Video News Releases and the Public: The Impact of Source Labeling on the Perceived Credibility of Television News

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Observers of the television news business have suggested that public judgments of the credibility of news stories and the news industry would suffer if audiences knew that external sources routinely provided story content. An experiment examined whether on-screen labels identifying externally supplied video news release (VNR) content in television news can affect audience perceptions of the credibility of the news and the VNR provider. The results suggest that news audiences might not use the presence of VNR content in evaluations of news stories, news programs, and VNR producers. However, there is evidence that news audiences are concerned about the use of VNR content and support the use of labels.


Public trust in the press as a social institution has fallen over the past few decades (Izard, 1985; Kiousis, 2001). For example, the Pew Research Center for the People and the Press found that the number of Americans who believed NBC News “all or most of the time” dropped from 32% in 1989 to 23% in 2008; related drops in trust were seen for other network and local television news outlets (Pew Research Center, 2008). One frequent complaint about the news media is that they appear to be open to manipulation by external sources. Another Pew (2003) survey, for instance, found 70% of Americans agreeing that news organizations are “often influenced by powerful people and organizations.” Part of this mistrust may grow out of public unfamiliarity with the news production process. In particular, the perception that one story or set of images may have been surreptitiously planted by an outside organization might lead audiences to overgeneralize and assume that many or even most news accounts are tainted. Thus, television news credibility may be tied to the extent to which the industry makes audiences privy to some of its practices.
At the same time, there has recently been considerable public and professional concern over the use of public relations products in news reports (e.g., Barstow & Stein, 2005; Just & Rosenstiel, 2005). In May 2004, for example, the General Accounting Office issued a report on the use of video news releases (VNRs) by the Centers for Medicare and Medicaid Services, a unit of the Department of Health and Human Services (United States General Accounting Office, 2004). A VNR—one type of information subsidy available to news producers (Gandy, 1982)—is a prepackaged news report intended for use by a television news station. This is distinct from television news “B-roll,” the stock set of visuals that news producers maintain for use in illustrating points described in stories. A VNR may be used in its entirety or a station may incorporate part of the VNR’s textual or visual content in a story of its own. In its report, the United States General Accounting Office (GAO) stated that Health and Human Services had overstepped its authority in creating and distributing VNRs that appeared to intentionally mimic news reports. The GAO’s primary concern was that the VNRs contained no notification to audiences that the content originated with an organization seeking to influence public perceptions and attitudes (Just & Rosenstiel, 2005; United States General Accounting Office, 2004). Similarly, the Public Relations Society of America recommended in 2004 that the VNR source be supplied in news reports that contain VNR content (Public Relations Society of America, 2004).

The unstated assumption behind these concerns, of course, is that news audiences would somehow use the knowledge that a story originated with a VNR (Wood, Nelson, Atkinson, & Lane, 2008). The research reported here tests this assumption, examining whether news audiences would react differently to a news story if they were made aware of the VNR content. This question is ripe for investigation, given the public and professional concern over the matter and the lack of scholarly attention it has received. With this in mind, the present project investigates whether viewers (a) would notice a label identifying externally provided news content; (b) would understand the label’s meaning; (c) would use label information in their assessments of the credibility of a news story, the story’s reporter, the news station, television news in general, and the provider of the VNR; and (d) are concerned about the presence of VNR content in the news.

Labeling television news content
VNR use is relatively common (Wulfemeyer & Frazier, 1992). One survey of station news directors (Sonnenclar, 1991), for instance, found that over three quarters of them (78%) used some content from a VNR in a typical week. Fifteen percent of them reported using an unedited VNR at least once a week. This popularity is not unexpected. VNRs can dramatically reduce the cost of producing news stories and provide stations with footage or other content they may not have been able to obtain on their own. The production and distribution of VNRs by public relations organizations is also understandable. One academic study found that television viewers rated an unlabeled VNR prepared by a corporation as more credible than a
similar advertisement from that company (Owen & Kaarh, 1996). Given both the widespread use of VNRs and news organizations’ concerns with maintaining their own credibility, it is surprising that little research has examined the relationship between VNR use and news credibility.

Only three published studies have looked at how video reenactment and censorship labels affect audience responses to news and the news providers (Newhagen, 1994a, 1994b; Slattery & Tiedge, 1992). None of these studies focused specifically on the use of VNR content, but some inferences can be drawn from what the studies conclude. Slattery and Tiedge (1992) tested the impact of labeling staged news stories as “reenactments.” Studio reenactments are brief video clips constructed by news staff members to illustrate a story. The researchers observed no effects of content labels, concluding that, “Labeling of news video as staged is not in itself enough to bring about a change in the evaluation of news story credibility” (p. 284). Clearly, there are considerable differences between staged news stories and VNRs, and Slattery and Tiedge only tested the impact of labeling uncontroversial video footage as a “reenactment.” Consequently, it is not clear from that research how audiences will interpret a visual once they know it is not a product of the news station itself. This study specifically addresses this question.

Newhagen (1994a, 1994b) examined the impact of video labels used for censored video footage in the 1991 Gulf War. The visual images were part of stories about the war, and they carried disclaimers that identified the footage as having been cleared by government censors. Participants viewed news coverage (some stories carried censorship labels and some did not), performed memory assessment tasks, and rated the credibility of the alleged censors. Unexpectedly, the viewers “correctly identified whether or not stories had disclaimers less than 30% of the time” (Newhagen, 1994a, p. 345). Newhagen (1994a) also reported that viewer recall of story information was not affected by the presence or absence of the labels. Thus, video labels did not have a substantial impact on audiences in these circumstances. The study reported here will fill a gap in the literature by looking at audience attention to video labels in common news reports and at the effects of labels on different levels of media credibility judgments.

In general, studies on viewer comprehension and use of visual information in television news broadcasts have shown that audiences rely on visual images to reinforce and support the verbal track of a story (e.g., Graber, 1990). When visuals contradict verbal content, they can inhibit audience retention of the story (Crigler, Just, & Neuman, 1994). From one perspective, content labeling may add to the cognitive load on viewers, ultimately reducing processing of the central message (Newhagen, 1994a). News processing theories such as Lang’s (2000) Limited Capacity Model suggest that audiences are able and willing to bring only limited resources to the typical news exposure. Past research has demonstrated how viewer motivations and processing depth can substantially affect retention of news content (Tewksbury, 1999). Similarly, Reese and Cameron (1992) report that captions in news reports can reduce viewers’ memory of visual elements in the stories. Thus, it appears unlikely
that on-screen or audio content that demands an unusual amount of attention or mental elaboration will be fully processed. This load effect seems unlikely to occur for labels that demand few cognitive resources, however. Relatively simple labels, particularly those that are relevant to the news story, might not require more processing capacity than audiences already allocate to news viewing. Of course, audience processing depth is not a constant. Dual-processing models such as the heuristic-systematic model (Eagly & Chaiken, 1993) suggest that, given the right circumstances, people might be motivated to allocate the attention and effort required for more demanding messages. Unfortunately, it is unclear whether people will be motivated to engage in effortful processing when viewing the news. As a result, the primary research questions for the study presented here are whether audiences will notice a label and whether the label will reduce attention to the rest of the news story.

**RQ1:** To what extent will audiences recall having seen a label identifying some of a news story’s content as having been supplied by an outside source?

**RQ2:** Will exposure to a label identifying some of a news story’s content as having been supplied by an outside source reduce recall of other information in a news story?

**Credibility and the social role of the news**

If audiences can process the content of a video source label, the next question is whether they put that content to use. That is, do they incorporate the import of the label into their perceptions of the credibility of the news and its creators? Scholars have long believed that source factors—that is, real or perceived traits of a communicator—may influence message processing (e.g., Hovland, Janis, & Kelley, 1953; Izard, 1985). Credibility, the perception that a source is willing and able to tell the truth, is one source factor that has been found to significantly shape audience reaction to a message (e.g., Warren, 1969).

Credibility has traditionally been studied at the level of source, message, or channel (Metzger, Flanagin, Eyal, Lemus, & McCann, 2003). Communication researchers have examined, for instance, factors that influence whether a source is perceived to be trustworthy (e.g., Hovland et al., 1953; Liu & Standing, 1989) or features that cause a message to be viewed as high or low in credibility (e.g., McCroskey & Mehrley, 1969; Slater & Rouner, 1997). Research has been organized in this manner to identify when and how specific elements influence credibility judgments. Separating credibility perceptions along these lines has proven difficult in the past (Cronkhite & Liska, 1976), and it is increasingly challenging in a new media environment where sources and channels are often unclear (Sundar & Nass, 2001), but it is still helpful to review existing research evidence by source, message, and channel.

Early credibility research focused heavily on factors that influenced the believability of the communicator or source (Hovland et al., 1953; McCroskey, 1966). In the 1940s and 1950s, researchers at Yale University identified two aspects of source credibility: expertise and trustworthiness (Hovland et al., 1953). Expertise is whether
a communicator knows the truth and trustworthiness is whether they will reveal it. Using factor analytic techniques, McCroskey later confirmed this conceptualization of source credibility. Sources were thought to be credible if they had sufficient expertise (i.e., experience, knowledge, and education) and trustworthiness (i.e., reliability, consistency, and honesty) concerning the topic at hand (Perloff, 1993).

One aspect of communication that can influence source credibility is the content, structure, and delivery of the message (Metzger et al., 2003). In fact, it has been argued that source and message credibility might be (in practice) intertwined (Cronkhite & Liska, 1976; Stamm & Dube, 1994). For example, opinionated language is deemed to be less credible, and speakers who utilize opinionated language are perceived as less credible (Hamilton, 1998; Hamilton & Hunter, 1998). Powerless language is also viewed as less credible and using it appears to negatively affect the credibility of sources in contexts where power is equated with control (Burrell & Koper, 1998; Jensen, 2008). Despite this confound, messages can be rated as credible, at least conceptually, in their own right.

Early credibility research was often situated within a public speaking context, but the rise of multiple mass communication vehicles in the 20th century (e.g., radio, television, and Internet) introduced the level of channel credibility. Channel credibility was originally studied by the media industry, where questions about audience perceptions of newspaper, radio, and television have informed advertising and circulation rates (Self, 1996). In academic research, channel comparison studies pursued similar questions, as they sought to test whether the public viewed certain channels as more or less credible (Jacobson, 1969; Mulder, 1980). This research evolved to address larger questions about the underlying dimensions of media credibility (e.g., Gaziano & McGrath, 1986).

The current study examines whether a VNR label will influence credibility ratings of the VNR provider, journalist, story, news producers, and television news industry. A challenge of this design is that source, message, and channel are intertwined, a situation that is increasingly problematic (e.g., Sundar & Nass, 2001) yet has long been an obstacle in credibility research (Cronkhite & Liska, 1976). In fact, an emerging goal of research on communication and credibility is unpacking audience perceptions of how media messages are created and disseminated. It might be that, in practice, people rarely distinguish between levels in the communication process. If that is so, it will be difficult to identify the specific locus of VNR label effects. The separate measurement of source, message, and news industry credibility should help us determine whether that is the case.

Journalists, similar to other sources, are likely to be assessed as credible according to their perceived trustworthiness and expertise (Gaziano & McGrath, 1986; see also Pornpitakpan, 2004). It is not the source alone that matters in assessments of credibility, however. Several message factors have also been related to source credibility, including organization, argument quality, language intensity, and the number of discrepancies and nonfluencies (for a review, see Metzger et al., 2003). Most relevant here is that sources are perceived as more credible when they cite highly
creditable sources (O’Keefe, 1998). In other words, one factor that might influence the perceived credibility of news organizations is the credibility of the sources they utilize in their stories. If news organizations are like other sources, then citing highly credible sources should increase their credibility (whereas citing less credible sources should decrease their credibility).

But are news providers identical to other sources? One potential difference between news media and other sources is that the former often serve multiple communicator roles (e.g., moderator, speaker, and respondent) that are frequently open for interpretation. Indeed, an ongoing debate in the journalism community centers around the role journalists should play in a democratic society. This debate is relevant to this study because it informs the question of whether labeling VNR material will increase or decrease the perceived credibility of news providers. Indeed, the answer to this question could depend not just on what the label says, but on how audiences understand the role that news providers play in society. In particular, persuasion research suggests that a central issue in predicting audience use of advisory labels is whether the audience perceives news providers as communicators or moderators. If a news station is viewed as a communicator (i.e., a message creator), then citing low credibility sources should not improve speaker credibility (e.g., Luchok & McCroskey, 1978; Warren, 1969). On the other hand, if a news station is viewed as a moderator (i.e., a presenter of information from different parties), then audiences might view labels as examples of professional ability and trustworthiness which could, in turn, enhance credibility (see, e.g., O’Keefe, 2002).

This suggests that the type of label, and not just the label itself, could be important. If a video label were to merely identify that the source of a set of visual images was some external party, it could invite audiences to think of the news providers as subject to manipulation by the source. However, a video caption that places the news provider in an advisory or moderating role might position the television outlet more favorably. Such a label puts the news provider squarely on the side of the viewer: The provider wants to give the viewer all the information she or he needs. The important question here is whether audiences will think about the meaning of the labels in this way and will infer that the news organization is trying to help them understand the news. Audiences might take the labels and their content at face value, believing that the organization is concerned about their presentation of information. On the other hand, audiences might not give the labels much thought or might even experience skepticism about the intentions of the news organizations. This line of thinking leads to the third research question:

**RQ3:** Will news audiences viewing labels believe that the news organizations providing the labels are trying to help audiences understand how the news was created?

Attitudes toward the public relations industry could also affect audience’s perceptions of source labels. Prior research has found that the public relations industry is not treated positively in media messages (e.g., Miller, 1999; Spicer, 1993). Similarly, survey research has suggested that Americans perceive public relations practitioners
as biased (Callison, 2004). Perceptions of public relations practitioners are likely to be more negative when they are perceived as acting in their self-interest (Sallot, 2002), a condition likely to be perceived regarding VNR placements in news stories. Thus, there is reason to believe that people notified about the presence of public relations content in news stories will have some preconceptions about the industry and might be able to use them in judgments of news credibility. What is more, the notification could also lower the perceived credibility of the group supplying the VNR content, given the natural assumption that the group is supplying content for its own purposes. That is, we expect that people who see that an organization has supplied parts of a news story will infer that the organization has done so for self-serving purposes. As a result, viewers seeing the label might question the credibility of the organization, all else they believe about the organization being equal. Based on these considerations, the following hypotheses were formulated for the study:

**H1:** A television news video label that only reports the source of some news content will raise viewer assessments of the bias of a news story, its reporter, the news station, the news industry, and the content source.

**H2:** A television news video advisory label that explicitly identifies the intentions of the station to provide full disclosure regarding the source of some news content will lower viewer assessments of the bias of a news story, its reporter, the news station, the news industry, and the content source.

The final research question concerns whether people will support the use of labels to identify VNR content in the news. The presence of content labeling on other consumer products is common, of course. For example, packaged food products in the United States and many other countries carry nutritional information. Consumer surveys indicate public support for this labeling and widespread use of the information the labels carry (e.g., Lusk & Fox, 2007; Shine, O’Reilly, & O’Sullivan, 1997). In a situation roughly analogous to the news context, a study on consumers in the United States found that 85% of Americans wanted beef produced with growth hormones to carry labels identifying the hormones and 65% wanted beef fed genetically modified corn to be labeled with that information (Lusk & Fox, 2007). Thus, it seems reasonable to expect that people will support the use of labels that clarify the content of news stories. Given the lack of research on labeling public relations content, however, it is less clear whether exposure to labels will influence support for the practice. It could be that audiences made aware of VNR content will react by demanding that labels be provided when appropriate. It is also possible that—perhaps because of public cynicism toward the news media—they will see no need for video source labels. Of course, the mix of considerations could depend on the news contexts and the nature of the group supplying content. Given the lack of a clear set of expectations on this issue, we posed the following research questions:

**RQ4:** Will audiences exposed to content labels support the labeling of VNR content in the news?
RQ5: What individual-level factors will predict levels of support for labeling of VNR content in the news?

Method

Design
A 3 (no label, communicator label, or moderator label) × 4 (news story 1, 2, 3, or 4) between-subjects factorial experiment was carried out at the University of Illinois at Urbana-Champaign. Each participant watched one news story. Thus, there were 12 conditions in this experiment. The three conditions in the label manipulation were (a) a control in which no label was used, (b) a simple communicator label version that merely advised viewers that some of the content of the story had been provided by an outside source, and (c) a moderator label version that stressed that the news station wanted viewers to be aware that some of the story had been provided by an outside source. To increase the validity of the study and to examine the potential for partisan leanings to condition the effects of the label, four different news stories received the manipulations.

This study design has clear advantages, but they came at a cost. The manipulation of content labels meant that the study participants would not view naturally occurring news broadcasts. Rather, participants visited a laboratory, viewed a news story, and answered some questions. The setting likely increased their attention to the news story and its content. This reduced the generalizability of the study, but it greatly increased the possible effects of the labels. Our conceptual framework suggests that understanding the content and import of labels is crucial for the success of VNR labeling. Increasing audience attention to the labels should raise the likelihood that they notice the labels, process their content, and make inferences about the news and its producers. Thus, the study design sacrificed some external validity to increase the strength of the label manipulation. This is an issue to which we will return later.

Sample
Two hundred and forty-one members of the Champaign-Urbana, Illinois community participated from the beginning of June through the first of October, 2005. Considerable effort was taken to recruit a broad cross-section of the community. Flyers distributed at shopping centers, in public libraries, and in residential neighborhoods offered volunteers $15 for about 1 hour in a computer laboratory. Similar announcements were posted to electronic bulletin systems at the university and in the community. The mean age of the participants was 34 (SD = 11.94), the median education level was college graduate (63.3% reported at least that level), and the median family income level was $30–40,000 per year (60.2% reported that level or higher). The majority of the participants (62.7%) were female, 65.6% of the sample identified themselves as White, 19.9% were African American, 9.6% were Asian or Asian American, and 5% reported other race. These sample characteristics fairly
closely match those provided by 2000 census data for Champaign County. The census data show that the median education level was “some college, no degree” and the median income level was $35,000–45,000. The census data also show that 11.2% of the county was African American and 6.5% was Asian or Asian American. The sample was slightly off the census for both these groups.

Procedure
When participants arrived at the computer laboratory, they were randomly assigned to a condition and directed to a computer. Participants were told that they would view a short news clip on a computer and that they would be asked about the story. All 12 conditions in the study contained between 18 and 21 participants. As will be reported below, the nature of the story did not moderate any of the tested effects of the label manipulation. Therefore, the effective cell sizes for the three label conditions were between 79 and 82. Power for this collapsed design (i.e., three cells) was calculated using G*Power 3.0 (Faul, Erdfelder, Lang, & Buchner, 2007). Power analysis revealed strong power for detecting large (.99) and medium effects (.94), but low power for detecting small effects (.26). Power for the full design (i.e., all 12 cells) was strong for large (.99) and medium effects (.83) but low for small effects (.16). Immediately after watching the story, the participants answered open-ended recall questions, evaluated the news, answered recall questions about VNR labels, and expressed their level of support for labeling VNR content.

Stimuli
Four news stories were used as stimuli. Three of the stories were gathered from network news broadcasts in fall 2004. They were selected because each featured video footage that could plausibly have been supplied by an outside organization. One was a global warming story that ran on ABC. In it Peter Jennings introduced a feature about a scientific report documenting the melting of arctic ice (2 minutes and 46 seconds long). The second story was by CBS (Dan Rather was the anchor) and described efforts by family members of a man reportedly killed by stun guns to sue police departments and the Taser company (2 minutes and 51 seconds long). The third story also ran on CBS and concerned efforts at rebuilding Fallujah, Iraq after an offensive there by American and Iraqi military forces (2 minutes and 15 seconds long). The final story was a full VNR created by the U.S. Department of Health and Human Services to promote a new Medicare prescription drug program (1 minute and 30 seconds long). This is the intact VNR that ran on local news broadcasts in multiple markets and, as discussed above, eventually drew official criticism (United States General Accounting Office, 2004). To make it comparable to the other stories, the NBC logo was incorporated in tags identifying on-screen speakers.

Inserted into each of the stories were labels for the two experimental conditions. In all cases, the labels used the same font, coloring, and screen location as network labels identifying on-screen speakers. The communicator label said “X group created
parts of this story.” For the global warming story, the label identified a fictitious group, Citizens for the Environment. The Taser story named another invented group, Citizens Against Police Brutality. The Iraq story named the Department of Defense and the Medicare story identified the Bush Administration as the sponsor. In the moderator condition, the label said “\textit{Y network} wants you to know: \textit{X group} created parts of this story.” For both label types the phrase, “…created parts of this story” was meant to be a strong identification of VNR content. The labels ran for about a fifth to a quarter of the story, in each case. They appeared four times in the three longer stories and three times in the Medicare story. They always appeared over footage that could reasonably have been supplied by the purported sponsor group (or clearly was supplied, in the case of the Medicare story). Extensive pilot testing with undergraduate students showed that the labels appeared authentic. The stories were further edited to identify sources appearing on screen as spokespeople or representatives of the content provider named in the labels. Thus, even participants in the control condition were exposed to the group names but not in the context of having provided content.

Label recall and inference
Several items were used to determine the extent to which people noticed the labels and processed their content. The first was an open-ended prompt (“What is the name of the group that created some of the material for this story?”) that appeared very early in the posttest. Responses to this question were coded as correct or incorrect. In addition, a question late in the posttest directly asked participants whether they saw a label identifying the source of some of the video content. Overall, almost half (47.1\%) reported that they had. A follow-up question asked the respondents to name the organization identified in the label. Almost all (87.7\%) of those who had said yes were able to do so. The next two questions asked whether people thought that the news programs made an active effort to help audiences understand the sources behind the news. These were intended to determine whether viewers could infer from the presence of the labels that the news programs were trying to help audiences. One asked whether respondents thought the program wanted them to know the source of some of the story content and the other asked whether the program was concerned with identifying the source of the material in the story (1 = completely disagree, 7 = completely agree). These items were averaged ($r = .70$, $p < .01$; $M = 4.32$, $SD = 1.82$). To gauge attention to the news story, a set of two questions that accompanied the initial recall of the VNR sponsor asked the participants to recall content from the clip (e.g., identify the network that aired the story or the name of a person or organization named in the story). Correct responses to the two items were summed to form an index ($M = 1.32$; $SD = .66$).

Evaluations
A series of six scales assessed the impact of the labels on credibility judgments. The first was a set of five semantic differential items that measured whether participants...
thought of the story as biased (adapted from Newhagen & Nass, 1989). Using 7-point scales, participants evaluated between fair/unfair, unbiased/biased, can be trusted/cannot be trusted, accurate/inaccurate, and tells the whole story/does not tell the whole story. A factor analysis suggested the presence of one factor. This factor accounted for 63.47% of variance; the eigenvalue of the second potential factor was .61. A scale was created by calculating a mean of the items (\( \alpha = .85 \)). Higher scores indicate perceptions of bias (\( M = 3.86, SD = 1.29 \)). Factor analyses of perceptions (using the same five word pairs) of the news program, reporter, and television news industry all yielded identical factor structures. Mean scales were used to assess perceptions of bias in the news program (e.g., CBS News; \( \alpha = .89, M = 3.49, SD = 1.25 \)), the news reporter (\( \alpha = .90; M = 3.24, SD = 1.25 \)), and the television news industry (\( \alpha = .88; M = 4.25, SD = 1.26 \)). A final battery of the five items asked participants to evaluate the group that provided content for the story. A factor analysis suggested the presence of two factors. The first factor accounted for 65.80% of variance and the second 21.69%; the eigenvalue of the third potential factor was .31. All loadings on the two factors after rotation were above .88. Scaling created a trustworthiness factor (higher scores indicating trustworthiness, \( \alpha = .91, M = 4.33, SD = 1.60 \)) and a bias factor (higher scores indicating more bias, \( r = .84, M = 5.41, SD = 1.68 \)).

Two questions late in the instrument served to notify all the participants about the presence of VNR content in news stories and asked for reactions. On 7-point scales, participants reported whether they were bothered by the presence of VNR content in television news and whether they believed it was important for audiences to be informed about the presence of such sponsored content (higher scores indicate concern about VNRs). The mean of these two items was calculated (\( r = .67, M = 5.50, SD = 1.42 \)).

Analyses

All the news stories used in this study have ties to American politics. The stories about Iraq and global warming are relatively obvious in this respect, but even the story on the Medicare program was politically charged. Prior research on the hostile media phenomenon has shown that perceptions of bias in news stories can be influenced by partisan and other attachments (e.g., Gunther & Chia, 2001). It is possible that partisans from different camps will perceive the presence of VNR content very differently from one another, depending on the identified source of the material. For this reason, political party identification (1 = Democrat or Independent, leaning Democrat; 0 = Republican or Independent, leaning Republican) is used as a factor in all analyses of the effects of labels on evaluations of the news. Less likely as moderators are other demographic characteristics such as education and race. However, these factors can certainly affect perceptions of news media credibility (Pew Research Center, 2008), so education (less than high school, high school/vocational, some college, college graduate, and postgraduate study) and race
(1 = African American, 0 = White or other) are covariates in all analyses of news evaluations.

**Results**

**Recognition of on-screen labels**

RQ1 asked whether the study participants would be able to recall the content of VNR labels. Analyses showed that a good number of people could name the sponsoring group, although they were more likely to do so in the label conditions, $\chi^2(2, 241) = 15.76, p < .01$. Specifically, 41.8% of the participants in the control condition could identify the group, whereas 64.6% in the communicator label condition and 71.3% in the moderator label condition could do so (the difference between the two label conditions was not significant). The results for the prompted recall were similar. Only 8.9% of the participants in the control condition correctly named the group, whereas 56.1% in the communicator label condition and 58.8% in the moderator label condition could do so, $\chi^2(2, 241) = 51.67, p < .01$. Again, the difference between the label groups was not significant. In no analysis was there an interaction observed for the label and story topic conditions. Thus, recall of the VNR provider was not dependent on the particular story the participants watched.

The second question asked whether presence of the content labels affected audiences’ attention to the news story, as a whole. An analysis of covariance (ANCOVA) of the content recall index using story, label condition, and correct recall of the content provider as independent variables (with education and race as covariates) found no main, $F(2, 240) = .61, p = .55$, or interactive impact, all $Fs(2 or 6, 240) < 2.3, ps > .10$, of the label condition on recall of story detail.

A final analysis preparatory to address the two hypotheses determined whether the participants would infer from the labels that news organizations were trying to help them understand the construction of the news (RQ3). The results of an ANCOVA (story and label condition as predictors with education and race as covariates) showed that the labels had a main effect on the perception measure, $F(2, 240) = 12.38, p < .01; \eta_p^2 = .10$, and that this effect was not conditioned by the story topic factor, $F(6, 240) = .68, p = .67$. Contrast tests show that participants in the simple ($M = 4.89$, $SD = 1.78$) and moderator label conditions ($M = 4.53$, $SD = 1.97$) were significantly more likely ($p < .05$) than the participants in the control condition ($M = 3.52$, $SD = 1.43$) to believe that the news programs were concerned about the news content. Responses in the two label groups did not differ significantly from one another.

In summary, there is no evidence that the labels were particularly distracting, even if audiences generally failed to perceive a difference between the messages provided in the label conditions. People noticed the labels and were able to process their meaning to the point at which they could draw inferences about the intent of the news organizations. The issue now is whether participant awareness of the labels affected how they felt about the news and the organizations behind it.
Evaluations of the news
All the evaluation measures were examined via ANCOVA with story topic, label presence, and party identification as independent variables and race and education as covariates. H1 predicted that the presence of a communicator VNR-identifying label would increase audience bias perceptions of the news story, its reporter, the news station, the news industry, and the content source. H2 predicted that a moderator VNR label would reduce those bias perceptions, relative to control group perceptions. Neither hypothesis was supported. For none of the criterion variables was there a main effect of the label manipulation, all \( F(2, 240) < 1.28, ps > .27 \). The analyses showed that the story topic failed to condition the relationship between the VNR content labels and evaluations of the news, for all interaction tests, \( F(6, 240) < .79, ps > .58 \). Thus, both H1 and H2 were firmly rejected. This is a surprising finding that will be discussed at more length below.

Nonetheless, for individual dependent variables, there were some findings of interest. There was a significant interaction of story condition and party identification for perceptions of story bias, \( F(3, 240) = 4.01, p < .01, \eta_p^2 = .05 \), and on-air reporter bias, \( F(3, 240) = 2.82, p < .05, \eta_p^2 = .04 \). The marginal estimated means for both relationships are presented in Table 1. The overall pattern suggests that Republicans detected more bias in the global warming and Taser stories and Democrats detected more in the Iraq and Medicare stories. However, the differences between party members were significant only for the Medicare story.

Story and party identification again interacted for perceptions of VNR provider bias, \( F(3, 240) = 5.27, p < .01, \eta_p^2 = .07 \). The estimated marginal means presented in Table 1 show that Republicans were slightly more likely to see the group as biased in the global warming and the Taser conditions, although the differences were not significant. In the Iraq and Medicare conditions, however, when the provider was the Department of Defense and the Bush Administration, respectively, it was Democrats who perceived more bias. In these conditions, the differences were statistically significant. These variables also interacted in predictions of content provider trustworthiness (high scores indicate trust), \( F(3, 240) = 12.58, p < .01, \eta_p^2 = .15 \). The Table 1 pattern of means for perceived trustworthiness is almost identical to that of perceived bias. Democrats believed that the groups were more trustworthy than did Republicans in the global warming and Taser conditions, though the differences were not significant. The pattern reversed itself for the other two stories, where the differences were significant.

Audience opinions about content labeling
The fourth research question asked whether participants who viewed the content labels would support their use in other news stories. The label opinion scale assessed the extent to which participants were concerned about the presence of unlabeled content in news. Overall, support for labeling is strong (\( M = 5.50, SD = 1.42 \) on a 7-point scale). The analysis of this variable included the story, the label condition, and party identification as the independent factors and education, race, and perceived bias
Table 1 Interactive Effects of Story and Political Party Affiliation on Perceptions of Story and Reporter Bias and Content Provider Bias and Trustworthiness

<table>
<thead>
<tr>
<th></th>
<th>Story Bias</th>
<th></th>
<th>Reporter Bias</th>
<th></th>
<th>Provider Bias</th>
<th></th>
<th>Provider Trustworthiness</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Republicans</td>
<td>Democrats</td>
<td>Republicans</td>
<td>Democrats</td>
<td>Republicans</td>
<td>Democrats</td>
<td>Republicans</td>
</tr>
<tr>
<td>Global warming</td>
<td>3.52 (.26)</td>
<td>3.32 (.20)</td>
<td>3.09 (.26)</td>
<td>3.04 (.20)</td>
<td>4.95 (.34)</td>
<td>4.62 (.26)</td>
<td>4.93 (.28)</td>
</tr>
<tr>
<td>N</td>
<td>23</td>
<td>37</td>
<td>23</td>
<td>37</td>
<td>23</td>
<td>37</td>
<td>23</td>
</tr>
<tr>
<td>Taser</td>
<td>4.21 (.36)</td>
<td>3.86 (.18)</td>
<td>3.74 (.37)</td>
<td>3.27 (.19)</td>
<td>6.25 (.47)</td>
<td>5.52 (.24)</td>
<td>4.37 (.39)</td>
</tr>
<tr>
<td>N</td>
<td>16</td>
<td>46</td>
<td>16</td>
<td>46</td>
<td>16</td>
<td>46</td>
<td>16</td>
</tr>
<tr>
<td>Iraq</td>
<td>3.29 (.29)</td>
<td>3.96 (.20)</td>
<td>2.81 (.29)</td>
<td>3.30 (.20)</td>
<td>4.73 (.38)</td>
<td>5.87 (.25)</td>
<td>5.39 (.31)</td>
</tr>
<tr>
<td>N</td>
<td>20</td>
<td>40</td>
<td>20</td>
<td>40</td>
<td>20</td>
<td>40</td>
<td>20</td>
</tr>
<tr>
<td>Medicare</td>
<td>3.38 (.34)</td>
<td>4.60 (.19)</td>
<td>2.63 (.34)</td>
<td>3.65 (.19)</td>
<td>4.48 (.43)</td>
<td>6.03 (.24)</td>
<td>4.62 (.36)</td>
</tr>
<tr>
<td>N</td>
<td>15</td>
<td>43</td>
<td>15</td>
<td>43</td>
<td>15</td>
<td>43</td>
<td>15</td>
</tr>
</tbody>
</table>

ANCOVA = analysis of covariance.

Note: Cell entries are estimated marginal means (and standard errors) derived from ANCOVAs (covariates are education and race). Within each dependent variable, cells sharing subscripts are significantly different than one another, $p < .05$. © 2011 International Communication Association.
in the news industry as covariates (the last item was included under the assumption that general perceptions of bias would influence overall support for labels). No main effects of the label exposure, $F(2, 240) = .01, p = .99$, or interactive effects with the story manipulation, $F(6, 240) = .70, p = .65$, were observed.

The fifth research question asked about the factors that might predict support for VNR labeling. There was no effect of education or race on support for labeling, but there was an effect of perceived bias in the news industry, $F(1, 240) = 24.98, p < .01, \eta^2_p = .11$, such that larger perceived industry bias was associated with larger distress at the presence of unlabeled content. Party identification also exerted a main effect, $F(1, 240) = 10.33, p < .01, \eta^2_p = .05$, with Democrats (estimated marginal $M = 5.69, SE = .11$) significantly more likely than Republicans ($M = 5.03, SE = .17$) to express concern. The story variable also exerted a main effect, $F(3, 240) = 2.82, p < .05, \eta^2_p = .04$. The estimated marginal means from the ANCOVA showed that participants in the Iraq condition ($M = 4.90, SE = .19$) were significantly less concerned than were participants in the global warming ($M = 5.61, SE = .18$) and Taser ($M = 5.53, SE = .22$) conditions and marginally less concerned than those in the Medicare condition ($M = 5.39, SE = .21$). Thus, many factors are linked to support for content labeling, as a general opinion, but exposure to the labels in the news stories did not exert an effect.

Discussion

There is ample evidence here that news audiences are willing and able to process the content of the labels used in this study. Using the same font, coloring, and location as program-supplied source identifiers, the labels named specific groups as sources of program content. Audiences were able to absorb this information and later recall the name of the group and the intent of the labels. What is more, the presence of the labels does not appear to have diverted audience attention from other elements of the stories. Of course, it must be noted that a good number of the participants in the control condition imputed the presence of externally supplied content and were able to correctly name the source of that content in the open-ended recall prompt. Participants’ social desirability concerns may account for some of this imputation, but in some cases, the identity of potential suppliers (e.g., the U.S. military in the story about Iraq) was relatively obvious.

Unexpectedly, it appears that awareness and acknowledgment of the presence of potentially biasing news content had no effect on judgments of news and news producer bias. There is no evidence here of a medium or large effect of content labels on the basic components of perceived credibility. It appears that perceptions of the expertise and trustworthiness of news creators and programs are unaffected by audience awareness that external and interested parties had a hand in the creation of the news. One explanation for the results here is that the participants were already so critical of the news that the labels were unable to move their perceptions. This seems unlikely, however, given that the mean values on the evaluation measures were near...
the middle of the scales and the data were normally distributed (apart from the video source bias measure, which was skewed toward the high end of the scale). Thus, ceiling and floor effects are improbable in this case.

In the context of the theoretical framework developed for this study, the failure of the second hypothesis is particularly disappointing. One might suggest that the lack of an effect of the label wording difference on perceptions of news organizations’ motives was due to an insufficiently strong manipulation of the moderator/communicator difference. Although that is possible, it is hard to imagine making the case for news outlet concern more strongly than saying “CBS wants you to know....” The responses to the news program intent measures suggest that people generally took the presence of the labels to mean that the news program was concerned about notifying them about the presence of the outside content. However, it could be that audiences in the moderator conditions were not willing to take the next mental step, the one that called for them to see the media as being on their side. Given the lack of an impact of the labels on credibility judgments, it is surprising that the participants were relatively alarmed about the presence of unlabelled content in the news. At a broader level, the recent public outcry about the use of VNRs assumes that news audiences would be concerned about content if they were aware of it and, presumably, would employ the knowledge when evaluating the credibility of news (Campbell & Kirmani, 2000). Our results suggest that the former is true but the latter is not. This contradiction points to the need for increased media literacy.

This study is the first to directly test the impact of VNRs on adult audience perceptions—an issue that has received considerable public and professional attention but little scholarly study. The results suggest that audience recognition of the content and intent of labels identifying VNR content in television news might not influence how they evaluate the news. This comes as something of a surprise, given the influence that source credibility often has on perceptions of speakers and their messages (e.g., Hovland et al., 1953; Izard, 1985). In this study, there is no evidence that source expertise and trustworthiness, common dimensions of credibility (McCroskey & Young, 1981), were influenced by the disclosure of influence by external sources. It could be that news audiences are bringing a broad range of considerations—including some about the social roles of media and other institutions—to their judgments of news credibility. This suggests that existing models of media credibility (e.g., Gaziano & McGrath, 1986; Kioussis, 2001) might not provide a comprehensive conceptualization of the construct.

Subsequent to the execution of the current study, Wood et al. (2008) described the results of an experiment that has some parallels to that reported here. That study examined the effects of a VNR content label on the perceived credibility of the news story and newscast, recognition of the organization in the story and the VNR source (the topic was vision treatments), and evaluations of the VNR content and target organization. They found that student participants who saw the label were somewhat more likely (the effects were marginally significant) to remember the organization described in the news and the source of the VNR. However, the VNR label did not appear...
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to exert the other predicted effects. Exposure to a consumer magazine article about VNRs prior to viewing the news story lowered the reported credibility of the story and newscast and increased posttest recognition of the story focus and VNR provider. Clearly, there are some findings in that study supportive of those reported here. This is noteworthy, given that this study featured a more diverse subject population and a wider range of news topics (including stories much more controversial in nature).

Television was the medium examined here, but public relations content can be found in all media. In the same way that news critics are concerned with identifying VNR content, they could also focus on public relations material in print and online news content. The findings reported here suggest that the inclusion of source identifying information (e.g., a label naming the source of data or an image used in a story) in print news might not influence readers. However, there are many differences between video and textual news presentation, not the least of which could be audience expectations about the medium and its credibility. Indeed, Newhagen and Nass (1989) reported that news audiences might apply different standards to the evaluation of television and print news. Thus, caution should be exercised in the application of the findings reported here to other media. Research is needed to identify whether the provision of public relations source labels interacts with the standards people variously apply to the different news media.

A noteworthy finding not initially predicted was that not all content was perceived as biased, only that which contradicted participants’ preferences. The hostile media phenomenon explains much of this result (e.g., Gunther & Chia, 2001). Research has demonstrated that people use their ideological and partisan perspectives as partial lenses in their judgments of news message bias (Gunther & Chia, 2001) and outlet bias (Coe et al., 2008). It comes as little surprise that Democrats were more critical of the Medicare story, given its connection to the relatively controversial Bush administration. Despite the absence of an effect of VNR labels, the application of political schemas to credibility judgments demonstrates that the participants were processing the content and import of the stories in self-relevant ways. In addition, the observation that people applied partisan schemas to perceptions of VNR provider bias suggests that ideology may still be relevant for perceptions of VNR content. Perhaps the presence and source of VNR content would be relevant in contexts more politically charged than those tested.

It is also instructive that the context of the story and participants’ political leanings were related to support for labeling. Political scientists have long noted the attitudinal disjuncture between general and specific tolerance of others: People support protecting the rights of all people, but they prefer to suspend the rights of specific groups they perceive as threats (Sullivan, Piereson, & Marcus, 1982). As a general rule of thumb, people tend to bring different considerations to concepts at different levels of abstraction and personal threat. Again, it might be that bringing news audiences to consider the presence and potential impact of VNR content in a news story removes the distance between these levels. Future research can help
determine whether that is the case and perhaps tell us more about the long-term effects of television news programs’ growing reliance on VNRs.

There are some limitations to this study, of course. The use of multiple naturally occurring news stories and general population participants removed some of the usual concerns people have about the generalizability of media effects experiments. One important limitation of this study is its focus on credibility judgments. The lack of impact on those judgments should not be taken as an indication that other potential effects of labels—such as changes in viewers’ beliefs and attitudes toward the topics of news reports—are not possible. The effect of VNR labeling on those outcomes awaits future research. Similarly, this research did not examine the impact of labels when they identify sources with an interest in the news topic as opposed to those who are more impartial. Presumably, labels about the former should have a larger impact on credibility judgments than should those identifying the latter. As no impact at all was observed, neutral source labels may be presumed to elicit a similar lack of response. In addition, the researchers in this study invented the names of the sponsor groups, but nothing is known about the reactions the study participants had to those specific names. More fine-grained analysis of the findings might have been possible had the participants been given a chance to report what the names meant to them and the antipathy or sympathy they had with the sponsor groups.

As a final limitation, the fact that participants viewed only one story in a controlled laboratory environment increased the likelihood that they paid more than a typical amount of attention to the news. The study design maximized the likelihood that participants would notice the labels and process their content. Given this, the rate of VNR source recall here likely overstates how things would actually work. This line of reasoning increases the confidence we have that people outside of a laboratory will not use VNR label information in their perceptions and evaluations of the news. It may be that in the everyday world of television viewing, people are particularly unlikely to notice and use VNR labels. That is a sobering observation both for prevailing theories of the way news credibility operates and for people advocating the use of labels to counteract the possible influence of VNR content.

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References


