell you this about Prop 66:</p> <ul style="list-style-type: none"> • Proposition 66 for us is a chance to bring fairness to sentencing requirements that are adversely affecting our community. • Strengthen the community's voice in creating positive judicial reforms. • Ensure that nonviolent offenders are protected from excessive sentencing. • Voting "yes" on 66 will save California tax payers \$500 million per year.

(continued)

Appendix A (continued)

Negative	Positive
<p>WE URGE YOU TO VOTE YES ON PROP 66. IF THE ELECTIONS WERE HELD TODAY, HOW WOULD YOU VOTE ON THIS PROPOSITION?</p> <p>And here's what I want you to know about Prop 72:</p> <ul style="list-style-type: none"> • Big business supporters want to confuse people and make them vote no on providing health care for working Californians. • The idea is that most people don't get educated on the ballot issues and so are less inclined to vote yes, even on something like Prop 72 which will benefit them. • There are over one million working families without health insurance in California. • Prop 72 will require billionaire companies like McDonalds and Wal-Mart to give their workers and their families' affordable health insurance. <p>AGAIN, WE URGE YOU TO VOTE YES ON PROP 72. CAN WE COUNT ON YOUR YES VOTE ON THIS IMPORTANT PROPOSITION?</p>	<p>WE URGE YOU TO VOTE YES ON PROP 66. IF THE ELECTIONS WERE HELD TODAY, HOW WOULD YOU VOTE ON THIS PROPOSITION?</p> <p>This is what I want you to know about Prop 72:</p> <ul style="list-style-type: none"> • "Yes" on Proposition 72 will guarantee over 1 million working Californians will receive health insurance through their employers. • In so doing, a burden will be kept off of an already stretched health care system. • "Yes" on Prop. 72 will make for a healthier California. <p>AGAIN, WE URGE YOU TO VOTE YES ON PROP 72. CAN WE COUNT ON YOUR YES VOTE ON THIS IMPORTANT PROPOSITION?</p>

Appendix B

Study 1 Postelection Survey Questions

Hi, may I speak with _____. I'm calling on behalf of researchers at Yale University with a short four-question survey that takes about one minute.

- 1) In Tuesday's election, which candidate did you prefer [rotate] George Bush or John Kerry?
 - a) John Kerry;
 - b) George Bush;
 - c) Nader [Volunteered];
 - d) Neither [Volunteered];
 - e) Other [Volunteered];
 - f) Don't know [Volunteered].
- 2) Would you say that your impression of John Kerry was very favorable, somewhat favorable, somewhat unfavorable, or very unfavorable?
 - a) very favorable;
 - b) somewhat favorable;
 - c) somewhat unfavorable;
 - d) very unfavorable;
 - e) Don't know [volunteered].
- 3) Would you say that your impression of George Bush was very favorable, somewhat favorable, somewhat unfavorable, or very unfavorable?
 - a) very favorable;
 - b) somewhat favorable;
 - c) somewhat unfavorable;
 - d) very unfavorable;
 - e) Don't know [volunteered].
- 4) Parties and organizations often contact people like yourself over the phone during the campaign. Could you please tell me whether the following groups contacted you by phone (yes, no, not sure)?
 - a) The Minnesota Democratic Party;
 - b) The Minnesota Republican Party;
 - c) The Minnesota Young Voter Project.

Thank you for completing our survey. I hope you have a pleasant evening.

(continued)

Appendix B (continued)

Study 2 Postelection Survey Questions

Hello, My name is _____. I'm calling on behalf of election researchers at Yale University. We are conducting a very short public opinion survey that will take no more than a minute of your time. Are you: [PERSON 1]?

[If the person says no then ask, may I speak with PERSON 1, and read introduction again]

[If unavailable]

Thanks, we'll try back later.

[If you get PERSON 1 and PERSON 1 refuses to participate then say]

Sorry to disturb you. Have a nice evening/day. See instruction sheet for further instructions.

[If PERSON 1 agrees to take the survey]

I want to let you know that this survey is strictly confidential and will be used only for research purposes, and you do not have to answer any question you do not wish.

Q1. As you know there were a number of propositions on the ballot this year. We want to ask your opinion on two. Did you support or oppose Proposition 66, which would amend the state's three strikes law? [If respondent says s/he didn't vote: We just want to know your preference—it doesn't matter if you didn't vote.]

1. Support
2. Oppose
3. No opinion [DON'T READ]
8. Don't know [DON'T READ]
9. Refused [DON'T READ]

Q2. And what about Proposition 72, which was about employee health insurance. Did you support or oppose this proposition? [If respondent says s/he didn't vote: We just want to know your preference—it doesn't matter if you didn't vote.]

1. Support
 2. Oppose
 3. No opinion [DON'T READ]
 8. Don't know [DON'T READ]
 9. Refused [DON'T READ]
-

(continued)

Appendix B (continued)

- Q3. Now, we want to ask you just a few factual questions about these propositions. I'm going to read some statements. Tell me which one is true.
1. A YES vote for Proposition 66 gets rid of the three strikes rule.
 2. A YES vote for Proposition 66 only requires the three strikes rule to be applied in cases when the conviction is for a violent or serious felony.
 3. A YES vote for Proposition 66 requires the three strikes rule to be applied in all cases, both misdemeanors and felonies.
 4. Other [DON'T READ]
 8. Don't know [DON'T READ]
 9. Refused [DON'T READ]
- Q4. Now let me read a few statements about Proposition 72. Again, tell me which one is true.
1. A YES vote for Proposition 72 allows companies to decide whether or not they want to provide health insurance to their employees.
 2. A YES vote for Proposition 72 requires companies to pay all the health care cost of their employees.
 3. A YES vote for Proposition 72 requires that employers pay at least 80% of coverage cost.
 4. Other [DON'T READ]
 8. Don't know [DON'T READ]
 9. Refused [DON'T READ]

Thank you for your time. Have a nice day/evening.

Notes

1. Gerber, Green, and Green (2003) provide a notable exception to the overwhelming focus on mass media. They demonstrate that negatively toned political messages disseminated through direct mail have a small, statistically insignificant negative effect on turnout.

2. These numbers do not include the 21.6 million doors knocked and 145.6 million phone calls made by major third parties such as Americans Coming Together and MoveOn.org.

3. La Raja (2003, Table 8.1) provides a time series for state party use of soft money. The percentage devoted to mobilization and grassroots outreach remains relatively constant.

4. Competing frames cancel out if both frames are of equal strength. If one frame is weaker than the other, then it is still possible to observe a framing effect (Chong & Druckman, 2007).

5. While participants were asked an open-ended question earlier in the campaign to identify their critical issue, most of the answers fell within eight broad topic categories. For the handful of participants whose key issue was unknown or did not fall into one of the eight categories, callers used the jobs and wages script.

6. Campaign finance laws prevented the 21st Century Democrats from explicitly endorsing John Kerry as president. Despite this minor hurdle, the intent of the scripts was clear.

7. The following instructions given to coders for the Wisconsin Advertising Project (Goldstein et al., 2002, p. 10) to categorize the tone of campaign advertising mirrors the way in which we experimentally manipulate the tone of our messages:

In your judgment, is the primary purpose of the ad to promote a specific candidate ("In his distinguished career, Senator Jones has brought millions of dollars home. We need Senator Jones."), to attack a candidate ("In his long years in Washington, Senator Jones has raised your taxes over and over. We can't afford 6 years of Jones."), or to contrast the candidates ("While Senator Jones has been cutting your taxes, Representative Smith has been raising them.")?

Note that we strictly vary positive or negative tone, and do not construct "contrast" messages.

8. Volunteers reported no difficulties in switching between scripts, reading the portion of the script dedicated to each issue, or encountering hostile participants. By all measures, the calling went smoothly and roughly 85% of the attempted calls were completed.

9. A check to see whether assignment to a script was correlated with past voter history or age failed to detect any systematic difference in either the harvested sample ($p = .73$) or purchased sample ($p = .81$).

10. Serving as a manipulation check, the postelection survey asked participants if they remembered being contacted by various groups. Over half of those surveyed reported being contacted by the Minnesota Young Voter Project (the name under which the 21st Century Democrats were calling), compared to one third contacted by the Democrats and one fifth by the Republican Party.

11. A chi-square test fails to reject the null hypothesis that the two groups possess homogeneous response rates ($p = .89$).

12. The coefficients for the harvested and purchased populations are not statistically different from one another. Nevertheless, it is striking that across the analyses, we tend to find modest effects (to the extent we find them at all) among the harvested population. Despite the fact that individuals from both populations self-identified as "undecided," it may be that the harvested group, whose members self-selected into the population, nonetheless was more sympathetic to the Democratic Party than the purchased group, who did not self-select. Testing the receptivity of groups to messages as a function of their selection is something we leave for future research.

13. A randomization check demonstrated that previous voting behavior, age, gender, registration date, and household size were not systematically related to assignment ($p = .85$).

14. A check of the precinct-level randomization also failed to find that previous voting behavior, age, gender, registration date, and household size were systematically related to message assignment ($p = .60$).

15. There was no difference in the survey response rate between the treatment and control groups ($p = .63$).

16. Indeed, to take this approach ignores the experimental design and treats these data as if they were observational.

17. In the simple case, the average treatment-on-treated estimate can be calculated by dividing the intent-to-treat estimate by the contact rate, which can be achieved by using random assignment as an instrument for contact in a two-stage equation. See Angrist,

Imbens, and Rubin (1996), Gerber and Green (2000), and Arceneaux, Gerber, and Green (2006) for an explanation of why field experiments of this variety meet the assumptions underlying instrumental variables regression.

18. We do not find evidence that simply receiving a personally delivered message boosted turnout. Since the level of turnout in the control group was nearly 75%, we believe these null results are the product of a ceiling effect. Numerous studies demonstrate that personally delivered messages boost turnout (e.g., Gerber & Green, 2000; Green et al., 2003; Rosenstone & Hansen, 1993).

19. As shown in Appendix B, the postelection survey for Study 2 also included items tapping participants' factual knowledge about both ballot propositions. Since the impact of message tone on issue knowledge does not fall in the scope of this article, it is not reported in Table 3. Nevertheless, these messages had an overall effect on boosting knowledge about these propositions; negative messages were not uniquely effective at increasing (or diminishing) knowledge.

References

- Angrist, J. D., Imbens, G. W., & Rubin, D. B. (1996). Identification of causal effects using instrumental variables. *Journal of the American Statistical Association*, 91(434), 444-455.
- Ansolabehere, S., & Iyengar, S. (1995). *Going negative: How political advertisements shrink and polarize the electorate*. New York: Free Press.
- Arceneaux, K. (2005). Using cluster randomized field experiments to study voting behavior. *Annals of the American Academy of Political and Social Science*, 601, 169-179.
- Arceneaux, K. (2007). I'm asking for your support: The effects of personally delivered campaign messages on voting decisions and opinion formation. *Quarterly Journal of Political Science*, 2(1), 43-65.
- Arceneaux, K., Gerber, A. S., & Green, D. P. (2006). Comparing experimental and matching methods using a large-scale field experiment on voter mobilization. *Political Analysis*, 14(1), 37-62.
- Bergan, D. E., Gerber, A. S., Green, D. P., & Panagopoulos, C. (2005). Grassroots mobilization and voter turnout in 2004. *Public Opinion Quarterly*, 69, 760-777.
- Bloom, H., & Price, D. H. (1975). Voter response to short-run economic conditions. *American Political Science Review*, 69(4), 1240-1254.
- Brader, T. (2006). *Campaigning for hearts and minds: How emotional appeals in political ads work*. Chicago: University of Chicago Press.
- Chong, D., & Druckman, J. N. (2007). Framing public opinion in competitive democracies. *American Political Science Review*, 101(4), 637-655.
- Clinton, J. D., & Lapinski, J. S. (2004). "Targeted" advertising and voter turnout: An experimental study of the 2000 presidential election. *Journal of Politics*, 66(1), 69-96.
- Cobb, M. D., & Kuklinski, J. H. (1997). Changing minds: Political arguments and political persuasion. *American Journal of Political Science*, 41(1), 88-121.
- Cover, A. D. (1986). Presidential evaluations and voting for congress. *American Journal of Political Science*, 30, 786-801.
- Damore, D. F. (2002). Candidate strategy and the decision to go negative. *Political Research Quarterly*, 55(3), 669-685.
- Doherty, K. M., & Gimpel, J. G. (1997). Candidate character vs. the economy in the 1992 election. *Political Behavior*, 19(3), 177-196.

- Druckman, J. N. (2001). On the limits of framing effects: Who can frame? *Journal of Politics*, 63(4), 1041-1066.
- Druckman, J. N. (2004). Political preference formation: Competition, deliberation, and the (ir) relevance of framing effects. *American Political Science Review*, 98(4), 671-681.
- Druckman, J. N. (2007). *Competing frames in a political campaign: How frames work and the challenges of studying them*. Unpublished manuscript, Department of Political Science, Northwestern University.
- Fazio, R. H. (2000). Accessible attitudes as tools for object appraisal: Their costs and benefits. In G. Maio & J. Olson (Eds.), *Why we evaluate: Functions of attitudes* (pp. 1-36). Mahwah, NJ: Lawrence Erlbaum.
- Finkel, S. E., & Geer, J. (1998). A spot check: Casting doubt on the demobilizing effects of negative campaign ads. *American Journal of Political Science*, 43(4), 1189-1208.
- Fiorina, M. P., & Shepsle, K. A. (1989). Is negative voting an artifact? *American Journal of Political Science*, 33(2), 423-439.
- Freedman, P., & Goldstein, K. (1999). Measuring media exposure and the effects of negative campaign ads. *American Journal of Political Science*, 43(4), 1189-1208.
- Fridkin, K. L., & Kenney, P. J. (2004). Do negative messages work? The impact of negativity on citizens' evaluations of candidates. *American Politics Research*, 32(5), 570-605.
- Gerber, A. S., & Green, D. P. (2000). The effects of canvassing, telephone calls, and direct mail on voter turnout: A field experiment. *American Political Science Review*, 94, 653-663.
- Gerber, A. S., Green, M., & Green, D. P. (2003). Partisan mail and voter turnout: Results from randomized field experiments. *Electoral Studies*, 22(4), 563-579.
- Goldstein, K., Franz, M., & Ridout, T. (2002). Political advertising in 2000. Combined file [Dataset codebook]. Final release. Madison, WI: Department of Political Science at University of Wisconsin-Madison and the Brennan Center for Justice at New York University.
- Green, D. P., & Gerber, A. S. (2004). *Get out the vote!* Washington, DC: Brookings Institution.
- Green, D. P., Gerber, A. S., & Nickerson, D. W. (2003). Getting out the vote in local elections: Results from six door-to-door canvassing experiments. *Journal of Politics*, 65, 1083-1096.
- Jordan, N. (1965). The asymmetry of liking and disliking: A phenomenon meriting further reflection and research. *Public Opinion Quarterly*, 29, 315-322.
- Kahn, K. F., & Kenney, P. J. (1999). Do negative campaigns mobilize or suppress turnout? Clarifying the relationship between negativity and participation. *American Political Science Review*, 93(4), 877-890.
- Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, 47(2), 263-292.
- Kernell, S. (1977). Presidential popularity and negative voting. *American Political Science Review*, 71(1), 44-66.
- Key, V. O. (1966). *The responsible electorate*. New York: Random House.
- La Raja, R. (2003). State parties and soft money: How much party building? In J. C. Green & R. Farmer (Eds.), *The state of the parties: 2000 and beyond* (pp. 132-150). Lanham, MD: Rowman & Littlefield.
- La Raja, R., & Jarvis-Shean, E. (2001). *Assessing the impact of a ban on soft money: Party soft money spending in the 2000 elections*. Policy brief for Institute of Governmental Studies and Citizens' Research Foundation, Berkeley, CA.
- Lau, R. R. (1982). Negativity in political perception. *Political Behavior*, 4(4), 353-377.
- Lau, R. R., & Pomper, G. M. (2002). Effectiveness of negative campaigning in U.S. Senate elections. *American Journal of Political Science*, 46(1), 47-66.

- Levin, I. P., Schneider, S. L., & Gaeth, G. J. (1998). All frames are not created equal: A typology and critical analysis of framing effects. *Organizational Behavior and Human Decision Processes*, 76(2), 149-188.
- Miller, P. M., & Fagley, N. S. (1991). The effects of framing, problem variations, and providing rationale on choice. *Personality and Social Psychology Bulletin*, 17(5), 517-522.
- Nelson, T., Oxley, Z. M., & Clawson, R. A. (1997). Toward a psychology of framing effects. *Political Behavior*, 19(3), 221-246.
- Nickerson, D. W. (2006). Volunteer phone calls can increase turnout: Evidence from eight field experiments. *American Politics Research*, 34, 271-292.
- Nickerson, D. W. (2007). Quality is job one: Volunteer and professional phone calls. *American Journal of Political Science*, 51(2), 269-282.
- Nickerson, D. W., Friedrichs, R. K., & King, D. C. (2006). Partisan mobilization campaigns in the field: Results from a statewide turnout experiment in Michigan. *Political Research Quarterly*, 59, 85-97.
- Ohman, A., & Mineka, S. (2001). Fear, phobias, and preparedness: Toward an evolved module of fear and learning. *Psychological Review*, 84, 231-259.
- Phelps, E. A. (2005). The interaction of emotion and cognition: The relation between the human amygdala and cognitive awareness. In R. R. Hassin, J. S. Uleman, & J. A. Bargh (Eds.), *The new unconscious* (pp. 61-76). New York: Oxford University Press.
- Rosenstone, S. J., & Hansen, J. M. (1993). *Mobilization, participation, and democracy in America*. New York: Macmillan.
- Sigelman, L., & Buell, E. H., Jr. (2003). You take the high road and I'll take the low road? The interplay of attack strategies and tactics in presidential campaigns. *Journal of Politics*, 65, 518-531.
- Takemura, K. (1994). Influence of elaboration on the framing of decision. *Journal of Psychology*, 128(1), 33-39.
- Vavreck, L., Spiliotes, C. J., & Fowler, L. L. (2002). The effects of retail politics in the Hew Hampshire primary. *American Journal of Political Science*, 46(3), 595-610.
- Wattenberg, M. P., & Brians, C. L. (1999). Negative campaign advertising: Demobilizer or mobilizer? *American Political Science Review*, 93(4), 891-899.

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