

RUNNING HEAD: Political Knowledge

Communication Modalities and Political Knowledge

William P. Eveland, Jr. & R. Kelly Garrett

Contact Information:

William P. Eveland, Jr.  
School of Communication & Department of Political Science  
The Ohio State University  
3139 Derby Hall  
154 N. Oval Mall  
Columbus, OH 43210  
Voice: 614-247-6004  
Fax: 614-292-2055  
Email: eveland.6@osu.edu

R. Kelly Garrett  
School of Communication  
The Ohio State University  
3080 Derby Hall  
154 N. Oval Mall  
Columbus, OH 43210  
Voice: 614-247-7414  
Fax: 614-292-2055  
Email: garrett.258@osu.edu

William P. Eveland, Jr. is Professor of Communication and (by courtesy) Political Science at The Ohio State University. His research examines the role of media use and interpersonal discussion in producing informed and participatory citizens.

R. Kelly Garrett is Assistant Professor of Communication at The Ohio State University. His research interests include the study of online political communication, online news, and the ways in which citizens and activists use new technologies to shape their engagement with contentious political topics.

Chapter written under contract for K. Kenski & K. H. Jamieson (Eds.), *The Oxford Handbook of Political Communication*.

Revised and resubmitted: November 7, 2012

### Abstract

Recent research has made clear that the process by which individuals obtain information about politics through the media and other communication sources is complex and multi-faceted. The effects of communication on knowledge can vary by medium or the mix of sources that individuals choose, by the motivations and background characteristics of the user, and by the type of knowledge being considered. Whether or not “knowledge” (as opposed to misperceptions or simply beliefs) is the end result of communication depends crucially on the nature of the information being presented and the prior beliefs of the user. We review the state of the art research in this domain and offer suggestions for how scholarship must adjust to the changing environment brought about by technological change and increasing partisanship and polarization among politicians, the media, and the public.

Keywords: bias, heuristics, mediation, knowledge gap, learning, misperceptions, motivation, selectivity, accuracy, credibility

Recommended readings: As highlighted in the reference list

## Communication Modalities and Political Knowledge

### Importance of the Area

Theories of democracy commonly assume that citizens must be at least minimally informed on matters related to the functioning of government and candidates for office (see Delli Carpini & Keeter, 1996). In order to make government responsive to their interests citizens must be aware of government actions and candidate characteristics. Thus, a lack of information – or the presence of misinformation – among citizens about political matters can threaten democracy. In fact, considerable empirical research suggests both that, by comparison to those who are less well-informed, well-informed individuals are better able to translate their self-interest into political influence through public opinion (Althaus, 1996; Delli Carpini & Keeter, 1996; Gilens, 2001) and that often election outcomes would differ if the public were fully informed (Bartels, 1996). Citizens who are more knowledgeable are also more likely to participate in politics (Verba, Schlozman, & Brady, 1995), although it is not clear whether knowledge causes participation or if the intention to participate motivates individuals to become informed. And, considerable evidence indicates having political knowledge may moderate many different types of media effects, generally reducing susceptibility to influence and increasing future learning (e.g., Zaller, 1992).

Despite the apparent benefits of political knowledge, there is considerable evidence that the American public is, on the whole, relatively uninformed (e.g., Delli Carpini & Keeter, 1996). Given the democratic role the media are presumed to play in providing information, some scholars have placed at least part of the blame for low levels of citizen knowledge on the news

media, and have suggested possible changes to the content or structure of news to increase public knowledge (e.g., Entman, 2010; Gans, 2003; Graber, 1994; Jamieson & Waldman, 2003).

On the other hand, it has also been noted that even if perfect and complete information were available, rational citizens do not have a strong incentive to devote the considerable time and effort required to become fully informed. Rather, they most commonly employ simple information shortcuts to make political decisions (Popkin, 1991). And, some argue, much of the time these shortcuts are sufficient to lead to “correct” decisions – or that individual errors in decisions are random and thus cancel out at the collective level (Page & Shapiro, 1992; but see Althaus, 2003; Lau, Andersen, & Redlawsk, 2008).

#### Major Findings to Date

Historically, research on the role of political media use in producing political knowledge has generally followed a relatively simple direct effects empirical model (see Eveland, 2001). Scholars have typically posited that a given modality<sup>1</sup> – newspapers, for instance, or television news – carries some valuable political information. Individuals who were exposed to this information would, through some cognitive process that would often go undescribed or unmeasured, gain this information and be able to demonstrate it by responding accurately to factual knowledge questions. By pitting use of various modalities of news against one another in statistical models, much of the research on the role of news media in producing political knowledge follows this direct effects approach (e.g., Drew & Weaver, 2006; Robinson & Levy, 1996). When the use of a given modality has a statistically significant coefficient in such models,

---

<sup>1</sup> We define modality here as the intersection of medium of communication (i.e., television, print, radio) and genre or form (e.g., talk radio vs. radio news, magazine vs. newspaper, blog vs. online news article). We note that both content and form can vary across modalities, and so that any modality is composed of a “mix of attributes” that define it (Eveland, 2003).

authors infer a “media effect”; when the coefficient is non-significant, they assume the absence of effect.

The bulk of this literature suggests that in the United States use of print newspapers is more strongly associated with political knowledge – even after various demographic and other controls – than is use of television news. More recent research in this vein indicates that those who use news online (e.g., Kenski & Stroud, 2006), listen to political talk radio (e.g., Jamieson & Cappella, 2008), and watch late night political comedy programs such as *The Daily Show* (e.g., Baek & Wojcieszak, 2009) also tend to be more informed than those who do not. However, considerable debate remains regarding the relative effectiveness of each modality and the consistency of positive effects from any one. There is also some evidence that such simple cross-modality comparisons are inappropriate (e.g., Holbert, 2005). On the whole, however, there is strong and consistent evidence that use of news and other political content is at least moderately associated with holding higher levels of political knowledge. In short, use of news modalities matters for political knowledge.

Another important stream of scholarship has focused closely on how news messages are processed. For instance, experimental studies have considered the implications of specific news content components such as verbal-visual redundancy, negativity (e.g., Reese, 1984; Reeves, Newhagen, Maibach, Basil, & Kurz, 1991), or structural features (e.g., Eveland, 2003; Lang, Potter, & Grabe, 2003) on learning and information processing. Taking just one of these examples, research has demonstrated both that there is a considerable lack of redundancy in the verbal and visual components of television news, and that the lack of redundancy hinders learning (Brosius, Donsbach, & Birk, 1996; Reese, 1984). Studies such as these have made it possible for journalistic practitioners to understand the implications of very specific aspects of

their news products for political learning, including the use of narrative, visual-verbal redundancy, and emotion (see Lang et al., 2003), and may lead to better designed news in the future. Moreover, many of these studies are driven by models of information processing that link specific content or structural characteristics to their information processing demands and the allocation of limited processing resources of the individual (see Lang, 2000).

Building on these and other information processing theories of learning from news, empirical extensions of the basic direct effects model have incorporated explicit measures of cognitive effort or attention paid to the content in attempts to acknowledge the role of information processing in learning (Chaffee & Schleuder, 1986; McLeod & McDonald, 1985). These efforts ultimately produced mediation models that explicitly incorporated causal links among variables such as motivations, media use, information processing, and political knowledge (Beaudoin & Thorson, 2004; Cho, Shah, McLeod, McLeod, Scholl, & Gotlieb, 2009; David, 2009; Eveland, 2001). For instance, the cognitive mediation model (Eveland, 2001) argues that individual motivations for news use (e.g., to make decisions or to share information in discussions) drive attention, elaboration, and other media-related information processing activities, and holds that these activities directly predict knowledge acquisition. The communication mediation model (see Cho et al., 2009) suggests that background characteristics (e.g., social status) affect political knowledge by influencing use of news and political discussion – and sometimes cognitive processing as well – which then produces knowledge.

Originally devised as a structural theory of media effects, the knowledge gap hypothesis (Tichenor, Donohue, & Olien, 1970) proposed that as media information enters a social system, individuals in a structurally advantaged position – those of higher social status, typically measured by education level – are able to gain this information more quickly, and thus social

inequities are renewed or even increased. This structural theory has produced research on the moderating role of variables such as education or motivation on the impact of media use on knowledge (Eveland & Scheufele, 2000; Kwak, 1999; Grabe, Kamhawi, & Yegiyani, 2009). Work has also considered the implications of variations in content availability on education-based knowledge gaps (e.g., Jerit, 2009; Jerit, Barabas, & Bolsen, 2006). These studies are important because they demonstrate that the learning effects of a given unit of exposure to news are not necessarily equal across individuals with different levels of formal education (and thus presumably cognitive skills) or who bring different motivations to the exposure setting. However, the evidence for the moderating effects of education and motivation is complex and often inconsistent across studies (see Liu & Eveland, 2005), possibly due to variations in the study context (e.g., timing of study, level of community conflict and community structure), the news modality under study, and the measure of knowledge employed or the political issue or context under study.

More recent theorizing and research has advanced our understanding of the role of news media in producing political knowledge. Holbert (2005), for instance, has argued for explicit modeling of “intramedia mediation,” which is the complex indirect effect of the use of one news modality on political knowledge through its prompting of use of other news modalities. He persuasively argues that use of a given political modality (e.g., candidate debates) will tend to prompt the use of other political modalities (e.g., subsequent newspaper coverage). Therefore, traditional models that pit different political modalities against one another as predictors of knowledge likely underestimate media effects because they ignore the stimulative effect of one modality on others. Eveland, Hayes, Shah, and Kwak (2005a) extend Holbert’s idea to what they term “intracommunication mediation” by noting the longstanding argument that news media use

and discussion of politics may drive one another, with news use prompting discussion of politics and anticipation of political discussions stimulating news use.

In addition to news use begetting further news use and political discussion, and thus producing a series of multiple mediation paths between various political communication modalities and political knowledge, it is also likely that the implications of the use of any given news modality is in some way contingent on the use of other news modalities or political discussion. Scheufele (2002) argues that the effects of news use depend upon – or, in statistical terms, are moderated by – discussion of politics, such that news effects are greater in the presence than in the absence of discussion. The notion is that through discussion complex news information is made more comprehensible, and its relevance to one's prior political knowledge is made more apparent, thus increasing learning and retention. The evidence for this proposition is mixed, and scholars are continuing to determine when discussion may amplify or mitigate news use effects depending on the modality, nature of knowledge measure, or characteristics of the discussion itself (e.g., Hardy & Scheufele, 2009; Lenart, 1994; Feldman & Price, 2008). However, the notion of differential gains has spawned further consideration of the possibly synergistic – or alternatively diminishing returns – effects of the use of various combinations of news or other political modalities use under the term “intramedia interaction” (Shen & Eveland, 2010). Shen and Eveland argue that various combinations of news use may complement one another – producing amplification effects (or what Scheufele would call differential gains) – but redundant information across modalities could lead to diminishing returns of each additional modality used. In still other cases, in which information from multiple modalities are effectively independent, simple additive effects may occur.



### Unanswered Questions

There are a number of important, but as of yet unanswered, questions in the literature on media and political knowledge. Possibly first and most fundamental, questions remain about the appropriate conceptualization and operationalization of political knowledge. This is important because effect magnitudes of various forms of media use have been shown to vary according to type of knowledge measure (e.g., Chaffee, Zhao, & Leshner, 1994; Eveland, Seo, & Marton, 2002). This critique has several components. First, it is not clear whether, how, or when political knowledge should be treated as general and unidimensional or as grouped into a series of specialized topics based on issue domains (see Krosnick, 1990). Second, it is not clear whether, how or when political knowledge should be divided into factual (differentiation) and structural (integration) components (Eveland, Marton, & Seo, 2004; Neuman, 1981). Third, it is not clear how to select indicators of knowledge that are relevant to the current political context and media environment without being ad hoc and thus incomparable over time and across studies. Finally, it is not clear how to come to agreement on what amount or type of political knowledge is necessary or sufficient for citizens to be considered “competent” (Weissberg, 2001).

A second unanswered question relates to the conceptualization and measurement of news media use. News use is among the most influential means of acquiring political information, and is a central concern among political communication scholars. Although decades ago the case was made that exposure measures may be incomparable across media forms and so attention measures should be included in media effects studies (Chaffee & Schleuder, 1986), the operationalization of news use across studies remains highly inconsistent, and these inconsistencies have demonstrable consequences for the interpretation of study results (see Eveland, Hutchens, & Shen, 2009). Given the foundational nature of the concept of news use,

scholars need to continue measurement work to validate current measures of news use, or to develop alternatives (e.g., Eveland et al., 2009; Prior, 2009).

Finally, only limited empirical research addresses matters of causality in this literature. To what extent is news use producing political knowledge versus knowledgeable individuals seeking out news? Despite recent research on causal influence (e.g., Eveland, Hayes, Shah, & Kwak, 2005b; Strömbäck & Shehata, 2010), the causal connections among news use, political knowledge, and other variables such as political interest and political participation still remain at least somewhat ambiguous .

#### Future Directions

What has received insufficient attention until recently is an explicit model of how the sequential or contemporaneous use of media modalities (and interpersonal communication) may affect learning of political information. Attention to this process is particularly important in the changing political and media environment of the past two decades. During this time we have seen the rise of political talk radio and political comedy programs, the broad diffusion of the Internet – including online news and fact checking Web sites as well as blogs and other forms of interactive online communication regarding politics – and a growing degree of partisan specialization, especially among cable news sources and blogs. We are also witnessing media convergence. People are increasingly reliant on computers and mobile phones for the delivery of political news, and these conduits tend to blur the lines among media produced for traditional delivery channels such as newspaper, radio, or television. Digital delivery also allows the inter-linking of content, facilitating seamless shifts across content types. Meanwhile, survey evidence indicates that rather than selecting a single modality for news, most individuals are exposed to multiple sources across multiple media forms (e.g., Kohut, Doherty, Dimock, & Keeter, 2010).

Moreover, the political environment is changing, with greater partisanship and more clear alignment of parties and the public (e.g., Abramowitz, 2010). These trends have made simple, direct effect models of media effects on political knowledge inadequate, if they ever were so.

The changing political and information environment requires a reconsideration of fundamental assumptions about the relationship between news media use and political knowledge. The normative ideal for democracy resides in an uncontested (and consistent with the best available evidence) media environment producing accurate political knowledge in the public via learning from exposure to the news. Most prior research on learning from the news has assumed that the news conveys a relatively consistent, uncontested, and factually accurate portrait of political reality which audience members merely needed to recall, or possibly place in larger context, in order for political knowledge to be reproduced. This assumption may have been correct for the bulk of political information under consideration in the latter half of the 20<sup>th</sup> century. For instance, the national broadcast news media were dominated by a few networks, all generally adhering to norms of balance and objectivity and covering the same topics in largely the same ways (e.g., Stempel, 1988). And, during the latter half of the 20<sup>th</sup> century the vast majority of American cities were served by only a single daily newspaper rather than competing partisan papers as had been more common in the past (Busterna, 1988). Moreover, competing local television news stations did not differ considerably in the content of their coverage (Atwater, 1986). Today, however, the news media are more frequently characterized by divergent and contested political claims, at least at the national level (e.g., Holtzman, Schott, Jones, Balota, & Yarkoni, 2011).

What are the implications of the changing media environment for models of learning from the news and our conception of our “political knowledge” outcome variable? We begin by

deriving insights into what may have been considered anomalies according to the old assumptions of political learning from the news. What happens when a particular news source “gets it wrong” and provides inaccurate information or information that could be misleading? Research on learning from conservative political talk radio (Hofstetter, Barker, Smith, Zari, & Ingrassia, 1999), news effects on racial beliefs (Dixon, 2008), and news effects on beliefs about the solvency of the social security system (Jerit & Barabas, 2006) all demonstrate that a simple factual learning model applied to inaccurate or misleading content can produce learning of inaccurate information among those more often exposed to the source. This should not be surprising; citizens can just as easily learn “wrong” information as they can learn “right” information from the media. But, given longstanding assumptions about the broad accuracy and consistency of news information among political learning scholars, this possibility has most often been ignored.

Exposure to news will produce consistent increases in factual political knowledge across a population only if the content of the news is undisputed and is viewed as unambiguously accurate. As information accuracy becomes more contested across sources, as it has in the current media environment, the citizenry’s trust in the “facts” is replaced by individual judgment, and factual uncertainty (due to equivocal information) and inaccuracy are likely to rise. Judgment processes (versus simple recall) have not traditionally been part of models of media influence on political knowledge because they begin to blur the lines between learning of factual information and models of belief and attitude formation. They are, however, increasingly important. Faced with competing claims about political reality, individuals must integrate evaluation into the political learning process. This helps explain how citizens’ understanding of political facts can diverge even as their exposure to political information increases. Thus,

differences in beliefs between liberals and conservatives about WMDs in Iraq (see World Public Opinion, 2006) presumably reflect differences in judgments concerning which information is most relevant and which sources are most trustworthy.

The nature of these judgments is controversial. Many scholars argue that polarization of beliefs across party lines is due to partisan biases in news exposure and interpretation (e.g., Bartels, 2002). This is consistent with evidence that individuals not only seek out information that confirms their prior beliefs, but also counter argue information that challenges them (e.g., Taber & Lodge, 2006). Partisan biases are not, however, required to produce short-term divergence in political beliefs (Bullock, 2009). Instead, political learning can be understood as a series of Bayesian updates based on the perceived likelihood that new information is accurate (Gerber & Green, 1999). From this view, use of multiple sources of news (e.g., Fox News and The New York Times) can lead to exposure to competing factual claims, which reduces confidence in the veracity of incoming information, thereby increasing the relative influence of prior beliefs. Whether judgments are biased or not, in the presence of competing factual claims the learning process can no longer be modeled as the recall of uncontested facts. Rather, it must be understood as a process of judging and weighing competing evidence and claims.

Different credibility perceptions can also induce de facto partisan exposure biases, which could exacerbate the tendency of partisans to understand the political world differently. For instance, a preference for sources deemed more credible could lead people to adopt more ideologically homogeneous media diets. This is because credibility perceptions favor ideologically aligned sources (Turner, 2007), due in part to individuals' tendency to be more trusting of pro-attitudinal than counter-attitudinal information (Lord, Ross, & Lepper, 1979). As a consequence, we might expect that conservatives rely most heavily on Fox News and its ilk,

whereas liberals turn to MSNBC and its ilk. But partisan selective exposure is likely to be imperfect and incomplete in such a diverse media environment (Garrett, 2009). In a media environment that is contested, and when partisan selective exposure does not entirely eliminate exposure to competing facts and interpretation, individuals must engage in probabilistic judgments of information accuracy in conjunction with simple recall in order to come to objective “accurate” knowledge. And, in many cases this process may produce inaccurate “knowledge” that is “learned” from the media, thus raising questions about the implied isomorphism between the notions of “learning from the news” and “gaining accurate political knowledge from the news.” Rather, learning from the news may produce a set of probabilistic political beliefs that may or may not be accurate, depending on the quality of the media content to which an individual chooses to be exposed.

One important implication of partisan divergence in beliefs about factual information is that some individuals’ views will become less accurate over time. Although political misperceptions can arise for a variety of reasons, those that arise from uncertainty generated by contested information environments may be the hardest to unseat. People have a variety of defenses against purposeful deception (see Harrington, 2009), and fact checking by the news media can have corrective effects when these defenses fall short. But, the less individuals trust the news media, the less influence the information delivered by news organizations will have. When confidence in the accuracy of political information stored in memory is high, or when confidence in novel input is low, individuals are much less likely to update the stored information – in this case, to learn the correction – than when the reverse is true.

The literature today offers threads of theorizing that can be woven into a model of learning from the news that accounts for the altered political and media environment and changes

in the way individuals must process mediated information. Hindman (2009) argues that the knowledge gap could be suitably reframed as the “belief gap,” such that with increasing media information partisans diverge in their beliefs on polarized topics such as global warming, independent of objective reality. Although the mechanism remains unclear, this logic could be extended to much of the research on political knowledge. Understanding of how individuals arrive at probabilistic accuracy judgments can be informed by work on partisanship-motivated bias (e.g., Taber & Lodge, 2006) and by less politically colored factors. For example, the ease with which thoughts about a novel claim come to mind significantly influences the claim’s perceived accuracy (Schwarz et al., 2007).

Holbert (2005) makes explicit the need to consider how use of one news modality may prompt use of another, and “fact-checking” may be one reason for this prompt. In today’s environment, this could mean following a link on a partisan blog to the original article on the New York Times web site (see Eveland & Dylko, 2007), picking up the morning paper after hearing a story on talk radio during the drive to work, or doing a Google search for further information on a topic mentioned in the evening network news (e.g., Weeks & Southwell, 2010). Much of this searching could be viewed as a form of “fact-checking” in which improbable or ambiguous information from one source could increase its perceived probability of accuracy through replication across sources, including more trusted or partisanship-consistent sources. And although not framed in the context of partisan differences, the intramedia interaction hypothesis (Shen & Eveland, 2010) and the differential gains hypothesis (Scheufele, 2002) both suggest that use of combinations of sources that are non-redundant – whether they are multiple media sources or a mix of media and interpersonal sources – can increase, decrease, or not affect the amount of accurate information gain from a single one of those sources. It would seem that

from the partisan perspective, inconsistent information across sources could increase uncertainty about a given fact, whereas consistent information across sources would make learning much more likely.



## References

- Abramowitz, A. I. (2010). *The disappearing center: Engaged citizens, polarization, and American democracy*. New Haven, CT: Yale University Press.
- Althaus, S. (1996). Opinion polls, information effects, and political equality: Exploring ideological biases in collective opinion. *Political Communication*, 13, 3-21.
- Althaus, S. L. (2003). *Collective preferences in democratic politics: Opinion surveys and the will of the people*. New York: Cambridge University Press.
- Atwater, T. (1986). Consonance in local television news. *Journal of Broadcasting & Electronic Media*, 30, 467-472.
- Baek, Y. M., Wojcieszak, M. E. (2009). Don't expect too much! Learning from late night comedy and knowledge item difficulty. *Communication Research*, 36, 783-809.
- Bartels, L. M. (1996). Uninformed votes: Information effects in presidential elections. *American Journal of Political Science*, 40, 194-230.
- Bartels, L. M. (2002). Beyond the running tally: Partisan bias in political perceptions. *Political Behavior*, 24, 117-150.
- Beaudoin, C. E., & Thorson, E. (2004). Testing the cognitive mediation model: The role of news reliance and three gratifications sought. *Communication Research*, 31, 446-471.
- Brosius, H-B., Donsbach, W., & Birk, M. (1996). How do text-picture relations affect the informational effectiveness of television newscasts? *Journal of Broadcasting & Electronic Media*, 40, 180-195.
- Bullock, J. G. (2009). Partisan bias and the Bayesian ideal in the study of public opinion. *Journal of Politics*, 71, 1109-1124.

Busterna, J. C. (1988). Trends in daily newspaper ownership. *Journalism Quarterly*, 65, 831-838.

Chaffee, S. H., & Schleuder, J. (1986). Measurement and effects of attention to media news. *Human Communication Research*, 13, 76-107.

Chaffee, S. H., Zhao, X., & Leshner, G. (1994). Political knowledge and the campaign media of 1992. *Communication Research*, 21, 305-324.

Cho, J., Shah, D. V., McLeod, J. M., McLeod, D. M., Scholl, R. M., & Gotlieb, M. R. (2009). Campaigns, reflection, and deliberation: Advancing an O-S-R-O-R model of communication effects. *Communication Theory*, 19, 66-88.

David, C. C. (2009). Learning political information from the news: A closer look at the role of motivation. *Journal of Communication*, 59, 243-261.

Delli Carpini, M. X., & Keeter, S. (1996). *What Americans know about politics and why it matters*. New Haven, CT: Yale University Press.

Dixon, T. L. (2008). Network news and racial beliefs: Exploring the connection between national television news exposure and stereotypical perceptions of African Americans. *Journal of Communication*, 58, 321-337.

Drew, D., & Weaver, D. (2006). Voter learning in the 2004 presidential election: Did the media matter? *Journalism & Mass Communication Quarterly*, 83, 25-42.

Entman, R. M. (2010). Improving newspapers' economic prospects by augmenting their contributions to democracy. *International Journal of Press/Politics*, 15, 104-125.

Eveland, W. P., Jr. (2001). The cognitive mediation model of learning from the news: Evidence from nonelection, off-year election, and presidential election contexts. *Communication Research*, 28, 571-601.

- Eveland, W. P., Jr. (2003). A “mix of attributes” approach to the study of media effects and new communication technologies. *Journal of Communication*, 53, 395-410.
- Eveland, W. P., Jr., & Dylko, I. (2007). Reading political blogs during the 2004 election campaign: Correlates and consequences. In M. Tremayne (Ed.), *Bloggng, citizenship and the future of media* (pp. 105-126). New York: Routledge.
- Eveland, W. P., Jr., Hayes, A. F., Shah, D. V., & Kwak, N. (2005a). Observations on estimation of communication effects on political knowledge and a test of intracommunication mediation. *Political Communication*, 22, 505-509.
- Eveland, W. P., Jr., Hayes, A. F., Shah, D. V., & Kwak, N. (2005b). Understanding the relationship between communication and political knowledge: A model-comparison approach using panel data. *Political Communication*, 22, 423-446.
- Eveland, W. P., Jr., Hutchens, M. J., & Shen, F. (2009). Exposure, attention, or “use” of news? Assessing aspects of the reliability and validity of a central concept in political communication research. *Communication Methods and Measures*, 3, 223-244.
- Eveland, W. P., Jr., Marton, K., & Seo, M. (2004). Moving beyond “just the facts”: The influence of online news on the content and structure of public affairs knowledge. *Communication Research*, 31, 82-108.
- Eveland, W.P., Jr., & Scheufele, D.A. (2000). Connecting news media use with gaps in knowledge and participation. *Political Communication*, 17, 215-237.
- Eveland, W. P., Jr., Seo, M., & Marton, K. (2002). Learning from the news in campaign 2000: An experimental comparison of TV news, newspapers and online news. *Media Psychology*, 4, 352-378.

- Feldman, L., & Price, V. (2008). Confusion or enlightenment? How exposure to disagreement moderates the effects of political discussion and media use on candidate knowledge. *Communication Research, 35*, 61-87.
- Gans, H. J. (2003). *Democracy and the news*. New York: Oxford University Press.
- Garrett, R. K. (2009). Politically motivated reinforcement seeking: Reframing the selective exposure debate. *Journal of Communication, 59*, 676-699.
- Gerber, A., & Green, D. (1999). Misperceptions about perceptual bias. *Annual Review of Political Science, 2*, 189-210.
- Gilens, M. (2001). Political ignorance and collective policy preferences. *American Political Science Review, 95*, 379-396.
- Grabe, M. E., Kamhawi, R., & Yegiyani, N. (2009). Informing citizens: How people with different levels of education process television, newspaper, and Web news. *Journal of Broadcasting & Electronic Media, 53*, 90-111.
- Graber, D. A. (1994). Why voters fail information tests: Can the hurdles be overcome? *Political Communication, 11*, 331-346.
- Hardy, B. W., & Scheufele, D. A. (2009). Presidential campaign dynamics and the ebb and flow of talk as a moderator: Media exposure, knowledge, and political discussion. *Communication Theory, 19*, 89-101.
- Harrington, B. (2009). *Deception: From ancient empires to Internet dating*. Stanford, CA: Stanford University Press.
- Hindman, D. B. (2009). Mass media flow and differential distribution of politically disputed beliefs: The belief gap hypothesis. *Journalism & Mass Communication Quarterly, 86*, 790-808.

- Hofstetter, C. R., Barker, D., Smith, J., Zari, G. M., & Ingrassia, T. A. (1999). Information, misinformation, and political talk radio. *Political Research Quarterly*, 52, 353-369.
- Holbert, R. L. (2005). Intramedia mediation: The cumulative and complementary effects of news media use. *Political Communication*, 22, 447-461.
- Holtzman, N. S., Schott, J. P., Jones, M. N., Balota, D. A., & Yarkoni, T. (2011). Exploring media bias with semantic analysis tools: Validation of the Contrast Analysis of Semantic Similarity (CASS). *Behavior Research Methods*, 43, 193-200.
- Jamieson, K. H., & Cappella, J. N. (2008). *Echo chamber: Rush Limbaugh and the conservative media establishment*. New York: Oxford University Press.
- Jamieson, K. H., & Waldman, P. (2003). *The press effect: Politicians, journalists, and the stories that shape the political world*. New York: Oxford University Press.
- Jerit, J. (2009). Understanding the knowledge gap: The role of experts and journalists. *Journal of Politics*, 71, 442-456.
- Jerit, J., & Barabas, J. (2006). Bankrupt rhetoric: How misleading information affects knowledge about social security. *Public Opinion Quarterly*, 70, 278-303.
- Jerit, J., Barabas, J., & Bolsen, T. (2006). Citizens, knowledge, and the information environment. *American Journal of Political Science*, 50, 266-282.
- Kenski, K., & Stroud, N. J. (2006). Connections between Internet use and political efficacy, knowledge, and participation. *Journal of Broadcasting & Electronic Media*, 50, 173-192.
- Kohut, A., Doherty, C., Dimock, M., & Keeter, S. (2010). *Americans spending more time following the news -- Ideological news sources: Who watches and why*. Washington, DC: The Pew Research Center for the People & the Press. Available online: <http://people-press.org/files/legacy-pdf/652.pdf>

- Krosnick, J. A. (1990). Lessons learned: A review and integration of our findings. *Social Cognition*, 8, 154-158.
- Kwak, N. (1999). Revisiting the knowledge gap hypothesis: Education, motivation, and media use. *Communication Research*, 26, 385-413.
- Lang, A. (2000). The limited capacity model of mediated message processing. *Journal of Communication*, 50(1), 46-70.
- Lang, A., Potter, D., & Grabe, M. E. (2003). Making news memorable: Applying theory to the production of local television news. *Journal of Broadcasting & Electronic Media*, 47, 113-123.
- Lau, R. R., Andersen, D. J., & Redlawsk, D. P. (2008). An exploration of correct voting in recent U.S. presidential elections. *American Journal of Political Science*, 52, 395-411.
- Lenart, S. (1994). *Shaping political attitudes: The impact of interpersonal communication and mass media*. Thousand Oaks, CA: Sage.
- Liu, Y., & Eveland, W. P., Jr. (2005). Education, need for cognition, and campaign interest as moderators of news effects on political knowledge: An analysis of the knowledge gap. *Journalism & Mass Communication Quarterly*, 82, 910-929.
- Lord, C. G., Ross, L., & Lepper, M. R. (1979). Biased assimilation and attitude polarization: The effects of prior theories on subsequently considered evidence. *Journal of Personality and Social Psychology*, 37, 2098-2109.
- McLeod, J. M., & McDonald, D. G. (1985). Beyond simple exposure: Media orientations and their impact on political processes. *Communication Research*, 12, 3-33.
- Neuman, W. R. (1981). Differentiation and integration: Two dimensions of political thinking. *American Journal of Sociology*, 86, 1236-1268.

Norris, P., & Sanders, D. (2003). Message or medium? Campaign learning during the 2001 British general election. *Political Communication, 20*, 233-262.

Page, B. I., & Shapiro, R. Y. (1992). *The rational public: Fifty years of trends in Americans' policy preferences*. Chicago, IL: University of Chicago Press.

Popkin, S. L. (1991). *The reasoning voter: Communication and persuasion in presidential campaigns*. Chicago, IL: University of Chicago Press.

Prior, M. (2009). Improving media effects research through better measurement of news exposure. *Journal of Politics, 71*, 893-908.

Reese, S. D. (1984). Visual-verbal redundancy effects on television news learning. *Journal of Broadcasting, 28*, 79-87.

Reeves, B. R., Newhagen, J., Maibach, E., Basil, M., & Kurz, K. (1991). Negative and positive television messages: Effects of message type and context on attention and memory. *American Behavioral Scientist, 34*, 679-694.

Robinson, J. P., & Levy, M. R. (1996). News media use and the informed public: A 1990s update. *Journal of Communication, 46*(2), 129-135.

Scheufele, D. A. (2002). Examining differential gains from mass media and their implications for participatory behavior. *Communication Research, 29*, 46-65.

Schwarz, N., Sanna, L. J., Skurnik, I., & Yoon, C. (2007). Metacognitive experiences and the intricacies of setting people straight: Implications for debiasing and public information campaigns. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. Volume 39, pp. 127-161). New York: Academic Press.

Shen, F., & Eveland, W. P., Jr. (2010). Testing the intramedia interaction hypothesis: The contingent effects of news. *Journal of Communication, 60*, 364-387.

- Stempel, G. H., III. (1988). Topic and story choice of five network newscasts. *Journalism Quarterly*, 65, 750-752.
- Stromback, J., & Shehata, A. (2010). Media malaise or a virtuous circle? Exploring the causal relationship between news media exposure, political news attention and political interest. *European Journal of Political Research*, 49, 575-597.
- Taber, C. S., & Lodge, M. (2006). Motivated skepticism in the evaluation of political beliefs. *American Journal of Political Science*, 50, 755-769.
- Tichenor, P. J., Donohue, G. A., & Olien, C. N. (1970). Mass media flow and differential growth in knowledge. *Public Opinion Quarterly*, 34, 159-170.
- Turner, J. (2007). The messenger overwhelming the message: Ideological cues and perceptions of bias in television news. *Political Behavior*, 29, 441-464.
- Verba, S., Schlozman, K. L., & Brady, H. E. (1995). *Voice and equality: Civic voluntarism in American politics*. Cambridge, MA: Harvard University Press.
- Weeks, B., & Southwell, B. (2010). The symbiosis of news coverage and aggregate online search behavior: Obama, rumors, and presidential politics. *Mass Communication & Society*, 13, 341-360.
- Weissberg, R. (2001). Democratic political competence: Clearing the underbrush and a controversial proposal. *Political Behavior*, 23, 257-284.
- World Public Opinion. (2006). *Percentage of Americans believing Iraq had WMD rises*. Washington, DC: World Public Opinion: Program on International Policy Attitudes.
- Zaller, J. R. (1992). *The nature and origins of mass opinion*. New York: Cambridge University Press.