The Effects of Negative Political Campaigns: A Meta-Analytic Reassessment

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The conventional wisdom about negative political campaigning holds that it works, i.e., it has the consequences its practitioners intend. Many observers also fear that negative campaigning has unintended but detrimental effects on the political system itself. An earlier meta-analytic assessment of the relevant literature found no reliable evidence for these claims, but since then the research literature has more than doubled in size and has greatly improved in quality. We reexamine this literature and find that the major conclusions from the earlier meta-analysis still hold. All told, the research literature does not bear out the idea that negative campaigning is an effective means of winning votes, even though it tends to be more memorable and stimulate knowledge about the campaign. Nor is there any reliable evidence that negative campaigning depresses voter turnout, though it does slightly lower feelings of political efficacy, trust in government, and possibly overall public mood.

Conventional wisdom among political consultants, candidates, and consultants during the 1980s and 1990s held that election campaigns had become increasingly mean-spirited and that the pervasive negativism of campaigns was exacting a heavy toll on American democracy, undermining citizens' positive feelings about elections in particular and government in general and thereby demobilizing potential voters. Negative campaigning had come to dominate American politics, it was believed, because it works; that is, candidates who go on the attack usually see their ratings rise and reap greater support on Election Day than they would have gotten had they stayed positive. The 1988 presidential campaign, when George H.W. Bush came from 10 points behind in the polls to a comfortable victory after the (in)famous Willie Horton, Boston Harbor, and Dukakis-in-a-tank ads began airing, has been offered as the poster child of effective attack politics.[1]

Lau et al.'s (1999) meta-analysis of social science research on the effects of negative campaigning found little hard evidence for these claims. Even though Lau et al.'s findings were widely publicized, it would be naive to expect results reported in a scholarly journal to have an immediate or substantial impact on what political strategists recommend, what political candidates do, and what political commentators believe. Still, one might have hoped for a gradual but growing awareness of these new findings among those whose business is running campaigns or covering them, a glimmer of skepticism toward previously unchallenged beliefs, or a revamping of standard operating procedures. Insofar as we can determine, though, little of this has happened. Despite changes in campaign finance laws designed to reduce the negativism of campaigns, the most recent federal elections are being called the most negative—by far—on record.[2] For example, it has been reported that whereas only 1%

[1]Geer (2006) has debunked the conventional view of the 1988 campaign, demonstrating that Dukakis attacked Bush as early and often as Bush attacked him, and more importantly that Bush had overcome the challenger's early lead in the polls before any of this negative campaigning began.

[2]See, e.g., May (2006), or Tucker (2006). During the 2006 campaign alone, hundreds of newspaper articles focused on negative campaigning, many with similar "this is the worst ever" themes.

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and 46%, respectively, of the ads sponsored by the Democratic and Republican Congressional Campaign Committees in 2004 were negative, in 2006 those figures skyrocketed to 83% and 89% (*CQ Weekly*, October 16, 2006).[3]

Far and away the commonest explanation for this widespread and apparently growing negativism of campaigns is the presumed effectiveness of attack politics, even as it is simultaneously decried as a corrosive influence on the American system of government. For one thing, negative ads are believed to draw attention:

> "Voters don't pay much attention to campaign ads," claims Bob Stern from the Center for Government Studies in California, "but when they're negative they do. . . . That's why negative ads are busting out all over—they can cut through the flotsam of an election-year blitz; they tend to stick with us when less provocative ads fade away; and they often provide voters with usable information about candidates they know next to nothing about." (May 2006)

For another, negative campaigning is believed to be advantageous to the attacker:

> Ugly, combative, negative advertising targeting a political opponent works. You can see your opponent's favorable polling numbers degrade while the negative ad runs. (Richard Romero, former Democratic president pro tem of the New Mexico State Senate; quoted by Quigley 2006)

> If positive advertisements moved things to the extent that negative ads move things, there would be more of them (Rep. Thomas Reynolds, chairman of the National Republican Congressional Committee; quoted by Nagourney 2006).

Warnings that these negative political advertisements are undermining American democracy persist, too. Brooks (2006) conducted a systematic study of 186 newspaper and magazine articles linking negative advertising and turnout from 2000 through 2005, and reports that 65% of the articles concluded that negative campaigning depresses turnout, while only 6% concluded that it might increase turnout. For example, a recent Washington Post columnist characterizes the research literature as "show[ing] that negative ads can reduce turnout; Democrats hope a constant drumbeat of scandal, Iraq and 'stay the course' will persuade conservatives to stay home of Nov. 7. . . . Republicans . . . are equally eager to depress Democratic turnout and fire up their conservative base" (Grunwald 2006). Similarly, political scientist Thomas Patterson claims that "numerous studies show that misleading negative ads corrode trust in democracy" (quoted by Christopher Shea in *The Boston Globe*, May 21, 2006).

None of these conclusions was supported in our earlier meta-analysis of research on the effects of negative campaigning (Lau et al. 1999). Why the disconnect between the *evidence* in the social science literature and the *actual beliefs and practices* of candidates, consultants, pundits, and even many political scientists? One possibility, which we explore here, is that the conclusions that we drew in our earlier study were simply incorrect. After all, the politicians who approve of negative ads and the consultants who recommend and produce them have too much at stake and are paid too much to be mistaken. Moreover, the research literature itself has changed in two important ways. In less than eight years it more than doubled in size, mushrooming from 52 studies containing 123 pertinent findings in late 1998 to 111 studies containing 294 pertinent findings by mid-2006. Less obviously but no less importantly, this rapid growth was accompanied by an equally marked increase in methodological rigor, particularly in analyses of the effects of actual political campaigns. The question then becomes whether the quantitative and qualitative growth of the research literature has invalidated our earlier conclusions. Were our conclusions time-bound and premature and are they no longer operative—if, indeed, they ever were operative? Is the persisting conventional wisdom about negative campaigning correct after all? Fortunately, the tremendous growth and enhanced quality of research on negative campaigning now enable us to launch a more comprehensive and reliable assessment of the conventional wisdom than was feasible at the time of our earlier study.

Method

To address these questions, we have conducted a new meta-analysis—a quantitative synthesis of

[3]These records go back only to 2004, when the Federal Election Commission began requiring all independent (that is, noncandidate-sponsored) groups to report whether the primary purpose of their political expenditures was to support or oppose a candidate. Recent changes in campaign laws now require all candidates for federal office to appear in their own ads and to state that they approve of the message being presented. This requirement may have reduced the negativism of candidate-sponsored ads while shifting attacks to ads sponsored by the parties and other independent groups. We know of no solid evidence on whether the total negativism of the 2006 campaign, counting both candidate-sponsored and supposedly independent party and PAC advertisements, was significantly greater than previous years.

findings from independent studies—of research on the effects of negative campaigning. Taking the findings themselves (rather than the raw data upon which they are based) as the basic data for analysis, we have set out to estimate the consistency and magnitude of findings about the effects of negative campaigning and to account for variability among these findings. Four steps defined this undertaking: (1) defining the types of findings to be analyzed; (2) locating published and unpublished studies of the effects of negative campaigning; (3) translating the findings of these studies into a common metric to facilitate comparisons across studies; and (4) synthesizing the assembled findings.

Defining the Pertinent Findings

Given our focus is on the *effects* or consequences of *negative political campaigns*, we honed in on research on both actual and hypothetical political settings in which candidates or parties vied for electoral support. This stipulation led us to include studies of specific instances of negative campaigning (e.g., a single television advertisement) as well as characterizations of entire campaigns.[4] It led us to exclude studies of negative campaigns in nonpolitical settings (e.g., product advertising) and studies of the effects of negative descriptions of various stimuli (even political figures) in nonelectoral settings (e.g., news of wrong doing by a prominent political figure). Definitions of negative campaigning vary from study to study, and we generally relied on the definition employed in a given study rather than trying to fit studies into a definition of our own making. To qualify for inclusion here, an actual or hypothetical campaign setting had to feature variability in tone, so that every research finding considered here is based on comparison of negative ads or campaigns to positive, neutral, or at least less negative ads or campaigns.[5]

Research findings about the effects of negative campaigning on the memorability of campaigns or some aspect thereof and on the interest or knowledge that such campaigns evoke constituted the initial focus of our meta-analysis. These are intermediate effects that could help explain the "bottom-line" consequences of negative campaigns, which constituted our main focus. The latter are of two types. *Direct electoral effects* include affect toward the target of negative campaigning (that is, the opposing candidate), affect for the candidate on whose behalf a negative campaign is waged (that is, the attacker), relative affect for the attacker compared to the target, and the intention or probability of voting for the attacker. Irrespective of its impact on the outcome of a particular election, negative campaigning could have *broader systemic consequences*. Stemming from the common supposition that negative campaigning turns people off on politics, this category of effects includes, most prominently, actual or intended voter turnout, along with citizens' sense of political efficacy, trust in government, and overall political mood.

Locating Studies

Our next task was to identify and access every pertinent published or unpublished study within the domain. To avoid biases induced by the "file drawer" problem (the tendency for nonsignificant results to be relegated to the investigator's files; see, e.g., Rosenthal 1979), this step must be comprehensive. We began with the studies that Lau et al. (1999) had analyzed and added papers and articles we had identified and collected by mid-2005. Then, in June of 2005, we contacted approximately 275 scholars with interests even remotely related to negative advertising or campaigning, describing our project, stressing the need for comprehensiveness, requesting references to or copies of new studies they may have conducted, and asking for leads to other researchers who, unbeknownst to us, may have conducted potentially relevant research. These contacts yielded dozens of new studies. Finally, to all the studies we had gathered by these means we added a new round of papers from professional meetings held during the following year. Guiding our efforts was the goal of obtaining every relevant piece of research completed by mid-2006. We believe that we achieved that goal within a very small margin of error, yielding the aforementioned total of 111 studies. Thumbnail descriptions of these studies are presented in Table 1A in the appendix.[6]

[4]In our earlier study, we stated that our focus was on the effects of negative political *advertising*, but our review included many studies in which the focal variable was a characterization of an entire campaign rather than an advertisement or a series thereof. Thus we are not increasing the number of relevant studies here via definitional expansion; we are simply describing the criteria for inclusion more accurately.

[5]A few studies have manipulated the nature of attacks—for example, contrasting issue-based attacks to character-based attacks without including any positive ad conditions (e.g., Pfau and Burgoon 1989). We included such findings in subsidiary analyses of the relative effectiveness of issue- and character-based ads, but excluded them from analyses of the effects of negative advertisements per se.

[6]A few of the studies that we had in hand by the end of 2006 were subsequently published in 2007. The table reflects their publication dates in cases where we are aware of them.

At least two of the three authors examined each study to determine whether it met our criteria for inclusion. In several instances we replaced findings that Lau et al. (1999) had included because the researchers had subsequently reanalyzed the same data. For example, we replaced findings from Ansolabehere et al.'s (1994) analysis of data on the 1992 Senate elections with findings from Ansolabehere, Iyengar, and Simon's (1999) later analysis of these data. We did not "double-count" findings that a research team had presented in multiple venues (e.g., a convention paper and a published article), but we did include a few independent analyses of the same data by different research teams; for example, we treated as independent Brooks's (2006) and Wattenberg and Brians's (1999) reanalyses of the same 1992 Senate elections that Ansolabehere et al. (1994) had analyzed. We will address the consequences of these decisions in the section on refinements and moderator effects.

Calculating (and Adjusting) Effect Sizes

Once we had accessed relevant studies, we had to translate their findings into a common metric. Several decades ago, statisticians developed various "vote counting" methods of combining results from independent studies (e.g., Fisher 1932; Mosteller and Bush 1954). These methods merely test the null hypothesis that the research literature on some hypothesized effect does not contain even a single significant finding (Becker 1994). Such tests obviously are not very discriminating, but because they provide a rock-bottom indication of whether there is any evidence at all on behalf of a hypothesized effect, we applied them here.

More recently, techniques have been developed for gauging and aggregating the magnitude of every reported effect, enabling more discriminating hypothesis tests. Two major types of effect sizes have come into widespread use, *d* measures based on mean differences between groups and *r* measures based on correlations. In our earlier study we employed *d* because it is a natural metric for experimental studies, which constituted the majority of the studies then available. To maintain continuity, we did the same here.

For a simple design with experimental and control groups, *d* represents the difference between the means of the two groups, expressed in standard deviation units. For more complex factorial designs, the calculation of *d* becomes more complicated but the basic idea remains the same.[7] However, for many research studies no widely accepted effect size measure exists, and particularly vexing problems arise when, as here, findings from nonexperimental multivariate analyses are to be combined with results from randomized experiments. For data from multivariate analyses, Lau et al. (1999) used the formula $d = 2t/\sqrt{df}$, where *t* refers to the t statistic and *df* refers to the degrees of freedom associated with this t-test (Stanley and Jarrell 1989). This formula, which Rosenthal and Rubin (2003) call "$d_{equivalent}$" represents what the effect size would have been if *t* had been obtained from a comparison of means in an analysis involving two groups and a normally distributed dependent variable. We followed Rosenthal and Rubin's recommendation that $d_{equivalent}$ be used when only probability or *t* values are reported, or when no widely accepted method exists for calculating effect sizes for the analytic procedures used in a study.

After effect sizes have been calculated, they must be combined. Analyzing raw effect sizes equates effect sizes based on different sample sizes. Given the wide variation in sample sizes across studies, we instituted a "barebones" adjustment for sampling error-standard practice in meta-analyses. This adjustment weights each finding by the number of cases on which a finding is based, divided by the total number of cases in studies with pertinent findings. Beyond that, we adjusted for measurement reliability in the dependent variable (Hunter and Schmidt 1990).[8] We report below the unadjusted, sampling error-adjusted, and reliability-adjusted effect sizes.[9]

[7]Formulas for calculating *d* for different research designs and statistical tests can be found in any text on meta-analysis—see for example Cooper and Hedges (1994), Glass, McGaw, and Smith (1981), Hunter and Schmidt (1990), or Rosenthal (1984).

[8]Lau et al. (1999) describe these adjustments in greater detail.

[9]Adjusting for reliability of measurement is obviously problematic for studies in which no reliability measure is reported, as was the case for most of the studies considered here. When reliability information was missing but the dependent measure was a multi-item scale, we assumed the mean reliability reported for that type of dependent variable (e.g., one average reliability for affect for the attacker, another for affect for the target, and so on). When reliability information was missing and the dependent variable was a single item, we used two-thirds of the mean reliability for that type of dependent variable instead. For official vote totals (relevant to findings concerning vote outcomes and turnout), we set reliability at .98. Although these adjustments were somewhat arbitrary, we consider them reasonable. Adjusting for measurement unreliability necessarily increases the absolute value of the estimated effect size, but it also increases the standard error of the estimate.

Observing Central Tendencies and Explaining Variance in the Findings

Once relevant studies have been located and their findings translated into a common metric, they must be summarized statistically and tested for moderator effects—factors that could explain why an effect is present or large or positive in some studies but absent or small or negative in others. For example, we might expect the estimated effects of negative campaigning to be larger in experimental than field studies because the latter may involve so much noise that it becomes difficult to detect any reliable effects; or we might expect attacking to be effective for challengers but counterproductive for incumbents, in which case lumping all the effect sizes together would misleadingly produce support for the null hypothesis. Because a few of the studies considered here had extremely large sample sizes, we also conducted a series of robustness analyses in which we minimized the impact of these few studies. After determining the basic finding for each dependent variable, we searched for such moderator effects whenever enough cases were available to sustain subgroup analyses.

Results

Intermediate Effects

By mid-2006, the research literature contained 21 findings on the memorability of negative ads or campaigns. In the vote-count test, the null hypothesis that the literature contains no statistically significant results at all could easily be rejected ($z = 8.5$, $p < .001$), indicating that the literature contains at least some significant evidence (see Table 1). More tellingly, the unadjusted effect size across the 21 findings averaged .28, in the moderate range but not reliably greater than zero. Adjusting for sampling error left the estimated mean effect untouched but greatly reduced the standard error. Because both the largest positive and the largest negative effects are from small-sample (predominantly experimental) studies, this adjustment greatly reduced their influence on the estimated sample variance and lifted the 95% confidence interval above zero. Adjusting for measurement unreliability left the effect size in place but raised its standard error back up to its unadjusted level. The overall message of the research literature concerning memorability, then, is that negative ads and campaigns are somewhat easier to remember than comparable positive ads and campaigns, but because the statistical significance of the effects varies according to various adjustments we made, these differences are neither strong nor consistent. The effect sizes for memorability adjusted for sampling error and measurement unreliability are shown in the first panel of the top row of Figure 1.

Ten studies have examined the effects of negative campaigning on campaign interest. Two of these (both conducted by Pinkleton) reported moderately large increases in campaign interest, but four of the ten found effects in the opposite direction, and overall we could not reject the null hypothesis that none of the reported studies found any significant effects. The effects of negative campaigning on campaign-related knowledge are more consistent. Eleven of the fifteen pertinent studies reported positive effects—that is, negative campaigns *increased* campaign knowledge—and we could easily reject the null hypothesis that none of the 15 effects is significant. However, this effect is small, featuring unadjusted and adjusted mean effect sizes in the single digits; across the 15 pertinent findings, the average boost in campaign knowledge associated with negative campaigning amounts to less than one-tenth of a standard deviation. The consistency and modest magnitude of these effects is easy to see in the rightmost entry in the first row of Figure 1. (We maintain the same scale in all panels of Figure 1 to give a clear idea of the relative magnitude of effects across dependent variables.) More broadly, *although the findings that have accumulated in the research literature are consistent with the idea that several (but not all) of the mechanisms by which negative campaigning is presumed to shape affect for candidates are indeed operative, the observed differences are not strong.*

Do Negative Campaigns Work?

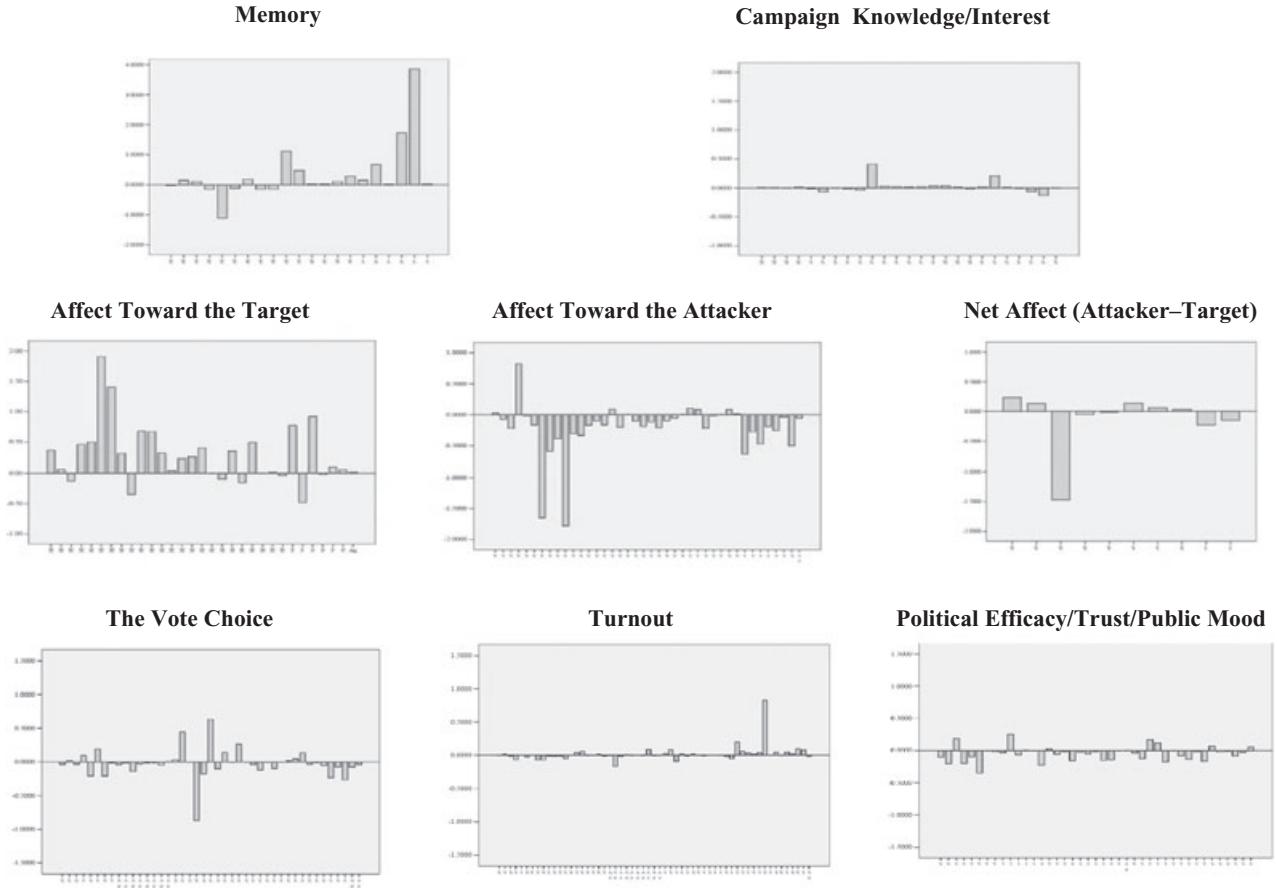
Because the mechanisms through which negative campaigning is supposed to work are operative, albeit to a modest extent, the next question is whether going negative itself works. Negative campaigns are designed, first and foremost, to diminish positive affect for their target, the opposing candidate. Although proponents of negative campaigning recognize that it may simultaneously produce lower affect for the attacker (the so-called "backlash" effect: see for example Roese and Sande 1993), they contend that the net effect, as reflected in *differential* candidate affect, should work to the attacker's advantage. For candidate affect to matter, it must translate into the choice between candidates, and here again attacking is believed to favor the attacker. Lau et al. (1999) uncovered empirical support for the ideas that negative cam-

TABLE 1 Meta-Analysis Summary

Effect	Number of studies: Current	Number of studies: Lau et al.	Subjects	Test of combined significance (Z)	Unadjusted: Effect size	Unadjusted: s.e.	Corrected for sampling error: Effect size	Corrected for sampling error: s.e.	Corrected for measurement error: Effect size	Corrected for measurement error: s.e.
Direct electoral effects (coded such that increased negativism helps the attacker)										
1. Memory for ad	21	(14)	9,438	8.5***	.28	.17	.28**	.10	.35**	.12
2. Campaign interest	10	(0)	47,773	1.5	.07	.05	.00	.01	.00	.01
3. Campaign knowledge	15	(3)	15,947	2.5*	.05	.02	.06**	.02	.07**	.02
4. Affect for the target	31	(16)	18,341	10.7***	.29**	.09	.11	.06	.14*	.07
5. Affect for the attacker	40	(25)	20,146	−15.6***	−.37**	.09	−.16*	.06	−.21*	.08
6. Net affect	10	(6)	19,873	−6.7***	−.28	.46	−.04	.14	−.13	.27
7. Vote intention	27	(13)	28,904	−1.2	−.03	.14	−.01	.06	−.02	.08
8. Actual vote choice	16	(5)	11,898	−2.9**	−.14*	.06	−.03	.02	−.04	.03
Systemic effects (coded such that increased negativism is associated with increased turnout, efficacy, trust, and so on)										
9. Intended turnout	21	(4)	41,826	−3.0**	−.08	.05	−.01	.01	−.02	.02
10. Actual turnout	36	(15)	163,370	3.0**	−.01	.05	.03*	.01	.03*	.01
11. Political efficacy	21	(4)	22,516	−2.8**	−.05**	.02	−.03***	.00	−.04***	.01
12. Trust in government	11	(2)	10,134	−2.8*	−.07*	.03	−.04**	.01	−.07***	.02
13. Public mood/Affect for government	10	(2)	5,334	−3.2**	−.15	.11	−.03	.05	−.04	.06

*$p < .05$; **$p < .01$; ***$p < .001$.

FIGURE 1 Effect Sizes Adjusted for Sampling Error and Measurement Unreliability, by Type of Dependent Variable



paigning does drive affect for the target of attacks down but also lessens affect for the attacker. Is that conclusion borne out in the greatly expanded research literature considered here? If it is, which of these two effects takes precedence?

The literature now contains 31 findings concerning affect for targets of attacks. (See the first panel of the second row of Figure 1.) In 22 of these tests—more than two out of every three—the expected decline in affect for the target occurs. To be sure, not all of these effects are statistically significant, let alone powerful, but the vote-counting null hypothesis that none of them is significant could easily be rejected ($z = 10.7$, $p < .001$). The mean unadjusted effect size is .29—reliably greater than zero and moderately large. However, adjusting for sampling error reduced the effect size to .11, with a 95% confidence interval now extending slightly beyond zero. This reduction reflects the fact that many of the largest effect sizes again come from studies with relatively few subjects, whereas the smaller or negative effect sizes tend to come from studies with much larger samples. Adjusting for measurement unreliability produced an estimate of .14—just reaching the .05 significance level and indicative of a relatively small effect. Overall, then, the picture is mixed, with the bulk of the evidence pointing to a modest tendency for negative campaigns to undermine positive affect for the candidates they target.

The other side of the coin is backlash against the attacker, the subject of 40 reported findings. Contrary to what attackers would prefer, 33 of these 40 findings are negative, indicating a decrease in affect for attackers. (See the middle panel of the second row of Figure 1.) Again the null hypothesis that none of these effects is significant could easily be rejected, and the mean unadjusted effect size (−.37) is farther from zero than the corresponding decrease in affect for the target. Correcting for sampling error and measurement error reduces the mean effect size considerably but it remains statistically significant. Because the results for targets and attackers are not necessarily paired from the same studies, they do not directly

gauge the net effect of going negative on affect for attackers and their targets, but they do sound an initial note of caution about the validity of claims about the benefits of going negative.

Evidence bearing directly on the question of whether attacks undermine affect for their targets more than for the attackers themselves is in surprisingly short supply, having been reported in only 10 studies. Three of the unadjusted effects are moderately large and positive, indicating a net differential in favor of the attacker; one is very large and negative, indicating a backfire on the attacker; and the remaining six all cluster closely around zero. (See the last panel of the second row of Figure 1.) The null hypothesis that the research literature contains no significant findings at all could again be easily rejected, but this is due entirely to the one very large negative finding, which of course runs counter to the prevailing conventional wisdom. Overall, the unadjusted (−.28) and adjusted (−.04 and −.13) mean effects are negative, though the standard errors are so sizeable that they do not even approach statistical significance. Accordingly, *the findings reported in the research literature do not bear out the proposition that attacking is an effective way to bolster one's own image relative to that of one's opponent*. Having said that, we hasten to caution against reading the opposite implication into this conclusion. Although the evidence points in the direction of a net backfire against attackers, it does not do so decisively enough to support the conclusion that attacks exact a significantly greater toll on attackers than on their targets. Rather, the research literature provides no determinative resolution one way or the other insofar as affect for the competing candidates is concerned.

Ultimately, how much the voters like the candidates matters to the candidates only to the extent that it helps or hurts their chances of being elected. We uncovered 43 relevant findings in the literature, 27 involving *intended* vote choices and 16 involving reported vote choices or official vote totals. As can be seen in the bottom left-hand corner of Figure 1, only 12 of these outcomes are positive from the attacker's standpoint. Only five of these 12 are at all appreciable, and they are counterbalanced by five negative effects of similar magnitude. The remaining effects are all small. The overall unadjusted effect of negative campaigns on vote choice indicates a modest disadvantage to the attacker, but that effect vanished when we adjusted the effect sizes. It bears mentioning that the two largest negative effects and all five of the positive ones come from experimental studies in which the dependent variable is vote intention; that particular design evidently produces more volatile outcomes.[10] The broader message, though, is that *the research literature does not bear out the proposition that negative political campaigns "work" in shifting votes toward those who wage them.*

Overall, then, social science research provides some evidence that the mechanisms through which negative campaigning is supposed to work do in fact operate, but there is an overriding lack of evidence that negative campaigning itself works as it is supposed to. Intriguingly, the conclusion that negative campaigning is no more effective than positive campaigning holds *even though* negative campaigns appear to be somewhat more memorable and to generate somewhat greater campaign-relevant knowledge.

Do Negative Campaigns Harm the Political System?

Aside from any immediate impact that it may or may not have on the candidates and electoral outcomes, negative campaigning could have consequences—according to the conventional wisdom, dire ones—for the political system itself. By far the best known example of this possibility is the demobilization hypothesis, which holds that negative campaigning alienates many potential voters from politics in general and from electoral politics in particular. Ansolabehere et al.'s (1994) estimate of a 5% drop-off in turnout due to negative campaigning generated widespread concern and sparked an explosion of follow-up research. We identified 57 different tests of the demobilization hypothesis in the last dozen years, two-thirds of which postdate our previous meta-analysis.

The effect sizes for voter turnout, coded to be negative if negative campaigning depresses turnout, vary widely. A few large positive effects can be seen in the middle panel of the bottom row of Figure 1, along with a few large negative ones and many that hover around zero. The overall findings pertaining to *intended* turnout are negative while the overall findings for *actual* turnout are positive, and if we combine these findings (as in Figure 1) we cannot even reject the null hypothesis that *none* of the effects is statistically significant. Several of these studies *do* report statistically significant results, but some are positive and

[10]We discuss in the text and illustrate in Figure 1 the results of all 43 studies together, but to provide added perspective we give the results for vote intention and actual vote choice separately in Table 1.

others negative. The null effect from the combined significance test suggests that we are sampling from a noisy distribution centered at 0, from which the significant positive and negative effects we have observed amount to random draws. For intended turnout, the unadjusted and adjusted effect sizes are consistent in direction with the demobilization hypothesis but never significant. For actual turnout, the adjusted mean effect sizes run counter to the demobilization hypothesis but are too small to be of practical consequence. When all 57 findings are combined into a single analysis, the mean unadjusted effect is −.07 (ns). Adjusting for sampling error and measurement reliability causes the mean to turn very slightly positive (.02), again not significantly different from 0. It follows that *the research literature provides no general support for the hypothesis that negative political campaigning depresses voter turnout.* If anything, negative campaigning more frequently appears to have a slight mobilizing effect.

This result bears out our earlier conclusion, though it is now based on three times as many studies. However, decreasing turnout is only one way that negative campaigning could adversely affect the political system. It could also undermine system-supporting attitudes, darken the public's general mood (Rahn and Hirshorn, 1995), or even diminish satisfaction with the government itself. In our earlier study, we could not locate enough pertinent findings to test any of these hypotheses, but the expansion of the literature in recent years makes it possible to do so now. The bottom right-hand corner of Figure 1 displays the effects of negative political campaigning on feelings of political efficacy (21 studies), trust in government (11 studies), and public mood/satisfaction (10 studies), with positive effect sizes denoting favorable consequences for the political system. The effects are, as Figure 1 reveals, overwhelmingly negative—not large but very consistent, and statistically significant for both political efficacy and trust in government. Thus, the conclusion to be drawn from the literature is clear: *Negative campaigning has the potential to do damage to the political system itself, as it tends to reduce feelings of political efficacy, trust in government, and perhaps even satisfaction with government itself.*

Further Refinements and Potential Moderator Effects

The conclusions we have drawn to this point have been based on analyses of all relevant results reported in the research literature, without distinctions among studies except for those involved in adjusting effect sizes. Some readers may suspect that the results of our meta-analysis are artifacts of our "double counting" of some findings reported by separate analyses of the same data or of the "swamp effect" induced by the presence of a few studies with extremely large sample sizes. To determine whether this might be the case, we conducted a series of additional analyses. First, we averaged the effect sizes reported by different investigators who were analyzing the same data, and reanalyzed the effect sizes with each pair of results treated as a single result. The greatest potential effect of double counting would revolve around the data reported in Ansolabehere et al.'s (1994) article on the demobilization effect, which have subsequently been reanalyzed by several different research teams. However, when we treated these several results as a single one, the unadjusted mean shifted only from .01 to .02 and the adjusted means remained the same to two decimal places.

To see whether the results from a few studies with very large sample sizes were swamping the remaining results, we sorted the data by sample size and then reduced any reported sample size that was more than twice as large as the next one in order. In most instances we achieved this reduction by dividing the actual sample size by 2 or 3, but in one case we reduced a sample size by a factor of 10. These adjustments could only reduce the impact of findings from studies with extremely large samples. (They also increased the estimated standard errors by reducing the degrees of freedom upon which the standard errors were estimated.) Even so, the resulting mean effect size shifted by more than ±.03 only for differential affect, for which the sampling error-corrected effect size grew from −.04 to −.16; at the same time, the estimated standard error more than doubled, so the increased effect size was still not significantly different from zero. Our basic findings, then, appear to be very robust to validity threats posed by double counting and the swamp effect.

Although the evidence we have examined so far points away from the conclusions that negative campaigning works and that it bears some responsibility for declining voter turnout, it could still be the case that some factor or factors we have not yet considered might *moderate* the suspected effects and observed noneffects of negative campaigning. Some types of negative campaigning might be particularly effective (for example, issue-based attacks) and others (personal attacks) less so; some types of voters might be influenced by attacks (the less politically sophisticated, or political independents) and others not; and some types of research designs might be better suited than

others for detecting the effects in question. Searching for such moderator effects involves conducting subgroup analyses, for which a very sizeable research literature is a prerequisite. Despite the rapid growth of research on negative campaigning, the number of findings bearing on some of its supposed effects remains relatively small. Thus, we could not look for moderator effects for all the purported consequences of negative campaigning, but we could do so for affect for the target of attacks, affect for the attacker, vote choice, voter turnout, and broader systemic effects (the latter by combining findings for trust in government, political efficacy, and public mood).

In each of these instances, we tested for potential moderating effects of: (a) the particular stimulus contrast (negative versus positive, negative versus neutral, or contrast versus positive) on which a finding was based; (b) the number of ads to which subjects were exposed; (c) the type of research design (experimental, survey-based, or aggregate analysis); (d) the type of subjects (undergraduates, a sample of the general public, or aggregate data); the use of real or simulated (e) candidates and (f) ads; (g) the medium through which the ads were delivered (written, audio, or video); and even (h) the academic discipline of the researchers (communications, political science, or psychology). It would be pointless to detail the results of these analyses, for none of these potential moderators displayed any consistent effect on affect for the target or the attacker, vote choice, or turnout.[11] Unsurprisingly, the more negative ads people were exposed to, the more their efficacy, trust, and satisfaction declined, and—as we noted above—experiments uncovered more negative effects than did surveys.

We also searched for moderator effects specific to particular electoral or systemic outcomes, but again without much success. For example, we found no evidence that an attacker's party affiliation had any bearing on the success of the attack. Nor, more surprisingly, was there any indication that going negative works better for challengers or open-seat candidates than it does for incumbents. We did find some support for the idea that whereas negative campaigns stimulate partisans to get out and vote, they are more likely to turn independents off on voting; however, too few studies (only nine) were involved in this hypothesis test to achieve the power necessary for conventional levels of statistical significance ($t = 1.6$, $p < .07$, one-tailed).

[11]There was a significant effect of the realism of the candidates on the magnitude of the effect sizes observed for affect toward the attacker and the target of negative campaigns, and on turnout, but only for the unadjusted effect sizes. In the first two cases, significantly smaller (in absolute value) effects were observed for real candidates than for mock candidates created specifically for an experiment. For turnout, whereas studies with real candidates were more likely to produce positive effects, studies with artificial candidates were more likely to produce demobilizing effects.

Discussion

The idea that negative political campaigns work is generally taken as both a truism and a source of regret (but see Geer, 2006). The campaign ads that live on in memory—ranging from the Willie Horton ads of 1988 through the Swift Boat Veterans for Truth ads of 2004—are widely seen as having achieved their intended result of making the opposing candidate seem duplicitous or even dangerous. These and other dramatic cases are routinely cited as proof positive of the power of negative campaigning. As a reporter recently summarized the prevailing view among political professionals and commentators: "The people who produce these ads and the consultants who hire them know that negative campaigning works. These people are paid way too much to be mistaken about whether poison is effective" (Mansnerus 2005).

On the other hand, many counterexamples—instances in which going negative did not prevent, or even contributed to, the loss of a campaign—could also be told, though they rarely are. For example, the same consultants who had produced the "successful" Swift Boat Veterans ads also produced, in the 2005 New Jersey gubernatorial election, an ad in which the Democratic candidate was criticized by his ex-wife—an attack that backfired on the Republican candidate and helped turn a close election into a runaway victory for his Democratic opponent (Whelan and Margolin 2005).

The popularity of certain views, the salaries of those who hold them, and the availability of a few dramatic examples do not constitute convincing evidence. To state the matter bluntly: *There is no consistent evidence in the research literature that negative political campaigning "works" in achieving the electoral results that attackers desire*. Although attacks probably do undermine evaluations of the candidates they target, they usually bring evaluations of the attackers down even more, and the net effect on vote choice is nil. Nor have we uncovered evidence that negative campaigning tends to demobilize the electorate. A few studies have reported significant demobilizing effects, a few have reported significant mobilizing effects, and the great majority have reported almost no effect one

way or the other; the overall mean effect is approximately zero. Negative campaigning does, however, have some negative systemic consequences, including lower trust in government, a lessened sense of political efficacy, and possibly a darker public mood. Although the latter effects are not large, and may be due more to *coverage* of negative ads in the media rather than the ads themselves (see Geer 2006), in the long run they could prove worrisome. We hope that more researchers will explore the effects of negative campaigns on these system-supporting attitudes, because the existing evidence seems fairly promising and the long-run implications seem fairly alarming.

Skeptics might worry that the negative ads and campaigns that have been considered in the research literature, the contexts in which they have been studied, and the effects that have been documented may be too unusual, artificial, weak, or poorly instrumented to have enabled the researchers on whose work our meta-analysis is based to detect consequences that under more auspicious circumstances might be much easier to detect. In response, we would emphasize that the findings synthesized here are not limited to a few isolated studies or to unrealistic experimental settings. The research literature includes many studies of actual campaigns with careful measurement of their tone. It also bears reemphasis that we have considered a large array of possible moderator variables that plausibly could have influenced our conclusions but did not.

In sum, our analysis of the greatly expanded research literature reinforces our earlier conclusion that most of the conventional wisdom about negative campaigning is not on sound empirical footing. What remains is to try to understand why negative campaigning is so pervasive and why the old saws about its effectiveness for its practitioners and its destructiveness to the political system continue to be repeated. We offer several speculations. First, every careful study with which we are familiar that attempts to measure the relative amounts of positive and negative campaigning has reported that attacks comprise 30% to 40% of all campaign messages (Geer, 2006; Goldstein and Strach, 2004; Lau and Pomper, 2004). Earlier we cited the *CQ Weekly* analysis of how negative the 2006 congressional campaigns were. But that analysis pertained only to ads sponsored by the political parties. Those ads were largely negative. In recent campaign years, candidates have sponsored about two-thirds of all the ads during a campaign, and if those ads were overwhelmingly positive, the overall 2006 campaign would, like all of its predecessors, have been predominately positive. Attack ads are more memorable than the typical positive ad, and this bias inevitably distorts perceptions of the prevalence of negative campaigning.

Why do consultants continue to urge candidates to attack when there is little evidence that this strategy actually works, and when an attack almost inevitably provokes a counter attack (Lau and Pomper, 2004)? If the 30% to 40% estimate cited in the preceding paragraph is accurate, in most instances consultants do *not* advocate attacking. Sometimes, though, they find it more feasible to craft high-visibility negative messages than equally high-visibility positive ones. Most candidates play up one or two general positive themes but try many different attacks on the opponent in smaller, targetable subsets of the electorate. It is probably easier to fine-tune attacks than positive messages, and therefore a focus on what is more controllable and new—the negative messages of a campaign—requires consultants to spend most of their time crafting the *negative* messages of a campaign (even though most campaign dollars buy positive ads) and makes it more likely that they will give those messages undue credit for favorable outcomes.

The behavior of journalists and political pundits vis-à-vis social science research on negative campaigning seems easier to explain. Undoubtedly many of them are simply unfamiliar with this research. Beyond that, just as local news programs typically lead with stories of murder and mayhem, political commentators seem to relish writing about awful, false, misleading, unfair, and mean-spirited political attack ads. Academic research sometimes provides a "hook" for their analyses of the causes and consequences of negative campaigning. That there is little sound evidence for most of the conventional wisdom about negative ads is not a story that most journalists are predisposed to tell or that most lay readers are predisposed to hear—especially because they are likely to remember a few especially vivid attack ads that seemed to work.

We might suggest a new hook for journalists to try in the next election cycle: why do candidates continue to attack when there is so little evidence that attacking works? It seems inevitable that the conventional wisdom will continue to be espoused by political commentators and acted upon by political professionals and the candidates they advise, but we hope that at some point even pundits and practitioners will begin to view more skeptically prevailing beliefs about the purported potency of negative campaigning.

APPENDIX TABLE 1A Description of Negative Campaign Studies Used in the Meta-Analysis, Including Old (from Lau et al. 1999), Updated, and New Findings

Study	Independent Variable	Subjects and Design	Dependent Variables	Results
1. Abbe et al. 2000	Ratings by candidates/ consultants as to whether either campaign was negative	287 candidates and campaign consultants involved in competitive House races in 1998	Actual vote share	Negative campaigning proved to be a slightly ineffective campaign strategy, d = –.06.
2. Ansolabehere and Iyengar 1995	Positive or negative ad for actual candidates inserted into regular commercial break of local news program	Experiment with a convenience sample of 2,216 residents of Southern California	Intended turnout	Negative ads depressed intended turnout, d = –.10.
			Vote intention	Negative ads decreased intended vote for the attacker during primary elections, d = –.14, but increased vote intention for the attacker during general elections, d = .10.
			Political efficacy	Negative ads decreased both internal (d = –.10) and external (d = –.14) political efficacy.
3. Ansolabehere, Iyengar, and Simon 1999 (Updates Ansolabehere, Iyengar, Simon, and Valentino 1994)	Positive/negative "tone" of 1992 Senate campaigns, coded from newspaper accounts; and recall of positive or negative ad from the 1992 and 1996 presidential elections	Aggregate analysis of turnout in 34 Senate elections; and 2SLS analysis of 1992 and 1996 ANES data	Actual turnout	States with more negative Senate election campaigns had lower turnout, d = –1.27.
			Reported turnout from survey	Recall of negative ad associated with lower probability of voting compared to recall of positive ad, d = –07.
4. Arceneaux and Nickerson 2005	A positive or negative message about an issue of concern to the voter from a Democratic 501c3 organization in Minnesota, and a positive or negative message about two ballot propositions from a different nonprofit organization in California	Two large field experiments delivering positive or negative campaign messages to young undecided voters in Minnesota, (N = 6206, but most data come from a survey of 1385 of them) and to minority voters in Los Angeles (N = 63,354, but most data come from a survey of 333 of them), during the 2004 presidential election	Turnout	Negative message associated with trivially higher turnout in both Minnesota (d = .01) and Los Angeles (d = .004).
			Vote Choice	Positive message trivially more effective in convincing people to vote for Kerry in the Minnesota study (d = –.02); negative message slightly more effective in getting people to support each of the two ballot measures in the Los Angeles study, (average) d = .04.
			Affect for target	Negative message very slightly more effective in lowering evaluations of the target, d = .02.
			Affect for attacker	No effect of negative message on evaluations of attacker, d = –.00.
			Knowledge (about ballot measures)	Negative message slightly less effective in imparting knowledge about one of the ballot propositions, and slightly more effective in imparting knowledge about the other, average d = .04.
5. Babbitt and Lau 1994	Positive/negative "tone" of 1988 and 1990 Senate campaigns, coded from newspaper accounts	Information about candidates from 1988 and 1990 U.S. Senate elections, and survey data (N = 1,947) from ANES Senate Election Study	General knowledge about incumbent senator running in election	Negative campaigning associated with somewhat less knowledge of incumbent senator, average d = –.05.
6. Bartels 2000	Geer's coding of proportion of negative ads used by two major-party presidential candidates, 1968–1992	14,861 respondents in 1968–1992 ANES presidential year surveys	Differential candidate affect	Negative campaigns associated with slightly less overall positive affect for the candidates, d = –.01.
			Interest in campaign	The more negative the campaign, the higher interest in it, d = .03.

APPENDIX TABLE 1A *continued*

Study	Independent Variable	Subjects and Design	Dependent Variables	Results
7. Basil, Schooler, and Reeves 1991	Positive and negative ads from two senatorial campaigns in another state	Repeated measures experimental design; 24 community residents saw two "campaigns" consisting of three positive or three negative ads for each Senate candidate	Affect for attacker	Candidate liked better and perceived as stronger when he presented positive ads, d = −.30.
			Affect for target	Target liked better when opponent used positive rather than negative ads, d = .46.
			Memory of ad	Positive ads recalled better than negative ads, d = −.30.
8. Brader 2005	Positive or negative issue-based ad, crossed by presence or absences of music and images designed to evoke enthusiastic or fearful emotions	286 Massachusetts residents participated in experiment in final weeks of 1998 Democratic gubernatorial primary; ad embedded in 30 minute local news broadcast.	Intended turnout	Negative ads led to slightly higher intention to vote in the primary, d = .01, and considerably more so in the general election campaigns, d = .20.
			Vote intention	Subjects more likely to report intending to vote for candidate sponsoring a positive ad than candidate sponsoring a negative ad, d = −.14.
			Differential candidate affect	Subjects reported liking candidate who sponsored a negative ad a little more than candidate who sponsored a positive ad, d = 14.
			Memory for ad	Negative ad recalled slightly more than positive ad, (estimate) d = .03.
			Political efficacy	Internal and external political efficacy slightly higher among subjects shown positive ad compared to subjects shown negative ad, (estimate) d = −.04 and d = −.03.
			Trust in government	Trust in government slightly higher among subjects shown positive ad compared to subjects shown negative ad, (estimate) d = −.03.
			Interest in campaign	Negative ads led to somewhat higher interest in the campaign, d = .11.

APPENDIX TABLE 1A *continued*

Study	Independent Variable	Subjects and Design	Dependent Variables	Results
9. Brader and Corrigan 2006	CMAG data on the proportion of ads that were negative, and the proportion of ads that were character-based attacks (which the authors call mudslinging) that were shown during the 2000 U.S. federal election	Representative samples of 13,311 respondents during the primary election, and 14,040 respondents during the general election campaign, from the 2000 National Annenberg Election Study (NAES)	Intended turnout	Mudslinging significantly decreased intention to vote during the primary (d = –.04) but had a weaker and nonsignificant effect during the general elections (d = –.01), while exposure to issue-based attacks slightly increased intention to vote during both the primary and general elections (d = .01 and d = .02), average effects of d = –.02 and d = 0 for the primary and general elections.
			Interest in the campaign	Mudslinging significantly decreased campaign interest during the primary (d = –.02) but had a weaker and nonsignificant effect during the general elections (d = –.01), while exposure to issue-based attacks slightly decreased interest during the primary but slightly increased interest during the general election (d = –.01 and d = .01), average effects of d = –.02 and d = 0 for the primary and general elections.
10. Bradley, Angelini, and Lee 2005	Viewing 18 positive, moderate, or negative ads from Bush and Gore in the 2000 U.S. presidential campaign	49 college students viewed 18 ads in repeated measures experimental design while attached to electrodes recording facial EMG response and galvanic skin conductance response	Memory	Recognition greater for negative ads compared to moderate or positive ads, $p < .05$ (assumed d = .68).
11. Bratcher 2001	Ratings of tone of 1986 through 1998 Senate election campaigns by campaign consultants and content analysis of coverage of campaigns	Aggregate analysis of outcome of 155 races where the incumbent was seeking re-election, 40 open seat races; and survey data from 4476 respondents to the ANES Senate election study	Vote choice	In aggregate, negative campaigning hurts incumbents (d = –.32), helps challengers (d = .22), and hurts open-seat candidates (d = –.14). At individual level, negativism slightly hurts Democrats (d = –.04) and slightly helps Republicans (d = .08).
			Differential candidate affect	At individual level, negativism slightly hurts Democrats (d = –.08) and slightly helps Republicans (d = .05).
12. Brians and Wattenberg 1996	Recall of exposure to television news and positive and negative ads during 1992 presidential campaign	51% of ANES survey(N = 1,263) who could recall some political ad	Memory of ad	Negative political ads more likely to be recalled relative to an estimate of their prevalence during campaign, d = .51.

APPENDIX TABLE 1A *continued*

Study	Independent Variable	Subjects and Design	Dependent Variables	Results
13. Brooks 2000	Estimate of tone of 1992 and 1994 Senate election campaigns, from newspaper accounts of campaigns	Replicates and extends Ansolabehere and Iyengar's analysis with aggregate (N = 33, from 1994) and individual-level survey data (N = 2,019) from 1992 and 1994 Senate races, with adjusted model taking contextual factors into account	Actual turnout	At aggregate level, negative campaigning associated with lower turnout in 1994 (d = –.24); at the individual level, almost no effect of negative campaigning on turnout in 1992 or 1994 (average d = –.01).
14. Brooks 2006 (Replaces aggregate data from 1992 originally reported in Brooks 2000)	Tone of 1992 Senate election campaigns (as originally coded by Ansolabehere et al. 1994), from newspaper accounts of campaigns	Reanalysis/ respecification of Ansolabehere et al.'s aggregate analysis of 34 1992 Senate election outcomes	Actual turnout (from both the Presidential and Senate elections)	Averaged across several different specifications of the basic turnout model, turnout 1–3% higher, the more positive the campaign (average d = –.60).
15. Brooks and Geer 2007	Positive, civil negative, or uncivil negative advertisements used by hypothetical candidate running for Congress	3 × 2 experiment run on Knowledge Networks survey (N = 1,748) varying tone and content (issue- or trait-based) of ads	Intention to vote in upcoming 2004 national election	Civil negative ads resulted in somewhat lower levels of intention to vote compared to positive ads condition (d = –.04), but uncivil negative condition resulted in significantly higher intention to vote, d = .09.
			Fairness and informativeness of ad	Both civil negative (d = –.14) and uncivil negative (d = –.51) ads rated significantly lower than positive ads.
			External political efficacy	External efficacy somewhat lower in both civil (d = –.11) and uncivil (d = –.05) negative ads conditions.
			Trust in government	Trust in government somewhat lower in both civil (d = –.11) and uncivil (d = –05) negative ads conditions.
			Interest in campaign	Political interest slightly lower in both civil (d = –.04) and uncivil (d = –.05) negative ads conditions.
16. Bullock 1994	Exposure to ads for two hypothetical state senate candidates, varying by type of attack ad (image or issue) and ambiguity of ad	Experiment with 451 randomly selected prospective jurors awaiting assignment	Affect for target	Targeted candidates rated less favorably after exposure to negative ads compared to positive ads, d = 1.40.
			Affect for sponsor	Candidates rated more positively when sponsoring positive ads than attack ads, d = –1.52.
			Vote intention	Negative ads caused the likelihood of voting for the targeted candidate to drop significantly, d = 1.09.
17. Capella and Taylor 1992	Which candidate initiated negative ads in 25 1986 Senate campaigns with "substantial amounts of negative advertising"	Vote totals in 25 Senate elections	Authors' judgment of whether negative ad campaign "worked" or "failed" (i.e., how final results differed from projected results before ad campaign began)	Negative ad campaign decreased proportion of vote obtained by initiator of negative ads in 18 of 25 elections, d = –.58.

APPENDIX TABLE 1A *continued*

Study	Independent Variable	Subjects and Design	Dependent Variables	Results
18. Chang 2001	Positive or negative print ads created by researcher	Experiment with 165 college students who saw either positive or negative ads from each of two fictitious competing candidates	Differential liking of candidates	Positive ads slightly more efficacious than negative ads, d = –.04.
			Memory of ads	Memory for negative ads much greater than memory for positive ads, d = .90.
19. Chang 2003	Positive or negative print ads created by researcher from actual campaign material, embedded in magazine articles	Experiment with mix of 754 college students and adults randomly assigned to see either no ads, a positive ad, or a negative ad from each of the two leading candidates in the 1998 mayoralty election in Taipei	Vote intention	Attacking the opponent slightly less effective than staying positive for intended vote, d = –.05.
			Affect for target	Virtually no difference in affect for target of ads whether sponsor uses positive or negative ads, d = .00.
			Affect for sponsor	Sponsor of negative ads liked slightly less than sponsor of positive ads, d = –.04.
20. Chang, Park, and Shim 1998	One candidate ran prominent negative ad, the other did not	Survey of 297 randomly selected residents of Columbia, MO	Affect for target Affect for attacker	Liking for target decreased, d = .92. Liking for attacker decreased, d = –.67.
21. Chanslor 1995	Ads produced by incumbent in 1992 Oklahoma senatorial election	2 × 2 experiment with 166 college student subjects, varying valence and type (issue vs. image) of ad	Intended vote choice	Intention to vote for incumbent very slightly less after seeing negative rather than positive ad, d = –.02.
			Affect for target	Target (challenger) liked significantly less after subjects saw ad attacking him rather than positive ad from the incumbent, d = .31.
			Affect for sponsor	Sponsor (incumbent) liked much less after subjects viewed attack ad rather than positive ad, d = –.70.
22. Clinton and Lapinski 2004	Actual positive or negative ads run by Bush and Gore in 2000 U.S. presidential election	Complex experimental design with almost 20,000 Knowledge Networks respondents who viewed 0–2 positive or negative ads from Gore and/or Bush	Intended turnout	In Wave I, viewing negative Gore ad associated with slightly higher intention to vote compared to seeing positive Gore ad, d = .03.
			Reported turnout	In Wave 2, viewing Gore negative ad associated with slightly higher turnout than no-ad control group (d = .05), while viewing both Gore and Bush negative ads associated with significantly higher turnout than control group, d = .07; reported turnout slightly higher for respondents who saw negative ad (d = .03) or two negative ads, d = .01.
23. Craig and Kane 2000	Respondent's perceptions of negativism of 1998 Bush and MacKay Florida gubernatorial campaigns	Representative sample of 613 registered Florida voters	External political efficacy	Respondents who perceived Bush and MacKay campaigns to be negative reported slightly lower external political efficacy, d = –.04.
			Trust in government	Perceived campaign negativism associated with slightly lower trust in government, d = –.08.
24. Craig, Kane, and Gainous 2005	Respondent's perceptions of negativism of 1998 Bush and MacKay Florida gubernatorial campaigns	Representative sample of 301 registered Florida voters who responded to all three waves of panel study	Knowledge of candidates' issue positions	Perceived negativism of Bush's but not MacKay's campaign significantly associated with greater knowledge of candidate's issue positions, mean d = .19.

Appendix Table 1A *continued*

Study	Independent Variable	Subjects and Design	Dependent Variables	Results
25. Crigler, Just, and Belt 2002	Respondent's perceptions of tone of Dole's and Clinton's campaigns, and their preferences after viewing a videotape containing two positive or two negative ads	Representative panel survey of 630 respondents, plus field experiment with respondents viewing videotape of news stories and political ads from 1996 U.S. presidential campaign	Intended turnout	Respondents randomly assigned to viewing two positive ads more likely to say they intended to vote in upcoming election compared to respondents who saw two negative ads, d = –.24.
			Intended vote choice	More negative Dole campaign perceived to be, less likely were respondents to say they intended to vote for him (d = –.21), but no effect of perceptions of Clinton's campaign; mean d = –.11.
			Affect for sponsor of ads	More negative Dole's campaign perceived to be, lower liking for him, (d = –.30), but no effect of Clinton's campaign (assume d = 0); mean d = –.15.
26. Dermody and Scullion 2000	Respondent's perceptions of positive and negative campaign posters	Within-subjects experimental design with 130 party activists reacting to positive and negative campaign posters shortly before 1997 British general election	Recall of ad (poster)	Negative posters much easier to recall than positive posters, d = 2.62.
27. Djupe and Peterson 2002	Coding of tone of campaign from newspaper articles for three months prior to contested Senate primary	Aggregate analysis of actual turnout in 33 contested Senate primary elections in 1998	Turnout	More negative campaigns associated with higher turnout rates, d = .92.
28. Finkel and Geer 1998	Proportion of negative ads used by two major-party presidential candidates, 1960–1992	Reported turnout by 12,252 ANES respondents, 1960–92	Actual turnout	Reported turnout slightly higher for respondents in election years with higher proportions of negative ads, d = .01.
29. Freedman and Goldstein 1999	Very sophisticated estimate of number of negative ads seen by survey respondents	Second wave (N = 290) of representative panel study of 1997 Virginia gubernatorial campaign	Reported turnout	Viewing more negative ads associated with higher turnout, d = .24.
			Internal political efficacy	Exposure to negative ads slightly lowers internal political efficacy, d = –.05.
30. Freedman, Wood, and Lawton 1999	Hypothetical vignettes in which fictional candidates attack each other	Experiment with random sample of Virginia voters exposed to five vignettes	Intended turnout	Intended turnout significantly lower when both candidates attack, d = –.40.
			Intended vote	Candidates who respond to attack do worse than candidates who stay positive, d = –.16.
31. Fridkin and Kenney 2004	Coding of tone of up to five ads from major party candidates for 97 contested Senate elections between 1988 and 1992	6,110 respondents to ANES Senate election surveys	Affect for target	Both issue-based attacks (by incumbents and challengers) and character-based attacks more effective than positive ads in lowering affect for target, mean ds .03 and .07.
			Affect for sponsor of ad	Both issue- and character-based attacks associated with lower affect for the sponsor compared to positive ads, ds ranging from –.01 to –.05.

APPENDIX TABLE 1A ***continued***

Study	Independent Variable	Subjects and Design	Dependent Variables	Results
32. Garand and Graddy 2001	Ansolabehere et al.'s coding of nature of 1992 Senate campaigns from newspapers in each state	1,074 respondents from 1992 ANES Senate election survey	Reported turnout	Negative campaigns associated with somewhat lower turnout, d = –.05.
33. Garramone et al. 1990	Exposure to various combinations and numbers of positive and negative biographical profiles and commercials for two fictional U.S. Senate candidates	Experiment with 372 students assigned to control, double-positive, single-positive, negative-positive, single-negative, or double-negative condition	Differential affect	Exposure to negative ads caused greater image discrimination (the difference between candidate image evaluations) than exposure to positive ads, d = .38.
			Intended turnout	Negative ads did not significantly affect intended turnout, d = –.18.
34. Geer 2006 (Turnout data updates Finkel and Geer 1998).	Proportion of negative ads used by two major-party presidential candidates, 1960–2004	Aggregate turnout level from 12 presidential elections between 1960 and 2004, plus survey-based mean levels of political trust and support for elections.	Actual turnout	Campaign negativism was slightly negatively associated with one measure of turnout (VAP) and slightly positively associated with another (VEP), mean effect size = –.01.
			Trust in government	Absolutely no relationship between campaign negativism and aggregate levels of trust in government across 11 elections, d = 0.
			Faith in elections	Negativism was positively related to aggregate levels of faith in elections, d = .38 (although with only 9 cases this effect is not at all significant).
35. Geer and Geer 2003	Positive or negative radio ad	Experiment with 121 college students assigned to hear positive or negative ad from Democratic or Republican candidate	Memory for ad	Memory slightly higher for negative ads, d = .08.
36. Geer and Lau 2003 (updates Geer and Lau 1998)	State-based estimates of proportion of negative ads used by two major-party presidential candidates, 1980–2000	Reported turnout by 10,333 ANES survey respondents,1980–2000, with results of 90 hypothetical models adjusted by Bayesian Model Averaging	Reported turnout	More negative estimated campaign tone in state, higher probability of voting, d = .06. Adjusting campaign tone for spending (d = .04) or estimated likelihood of exposure to campaign ads (d = .05) increases mobilizing effects of negative ads.
37. Geer and Lau 2006 (updates Geer and Lau 1998)	State-based estimates of proportion of negative ads used by two major-party presidential candidates, 1980–2000	State-level turnout in six U.S. presidential elections, 1980–2000, with results of 90 different hypothetical models adjusted by Bayesian Model Averaging	State-level turnout	More negative estimated campaign tone in a state, higher estimated turnout, d = .70; With campaign tone weighed by spending, mobilizing effect of negative tone decreases somewhat, d = –.12.
38. Globetti and Hetherington 2000	Coding of anti-Congress rhetoric in all ads run by major party Senate candidates in 1994 available from Oklahoma archives	420 ANES respondents in 1992–1997 panel survey in states with 1994 Senate elections	Trust in government	More anti-government rhetoric by two major party candidates, slightly lower trust in government, d = –.02.
			Approval of Congress	Anti-Congress rhetoric significantly related to lower approval of Congress, d = –.19.

APPENDIX TABLE 1A *continued*

Study	Independent Variable	Subjects and Design	Dependent Variables	Results
39. Goldstein 1997	Number of negative ads shown in 75 largest media markets during 1996 presidential campaign, as recorded by Campaign Media Advertising Group (hereafter CMAG data)	Aggregate analysis of 1,588 counties, followed by individual-level analysis of 879 ANES respondents living in 75 largest media markets	County-level turnout	More negative ads run in county, lower turnout, d = –.27.
			Reported turnout	More negative ads exposed to, greater probability of voting, d = .09.
			Reported vote choice	Exposure to candidate's negative ads led to somewhat greater probability of voting for him, d = .08.
			External political efficacy	More negative ads a respondent exposed to, lower external political efficacy, d = –.05.
40. Greenwald 2005	CMAG data on number of positive and negative ads shown by Democratic and Republican Senate candidates, weighted by likelihood of exposure	Survey data from respondents in 2000 National Annenberg Election Study, broken into states with competitive and noncompetitive Senate elections	Vote intention	Negative advertising noticeably less effective than positive advertising in competitive elections, d = –.01; but negative advertising more effective than positive advertising among independents (d = .07) and for all respondents in noncompetitive elections, d = .10.
41. Haddock and Zanna 1997	Impressions of actual candidates before and after controversial attack ads aired during 1993 Canadian national election	"Natural" experiment with 110 college students	Affect for attacker	Affect toward attacker decreased after airing of ads, d = –.32.
			Affect for target	Affect toward target increased after airing, d = –.35.
42. Hill 1989	Positive or negative ad from Bush or Dukakis campaign	Experiment with 120 college students	Affect for attacker	Sponsor of ad liked less if ad was negative rather than positive, d = –.65.
			Affect for target	Target of ad liked more if ad was negative rather than positive, d = –.13.
43. Hitchon and Chang 1995	Exposure to positive, neutral, and negative ads from female and male gubernatorial candidates	Experiment using 3 (positive, negative, neutral) × 2 (female, male) within-subject factorial design with 75 undergraduates	Affect for attacker	More negative affect for candidates who attacked their opponents, d = –.81.
			Memory for ads	Positive ads produced highest candidate recall, while negative ads produced lowest candidate recall, d = –58.
44. Hitchon, Chang, and Harris 1997	Exposure to positive, neutral, and negative ads in gubernatorial race	Experiment using a 3 (positive, neutral, negative) × 2 (male, female) within-subject factorial design with 72 undergraduates	Affect for attacker	Negative ads produced less favorable responses than positive or neutral ads, d = –.80.

APPENDIX TABLE 1A *continued*

Study	Independent Variable	Subjects and Design	Dependent Variables	Results
45. Houston and Doan 1999	Exposure to positive or negative ads from liberal or conservative mock senate candidates	2 × 2 × 2 experiment with 173 college student subjects manipulating candidates, positive or negative tone of ads, and whether they cite evidence to support their claims	Intended turnout	Respondents significantly less likely to say they would vote (under unfavorable circumstances) when shared ideology candidate ran negative rather than positive campaign (d = –.42), but no effect of tone of opposing ideology candidate's campaign (assume d = 0), so mean d = –.21.
			Affect for target	Target of negative ads liked somewhat less than target of positive ads, d = .23.
			Affect for attacker	Sponsor of negative ads liked significantly less than sponsor of positive ads, d = –.51.
			Differential affect	Both shared and opposing ideology candidates liked relatively less when engaged in negative compared to positive campaigns, d = –.16.
46. Houston, Doan, and Roskos-Ewoldsen 1999	Exposure to positive or negative campaign ads from liberal or conservative mock senate candidates	Two experiments with undergraduates as subjects manipulating agreement with candidate's ideology and nature of political ads (Ns = 77 and 68)	Affect for target of ads	Target in both experiments liked nonsignificantly less when other candidate attacks than when opponent positive, d = .26 and .40.
			Affect for attacker	Affect for sponsor lower when candidate uses negative rather than positive ads in both experiments, d –.55 and –.36.
			Vote intention	Subjects in both experiments reported lower likelihood of voting after exposed to negative compared to positive ads, d = –.55 and –.56.
47. Iida 2005	Categorization of 1992 Senate election campaigns as "positive," "neutral," or "negative" by Ansolabehere et al. 1994	1307 respondents in 1992 ANES Senate election survey in states where incumbent seeking re-elections faced major party challenger	Candidate knowledge (willingness to place candidates on 7-point liberalism-conservatism scale)	Knowledge of incumbent's ideology somewhat less (d = –.02) but knowledge of challenger's ideology significantly greater (d = .08) in states with largely negative campaigns (mean d = .03).
48. Jackson and Carsey 2007	CMAG data on number of positive and negative ads actually shown in each state	550 1998 ANES respondents, and 28,362 Current Population Survey respondents, reporting whether they voted in Senate election that year	Reported turnout	In both ANES survey and CPS study, exposure to more negative ads led to higher probability of voting, d = .22 and d = .09.
49. Jackson, Mondak, and Huckfeldt 2005	CMAG data from 2002 House, Senate, and gubernatorial campaigns, and separate coding of most inflammatory "mudslinging" ads	Representative sample of 1,219 respondents, asked about their television viewing habits	Internal efficacy	Viewing more negative ads had no measurable effect on internal efficacy, while mudslinging associated with slightly higher levels of efficacy, d = .05.
			External efficacy	Viewing more negative ads associated with slightly lower external efficacy (d = –.02), while mudslinging associated with slightly higher external efficacy.
			Affect for government (Congress)	Viewing more negative ads associated with slightly higher levels of affect for Congress, d = .08, while mudslinging had no measurable effect.

APPENDIX TABLE 1A *continued*

Study	Independent Variable	Subjects and Design	Dependent Variables	Results
50. Jackson and Sides 2006	Tone of up to five ads from 1990 senate elections, coded by Kahn and Kenney	Attempt to replicate Kahn and Kenney's analysis of 1990 Senate election campaigns with ANES Senate election survey (N = 2,003)	Reported turnout	More negative campaign tone, higher turnout, d = .07; but tone times spending depresses turnout, d = –.04 (neither effect statistically significant).
51. Jasperson and Fan 2002	Finely measured tone of each ad aired by Wellstone and Boschwitz in 1996 Minnesota Senate race, weighted by how many times each ad aired	Time series analysis of daily attitude toward challenger Boschwitz during last six months of campaign	Affect for target	Wellstone's attack ads more effective in lowering affect for target than Boschwitz's positive ads are in increasing his rating, d = .10.
			Affect for attacker	Boschwitz's attack ads more deleterious to himself than they detract from liking of Wellstone, d = –.07.
52. Kahn and Geer 1994	Actual positive or negative ads from out-of-state gubernatorial candidates inserted in regular ad breaks during TV sitcom	Experiment with 209 college students who saw one or two positive or negative ads	Affect for attacker	Sponsor of ad liked less after a negative compared to a positive ad, d = –.28; sponsor liked much less after two negative compared to two positive ads, d = –.74.
53. Kahn and Kenney 2004 (Updates Kahn and Kenney 1998a, 1998b, and 2002)	Authors' coding of tone of ads produced by U.S. Senate candidates, 1988–1992, and separate coding by campaign managers of whether campaign involved mudslinging	ANES Senate Election Study survey (N = 6,110, though turnout and campaign interest effects based solely on data from 1990 campaign)	Reported turnout	Relatively greater use of negative ads by both candidates associated with higher turnout, d = .08, but mudslinging associated with lower turnout, d = –.10.
			Affect for target	Both incumbents and challengers liked significantly less when targeted by negative ads, d = .06.
			Affect for sponsor of ads	Both incumbents (d = –.05, p < .05) and challengers (d = –.03, ns) liked less when they attack their opponents.
			Correct identification of campaign themes employed by candidates	Respondents 17% more likely to correctly identify campaign themes when campaign primarily negative than when primarily positive, d = .14 for campaign ads, d = .09 for mudslinging.
			Campaign interest	No significant effect of negativism of ads on campaign interest, but mudslinging significantly decreased interest, d = –.01 and d = –.08.
54. Kaid 1997	Exposure to actual ads from 1996 Clinton or Dole campaigns	Experiment with 116 undergraduates as subjects	Vote intention	Subjects much more likely to intend to vote for attacker after viewing one of his negative ads compared to one positive ad, d = 1.77.
			Affect for target	Target of ads liked less after negative ad compared to positive ad, . = .68.
			Affect for attacker	Sponsor of negative ad liked slightly more than sponsor of positive ad, d = .28.
55. Kaid and Boydston 1987	One of five actual ads used by congressional candidate from another district	Experiment with convenience sample of 428 residents rated candidate before and after seeing one of his ads	Affect for target of ads	Affect for target of ads dropped after viewing negative ad, d = .36.

APPENDIX TABLE 1A *continued*

Study	Independent Variable	Subjects and Design	Dependent Variables	Results
56. Kaid, Chanslor, and Hovind 1992	Exposure to different types of actual political ads (positive, negative, issue, image) and type of television program surrounding the ad	Experiment with 3 × 3 factorial design varying program and commercial type, involving convenience sample of 283 members of civic groups and college students	Vote intention	Positive image ads produced greater likelihood of voting than negative ads, d = −2.40.
			Affect for attacker	Positive issue ads produced higher candidate evaluations for sponsor than negative ads, d = −2.05.
			Memory for ad	Aspects of positive issue ads remembered more than aspects of negative ads, d = −1.15.
57. Kaid, Leland, and Whitney 1992	Exposure to positive and negative ads from Bush and Dukakis campaigns	Experiment with 112 undergraduates who saw 3 Bush ads (2 positive, 1 negative), 3 Dukakis ads (2 positive, 1 negative), or 3 ads from both candidates (2/3 positive for each)	Memory for ads	Positive ads more likely to be remembered than expected by chance (i.e., .67), d = −.30.
58. King and Hendersen 1999	Exposure to a positive or negative ad from 1998 Michigan gubernatorial election	2 × 2 experimental design using 111 undergraduates, varying positive/ negative nature of ad, controlling for prior liking of the candidates (median split)	Affect for attacker	No effect of tone of ad on affect for sponsor (assumed d = 0).
			Affect for target	No effect of tone of ad on affect for target (assumed d = 0).
59. King, Hendersen, and Chen 1998	Exposure to single positive or negative ad from Clinton or Dole campaigns, near end of 1996 U.S. presidential campaign	2 × 2 × 2 experiment using 137 undergraduate subjects, varying positive/ negative nature of ad, Clinton/Dole as sponsor of the ad, controlling on prior liking of candidates	Liking for sponsor of ads	Clinton liked less when exposed to his negative ad, but no effect of exposure to Dole ads, mean d = −.32.
			Liking for target of ads	Dole liked less after exposure to negative Clinton ad, but no effect of exposure to Dole ads, mean d = .31.
			Vote intention	Likelihood of voting for Clinton decreased after exposure to his negative ad, but no effect of exposure to Dole ads, mean d = −.23.
			Memory for Ads	Positive Clinton ads better recalled than negative Clinton ads, but no effect of exposure to Dole ads, mean d = −.40.
60. King and McConnell 2003	Negative advertisements from 1996 Durbin–Salvi Senate race in Illinois	Experiment with 121 college students who viewed 0–3 political ads by Durbin attacking Salvi, inserted into normal commercial breaks of television program	Vote intention	Viewing attack ads increased expressed likelihood of voting for attacker, d = .34.
			Affect for target	More attack ads seen, lower affect for target, d = −.35.
			Affect for attacker	More attack ads seen, more sponsor of attacks liked, d = .39; however, a significant (negative) "boomerang" effect of number of ads squared, such that viewing three ads resulted in lower affect for attacker than viewing one or two ads.
61. Landi 2004	Lau and Pomper's coding of tone of U.S. Senate election campaigns, 1988–1998	Aggregate analysis of turnout in 190 Senate elections, and reported turnout by respondents in 1988–1992 ANES Senate election survey	Turnout	Turnout positively but nonsignificantly related to negativism of campaigns in both aggregate (d = .09) and individual-level analyses (d = .02).

APPENDIX TABLE 1A *continued*

Study	Independent Variable	Subjects and Design	Dependent Variables	Results
62. Lang 1991	Exposure to 8 randomly selected positive and negative ads varying emotional appeal and audio-visual format	Experiment using 4 (order) × 2 (emotion) × 2 (format) × 4 (repetition) mixed model factorial design with 67 undergraduates	Memory for ads	More information recalled about negative ads than positive ads, d = .83.
63. Lau and Pomper 2004 (updates Lau, Pomper, and Mumoli 1998)	Positive/negative "tone" of 1992–2002 U.S. Senate campaigns, coded from newspaper accounts	Data from 6,283 ANES respondents, and aggregate analysis of vote totals from 191 Senate elections	Actual election outcomes and reported vote choice	At aggregate and individual levels, incumbent negativism resulted in doing significantly worse at the polls (d = –.64 and d = –.12, respectively), while challengers did nonsignificantly better (d = .26 and d = .01) and no effect in open-seat races (d = .03 and d = –.01, respectively).
			Actual turnout and reported voting	No significant effect of total campaign negativism on turnout at aggregate (d = –.07) or individual level (d = .01).
			External political efficacy	Very small insignificant negative effect of negative campaigning on external political efficacy, d = –.01.
			Trust in government	No effect of negative campaigning on trust in government, d = 0.
64. Lau and Redlawsk 2005	Positive or negative ads from fictitious candidates in a mock presidential election campaign	2 × 2 experiment with convenience sample of 407 adult subjects, manipulating positive or negative tone of candidates' ads	Affect for target	Target liked slightly more when attacked, d = –.04.
			Affect for attacker	Sponsor liked more when attacks, d = .09.
			Differential affect	Differential affect slightly favors attacker, d = .05.
			Vote choice	Attacking produces fewer votes than staying positive, d = –.06.
			Memory for ads	Negative ads more easily recalled than positive ads, d = .39.
65. Lawton and Freedman 2001	Combines ratings of perceived fairness of each ad (from Freedman, Wood, and Lawton 1999) and CMAG satellite ad data to estimate actual exposure to fair and unfair ads	Panel survey of 873 Virginians of voting age	Turnout	Greater exposure to unfair ads depressed turnout in Senate election (compared to exposure to fair ads), d = –.21.
66. Lemert et al. 1991	Respondents reflecting on positive or negative ad they could recall seeing during 1988 presidential election	Representative sample of 1,256 survey respondents	Likelihood of voting for Bush or Dukakis	Respondents much less likely to say they would vote for candidate when recalled attack ad rather than positive ad, average d = .24.
			Type of ad recalled	Negative ads much more likely to be recalled, d = .25.
67. Lemert, Wanta, and Lee 1999	Recall of positive or negative ad from candidates in special Oregon senate election, and perception that Democrat had lived up to pledge to stop negative campaigning	Representative survey of 308 registered voters in Eugene area who had voted in past three Senate elections	Vote choice	Respondents much less likely to report voting for candidate they could remember using negative ads compared to a candidate they could remember using positive ads, d = –.87.
			Turnout	Reported turnout slightly lower when respondents could remember negative rather than positive ad, d = –.13.

APPENDIX TABLE 1A ***continued***

Study	Independent Variable	Subjects and Design	Dependent Variables	Results
68. Leshner and Thorson 2000	Respondent's perceptions of whether campaign was too negative	Representative survey of 393 registered voters in Kansas City, 3–4 months after 1996 national election	Turnout	No significant direct effect of negativism of 1996 campaign on turnout, d = .04.
			Public mood	Perceived negativism of campaign significantly associated with negativism of public mood, d = –.36.
			Trust in government	Perceived negativism of campaign significantly associated with lower trust in government, d = –.28
69. Luskin and Bratcher 1994	Authors' rating of negativism of 1986–1992 U.S. Senate campaigns, based on their reading of various campaign reports	Aggregate analysis of vote totals from 125 Senate elections	Turnout	Negative campaigning associated with small and nonsignificant decrease in turnout (d = –.12), though decrease noticeably larger in states with large numbers of independents, d = –.30.
70. Martin 1999	Coding of tone of Senate campaign from state's largest newspaper	1990 ANES (N = 1,021)	"Collective awareness," essentially count of number of important problems facing country	More negative tone of campaign, more likely respondents to report important problems facing country, d = .12.
71. Martin 2004	CMAG data on number of negative ads shown in media market by Clinton and Dole in 1996 U.S. presidential election	1996 ANES (N = 522)	Awareness of problems facing country	More negative advertising exposed to, more likely to report important problems facing country, d = .15.
72. Martinez and Delegal 1990	Exposure to negative ads from one or both candidates in hypothetical election; perceived positive/ negative nature of 1988 Bush and Dukakis campaigns	Pre/post experiment with 131 college students as subjects, and representative survey of 421 respondents	Trust in government	Trust in government increased after exposure to negative ads, d = .14.
			Affect for attacker	More candidate's campaign perceived as negative, less sponsor liked, d = –.28.
			Affect for target	More opposing candidate's campaign perceived as negative, more target liked, d = –.48.
73. Mathews and Dietz-Uhler 1998	Exposure to positive or negative "family values" ad from mock Democratic or Republican senate candidate	Experiment with 125 college students as subjects	Affect toward sponsor	Sponsor of positive ad liked much more than sponsor of negative ad, d = –.52.
			Likelihood of voting for attacker	Subjects much more likely to intend to vote for sponsor of positive ad than sponsor of negative ad, d = –.62.
74. McBride, Toburen, and Thomas 1993	Exposure to four negative ads from 1990 Louisiana Senate race for first experiment; exposure to description of four negative ads from 1992 presidential race in second experiment	Two experiments involving 223 undergraduates, 70 of whom recontacted after election to measure actual turnout	Intended turnout	No significant effect of ad valence on intention to vote, d = .12.
			Actual turnout	Subjects exposed to negative ads slightly (and nonsignificantly) less likely to vote, d = –.06.

APPENDIX TABLE 1A *continued*

Study	Independent Variable	Subjects and Design	Dependent Variables	Results
75. Meirick and Pfau 2005	Positive or contrast ad produced by Democratic candidates in 2004 Iowa caucuses	Experiment with convenience sample of 117 Democrats participating in Iowa caucuses in early 2004, randomly assigned to see positive or contrast ad inserted into regular commercial break of local news program	Affect for attacker	Sponsor of contrast ad attacking President Bush liked slightly more than sponsors of positive ads, d = .08.
76. Merritt 1984	Exposure to negative and neutral ads from candidates in 1982 California Assembly race	Representative survey of 314 respondents in candidates' district	Affect toward attacker	More negative affect toward sponsor when ad negative rather than positive, d = –.86.
			Affect toward target	More negative affect toward target after negative rather than positive ad, d = .77.
			Correct recall of ad	Negative ad more likely to be correctly recalled, d = .29.
77. Min 2004	Positive or negative tone and focus (policy/ personality) of news coverage of campaign	2 × 2 experiment with 113 college students who read articles about two fictitious candidates for Congress	Intended turnout	Subjects exposed to negative campaign less likely to say they would vote in this campaign, d = –.13.
			Vote intention	Subjects exposed to negative campaign slightly less likely to say they would vote for attacker, d = –.04.
			Affect for campaign	Negative campaign liked less than positive campaign, d = –.44.
78. Naman 2000	Comparative versus positive ads from 1998 Senate election in Washington	Experiment with 63 undergraduates assigned to see either one negative direct comparative ad per candidate from another state or one positive ad per candidate	Affect for attacker	On average, each candidate liked slightly more in the positive ad condition than in comparative ad condition, d = –.10.
			Vote intention	Subjects slightly more likely to say they would vote for candidate in negative compared to positive ad conditions, d = 13.
79. Newhagen and Reeves 1991	Reactions to actual Bush and Dukakis positive, negative, or comparative ads	Within-subjects experimental design; 30 residents reacting to 28 different ads	Memory for each ad	Recall more accurate (and quicker) for negative rather than positive ads, d = 1.30.
80. Niven 2006	1–3 negative direct mail ads opposing incumbent mayor sponsored by 3rd party	Field experiment with 1,400 registered Florida voters randomly assigned to receive 0–3 mailings critical of incumbent mayor; plus follow-up post-election phone survey of 168 respondents randomly selected from original sample	Turnout	More negative mailings received, more likely to vote: 36% (3 ads) vs 34% (2 ads) vs 30% (1 ad) vs 27% (0 ads), overall d = .14.
			Knowledge of candidates	Those receiving negative ad mailings more likely to say they knew something about candidates compared to control group (57% vs 43%), d = .09.
81. Niven 2005	Respondent's perceptions of tone of 1998 Bush vs MacKay Florida gubernatorial campaign	Panel survey of 301 Florida voters during the campaign	Knowledge of candidates	More negative campaigns perceived to be, more knowledgeable about candidates' issue positions, d = .19.

APPENDIX TABLE 1A ***continued***

Study	Independent Variable	Subjects and Design	Dependent Variables	Results
82. Patterson and Shea 2001	Rating by local experts (newspaper editors) of tone of just-completed congressional elections	169 respondents from 1998 ANES survey who lived in any of 56 Congressional districts from which expert ratings had been obtained	Internal political efficacy	Negative campaign tone associated with slightly higher internal political efficacy, d = .02.
			Government responsiveness	Negative campaign tone associated with slightly lower beliefs in government responsiveness, d = –.04.
			Interest in the campaign	Negative tone associated with somewhat greater attention to campaign, d = .14.
83. Pfau et al. 1989	Exposure to attack ad from least preferred candidate during 1988 presidential campaign vs. no-exposure control group	Experiment with representative sample of 374 likely voters	Affect toward attacker	Sponsor of negative ad was liked more after exposure to ad, compared to control group, d = .75.
			Vote intention	Respondents more likely to intend to vote for sponsor of negative ad compared to control group, d = .92.
84. Pinkleton 1997	Amount of negative information about target included in ad about fictitious candidates	Experiment with 165 college students assigned to between-groups pre-post design (including no ad control group)	Affect toward attacker	More negative ad, less sponsor liked, d = –.44.
			Affect toward target	More negative ad, less target liked, d = .67;
85. Pinkleton 1998	Amount of negative information about target included in ad about fictitious candidates	Experiment with 165 college students assigned to between-groups pre-post design (including no ad control group)	Affect toward attacker	Sponsor liked less if attacks, d = –.40.
			Affect toward target	Target liked slightly less if attacked, d = .04.
			Likelihood of voting for target or sponsor	Likelihood of voting for sponsor decreases slightly if attacks opponent, d = –.03.
86. Pinkleton and Garramone 1992	Number of negative ads recalled from two major party candidates for governor and for senator	Phone survey of 405 likely voters just before 1990 Michigan senate and gubernatorial elections	Intended turnout	Intention to vote very slightly higher, more negative ads recalled, d = .01.
			Interest in campaign	More negative ads recalled, greater interest in campaigns, d = .20.
87. Pinkleton, Um, and Austin 2002	Simulations of direct mail political ads, each read twice by subjects	Experiment with 236 college students randomly assigned to positive, negative, comparative, or no-ad control group	Trust in government	Somewhat lower trust in government in negative ads condition compared to positive ad condition, d = –.14.
			External political efficacy	Somewhat lower external political efficacy in negative ad condition compared to positive ads, d = –.19.
			Belief in citizen's duty to vote	No significant relationship between belief in citizen's duty to vote and ad condition, (assumed) d = 0.
88. Rahn and Hirshorn 1999 (updates Rahn and Hirshorn 1995)	Exposure to 4 positive or 4 negative ads from 1988 presidential campaign	Experiment with convenience sample of 69 8-13 year-old children	Vote intention	Children exposed to negative ads 9% more likely to say they would vote in this election if were old enough, d = .32.
			Public mood	Mood significantly lower for children exposed to 4 negative ads two years after election, d = –.87.
			Liking for the government	Children exposed to negative ads had lower affect for government, d = –.42.
			Internal political efficacy Government responsiveness	No effect of ad manipulation on internal political efficacy or perceived government responsiveness, assumed ds = 0.

APPENDIX TABLE 1A *continued*

Study	Independent Variable	Subjects and Design	Dependent Variables	Results
89. Roberts 1995	Reported recall of Bush or Clinton ads	Representative phone survey of 931 respondents after 1992 presidential election	Memory for ad	Negative Bush and Clinton ads slightly more likely to be recalled than would be expected by chance, d = .05.
90. Roddy and Garramone 1988	Positive or negative response to opponent's attack ad	2 × 2 experiment with 274 undergraduates varying type of attack (issue or image) and nature of response (positive or negative)	Affect for sponsor of response ad	Candidate who responded positively rather than negatively liked more, d = –.09.
			Affect for target	Target liked less after negative response compared to positive response, d = .06.
			Intended vote for/against sponsor of response ad	Intention to vote for candidate who responded negatively rather than positively higher, d = .10.
91. Sanders and Norris 2002	Advocacy and attack Party Election Broadcasts (PEBs) during the 2001 British national election	Experiment with representative sample of 919 London voters exposed to different combinations of PEBs actually aired by the parties during the campaign	Affect for target	Both Conservative (d = –.15) and Labor (d = –.16) attack ads very counter-productive compared to their advocacy ads, average d = –.16.
			Affect for sponsor	Conservative attack ad resulted in increase in affect for own party, compared to advocacy ad (d = .16), but Labor attack ad resulted in lower affect for Labor compared to positive ad (d = –.07), average d = .05.
92. Schultz and Pancer 1997	Whether fictitious candidate attacks character of opponent	134 undergraduates randomly assigned to 2 × 2 experiment, varying gender of candidate and whether s/he attacks opponent	Affect for attacker	No significant difference in evaluations of sponsor, (assumed) d = 0.
			Vote intention	No significant difference in vote intention, (assumed) d = 0.
93. Shapiro and Rieger 1992	Positive or negative radio ads from two fictitious candidates in two local elections	106 undergraduates in 2 × 2 mixed experimental design: subjects heard a positive and a negative image or issue ad	Affect for attacker	Sponsor of negative ads liked less than sponsor of positive ads, d = –1.89.
			Affect for target of ad	Target of negative ad liked less than target of positive ad, d = .50.
			Vote intention	Subjects more likely to intend to vote for sponsor of positive ad rather than negative ad, d = –1.29.
			Memory for ad	Negative ads more likely to be remembered, d = .54.
94. Shen and Wu 2002	Positive or negative issue-based newspaper ads about fictitious state senate candidates	Experiment with 150 college student subjects randomly assigned to either a no-ad control group, or to read positive or negative ads sponsored by either candidate or fictitious PAC	Affect for target	Target liked significantly less when opponent attacks compared to when opponent stays positive, (estimated) d = .49.
			Affect for attacker	Sponsor liked significantly less when attacks compared to when stays positive, (estimated) d = –.49.
			Differential affect	Target of negative ads liked significantly less than attacker, estimated d = .55.
			Vote intention	Higher likelihood of voting for attacker compared to target of negative ads, estimated d = .55.

APPENDIX TABLE 1A *continued*

Study	Independent Variable	Subjects and Design	Dependent Variables	Results
95. Sides 2006	Advertising tone of Bush, Gore, Democratic Party, and Republican Party ads shown in nine battleground states during the last ten weeks of the 2000 U.S. presidential election (CMAG data)	Time series cross sectional analysis of weekly tracking polls conducted by the Bush campaign	Intended vote choice	Negative advertising by the Bush campaign was effective in raising his vote totals relative to his opponents (d = .31), but positive advertising was much more effective for Gore (d = –.87) and somewhat more effective for the Democratic and Republican parties (ds = –.12 and –.22). Mean d = –.23.
96. Sides et al. 2003	Advertising tone, as measured by number of ads shown each day in media market	Representative survey conducted during 1998 California gubernatorial election	Perceived usefulness of information from candidates' advertising campaigns	More positive ads candidates aired, more useful information their campaign perceived to provide, average d = –.11.
97. Sides et al. 2005	Advertising tone, as measured by volume of positive and negative themes in ads shown each day in media market during campaign	Representative surveys of San Francisco and Chicago during 2002 gubernatorial elections	Intended turnout	Intention to vote slightly higher in California (d = .03) but somewhat lower in Illinois (d = –.11), more negative the campaign.
98. Sonner 1998	Author's characterization of ad campaigns in competitive primary election for governor	Representative statewide tracking polls conducted at 16 different points during year-long primary election campaign	Liking for target	When challenger attacked incumbent, target's favorable ratings fell slightly (d = .04), but incumbent's attack on challenger later in campaign resulted in no change in target's favorables (d = 0).
			Liking for attacker	Challenger who attacked incumbent lost two points in own favorable ratings, d = –.04, while subsequent attack by the incumbent resulted in no change in his ratings, d = 0.
			Vote intention	Challenger who initially attacked incumbent lost 8 points in polls, d = –.15, while incumbent who subsequently responded with attacks saw small increase in lead, d = .05.
99. Stevens 2002	Exposure to negative Bush or Gore ad during 2000 U.S. presidential election, vs. no-ad control group	2 × 2 experiment varying exposure to ad and presence of prompt, in non-random internet sample of 492 people	Reported probability of voting	Reported probability of voting somewhat higher after exposure to single negative ad, d = .07.
			Public mood	Public mood significantly lower after exposure to single negative ad, d = –.25.
			External political efficacy	External efficacy lower after exposure to single negative ad, d = –.17.
100. Stevens 2005	Exposure to 0–3 negative ads from 2000 Minnesota senate election, and CMAG data describing ads aired during 1998 California, Georgia, and Illinois gubernatorial elections	Experiment with 190 college students who watched local evening news program from the previous year into which were inserted 0, 1, or 3 negative ads from the senate election that was occurring at the time; and ANES pilot survey of California, Georgia, and Illinois	Three measures of information about candidates: quantity of information, perceptions of policy differences, and accuracy of placement on issues (only first and third available for survey data).	Compared to no-ad control group, subjects exposed to negative ads had somewhat lower quantity of information about candidates (d = –.10), perceived somewhat fewer policy differences between them (d = –.07), but were significantly more accurate in placing them on the issues (d = .27), average d = .03; exposure to negative ads similarly related to somewhat greater knowledge of the gubernatorial candidates, d = .07.

APPENDIX TABLE 1A *continued*

Study	Independent Variable	Subjects and Design	Dependent Variables	Results
101. Stevens, n.d.	CMAG data from 2000 U.S. presidential election, distinguishing number of negative ads from proportion of negativism in media market. [Reported effects in table are for proportion of negative ads, controlling on number of positive, negative, and contrast ads to which respondent was exposed.]	2000 ANES survey (N = 1,205)	Reported turnout	Turnout slightly higher with greater proportion of negative ads, d = .02.
			Memory for ad	Memory slightly higher with greater proportion of negative ads, d = .01.
			Candidate knowledge	Averaged across three different measures, candidate knowledge somewhat higher with greater proportion of negative ads, d = .07.
			Interest in campaign	Reported interest in campaign significantly lower with higher proportion of negative ads, d = –.13.
			Internal political efficacy	Greater proportion on negative ads associated with significantly lower political efficacy, d = –.12.
			External political efficacy	Greater proportion of negative ads associated with somewhat higher external efficacy, d = .03.
			Satisfaction with democracy	Exposure to more negative ads associated with somewhat higher satisfaction with democracy, d = .08.
102. Sulfaro 1998	Reported recall of positive or negative ad from 1992 and 1996 U.S. presidential campaigns	1992 and 1996 ANES surveys, N = 4,054	Affect for target	Negative ads increased liking of target for both low education (d = –.02) and high education respondents (d = –.01); weighted mean d = –.02.
			Affect for sponsor	Affect toward sponsor of negative ad decreased for low education (d = –.03) but not high education respondents (d = 0); weighted mean d = –.02.
			Memory for ads	Negative ads recalled better than positive ads by both low education (d = .39) and high education respondents, d = .39.
103. Thorson, Christ, and Caywood 1991	Fictitious support or attack ads created for actual Senate candidates	161 undergraduates assigned to 2 (issue vs image) × 2 (support or attack) × 2 (presence of music) × 2 (visual background) experiment	Affect for sponsor of ad	Sponsor of ad liked less if attacking, d = –.35.
			Vote intention	No significant difference in vote intention, (assumed) d = 0.
			Memory for ad	Memory better for support than attack ad, d = –.35.
104. Thorson et al. 2000 (updates 1996)	Perceived exposure to positive and negative ads during campaign	Random survey of 657 residents of a northern city after gubernatorial and Senate election campaigns	Turnout	No significant relationship between relative exposure to positive and negative ads and reported turnout, (assumed) d = 0.
			Public mood	Exposure to negative ads negatively related to several measures of public mood, average d = –.09.
			Internal political efficacy	Relatively greater exposure to negative ads related to somewhat lower internal political efficacy, d = –.06.
			Trust in government	Negative ads significantly negatively related to trust in government, d = –.16.
			Knowledge of candidates	Negative ads slightly decreased knowledge of candidates compared to positive ads, d = –.06.

APPENDIX TABLE 1A *continued*

Study	Independent Variable	Subjects and Design	Dependent Variables	Results
105. Tinkham and Weaver-Lariscy 1991	Media strategy, as reported by actual congressional candidates (positive issue, positive image, or focus on opponent)	242 respondents in survey of both major party candidates from all 333 competitive congressional races in 1982	Actual outcome (i.e., did attacker win or lose election?)	Challengers who went negative more likely to win, d = .14; incumbents who went negative more likely to lose, d = –.16; open-seat candidates who went negative much more likely to lose, d = –.68; weighted average, d = –.10.
106. Tinkham and Weaver-Lariscy 1993	Positive or negative tone of 10 actual political ads	Within-subjects experimental design with 201 undergraduates	Differential affect ("Source utility" minus "Target utility")	Positive ads produced greater differential affect for sponsor of ad, d = –4.38.
107. Wadsworth et al. 1987	Aggressive (attack) or nonaggressive (positive) ad	Simple comparison between 44 undergraduates assigned to either experimental condition	Affect toward sponsor of ad	Sponsor liked slightly more if attacked, d = .30.
108. Wanta, Lemert, and Lee 1999	Respondent's perception of exposure to negative ads in special 1995 Oregon senate election	Random sample survey of 147 registered voters in Eugene area who had voted in past three senate elections	Trust in government	Small negative correlation between exposure to negative ads and trust in government, d = –.12.
			Knowledge of candidates	No correlation between exposure to negative ads and knowledge of the two major party candidates, d = 0.
109. Wattenberg and Brians 1999	Respondent's recall of positive or negative ads from the 1992 and 1996 presidential elections, plus Ansolabehere et al.'s (1994) categorization of tone of 1992 Senate election campaigns	Nationally representative survey of 3,216 ANES respondents; and aggregate level turnout in 34 1992 Senate elections (which, unlike the original, includes absentee ballots in totals)	Actual turnout	Turnout slightly lower in states with negative Senate election campaigns compared to states with positive Senate campaigns, d = –.04.
			Reported turnout	Recall of negative political advertising positively associated with voter turnout compared to recall of positive ad, d = .02.
			Political efficacy (combined internal and external efficacy items)	Recall of negative political ads significantly related to higher political efficacy in 1992 but not at all in 1996, mean d = .05.
110. Weaver-Lariscy and Tinkham 1996	Media strategy, as reported by actual 1990 congressional candidates (positive issue, positive image, focus on opponent, response to opponent's attacks)	295 responses to survey of both major party candidates in all 310 competitive congressional races in 1990	Percentage of total vote received by respondent	Negative campaigning less effective than positive campaigning for challengers (d = –.06), open-seat candidates (d = –.18), and significantly for incumbents (d = –.56); weighted mean d = –.30.
111. Weigold 1992	Positive or negative ad by fictitious Congressional candidate	116 undergraduates participating in $2 \times 2 \times 2 \times 2$ mixed factorial experimental design	Affect for attacker	Attacker liked less when using negative ad, d = –1.18.
			Affect for target	Target liked less after negative ad, d = 1.90.
			Differential affect (Attacker–Target)	Taken together, negative ad more effective than positive ad, d = .72.

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