Journal of Communication ISSN 0021-9916

ORIGINAL ARTICLE

Campaign Ads, Online Messaging, and Participation: Extending the Communication Mediation Model

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Political communication researchers have devoted a great deal of attention to the role of political advertising, the Internet, and political discussion in civic and political life. In this article, we integrate and extend this research by developing a campaign communication mediation model *of civic and campaign participation. Two data sets are merged for this inquiry: (a) content-coded ad-buy data on the placement of campaign messages on a market-by-market and program-by-program basis and (b) a national panel study concerning patterns of traditional and digital media consumption and levels of civic and campaign participation. Exposure to televised campaign advertising is estimated by developing an algorithm based on the market and program placement of specific ads* and *geocoded survey respondents' viewing of certain categories of television content in which these ads were concentrated. Structural equation models reveal that advertising exposure drives online news use in ways that complement conventional news influences on political discussion and political messaging. However, campaign exposure emphasizing "attack" messages appears to diminish information seeking motivations via broadcast and print media, yet only indirectly and weakly suppresses participation in civic and political life. Further, alternative specifications reveal that our original model produces the best fit, empirically and theoretically. We use these insights to propose an O-S-R-O-R (orientations-stimuli-reasoning-orientations-responses) framework as an alternative to the longstanding O-S-O-R model in communication and social psychology.*

doi:10.1111/j.1460-2466.2007.00363.x

The effects of political advertisements rank among the most pressing questions in political communication. Does exposure to campaign ads facilitate engagement? What about when exposure consists of high doses of "attack" advertising? Does

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exposure to political ads stimulate people to go online to seek additional public affairs information and to express viewpoints? If so, does online news use and political expression actually lead to civic and political participation, or is it a dead end? Unfortunately, these are difficult questions to answer for several reasons. First, measuring the content, volume, and placement of political advertising on a nationwide scale is extremely challenging. Second, establishing the nature and causal order of the relationships among advertising exposure, traditional and digital media use, and various forms of participation, while accounting for other relevant factors, is a difficult proposition. As such, research to date has lacked the comprehensive data and appropriate theorizing to adequately answer these questions.

The absence of data has not stopped politicians and pundits from speculating about the effects of campaign advertising, especially attack ads. Empirical evidence regarding the effects of political advertising is mixed, with some asserting that "going negative" demobilizes the electorate (Ansolabehere & Iyengar, 1995) and others arguing that even if campaign attacks have demobilizing effects on some, they are likely "to stimulate others by increasing their store of political information" (Finkel & Geer, 1998, p. 573). As this suggests, effects on participation, whether salutary or detrimental, may not directly result from ad exposure but instead from ad exposure's influence on information seeking and political expression, critical precursors to participation. That is, the effects of political ads on civic and political engagement may be mediated through other communication behaviors such as news use and political talk.

This would be consistent with, yet also extend, a growing body of research indicating that communication among citizens largely channels the effects of informational media use on participatory behaviors (McLeod et al., 2001; Sotirovic & McLeod, 2001). McLeod and his colleagues organized the antecedents of participation into a communication mediation model to account for the interrelationships among these variables and their direct and indirect effects on civic engagement. According to this model, communication behaviors largely mediate the effects of demographic, dispositional, and social structural factors on cognitive and participatory outcomes. More recent research advancing a citizen communication mediation model finds that mass communication's influence is strong, but itself indirect, shaping civic engagement through its effects on discussion and reflection about public affairs (Shah, Cho, Eveland, & Kwak, 2005). This may be particularly true for information seeking and political expression via the Internet, which this work has found to be more potent than conventional news use and political talk.

However, the effects of campaign ads, with their potential to encourage and discourage participatory behaviors, have not been integrated into this model. Moreover, this past work on the communication mediation model (McLeod et al., 2001) and citizen communication mediation model (Shah et al., 2005) has focused on civic behaviors, with considerably less attention on political participation, especially campaign involvement. This may be particularly important to examine in relation to political messaging, the use of the Internet as a sphere for public-spirited expression,

which has increased markedly in recent years, yet remained quite distinct from face-to-face political talk. Given the highly targeted and socially structured nature of political message placement in modern campaigns, the integration of campaign advertising exposure with the communication mediation model would bring elite and citizen behavior together into a coherent framework, attending to campaign placement and individual practices.

Thus, we advance a *campaign communication mediation model* in an effort to integrate research on the influence of campaign ads with emerging models of online and conventional citizen communication. This effort consolidates research from political science on campaign ad effects into an expanded communication mediation model that includes the habitual and public affairs use of newspapers, television, and the Internet. The result is a theoretically integrative model of campaign communication that considers the role of political advertising and the Internet in relation to both political and civic participation. We test this model by merging two data sets: (a) a content analysis of 2004 campaign ads including data on the volume of message placement on a market-by-market and program-by-program basis and (b) a national panel study concerning patterns of media consumption, political expression, and civic and political participation.

Communication and participation

Communication research has found that news consumption and interpersonal political discussion work in concert to encourage participation (McLeod et al., 1996). News use promotes increased political knowledge and awareness of civic opportunities and objectives, often indirectly through reflection about public affairs as suggested by the *cognitive mediation model* (Eveland, Shah, & Kwak, 2003). News media also provide a resource for discussion and create opportunities for exposure to viewpoints unavailable in one's social network (Mutz, 2006), encouraging political talk that might not otherwise occur. In turn, political discussion raises awareness about collective problems, fosters deliberation, increases tolerance, highlights opportunities for involvement, and encourages engagement in public life (Walsh, 2004).

The idea that communication among citizens largely mediates the effects of news consumption on engagement is not new; it harkens back to two-step flow theories of press influence (Katz & Lazersfeld, 1955). However, the notion of communication mediation reconsidered here is less about opinion leaders influencing others through conversation and more about the centrality of expression and discussion for the distillation of ideas encountered in the news for all individuals. One of the strengths of this model is the integration of mass and interpersonal communication into the processes that result in participation (Huckfeldt & Sprague, 1995). The flow of information through social networks during election contexts may be particularly consequential for civic and campaign participation (Lake & Huckfeldt, 1998).

Two factors complicate this model of news effects mediated by interpersonal talk: (a) the potential role of political advertising exposure, especially given concerns about the demobilizing potential of political attacks (Ansolabehere & Iyengar,

1995), and (b) the rise of the Internet, which is thought to make "some collective endeavors harder to maintain or easier to destroy" (Lupia & Sin, 2003, p. 316). The absence of political ad exposure and Internet use from prior models raises serious questions about whether communication mediation occurs in election contexts that are increasingly characterized by high volumes of campaign messaging and online politics. These factors require a rethinking of the basic model to consider the prospect of "intramedia mediation" (Holbert, 2005) on political behaviors such as expression and participation. Even when factors such as Internet use have been included in models predicting participatory behaviors, the focus has been on civic outcomes, not political ones, raising the question of whether the Internet spurs campaign participation or simply satisfies the motive to feel involved in politics absent actual political action.

Political advertising effects

Increasingly, election campaigns have been characterized by adversarial politics, with negative ads and contrast ads comprising large portions of what voters encounter (Freedman & Goldstein, 1999). This has raised concerns about the impact of political advertising, especially attack ads, as it relates to campaign participation and turnout (Pinkleton, Um, & Austin, 2002). Ansolabehere and Iyengar (1995) assert that negative ads demobilize the electorate based on survey and experimental evidence. They conclude that negativity suppresses turnout, in some cases by nearly 5%. They also surmise that "attack advertising" takes a broader toll on citizens' sense of efficacy, increasing cynicism and reducing their interest and involvement in the electoral process.

These assertions have been hotly disputed, especially claims of demobilization outside of experimental contexts. Wattenberg and Brians (1999) subjected these allegations to rigorous testing and found that their data contradict Ansolabehere and Iyengar's, yielding evidence of a turnout advantage for those recollecting negative presidential ads. This leads them to conclude that, "attack advertising's demobilization dangers are greatly exaggerated" (p. 891). Likewise, Lau, Sigelman, Heldman, and Babbitt (1999) conducted a meta-analysis of previous studies on the effects of negative political advertising, discover little indication of negative advertising's detrimental effects on the political system; instead, they find the effects of these ads are no different from positive ads.

By contrast, other efforts to clarify the relationships between negativity and participation have lent support to claims of demobilization, though this substantiation is highly conditional. Pinkleton and colleagues have found the effects of comparative and negative ads do increase cynicism about politics but do not appear to adversely affect voting intent (Yoon, Pinkleton, & Ko, 2005). Kahn and Kenney (1999), for example, assert that negativity suppresses participation among independents and that exposure to attack ads is particularly likely to have detrimental effects when campaigns degenerate into heated and hostile exchanges. In such cases, advertising exposure may contribute to citizens' general disgust with campaigns and even backlash against the sponsoring candidate (Pinkleton, 1998; Pinkleton et al., 2002).

Finkel and Geer (1998), however, dispute these conclusions, countering that even if attacks depress participation among some voters, the overall effect will be to increase interest in the election, strengthen ties to particular candidates, and stimulate political learning. Geer's (2006; also Martin, 2004) recent defense of campaign negativity extends this argument. Reviewing presidential campaigns from 1960 to 2004, he concludes that attack ads are more likely than positive ads to focus citizens' attention on the political issues defining the election and, in so doing, provide them with relevant political information for voting. This is consistent with Brader (2005), who finds that whereas positive ads may do a better job of motivating participation and activating partisan loyalties, negative ads stimulate vigilance and provide voters with persuasive information. Experimental work in political communication has found other benefits of political ad exposure, from learning candidates' issue stands to increasing campaign interest (Pfau, Park, Holbert, & Cho, 2001).

Measuring advertising exposure

Excepting the experimental studies noted above, which inherently struggle with issues of generalizability, most of the conclusions about the effects of ad exposure have been based on voters' recollections of seeing attack or campaign advertising or market variation in the volume of campaign advertising. These self-estimate or aggregate-level measures are highly questionable. Seeking to bridge the divide between the recall and context approaches, Goldstein and Freedman (2002; also Freedman & Goldstein, 1999) created measures of individual-level ad exposure that combine (a) aggregate tracking of spots aired on television on a market-by-market and program-by-program basis, (b) a detailed content coding of these messages, and (c) geocoded survey responses of individuals' propensity to watch the TV programs during which the ads appeared.

Although this system is decidedly more complex and demanding in terms of data collection, it overcomes many of the limitations of previous estimation systems and has proven to be a more accurate predictor of campaign effects (Ridout, Shah, Goldstein, & Franz, 2004). Using this system, scholars have found that political ad exposure is positively linked to political interest, learning, and turnout (Freedman & Goldstein, 1999; Goldstein & Freedman, 2002). What these scholars have not considered is the possibility that the effects of political ads, negative or otherwise, may be felt most directly on the most basic indicator of campaign interest: news information seeking.

Evidence of political advertising effects on information seeking has been observed, though as a function of the volume of political advertising at the aggregate level, not at the level of individual ad exposure. Cho (2005) finds that contextual variance in the volume of political advertising is related to individual differences in information seeking and political discussion. However, Valentino, Hutchings, and Williams (2004) argue the opposite, contending that because political ads "provide citizens with information that is useful for making political decisions … then exposure to advertising may generally reduce further demand for information" (p. 342).

This seems especially likely for negative messages, which tend to be more informative (Geer, 2006).

Online news consumption

The effects of political ad exposure on information seeking via conventional and online sources may be consequential for two reasons: (a) news consumption is linked to participation in civic and political life and (b) effects on news consumption may influence citizens' political expression, which are also consequential for engagement. Although the effects of news reading and viewing are well established (see McLeod et al., 1996), the merits of online news consumption continue to be debated. Some research suggests that informational uses of the Internet encourage community involvement and promote participation at levels that rival newspapers, whereas others contend that traditional mass media continue to play a much more important role for democratic citizenship than the Internet (see Shah, Kwak, & Holbert, 2001).

There are reasons to expect the effects of online news consumption are not beneficial for civic and political life. By tracking the behaviors of online news readers, Tewksbury (2003) found that users view soft news such as sports, business, and entertainment content more than hard news. Further, even when consuming hard news content online, users tend to craft an information environment reflecting their political predispositions that might lead to less political tolerance and ultimately increased polarization. Sunstein (2001) convincingly argues that the Internet is "dramatically increasing people's ability to hear echoes of their own voices and to wall themselves off from others" (p. 49). This environment of customized portals, search engines, and news alerts—also known as "The Daily Me"—threatens the chance of exposure to information and perspectives outside a select sphere of interest for those reliant on the Internet for public affairs information.

However, recent research on patterns of online news use indicates that consumption of public affairs information is not so tailored or so detrimental to public spiritedness. Indeed, its effects on civic engagement may actually exceed those of newspaper and television sources when they are measured comparably (Shah et al., 2005). This supports the view that the Internet promotes public engagement because it allows users to access information on demand, receive news more rapidly, learn about diverse viewpoints, and go into greater depth about issues of importance (Wellman, Haase, Witte, & Hampton, 2001). This flexibility should make those who come to the Internet with informational motivations more able to achieve the gratifications they set out to gain, including those spurred to information seeking by exposure to political advertising. These people may be well equipped to communicate with others about politics, increasing opportunities to deliberate, express their views publicly, and recruit people into civic and political life.

Political messaging

However, analyses of these relationships have only begun to consider the role of civic and political messaging via the Internet for participation, and its connection with

face-to-face political talk. The Internet permits the sharing of perspectives and concerns with others through "interactive messaging technologies such as e-mail, instant messaging, electronic bulletin boards, online chat, as well as feedback loops to news organizations and politicians" (Shah et al., 2005, p. 536; also Price & Cappella, 2002). It has reduced the costs of political expression, with individuals now able to "post, at minimal cost, messages and images that can be viewed instantly by global audiences" (Lupia & Sin, 2003, p. 316). Yet, those who have conducted content analyses of online political discussion, including chat room conversations and discussion board postings, have been less sanguine about this medium's mobilizing potential (e.g., Hill & Hughes, 1998).

Nonetheless, online communication about politics may not only permit citizens to gain knowledge but also allow them to coordinate their actions to address joint concerns. The associative features of e-mail may amplify these effects because they readily allow such a large number of individuals to share their views with many people simultaneously. Civic and political messaging over e-mail—the most popular use of the Internet—may also permit people to encounter opportunities for civic and political mobilization (Shah et al., 2005). This may be spurred by exposure to information via media, indicating how news seeking may work through interactive messaging to encourage participation in campaigns and community life.

Theoretical model

Although research on political communication has begun to clarify the linkages between patterns of media use and civic and political participation, few studies have simultaneously considered the effects of exposure to political advertising, print, broadcast, and Internet use. The influence of certain media classes is clear: Newspaper reading and broadcast news viewing have repeatedly been linked with civic engagement (McLeod et al., 1996). Likewise, online information seeking is tied to participation (Jennings & Zeitner, 2003; Shah et al., 2001).

What is less clear is the effect of political advertising on these modes of information seeking, and on political behaviors such as civic and campaign participation. Tests of the effects of the volume of political advertising at the aggregate level have found that people living in markets that receive high doses of campaign ads tend to seek more information via news media (Cho, 2005). More precise measurement of campaign advertising exposure using the system developed by Freedman and Goldstein (1999) has confirmed that exposure to political ads spurs turnout, though effects on broader participatory behaviors have not been tested. Further, the influence of campaign negativity remains uncertain, though there is some evidence of suppressive effects on efficacy and participation among certain groups (Kahn & Kenney, 1999).

There is growing evidence that communication among citizens may be a critical intervening variable between news consumption, including online information seeking, and participatory behaviors (Shah et al., 2005; Sotirovic & McLeod, 2001). Thus,

we predict that various forms of conventional and online information seeking will be related to two forms of citizen communication: interpersonal political talk and interactive political messaging. That is, the use of print, broadcast, and online media sources for news and information may encourage political discussion with friends and family, and increase the likelihood of communicating about public life via the Internet.

This is not to suggest the absence of media effects on participation. There is evidence of direct effects of newspaper use and Internet news use on civic participation (Shah et al., 2001). Nonetheless, there is also evidence of news use directly influencing interpersonal discussion and interactive messaging variables, which in turn may shape levels of civic participation. In fact, a sizable body of research has highlighted the importance of the frequency of political talk for political engagement (Mutz, 2006). We assume that interpersonal discussion about civil society and political issues has a number of positive consequences for public life: contact with diverse perspectives, opportunities for issue deliberation, and exposure to civic resources and recruitment.

Interactive political messaging possesses many of the same potential benefits. Various modes of communication about local and national politics via the Internet allow citizens to gain knowledge, share views, and engage in communicative action. In particular, sharing political perspectives electronically, contacting political elites via the Internet, and participating in political chat rooms may contribute directly to participation (Shah et al., 2005). The effects on participation are increasingly evident, countering concerns about the nature of these virtual interactions and the relevance of online dialogue. Thus, we contend that these forms of online interaction have the ability to encourage participation in a manner that complements the effects of offline political talk.

Integrating extant research with these assertions leads us to advance the following theoretical model (see Figure 1). This model highlights the potential positive effects of exposure to political advertising on information seeking and participatory behaviors, while also considering the potential suppressive effects of exposure to overtly negative campaigns. It does so while accounting for the potential role of habitual media use in this dynamic, which may explain differences in patterns of information seeking. It also accounts for the effects of Internet use on participation while also accounting for a much broader range of citizen communication behaviors. We assert that these online and offline communication behaviors are complementary such that (a) modes of information seeking are positively interrelated with each other, as are modes of citizen communication; (b) traditional forms of news consumption can lead to online political messaging; and (c) Internet information seeking can foster greater political discussion. We also theorize a causal structure among these variables, leading from information seeking behaviors to citizen communication, resulting in participation. We test the relationships between these variables on two forms of participation, civic and political, and examine the causal structure among them by comparing six distinct causal orderings of these constructs.

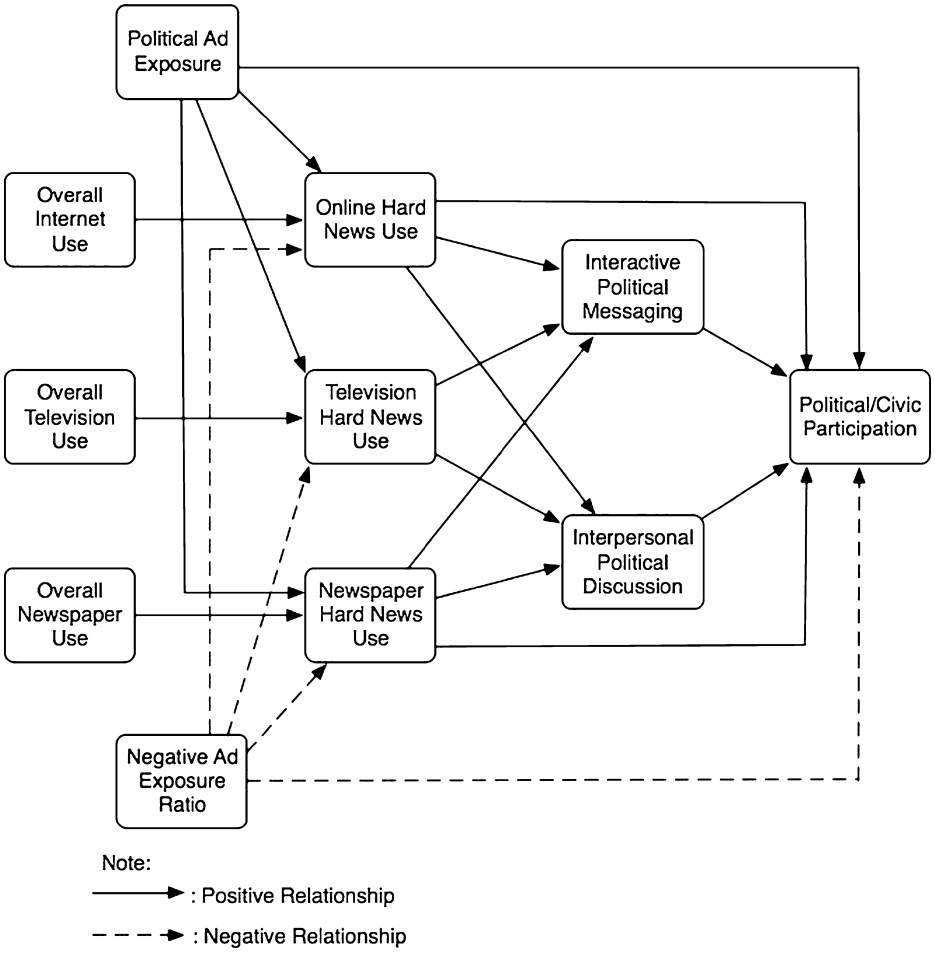

Figure 1 Theorized model of campaign communication mediation.

Method

To test this model, we use Campaign Media Analysis Group (CMAG) data from the 2004 election, made available by the University of Wisconsin Advertising Project (WAP). These data were combined with geocoded survey data to construct an estimate of individual campaign ad exposure. Below we detail features of these data sets pertinent to constructing ad exposure estimates.

Campaign advertising data

The CMAG data provide a detailed tracking of the airing of every political ad in each of the United State's top 100 media markets. Each broadcast ad was tagged for where and when it aired (i.e., local market and program), and then coded for relevant content features such as whether it was a negative, contrast, or positive ad. Other

content features were coded including the sponsoring party, the office the candidates are contesting, and other features important for analysis of particular races.

Overall, the 2004 U.S. election campaign produced over 7,000 different political ads that aired roughly 1.5 million times in the country's top 100 markets. These included spots for the presidency; House and Senate races; state and local offices, including governorships; and numerous ballot propositions. The ads were sponsored by candidates, political parties, and interest groups. Most research on the influence of campaign advertising focuses on ads from only a single type of race or electoral contest, ignoring the cumulative effects of multiple ads from multiple races. This strategy may make sense when looking at the persuasive effects of ads in a particular race, but it has limited utility for examining the influence of political advertising on participation or voter turnout.

National survey panel data

This study also uses national panel survey data conducted in February 2002 and November 2004. February 2002 data were collected by Synovate, a commercial survey research firm, for DDB-Chicago's annual mail survey, the "Life Style Study." The Life Style Study relies on a stratified quota sampling technique to recruit respondents. Initially, the survey firm acquires contact information for millions of Americans from commercial list brokers. Many of these people are contacted via mail and asked if they are willing to participate in periodic surveys.

Rates of agreement vary widely across demographic categories (see Putnam, 2000). In order to generate a representative sample, stratified quota sampling procedures are employed to reflect the properties of the population within each of the nine U.S. Census divisions in terms of household income, population density, age, and household size. This starting sample is then adjusted by race, gender, and marital status, among other factors, to compensate for differences in return rates. Although this method differs from probability sampling, it produces highly comparable data (see Putnam, 2000).

This sampling method was used to generate the initial sample of 5,000 respondents for the 2002 Life Style Study. Of the 5,000 mail surveys distributed, 3,580 usable responses were received, which represents a response rate of 71.6% against the mailout. For the November 2004 wave of the study, we developed a custom questionnaire and recontacted the individuals who completed the February 2002 Life Style Study. Due to some panel erosion in the 2 years since the original survey, 2,450 questionnaires were mailed. We received 1,484 completed responses, for a panel retention rate of 41.4% and a response rate against the mailout of 60.1%.

Measures

Five types of measures were created from the two data sources: (a) criterion variables of civic and political participation; (b) composite measures of individual campaign advertising exposure and the attack ratio of that exposure; (c) endogenous variables of information seeking and political expression, conventional and online; (d) exogenous variables of medium-specific habitual use measures; and (e) control variables for residualizing. For full question wording, see www.journalism.wisc.edu/~dshah/resources.htm.

Civic and political participation

An index for civic participation was created using questions that asked respondents how often they went to a club meeting, did volunteer work, worked on a community project, and worked on behalf of a social group or cause. Respondents answered on a 9-point scale. The index was the mean of these four items (Cronbach's $\alpha = .77$).

Political participation was created from seven items measuring how often respondents attended a political meeting, rally or speech; encouraged someone to register to vote; wore a campaign button or t-shirt; displayed a campaign bumper sticker or yard sign; worked for a political party or candidate; circulated a petition; or contributed money to a campaign. Respondents answered on a 9-point scale; scores across items were averaged (Cronbach's $\alpha = .76$).

Exposure to televised political advertisements

Political advertisement exposure was calculated by combining measures of the content-specific ads that aired in particular media markets on particular television programming with measures of individuals' consumption of those types of programs. For each of the 100 media markets, the number of campaign ads aired for all electoral contests by either Republican or Democratic candidates was counted, along with the type of program on which they aired (i.e., morning news program, soap opera, local evening news, talk show, game show, or other). For each of the more than 7,000 spots that aired, the audio and video was captured for content coding by a team of trained WAP coders.

Of particular importance for our purposes, each aired ad was coded as positive (i.e., only favorable statements about the sponsoring candidate with an absence of criticism of the opponent), negative (i.e., only critical commentary about the opponent with no positive statements about the sponsor apart from sponsorship acknowledgement), or contrast (i.e., favorable statements about the sponsor coupled with criticism of the opponent). An independent coder content analyzed a random sample of $N = 481$ of these political ads and achieved a 96.3% rate of agreement with the original coding. To correct for chance agreement, Cohen's kappa was calculated ($\kappa = .93$). Of the 18 disagreements observed, all were between negative and contrast ads. Given that our tone measure combines these into an attack category, the original WAP coding was used.

Using this content analysis, we then used specific measures of panel respondents' viewing patterns to estimate the volume and tone of each individual's advertising exposure. That is, estimates of each respondent's exposure to political advertising was based on an algorithm derived from the volume of these content-coded ads on a market-by-market basis, the placement of these ads in particular programs in those markets, and each geographically situated respondent's viewing of certain programming categories. These program viewing measures focused on the five programming types within which a vast majority of political ads appear—morning news programs, daytime soap operas, daytime talk shows, game shows, and local evening news—along with an overall primetime entertainment viewing measure to capture ad placement outside these high-density categories (see Ridout et al., 2004).[1]

Thus, by contextualizing the aggregate volume of these content-coded campaign ads into respondents' individual television viewing patterns, our measure of campaign ad exposure captures the maximum possible number of ads to which each respondent might potentially have been exposed. Specifically, this individual-level campaign ad exposure was calculated as follows:

$$\text{Exposure to political ad} = \sum_{i=1}^{6} (\text{Market Ad Volume}_i \times \text{Viewing Time}_i)$$

where "Market Ad Volume$_i$" represents the total number of ads placed in each of the six program types in each respondent's media market ($_i$ = 1, …, 6), and "Viewing Time$_i$" denotes the amount of time a respondent spent with each of the six program types ($_i$ = 1, …, 6).

In addition, because these ads were content analyzed for tone, we were able to compute a measure of the campaign-advertising climate experienced by each respondent. To do so, the individual estimate of the volume of exposure to attack advertising (i.e., the sum of their estimated exposure to contrast and negative ads) was computed in the same manner as the measure of total volume of exposure was calculated. This individual estimate of the volume of exposure to attack advertising was then divided by the individual estimate of the total volume of exposure. Higher values of this ratio indicate individual exposure to a more negative campaign climate. To be clear, this variable allowed us to differentiate whether two people living in the same market experienced a more or less negative campaign based on the placement of attack advertising in certain programming and each respondents' viewing of that type of content, creating an individual propensity score estimating the negativity of campaign exposure.

Conventional and online news media use

The newspaper, television, and online hard news use indexes included measures of both exposure and attention to hard news content. For exposure to newspaper hard news, three items were included that measured how many days in the past week respondents were exposed to articles about presidential campaigns, state and national politics, and editorial and opinion columns. For exposure to television hard news and online hard news, four items were included that measured exposure by medium to stories about the presidential campaign and state and national politics. Respondents answered all exposure questions on an 8-point scale. Respondents also reported their attention to each of these articles or stories on a 10-point scale, ranging from very little attention to very close attention. To create an index, measures of exposure and attention were standardized and averaged (Cronbach's α = .91). Indexes for television and online hard news use (Cronbach's α = .86 and .93, respectively) were created the same way.

Offline and online political expression

Interpersonal political discussion was measured by tapping how often respondents talked about politics with family, friends, coworkers, minorities, people who agree

with them, and people who disagree with them. Respondents answered on a 9-point scale. An index was created by averaging scores for these six items (Cronbach's α = .89). Interactive political messaging was created using five 9-point scale items tapping how often they used e-mail to organize community activities, discussed politics or news events over e-mail, e-mailed a politician or editor, expressed their political opinions online, or participated in a chat room or online forum. An index was created by averaging scores for these five items (Cronbach's α = .67).

Habitual media use

Habitual media use was operationalized as an overall frequency of media use for all purposes. This everyday media use experience was measured using two sets of questions from the 2002 Life Style Study on which our 2004 panel survey was built. First, respondents were asked to pick one typical weekday and describe the main reason they use each medium—newspaper, television, and the Internet—for each of the 12 different times on that day. Overall media use on a typical weekday was estimated by counting how many different times of the day respondents consumed the medium. We did not include use of mass media that was consumed just for background. Similar questions were used to capture respondents' media use pattern for a typical weekend day. Then, to create a weekly measure, the score for weekday use was multiplied by five and the score for weekend use by two. These adjusted scores were summed.

Control variables

Analyses controlled for a variety of demographic variables, including age, gender, race, income, years of education, and religiosity. We also controlled for respondents' ideological affiliation, strength of affiliation, political interest, residential stability, and residence in a battleground state. An index for religiosity was created by taking the mean of each respondent's answers to questions soliciting the importance of religion in their life, the importance of spirituality, their belief in God, and their belief in the existence of the Devil, all on a 6-point scale (Cronbach's α = .79). Political ideology was measured on a 5-point scale with 1 being "very conservative" and 5 being "very liberal." Strength of ideological affiliation was computed as respondents' distance from neutral on the 5-point measure of conservatism/liberalism. Political interest was measured by asking respondents how strongly they agree with the statement, "I am interested in politics," on a 6-point scale. An index of residential stability was created using two items asking respondents about homeownership and the likelihood of moving in the next 5 years (reversed) (interitem correlation = .31). A dichotomous measure of residence in a battleground state was determined by whether the respondent reported living in one of the states specified as "too close to call" by CNN.com and "battleground states" by Time.com, which agreed on their classification of states.[2] (See Appendix A for descriptive statistics of final survey indexes and stand-alone measures.)

Results

Model specification and modification

Two structural equation models were generated to test the theorized relationships: one examining the effects of communication variables (i.e., political ad exposure, online and offline media use, and citizen communication) on overtly political forms of campaign participation and another testing effects on more broadly defined forms of civic participation. LISREL was used to perform the structural equation modeling analyses.

Before fitting our theorized model to the data, a residualized covariance matrix was created by regressing all measures on a set of variables that included age, education, income, gender, race, religiosity, political ideology, strength of political ideology, political interest, residential stability, and residence in a battleground state. By using the residualized covariance matrix as input in the model, we controlled for these variables. This residualization process also suggests that any variance accounted for by the tested model should be interpreted as one being above and beyond the variance already explained by the set of control variables. As indicated in Appendix B, the control variables accounted for a substantial amount of the variance (8.4%–17.7%).

We started by fitting our theorized model described in Figure 1. Then, following standard modification approaches for the refinement of structural equation models (Bollen, 1989; Kline, 1998), we removed nonsignificant paths to identify the best fitting model. Our final modified models exhibit better model fits than the originally theorized models, though they also reflect considerable stability.[3] Notably, these modification processes generated parsimonious and better fitting models without substantially changing the theorized relationships (see Figures 2 and 3).

Communication and political participation

Model fit

Figure 2 presents the LISREL estimates of the structural relationships among political ad exposure, informational uses of media, interactive political messaging, interpersonal political discussion, and campaign participation. Overall, this model fits the data well, yielding a chi-square value of 75.67 with 36 degrees of freedom (RMSEA = 0.03). The ratio of the chi-square to degrees of freedom in this model is 2.10. The normed fit index (NFI) and nonnormed fit index (NNFI), which corrects the NFI with model complexity considered, both equal 0.97. Both NFI and NNFI range from 0 to 1, and values equal to or greater than .90 indicate a good fit. SRMR for our model is 0.03. In sum, there is little evidence of model inadequacy.

Effects of ad exposure

The relationships observed here support the view that political ad exposure spurs informational use of media, which, in turn, contributes to citizen political expression, online and offline. Then, both online and offline citizen communication encourage campaign participation. The volume of exposure to campaign ads was positively associated with political information consumption through traditional

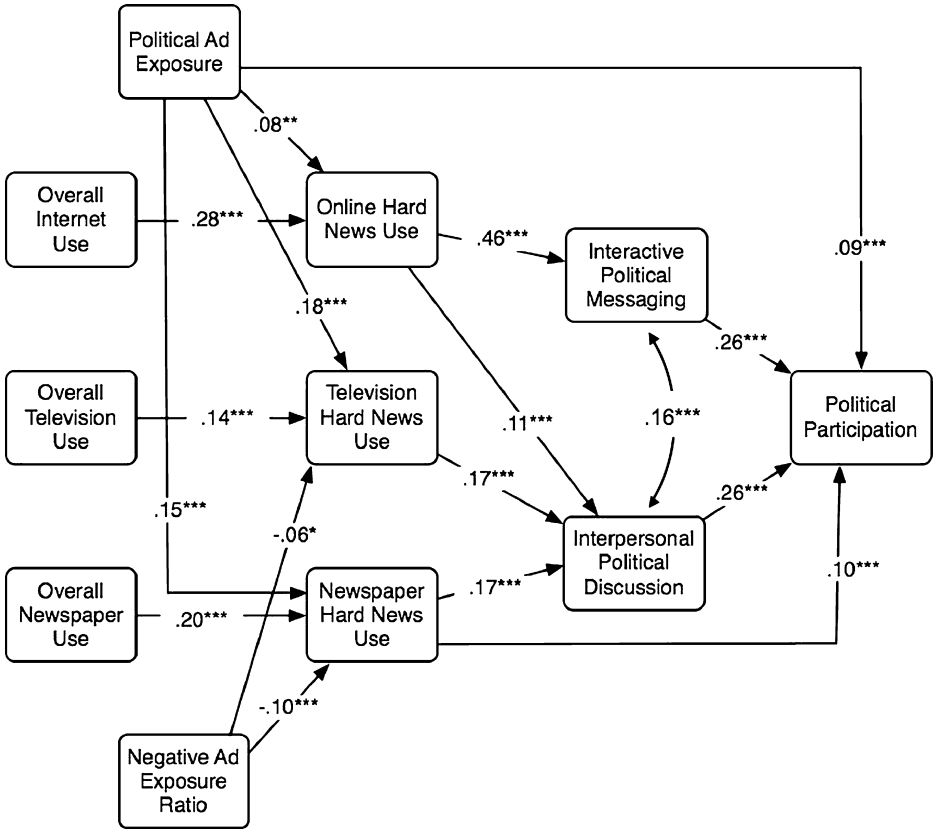

Figure 2 Model of campaign communication on political participation.

news media and the Internet: newspaper use ($\gamma = .15$, $p < .001$), television news use ($\gamma = .18$, $p < .001$), and online news use ($\gamma = .08$, $p < .01$). In addition, political ad exposure had a direct positive relationship with campaign participation ($\gamma = .09$, $p < .001$), even after considering all other information and communication variables simultaneously.

The results for the negative ad exposure ratio, however, painted a somewhat different picture than the results for overall exposure to campaign ads. The negativity of exposure was inversely associated with newspaper use ($\gamma = -.10$, $p < .001$) and television news use ($\gamma = -.06$, $p < .05$), but had no significant relationship with online news use. In addition, unlike the total volume of exposure, the attack ads ratio did not hold a significant direct relationship to any of the citizen communication and campaign participation variables.

The above results of advertising effects on information seeking variables were found even after considering the relationship between habitual media use and news consumption through that medium. Collectively, the two campaign ad exposure

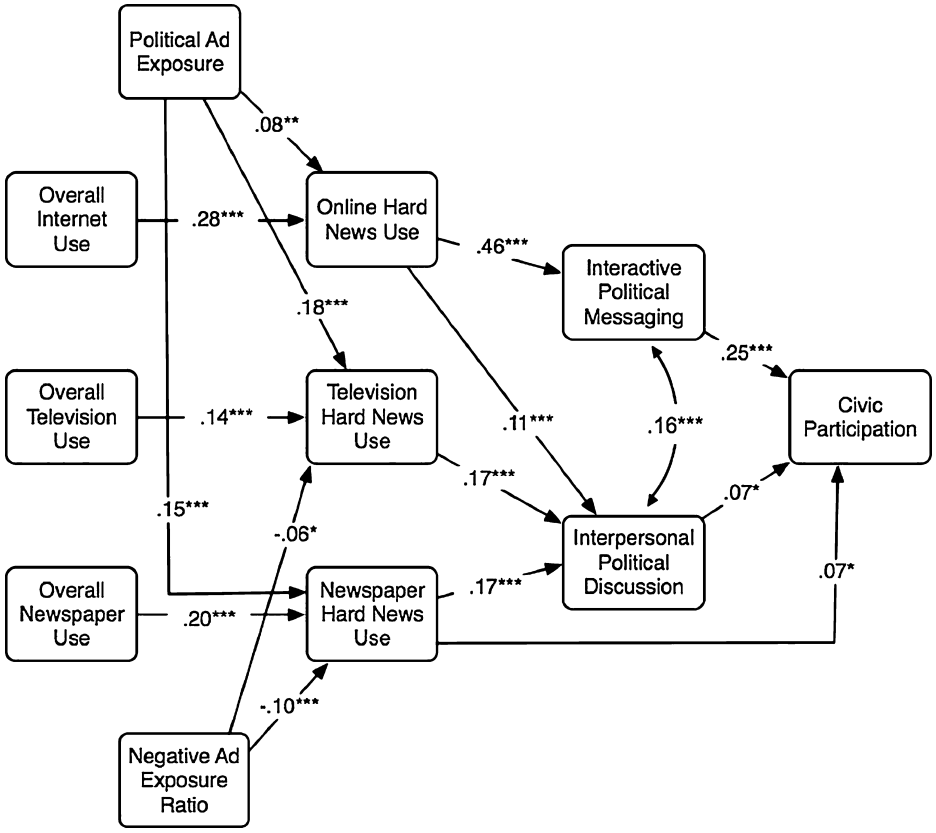

Figure 3 Model of campaign communication mediation on civic participation.

variables and the medium-specific measure of habitual media exposure accounted for 9% of the variance in online news use, 6% of variance in television news use, and 7% of variance in newspaper use.

Effects of informational media use

All informational media use variables were positively associated with face-to-face political discussion ($\beta = .17$, $p < .001$ for newspaper use; $\beta = .17$, $p < .001$ for television news use; $\beta = .11$, $p < .001$ for online news use). However, only online news use had a significant influence on online interactive political messaging ($\beta = .46$, $p < .001$). Indeed, the link between online news use and online interaction with fellow citizens or organizations received strong empirical support. However, this strong relationship, as suggested by the beta of .46, appears to leave relatively little to be explained by other information variables such as newspaper and television news use, both of which might otherwise have exhibited positive relationships with interactive messaging. Altogether, the three informational media use variables accounted

for 12% of variance in face-to-face political discussion and 21% of variance in interactive political messaging.

Further, as expected in our model, newspaper use yielded a significant and positive association with political participation ($\beta = .10$, $p < .001$). That is, respondents who frequently consume political information through newspapers were more likely to exhibit high levels of political participation. However, another theorized relationship between online news use and political participation fell just short of the threshold for significance.

Effects of citizen communication

Finally, the structural equation model suggests that both interpersonal political discussion and interactive political messaging were positively associated with political participation ($\beta = .26$, $p < .001$ for interpersonal political discussion; $\beta = .26$, $p < .001$ for interactive political messaging). That is, people who engaged more frequently in political talk and political messaging were more likely to participate in the political process.

Indirect effects

Consistent with our theorized model of campaign communication mediation, the results for indirect effects suggest a series of mediating connections among ad exposure, information consumption, citizen communication, and political participation. Specifically, when decomposing the total effects of ad exposure and informational media use on political participation by estimating direct and indirect effects separately, we found that overall ad exposure, ad attack ratio, newspaper use, television news use, and online news use have indirect effects on variation in political participation. The data suggest that the volume (.13, $p < .001$) and negativity (–.02, $p < .01$) of ad exposure operate through both informational media use and citizen communication variable blocks. Similarly, newspaper use (.14, $p < .001$), television news use (.04, $p < .001$), and online news use (.15, $p < .001$) influenced political participation via either political discussion or political messaging. This model, as a whole, accounted for 21% of the variance in political participation. This was variance explained in addition to that accounted for through the residualization process.

Correlations among endogenous variables

Although not diagrammed in the figure, our analysis also provides evidence that newspaper and television news use are strongly interrelated ($\Psi = .56$, $p < .001$), with both much more weakly linked to online news use ($\Psi = .24$, $p < .001$; $\Psi = .22$, $p < .001$, respectively). In addition, the association between interactive political messaging and interpersonal political discussion was significant, with a psi coefficient of .16 ($p < .001$).

Communication and civic participation

As noted earlier, we set up another structural equation model to examine the effects of communication variables (i.e., political ad exposure, online and offline media use,

and citizen communication) on civic participation. Because the same communication variables were shared by the two models, the overall pattern of relationships observed in the model of civic participation largely replicates that in the previous model of political participation. To avoid redundancy, our discussion of the results from this model will focus on findings regarding civic participation.

Model fit

Figure 3 presents the results of structural equation modeling for civic participation. Similar to the previous model for political participation, this model yields a good fit to the data, with an estimated chi-square value of 73.73 and 37 degrees of freedom, for a ratio that is well below 3. Other goodness-of-fit indexes also provide evidence of the adequacy of the model (RMSEA = 0.03, NFI = 0.97, NNFI = 0.97, SRMR = 0.03).

Effects of ad exposure

Unlike the model predicting political participation, neither the overall volume of exposure nor the negativity of that exposure had any significant direct influence on the ultimate criterion variable, civic participation. The difference between this model and that for political participation is not surprising given that campaign ads typically focus on election outcomes, thus mobilizing people to participate in this realm more directly than in civic life.

Effects of informational media use

Similar to the results for political participation, only newspaper use was found to have a positive relationship with civic participation ($\beta = .07$, $p < .05$). Online news use as well as television news, however, use failed to account directly for the variance in civic participation. This confirms the longstanding finding that people who read newspapers are more likely to participate in civic life.

Effects of citizen communication

Both political discussion and political messaging yield significant and positive associations with civic participation ($\beta = .07$, $p < .05$; $\beta = .25$, $p < .001$, respectively). Thus, a positive influence of citizen communication on participation was found across two different forms of participation, political and civic.

Indirect effects

As in the model of communication and political participation, LISREL estimates of indirect effects suggest that overall ad exposure (.02, $p < .01$) and attack ad exposure (–.01, $p < .05$) exerted a significant indirect influence on civic participation, operating through both informational media use and citizen communication variable blocks. Likewise, newspaper use (.09, $p < .001$), television news use (.01, $p < .05$), and online news use (.12, $p < .001$) also had an indirect influence on civic participation via either political discussion or political messaging. Altogether, this model accounted for a total of 9% of the variance in civic participation. Again, this variance was explained in addition to that accounted for through the residualization process.

Model comparisons

Because these cross-sectional analyses do not resolve the causal direction, we also test five alternate causal orderings of the three sets of endogenous variable blocks contained in our model: information seeking, citizen communication, and participation. Because, as noted earlier, campaign ad exposure measures were composed of the structural availability of ads (i.e., number of ads in each local media market) and individuals' everyday television use pattern, it is less likely that ad exposure is an outcome of any of the endogenous variable blocks. This is also true of habitual patterns of media use measured in the original Life Style Study. Accordingly, we treated the ad exposure and habitual media use variables as exogenous to the model of communication mediation and ran an additional five tests that specified different structural arrangements of the variable clusters of information seeking, citizen communication, and participation. In each case, we first ran fully saturated alternate models and then reran these models trimming any nonsignificant paths.

As seen in Table 1, which reports the trimmed models for each of the other specifications, the alternate causal ordering of our variable clusters (Models 2–6 for political participation and Models 8–12 for civic participation) were far less well fitting than our theorized model (Models 1 and 7). When political participation served as the mediator between information seeking and citizen communication, model fit was extremely poor (Models 2 and 5). When information seeking variables served as mediators between political participation and citizen communication, model fit was still not acceptable, as indicated by the high chi-square to degrees of freedom ratio and RMSEA (Models 3 and 4). It is not surprising that Model 6, the inverse specification of our theorized model, performs better than any other alternative models given that this specification is largely equivalent to our theorized structure in terms of the pattern of the covariance among these variables (Bollen, 1989). However, our theorized model exhibits considerably better model fit than this inverse causal ordering. Our theorized model also seems more plausible given the long line of empirical work indicating the positive influence of information on participation (Shah et al., 2005).

When alternate models of civic participation are tested, the overall pattern is very similar to political participation. When civic participation served as the mediator between information seeking and citizen communication, model fit was extremely poor, as indicated by the high chi-square to degrees of freedom ratio and RMSEA (Models 8 and 11). When information seeking variables served as mediators between civic participation and citizen communication, model fit was still not acceptable (Models 9 and 10). Although the inverse specification (Model 12) performed better than any of the other alternative models, it still produced a less well-fitting model than our model.

Discussion

Our analysis, which found considerable support for our theoretical model of campaign communication mediation, provides a range of important insights about

Table 1 Model Comparison: Communication and Participation

	AIC	CAIC	RMSEA	χ^2/df
Mediation model for political participation				
1. Ad Exp. → Info. Seeking → Citizen Comm. → Political Part.	98.95	232.22	.050	54.95/14
2. Ad Exp. → Info. Seeking → Political Part. → Citizen Comm.	409.30	530.46	.140	369.30/16
3. Ad Exp. → Citizen Comm. → Info. Seeking → Political Part.	302.63	411.68	.110	266.63/18
4. Ad Exp. → Political Part. → Info. Seeking → Citizen Comm.	302.97	412.01	.110	266.97/18
5. Ad Exp. → Citizen Comm. → Political Part. → Info. Seeking	466.93	569.92	.140	432.93/19
6. Ad Exp. → Political Part. → Citizen Comm. → Info. Seeking	166.74	269.72	.072	132.74/19
Mediation model for civic participation				
7. Ad Exp. → Info. Seeking → Citizen Comm. → Civic Part.	60.39	193.66	.000	16.39/14
8. Ad Exp. → Info. Seeking → Civic Part. → Citizen Comm.	258.13	379.29	.098	218.13/16
9. Ad Exp. → Citizen Comm. → Info. Seeking → Civic Part.	154.00	263.04	.064	118.00/18
10. Ad Exp. → Civic Part. → Info. Seeking → Citizen Comm.	159.65	268.70	.065	123.65/18
11. Ad Exp. → Citizen Comm. → Civic Part. → Info. Seeking	536.91	639.90	.180	502.91/19
12. Ad Exp. → Civic Part. → Citizen Comm. → Info. Seeking	118.18	221.16	.055	84.18/19

Note: Ad Exp. = ad exposure; Info. Seeking = information seeking; Citizen Comm. = citizen communication; Political Part. = political participation; Civic Part. = civic participation. Trimmed model with all nonsignificant paths from fully saturated mediated model removed.

political advertising exposure and Internet use in the context of elections. Exposure to political advertising has direct effects on information seeking via mass media, especially newspaper and television news use but also online news. As the ratio of advertising exposure becomes more negative, however, information seeking via conventional news sources is reduced. Although this provides little evidence of demobilization, per se, it could be viewed as support for the perspective that attack ads spur disinterest. Of course, these effects may also be interpreted as confirmation that attack ads focus citizens' attention on political issues, reducing the need to consult the news to learn information.

Among the news consumption and citizen expression variables in our models, informational media use consistently encourages citizen communication, which in

turn spurs civic and political participation. Besides the direct effect of volume of campaign exposure on political participation, most campaign effects were mediated through other communication factors. Even the direct effects of newspaper use on civic and political participation did not diminish the general conclusion that media effects were largely indirect, channeled through political discussion and messaging.

Beyond the effects of political advertising, the most intriguing finding is the role played by the Internet. Online news use and interactive political messaging—uses of the Web as a resource *and* a forum—both strongly influence civic and political participation, often more so than traditional print and broadcast media and face-to-face communication. These effects are largely replicated across the two different models of participation, providing considerable confidence in these findings. That is, we found largely consistent patterns of relationships from these variables regardless of whether we were examining effects on overtly political forms of campaign participation or on public-spirited forms of civic participation.

We are further assured about the structure of the relationships within our causal model by our test of alternate orderings of our key variable clusters. Our campaign communication mediation model of political advertising exposure, informational news use, citizen expression, and participation was found to be the best fitting model in comparison to all possible alternate specifications of mediated effects. This was true for both forms of participation. Thus, it appears that citizen communication, online and offline, plays a critical role in mediating the effects of advertising exposure and information seeking on civic and political participation.

That is not to say there are no direct effects of campaign exposure and news consumption variables on civic or political participation, as we note above. Yet, these factors are antecedent to political talk in most theoretical and empirical accounts. In particular, our treatment of political advertising exposure as antecedent to these other communication variables reflects the fact that the volume of political advertising is a structural variable and that exposure was estimated as a function of habitual program viewing within these markets. It makes little sense to think that individuals would change their viewing patterns, let alone their locality, in the hopes of encountering more political spots. Our alternative causal modeling bears this out.

All in all, the observed relationships speak to the importance of political advertising in fostering information seeking via mass media. They also underscore the centrality of citizen communication, with both online and offline channels channeling the effects of informational media use on participation. Moreover, online news use has effects on both political talk and political messaging. Thus, our findings refute the views that (a) there are two discrete communication pathways to participation, one online (online news to political messaging) and the other offline (newspaper use to political talk), and (b) political uses of the Internet sap participation by fostering an ersatz experience of engagement leading to a "dead end." The crosscutting nature of the effects between online news use and citizen expression, as well as their strength and robustness, clarifies the role of political advertising and the Internet in the contemporary politics.

The broader implications of these findings are threefold. First, our findings provide another important variable to consider as an outcome of advertising exposure: information seeking via mass media. That political ads can encourage and discourage information seeking, depending on the volume and negativity of that exposure, is itself an important finding. Second, although this analysis cannot vindicate the Internet as a cause of social withdrawal, it certainly suggests that when two of the most popular uses of the Internet—news consumption and e-mailing—are used to gain information and express opinions about public affairs, they can stimulate both civic and political participation. Third, the observed effects of interactive political messaging on participation speak to the potential of the Internet to enable collective action and campaign involvement without the temporal, geographic, and size limitations of face-to-face communication (Shah et al., 2005).

The finding concerning the sizable effects of Internet use suggest that young Americans, many of whom are disengaged from public life, but are online in record numbers, may be mobilized through this medium. If political messaging has the potential to encourage new modes of expression, discussion, deliberation, and recruitment among young people who are unconstrained by the inherent limitations of traditional face-to-face forms of citizen communication, the civic and political consequences would be considerable. Future research should explore the effects of political advertising and digital media across generational groups.

Conclusions

More important for future research, these findings contribute to basic theory building in communication and social psychology. When the insights gleaned from the campaign communication mediation model are combined with prior research on the communication mediation (McLeod et al., 2001), cognitive mediation (Eveland et al., 2003), and citizen communication mediation models (Shah et al., 2005), a larger picture emerges. All these models are inspired in part by Markus and Zajonc's (1985) O-S-O-R framework, in which the first O stands for "the set of structural, cultural, cognitive, and motivational characteristics the audience brings to the reception situation that affect the impact of messages (S)" or stimuli, and the second O signifies "what is likely to happen between the reception of message and the subsequent response (R)" (McLeod, Kosicki, & McLeod, 1994, pp. 146–147).

Yet the O-S-O-R framework does not fully capture the interrelated mediating processes proposed across these models. The communication mediation model treats news consumption and political talk as stimuli, stressing their mediating role on orientations such as efficacy and learning as well as on responses such as participation. Although the cognitive mediation model does not extend to behavioral responses, its focus on how reflection mediates the effects of motivations and messages on knowledge suggests an additional step between stimuli and outcome orientations. Likewise, the citizen and campaign communication mediation models advance the view that political talk—offline and online—is a critical mediator

between media stimuli and behavioral responses. Although outcome orientations such as knowledge, efficacy, and cognitive complexity are not included in the empirical model, talk is theorized to be causally antecedent to these factors, in recognition of the fact that it can be both a source of information and a site of deliberation.

Taken together, these models insinuate that the center of the O-S-O-R framework is underspecified, especially for the purposes of understanding message processing and political communication effects. The S-O portion of the model is a jumble of factors, including news consumption, thinking and talking about issues, and cognitions and attitudes that arise from this process. Reflection and discussion are particularly difficult to situate in this framework. They are not stimuli in the formal sense because they are typically the outcomes of exposure to mass media. However, they are also not conventional outcome orientations in the sense of altered attitudes or developed cognitions. Instead, they are between stimuli and outcome orientations, indicative of efforts to form an understanding and reason through ideas encountered in message stimuli.

Accordingly, we argue for the need to put *reasoning* (R) into the center of the O-S-O-R framework as a core mediator of the effects of stimuli on outcome orientations and subsequent responses. Here we mean reasoning in the broad sense of mental elaboration and collective consideration, encompassing both intrapersonal and interpersonal "ways of thinking." As shown in Figure 4, the resulting O-S-R-O-R framework distinguishes between the cognitive processes at play in the stimuli stage and the deliberative processes at play in the reasoning stage. The impact of messages may involve a range of processes (e.g., exposure, attention, priming, cueing, framing) and come from various sources (typically media such as newspapers, TV, and the Web, but also from conversation with peers and opinion leaders). These stimuli differ in the type of thinking—maybe "reasoning" might be better here just to help with clarity they produce: reflection on media content (Mutz, 2006), anticipation of conversation (Eveland, Hayes, Shah, & Kwak, 2005), composition of ideas for expression (Pingree, 2007), or integration and understanding (McLeod et al., 2001).

This O-S-R-O-R framework, then, subsumes all these other models of mediated effects and suggests many new avenues of message effects research. This future work will need to distinguish between reception and expression effects, treating both media and discussion as the sources for new information and the impetus for reflexivity about existing information. Measures of reflection, anticipation, and composition related to media and discussion should be refined. This work must also consider how structural and individual factors come together to create the background orientations that situate media consumption and encourage political expression, as we did with political advertising in this study. By putting reasoning into the center of this framework, the mediating role of reflexive processing and considered discussion is highlighted, acknowledging both the intrapersonal and interpersonal nature of deliberative processes. As such, political elaboration and conversation become increasingly important in future model development extending the communication mediation model and refining this O-S-R-O-R framework.

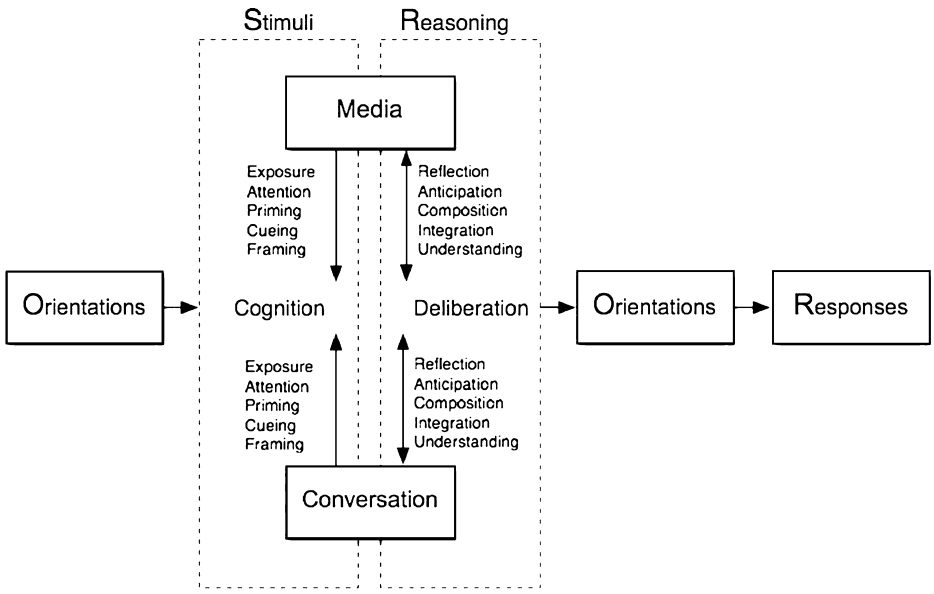

Figure 4 An O-S-R-O-R model.

Acknowledgments

This research was supported by grants from the Carnegie Corporation of New York, Pew Charitable Trusts through the Center for Information & Research on Civic Learning & Engagement, Rockefeller Brother Fund, Russell Sage Foundation, and Damm Fund of the Journal Foundation to D.V.S. and D.M.M. Additional support for this work was provided by funds from the University of Wisconsin—Madison Graduate School, Department of Political Science, and School of Journalism and Mass Communication awarded to Dominique Brossard, Ken Goldstein, D.M.M., Michelle Nelson, Dietram Scheufele, and D.V.S. The authors thank DDB-Chicago for access to the Life Style Study, particularly Marty Horn and Chris Callahan for sharing methodological details, and the University of Wisconsin Advertising Project for access to the campaign placement and content data, particularly Erika Franklin Fowler and Joel Rivlin for their data management assistance. Any opinions, findings, conclusions, or recommendations expressed are those of the authors and do not necessarily reflect the views of the supporting sources or DDB-Chicago.

Notes

1 For the measure of "other primetime entertainment viewing," we summed regular consumption of 16-hour-long programs and 16 half-hour-long programs, weighted by program length. The summed index was then standardized and multiplied by the number of political ads outside the five high-density program categories.

2 Sources for the determination of battleground states: "The Battleground States," http://www.time.com/time/election2004/battleground and "CNN Electoral Map as of

10/28," www.cnn.com/ELECTION/2004/special/president/electoral.map/frameset.exclude.html.

3 The performance of the theorized models, with all specified paths retained, and the trimmed model, with nonsignificant paths removed, are highly comparable for both political participation (theorized model: AIC = 143.95; CAIC = 361.54; RMSEA = 0.032; $\chi^2/df = 73.95/31$ vs. trimmed model: AIC = 135.67; CAIC = 322.18; RMSEA = 0.029; $\chi^2/df = 75.67/36$) and civic participation (theorized model: AIC = 136.85; CAIC = 354.44; RMSEA = 0.029; $\chi^2/df = 66.85/31$ vs. trimmed model: AIC = 131.73; CAIC = 312.02; RMSEA = 0.027; $\chi^2/df = 73.73/37$).

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Appendix A Descriptive Statistics

	Minimum	Maximum	*M*	*SD*
Age	18.00	92.00	47.46	15.72
Gender (female = 1)	0.00	1.00	0.56	0.50
Race (White = 1)	0.00	1.00	0.68	0.47
Household income	1.00	13.00	7.61	3.89
Education	3.00	18.00	14.05	2.34
Religiosity	1.00	6.00	4.63	1.25
Political ideology (Liberalism = high)	1.00	5.00	2.69	0.97
Strength of ideology	0.00	2.00	0.74	0.70
Political interest	1.00	6.00	3.07	1.58
Residential stability	0.17	2.00	0.60	0.57
Battleground state	0.00	1.00	0.35	0.48
Overall newspaper use	0.00	10.00	1.30	1.36
Overall television use	0.00	10.00	4.24	2.27
Overall Internet use	0.00	10.00	1.04	1.53
Political ad exposure	0.00	25,275.52	2,070.16	2,502.72
Ratio of "attack" ads	0.00	0.81	0.47	0.22
Newspaper use	−1.08	1.82	0.00	0.83
Television news use	−1.31	1.73	0.00	0.84
Online news use	−0.47	4.03	0.00	0.92
Political discussion	1.00	8.00	3.64	1.71
Interactive political messaging	1.00	7.00	1.30	0.74
Civic participation	1.00	8.00	2.22	1.50
Political participation	1.00	7.71	1.55	0.84

Appendix B Regression Analyses for Residualization

	Political participation	Civic participation	Political discussion	Political messaging	Newspaper use	Television news use	Online news use
Age	.068*	.123***	−.117***	−.116***	.159***	.058*	−.134***
Gender (female = 1)	−.023	.040	−.069**	−.057*	−.031	−.069**	−.055*
Race (White = 1)	−.112***	.013	−.021	.032	.020	−.023	.002
Household income	.025	.007	.161***	.023	.022	.039	.039
Education	.040	.183***	.119***	.132***	.099***	.116***	.132***
Religiosity	.049#	.048#	.082**	−.059*	−.017	−.004	−.011
Political ideology	.074**	−.029	.124***	.118***	.060*	−.005	.091***
Strength of ideology	.118***	.020	.039	.090***	.016	.006	.072**
Political interest	.235***	.128***	.226***	.170***	.328***	.289***	.146***
Residential stability	.028	−.021	.006	.052*	.001	.007	.086**
Battleground state	.056*	−.013	.090***	−.010	.053*	.051*	.008
R^2 (%)	10.5	8.4	15.9	10.6	17.7	12.8	9.9

Note: Standardized regression coefficients are reported.
#$p < .10$. *$p < .05$. **$p < .01$. ***$p < .001$.