

## ORIGINAL ARTICLE

**Campaigns, Reflection, and Deliberation:  
Advancing an O-S-R-O-R Model of  
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*Recent communication research concerning participatory politics has found that the effects of media, especially campaign ads, conventional news, and online political resources, are largely mediated through interpersonal discussion about politics. This article extends this line of theorizing about the role of political conversation in citizen competence by testing an O-S-R-O-R model of campaign communication mediation, a modification and extension of the longstanding O-S-O-R model of communication effects. This model combines insights from iterations of the communication mediation model (McLeod et al., 2001; Shah et al., 2007) and cognitive mediation model (Eveland, 2001; Eveland, Shah, & Kwak, 2003) to theorize a set of the interrelated reasoning (R) processes that channel the influences of campaign exposure and news consumption on political engagement. Three key mediators of campaign and news influence are postulated: face-to-face political conversation, online political messaging, and cognitive reflection. We provide empirical evidence to test this model by merging two datasets: (1) tracking of the content and placement of campaign messages in the*

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2000 and 2004 election cycles, and (2) surveys of traditional and digital media consumption and levels of campaign participation during these same elections. Findings reveal that political conversation, political messaging, and cognitive reflection mediate the effects of campaign advertising exposure and news consumption on political participation and knowledge, providing considerable support for our theory. This O-S-R-O-R model helps organize a large body of theorizing and research on campaigns and conversation in the communication sciences.

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Political campaigns can have important social and political consequences beyond the selection of who is to govern. Political campaigns are periods of high-intensity information flows that reach broad cross-sections of the general public, including many individuals who are typically inattentive to politics. This intensive campaign communication might help citizens renew their political interest, effects that may carry over to noncampaign periods, to less political forms of engagement, and to subsequent campaigns. In this article, we theorize that these potential effects of political elections can be better understood when considering how elite-driven campaign activities intersect with citizens' news consumption and political conversation.

Through these everyday communication practices, citizens can reflect and deliberate about the campaign, become informed, and make sense of issues and candidates, all of which seem necessary to encourage political engagement. Specifying the communication choices of citizens as an underpinning for campaign effects also has broader theoretical merits for the study of political campaigns in general. Indeed, much research on electoral campaigns has focused on the direct impact of elites' campaign efforts on "political outcomes" such as vote choice or voter turnout. However, shifting the focus to "citizen communication process" allows researchers to view citizens as active processors of campaign communication and to examine the deliberative nature of political campaigns that has been largely ignored in previous research (Huckfeldt, Sprague, & Levine, 2000; Just et al., 1996; Page, 1996; Pan, Shen, Paek, & Sun, 2006).

As such, models of campaign effects must be reconsidered to more fully integrate information consumption and political conversation. Any revised theory connecting campaigns and conversation must acknowledge the rapidly expanding body of work finding that communication among citizens largely mediates the influence of news consumption on civic participation (Shah, Cho, Eveland, & Kwak, 2005). This set of relationships has been theorized as a *citizen communication mediation model*, extending earlier work on the *communication mediation model* (Sotirovic & McLeod, 2001). Research indicates that this mediation process is particularly strong for information seeking and expression via the Internet.

Given the highly targeted and geographically structured nature of campaign message placement, the integration of advertising exposure into a communication mediation model would bring elite and citizen behavior together into a coherent framework, attending to campaign ad placement and individual practices. Initial efforts to merge campaigns and conversation together in this manner have produced promising results and have led theorists to postulate additional extensions of communication mediation (Shah et al., 2007). This article extends this line of theorizing about the role of conversation in citizen competence by advancing and testing an O-S-R-O-R model of campaign communication mediation, a modification and extension of the longstanding O-S-O-R model of communication effects (Markus & Zajonc, 1985).

This model combines insights from iterations of the communication mediation model (McLeod et al., 2001; Sotirovic & McLeod, 2001) and the cognitive mediation model (Eveland, 2001; Eveland et al., 2003) to theorize a set of the interrelated *reasoning* (R) processes that channel campaign exposure and news consumption effects on engagement. Three key mediators of campaign and news influence are postulated: face-to-face political conversation, online political messaging, and cognitive reflection. These three mediators are thought to encourage greater cognitive activity and effortful consideration of information through a combination of interpersonal and intrapersonal processes. Reasoning through information in these ways is central to learning and action, which allows this O-S-R-O-R model to organize a large body of conflicting theorizing and research on campaigns, information, and conversation.

## Media and political engagement

There is a great deal of controversy concerning the effects of mass media, particularly campaign media, on citizens' involvement in political life. Scholars such as Putnam (2000), Nie (2001), and Ansolabehere and Iyengar (1995) have argued that television, Internet, and political advertising, respectively, erode engagement and demobilize citizens. Although newspapers are viewed as the one positive exception to the otherwise detrimental effects of media on participation and democratic legitimacy, traditional print media have seen their audience, and thus their influence, displaced first by the rise of television during the latter half of the 20th century (Mindich, 2004; cf. Uslaner, 1998) and later by the ascendance of digital media in the last decade (Kraut et al., 1998; Prior, 2005; cf. Shah, McLeod, & Yoon, 2001). The fact that campaign ads have come to dominate the airwaves in many "battleground" states may also be a cause for concern. Such shifts in patterns of media exposure and use are often named as the culprits in the erosion of engagement and participation.

Most relevant for this effort, some research on campaign effects finds that negative advertising demobilizes the electorate, in some cases suppressing turnout by nearly 5% (Ansolabehere & Iyengar, 1995). Yet other studies, such as Wattenberg and Briens (1999), show the opposite effect: Those who recollect negative presidential campaign

advertising actually exhibit an increased turnout, leading the authors to conclude that “attack advertising’s demobilization dangers are greatly exaggerated” (p. 891). These contradictory findings may be a function of the inherent imprecision in the measurement approaches, with research relying on questionable self-report techniques (e.g., ad recall measurement) or crude estimates of campaign volumetrics (e.g., hours of viewing) (Freedman & Goldstein, 1999; e.g., see Chaffee, Zhao, & Leshner, 1994; Finkel & Geer, 1998; Patterson & McClure, 1976).

These same critiques can be leveled at efforts to connect electronic media use to political disengagement. Conclusions about media effects on participation are often based on imprecise and monolithic measures of media consumption, with little regard for specific patterns of use or the nature of information processing (Kraut et al., 1998; Nie, 2001; Putnam, 2000). As a result, claims about the negative or limited effects of mass media—especially television and the Internet—on levels of engagement are highly suspect. These measurement problems are not just methodological issues; they have serious theoretical implications that limit the potential to make substantive claims about communication influences and build process frameworks.

In this article, we strongly contest the simplistic position that media—television, the Internet, and campaign ads—are the culprits reducing participation, arguing instead that many forms of mass media, including some considered quite deleterious, may actually be agents of engagement in political life. This position is grounded in work that attempts to gauge patterns of media exposure and attention with more care, work that has found the effects of electronic media are not so straightforward or so negative (Eveland, McLeod, & Horowitz, 1998; Freedman & Goldstein, 1999). This work has observed numerous positive effects of media exposure and consumption. In fact, when researchers attend to the highly contextual and targeted nature of modern political campaigning, analysis reveals that exposure to political ads actually increases political knowledge and spurs involvement (Goldstein & Freedman, 2002). Likewise, the effects of informational and dramatic content on television have been found to encourage civic attitudes and participatory behaviors (Holbert, 2005). Along these same lines, Internet use, especially informational and expressive uses, foster participation (Jennings & Zeitner, 2003).

Yet, even when media variables are conceptualized and operationalized with greater care and complexity, their “effects” are usually assessed as direct effects with little consideration for contextual and mediated processes (Norris, 1996, 1998; Prior, 2005; Uslander, 1998; cf. Jennings & Zeitner, 2003). Most notably, research on advertising effects almost always considers political ads alone, instead of the role the ads play when teamed with the communication practices present in many citizens’ campaign communication repertoires. For example, most previous studies have tested the *direct* impact of political ads on turnout, relying solely on the exposure to these messages as the psychological mechanism underlying the effects.

While this approach is useful for identifying the overall contribution that political advertising makes to citizen participation, it leaves unexamined the

communication processes through which political advertising operates within the complex campaign communication environment. Indeed, political ad exposure is not an isolated experience. Rather, it is closely associated with how citizens use news media and discuss politics. Thus, previous theories of political ad effects do not fully account for the process through which political advertising is related to participation. As a consequence, work in this area remains hampered by (a) an overreliance on direct effect models, when media influence is often contextually dependent and highly mediated through interpersonal conversation and intrapersonal reflection (McLeod et al., 2001), and (b) poor measurement of media exposure and use, which has conceptual consequences in terms of underspecification of influence processes (Shah et al., 2007).

### Communication mediation models

In response, we theorize that the effects of campaign advertising on citizen learning and participation occur in connection with subsequent communication phenomena such as news consumption, political conversation, and media reflection. This model predicts that campaign ad exposure stimulates information seeking via the mass media, which, in turn, leads to interpersonal exchanges about politics. Of course, this is not meant to suggest that political advertising does not exert a direct influence on participation above and beyond news consumption and citizen communication. Instead, considering information seeking via the mass media and the exchange of views with fellow citizens as intermediaries provides a more realistic understanding of the role that political advertising plays in the campaign process.

Our theorizing is grounded in the communication mediation model, which finds that informational media use and political discussion largely channels the effects of background dispositions and orientations on citizen learning and participatory behaviors (McLeod et al., 2001; Sotirovic & McLeod, 2001). One of the strengths of this model is the integration of mass and interpersonal communication into processes that result in civic and political engagement, as previously demonstrated by Huckfeldt and Sprague (1995). Yet the theoretical moorings of this model predate Huckfeldt and Sprague's seminal research. Indeed, it is an outgrowth of McLeod, Kosicki, and McLeod's (1994) introduction of the O-S-O-R framework into political communication as derived from advances in psychology (Markus & Zajonc, 1985).

The introduction of this model was a commentary on how the field of communication had moved beyond the simple stimulus–response (S–R) perspectives of direct and universal effects. The O-S-O-R model was a corrective to this overly direct model of effects in, which the first “O” includes “structural, cultural, cognitive, and motivational characteristics the audience brings to the reception situation that affect the impact of the message” and the second “O” represents “what is likely to happen between reception of the message and the response of the audience member” (McLeod et al., 1994, pp. 146–147). This general O-S-O-R perspective provides the broad foundations for communication mediation.

Notably, the communication mediation model treats both news consumption and interpersonal communication as stimuli (S), focusing on how they jointly mediate the effects of demographic, dispositional, and structural factors on cognitive and behavioral outcomes. In an effort to advance and further specify this perspective, a citizen communication mediation model was advanced. This model theorizes and finds that mass communication's influence is strong, but itself indirect, shaping participatory behaviors through its effects on discussion about public affairs (Shah et al., 2005). It also finds that this same mediation process operates for information seeking and political expression via the Internet. This citizen communication mediation model adds to our understanding of the relationship between information and participation in two ways: (a) it situates communication among citizens as a critical mediator between news consumption and democratic outcomes, adding another step in the causal chain, and (b) it asserts that online pathways to participation complement existing offline pathways of information and conversation, adding a new route through which mediation can occur.

It is important to note that in doing so, this citizen communication mediation model argues forcefully that there are similarities but also important differences between talking about politics face-to-face (i.e., conventional political conversation) and expressing political views in online settings (i.e. interactive political messaging). Face-to-face political talk is conceptualized as occurring with family, friends, co-workers, and others within one's social network. These conversations are thought to facilitate the flow of media information and help citizens interpret media messages and construct meaning on their own (Kim & Kim, 2008; Southwell & Yzer, 2007). Individuals who discuss politics frequently are exposed to a wider range of political perspectives; this deliberative exercise increases their interest in politics, their opinion quality, their social tolerance, and their participation (Gastil & Dillard, 1999; Mutz, 2002).

Political messaging may share some of these characteristics, but it also permits the sharing of perspectives and concerns with a much wider and geographically dispersed array of people 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). It reduces the costs of mass expression and collective organizing, allowing individuals to "post, at minimal cost, messages and images that can be viewed instantly by global audiences" (Lupia & Sin, 2003, p. 316; cf. Hill & Hughes, 1998). Such messaging is also largely textual rather than verbal, and as such may produce stronger compositional effects associated with preparation for communication (Bargh & Schul, 1980; Lerner & Tetlock, 1999) and writing about one's own perspectives (Pennebaker, 1997; Pennebaker & Beall, 1986).

### **Cognitive mediation and campaign mediation**

As this suggests, the influence of political conversation and political messaging may not only be a function of the interpersonal exchange with others and the deliberative

benefits that these sorts of interactions produce but also a product of the intrapersonal influences these expressive actions have on message composers. As Pingree (2007) points out, it often goes unconsidered that “the act of expression might change the message sender, that expressed ideas often do not exist intact, if at all, in the speaker’s mind prior to expression” (p. 439). This attention to the cognitive implications of message production bears some resemblance to Eveland’s (2001) work on the cognitive mediation model, which stresses the self-reflective processes underlying the effects of mass communications, particularly news consumption.

This model also draws upon the basic O-S-O-R framework for its understanding of communication influences, though its focus is on learning from news rather than participatory behaviors. It is particularly concerned with the cognitive activity that takes place during and after news consumption. The form of mental activity examined by this model is related to concepts in the audience activity literature, such as cognitive elaboration (Perse, 1990) and reflective integration (Kosicki & McLeod, 1990). As such, this model draws heavily from these earlier audience activity and mental elaboration approaches.

The overarching theoretical structure of the model combines insights from cognitive psychology, learning theories, and work on human memory to structure the relationships from surveillance motivations to news processing, ultimately leading to knowledge (Eveland, 2001, 2004). By placing these variables in a sequential process, it is theorized that the effects of news use and motivations are channeled through information processing, especially news reflection—“the use of news information to make cognitive connections to past experience and prior knowledge, and to derive new implications from news content” (Eveland et al., 2003, p. 363).

Arguably, this is the intent of a vast majority of political campaign advertising, especially negative advertising. This type of campaign content provides substantive information that is intended to spur a critical reassessment of candidates and their issue positions, and to encourage connections between policy critiques and personal experience (Kaid & Johnston, 2001). Along these same lines, Finkel and Geer (1998) find that the overall effect of negative ads is to increase interest in the election, strengthen ties to particular candidates, and stimulate political learning. Geer (2006) extends this argument (see also Brader, 2005). His “defense of negativity” in presidential campaigns concludes that attack ads are more likely than positive ads to focus citizens’ attention on the political issues defining the election, activate partisan loyalties, and stimulate vigilance. As such, the effects of campaign messages may not only be mediated through political conversation or online messaging, but also through intrapersonal reflection.

Some of these elements have already been brought together in a *campaign communication mediation model* (Shah et al., 2007). This model considers the effects of exposure to political advertising, print, broadcast, and Internet news use, as well as interpersonal and online political expression for democratic participation, but does not integrate media reflection or political knowledge into this framework. It builds on existing research in expecting that newspaper reading, broadcast news viewing,

and online news seeking will explain political participation, with the effects of these variables mediated through conventional and digital modes of political discussion (McLeod et al., 1996; Norris, 1996; Shah et al., 2005). It predicts that citizens exposed to large doses of political advertising will tend to seek more information via news media. In turn, this news consumption is expected to encourage communication among citizens, both face-to-face and via the Internet, which then mediates effects on participation.

### **An O-S-R-O-R model**

More important for future research, this sizable collection of mediating models can be integrated in ways that contribute to theory building in two fields—communication and social psychology—and have implications for a number of others. When the theoretical propositions of the campaign communication mediation model are combined with prior research on the communication mediation (McLeod et al., 2001), citizen communication mediation (Shah et al., 2005), and cognitive mediation (Eveland et al., 2003) models, a more coherent and unified picture of campaign communication effects emerges. All of these models are inspired in part by Markus and Zajonc's (1985) O-S-O-R framework; yet, that approach does not fully capture the interrelated mediating processes proposed across these different models.

As noted above, the communication mediation model treats news consumption and political talk as stimuli, stressing their mediating role on orientations such as learning as well as on responses such as participation. Although the cognitive mediation model has not, to date, been extended to behavioral responses, its focus on how mental reflection mediates effects on knowledge suggests an additional step between stimuli and the outcome orientations that spur behavioral responses. Likewise, the citizen and campaign communication mediation models advance the view that political talk—offline and online—is a critical mediator of campaign inputs and media stimuli on civic and political participation. Outcome orientations such as knowledge are not included in the model, yet citizen expression—offline and online—is theorized to be causally antecedent to cognitive effects on learning, recognizing that conversation provides both a source of information and a site of deliberation.

Taken together, these models indicate that the center of the O-S-O-R framework is underspecified in that it is inattentive to an additional mediating step between message processing and outcome orientations. The S-O portion of this O-S-O-R model includes news consumption, thinking and talking about issues, and expression of views in online contexts, as well as the cognitions and attitudes that arise from this process. Conversation and reflection are particularly difficult to situate and structure within this set of relationships. They are not stimuli in the formal sense because they are typically the outcomes of exposure to mass media and have been shown to be consequents and mediators of surveillance motivations, campaign exposure, and news consumption in panel analyses (Eveland et al., 2003; Shah



et al., 2005). They are also not conventional outcome orientations such as learning, attitudes, or perceptions. Instead, “they are between stimuli and outcome orientations, indicative of efforts to form an understanding and reason through ideas encountered in message stimuli” (Shah et al., 2007, p. 698).

Accordingly, we argue for the need to add another link in the O-S-O-R chain of causation, a step for *reasoning* (R) introduced into the center of the existing framework between stimuli (S) and outcome orientations and subsequent responses (O-R). Reasoning, in our conception, refers to mental elaboration (a decidedly more intrapersonal phenomenon) and collective consideration (an interpersonal and intrapersonal phenomenon). However, reasoning is not necessarily a purely rational process. Rather, reasoning could be illogical, emotionally charged, or based on premises that are wrong or biased, especially when deliberation is based on misinformation or driven by partisan motives, as often happens during campaigns. Thus, our concept of reasoning refers to the depth of reasoning, not the rationality in reasoning.

Reasoning in this general sense may take a variety of forms: Reflection on media content (Eveland, 2001; 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). In addition to these intrapersonal mental processes, we conceptualize interpersonal discussion as pivotal to the reasoning process. Deliberation theories have long suggested that interpersonal communication is at the core of deliberation (Benhabib, 1996; Habermas, 1984; Manin, 1987; Tarde, 1899/1989). Stressing the deliberative nature of interpersonal communication, Benhabib (1996) notes, “when presenting their point of view and position to others, individuals must support them by *articulating good reasons* in a public context to their codeliberators. This process of articulating good reasons in public forces the individual to think of what would count as a good reason for all others involved” (pp. 71–72, emphasis in original). Engaging in conversation, therefore, provides an opportunity for individuals to organize what they have in mind in a coherent manner and to articulate their thoughts in connection with everyday experience (Eveland, 2004). Furthermore, political conversation is an interpersonal process in which one can learn about what others know and think, and engage in collective thinking. This learning and deliberation through interpersonal interactions has long been thought to structure political thinking and opinion (Tarde, 1899/1989). As Southwell and Yzer (2007) suggest, political conversation is a *reasoned* and *consequential* behavior, particularly when it is viewed as a part of the larger campaign communication process, where information is reconsidered, elaborated, and clarified.

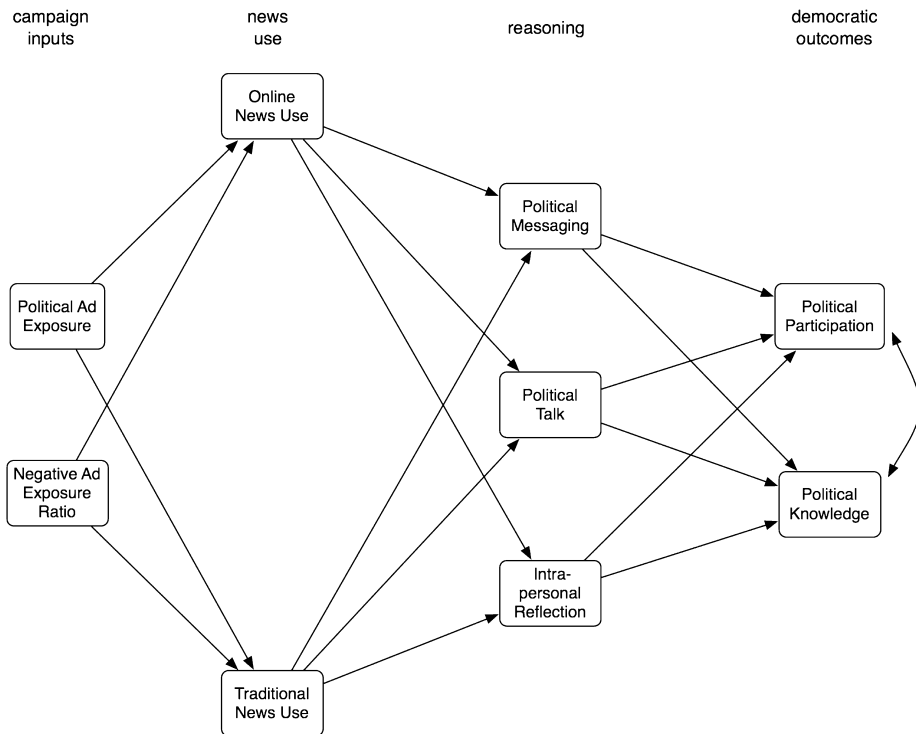
Supporting this view, empirical research has demonstrated that interpersonal discussion increases not only factual knowledge but also cognitive complexity, measured as the rich usage of concepts and the deep logical connections among them (McLeod et al., 2001) and opinion quality indicated by opinion consistency or reasoned argumentation (Cappella, Price, & Nir, 2002; Kim, Wyatt, & Katz, 1999). Given the deliberative virtue of interpersonal communication, we contend that

political discussion is, if not equated with reasoning itself, a crucial construct through which reasoning materializes.

In sum, as shown in Figure 1, the application of this O-S-R-O-R framework to the question of campaigns and conversation leads to a comprehensive and integrative model that distinguishes between the structural factors at play in terms of campaign inputs, the cognitive effects at play in news use, and the deliberative/reflective processes in the reasoning stage.

**Empirical test of theory**

As a brief test of our theory, we analyzed two merged data sets collected around the 2000 and 2004 U.S. election cycles. Both of these data sets combined (a) Campaign Media Analysis Group (CMAG) /WisAds data on the content and placement of all political ads that aired in major markets with (b) national panel surveys concerning patterns of media consumption, political expression, and civic and political participation collected from a cross-section of adults around each election (methodological details can be found in Shah et al., 2005 and Shah et al., 2007).



**Figure 1** Theorized model of campaign communication and participation.

We employed structural equation modeling using LISREL, following established procedures of empirical model modification. First, we started by fitting a saturated model with all theorized paths estimated. Then, we trimmed the models by removing nonsignificant paths, beginning with the most distal influences. Ultimately, we present a final model in which all nonsignificant paths were removed. Notably, we used a residualized covariance matrix to estimate the paths, controlling for age, gender, race, income, education, religiosity, political ideology, strength of ideology, residential stability, and residence in a battleground state.

These demographic, ideological, and situational variables account for many of the structural, cultural, and motivational characteristics of the audience, the first “O” in the O-S-R-O-R model. Within the model, advertising exposure is considered a structural factor because exposure is partly a function of geographic placement decisions made by political campaigns. This is consistent with our operationalization of this construct. The CMAG/WiscAds data we use provide a detailed tracking of the airing of every political ad in each of the United States’ top 75 markets during the 2000 election and top 100 media markets during the 2004 election. CMAG tagged each broadcast ad for where (i.e., market) and when (i.e., program) it aired and then WiscAds staff coded it for relevant content features (e.g., negative, contrast, or positive ad). This tracking of ad placement by market and program basis was combined with geo-coded U.S. national panel survey data containing information on each respondent’s television viewing pattern. This allowed us to calculate an individual propensity of ad exposure based on environmental features and individual media consumption patterns (for procedural details, see Shah et al., 2007).

All other variables specified in the model were measured in the election surveys (reliability tests and descriptive statistics are reported in Table A1). The “S” in the O-S-R-O-R model was operationalized as *traditional news use*, measured as exposure and attention to newspaper and television hard news content, and *online news use*, measured as exposure and attention to hard news content from online sources.<sup>1</sup>

The first “R” in the O-S-R-O-R model was operationalized as three different activities and processes associated with reasoning. The first is *interpersonal political discussion*, measured as the frequency of political conversation within an individual’s everyday social network; respondents were asked to report how often they talked about politics with co-workers, friends, ethnic minorities, neighbors, and acquaintances.<sup>2</sup> *Interactive political messaging* was assessed by the frequency of political communication activities online, such as discussing politics over e-mail, contacting a politician or an editor by e-mail, and expressing political views online.<sup>3</sup> These measures of online and offline communication behaviors were conceptually and empirically distinct.<sup>4</sup> *Intrapersonal reflection* was measured as the degree of mental effort in integrating media information into respondents, preexisting experiences and cognitions; respondents reported how often they try to connect what they see in the media to what they already know and how often they evaluate news stories based on their experience and thoughts.

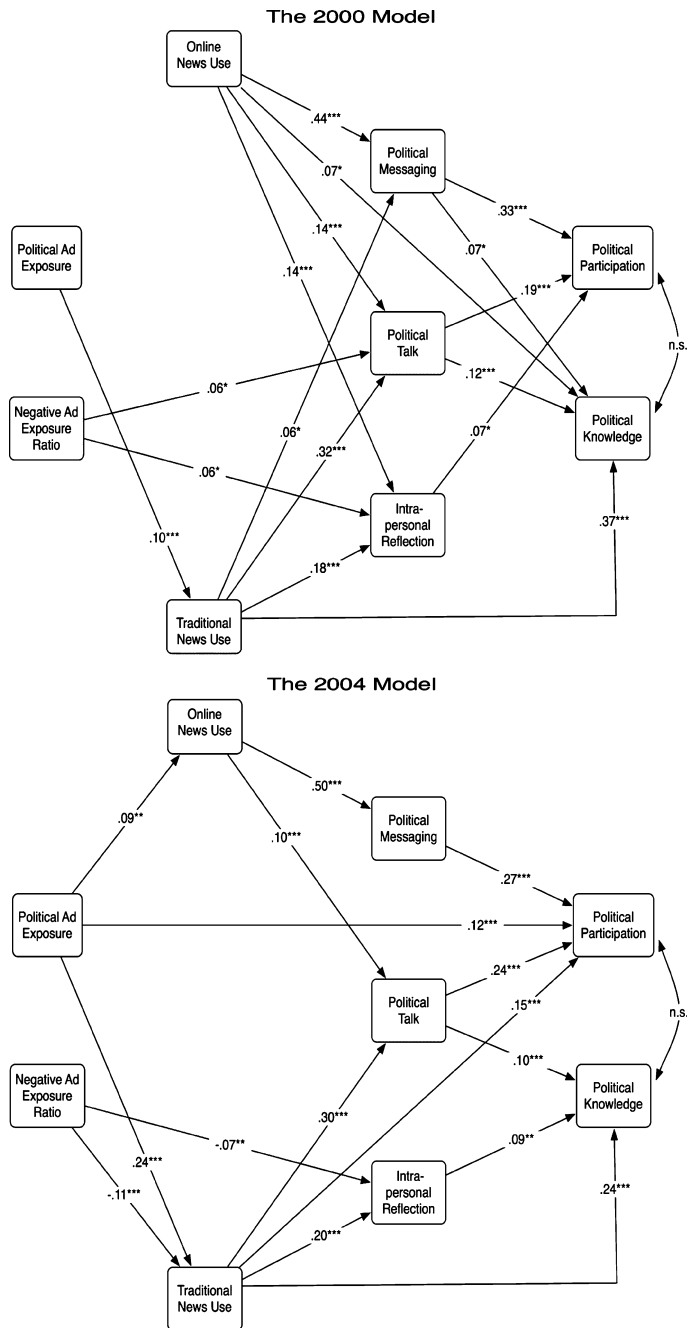
Our outcome orientation and responses, the second “O” and “R” in the model, were operationalized through measures of political knowledge and participation. *Political knowledge* was assessed by a series of questions about the governmental posts and issues positions of key political figures. *Political participation* was measured as the degree of campaign involvement captured by how often respondents were engaged in such activities as attending a political meeting or rally, circulating a petition, displaying campaign materials, contributing money, working for a party or candidate, and encouraging someone to register to vote.<sup>5</sup>

### Structural models

Both the 2000 model and the 2004 model fit the data well, which indicates that our theorized model successfully reproduces the data ( $\chi^2 = 11.69$ ,  $df = 16$ ,  $\chi^2/df = 0.73$ ;  $RMSEA = 0.00$  for the 2000 model, and  $\chi^2 = 16.08$ ,  $df = 17$ ,  $\chi^2/df = 0.95$ ;  $RMSEA = 0.00$  for the 2004 model). In addition to the overall model fit, results also show a general pattern of support for our theorized model, with the “reasoning” variables playing a key mediating role (Figure 2).

Specifically, in the 2000 election context, campaign ad exposure led to traditional news use that in turn was positively associated with online messaging, face-to-face political talk, and intrapersonal reflection. On the other hand, campaign ad negativity was not a significant predictor of either online or traditional news use; however, it was found to directly spur both face-to-face political conversation and intrapersonal reflection. Online news consumption, albeit not influenced by campaign inputs (i.e., overall exposure and negativity), was also positively related to two forms of citizen communication, computer-mediated and face-to-face discussion, as well as intrapersonal reflection. These citizen communication variables were in turn positive predictors of two democratic outcomes, political participation and political knowledge, while intrapersonal reflection was significantly related only to political participation. It is also noteworthy that political knowledge was predicted by online and traditional news use directly and indirectly through citizen communication and intrapersonal reflection.

LISREL estimates of indirect effects also suggest that overall ad exposure and ad negativity exerted significant indirect influences on political participation and political knowledge.<sup>6</sup> That is, the influence of ad exposure was mediated by informational media use, citizen communication, and intrapersonal reflection; the indirect influence of ad negativity was mostly through citizen face-to-face communication and reflection. As most of the influence of informational media use was further mediated by citizen communication and reflection, results of the indirect effects point to the importance of interpersonal and intrapersonal reasoning in the whole campaign communication process. Overall, this chain of mediation pattern does lend empirical support to our theorized model, which suggests that campaign information translates into democratic outcomes through interpersonal and intrapersonal reasoning processes.



**Figure 2** Testing campaign communication and participation.  
 Note: Standardized path coefficients are reported; \*  $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

A similar pattern of mediation emerged in the 2004 election context. Campaign ad exposure was again related to traditional news use that in turn was positively associated with face-to-face political talk and intrapersonal reflection. Campaign ad exposure also led to online information seeking. This was not found in the 2000 model, suggesting the growing role of the Internet between these elections. Online news use, as in 2000, predicted two forms of citizen communication, online messaging and face-to-face political talk. These two modes of citizen communication along with intrapersonal reflection were positively related to the democratic outcomes. Specifically, participation was predicted by online messaging and conversation, whereas knowledge was predicted by conversation and reflection.

Although minor differences were found across the two election contexts, data revealed the general pattern of two-step mediation. That is, campaign ad exposure leads to information seeking through online and traditional sources, which then stimulates citizen communication and intrapersonal reflection. These reflective and deliberative processes, through which reasoning takes place, mediate most of the campaign influence on participation and knowledge.

Campaign negativity played a somewhat different role in the 2004 context. As noted above, campaign ad negativity was a positive predictor of face-to-face political talk and intrapersonal reflection in 2000. In contrast, in the 2004 election season, campaign negativity was inversely related to traditional news use and intrapersonal reflection, consistent with concerns about its suppressive effects. Given the influence of traditional news use and reflection on participation and knowledge, campaign negativity was found to have demobilizing effects indirectly on the overall campaign process. This difference across elections suggests that the nature of campaign negativity, its sources and targets, and the democratic context in which it occurs may condition its effects on communicative and democratic antecedents.

Evaluation of indirect effects provides empirical evidence for the mediation process theorized in our model in the 2004 election context. Ad exposure was found to have significant positive indirect influences on both participation and knowledge, mediated by informational media use, citizen communication, and intrapersonal reflection. It is also noteworthy that, along with these indirect effects, ad exposure also had a significant direct influence on participation. Furthermore, most of the effects from informational media use to participation and knowledge were mediated through citizen communication and intrapersonal reflection, with the exception of traditional news use. It had both direct and indirect effects on political participation and political knowledge. Overall, as in the 2000 election context, the results support our theorized model.

## Discussion

Our analysis of the national ad-buy and panel data provides a range of important insights about the implications of campaign media, political conversation, and reasoning processes for campaign learning and participation. By examining these

models across two election contexts, we can see the consistencies and the differences between campaign seasons. The results, particularly the analysis of indirect effects, provide considerable support for the theorized model. Across both tests, exposure to political advertising was generally found to have direct effects on information seeking via mass media, especially through traditional news sources but also by spurring online news use. As the ratio of advertising exposure became more negative, however, this had some suppressive effects on information seeking via conventional news sources, leading indirectly to demobilization, though only in 2004. This may be a consequence of the negativity of the campaign environment in 2004 or the sensitivity of the public to negative messages during that election cycle. It is a finding that clearly calls for further inquiry. Nonetheless, informational media use encouraged citizen communication, online and offline, and reflection, which in turn spurred learning and participation. This mediation pattern is largely replicated across two different elections, providing considerable support for our O-S-R-O-R model and its effort to merge insights from theories of communication mediation (McLeod et al., 2001; Shah et al., 2007) with theories of cognitive mediation (Eveland, 2001; Eveland et al., 2003). The intersection of advertising exposure with online behaviors also demands further research, particularly because the online environment is increasingly becoming a site of campaign contestation. We see evidence of greater effects of ads on online information seeking in 2004 than in 2000. In 2000, there is no significant effect of political ads on information-seeking behaviors through online news outlets. By 2004, however, campaign ad exposure exerted significant effects on online information seeking. This may reflect the integration of message elements into the campaign messages themselves, which increasingly featured campaign websites and political party links. The effects of the Internet on participation also seem to be changing across these election contexts. In 2000, we could observe some direct effects of online hard news use on participation, but by 2004 this was fully mediated through political messaging.

Before discussing broader theoretical implications of the findings, we need to acknowledge some potential limitations related to our methods. First, because the evidence presented was based on cross-sectional analyses, we cannot rule out the possibilities of alternate causal ordering of the endogenous variable clusters (i.e., news consumption, reasoning, and participation). For example, it is possible that political discussion encourages political participation that in turn motivates news consumption. Despite these possibilities, a long line of previous theoretical and empirical work does render our theoretical model considerably more plausible than these sorts of alternatives, treating political information as contributing to discussion and, ultimately, political engagement (Almond & Verba, 1963; Coleman, 1990; Delli Carpini & Keeter, 1996; Habermas, 1979; McLeod, Scheufele, & Moy, 1999; Southwell & Yzer, 2007; Tönnies, 1940; Verba, Schlozman, & Brady, 1995; Zaller, 1992). Indeed, our previous testing of these relationships has considered the possibility of reverse causality by testing alternative causal ordering among the information, expression, and participation variables (Shah et al., 2005, 2007). We have

consistently observed that the structure theorized here is supported by this testing. Although we believe our model and its testing add to the political communication scholarship that theorizes media information as contributing to political conversation and, in turn, engagement, future inquiries on campaign communication should directly examine the causal directions with more appropriate research designs.

Second, our theoretical model was tested across two campaign cycles to take into account the between-campaign variability and increase the external validity of our model. However, campaigns can also create considerable within-campaign variability by constituting an information context that varies across geographic locations, with campaign inputs being concentrated in battleground states. Given this, campaign competitiveness might confound the evidence we present because our measure of ad exposure is sensitive to campaign competitiveness. Also, citizens' communication practices can be shaped by the campaign intensity. To address this potential confounding effect of campaign competitiveness, our analyses considered residence in a battleground state as a control. However, our measure of battleground state residence does not fully capture the geographic variation in campaign competitiveness. Thus, future research should consider a better measure to address the potential confounding effects, such as the number of candidate visits to a locality or the amount of campaign coverage in local news. Future inquiries should model the contextual influence of campaign competitiveness on the overall pattern of campaign communication mediation, rather than treating it as an extraneous factor and statistically controlling for it. Nonetheless, our empirical testing provides considerable support for the proposed theoretical model from two election contexts. In this article, we advance the O-S-R-O-R framework initially proposed by Shah et al. (2007). We do so not only by integrating media reflection and political knowledge into the model and providing empirical evidence from formal testing across multiple contexts but also by offering a much fuller account of the theoretical rationale underlying this model and its application to research on campaigns and conversation. Future studies should identify other constructs relevant to the broader O-S-R-O-R model we are working to advance, especially the second "O", in order to test this framework more fully.

## Conclusion

This O-S-R-O-R framework, which subsumes different models of mediated communication effects, asserts that political discussion along with cognitive reflection play crucial roles in the process of campaign influence. That is, campaign effects are largely channeled through reasoning processes, interpersonal and intrapersonal, which occur during the course of engaging in face-to-face conversation, online messaging, and cognitive reflection.

This framework has important implications for campaign effects research, both inside and outside the realm of politics. First, this O-S-R-O-R model advocates the idea that campaign effects are often indirect. The indirect process encompasses



multiple steps, including information seeking and deliberative processes. If one of the goals for campaigns is mobilization through information, elite campaigns generate their effects through their interaction with citizens' everyday communication practices. This framework should revise the view of elite-driven campaign effects, suggesting that citizens are not simply a passive public influenced by elite campaign inputs, but instead are an active public, reworking and rethinking campaign communication efforts through their words and thoughts.

What is also noteworthy is that intrapersonal reflection and interpersonal discussion can represent not only rational and logical deliberation but also emotional and habitual reasoning (or habits of the heart in Tocqueville's terminology). As specified above, we focus here on the depth of reasoning, not its rationality. Thus, citizens' everyday practice of reasoning does not necessarily promise the democratic principles in normative reasoning, such as thoughtfulness, reciprocity, or impartiality. Rather, it is likely that rationality and emotionality are entangled in the process of reasoning, especially when individuals' reflection is spurred by negative campaign ads or political discussion is held within a group of like-minded people. This view is echoed by Marcus (2002), who contends "democratic politics cannot be solely a space of calm deliberation. It must also be a sensational place, one that attracts and engages spectators" (p. 148).

This model also provides a new perspective for studies of campaigns and conversation, especially when compared with the classic two-step flow model of campaign effects. The two-step flow model (Katz & Lazarsfeld, 1955) suggests that campaign information moves into the public through opinion leaders who pay close attention to campaign messages, and the mechanism of this campaign information transmission is primarily political conversation between opinion leaders and ordinary citizens. Furthermore, through conversation, opinion leaders' interpretations of campaign messages are also passed on to the public. Thus, the notion of personal influence in the two-step flow model points not only to the importance of conversation but also to the communication hierarchy in everyday communication settings.

Although our O-S-R-O-R model also theorizes political conversation as a key intermediary connecting campaign media to the general public, the conversation is among ordinary citizens, not between opinion leaders and the public. Of course, everyday conversation might involve a variety of peer groups within communication networks, including some opinion leaders. Yet, our model does not assume that opinion leaders take the lead in producing campaign effects by translating campaign messages into conversations. Rather, by placing both interpersonal and intrapersonal reasoning processes at the core of our campaign effects model, we highlight the importance of political conversation by giving more credit to ordinary citizens' communicative activities. Thus, future research in this area should consider the features of individuals' communication networks in which these reasoning processes take place.

As an extension of the original O-S-O-R model, the value of our model also lies in its focus on the mechanisms by which communication messages generate effects,

remedying the limitations in the simple, direct effects, S-R model. That is, we specify reasoning (R) processes at two different levels, interpersonal and intrapersonal, and theorize that these processes mediate the effects of an input (S) on subsequent orientations and responses (the second O and R). This process-oriented model based on different modes of reasoning may have far-reaching implications beyond political communication research.

The elaboration likelihood model (ELM) in persuasion research (Petty & Cacioppo, 1986), for example, can be better understood within this O-S-R-O-R theoretical context. One of the weak points in the ELM is how the central versus peripheral routes are determined for each individual. The ELM suggests mainly two factors, cognitive and motivational, as determinants of which route is taken in the elaboration continuum. In addition to these factors, our O-S-R-O-R model suggests the communicative process underlying the choice of routes. In a persuasive situation, interpersonal conversation, online messaging, or intrapersonal reflection can increase elaboration likelihood and thus determine which route is taken for processing the persuasive message.

It is also possible to apply the O-S-R-O-R model to the study of health communication or science communication, the goal of which is to increase public awareness and to induce behavioral outcomes. Although different orientations (O) and responses (R) should be considered in these different contexts, interpersonal and intrapersonal reasoning can still be central to the larger process by which communication effects occur. As such, this O-S-R-O-R framework has wide-reaching implications for the study of campaigns and conversations across communication science and into interdisciplinary domains such as science communication, health communication, information campaigns, and marketing communications.

## Notes

- 1 For the 2000 data, exposure to newspaper hard news was measured by two items asking how many days in the past week respondents were exposed to articles specifically about the presidential campaign as well as government and politics in general. Television hard news exposure was measured in the same way. Respondents were also asked to report their attention to each of these articles or stories on a 10-point scale ranging from “very little attention” to “very close attention.” An index of conventional news use was created by standardizing and then averaging scores on these eight items. For the 2004 data, two more questions were added to the eight items used in the 2000 data: Respondents’ exposure and attention to newspaper editorial and opinion columns. Exposure and attention to parallel content over the Internet was measured and combined in the same way to create an index of online news use.
- 2 For the 2000 data, five items were employed: How often they talked about politics with co-workers, friends, ethnic minorities, neighbors, and acquaintances. A similar index was constructed using the 2004 data; however, only three of the above items were used; respondents answered how often they talked about politics with co-workers, friends, and ethnic minorities.

- 3 For the 2000 data, three items were used to create an index of political messaging: How often respondents discussed politics over e-mail, e-mailed a politician, or e-mailed an editor. Similarly, three items were used to measure political messaging for the 2004 data. However, the two items asking how often respondents e-mailed a politician or an editor were combined into one item; instead, a new item was added, which asked respondents how often they expressed political views online.
- 4 In the 2000 data, the correlation between newspaper hard news use and television hard news use was .64 (which led us to combine these into a single index), whereas the correlations of these conventional news use measures with online news use was .08 and .14, respectively, not high enough to warrant collapsing these into a single measure. Similarly, the correlation between political messaging and political talk was .05 in these data. This same pattern of correlations can be observed in the 2004 data, though the relationship between political messaging and political talk was slightly higher, at .16, during this election cycle.
- 5 The 2000 data collection employed five survey items asking how often respondents (a) attended a political meeting, rally, or speech; (b) circulated a petition; (c) displayed their support for a campaign; (d) contributed money to a campaign; and (e) worked for a political party or candidate. In the 2004 data, political participation was measured by seven items; in addition to the five questions used in the 2000 data, two more items were added: How often respondents displayed campaign materials and how often they encouraged someone to register to vote.
- 6 Significance tests for indirect effects were performed using LISREL. To maintain emphasis on the theoretical model we are advancing, we do not report the results of each of these individual tests. Notably, all indirect effects of information variables—online and traditional news consumption—on our outcome variables were statistically significant.

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**Table A1** Descriptive Statistics and Reliability Tests

	2000 data			2004 data		
	<i>M</i>	<i>SD</i>	Alpha	<i>M</i>	<i>SD</i>	Alpha
Political participation	1.33	0.76	0.82	1.55	0.84	0.76
Political knowledge	0.60	0.29	0.77	0.73	0.28	0.74
Traditional news use	0.00	0.83	0.93	0.00	0.77	0.92
Online new use	0.00	0.91	0.93	0.00	0.92	0.93
Political talk	3.07	1.54	0.83	3.64	1.71	0.89
Political messaging	1.22	0.67	0.72	1.30	0.74	0.67
Intrapersonal reflection	3.27	0.94	0.81	4.23	1.08	0.78

## **Les campagnes électorales, la réflexion et la délibération : un modèle O-S-R-O-R des effets communicationnels**

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### **Résumé**

La recherche communicationnelle récente sur la société civile et la politique participative a révélé que les effets des médias, particulièrement ceux des publicités électorales, des bulletins de nouvelles conventionnels et des ressources politiques en ligne, sont largement médiés par les discussions interpersonnelles sur la politique. Cet article prolonge cette avenue théorique sur le rôle de la conversation politique dans la compétence citoyenne en testant un modèle O-S-R-O-R de la médiation de la communication électorale, modèle qui se veut une modification et une prolongation du modèle O-S-O-R des effets communicationnels (H. Markus & R. B. Zajonc, 1985). Ce modèle réunit les connaissances d'itérations du modèle de médiation communicationnelle (J. M. McLeod *et al.*, 2001 ; D. V. Shah *et al.*, 2007) et du modèle de médiation cognitive (W. P. Eveland, 2001 ; W. P. Eveland, D. V. Shah & N. Kwak, 2003) pour théoriser une série de processus de raisonnement (R) interreliés qui canalisent l'influence, sur l'implication politique, de l'exposition à la campagne électorale et de la consommation de nouvelles. Trois médiateurs clés de l'influence des campagnes et des nouvelles sont postulés : la conversation politique en face à face, la messagerie politique en ligne et la réflexion cognitive. À travers une combinaison de processus interpersonnels et intrapersonnels, ces trois médiateurs encouragent une activité cognitive plus importante et un examen attentif de l'information. Un tel raisonnement par l'information est central à l'apprentissage et à l'action. Nous apportons des preuves empiriques pour tester ce modèle en fusionnant deux ensembles de données : a) une recension du contenu et du placement des messages électoraux lors des élections de 2000 et de 2004 sur une base marché-par-marché et programme-par-programme et b) une enquête sur la consommation de médias traditionnels et numériques et sur les niveaux de participation électorale lors de ces mêmes élections. Les résultats révèlent que les conversations politiques, la messagerie politique et la réflexion cognitive médient les effets de l'exposition à la publicité électorale et de la consommation de bulletins de nouvelles sur la participation politique et sur les connaissances, ce qui appuie considérablement notre théorie. Ce modèle O-S-R-O-R nous aide à organiser un vaste corpus de théories et de recherches en communication sur les élections et les conversations.



## **Kampagnen, Reflektion und Deliberation: Die Weiterentwicklung eines O-S-R-O-R Modells der Kommunikationseffekte**

Aktuelle kommunikationswissenschaftliche Forschung zu Zivilgesellschaft und teilnehmender Politik hat gezeigt, dass die Wirkung von Medien, insbesondere Kampagnenanzeigen, konventionellen Nachrichten und politischen Online-Quellen weitestgehend durch die interpersonale Diskussion politischer Themen vermittelt wird. Dieser Artikel folgt diesem Strang der theoretischen Auseinandersetzung mit der Rolle von politischer Konversation bei Bürgerkompetenz, indem er ein O-S-R-O-R-Modell der Kampagnenkommunikationsvermittlung als eine Modifikation und Erweiterung des bekannten O-S-O-R-Modells der Kommunikationseffekte (H. Markus & R. B. Zajonc, 1985) testet. Dieses Modell verbindet die Annahmen des Kommunikations-Vermittlungs-Modells (J. M. McLeod et al., 2001; D. V. Shah et al., 2007) und des Kognitiven Mediationsmodells (W. P. Eveland, 2001; W. P. Eveland, D. V. Shah, & N. Kwak, 2003), und setzt sich theoretisch mit den Schlussfolgerungsprozessen auseinander, die die Einflüsse von Kampagnenkontakt und Nachrichtennutzung auf politisches Engagement kanalisieren. Drei Schlüsselmediatoren des Kampagnen- und Nachrichteneinflusses werden postuliert: persönliche politische Kommunikation, politische Auseinandersetzung online und kognitive Reflektion. Durch eine Kombination von inter- und intrapersonalen Prozessen ermutigen diese drei Mediatoren eine größere kognitive Aktivität und umfassendere Erwägung der Informationen. Die Auseinandersetzung mit Informationen auf diese Art und Weise ist wichtig für Lernen und Handeln. Wir präsentieren empirische Evidenz, um das Modell zu testen und verbinden dabei zwei Datensätze: (a) Verfolgung des Inhalts und der Platzierung von Kampagnenbotschaften in den Wahlzyklen 2000 und 2004 auf Markt- und Programmbasis und (b) Umfragen bezüglich der Nutzung von traditionellen und digitalen Medien und dem Ausmaß der Kampagnenpartizipation während dieser Wahlen. Die Ergebnisse stützen unsere Theorie, indem sie zeigen, dass politische Gespräche, politische Botschaften und kognitive Reflektion die Wirkung des Kampagnenwerbungskontakts und der Nachrichtennutzung auf politische Partizipation und Wissen vermitteln. Für die Kommunikationswissenschaft erweist sich das O-S-R-O-R-Modell als hilfreich, um theoretische Erkenntnisse und Forschungsergebnisse zu Kampagnen und persönlichen Gesprächen zu systematisieren.

# **Las Campañas, la Reflexión, and la Deliberación: Avanzando el Modelo O-S-R-O-R de los Efectos de la Comunicación**

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## **Resumen**

La investigación en comunicación reciente concerniente a la sociedad civil y la participación política ha encontrado que los efectos de los medios, especialmente de los avisos de campaña, las noticias convencionales, y los recursos políticos online, son mediados mayormente por las discusiones interpersonales sobre la política. Este artículo extiende esta línea de teorización sobre el rol de la conversación política en la competencia de los ciudadanos mediante la puesta a prueba del modelo de comunicación de campaña mediatizado llamado O-S-R-O-R, una modificación y extensión del modelo de los efectos de comunicación de larga data llamado O-S-O-R (H. Markus & R. B. Zajonc, 1985). Este modelo combina los entendimientos de la iteración del modelo de comunicación mediatizado (J. M. McLeod et al., 2001; D. V. Shah et al., 2007) y el modelo de la mediación cognitiva (W. P. Eveland, 2001; W. P. Eveland, D. V. Shah, & N. Kwak, 2003) para teorizar una serie de procesos de razonamientos interrelacionados (R) que cambian las influencias de la exposición a las campañas y el consumo de noticias sobre el compromiso político. Postulamos tres mediadores de campaña claves y de influencia de los medios: la conversación política cara a cara, los mensajes políticos online, y la reflexión cognitiva. A través de una combinación de procesos intrapersonales e interpersonales, estos tres mediadores estimulan una actividad cognitiva mayor y una consideración de la información sin esfuerzos. El razonamiento a través de la información en este sentido es central para el aprendizaje y la acción. Proveemos de evidencia empírica para poner a prueba este modelo a través de la integración de dos series de datos: (a) rastreo del contenido y colocación de los mensajes de campaña en los ciclos de las elecciones del 2000 y 2004 basados en el mercado por el mercado y el programa por el programa, y (b) las encuestas del consumo de los medios tradicionales y digitales y los niveles de participación de campaña durante estas mismas elecciones. Los hallazgos revelan que la conversación política, los mensajes de texto político, y la reflexión cognitiva median los efectos de la exposición a la publicidad de campaña y el consumo de las noticias sobre la participación política y el conocimiento, proveyendo de apoyo considerable para nuestra teoría. El modelo O-S-R-O-R ayuda a organizar un cuerpo grande de teorización e investigación sobre las campañas y la conversación en las ciencias de la comunicación.

## 竞选、反思和思虑：传播效果的 O-S-R-O-R 模式

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关于公民社会和参与式政治最近的传播研究发现，媒介效果（尤其是竞选广告、传统的新闻、和网上的政治资源）基本上受到有关政治的人际讨论的中介。本文继续向这个方向拓展，通过测试一个竞选传播中介的 O-S-R-O-R 模式研究政治对话在提供公民判断能力过程中所扮演的角色。该模式是对有关传播效果的传统的 O-S-O-R 模式的修改和扩充 (H. Markus & R. B. Zajonc, 1985)。新的模式融合了传播中介模式 (J. M. McLeod et al., 2001; D. V. Shah et al., 2007) 和认知中介模式 (W. P. Eveland, 2001; W. P. Eveland, D. V. Shah, & N. Kwak, 2003) 重述的观点，理论化了一系列相互关联的推理过程来梳理接收竞选信息和新闻消费对政治参与的影响。我们提出了有关竞选和新闻影响的三个主要中介因素，即面对面的政治交谈、政治信息的网上交流和认知性反思。通过结合人际和人内过程，这三个中介因素鼓励更多的认知活动，并引起对信息更积极的思考。此种处理信息于学习和行动而言是至关重要的。我们提供实证证据来检验这个模式。证据来自两个数据集的融合，一个是以市场和节目为单元，对 2000 和 2004 年选举周期内的竞选信息的内容及投放位置进行跟踪的数据，另一个是对同时期传统的、数字的媒体消费、竞选参与程度的调查数据。调查结果表明，政治对话，网上政治信息交流，和认知性反思中介了竞选广告信息接收和新闻消费对政治参与的影响，这给我们的理论提供了巨大的支持。O-S-R-O-R 模式有助于将传播学领域大量的有关竞选和交谈的理论和研究组织起来。

# 캠페인, 반응, 숙의: 커뮤니케이션 효과들의 O-S-R-O-R모델의 발전에 관한 연구

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## 요약

시민사회와 참여정치에 대한 최근의 커뮤니케이션 연구는 미디어 효과, 특히 캠페인 광고들, 전통적 뉴스, 그리고 온라인 정치 자원들이 정치에 관한 개인적 대화를 통해 중재된다는 것을 발견하였다. 본 논문은 시민적 능력에 있어 정치적 대화의 역할에 관한 이론을 확대하고 있는바, 이는 커뮤니케이션 효과의 오랜 전통인 O-S-O-R 모델의 변형인 캠페인 커뮤니케이션 중재의 O-S-R-O-R 모델을 시험하는 것에 의하여 단행되었다. 연구를 위하여 캠페인과 뉴스 영향의 세가지 주요 중재원들이 요구되었다. 그들은 면대면 정치적 대화, 온라인 정치 메시지, 그리고 인지적 반응이었다. 개인간 그리고 개인내 과정의 조화를 통해, 이들 세가지 중재원들은 정보의 더욱 큰 정도의 인지적 행위들과 효과적 고려들을 격려하고 있다. 이러한 방법내에서 정보를 통한 이성이 학습과 행위의 핵심적 사항이 되고 있다. 우리는 이러한 모델을 테스트하는데 있어서 두가지 자료를 결합하는 것에 의해 보다 실증적인 증거를 제공하였다. 첫번째 자료는 2000년과 2004년 선거주기에서의 캠페인 메시지들의 내용과 배치를 마켓과 프로그램 근거에 의해 추적한 것이며, 두번째 자료는 이러한 선거기간동안 전통적 그리고 디지털 미디어 사용과 캠페인 참여 정도에 대한 조사이다. 연구 발견들은 정치적 대화, 정치 메시지화, 그리고 인지적 반응들은 정치적 참여와 지식에 대한 캠페인 광고 노출과 뉴스 소비 영향을 중재하는 것으로 나타났는바, 이는 우리들의 이론을 지지하는 것이다. O-S-R-O-R 모델은 커뮤니케이션 과학에서의 캠페인과 대화에 대한 이론화와 연구의 커다란 체제를 조직화하는데 도움을 준다.