DOES ATTACK ADVERTISING DEMOBILIZE THE ELECTORATE?

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We address the effects of negative campaign advertising on turnout. Using a unique experimental design in which advertising tone is manipulated within the identical audiovisual context, we find that exposure to negative advertisements dropped intentions to vote by 5%. We then replicate this result through an aggregate-level analysis of turnout and campaign tone in the 1992 Senate elections. Finally, we show that the demobilizing effects of negative campaigns are accompanied by a weakened sense of political efficacy. Voters who watch negative advertisements become more cynical about the responsiveness of public officials and the electoral process.

this should say "percentage points" instead of "%" (nobody is perfect! :))

It is generally taken for granted that political campaigns boost citizens' involvement—their interest in the election, awareness of and information about current issues, and sense that individual opinions matter. Since Lazarsfeld's pioneering work (Berelson, Lazarsfeld, and McPhee 1954; Lazarsfeld, Berelson, and Gaudet 1948), it has been thought that campaign activity in connection with recurring elections enables parties and candidates to mobilize their likely constituents and "recharge" their partisan sentiments. Voter turnout is thus considered to increase directly with "the level of political stimulation to which the electorate is subjected" (Campbell et al. 1966, 42; Patterson and Caldeira 1983).

The argument that campaigns are inherently "stimulating" experiences can be questioned on a variety of grounds. American campaigns have changed dramatically since the 1940s and 1950s (see Ansolabehere et al. 1993). It is generally accepted that television has undermined the traditional importance of party organizations, because it permits "direct" communication between candidates and the voters (see Bartels 1988; Polsby 1983; Wattenberg 1984, 1991). All forms of broadcasting, from network newscasts to talk show programs, have become potent tools in the hands of campaign operatives, consultants, and fund-raisers. In particular, paid political advertisements have become an essential form of campaign communication. In 1990, for example, candidates spent more on televised advertising than any other form of campaign communication (Ansolabehere and Gerber 1993).

We are now beginning to realize that the advent of television has also radically changed the nature and tone of campaign discourse. Today more than ever, the entire electoral process rewards candidates whose skills are rhetorical, rather than substantive (Jamieson 1992) and whose private lives and electoral viability, rather than party ties, policy positions, and governmental experience, can withstand media scrutiny (see Brady and Johnston 1987; Lichter, Amundson, and Noyes 1988; Sabato 1991). Campaigns have also turned increasingly hostile and ugly. More often than not, candidates criticize, discredit, or belittle their opponents rather than promoting their own ideas and programs. In the 1988 and 1990 campaigns, a survey of campaign advertising carried out by the *National Journal* found that attack advertisements had become the norm rather than the exception (Hagstrom and Guskind 1988, 1992).

Given the considerable changes in electoral strategy and the emergence of negative advertising as a staple of contemporary campaigns, it is certainly time to question whether campaigns are bound to stimulate citizen involvement in the electoral process. To be sure, there has been no shortage of hand wringing and outrage over the depths to which candidates have sunk, the viciousness and stridency of their rhetoric, and the lack of any systematic accountability for the accuracy of the claims made by the candidates (see Bode 1992; Dionne 1991; Rosen and Taylor 1992). However, as noted by a recent Congressional Research Service survey, there is little evidence concerning the effects of attack advertising on voters and the electoral process (see Neale 1991).

A handful of studies have considered the relationship between campaign advertising and political participation, with inconsistent results. Garramone and her colleagues (1990) found that exposure to negative advertisements did not depress measures of political participation. This study, however, utilized student participants and the candidates featured in the advertisements were fictitious. In addition, participants watched the advertisements in a classroom setting. In contrast to this study, an experiment reported by Basil, Schooler, and Reeves (1991) found that negative advertisements reduced positive attitudes toward both candidates in the race, thereby indirectly reducing political involvement. This study, however, was not conducted during an ongoing campaign and utilized a tiny sample, and the participants could not vote for the target candidates. Finally, Thorson, Christ, and Caywood (1991) reported no differences in voting intention between college students exposed to positive and negative advertisements.

We assert that campaigns can be either mobilizing or demobilizing events, *depending upon the nature of the messages they generate*. Using an experimental design that manipulates advertising tone while holding all

other features of the advertisements constant, we demonstrate that exposure to attack advertising in and of itself significantly decreases voter engagement and participation. We then reproduce this result by demonstrating that turnout in the 1992 Senate campaigns was significantly reduced in states where the tone of the campaign was relatively negative. Finally, we address three possible explanations for the demobilizing effects of negative campaigns.

EXPERIMENTAL DESIGN

There is a vast literature, both correlational and experimental, concerning the effects of televised advertisements (though not specifically negative advertisements) on public opinion (for a detailed review, see Kosterman 1991). This literature, however, is plagued by significant methodological shortcomings. The limitations of the opinion survey as a basis for identifying the effects of mass communications have been well documented (see Bartels 1993; Hovland 1959). Most importantly, surveys cannot reliably assess exposure to campaign advertising. Nor is most of the existing experimental work fully valid. The typical experimental study, by relying on fictitious candidates as the "target" stimuli, becomes divorced from the real world of campaigns. Previous experimental studies thus shed little evidence on the interplay between voters' existing information and preferences and their reception of campaign advertisements. When experimental work has focused on real candidates and their advertisements, it is difficult to capture the effects of particular characteristics of advertising because the manipulation confounds several such characteristics (Ansolabehere and Iyengar 1991; Garramone 1985; Pfau and Kenski 1989). That is, a Clinton spot and Bush spot differ in any number of features (the accompanying visuals, background sound, the voice of the announcer, etc.) in addition to the content of the message. Thus there are many possible explanations for differences in voters' reactions to these spots.

To overcome the limitations of previous research, we developed a rigorous but realistic experimental design for assessing the effects of advertising tone or valence[1] on public opinion and voting. Our studies all took place during ongoing political campaigns (the 1990 California gubernatorial race, the 1992 California Senate races, and the 1993 Los Angeles mayoral race) and featured "real" candidates who were in fact advertising heavily on television and "real" voters (rather than college sophomores) who on election day would have to choose between the candidates whose advertisements they watched. Our experimental manipulations were professionally produced and could not (unless the viewer were a political consultant) be distinguished from the flurry of advertisements confronting the typical voter. In addition, our manipulation was unobtrusive; we embedded the experimental advertisement into a 15-minute local newscast.

The most distinctive feature of our design is its ability to capture the casual effects of a particular feature of campaign advertisement—in this case, advertising tone or valence. The advertisements that we produced were identical in all respects but tone and the candidate sponsoring the advertisement. In the 1992 California Senate primaries, for example, viewers watched a 30-second advertisement that either promoted or attacked on the general trait of "integrity." The visuals featured a panoramic view of the Capitol Building, the camera then zooming in to a closeup of an unoccupied desk inside a Senate office. In the "positive" treatments (using the example of candidate Dianne Feinstein), the text read by the announcer was as follows:

> For over 200 years the United States Senate has shaped the future of America and the world. Today, California needs honesty, compassion, and a voice for all the people in the U.S. Senate. As mayor of San Francisco, Dianne Feinstein *proposed* new government ethics rules. She *rejected* large campaign contributions from special interests. And Dianne Feinstein *supported* tougher penalties on savings-and-loan crooks.
>
> California *needs* Dianne Feinstein in the U.S. Senate.

In the "negative" version of this Feinstein spot, the text was modified as follows:

> For over 200 years the United States Senate has shaped the future of America and the world. Today, California needs honesty, compassion, and a voice for all the people in the U.S. Senate. As state controller, Gray Davis *opposed* new government ethics rules. He *accepted* large campaign contributions from special interests. And Gray Davis *opposed* tougher penalties on savings-and-loan crooks.
>
> California *can't afford a politician* like Gray Davis in the U.S. Senate.

By holding the visual elements constant and by using the same announcer, we were able to limit differences between the conditions to differences in tone.[2] With appropriate modifications to the wording, the identical pair of advertisements was also shown on behalf of Feinstein's primary opponent, Controller Gray Davis, and for the various candidates contesting the other Senate primaries.

In short, our experimental manipulation enabled us to establish a much tighter degree of control over the tone of campaign advertising than had been possible in previous research. Since the advertisements watched by viewers were identical in all other respects and because we randomly assigned participants to experimental conditions, any differences between conditions may be attributed only to the tone of the political advertisement (see Rubin 1974).

The Campaign Context

Our experiments spanned a variety of campaigns, including the 1990 California gubernatorial election, both of the state's 1992 U.S. Senate races, and the 1993 mayoral election in Los Angeles. In the case of the senatorial campaigns, we examined three of the four primaries and both general election campaigns.

The campaigns we examined were all characterized by extensive broadcast advertising and, in most cases, by frequent use of negative or attack advertising.

We used the same design for all of the campaigns under investigation. That is, we manipulated advertising valence within the identical audiovisual framework. The content of the experimental advertisement, however, varied across campaigns. In general, the experimental advertisements focused on issues or themes that were particularly salient in the various campaigns. In the 1990 gubernatorial race, we created advertisements that dealt with the issues of crime and pollution. In the positive conditions, the sponsoring candidate was presented as "tough" on crime and a protector of the environment. In the negative versions, the opponent was depicted as "soft" on crime and indifferent to the quality of the environment. (Samples of the text and accompanying visuals of the experimental manipulations are provided in Appendix A.)

The experimental advertisements for the 1992 Senate primaries dealt with either the candidates' personal integrity or competence. In the case of integrity (discussed in the given examples), the advertisement described the candidate as either honest and a supporter of campaign reform or as dishonest and an opponent of reform. In the case of competence, the advertisement asked voters to consider the sponsor's "ability, determination, and leadership" (or the absence of these characteristics in the opponent).

During the Senate general election campaign, we shifted the focus of the advertisements to the issue of unemployment. The condition of the state's economy and the significant loss of jobs (unemployment had reached 10% in September) were the overriding issues in both races. All four candidates aired advertisements promising to reverse the state's economic decline. Our treatment advertisements depicted the sponsor or opponent as an advocate or critic of government-subsidized job training and industrial modernization programs.

Finally, one of our studies concerned the nonpartisan election for mayor of Los Angeles between Richard Riordan and Michael Woo. Here, the manipulation dealt with the candidates' integrity and discussed the degree to which the candidates' campaign promises to increase job opportunities and reform city government were consistent with their past actions.

In summary, our experimental advertisements dealt with a variety of campaigns and themes. In all cases, however, the advertisements corresponded to the actual focus of campaigns. In their content, the experimental advertisements closely reflected the advertisements aired by the candidates.

Subjects and Procedure

We recruited subjects by multiple methods including advertisements placed in local newspapers, flyers distributed in shopping malls and other public venues, announcements in employer newsletters, and by calling names from voter registration lists. Subjects were promised payment of $15 for participation in an hour-long study of "selective perception" of local news programs.

Although the "sample" was obviously nonrandom, our participants resembled the composition of the greater Los Angeles area. Across all the experiments, 56% of the participants were male, 53% were white, 26% were black, 12% were Hispanic, and 10% were Asian. The median age was 34. Forty-nine percent of the participants claimed affiliation with the Democratic party, 24% were Republicans, and 21% were independents. Forty-four percent were college graduates, with the balance being evenly divided between high school graduates and individuals with some college.[3]

The experiments were conducted at two separate locations: West Los Angeles and Costa Mesa (Orange County). The former is a heavily Democratic area, while the latter, an affluent suburb of Los Angeles, is predominantly Republican. The experimental facilities in both locations were identical—a three-room office suite consisting of two viewing rooms and a separate room for completion of questionnaires (in addition to a reception area). The viewing rooms were furnished casually with sofas and easy chairs. Participants could browse through newspapers and magazines and snack on cookies and coffee.

When participants telephoned the facility they were scheduled for a particular time period of their choice. Experimental sessions were available from 10:00 A.M. to 8:00 P.M., Monday through Saturday. The typical session consisted of two to three participants.

On arrival, subjects were given an instruction sheet informing them that the study concerned selective perception of local newscasts. They then completed a short pretest questionnaire concerning their social background, media activities, and political interest. Following completion of the pretest, participants were taken to a viewing room, where, depending upon the condition to which they had been assigned,[4] they watched a 15-minute (complete with commercials) videotape recording of a recent local newscast (described to participants as having been selected at random).

The experimental or "treatment" advertisement was inserted into the first commercial break midway through the tape. The political spot was shown always in the middle position in a three-advertisement break. As described, the advertisements in the various conditions were identical in all respects except for the factors of valence and source.

Following completion of the videotape, participants completed a lengthy posttest questionnaire tapping their beliefs and opinions on a wide range of campaign issues. Of course, we also ascertained participants' voting intentions and general level of involvement in the campaign. On completion of the posttest, participants were debriefed and paid.

ANALYSIS AND RESULTS

We shall limit our analyses to the effects of negative advertising on intention to vote. In our post-test questionnaire, we ascertained whether participants were registered to vote. Using registration as a filter, we then asked, "Looking forward to the November election, do you intend to vote?" (In the case of the primary election study, the question was worded accordingly.) We identified "likely voters" as those who were both registered and who stated their intention of voting.[5]

In analyzing our experimental data, we pooled the gubernatorial study, the various senatorial studies, and the mayoral study into a single data set. While the effects of attack advertising are tempered by campaign-specific constraints, including the background of the candidates and the specific content of their advertising, we are especially interested in the average effect, if any, of advertising valence.[6] Moreover, pooling the separate studies makes it possible to obtain reliable estimates of the demobilizing effects of attack advertising.

After pooling, we compared the percentage of viewers classified as likely voters among participants who watched the positive and negative versions of the experimental advertisements. The demobilization hypothesis predicts that exposure to negative advertising will lower the percentage of likely voters. Among those who watched a positive advertisement, 64% intended to vote. Among participants who saw a product advertisement instead of a political one, 61% intended to vote. Among participants who were exposed to the negative versions of the campaign advertisement, only 58% were likely to vote. A one-way analysis of variance yielded an F-statistic of 2.2, significant at the .11 level.[7]

The decision to vote depends upon aspects of the campaign other than advertising valence. In addition, some people are more likely to vote than others, regardless of the nature of the campaign. To capture these contextual and dispositional effects on turnout, we regressed intention to vote (using a logistic regression) on advertising tone and a set of dummy variables corresponding to specific elections, as well as various indicators of individual differences. Because the positive and negative advertisements exerted symmetric effects on voting intention, we specified advertising tone as a trichotomy corresponding to positive advertisement (+1), no political advertisement (0), and negative advertisement (−1). The individual difference variables included the frequency with which people said they followed public affairs, prior voting history, the "match" between viewers' and the candidates' gender and party identification, age, race, and education. This multivariate analysis, in essence, estimates the independent effects of the campaign advertising stimulus on voting intention above and beyond campaign-specific influences and personal predispositions.

Table 1 presents the results of two logistic regressions corresponding to a full model (with all control variables included) and a restricted model (with nonsignificant controls excluded). The baseline (constant) in this specification represents the 1993 Los Angeles mayoral race. Off-year local elections tend to be characterized by low levels of citizen involvement. Not surprisingly, the 1990 gubernatorial, the 1992 Senate primary, and the 1992 Senate general elections all registered higher turnout.

The individual difference factor with the greatest ability to discriminate between likely and unlikely voters, as expected, was prior voting history. Participants who reported voting in the 1988 election were much more likely to be classified as likely voters in 1992–93 than those who reported not having voted. Partisans, those with higher levels of political interest, the more educated, and whites were also charac-

TABLE 1

Logistic Regression Estimates of the Effect of Tone on Intentions To Vote in the 1990, 1992, and 1993 Experiments

VARIABLE	MODEL FULL	MODEL RESTRICTED
Constant	−.212 (.331)	−.230 (.331)
Advertising tone[a]	.110 (.055)	.114 (.036)
Experiments		
1990 gubernatorial	.434 (.203)	.477 (.195)
1992 primary	.404 (.179)	.335 (.168)
1992 general election	1.221 (.208)	.778 (.138)
1988 turnout	1.746 (.141)	1.614 (.128)
Follow gov't. affairs	.497 (.059)	.501 (.058)
Independent	−1.112 (.108)	−1.122 (.108)
Same party	−.028 (.087)	—
Same gender	−.033 (.117)	—
Age	.002 (.004)	—
Education	.100 (.068)	.129 (.058)
Female	.034 (.119)	—
White	.346 (.131)	.353 (.128)
Log likelihood	−905.5	−906.7
% correctly predicted	78.2	78.1

Note: Entries are logit coefficients with standard errors in parentheses. N = 1,655.

[a]Coded 1 for positive ad, 0 for control ad, −1 for negative ad.

terized by significantly higher levels of voting intention.

From our perspective, the most important result in Table 1 is the effect of advertising tone on voting intentions. In both equations, a one-sided t-test showed that advertising tone significantly (at the .05 level) affected turnout. Converting the logistic coefficient on advertising tone into a linear probability shows that those participants exposed to the negative version of the advertisement were 2.5% less likely to vote than those exposed to no political advertisement. Conversely, the positive version of the advertisement increased voting intention by 2.5 percentage points. In short, the initial estimate of the demobilization effect survived the multiple controls.

Overall, the experimental results demonstrate that exposure to negative (as opposed to positive) advertising depresses intention to vote by 5%. Considering the scope of our experimental manipulation (a single 30-second advertisement embedded in a 15-minute newscast) and the variety of campaigns examined, these effects seem remarkable. Despite our best efforts at experimental realism, it is possible that the effect has been magnified by some aspect of the research design. It is important, therefore, to place the experimental findings in the context of the world of actual campaigns.

should say "percentage points" instead of %

Replicating the Experimental Results

To reconstruct our experimental framework in the real world, we measured the tone of the campaign in each of the 34 states holding a Senate election in 1992. Senate campaigns are especially appropriate for our purposes because the candidates rely heavily on advertising (Ansolabehere and Gerber 1993). Moreover, four of our seven experiments focused on Senate campaigns.

Our indicator of campaign tone was based on a systematic content analysis of news coverage of the various Senate races. We searched through the NEXIS and DATATIMES data bases for all newspaper and newsmagazine articles bearing on the Senate campaigns in general and the candidates' advertisements in particular. This search yielded a total of over 2,500 articles ranging from a high of 1,000 on the Feinstein–Seymour contest in California to a low of 28 in the case of the Idaho race. Based on a reading of the news coverage, campaigns were classified into one of three categories: generally positive in tone (scored 1); mixed (scored 0); and generally negative in tone (scored −1). The classification scheme is described in Appendix B, along with each state's tone score.

As our indicator of turnout, we simply computed the votes cast for U.S. Senate and divided by the state's voting-age population. In addition to turnout, we also examined ballot *roll-off* in the Senate elections. For each relevant state, we subtracted the total number of votes cast for senator from the total cast for president and divided by the latter. The roll-off indicator has two distinct advantages. First, roll-off is a campaign-specific effect indicating the degree to which people who were sufficiently motivated to vote in the presidential election chose to abstain in the Senate race. Second, because roll-off uses the presidential vote as a baseline, it adjusts for a variety of state-related differences (e.g., demographic factors, political culture and party competition), which affect the level of voting turnout.[8]

Turnout in senatorial elections depends upon a variety of influences in addition to the tone of the campaign. These include the competitiveness of the race, the volume (or "decibel level") of the campaign, and the electorate's sense of civic duty. (For a thorough discussion, see Rosenstone and Hansen 1993). Our measure of the volume of the campaign was the level of campaign spending by incumbents and challengers (measured in logarithms). Competitiveness or closeness was measured by the squared difference between the Republican and Democratic shares of the total vote. Lastly, to incorporate differences in civic duty and other relevant orientations, we also controlled for per capita income, turnout in the 1988 presidential election, percentage college-educated, region (South, non-South), and the census form mail-back rate.[9]

Having compiled the turnout, roll-off, and campaign tone indicators, we proceeded to replicate the experimental results. Table 2 presents the results from the full and restricted multiple regression analyses of turnout and roll-off. Following the analysis of the experimental data, the tone variable was specified as a trichotomy (negative tone = −1, mixed = 0, positive tone = 1). This specification measures the deviation in turnout and roll-off of the positive and negative campaign tone categories from the mixed-tone category.[10]

Do Senate races characterized by relatively negative campaigns have lower turnout and higher roll-off rates than races in which the campaign is more positive in tone? For both turnout and roll-off, we found significant effects of campaign tone. Negative campaigns decreased turnout by 2%. (This also means that positive campaigns boosted turnout by 2%, for a total difference of 4%.) Negative campaigns also increased ballot roll-off by 1.2% and vice-versa. Since the demobilization hypothesis is directional, we resorted to one-tailed tests (i.e., negative campaigns decrease turnout and increase roll-off, while positive campaigns increase turnout and decrease roll-off). The t-statistics for this hypothesis were 3.64 for turnout and −2.26 for roll-off, both significant at the .05 level.[11]

The use of both experimental and nonexperimental methods to measure the very same naturally occurring phenomena is highly unusual in the social sciences. It is even more unusual if both methods yield equivalent results. In our study, the aggregate-level analysis of turnout and roll-out in the 1992 Senate elections and the experimental studies of negative advertising converge: negative campaigns tend to demobilize the electorate.

TABLE 2

Regression Estimates of the Effect of Tone on Turnout and Roff-off in the 1992 Senate Elections

INDEPENDENT VARIABLE	TURNOUT[a] FULL MODEL	TURNOUT[a] RESTRICTED	ROLL-OFF[b] FULL MODEL	ROLL-OFF[b] RESTRICTED
Constant	−.294	−.295	.157	.150
	(.171)	(.124)	(.173)	(.040)
Campaign tone[c]	.020	.021	−.011	−.012
	(.006)	(.006)	(.006)	(.005)
1988 turnout	.550	.571	.046	—
	(.101	(.090)	(.102)	
Per capita income	.010	—	.048	.049
	(.027)		(.027)	(.019)
Mail-back rate	.337	.340	−.058	—
	(.149)	(.125)	(.151)	
Southern state	.048	.047	−.014	−.016
	(.015)	(.013)	(.015)	(.013)
% College-educated	.120	.172	−.215	−.247
	(.099)	(.076)	(.100)	(.067)
Log challenger $	.001	—	−.011	−.010
	(.005)		(.005)	(.004)
Log incumbent $	.013	.011	−.004	—
	(.007)	(.006)	(.007)	
Open seat	.011	—	−.009	—
	(.012)		(.012)	
(Non)closeness	−.053	−.068	.058	.069
	(.046)	(.039)	(.046)	(.037)
R^2	.94	.94	.67	.64
SS residuals	.0099	.0102	.101	.0112

Note: Entries are multiple regression coefficients with standard errors in parentheses. N = 34.
[a]Total Votes for Senate Voting-age Population.
[b](Total Votes for President − Total Votes for Senate)/(Total Votes for President).
[c]1 = positive tone, 0 = mixed tone, −1 = negative tone.

Psychological Correlates

That attack advertisements discourage people from voting raises questions about the psychological underpinnings of this effect. One possibility is that partisanship mediates the effects of attack advertisements on turnout. It is generally thought that campaign messages resonate especially strongly among supporters or proponents of the source of the message. Campaigns thus have the effect of reinforcing or crystallizing existing partisan loyalties. Extending this argument to attack advertising implies the obverse. That is, the intention to vote among supporters of the candidate airing the negative advertisement will be unchanged, since the message provides no reasons to vote for their candidate. On the other hand, voting intention should be weakened among supporters of the candidate who is attacked, since the message provides these partisans with reasons not to vote for their candidate.

If attack advertisements demobilize on a partisan basis, we should find a significant interaction effect between advertising valence and viewers' party identification. We thus reestimated the logistic regression presented in Table 1, this time including the appropriate interaction (valence × same party). The results revealed that the interaction term was nonsignificant and had the wrong sign.[12] Partisanship does not mediate the demobilizing effects of attack advertising; supporters of the source and target candidates are not affected differently.

An alternative account of the demobilization effect is that attack advertising generates blanket negativity toward both candidates. According to this "plague-on-both-your-houses" explanation, voters not only become more critical of the target of the attack but turn against the sponsor as well (for some evidence of this effect, see Basil, Schooler, and Reeves 1991). We investigated this possibility by examining participants' evaluations of the personal traits of both the sponsor and the target of the attack advertisements.[13] Our results indicated that attack advertisements generally "work." That is, ratings of the target were generally less positive after participants watched the attack. Ratings of the sponsor, however, were generally unaffected, suggesting that participants did not penalize candidates for airing negative messages.[14]

The fact that attack advertisements do not demobilize on a partisan basis and do not induce negativity towards *both* candidates suggests a third explanation for demobilization. Negative advertising may affect voting intent by conveying cues not about the candidates but about the nature of political campaigns and the political influence of ordinary citizens. Perhaps the act of attacking another candidate in a 30-second advertisement denigrates the entire process.

To explore this possibility, we measured our participants' sense of political efficacy—their beliefs in the responsiveness of public officials and electoral institutions to popular will. We used four questions, coded the responses to each as either efficacious (1) or inefficacious (0) and computed the average response to all four items.[15] Among viewers who were exposed to the positive versions of the campaign advertisement, the mean efficacy score was .24. The mean was no different (.23) among participants in the control group. In the case of viewers who were exposed to the negative versions of the advertisement, the mean dropped to .19. The F-statistic from the one-way analysis of variance was significant at the .02 level.[16] In short, exposure to campaign attacks makes voters disenchanted with the business of politics as usual.

In summary, we have considered three possible explanations for the demobilizing effects of attack advertisements: partisan demobilization, a plague-on-both-houses effect, and general cynicism. Our evidence points toward the third. Among our experimental participants, exposure to attack advertising significantly weakened confidence in the responsiveness of electoral institutions and public officials. As campaigns become more negative and cynical, so does the electorate.

CONCLUSION

Taken together, our studies demonstrate that attack advertising extracts a toll on electoral participation. In the experiments, voting intention dropped by 5% when participants were shown an attack advertisement in place of a positive advertisement. Our aggregate-level replication of the experimental results suggests that Senate turnout in 1992 was roughly 4% lower when the candidates waged relatively negative campaigns. Since the scope of the experimental manipulations never exceeded a single advertisement, our estimates of the demobilizing effects of campaign attacks may be conservative. Over the course of two or three weeks of sustained negative advertising, the flight of voters can be more substantial.

The effects of attack advertising on the decision to vote have significant implications for our understanding of the impact of campaigns on electoral outcomes. Voter withdrawal in response to negative advertising also raises questions concerning the legitimate and fair uses of broadcast advertising.[17]

The most important implication of these results is that in the era of media campaigns, *both* surges and declines in turnout can be generated by high-intensity campaigns. Candidates with sufficient resources can, through the use of negative messages, keep voters away from the polls. Campaigns are not inherently mobilizing forces, and the secular decline in presidential and midterm voter turnout since 1960 (for evidence, see Rosenstone and Hansen 1993) may be attributed, in part, to the increasingly negative tone of national campaigns.

Finally, this research raises normative questions concerning the trade-off between the right to political expression and the right to vote. Should candidates be free to use advertising techniques that have the effect of reducing levels of voter turnout? In the case of publicly financed presidential campaigns, is it legitimate for candidates to use public funds in ways that are likely to discourage voting? How do we weigh the public interest in free political expression against the competing public interest in widespread public participation? When, if ever, should politicians' expression be restrained or subjected to incentives to modify its form or content?

In other areas of public communication, allegations of "antisocial" effects have prompted extensive analysis and debate. In some areas, the outcome has been governmental regulation. Thus the tobacco companies have been banned from using the airwaves for certain forms of commercial speech and are required to include mandated health warnings in their print advertisements. Direct regulation of political speech, which is at the core of the values protected by the First Amendment, is probably both impossible as a matter of law and undesirable as a matter of policy. The classic remedy in this society for injurious speech is simply "more speech." However, there is precedent in the law governing the broadcast media requiring that "equal time" be given to the targets of certain "personal attacks" (see Ferris and Leahy 1990). Possibly, new regulations governing the broadcast media ensuring that the targets of attack advertisements have reasonable opportunity to respond (regardless of their own financial resources) should be considered. Ohio and other states are currently experimenting with "truth in political advertising" guidelines designed to make candidates think twice before resorting to false or misleading advertising. However, approaches that simply ensure that there will be "more speech" miss the essential point raised by this research, which is that negative advertising impacts adversely on voting; remedies that can only multiply the number of negative advertisements will exacerbate, rather than address, the essential problem.

The more realistic approach to influencing the tone of campaign advertising rests on voluntary or incentive-based restraints. There have been several instances in which public controversy over the content of entertainment programming has prodded the networks, local stations, or record companies to withdraw the program in question. Similar reasoning is embodied in legislation pending in Congress that seeks to reform campaign advertising. (For a discussion of recent legislative efforts, see O'Neill 1992). One bill would impose a double standard on adver-

tising rates under which only "positive" advertisements would be entitled to the "lowest unit rate" rule. Other suggestions include the so-called in-person rule, under which the candidates would be required to deliver their attack statements in person (on camera).

A third set of suggestions for reform addresses the use of media "monitoring." In the aftermath of the 1988 campaign, the press decided to scrutinize the candidates' paid messages (in the form of "ad watches," "truth boxes," and the like). Anticipation of critical news coverage may deter candidates from relying heavily on attack messages. To this point, however, there is no reliable evidence concerning the effects of these monitoring effects on voter response to advertising.

We do not yet understand the implications of these various approaches. Some would certainly raise objections from civil libertarians, others would be objectionable to those concerned with political competitiveness. As in the case of campaign finance reform, broadcast advertising reform may work to benefit those in office at the expense of challengers. Although providing incentives for campaigns to air "positive" messages provides no assurance that these messages will be more substantive, verifiable, or honest, they would, at least, be less likely to deter voting. While the case for broadcast advertising reform has yet to be made, the relationship between negative advertising and voting suggests that these issues are worth further research and discussion.

APPENDIX A: SAMPLES OF EXPERIMENTAL ADVERTISEMENTS

The wording and visuals used in two of our studies appear below. The changes associated with the negative versions of the advertisements are given in parentheses.

1990 Gubernatorial Study: Crime

Text. It's happening right now in your neighborhood. A generation of youth slowly dying. _____ is (is not) the candidate who intends to stop this tragedy and preserve California's future. As mayor of _____, _____ added (reduced the number of) police officers, constructed (blocked) new jails, and fought hard against drugs (opposed drug education programs). The result: major crime rates fell (increased) by 12%. His (her) record won the endorsement (was condemned by) the California Association of Police Chiefs. They know _____ will push for (will oppose) tougher sentencing and strengthen (weaken) our state's justice system.

Visuals. Schoolchildren on playground; addict injecting heroin; body bag being removed from crime scene; police officers outside courthouse; interior of prison cell; candidate logo.

1992 Senate Study: Unemployment

Text. Since 1990, California has lost two-and-a-half million jobs. The state now has the highest unemployment rate in the nation. California needs elected officials who will end the recession. _____ will work (has done nothing) to bring jobs back to our state. As a U.S. Senator, _____ will introduce legislation (_____ opposes legislation) to increase funding for job training programs and to give California companies incentives to modernize and expand their factories and plants. California needs (can't afford) _____ in the U.S. Senate.

Visuals. Closed factory; graph showing state's unemployment rate; lines at unemployment office; picture of candidate (opponent); factory workers assembling planes; workers on construction site; candidate logo.

APPENDIX B: CLASSIFICATION OF 1992 SENATE CAMPAIGNS ACCORDING TO ADVERTISING TONE

We examined a subset of the NEXIS and DATATIMES data bases that contained full-text reproductions of articles from more than 30 major daily newspapers and five politically oriented magazines (e.g., the *Cook Political Report*, the *Roll Call*, and the *Hotline*). A separate search was conducted for all 34 senatorial campaigns. The search was designed to access all articles about the campaign printed after the primary and before the general election. When the search produced more than 150 articles (as was the case for seven races), than a further search command focusing on campaign advertising was added. This procedure elicited a total of 2,573 articles.

Each article was read by a graduate student coder who specifically looked for discussion of campaign tone. The coder followed a strict scheme in order to place each race into one of the three campaign-tone categories. If a majority of the tone-related references to a campaign were negative (e.g., it was characterized as being nasty, dirty, or vicious and provided specific examples of negative attacks from each of the race's candidates), the race was coded as negative. If at least three articles specifically mentioned that one of the Senate candidate's was deliberately refraining from making a negative response to the opponent's attacks and no later article contradicted this information, then the race was coded as mixed. Finally, when the news coverage yielded no discernible information about negative campaign tone, the race was coded as positive.

We validated our news-based classification scheme by asking two major political consultants (David Hill, Republican, and Mark Mellman, Democrat) to rate each of the Senate campaigns on the same three-point scale. The consultants disagreed with our classification in only one instance (Kentucky), and we deferred to their expertise. (The analysis is unchanged if

Kentucky is eliminated from the analysis.) Each state's tone score is shown in the following list:

Negative Tone	Mixed Tone	Positive Tone
Arkansas	Alabama	Alaska
California (6-yr. seat)	Arizona	Hawaii
California (2-yr. seat)	Florida	Idaho
Colorado	Illinois	Iowa
Connecticut	Missouri	Kansas
Georgia	Oklahoma	Maryland
Indiana		Nevada
Kentucky		North Dakota
Louisiana		South Dakota
New Hampshire		Utah
New York		Vermont
North Carolina		Wisconsin
Ohio		
Oregon		
Pennsylvania		
South Carolina		
Washington		

(Note that the California 6-year seat was contested between Boxer and Herschenson and the 2-year seat, between Feinstein and Seymour, and that the Louisiana general election was uncontested.)

Notes

This research was supported by generous grants from the John and Mary R. Markle Foundation, the National Science Foundation, and the University of California. We are indebted to Kelley Carlin, Diana Estrada, Travis Dixon, Terri Hall, Mikel Healy, Clark Hoover, Victoria Mitchell, Erin O'Neal, Raza Syed, and Sharmaine Vidanage for superb research assistance.

1. We use these terms interchangeably to describe whether the advertisement, or the campaign as a whole, focuses on a candidate's positive aspects or on the opponent's liabilities and faults.

2. In addition to minimizing the visual differences in the advertisement, we also used identical logos, in which the sponsoring candidate's name appeared in large red letters against a brown backdrop.

3. Using a weighted average of Los Angeles and Orange counties as the baseline, the demographics for our sample match closely for age (median of 34 versus 31), gender (44% vs. 51% male), race (52% vs. 47% white), and partisanship (49% identifying Democratic vs. 47% registration). Our participants deviated in the local area in two respects: 26% of our participants were African–American (compared to 10% in Los Angeles and Orange counties), and 44% were college graduates (compared to 24% for the local area).

4. Random assignment of participants to experimental conditions was used throughout. The use of random assignment assures (subject to the rules of probability) that differences in the dependent variable can be attributed only to the experimental manipulation (see Campbell and Stanley 1969, 25). We took the additional precaution of controlling for a number of background variables considered predictive of participation, including partisanship, prior voting history, age, and education.

5. Responses to the two questions were generally cumulative; that is, few people who said they were not registered indicated an intention to vote. These respondents were classified as unlikely voters.

6. For a more detailed analysis of the effects of advertising valence in specific campaigns, see Ansolabehere, Iyengar, and Valentino 1993.

7. The number of cases was 1,716. Since the F-statistic is nondirectional, that is a conservative test of the demobilization hypothesis.

8. The average roll-off in the 1992 Senate elections (rounded to the nearest thousand) was 127,000, with a maximum of 609,000 and a minimum of −13,000. In percentage terms, roll-off averaged 4.9% with a range of −1.8% to 11.6%.

9. The Bureau of the Census mails forms to every resident in each state. The mail-back rate is the fraction of forms that are completed and returned.

10. A simple F-test revealed that the symmetry restriction was justified.

11. There are a variety of other interesting results in this analysis, but since we are especially interested in the effects of campaign tone, we set them aside for future consideration.

12. These results are available from the authors.

13. Participants rated the candidates' intelligence, honesty, compassion, leadership, toughness, arrogance, weakness, and deviousness. We formed an index by subtracting the number of negative ratings from the number of positive ratings.

14. These results are available from the authors.

15. The questions asked participants to agree or disagree with the following statements: (1) "Generally speaking, those who get elected to pubic office keep in touch with the people in their constituencies"; (2) "In this country, politics works for the benefits of a few special interests, rather than the public good;" (3) "Most politicians are willing to tackle the real problems facing America;" (4) "Having elections makes government responsive to the views of the people."

16. The F-statistic was 4.0, with 1,716 cases.

17. It is possible, of course, that negative advertising also exerts prosocial effects not tapped by our studies. For instance, there is some evidence that negative advertisements allow voters to differentiate more readily between candidates' issue positions, thus facilitating "issue voting" (see Garramone et al. 1990; Patterson and McClure 1976).

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