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ORIGINAL ARTICLE

# Who Taught Me That? Repurposed News, Blog Structure, and Source Identification

Emily K. Vraga<sup>1</sup>, Stephanie Edgerly<sup>2</sup>, Bryan M. Wang<sup>2</sup>, & Dhavan V. Shah<sup>2</sup>

1 School of Media and Public Affairs, The George Washington University, 805 21st Street NW, Suite 400, Washington, DC 20052, USA

2 School of Journalism & Mass Communication, University of Wisconsin-Madison, Madison, WI 53706, USA

Changes in the information society, especially the rise of blogs, have refocused attention on questions of media modality, source identification, and motivation in online environments. We manipulate the structure of a blogger's critique on a news story (global vs. interspersed) and the partisan target of the blogger (Democrats vs. Republicans) in an experiment embedded in an online survey. Our results support our expectations: The more difficult story format decreases the ability of less motivated readers to correctly identify the source of their information, without affecting the motivated. These effects of structure on source identification are democratically consequential when people rely on blogs for facts about public affairs without the proper cautionary caveats regarding the credibility of the source.

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Political blogs play an increasingly large role in political communication, both in terms of the aims and topics addressed by bloggers—acting as a check to traditional news media and politicians—and in the growing number of blog readers (Farrell & Drezner, 2008). One of the distinguishing characteristics of blogs is the ability to incorporate traditional media stories into blog commentary (McKenna & Pole, 2008; Woodley, 2008). The political blog *Daily Kos*, for example, regularly integrates large portions of current news stories into their postings. The repurposing of mainstream news content exemplifies the more complex environment blogs present, where readers manage multiple sources of information within a single blog posting.

These changes in the information society, especially the rise of blogs, have refocused attention on questions of media modality and source identification in online environments. The organization of information and commentary on political blogs, especially those focusing on critiques of mainstream news content, highlights novel issues of news information processing in mediated communication contexts, yet recalls earlier work on information structure and memory (Cohen, 1957; Eveland, Cortese, Park, & Dunwoody, 2004a; Haugtvedt & Wegener, 1994). And while issues of structure, processing, and motivation have been explored within controlled laboratory

Corresponding author: Emily K. Vraga; e-mail: ekvraga@gwu.edu

settings, few studies to date have examined the relationship among these factors in an online environment outside the lab. The studies that have focused on this topic have investigated structural differences within the same source—that is, an offline versus online copy of a newspaper (Tewksbury & Althaus, 2000)—or structural differences attributed to the website design—that is, the use of hyperlinks (Eveland et al., 2004a). This study explores a new area of online structure effects—the processing of information when a blogger repurposes a mainstream media article into their commentary in a highly juxtaposed and interruptive manner. With the heightened intertextuality of the contexts through which we receive news, the question of how information structure and individual motivation intersect to influence message processing becomes increasingly important. We suspect that structural differences in how news is repurposed will have the greatest influence among those with a lower motivation to process.

To examine these issues, we test how the argument structure of blog commentary on press accounts affects readers' ability to correctly identify the source of information, extending research into source identification by linking it to structural and motivational differences. We expect that changes in structure will have differential influence depending on whether people are motivated to process the information carefully. Structural changes should be particularly consequential among those who dedicate low levels of effort to message processing, for whom breaks in the flow of the news account create barriers during encoding. These effects of structure on source identification are democratically consequential when people rely on blogs for facts about public affairs without the proper cautionary caveats regarding the credibility of the content.

#### Literature review

In a digital environment, where news can be repurposed and repackaged by bloggers, source identification becomes paramount. Most consequentially, journalists and bloggers abide by different standards of fact checking and norms of objectivity (McKenna & Pole, 2008; Perlmutter, 2008). Individuals who encounter news information through political blogs, especially in the form of author commentaries on referenced news texts, have to navigate a more complex environment. Being able to correctly identify the source of incoming information is vital to processing the news responsibly and maintaining skepticism about unverified information. Source confusion between news and political ads has been documented, especially when the persuasive message is designed to resemble the news (Yegiyan & Grabe, 2007). Furthermore, over time, a less credible source can sway opinions as much as a credible source (Hovland & Weiss, 1951–1952), suggesting the importance of studying audience information processing in these emerging mixed media environments.

But these changes in how information is structured and presented in online settings are not likely to affect everyone equally, as people bring with them a variety of motivations and skills when processing information. People can differ in their inherent enjoyment of and willingness to engage in navigating complex information environments (Cacioppo & Petty, 1982; Haugtvedt, Petty, & Cacioppo, 1992), which may stimulate some, rather than others, to correctly identify the sources of new information despite the structure in which it is found. Furthermore, individuals' motivation to process information in these mixed media environments may be partly determined by the interplay between personal and contextual factors. For example, individuals tend to be motivated to protect previous beliefs and opinions in the face of contradictory arguments, which often leads to more thorough processing (Ditto & Lopez, 1992; Kunda, 1987, 1990). Regardless of the reason, motivation to process should prove influential in determining the effects of structure on different processing goals.

These issues are highlighted in the referential nature of the increasingly large body of blog commentary. A prevalent style adopted by political bloggers is to cite, quote, or hyperlink to a news story and then offer their own perspective (Farrell & Drezner, 2008; McKenna & Pole, 2008). Two contrasting modes exist for the presentation of these intersecting texts: (a) global presentation of the news story followed by comments or (b) interspersed, interruptive juxtaposition of news and commentary. While these two modes are by no means the only forms of presentation available online, they represent two extremes in presentation style when bloggers critique a particular news story. Furthermore, these competing structural formats were selected for their real-world validity, as these formats can be seen on popular political blogs such as The Daily Kos and Little Green Footballs. In this study, we focus on this structural difference to examine how the manner in which information is organized and the motivations that readers bring to such communication contexts affect the subsequent encoding process.

## Source identification

An important precursor to perceptions of information credibility is the ability to correctly identify its source. The general term *source* can refer to "a variety of characteristics that, collectively, specify the conditions under which a memory is acquired" (Johnson, Hashtroudi, & Lindsay, 1993, p. 3). In a news story, for example, the journalist may cite facts and opinions from a variety of sources he or she interviews. Or in a blog entry, the poster may cite and comment on a news article, thereby offering two general sources of information to the audience: blog and news. In this study, we are specifically concerned with the latter case (i.e., the media channels through which the audience acquires information) because this juxtaposition is especially pertinent within the blogosphere, where channels of varying levels of credibility coexist on the same page. Therefore, source identification is defined here as the ability of readers to accurately identify the original media channel in which specific information appears.

Given the importance of correct source identification to decision making, the possibility of source confusion has concerned scholars for decades. For example, one study suggests that while people appear to differentiate between high and

low credibility sources in the immediate aftermath of exposure, over time, this difference between the persuasive impact of the sources disappears (Hovland & Weiss, 1951–1952). Beyond persuasive impact, Yegiyan and Grabe (2007) found that although no immediate difference in source identification emerged between three types of television messages—conventional political ads, news-like political ads, and news stories—a week later, subjects were more likely to attribute information from news-like ads to news. But time may not be a necessary prerequisite for source confusion: Mares (1996) manipulated the visual similarity of news and fictional content and found evidence for both fiction-to-news and news-to-fiction source confusion. These studies demonstrate that message structure can impact source identification and persuasion, which has important implications for the study of communication effects in a digital media environment.

To understand structural effects, it is necessary to examine how source identification is stored in memory. Source identification is especially taxing on cognitive resources—for example, it requires higher levels of attention than fact recall (Johnson, Kounios, & Reeder, 1992)—because it demands not only storage of the fact, but also maintaining a link between that fact and its source (Johnson et al., 1993). Studies on source identification draw heavily upon the source monitoring framework (Johnson, 1997), which is defined as "the set of processes involved in making attributions about the origins of memories, knowledge, and beliefs" (Johnson et al., 1993, p. 3). This framework highlights that many important memory characteristics are established at the time of memory formation, such that the structure in which individuals first encounter information should be particularly consequential. The ways political bloggers refer back to news articles, either through global presentation or through an interspersed format, appear to differ along these dimensions, making it especially relevant to consider how changes in structure influence individuals' ability to correctly identify the source of information.

#### Structure

The effects of the structure of information have long been studied "off line." For example, the widely studied topics of primacy and recency effects demonstrate the importance of order in conveying information (Asch, 1946; Kassin, Reddy, & Tulloch, 1990). A more nuanced look at this phenomenon incorporates the "chunking" of information, or whether or not information clearly blocked or grouped into segments corresponding to valence (Petty, Tormala, Hawkins, & Wegener, 2001). The chunking of information has important effects on persuasive outcomes, though these effects are dependent on individuals' motivation to process (Petty et al., 2001). The concept of "chunking" is useful in demonstrating that the grouping of certain ideas can impact how participants make sense of the information they encounter.

Moving beyond these traditional "offline" studies of information structure, more recent studies have taken advantage of the unique environment provided online by investigating structural differences on the Internet. For example, Tewksbury and Althaus (2000) found the differing structures of *The New York Times* and *The* 

Times on the Web impacted how much information participants could recall, with individuals reading the print version demonstrating higher recall. With regards to the structure of the Internet, Eveland and Dunwoody (2001) developed the theory of structural isomorphism, which asserts that the structure of the Internet has the ability to mimic the associative nature of human memory. Hyperlinks, for example, prompt readers to ask "how are these two things related?" thus enacting the node-link structure of human memory (Eveland & Dunwoody, 2002). In their examination of website structure, Eveland et al. (2004a) found a linear, print-like design produced a higher level of factual knowledge, while participants in the more user-dependent hypertext structure were able to convey a "denser" level of understanding by making connections between multiple issues. Intriguingly, the condition which required more work from participants, the user-dependent design, did not produce a higher level of knowledge, but did create a deeper level of understanding, suggesting that motivation and ability may play a role in the processing of nonlinear information structures.

Despite studies looking at the structural effects of online news sites (Barnhurst, 2002; Eveland et al., 2004a; Eveland, Marton, & Seo, 2004b; Tewksbury & Althaus, 2000), more research needs to focus on the impact of structure in the blogosphere, especially as it becomes a more prominent source of political news (Pew, 2008; Rainie, Cornfield, & Horrigan, 2005). A blogger can potentially create associations between pieces of information depending on the structure of their critique. For example, in a structure where the news story and blog commentary are intertwined, the blogger can link a specific aspect of the news story to a specific commentary, thus facilitating the natural associations which structural isomorphism supports (see Eveland & Dunwoody, 2001). However, in more global structures, distilling specific points of criticism may be more difficult, as the news story information and the response commentary are distinguished into separated forms. Moreover, these differences in format should not affect everyone equally.

## **Need for cognition**

When looking at the effects of changes in structure, research has consistently demonstrated people differ in their ability and motivation to process information (Chaiken, 1980; Petty & Cacioppo, 1979, 1986). One important individual difference that has been shown to influence reasoning and processing is need for cognition, or the "differences among individuals in their tendency to engage in and enjoy thinking" (Cacioppo & Petty, 1982, p. 116). People who are higher in need for cognition demonstrate a willingness to engage in effortful processing of material, a greater enjoyment of navigating complex material, and more knowledge of relevant ideas and arguments (Cacioppo & Petty, 1982; Cacioppo, Petty, Feinstein, & Jarvis, 1996). Need for cognition appears to be a stable individual difference in people's motivation to process information (Cacioppo et al., 1996; Cacioppo, Petty, & Morris, 1983).

Need for cognition and its effects may be linked to the processing strategies used in evaluating and interpreting new information. For example, researchers suggest that

individuals high in need for cognition are habitually more likely to use an effortful central route of processing, while those with a lower need for cognition are more likely to use peripheral cues (Axsom, Yates, & Chaiken, 1987; Haugtvedt et al., 1992; Priester & Petty, 1995).

These different modes of processing suggest that structural changes can affect people with high versus low need for cognition differently. Generally, people with a high need for cognition demonstrate more effortful processing despite differences in cues that can discourage people with a low need for cognition, while individuals low in need for cognition can become motivated to use a central processing route by increasing the relevance of the story or their skepticism of peripheral cues (Axsom et al., 1987; Priester & Petty, 1995). Beyond altering story cues, changes in message structure also impact these groups differently, leaving people with a higher need for cognition less influenced by these variations. In one example, the order of ideas in a presentation only affected the opinions of people with a lower need for cognition, while those with a higher need for cognition remained immune (Cohen, 1957). Further, an experiment on "chunking," or breaking up information to allow time for consideration, produced different attitudinal effects depending on need for cognition, with people higher in need for cognition demonstrating more effortful processing, especially under the "chunked" condition (Petty et al., 2001).

#### Partisan incongruence

Another individual difference that has proven consequential when evaluating news coverage is partisan identification, or more precisely partisan congruence or incongruence with the encountered content. Partisan identity, itself, plays an important role in determining individuals' perceptions of the news as a whole, as well as influencing their sources of news (Dalton, Beck, & Huckfeldt, 1998; Eveland & Shah, 2003; Pew, 2007). This identity is likely to become more salient when the group or its positions are attacked, such as in a political blog.

Previous research has suggested that incongruent messages, or messages that disagree with a previously held stance or opinion, prompt greater attention, as people attempt to argue against incongruent information and selectively seek out congruent information (Ditto & Lopez, 1992; Edwards & Smith, 1996; Kunda, 1987, 1990; Lord, Ross, & Lepper, 1979; Taber & Lodge, 2006). This process is characterized by not only more thorough and effortful attention to the message itself, but also a more careful search through memory for ideas that disconfirm the incongruent information (Edwards & Smith, 1996; Kunda, 1990). While need for cognition speaks to an enduring predisposition to process, partisan identity is more situational, a function of whether individuals encounter information that disagrees with their political positions and prompts defensive processing. Nonetheless, both should heighten the motivation to process, making these individuals better equipped to handle complex structural changes.

# Hypotheses and research questions

Although the Internet may alter traditional format and structure with the juxtaposition of different sources of media content, we contend that these changes will not affect everyone equally. Differences in how blogs structure repurposed news content should influence whether people accurately recall the source of new information, but these differences may be greater for some than for others. Differences in people's motivation to process information should greatly affect whether they are willing to put forth the mental effort to understand more challenging, interruptive, and interspersed formats (Chaiken, 1980; Petty & Cacioppo, 1986).

When two authors, the news story and the blogger, are intertwined, we should see that motivation becomes especially important for recalling the source of new information. People with a higher need for cognition, given their enjoyment of complex tasks and their higher level of engagement with the material (Cacioppo & Petty, 1982; Cacioppo et al., 1996; Haugtvedt et al., 1992) should be unaffected by these changes in structure, as they thoroughly navigate the message. Conversely, those with a lower need for cognition will expend less mental effort and thus should find the interspersed commentary more confusing. Therefore, we hypothesize:

**H1a:** Among individuals who are lower in need for cognition, those exposed to an interspersed commentary will have significantly lower total source identification compared to those exposed to a global commentary, but this difference will not be evident among people with higher need for cognition.

Individual differences can also intersect with situational factors to alter people's motivation to process—for example, whether or not a message is congruent with partisan identity. Research suggests that people engage in more effortful processing when faced with incongruent or disconfirmatory information, as they seek to bring the new ideas in line with their preconceived beliefs and attitudes (Edwards & Smith, 1996; Kunda, 1987, 1990; Taber & Lodge, 2006). This motivated reasoning (Kunda, 1990), also referred to as defensive processing, is found when individuals are exposed to incongruent information. Such processing should limit the effects of changes in structure, while this same motivation to carefully process will not be apparent with exposure to congruent information. Therefore, we propose:

**H1b:** Among individuals who are exposed to blog commentary congruent with their partisan identity, those exposed to an interspersed commentary will have significantly lower total source identification compared to those exposed to a global commentary, but this difference will not be evident among people exposed to incongruent blog commentary.

Of course, given that the message juxtaposes two separate sources—a news story and a blogger's commentary—it may be that source identification mistakes are centered among one of these two sources, rather than the other. Differences in credibility between the sources may play a role in this variability: Research suggests that opinionated language is perceived as less credible (Hamilton & Hunter, 1998).

While we expect motivation to play the same moderating role in navigating structural content, we examine whether this process is identical for news and blogger source identification. Therefore, we ask:

**RQ1a:** Will the structure of the commentary have differential effects on news and blogger source identification among those lower in need for cognition?

**RQ1b:** Will the structure of the commentary have differential effects on news and blogger source identification among those exposed to a congruent partisan message?

#### Methods

Our hypotheses were tested in an experiment embedded in a web survey in which participants viewed a fictitious news story about global climate change policy accompanied by commentary from a political blogger. Participants, who received extra credit, were undergraduate students at a large university in the Midwestern United States. The study (N=877) was fielded in the spring of 2007. Respondents reported a liberal ideology for both social and economic issues and almost two-thirds of the sample identified themselves as Democrats (including those leaning Democrat). The students were predominantly female (about two-thirds), and averaged just over 20 years old.

# Study design

Respondents read a news story about global climate change policy written to emulate journalistic practice by providing a balanced summary of two positions on climate change policy. The article described both a liberal policy position for addressing climate change, endorsing mandatory caps on emissions, as well as a contrasting conservative position, supporting voluntary emissions reductions and technological innovation by industry. The news story was attributed to the Associated Press and the content remained consistent across all experimental conditions. We chose to attribute our story to the AP, rather than a specific news source, to limit the influence a specific newspaper's label, and related perception of credibility, may have on processing. The news story was embedded in commentary from a fabricated political blogger named "Curt" within a structure that emulated the basic elements of a conventional blog post.

The study used a 2 (structure of presenting information)  $\times$  2 (target of the blogger's attack) between-subjects design. The structure manipulation altered the format in which the news story was conjoined with the blogger's commentary, using either a "global" or "interspersed" format. In the global condition, participants viewed the entire news story, followed by the blogger's critique of that story. The interspersed condition did not change the content of the blogger's critique or the news story but the two were intermingled, with the blogger's critique interrupting the news story and commenting on specific chunks of the narrative (Appendix A).

The blogger's commentary was also manipulated to critique either the Republican or Democratic policy position presented in the balanced news story. The partisan

incongruence manipulation was created by comparing participants' reported political party identifications with the manipulated political target of the blogger's critique. Participants who reported Democrat affiliation and viewed blogger commentary critiquing the Republican position on global climate change policy were in the partisan congruence condition, as were Republican participants who read blog critiques of Democratic policy. Republicans who read critiques of the Republican position and Democrats who viewed critiques of the Democratic position were considered to be in the partisan incongruence conditions. Participants who reported either "Independent" or third-party affiliation were excluded from the analysis, leaving a total *N* of 773.

#### Measures

### Source identification

To measure source identification, respondents were asked to identify the source of a series of facts and claims as originating from either the news story or the blogger's comments (see Appendix B for question wording). The correctly identified items were summed to create a total source identification score (M = 4.38, Max = 8.00, SD = 1.88). The correct identification of items from the news story (M = 2.40, Max = 4.00, SD = 1.09) and blogger's commentary (M = 1.98, Max = 4.00, SD = 1.16) were separated for follow-up analysis.

## Need for cognition

This construct was measured by two items on an 11-point scale that asked respondents about their enjoyment of problem-solving and their preference for complex problems (see Cacioppo & Petty, 1982). These items were averaged to create an index (M=6.10, SD=1.88, r=.50, p<.001). This index was split at the median to compare those with lower and higher need for cognition. The median split occurred at 6.0 on an 11-point scale, classifying 51.7% of respondents as lower in need for cognition and 48.2% as higher in need for cognition.

#### General media trust

To focus on the relationship between structure, motivation, and source identification, we controlled for general media trust, which is linked to news exposure and need for cognition (Tsfati & Cappella, 2005). The questions specifically gauged feelings toward mainstream media, as previous research has shown a negative relationship between mainstream media trust and preference for alternative media sources such as blogs (Johnson & Kaye, 2004). This variable was measured using two items on an 11-point scale asking about mainstream media trust and balance, which were averaged to create an index (M = 5.10, SD = 1.82, r = .67, p < .001).

#### Results

To test our hypotheses and research questions, we used a series of two-way ANCO-VAs. In each of these tests, both the civility of the blogger's commentary and

respondent's level of general media trust are controlled. To ensure that the effects of source identification are occurring separate from differences in learning from the manipulations, we first test their effects on fact recall—or accurate recall of information in the news story and blogger's commentary. We expect that the interaction between structure and motivation will not affect learning. The data show that this is the case: There is no main effect of structure nor is there an interaction with either need for cognition or partisan incongruence on fact recall. In all conditions, people demonstrate the same levels of learning, ensuring that any effects of the manipulations on source identification occur independently of the learning of new material in different conditions.

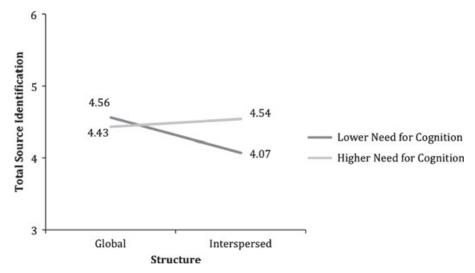
Next, we tested our hypotheses about the effects of the intersection of need for cognition and partisan incongruence with structure on total source identification. H1a predicted that exposure to the interspersed structure would hinder source identification for people with lower need for cognition compared to the global condition, but would not affect people with higher need for cognition. The data support this hypothesis (see Table 1 for significance levels of the omnibus tests of the interactions). Planned comparisons demonstrate that among people with a lower need for cognition, those who viewed the interspersed blogger's commentary were significantly less likely (p = .007) to correctly identify the source of the information (M = 4.07, n = 204) compared to those who saw the global blogger's commentary (M = 4.56, n = 197), while no significant difference was apparent between global (M = 4.43, n = 188) and interspersed (M = 4.54, n = 184) commentary among those with a higher need for cognition (Figure 1).

Further, H1b predicted the same interaction would occur between partisan incongruence and structure. We again found a significant interaction and performed a pairwise comparison to test our hypothesis that differences in source identification would emerge only among those exposed to a congruent partisan message. The results support this hypothesis: For people exposed to the congruent partisan message, an interspersed structure significantly (p = .005) decreased source identification

Table 1 ANCOVAs for Source Identification

	Total Source Identification	News Source Identification	Blogger Source Identification
Civility	0.283	0.434	0.058
Media trust	1.903	1.008	1.637
Structure	2.059	$3.588^{\dagger}$	0.292
Need for cognition	1.629	0.159	$2.809^{\dagger}$
Partisan incongruence	5.193*	0.224	10.338**
Structure × Need for cognition	6.619*	$3.452^{\dagger}$	5.756*
Structure × partisan incongruence	5.333*	$2.735^{\dagger}$	4.693*

 $<sup>^{\</sup>dagger}p < .10. *p < .05. **p < .01.$ 



**Figure 1** Effects of need for cognition and structure on total source identification.

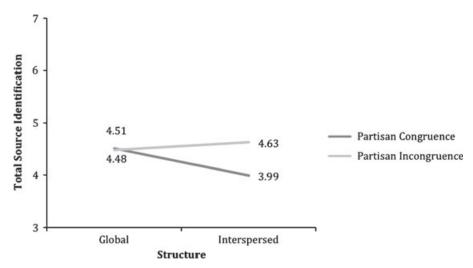


Figure 2 Effects of partisan incongruence and structure on total source identification.

 $(M=3.99,\,n=188)$  compared to a global structure  $(M=4.51,\,n=194)$ , while no significant differences emerged among those exposed to incongruent commentary between the interspersed  $(M=4.63,\,n=200)$  and global  $(M=4.48,\,n=191)$  structures (Figure 2).

We next test our research questions, which asked whether the interaction between motivation and structure functions the same for news and blogger source identification. For news source identification, we looked at the pairwise comparisons to see if the effects on source identification are again centered among those with

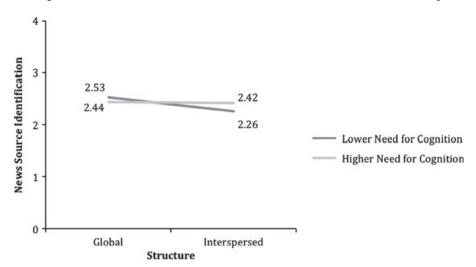


Figure 3 Effects of need for cognition and structure on news source identification.

a lower need for cognition. We see a similar pattern: Among those with a lower need for cognition, an interspersed structure significantly decreases (p=.011) news source identification (M=2.26) compared to a global structure (M=2.53), while the difference among those with a higher need for cognition is not statistically significant for the interspersed (M=2.42) versus global (M=2.44) structures (Figure 3).

We also look at the pairwise comparisons for blogger's source identification to investigate this interaction between need for cognition and structure. In this case, the pairwise comparisons suggest among those with a lower need for cognition, the interspersed commentary marginally (p = .051) decreases blogger source identification (M = 1.81) compared to the global commentary (M = 2.03), but we see no difference among those with a higher need for cognition between the interspersed (M = 2.12) and global (M = 1.99) structures (Figure 4).

Finally, we test the interaction between partisan incongruence and structure against both news and blogger source identification. For news source identification, we see a similar pattern in the pairwise comparisons. Again, a significant difference emerges in the partisan congruence condition (p = .008) between the interspersed (M = 2.25) and global (M = 2.54) structures, while this difference is not significant for the individuals exposed to incongruent commentary between the interspersed (M = 2.43) and global (M = 2.43) structures (Figure 5).

Looking at blogger source identification, the pairwise comparison suggests that for those exposed to a politically congruent message, the interspersed structure (M=1.73) significantly decreased blogger source identification (p=.039) compared to the global structure (M=1.98), while among those exposed to an incongruent message, the difference between the interspersed (M=2.20) and global (M=2.05) structures is not significant, fitting the overall pattern observed (Figure 6).

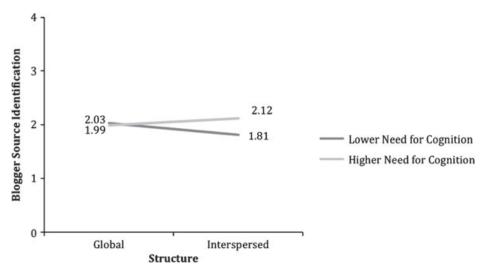


Figure 4 Effects of need for cognition and structure on blogger source identification.

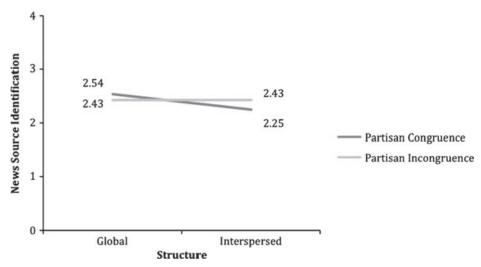


Figure 5 Effects of partisan incongruence and structure on news source identification.

## Discussion

This article provides a preliminary exploration of how structural differences online, specifically the more intermingled structure of blogs, can affect people's processing of new information. It also extends previous research into the impact of motivations on processing into a new context: the close juxtaposition of news and commentary apparent on political blogs like The DailyKos and Little Green Footballs. This study suggests that while changes in format do not significantly affect people's fact

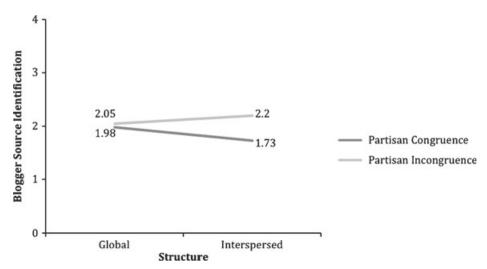


Figure 6 Effects of partisan incongruence and structure on blogger source identification.

recall, it can affect their ability to correctly identify the source of their learning. Among people with a lower motivation to process, specifically those with a lower need for cognition or those confronted with congruent partisan messages, the change in structure, from a global—that is, a clear distinction between a news story and blogger's commentary—to an interspersed structure—that is, a more interruptive format in which the article and commentary intersect—affects their ability to correctly identify information, leading to misidentification of whether "facts" emanated from a news report or from blog commentary. However, those motivated to process the information thoroughly, either by individual differences or contextual circumstances, are able to navigate the more complex intermingled structure without confusion.

This pattern holds for individuals' ability to correctly identify the information coming from the news story and from the blogger—in other words, those with a higher motivation to process are not more likely to misidentify information from either source. On the other hand, for those not motivated to process as thoroughly and carefully, an interspersed structure made it more difficult to identify the source of ideas regardless of whether they came from the repurposed news report or the blogger's commentary.

Although the notion that those less motivated to process will have greater difficulty in accurately recalling information is hardly novel, our article demonstrates two possible techniques by which this can occur: an individual difference in need for cognition and a contextual difference in information congruence. And while these individual differences may be relatively static, the shift in motivation at the contextual level suggests greater attention must be paid to the environment in which information is received. These motivational shifts that occur as a result of contextual cues may be especially consequential in the new media environment,

particularly when combined with a more difficult intermingled structure. Furthermore, the resulting effects on accurate information recall may have important democratic implications as people transfer to more news consumption in online contexts.

Therefore, this study extends previous research to suggest that the new information environment online, in which objective news content is often juxtaposed with opinionated commentary, can have consequences for people's information processing strategies. Although the tendency of individuals with stronger motivations to use a more careful form of processing is well documented (Chaiken, 1980; Petty & Cacioppo, 1979, 1986), it has yet to be studied in the increasingly used medium of political blogs (Pew, 2008). Further, research into the differences in structure between online and offline content has examined levels of factual knowledge and information recall (Eveland & Dunwoody, 2001, 2002), but this study examines source identification in a context in which assertion and fact are more closely mingled. As political blogs often use traditional media sources as a platforms upon which to critique and comment (McKenna & Pole, 2008), it is democratically necessary to consider whether people can distinguish between these different sources in forming their opinion. If people are confused about the source of their information, they may be unable to accurately judge its credibility or appropriately integrate this new information into their existing knowledge structures.

Furthermore, the difficulties in interpreting and identifying online information do not affect everyone equally, raising concerns about learning from cross-cutting media environments especially among those who are not highly motivated to process news. The results suggest that an interspersed structure may hinder the process of correctly identifying the source of information among those less engaged in processing—those lower in need for cognition or in a politically congruent message environment. The fact that this occurs despite equal learning from both types of structure suggests that those low in motivation to process may "learn" from bloggers' repurposing of news content but may also mislearn information if they are unable to distinguish which ideas have been vetted through an editorial process and which ones are the unfiltered views of a partisan blogger. If an interspersed structure suppresses source identification among low information processors, they may be accepting information as factual without carefully considering its merits. This may have important implications for democratic functioning and decision-making given the changing nature of online news environments.

These findings become especially troubling if people are using the Internet to seek out more confirmatory sources of information. The Internet in particular may offer individuals the opportunity to selectively attend to information that is congruent with their previous opinion, especially politically (Adamic & Glance, 2005; Adams, 1961; Garrett, 2009). If, as this study suggests, people exposed to politically congruent information are not motivated to process information carefully, they could be especially prone to mingling objective and opinionated commentary in their search

for facts. Therefore, it becomes vital to more carefully study source confusion online, as the Internet and political blogs may be not only intermingling content but also allowing people to selectively expose themselves to agreeable information, promoting further confusion in information sources.

Conversely, it is possible that blog readers are likely to be individuals higher in need for cognition. If only motivated readers were attending to political blogs, this would lessen the impact of our study. However, our study suggests the relationship between need for cognition and blog readership is modest ( $r=.102,\,p<.01$ ). Our data also suggest that individuals with both higher and lower need for cognition are engaging in blog readership online—in fact, nearly 39% of those with lower need for cognition in our study report reading political blogs, while roughly 59% of young voters in 2008 turned to political blogs for information (Pew, 2008). In conjunction with confirmatory information seeking online, many individuals are susceptible to the source confusion noted in this study when exposed to intermingled content.

Of course, there are several limitations to consider involving the study manipulations and sample that future research should address. While our study produced a clear pattern of results, the effect sizes are relatively small. However, this study examined exposure to a single political blog entry at a single point in time. If people consume blogs as part of their standard diet, the cumulative effects of misremembering facts are likely to be substantial (Kull, Ramsey, & Lewis, 2003–2004). Also, while many of the facts were specific to the fabricated policy, individuals could have known some of the others (such as those dealing with the Kyoto Accords) without reading the story. Although these differences in pre-existing knowledge would be randomized across conditions and would not affect our pattern of findings, they may create a floor effect for misidentification, limiting our ability to recognize the source confusion individuals experienced.

Two more general limitations concern the use of a college sample and the issue of global climate change. First, the college sample limits our ability to generalize to the population. However, in studying blog effects it is important to note that several studies have found that blog readers tend to be college educated (Kaye, 2005; Rainie, 2005). Furthermore, recent research suggests there is mixed empirical evidence regarding the age, gender composition, and media consumption patterns of blog readers, although the effects of education are relatively consistent (Eveland & Dylko, 2007). Therefore, the use of a college sample may more closely approximate the population most likely to consume news through political blogs. Second, the issue of global climate change could be of greater importance to a college sample and, consequently, our results may be indicative of the specific issue rather than the manipulations. However, global climate change is also an issue does not split cleanly along party lines, especially among college students. Measures of support for government action against global warming were moderately correlated with party identification (r = .35, p < .001), which suggests that some individuals did not favor the partisan position being advocated. Despite this, the salience of the political attack on the party should have created partisan incongruence, even for those who did not agree with the issue position. Future studies should test multiple issues, especially those with a more divisive impact, when exploring the effects of blog structure to ensure our results are not unique to this issue. We expect the effects of partisan incongruence will be heightened with an issue that more clearly divides partisans, as it should multiply the sources of incongruence.

Ultimately, this study points to an important new direction for media studies. Although the study of blogs has become more prevalent in mass communication theory (Farrell & Drezner, 2008; Kaye, 2005), it is important to consider how these increasingly important forums repurpose news content and how the structure of such repurposing impacts information processing. Blogs operate in tandem with traditional news media, often borrowing, reworking, and responding to their content (McKenna & Pole, 2008). Future research should advance this study's findings by looking more carefully at a variety of structures available online and different motivations that could influence processing. If blogs are encouraging people to accept information without carefully considering its source or its veracity, this could have important implications in a democracy that depends on a rational and thoughtful public.

#### **Notes**

- 1 This  $2 \times 2$  design was extracted from a larger experimental design. The full design included a third manipulation related to the civility of the blog post. This variable did not interact with the structural or congruence manipulation and is included in the analysis only as a statistical control.
- 2 Brackets indicate slight changes in question wording to match the slightly altered stimulus for the commentary attacking either the Democratic and Republican position. The correct answer is indicated in bold after the question.

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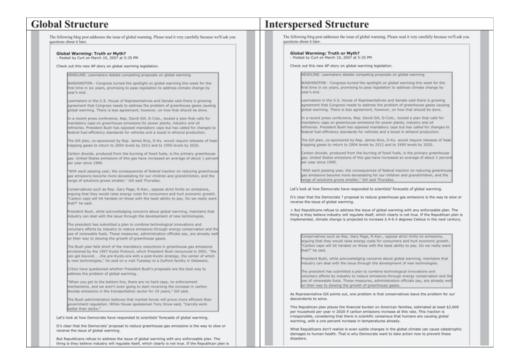
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# Appendix A: Screen shots of structure manipulations



# **Appendix B: Question wording**

### Political identification

Which of the following best describes your party affiliation?

a. Strong Democrat, Democrat, Independent-leaning Democrat, Independent, Independent-leaning Republican, Republican, Strong Republican

## Need for cognition

Here are some of the statements that people find useful in describing themselves. For each of them, please indicate how accurately it describes you.

- a. I really enjoy a task that involves coming up with new solutions to problems.
- b. I prefer complex problems to simple ones.

#### General media trust

Please indicate your level of agreement with the following statements:

- a. I trust the information I find in the mainstream news media.
- b. Most mainstream news media present information in a balanced way.

#### Source identification

According to what you just read, attribute each of the following statements to the appropriate source (news article or blogger's commentary):<sup>2</sup>

- a. Rep. [Gill's/Hunt's] proposal would require greenhouse-gas emissions to return to 2004 levels by 2012. **News article**
- b. Rep. [Gill's/Hunt's] proposal would result in a  $1^{\circ}$  decrease in surface temperature by 2020. **Blogger's commentary**
- c. The [Democratic proposal/Republican] is estimated to cost \$2,600 per household per year. **Blogger's commentary**
- d. U.S. emissions of carbon dioxide have increased 1% per year since 1990. **News** article
- e. It is [uncertain/certain] whether global temperature increases are due to human activity. **Blogger's commentary**
- f. Technological innovations and voluntary reductions have already begun slowing the growth of greenhouse gases. **News article**
- g. [Most of the nations that signed the Kyoto accord have failed to meet its requirements/A majority of Kyoto signatories have made progress toward reducing greenhouse gas emissions]. **Blogger's commentary**
- h. President Bush renounced the Kyoto accord in 2001. News article

# 是谁教我的?重新定位新闻、博客结构和信源鉴别

Emily K. Vraga
Stephanie Edgerly
Bryan M. Wang
Dhavan V. Shah

# 威斯康星大学麦迪逊分校

# 【摘要:】

信息社会中的变化,特别是博客的兴起,引发了人们对网络环境中媒介形态、来源识别和动机问题的关注。本文通过控制博客对新闻的评论结构(全球 vs. 散布)以及博客的党派目标(民主党 vs. 共和党)在一项网络调查中嵌入实验。研究结果支持了本文预期:在不影响动机较强者的情况下,较复杂的故事形式降低动机较低的读者正确地确定其信息来源。当人们依赖于博客作为对公共事务的事实来源时,而没有必要的戒备心理时,结构则可能对民主产生影响。

Qui m'a appris cela ? Nouvelles transformées, structure des blogues et identification des sources

Les changements survenus dans la société d'information, en particulier la montée des blogues, ont recentré l'attention sur des enjeux de modalité des médias, d'identification des sources et de motivation dans les environnements en ligne. Nous manipulons la structure d'une critique qu'a fait un blogueur d'une nouvelle (structure globale ou entrecoupée) et la cible partisane du blogueur (Démocrates ou Républicains) dans une expérience inscrite dans un sondage en ligne. Nos résultats confirment nos attentes : le format plus difficile diminute la capacité de lecteurs moins motivés à identifier correctement la source de leur information, sans influencer les lecteurs motivés. Ces effets de la structure sur l'identification de la source ont des conséquences pour la démocratie, si les gens s'en remettent aux blogues pour obtenir des faits à propos d'enjeux publics sans les avertissements nécessaires concernant la crédibilité de la source.

Mots clés : structure, modalité des médias, identification des sources, motivation à traiter l'information, blogues

Von wem hab ich das? Die Umwidmung von Nachrichten, Blogstruktur und das Erkennen der Quelle

Veränderungen in der Informationsgesellschaft, insbesondere das Aufkommen von Blogs, lenken die Aufmerksamkeit auf Aspekte wie Medienmodalitäten, Erkennen von Quellen und Motivation in der Online-Umgebung. Wir manipulierten den Aufbau der Kritik eines Bloggers an einer Nachrichtengeschichte (global vs. eingestreut) und das parteilichen Ziel des Bloggers (Demokrat vs. Republikaner) in einem Experiment, dass in eine Onlinebefragung integriert war. Unsere Ergebnisse bestätigen die Annahmen: Je komplizierter das Format der Nachricht, desto geringer war die Fähigkeit weniger motivierter Leser, die Quelle der Information korrekt zu identifizieren. Motivierte Leser waren hingegen nicht beeinflusst. Der Einfluss des Aufbaus einer Nachricht auf das Erkennen der Quelle hat dann Folgen für die Demokratie, wenn sich Rezipienten auf Blogs als Quellen für Fakten bezüglich öffentlicher Angelegenheiten verlassen, ohne angemessene Sicherheitsvorkehrungen bezüglich der Glaubwürdigkeit der Quelle zu treffen.

Schlüsselbegriffe: Struktur, Medienmodalität, Erkennen der Quelle, Verarbeitungsmotivation, Blogs

# 누가 그것을 나에게 가르쳐 주었나:

# 재목적화된 뉴스, 블로그 구조, 그리고 뉴스원 확인

by

Emily K. Vraga

Stephanie Edgerly

Bryan M. Wang

Dhavan V. Shah

# 요약

정보사회내에서의 변화들, 특히 블러그들의 성장은 온라인 환경내에서 미디어 양상의 질문들, 뉴스원 확인, 그리고 동기들의 잘문에 대해 재조명된 관심을 불러 일으키고 있다. 우리는 온라인 서베이 환경내에서의 뉴스이야기들과 블로거들의 정당적 타겟에 대한 블로거들의 비판 구조를 처리하였다. 결과들은 우리의 기대들을 지지하였는바, 더욱 어려운 이야기 형태들은 덜 동기화된 독자들이 그들 정보의 뉴스원들을 제대로 확인하는 있는 능력을 감소시킨다는 것이다. 뉴스원 확인 구조의 이러한 효과들은 사람들이

공공정책에 대한 사실들에 있어 뉴스원의 신뢰성에 관하여 주의깊은 고려를 하지 않은채 블러그에 의존할때 매우 종요한 결과로 나타난다.