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MONEY WELL SPENT?
An Experimental Investigation of the
Effects of Advertorials on Citizen Opinion

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Organized interests employ a number of tactics to get what they want. One of the least understood of these tactics is running advertorials—issue advocacy advertisements that are designed to influence citizen opinion. Using a pretest-posttest control group experimental design, the authors examine the effects of advertorials on individual opinions. The authors find that advertorials have an effect on individual opinions but that their effects are different than those of traditional advertisements. Specifically, after examining the effects of an actual ExxonMobil advertorial that appeared on the pages of *The New York Times*, the authors find that advertorials substantially affect levels of individual issue salience but do not affect individual perceptions of the organized interests that run them. The authors also find that those with relatively high levels of trust in the media are more likely than those with lower levels of trust to be influenced by advertorials.

Keywords: *advertorials; interest groups; media effects; experimental methods*

Organized interests are ubiquitous in America. In fact, research indicates that more organized interests are more active than ever before (Baumgartner & Leech, 1998; Cigler & Loomis, 2002; Rosenthal 1993, 2001; Rozell & Wilcox, 1999; Schlozman & Tierney, 1983; Walker, 1991; Wright, 1996). Research on lobbying suggests that organized interests and their lobbyists use a large variety of advocacy techniques in their attempts to influence policy. In recent years, we have learned a great deal about how and to what effect organized interests use so-called inside tactics such as testifying at legislative hearings, meeting face-to-face with policymakers, and engaging in

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informal contacts with legislators or executive branch personnel (Baumgartner & Leech, 1998). We know considerably less, however, about how and to what effect organized interests use so-called outside tactics—that is, tactics designed to influence ordinary citizens rather than government policymakers (Kollman, 1998; Wilcox, 1998). In this article, we examine the effects of one type of outside lobbying—running advertorials.

Several recent studies suggest that advertorials have proliferated in recent years (Brown & Waltzer, 2002a, 2002b, *in press*; Kollman, 1998; Loomis & Sexton, 1995). Nonetheless, we know little or nothing about the effects of advertorials. Although some studies consider the effectiveness of grassroots lobbying in general, few examine advertorials specifically. In addition, studies of political advertising tend to focus only on campaign advertisements, virtually ignoring other types of political advertisements, such as advertorials (see, for example, Lau, Sigelman, Heldman, & Babbitt, 1999; Thurber, Nelson, & Dulio, 2000). In no way should these points be construed as criticisms of past work. Recent work on outside lobbying and campaign advertising is uniformly excellent. Our point here is simply that the effects of advertorials have for the most part escaped scholarly scrutiny. In what follows, we attempt to fill this gap in the literature.

OUTSIDE LOBBYING AND “ADVERTORIALIZING”

Running advertorials is best understood as a type of outside (Kollman, 1998), grassroots (Berry, 1997), or indirect (Nownes, 2001) lobbying. Such lobbying, often contrasted with inside or direct lobbying, rests on the assumption that lobbying is a game not just for “well-paid lawyers, ideological activists, and legislators” but rather also increasingly involves the outside public (Kollman, 1998, p. 3). A great deal of outside lobbying is designed to signal political elites—that is, to communicate “aspects of public opinion to policymakers” (Kollman, 1998, p. 8). In his generic signaling model, Kollman (1998) loosely defines signaling as using the public to signal to legislators their interests and opinions with the hope that legislators will take these interests and opinions into account when making decisions. Not all outside lobbying, however, is designed to signal policymakers.

Some outside lobbying is intended to expand the scope of conflict surrounding a particular policy issue (Kollman, 1998; Schattschneider, 1960). In Schattschneider's classic formulation, expanding the scope of conflict is often a tactically brilliant thing to do because "the distinctive quality of political conflicts is that the relations between the players and the audience have not been well defined and there is usually nothing to keep the audience from getting into the game" (Schattschneider, 1960, p. 18). From here, Schattschneider argues that if organized interests are able to bring the audience into the game (on their side, of course), they are more likely to get what they want, as policymakers are loathe to upset the public. It is important to note that in both of these conceptualizations of outside lobbying, issue salience is critical. In other words, for an organized interest either to signal policymakers or to expand the scope of conflict, it must first make the issue at hand salient to large numbers of ordinary citizens. We will return to this point later.

ADVERTORIALS AS MANIFESTATIONS OF OUTSIDE LOBBYING

Two decades ago, in their incipient study of Washington lobbying, Schlozman and Tierney (1983) found that almost one third of all the groups they surveyed reported "running ads in the media" (p. 377). The prevalence of "advertorializing" has clearly increased since the 1980s. In 1998, for example, Kollman (1998) reported that half of the organized interests he interviewed indicated that they advertise policy positions in the media regularly or occasionally (p. 35). In fact, Kollman reported that advertorializing is second only to mobilizing group members as the most commonly used outside lobbying technique (p. 37). Among organized interests that advertise, most place their advertorials in elite, national media outlets, such as *The New York Times* (p. 38).

WHAT ARE ADVERTORIALS?

The two foremost scholars of advertorials define them as "sponsored messages in the media by organized interests to create a favorable environment to pursue their respective goals" (Brown & Waltzer, in press, p. 2). Advertorials are not the same as traditional "commer-

cial advertisements that promote the sale of goods and services” (Brown & Waltzer, in press, p. 2). Although advertorials have been around since the early 1900s, modern advertorials date from 1970, when Mobil Oil placed an advertorial in the lower right-hand corner of *The New York Times* editorial page urging people to use public transportation. The goal of this progenitor advertorial was not to sell Mobil oil but rather to publicize Mobil’s position on a specific policy issue and to raise awareness of Mobil’s commitment to public transportation. As the preeminent practitioner of advertorializing, Mobil Oil (now ExxonMobil) has run literally hundreds of advertorials over the last 3 decades. Other organized interests (mostly corporations) have followed suit since 1970, placing advertorials in *The New York Times*, *National Journal*, *Congressional Quarterly Weekly Report*, *American Journalism Review*, *Time*, and a variety of other magazines, newspapers, and journals (Brown & Waltzer, 2002a, 2002b; Brown, Waltzer, & Waltzer, 2001; Loomis & Sexton, 1995).

The proliferation of advertorials begs the following question: What do organized interests hope to accomplish when they run advertorials? Apparently, the answer depends largely on the outlet chosen for the advertorial (Brown & Waltzer, 2002b). For example, Brown and Waltzer find that organized interests place advertorials in the *American Journalism Review* and other publications aimed at professional journalists to garner favorable media coverage and to create opportunities “to make themselves available as authoritative sources for stories relating to their interests” (Brown & Waltzer, 2002b, p. 249). In contrast, advertorials in *Congressional Quarterly Weekly Report*, *The National Journal*, and other political insider publications are designed to influence policymakers directly. The organized interests that sponsor insider advertorials know that they may be seen by members of Congress or other political elites. Finally, advertorials in *The New York Times* and other major mass media outlets are designed to influence the public and thus either increase issue salience or expand the scope of conflict. Although many organized interests now place advertorials in emerging media such as the Internet, the number of advertorials in *The New York Times* has not decreased in the last decade (Brown & Waltzer, in press). In fact, more than 150 advertorials appeared on the pages of *The New York Times* in 2001 alone.

DO ADVERTORIALS WORK? AN UNANSWERED QUESTION

In sum, in the past few years we have learned a great deal about advertorials. For example, we know that advertorials are more common than ever before. In addition, we know that there is no single audience for advertorials: Some advertorials are aimed at journalists, others are aimed at political elites, and still others are aimed at ordinary citizens. Finally, we have learned that although the specific objectives of advertorials may vary somewhat by placement and type, all advertorials are similar in that they are designed to affect public opinion or official opinion “to thereby create a favorable societal environment and climate of opinion in which the interest organization can pursue its primary goal” (Brown et al., 2001, p. 29). Certainly, we know more about advertorials than we did a few years ago. Nonetheless, many questions remain. Among the most important is the one we address here: Do advertorials work? In what follows, we address this question by examining the results of an experimental study of the effects of advertorializing on individual opinions.

Data, Methods, and Hypotheses

Advertorials may be aimed at journalists, policymakers, or ordinary citizens. In this article, we examine the effects of advertorials on ordinary citizens. To explore the effects of advertorials on citizens, we began with the following proposition, which flows directly from extant research on outside lobbying in general and advertorializing in particular:

Proposition 1: Advertorials are designed to create a favorable climate of public and/or elite opinion for the organized interests that run them.

In other words, organized interests run advertorials to affect the political and social climate in which they operate. But what, exactly, does this mean? What are the specific goals of advertorial campaigns? The answer, we believe, is threefold, and can be summed up in three corollaries:

Corollary 1: Advertorials are designed to increase awareness of certain issues.

For example, an organized interest advertorial on a proposed trade agreement (NAFTA, for example, which was the subject of fierce advertorializing) is designed partially to make people aware of the existence of the trade agreement and the issues surrounding it.

Corollary 2: Advertorials are designed to enhance the image of the organized interests that run them.

For example, the frequent and well-known Mobil advertisements to which we refer above were designed partially to create a more favorable public image of Mobil Oil.

Corollary 3: Advertorials are designed to bring people around to an organized interest's way of thinking.

Returning to our Mobil Oil example, most of the company's advertorials were designed to persuade people to adopt the company's viewpoint on a particular issue.

THE HYPOTHESES

In what follows, we explore the effects of advertorials on ordinary citizens by testing two hypotheses derived from Proposition 1 and an additional hypothesis gleaned from the media and politics literature. Our first hypothesis, which flows from Corollary 1, is as follows:

Hypothesis 1: An advertorial sets the agenda by making a specific issue (i.e., the issue that is the subject of the advertorial) more salient to the mass public.

The second hypothesis, which flows from Corollary 2, is as follows:

Hypothesis 2: An advertorial positively affects people's views of the organized interest that sponsors it.

In this article, we do not address Corollary 3. We do, however, intend to explore the effects of advertorials on the content of public opinion in the future.

We do not expect all people to be affected by advertorials equally. Specifically, the literature on media and politics suggests that media are most likely to affect individual attitudes or opinions when trust in the source is high (Druckman, 2001; Eagly & Chaiken, 1993; Miller & Krosnick, 2000). This leads us to our third hypothesis:

Hypothesis 3: An advertorial is more likely to affect people with high levels of trust in the media than it is to affect people with low levels of trust in the media.

To summarize, this article represents a first cut at examining the effects of advertorials on ordinary citizens. Specifically, we test three hypotheses that flow directly from the extant literature.

THE EXPERIMENTAL DESIGN

Loomis and Sexton (1995, pp. 208-209) note that assessing the impact of advertisements in general and advertorials in particular is exceedingly difficult. "Ordinary measures," they note, "such as those based on sales or surveys, are inappropriate, given small audiences and the lack of ordinary sales figures" (pp. 208-209). Moreover, in the case of an advertorial, it is not always clear what would constitute the appropriate "sales figures." Through interviews with editors of trade journals, Loomis and Sexton conclude that there are only two ways to estimate the effectiveness of advertorials: (a) to assess whether the advertorial's goals are accomplished and (b) to evaluate anecdotal evidence. As for the first method, it is difficult to isolate the impact of an advertorial as opposed to other factors that may affect individual opinions and attitudes. As for the second method, we are hesitant to put too much stock in anecdotal evidence when there are more systematic and rigorous methods available.

Although we do not discount the utility of examining anecdotal evidence, we believe that an experimental approach is better suited to the task at hand. Although other modes of investigation are better for

considering large numbers of variables at once, experiments can “speak to causal questions a few variables at a time” (Green & Gerber, 2002, p. 807). As Iyengar (2002) suggests, “the experiment provides unequivocal causal evidence because the researcher is able to isolate the causal factor in question, manipulate its presence or absence, and hold all other potential causes constant” (p. 7). Experimental research has proven quite useful in investigating agenda setting (Iyengar & Kinder, 1987), priming (Miller & Krosnick, 2000), framing (Nelson, Clawson, & Oxley, 1997; Nelson and Oxley, 1999), and a variety of other phenomena in political communication (see McGraw, 1996, for an excellent review of the contributions of experimentation to political science). According to Kinder and Palfrey (1993), “in the fully realized experiment, the investigator seizes control over the *production* of settings, the *creation* of treatments, and the *scheduling* of observations” (pp. 6-7). In short, we decided that the best way to explore the effects of advertorials on citizen opinion was to conduct an experiment.

THE PARTICIPANTS AND THE STUDY

We conducted our experiment between September 2002 and March 2003. The experiment proceeded as follows. First, we announced to several introduction to American politics courses at the University of Tennessee and Western Carolina University that we were conducting a survey of public attitudes and opinions. We told students that they would receive extra course credit if they agreed to participate in our study. Ultimately, 245 students agreed to participate, and 228 students completed the experiment.¹ Next, we assigned each participant to one of two groups—the treatment group or the control group. On the first day of the experiment, students in both groups were administered a brief questionnaire (the pretest questionnaire) that queried them on their political beliefs, attitudes, and behavior and on their impressions of a number of prominent corporations. We also asked respondents to provide us with basic demographic information including age, sex, race, and academic major. On the second day of the experiment, the two groups of subjects were treated differently. Specifically, students in the treatment group were instructed to read the editorial page of the Thursday, September 19, 2002, edition of *The New York Times*. This

editorial page contained an ExxonMobil advocacy advertorial concerning energy and the environment². Students in the control group were told to read the editorial page of a different issue of *The New York Times*—an issue that did not contain an advertorial³. Both the treatment and control groups were then asked to complete a posttest questionnaire identical to the pretest questionnaire. Students were monitored while reading the newspaper and filling out the questionnaire to make sure that the participants in each group did not look at the editorial page assigned to the other group.

What we have described is a classic pretest-posttest control group design (Campbell & Stanley, 1963). This experimental design enabled us to test the effects of the advertorial in a very straightforward way. Our basic strategy was to compare changes in opinion between the treatment group and the control group. As in most experiments, our experiment scores high on internal validity. However, external validity is a concern. Unfortunately, it is impossible to eliminate all questions of external validity in experiments; however, we took a number of measures to reduce these concerns. First, we did not reveal the true nature of our experiment to respondents until we completed the project. We did this to reduce the possibility that participants would succumb to demand characteristics (Geer & Kahn, 1993; Orne, 1962). Second, in an effort to make the experiment as realistic as possible, we gave our respondents the entire newspaper (rather than just the advertorial) and instructed them to read the editorial page as they normally would. This strategy is consistent with Ansolabehere and Iyengar's (1996) suggestion that advertising research should accurately mirror real-world conditions where citizens make choices about what to read, how closely to read it, and for how long. Third, we randomly assigned participants to the two groups. As Table 1 shows, there are some differences between the two groups, but they appear reasonably similar. Further, because we use a pretest-posttest design and measure attitude change, there is no reason to believe that these differences should influence our results. Fourth, we assembled a large sample. In fact, our sample size exceeds that of most recent experimental studies in political science (e.g., Druckman, 2003; McGraw & Ling, 2003)⁴.

Before moving on, it is worth noting that our sample consists solely of college students. Although some scholars have expressed concern

TABLE 1
Demographic and Political Characteristics of
Participants in an Advertorial Experiment

<i>Item</i>	<i>Control Group (%)</i>	<i>Treatment Group (%)</i>
Sex (<i>n</i> = 228; <i>t</i> = 121; <i>c</i> = 107)		
Male	50.5	40.5
Female	49.5	59.5
Race (<i>n</i> = 228; <i>t</i> = 121; <i>c</i> = 107)		
White	84.1	92.6
Non-White	15.9	7.4
Party identification (<i>n</i> = 228; <i>t</i> = 121; <i>c</i> = 107)		
1 = <i>strong Democrat</i>	8.4	5.0
2	15.9	12.4
3	14.0	11.6
4	7.5	10.7
5	11.2	9.1
6	21.5	26.4
7 = <i>strong Republican</i>	19.6	23.1
Political ideology (<i>n</i> = 228; <i>t</i> = 121; <i>c</i> = 107)		
1 = <i>very liberal</i>	0.9	3.3
2	12.1	4.1
3	23.4	19.0
4	27.1	27.3
5	20.6	29.8
6	13.1	16.5
7 = <i>very conservative</i>	2.8	0.0
Family income (<i>n</i> = 228; <i>t</i> = 121; <i>c</i> = 107)		
\$0-\$14,999	2.8	2.5
\$15,000-\$34,999	15.9	6.6
\$35,000-\$64,999	21.5	23.1
\$65,000-\$124,999	36.4	36.4
\$125,000 and more	29.6	30.6
Registered to vote? (<i>n</i> = 228; <i>t</i> = 121; <i>c</i> = 107)		
Yes	76.6	76.0
No	23.4	24.0

NOTE: There are statistically significant (at least $p < .1$) differences between the two groups on all measures except whether they are registered to vote. *t* = treatment group; *c* = control group.

over the generalizability of studies that rely on college students, a great deal of recent work suggests that the so-called college sophomore problem is not a problem after all (Kuhberger, 1998). In a recent meta-analysis of framing research, for example, Kuhberger finds that "student samples dominate framing research, but, according to the results, are not misleading" (Kuhberger, 1998, p. 36). McGraw and

Hoekstra (1994) and Sears (1986) agree, noting that “although college students and the broader population may demonstrate differences in their distribution of political preferences, there is no reason to expect differences in their responses to stimuli, political or otherwise” (quoted in Best & Hubbard, 1999, p. 465). In the end, we followed the lead of several prominent practitioners of experimental research and drew our participants from a population of college students (recent examples include Best & Hubbard, 1999; Druckman, 2001, 2003; Druckman & Nelson, 2003; McGraw & Hubbard, 1996; McGraw & Ling, 2003; Nelson et al., 1997).

RESULTS

To test Hypothesis 1, we asked respondents four questions about the salience of a variety of policy areas. The questions are as follows:

1. Shown below is a list of issues that have faced the nation in recent years. How important do you think each is? 1 = *not important at all*, 2 = *not so important*, 3 = *very important*, 4 = *extremely important*.
2. Shown below is a list of issues that have faced the nation in recent years. How much do you care about each? 1 = *not at all*, 2 = *a little*, 3 = *a lot*, 4 = *very much*.
3. Shown below is a list of issues that have faced the nation in recent years. How much do you think people in government should worry about each? 1 = *not at all*, 2 = *a little*, 3 = *some*, 4 = *a lot*.
4. Shown below is a list of issues that have faced the nation in recent years. Compared with how you feel about other public issues, how strong are your feelings on each issue? 1 = *not very strong*, 2 = *fairly strong*, 3 = *very strong*, 4 = *extremely strong*.

Each question was followed by the same list of eight issues: national defense, inflation, energy, the environment, education, unemployment, Social Security, and civil rights. Respondents were asked to circle a number (1-4) for each issue for each question. The full text of the questionnaire will be made available on the authors' Web sites (<http://paws.wcu.edu/ccoooper> and <http://web.utk.edu/~anownes/>).

These questions are almost identical to those asked in Iyengar and Kinder's (1987) classic work on agenda setting. The two policy areas

of most interest to us are energy and the environment (because, as we mention above, these are the two issues, in order of importance, that are dealt with in the advertorial). If Hypothesis 1 is correct, in the posttest we would expect the treatment group to score higher than the control group on the questions concerning the salience of energy and the environment but no higher on the other issues (i.e., the issues that were not the subject of the advertorial). To test Hypothesis 1, we computed a change score for each respondent for each policy area for each of the four questions. The change score for each issue area for each question is defined simply as the score on posttest – score on pretest.⁵ Both the score on the posttest and the score on the pretest for each issue area have a possible range of 4 to 16. From here, for each respondent, we summed all four change scores for each policy area. This resulted in one overall change score per respondent, per policy area. In other words, each respondent had eight separate change scores—one for each of the eight policy areas. This overall change score for each policy area can be broadly construed as a change of salience score for that policy area.⁶

CAN ADVERTORIALS SET THE AGENDA?

To test Hypothesis 1, we computed average change scores for the two issues referenced in the advertorial: energy and the environment. Figure 1 displays the average change score for each of these issues for both the control and the treatment groups. For comparison purposes, Figure 1 also displays the average change score for all of the other six issues. We have labeled this score *other change score*. Figure 1 provides a great deal of support for Hypothesis 1. Specifically, we see that for both energy and the environment, the change score is much higher in the treatment group than in the control group. Moreover, the average change score for both issues is positive in the treatment group, whereas it is slightly negative in the control group. This indicates that the salience of both energy policy and environmental policy increased among respondents who read the advertorial (i.e., respondents in the treatment group). In contrast, the salience of energy policy and environmental policy actually decreased slightly among respondents who did not read the advertorial (i.e., respondents in the control group). These findings appear particularly significant when you compare

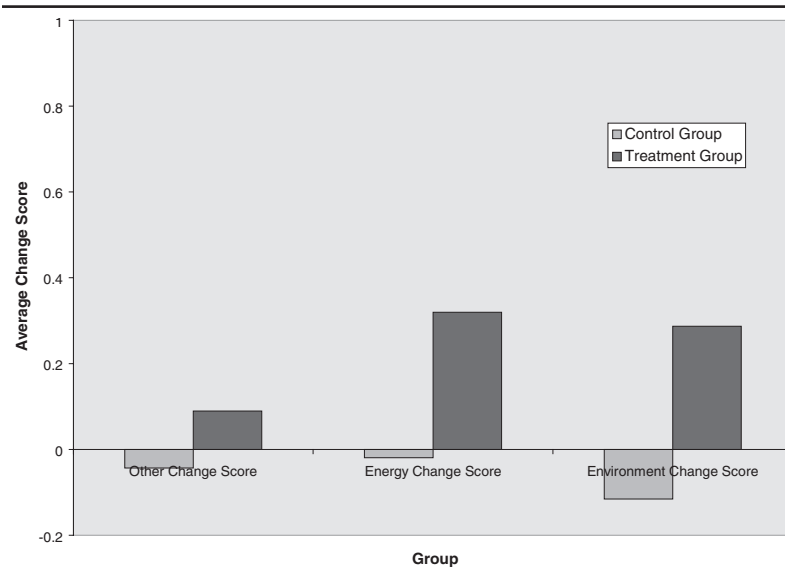


Figure 1: Change Scores on Energy, the Environment, and Other Issues

them to the change scores for the other policy areas. For our global change score, the treatment and control groups hardly moved at all. This comparison provides further evidence that advertorials increase the salience of the issues they address.

To provide a more rigorous test of Hypothesis 1, we conducted an ANOVA using energy change score as the dependent variable and experimental condition (0 = control group, 1 = treatment group) as the independent variable. Table 2 presents the results of this analysis and clearly indicates that there is a statistically significant difference between the control group and the treatment group. Specifically, energy became significantly more salient among respondents in the treatment group than among respondents in the control group ($p < .05$). We conducted a similar analysis using environment change score as the dependent variable, and Table 3, which displays the results of this analysis, provides further support for Hypothesis 1. As with energy, the environment as a policy issue became significantly more salient for respondents in the treatment group than for respondents in

the control group. We should note, however, that the results do not achieve a very high level of statistical significance. Finally, Table 4 contains the results of an ANOVA in which energy change score + environment change score is the dependent variable and experimental condition is the independent variable. The dependent variable in Table 4 is (as the name suggests) simply an additive index of both change scores. Cronbach's alpha for the eight questions that comprise this index is .8835. Again, although the magnitude of the change is not large, it is significant, and the results of this analysis support Hypothesis 1. Furthermore, this change resulted from exposure to only one advertorial. It is likely that with repeated exposure, the salience would increase even more. In sum, energy and the environment became much more salient policy issues among individuals in the treatment group than among individuals in the control group.

Overall, Figure 1 and Tables 2, 3, and 4 provide strong support for Hypothesis 1. In short, using a fairly stringent test, we find support for the notion that advertorials have a strong agenda-setting capacity. In other words, it appears that advertorials affect the public agenda by making certain issues (in this case, energy and the environment) more salient to members of the mass public. Specifically, the change score for each treatment group is approximately .3, which translates to a change in salience of approximately 2.5%. Although Kollman (1998) suggests that "television is the only media that tends to carry outside lobbying messages that consistently communicate salience information" (p. 96), clearly, our results suggest otherwise.

CAN ADVERTORIALS AFFECT PUBLIC PERCEPTIONS OF THE ORGANIZED INTERESTS THAT SPONSOR THEM?

To test Hypothesis 2, we conducted a one-way ANOVA in which the dependent variable is change in favorability rating for ExxonMobil and the independent variable is experimental condition (0 = control group, 1 = treatment group). To compute this score, we included the following survey item on our questionnaire: In the following section, you will see a list of companies. On a scale of 1 to 7, with 1 = *being extremely negative* and 7 = *being extremely positive*, please indicate your general feeling toward each of the following companies: Shell,

TABLE 2
ANOVA for Energy Change Score

	<i>Sum of Squares</i>	<i>df</i>	<i>Mean Square</i>	<i>F</i>
Between groups	8.031	1	8.031	2.757*
Within groups	658.193	226	2.912	
Total	666.224	227		

* $p < .05$, one-tailed test.

TABLE 3
ANOVA for Environment Change Score

	<i>Sum of Squares</i>	<i>df</i>	<i>Mean Square</i>	<i>F</i>
Between groups	6.329	1	6.329	1.988*
Within groups	719.723	226	3.185	
Total	726.053	227		

* $p < .1$, one-tailed test.

TABLE 4
ANOVA for Energy Plus Environment Change Score

	<i>Sum of Squares</i>	<i>df</i>	<i>Mean Square</i>	<i>F</i>
Between groups	30.893	1	30.893	3.938*
Within groups	1765.248	225	7.846	
Total	1796.141	226		

* $p < .05$, one-tailed test.

ExxonMobil, IBM, British Petroleum, Sony, Wal-Mart, AT&T. To compute our change in favorability rating, we simply subtracted the pretest favorability rating from the posttest favorability rating. The results of our ANOVA are found in Table 5. As you can see, the results provide no support for Hypothesis 2. In other words, we cannot reject the null hypothesis that the ExxonMobil advertorial to which treatment group respondents were exposed had no impact on their opinions of ExxonMobil. In short, though advertorials appear to increase the salience of the issues with which they are concerned, they do not appear to affect people's opinions of the organized interests that run them.

TABLE 5
ANOVA for Change in Favorability Rating for ExxonMobil

	<i>Sum of Squares</i>	<i>df</i>	<i>Mean Square</i>	<i>F</i>
Between groups	0.793	1	.793	.998
Within groups	177.990	224	.795	
Total	178.783	225		

DO DIFFERENT PEOPLE RESPOND TO ADVERTORIALS DIFFERENTLY?

Our final exercise concerns Hypothesis 3. As we mention above, a host of research suggests that trust in the media is important because “citizens who view the media as trustworthy sources should also be susceptible to a host of media influence effects” (McGraw & Ling, 2003, p. 26). This basic insight led us to hypothesize that individuals with relatively high levels of trust in the media would be more susceptible to the effects of advertorials than individuals with relatively low levels of trust in the media. To test Hypothesis 3, we cast three OLS regression models: one in which energy change score is the dependent variable, one in which environment change score is the dependent variable, and another in which energy change score + environment change score is the dependent variable. Each model contains three independent variables. First, there is media trust, which is an additive index of answers to the following three questions measured on a 7-point scale:

1. Do news organizations usually get the facts straight, or are their stories and reporters often inaccurate? Here is a 7-point scale on which your opinion of the news media is arranged from the opinion that 1 = *their reporters are often inaccurate* to the opinion that 7 = *they usually get the facts straight*. Where would you place the news media on this scale?
2. Do the media usually deal fairly with all sides, or do the media tend to favor one side? Here is a 7-point scale on which your opinion of the news media is arranged from the opinion that 1 = *they tend to favor one side* to the opinion that 7 = *they usually deal fairly with all sides*. Where would you place the news media on this scale?
3. Do news organizations often get people upset over unimportant issues, or do news organizations focus on the important problems of the day? Here is a 7-point scale on which your opinion of the news media is

TABLE 6
**OLS Regression for Change in the Salience of Energy,
 Environment, and Energy Plus Environment**

	<i>Model 1</i> <i>Energy</i>		<i>Model 2</i> <i>Environment</i>		<i>Model 3</i> <i>Energy Plus</i> <i>Environment</i>	
	B	SE	B	SE	B	SE
Trust in media \times Treatment	0.079	0.080	-0.031	0.061	0.191*	0.130
Trust in media	-0.038	0.058	-1.08	0.984	-0.062	0.094
Treatment	-0.548	0.933	-1.082	0.984	-1.529	1.521
Constant	0.384	0.674	0.352	0.717	0.637	1.109
<i>n</i>	207		207		206	
Adjusted R^2	.001		.003		.011	

* $p < .1$, one-tailed test.

arranged from the opinion that 1 = *the news media often get people upset over unimportant issues* to the opinion that 7 = *news organizations focus on the important problems of the day*. Where would you place the news media on this scale?

When combined, these three items result in a Cronbach's alpha of .6655. Our second independent variable is treatment, which is coded as 0 for respondents in the control group and coded as 1 for respondents in the treatment group. Finally, the independent variable of most interest is trust in media \times treatment, which is an interaction term designed to test Hypothesis 3. If Hypothesis 3 is correct, then this variable should be positive and statistically significant for one or more of the models. The results of these analyses are found in Table 6.

Models 1 and 2 do not produce any significant results, though the coefficient for the interaction term in Model 1 is in the expected direction. Model 3, however, does provide modest support for Hypothesis 3. Specifically, in Model 3, the trust in media \times treatment interaction term is positive and significant at the .10 level (one-tailed test). Although this result is not as strong as we would have hoped, it is suggestive: It provides some support for the notion that individuals with relatively high levels of trust in the media are more likely to have their opinions changed by advertorials than are individuals with relatively low levels of trust in the media.

CONCLUSION

Although scholars have learned a great deal about the purpose (Kollman, 1998) and content (Brown & Waltzer, 2002a, 2002b, in press; Brown et al., 2001; Loomis & Sexton, 1995) of advertorials, they have learned considerably less about their effects. In this article, we have attempted to fill this gap in the literature. Specifically, we addressed three questions: First, do advertorials set the public agenda by making specific issues more salient to the public? Second, do advertorials positively influence people's views of the organized interests that run them? Finally, we asked, Do different people respond to advertorials differently? To answer these questions, we employed a classic pretest-posttest control group experimental design in which we exposed two groups of subjects to two different versions of *The New York Times* editorial page. One version—the version given to our treatment group—contained an ExxonMobil advertorial, whereas the other version—the version given to our control group—did not.

Our results are mixed. First, they are broadly supportive of Hypothesis 1. In sum, we find strong evidence that advertorials increase the salience of the issues with which they are concerned. Second, our results provide modest support for Hypothesis 3, which suggests that advertorials have more impact on people who are relatively trustful of the media than they do on people who are relatively distrustful of the media. Finally, our results provide no support for the notion that advertorials affect people's opinions of the organized interests that run them.

ORGANIZED INTERESTS AND AGENDA SETTING

As Schattschneider pointed out more than 40 years ago, agenda setting is a powerful weapon in the arsenal of organized interests. Our results suggest that one way for organized interests to affect the public agenda is to run advertorials. In this, our results fit in nicely with agenda-setting research that suggests that media can act as powerful agenda setters (Iyengar & Kinder, 1987).

Our results have some potentially troubling implications for the nature of American democracy. Foremost among them is that some

organized interests—those able to afford the substantial costs involved in running advertorials—are more able to set the public agenda than are others. If advertorials are as effective as we think they are, this raises the possibility that well-endowed organized interests, be they corporations, labor unions, or even massive membership-based citizen groups such as the AARP, may be able to exert powerful influence over which issues receive government attention. This possibility is all the more troubling when one considers that our results come from a so-called one-shot experiment in which respondents are exposed to only one advertorial at one point in time. Companies such as ExxonMobil seldom stop at one advertorial. Instead, they carefully construct advertorial campaigns that consist of multiple advertorials run consistently over a period of months or years (Sethi, 1977, 1987). It is quite reasonable to aver that the impact of advertorials is multiplied over the course of an entire advertorial campaign. Is the ability to set the agenda really all that important? We believe that the answer is yes. Browne (1995) has shown that increasing the salience of a policy issue can increase the chances that policies concerning that issue will eventually be adopted by the government. Kollman (1998) has reached a similar conclusion.

As for who responds to advertorials, our data support the longstanding notion that people with relatively high levels of trust in media are more susceptible to media influence than are people with relatively low levels of trust in the media (Druckman, 2001; Miller & Krosnick, 2000). This finding also has some potentially troubling implications for representative democracy. Because trust in media is positively associated with trust in government (Cook & Gronke, 2001), advertorials appear to influence precisely the sorts of people who are most active in politics. This again raises the possibility that well-endowed organized interests capable of paying the enormous costs involved in advertorial campaigns have disproportionate influence over the political process.

IMPLICATIONS FOR PRACTITIONERS

What do our findings mean for practitioners? For organized interests who wish to raise the salience of an issue, running advertorials can be an effective tactic. Specifically, advertorials set the agenda for

individuals who are exposed to them. Although these effects may appear small, it is likely that these effects are magnified over the course of a long public relations campaign. We suggest, therefore, that organized interests that wish to raise issue salience run many advertorials over a sustained period of time to achieve maximum results. Our findings are not entirely supportive of the positive effects of advertorials, however. A one-shot advertorial does not change the opinion of the organization that runs it. Indeed, our participants' opinions of ExxonMobil did not shift in any meaningful way from pretest to posttest. Advertorials may be one effective tool in the arsenal of organized interests, but if the goal is attitude change—either of an issue or a group—advertorials may fall short.

CONCLUDING REMARKS

Although Key (1961) noted long ago that the effects of advertorials and similar “propagandizing campaigns” are “difficult to divine” (p. 528), our data provide some support for the notion that advertorials influence those who read them. Specifically, we find that advertorials have a significant agenda-setting impact. Although our findings are far from definitive and a number of research questions deserve further attention, our data should provide comfort to ExxonMobil and other practitioners of advertorializing. In the end, our findings point to the conclusion that advertorials work.

NOTES

1. Sixteen respondents did not complete the second part of the study and were thus excluded from our analyses. To determine if there were any outliers, we computed an overall change score for each respondent for all of the eight issue areas combined. To compute this overall change score, we summed the absolute values of the eight issue-area change scores. From here, we computed a z score for each respondent. One respondent had a z score of greater than 3.3 and thus was purged. We conducted additional analyses to see what would happen if we used a less stringent test for outliers and eliminated all outliers with z scores greater than |3.0|. Two cases had z scores between 3.0 and 3.3. If we eliminate all three cases in which z is greater than |3.0|, the results provide even stronger support for Hypotheses 1 and 3. The data for this project can be found at the authors' Web sites at <http://paws.wcu.edu/ccoooper> and <http://web.utk.edu/~anownes/>.

2. The other editorials for that day addressed disarming Iraq's weapons, the demise of civil rights after September 11, the German opposition to President Bush's stance on Iraq, parents

helping students with homework, the findings of the Congressional committee on intelligence failures leading to September 11, the September 11 compensation fund, *My Big Fat Greek Wedding*, and the U.S. Department of the Interior's mishandling of money held in trust for Native Americans.

3. The other editorials for that day addressed the Saudi royal family, Afghanistan's reconstruction, home health aides, the responsibility of America's leadership, German elections, the September 11 memorial, the secrecy of the American judicial branch, and the New York elections.

4. Indeed, Ansolabehere and Iyengar (1996) note that "the typical experiment employs about 150 subjects, though some researchers have used as few as 15 people" (pp. 104-105).

5. On the methodology of change scores, see Allison (1990) and Kessler (1977). For an example of work employing change scores, see Iyengar, Kinder, and Peters (1982) or Cobb and Kuklinski (1997).

6. To make sure that the overall change scores for each policy area were truly reflective of changes in individual-level salience, we computed a Cronbach's alpha for each policy area to demonstrate that aggregating the individual salience scores into a single measure was an appropriate thing to do. Our tests confirmed that the four questions did indeed tap the same attitude for each policy area.

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