COGNITIVE EFFECTS OF BREAKING NEWS:
ESTABLISHING A MEDIA FRAME TO TEST AUDIENCE PRIMES

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CHAPTER I
INTRODUCTION

Although breaking news has been a part of the media landscape for decades, it has recently begun to change the ways in which broadcast media produce their product (Carr, 1999; Heyboer, 2000). The contemporary emphasis on breaking news is a byproduct of a changing media environment in which most outlets are controlled by a small number of corporations. Modern corporate ownership has exacerbated an atmosphere in which news professionals are keenly aware of competition, resulting in an emphasis on ratings, which serve to increase profits (Downie & Kaiser, 2002). The packaging of developing stories as *breaking news* serves as a marketing tool for media organizations that are under increasing pressure to provide as much information to the audience as quickly as possible (Lasica, 1997).

The characteristics of breaking news on television are distinct. Information is presented with language emphasizing urgency. Details are referred to as, “this just in” or “a developing story,” and coverage is highlighted with live pictures, distinctive graphic packages, and dramatic music. Viewers sense that other stories are being cut from a newscast in lieu of breaking coverage, thereby signaling that the breaking story is of greater value (Carr, 1999; Miller & Perlmutter, 2004). Audiences believe lead stories are more important than other parts of a newscast (Iyengar & Kinder, 1987), therefore story placement can take on added significance if breaking news appears near the top of a broadcast. Reporters are often live at the scene of breaking stories, and anchors abandon scripts in favor of ad-lib commentary. Broadcasters also hope the event-driven nature of
breaking stories provokes curiosity and prompts viewers to seek additional information (Carr, 1999).

Despite the prominence of breaking news in modern television coverage, researchers have failed to explore adequately the effects and influence of such coverage on viewers. Although some elements of breaking news such as live coverage (Tuggle & Huffman, 1999, 2001) or use of editing (Lang, Zhou, Schwartz, Bolls, & Potter, 2000) have been explored, these studies have focused largely on the effects of coverage techniques on viewer recall.

Statement of the Problem

Media effects research is designed to provide insight into the ways media make people think and behave (Harris, 1999). However, we know very little about viewer responses to breaking news (Harrington, 1998). Modern television news viewers have greater opportunities than ever before to be exposed to breaking news because that particular type of coverage has gained prominence in recent years due in large part to the growing competition posed by online information sources. Television outlets have learned that ratings will rise when information is presented in a breaking format (Seib, 2001).

Because breaking news is one of the most commonly used presentation techniques in broadcasting, it is important that we understand the influence of such coverage on viewers. In an age of increasing competition among media outlets, an understanding of breaking news ultimately serves to help us understand the potential for audience manipulation by media sources. Are stories truly “breaking?” Or, is the label
simply a means to capture audience attention and prevent viewers from changing the channel? If by identifying coverage as *breaking news* people are conditioned to respond in a particular way, namely to perceive the information as being important or urgent, their true interests may not be served. In such cases, the media would not be fulfilling their responsibility of serving the public good. Whether or not a story is truly breaking is an issue to be explored in future research. For now, identifying the elements of a breaking news frame and studying the influence of such coverage on the cognitive processes of viewers will be a critical first step in understanding the effects of such coverage.

*Rationale for Study*

Although the effects of breaking news are discussed occasionally in broadcasting trade publications, few scholars have empirically explored the topic. Those who have contend that the impact of breaking news on both viewers and production is significantly understudied (Abel, Miller, & Filak, 2003). Scholars also have called for greater attention to the cognitive psychology of media effects. Despite a two-fold increase in the number of media studies using cognitive psychology between 1993 and 2002 (Lang, Bradley, Chung, & Lee, 2003), scholars maintain that not enough attention has been paid to the ways people process messages and the factors that can influence audience assessments of content. Geiger and Newhagen (1993) argued that media effects researchers have failed to consider individual processing of messages, and they urged more studies to determine what happens in the mind of a viewer when that person is exposed to certain media messages.
The Growth of Breaking News

The impact of breaking news on the audience may be uncertain, but its influence on the product being provided by news organizations is clear. Breaking news has changed the way many local television stations produce their late night newscasts. Emphasizing breaking news allows stations to differentiate the 6:00 p.m. news from the 11:00 p.m. newscast, despite the fact that breaking stories represent news of the moment that may not affect viewers the next day (Carr, 1999). Network broadcasters feature breaking news as a service on their websites. Individuals subscribe with an e-mail address or pager number to be alerted when breaking news occurs (Leung & Wei, 1999). The big three broadcast networks (ABC, CBS, and NBC) and cable news channels, like CNN, MSNBC, and Fox News Channel, provide two to three breaking news alerts each day. Internet search engines, like Yahoo!, provide subscribers with up to 30 breaking news alerts each week (Palser, 2001). Breaking news has even changed newspaper production. There was a time when newspaper staffs worried only about printing a daily edition. Now, in this era of growing competition, newspapers feature breaking news on their websites and update information as much as once every 2 minutes (Heyboer, 2000).

Breaking News in Research

Our understanding of the impact of exposure to breaking news on viewers is limited. However, a scant body of research does provide some insight about the impact of breaking news on the audience. For example, Miller and Perlmutter (2004) applied relevance theory to their examination of the topic and concluded that viewers are more likely to pay attention to a breaking story when they consider it to be relevant to their
lives. Harrington (1998) produced similar results when he studied reactions among soap opera viewers whose favorite programs were interrupted by breaking news. Participants in that study often questioned whether or not a breaking story was worthy of interrupting programming. Several political and social issues, such as the first bombing of the World Trade Center in 1993, were deemed worthy of breaking in, but, other stories, including the 1994 murder trial of O.J. Simpson, were considered best suited for coverage by cable news. Nevertheless, viewers pay greater attention to breaking news than they do to stories presented in a traditional format (Miller, 2003). This results in a greater likelihood that a person will be affected by the message. He or she is more likely to exert the effort to process the message, which can potentially shape how he or she responds.

*Understanding Psychological Responses to Media*

Although there has been considerable research exploring psychological responses to media in the past decade, scholars have much work to do before meeting Geiger and Newhagen’s (1993) challenge to conduct greater exploration of message processing. Some researchers have examined cognitive responses to elements of news production; however, these efforts have largely emphasized viewer recall and physiological responses to messages. For example, Lang, Potter, and Grabe (2003) produced multiple versions of the same story to assess viewer recall and physiological responses. Among other things, they found that slower pacing, concrete words, and matching words to pictures made television news reports more memorable. Viewer responses to television messages can also be influenced by the size of the screen being watched. Reeves, Lang, Kim, and Tatar (1999) showed participants emotional scenes on three different sized television screens.
Large screens produced higher heart rates and levels of skin conductance compared to medium and small screens. In addition, powerful emotional messages (Lang, 1990) and strong negative images (Grabe, Lang, Zhou, & Bolls, 2000a) have both been found to increase heart rates and other physiological indicators. A greater number of edits also produces increased levels of arousal in viewers (Lang, Zhou, Schwartz, Bolls, & Potter, 2000).

Of particular interest to the current study are findings that suggest production elements can influence psychological responses to television news. Grabe, Zhou, Lang, and Bolls (2000b) focused on structural features of news to determine if viewers responded differently to tabloid versus traditional news stories. Production elements such as pacing, camera vantage point, shot length, and music were all found to produce higher levels of arousal and greater attention in viewers. Lang, Schwartz, Chung, and Lee (2004) examined the degree to which pacing influenced arousal in audiences. They manipulated production elements such as edits, cuts, zooms, and sound to speed up or slow down the pacing of substance abuse messages. They discovered that faster pacing produced higher levels of arousal in subjects. Even though these studies focused on the measurement of physiological responses, the results have implications for the current research because they suggest specific production techniques can alter the ways in which people cognitively process messages.

Moving beyond these findings should provide greater depth to our understanding of how viewers learn and react to television. To that end, in this study I attempt to build on our knowledge of breaking news effects in two ways. First, I establish the elements
that contribute to a breaking news frame. As will be discussed in detail below, such a frame can shape how a person perceives a breaking story. Second, I establish the ways in which breaking news coverage primes an individual’s assessment of the story.

Literature Review

Framing and priming provide the theoretical underpinnings for this study. These two perspectives, which complement each other in communication research (Scheufele, 2000), will each be discussed in greater detail.

Framing

Defining the Perspective

Cohen (1963) suggested that media do not tell people what to think, but that media do tell people what to think about. McCombs and Shaw (1972) later advanced this perspective by formulating agenda-setting theory. Framing is closely related to agenda-setting, in that media frames suggest how people think about particular stories. Frames influence a person’s view of which reports are most important (Iyengar, 1991). Framing uses exemplars, in which real events are referred to as a means of providing context (Gamson & Lasch, 1983). Exemplars are enhanced when presented with characteristics of specific social phenomena (Zillmann, Gibson, Sundar, & Perkins, 1996). Frames are distinguished by catchphrases and visual images (Entman, 1991), both of which are dominant characteristics of breaking news coverage. As it relates to this study, news frames directly relate to our cognitive responses to media messages (Shah, Kwak, Schmierbach, & Zubric, 2004).
News stories can be shaped by thematic or episodic frames. Thematic frames place information in a global context, and episodic frames concentrate on a single story (Iyengar, 1991). Television news tends to rely on episodic framing, because it is “visually appealing and consists of on-the-scene live coverage” (Iyengar & Simon, 1993, p. 370). Such coverage can be problematic, however, because episodic reports emphasize drama without providing viewers the appropriate context by which to evaluate the information. Gamson (1992) believed this lack of context explained why people tended to hold opinions about issues they did not personally encounter. Frames can shape people’s views in a contextual vacuum. Indeed, media frames can directly affect “how audiences understand issues and policy options” (McLeod, Kosicki, & McLeod, 2002, p. 223).

Scholars have generally acknowledged the power of media frames to shape a viewer’s socially constructed reality (Hansen, Ward, Conners, & Neuzil, 1994; Kepplinger & Roth, 1979; Scheufele, 1999). Entman (1993) believed frames make issues more salient to the audience and provide viewers a means to evaluate issues in terms of cause, judgment, and remedy. Frames also provide salience to individuals, by “making a piece of information more noticeable, meaningful, or memorable to audiences” (Entman, 1993, p. 53).

Framing is generally acknowledged to be an extension of the agenda-setting perspective suggested by McCombs and Shaw (1972). McCombs and Reynolds (2002) explained that because stories compete for the audience’s attention, each individual story could be viewed as an object in the daily news cycle. One story could be a political issue, whereas another might focus on economic instability and yet another might present a
weather-related disaster as an object to consider. Framing, therefore, explains the attributes of those objects, which serve to explain the multiple characteristics of a story that allow salience to resonate with viewers. As an example, McCombs and Reynolds noted “the slate of candidates vying for an office are (sic) the agenda of objects. The descriptions of each candidate in the news media and the images of the candidates in voters’ minds are the agendas of attributes” (p. 10).

Although the existence of framing has been supported through empirical research, the concept has been criticized. Experiments by Kahneman and Tversky (1984) suggested that frames lead to selective evaluation of information by individuals. Framing also has been denounced for lacking clear conceptual definitions (Scheufele, 1999) and parsimony (Scheufele, 2000). Nevertheless, the existence of framing has been supported through empirical research.

Applications in Research

Explorations of framing have largely focused on political coverage (Gamson, 1992; Gamson & Lasch, 1983; Iyengar, 1991; Iyengar & Kinder, 1987; Price & Tewksbury, 1997). Common political frames include the Fighting Frame, a conflict-based reporting approach that pits one story participant against another (Richards & King, 2000). In a similar vein, the Game Frame has been used to portray political reports as a competition or race leading to anticipation of who will win (Lawrence, 2000). The Protest Paradigm marginalizes social protesters (McLeod & Detenber, 1999), and the Rally ‘Round the Flag frame posits that the public will ignore their personal opinions about an issue to present a national united front during times of international crisis (Baker
& O’Neal, 2001). Thussu (2002), for instance, suggested that 24-hour cable channels framed coverage so as to endorse United States foreign policy.

The ways in which frames might shape audience views of news stories also have been explored through the application of case studies. For example, Entman (1991) studied the 1983 downing of Korean Airlines Flight 007 by Soviet fighter jets and the 1988 crash of Iran Air Flight 655, which was brought down by a missile fired from a U.S. naval vessel. The events were similar, yet the KAL incident was framed as a murderous atrocity, whereas the Iran Air incident was framed as an accident caused by malfunctioning technology. When investigators could not immediately explain why TWA Flight 800 crashed off the coast of Long Island, New York, reporters framed coverage to suggest a bomb was responsible, even though investigators were quoted as saying no cause was yet apparent (Durham, 1998). Coverage of the Clarence Thomas confirmation hearings to the United States Supreme Court was not framed as a political story as much as an unfolding melodrama involving allegations of sexual harassment by Anita Hill (Lipari, 1994). A dramatic frame also shaped coverage of the 1998 beating death of Matthew Shepard, a Wyoming college student who was murdered because he was gay (Ott & Aoki, 2002). The researchers determined that coverage was framed to deemphasize Shepard’s homosexuality and to focus audience attention on the two killers, who were portrayed as fanatical rednecks. Kepplinger and Roth (1979) concluded that framing of the German oil shortage of 1973 as a “crisis,” even though severe crude oil shortages never materialized, shaped consumer behavior and led to an increase in fuel
sales. Although no direct links were confirmed, the researchers concluded the coverage produced an alternate reality for the audience and ultimately influenced behaviors.

Although media have arguably always framed stories, specific institutional characteristics of media have heightened the presence of frames in recent decades. In the early 1980s, the U.S. government deregulated the broadcasting industry resulting in the elimination of educational, news, and political programming by several networks and local stations. This allowed broadcasters to cut unprofitable elements in favor of more money-making ventures (McKean & Stone, 1992). An emphasis on competition and profitability was enhanced by a post-Watergate era of journalism that framed the pursuit of scandal, wrong-doing, and fear of personal risk as investigative journalism (Aucoin, 1995; Sabato, 2000; Waisbord, 2000). In an effort to ensure that transient viewers do not change the channel, cable news channels frame stories as urgent or developing even if no crisis or new development exists (Hogarth, 1992).

Establishing a breaking news frame is an important first step in establishing the ways in which a viewer psychologically processes such coverage. Clear links exist between framing and the next perspective to be discussed, priming. Framing first tells the viewer how he or she should think about the attributes of a particular news report. Then, the ways in which media structure stories in relevant ways for viewers determine which memories people will access to assist them in interpreting news reports (Lee, 2004; Scheufele, 2000). Such is the essence of priming theory, which provides additional underpinnings for this study.
Primed}

Defining the Perspective

Priming is a theoretical perspective that explains the influence of media messages on the cognitive processes of the audience (Roskos-Ewoldsen, Roskos-Ewoldsen, & Carpentier, 2002). Priming can work in tandem with framing to shape our views and perceptions of news stories (Iyengar & Simon, 1993). Frames make specific attributes of a news story salient to the viewer. Then, those frames prime specific cognitions that the viewer will access to assist in his or her evaluation of the message (Scheufelle, 2000). With priming, exposure to a media message does the priming, and individual memories and cognitions are being primed. As will be explained below, the accessibility and importance of different primes varies from individual to individual. Although framing is a long-term process because it provides a structure by which we view and understand what is happening in the world around us, priming tends to be a momentary event unless specific cognitions are regularly stimulated to be more readily accessible. Once a prime is triggered, the stimulated idea will cease unless the individual acts to pursue more information (Price & Tewksbury, 1997).

Early research into priming effects focused on the consequences of exposure to violent media content. Scholars sought to understand the ways in which watching aggressive images produced aggressive behaviors. Some studies involved the use of electric shock, which was administered as a means of measuring aggression among subjects who had been exposed to violent movies or television programs (Berkowitz & Alioto, 1973; Berkowitz & Powers, 1979; Carver, Ganellen, Fromming, & Chambers,
1983). These priming studies established that aggressive behaviors could be produced by introducing people to words or images that represented violence or aggression (Berkowitz & Frodi, 1977; Berkowitz & Powers, 1979), thereby supporting the idea that media messages could prime particular memories, making them more cognitively accessible for later retrieval as manifested behaviors.

Although a substantial body of evidence had been accumulated to suggest that viewing violent media content produces long-term cognitive or behavioral effects (Berkowitz, 1984), Berkowitz (1986) believed it was necessary to develop priming theory to explain short-term influences of media on people’s thoughts and actions. In his 1984 essay, Berkowitz explained that how a person interprets a media message hinges largely on the thoughts that are triggered by the message. The message activates specific memories, attitudes, and ideas, which, in turn, influence a person’s overall assessment of the message content. Then, an initial cognitive assessment “can activate other semantically related ideas and action tendencies” (Jo & Berkowitz, 1994, p. 45).

Priming is rooted in the study of cognitive psychology (Roskos-Ewoldsen et al., 2002). Social cognition is contained within the realm of cognitive psychology. Social cognition is not a theory in and of itself, but serves to inform other theoretical perspectives and allows us to understand people’s choices, attitudes, and actions better (Fiske & Taylor, 1991).

At the heart of priming is the presence and functioning of schemas, “a cognitive structure that represents knowledge about a concept or type of stimulus” (Fiske & Taylor, 1991, p. 98). Schemas are the mental building blocks that form the foundation of
everything human beings think and believe (Fiske & Kinder, 1996). Schemas involve three distinct stages in which people first use a schema to encode a specific piece of information, then store the information, and finally, retrieve it at a later date (Cohen, 1981). Schemas are analogous to mental filing folders. Our memories and experiences consist of schemas that are activated when triggered by an appropriate stimulus. An example would be seeing a black and white car with a red and blue light bar attached to its roof. The visual stimulus of the car triggers a schema that allows us to recognize we have seen a police vehicle.

Related to the triggering of schemas is the theory of spreading activation, which posits that the triggering of a single schema, or node, stimulates associated pathways (Collins & Loftus, 1975). To illustrate this process, return to the example of the police cruiser. Upon seeing the police vehicle, a driver might slow down because the sight of the car has stimulated the node that recognizes the car could lead to a speeding ticket. Associated pathways stimulated by the sight of the police car might also be the concepts of help or authority. Schemas vary from person to person, however, based on personal experiences and individual memory (Higgins, 1996; Potter, Pashupati, Pekurny, Hoffman, & Davis, 2002). Therefore, an individual who has had negative experiences with police could see the car and have associated schemas such as threat or abuse activated. Although schemas are different for each person, they allow all individuals to process information and situations more quickly (Fiske & Taylor, 1991).

Several factors contribute to the functioning of schemas and associated pathways. The first is salience, which serves to explain how important the schema is to the
individual at any given time (Higgins, 1996). Ideas with a higher degree of perceived salience are triggered more easily. That does not mean, however, that low levels of perceived salience will fail to activate a schema. Higgins suggested that the triggering of schemas would simply take longer in cases of low salience, but eventually stimuli would reach the threshold required for activation.

A second critical element contributing to the ability of schemas to prime people is accessibility (Hansen & Krygowski, 1994; Higgins, 1996; Roskos-Ewoldsen et al., 2002), which addresses the ease with which an individual is able to retrieve a schema to explain a given stimulus. Personal experience with a situation allows for greater access. Higgins noted, though, that heuristics come into play in cases of no direct experience. After all, if a memory never happened it cannot be accessed. Heuristics, however, provide frameworks by which people can understand and process such situations. Roskos-Ewoldsen et al. noted that access could be heightened through recency and intensity of activation. A schema accessed a year ago is less likely to be accessed than a schema triggered yesterday. Likewise, a schema triggered by a powerful physical or visual stimulus, or profound emotion, will be more easily accessible, as well. Shrum (2002) explained that vivid exemplars are more memorable, and, therefore, are more likely to be activated by individuals attempting to place a stimulus in context.

*Applications in Research*

Researchers exploring the media effects of priming employ experimental designs (Roskos-Ewoldsen, 2002). Scholars create conditions in which a media stimulus is introduced as the treatment. To date, the majority of such studies have been dominated by
the application of priming to political news and television violence. In such studies, it is assumed that the stimulus increases salience of a related concept that has been the subject of media attention and has been primed in the viewer (Pan & Kosicki, 1997).

Most studies applying priming to political news have explored the influence of primes on presidential evaluations. For example, Iyengar, Kinder, Peters, and Krosnick (1984) concluded that television news programs that focused only on particular aspects of the president’s job primed viewer attitudes of presidential performance. In their experiment, the researchers manipulated the types of information shown to subjects. Results suggested that the types of story genres shown to participants shaped evaluations of the president. Valentino (1999) suggested, “the media alters (sic) the weight attached to a given criterion by ‘priming’ a relevant issue” (p. 294). Such was the explanation for his research that found when crime stories featuring minority suspects were presented in tandem with presidential coverage, audience evaluations of presidential job performance plunged. Valentino concluded that race issues were connected to memory, and news coverage triggered those associated schemas.

Pan and Kosicki (1997) suggested that presidential evaluations were shaped by what they called “issue regimes” (p. 4), a period of time in which the news cycle is dominated by a single, overriding story. The viewing public, they contended, can only process so much information at one time. Therefore, when media focus primarily on an ongoing story (e.g., the war in Iraq, the September 11th terrorist attacks, the O. J. Simpson murder trial, etc.) or an intense media event, the public is primed for the big story to be more salient than other reports. This observation could have significant
implications for the current study, because breaking news is often presented in a wall-to-wall approach that excludes most other stories. In the case of presidential evaluations, Pan and Kosicki determined that issue regimes shaped political discourse and primed individuals to ignore issues that could have influenced their evaluation of the president.

Even portrayals of a fictional president can affect assessments of a real-life leader. Holbert et al. (2003) explored the power of primes associated with The West Wing, a television series portraying fictitious President Josiah Bartlet. When participants were exposed to the idealistic portrayal of President Bartlet, their corresponding evaluations of Presidents Bill Clinton and George W. Bush increased. The research team concluded that the fictional portrayal primed positive attitudes that influenced assessment of actual presidents.

Besides political messages, scholars have investigated the effects of priming from violent media content (Berkowitz & Rogers, 1986; Scharrer, 2001). For example, Josephson (1987) suggested that exposure to violent television programming primed people to behave aggressively. In her experiment, young boys were shown a segment of a program involving a police SWAT team. Half the boys saw a nonviolent portrayal of the team, whereas the others saw a violent scene from the same program. Then, the youngsters were allowed to play hockey. Boys who were already high in trait aggression, and who had seen the violent clip, displayed more aggressive tendencies during the game. Although Josephson acknowledged several peripheral issues which could have influenced the results, she ultimately concluded that the experiment supported the idea that violent primes could produce aggressive behaviors. Anderson (1997) provided additional support
for this belief through his investigation of the effects of violence on spreading activation. In his study, subjects were shown movie clips that were considered only moderately violent, yet participants later exhibited significant increases in aggressive behavior. Anderson concluded that the moderate violence was enough to stimulate associative pathways and ultimately produce higher levels of aggression.

These examples of research investigating the role of political and violent television programming on the priming process provide important guidance for the current study. Scholars have demonstrated that exposure to specific media messages can shape a person’s cognitive functions. Although researchers have not explored the effects of breaking news on cognitive processes, research focusing on politics and violence suggests that exposure to a breaking news frame could shape a person’s cognitive evaluation of the message.

*Audience Awareness*

An important question stemming from priming research that is particularly relevant to this study is the issue of whether or not people are aware when they have been primed. A portion of the Breaking News Model, which I propose in this study, relies on the uses and gratifications perspective of media research. According to uses and gratifications, people are not only aware of media, but make conscious choices to satisfy specific goals (Blumler & Katz, 1974; Rubin, 1986, 2002). The aspect of awareness in priming research holds significant meaning when viewed jointly with uses and gratifications. After all, if someone is unaware he or she has been primed, it would be difficult to link, empirically, that prime to later media choices.
Although there is slight disagreement among researchers as to the issue of awareness, none seems to suggest that awareness never occurs. Fiske and Taylor (1991) considered the priming of schemas to be preconscious, meaning that at any time a person would have some degree of awareness of the activation process. Cantor and Kihlstrom (1981) proposed that priming started at the subconscious level. They believed, however, that repeated exposure to the appropriate stimulus would lead to greater recognition and a heightened sense of awareness. Berkowitz and Rogers (1986) held similar beliefs, noting that priming could begin without someone realizing it. Consciousness would then increase as activation spread through associated pathways. Price and Tewksbury (1997) suggested that a person could encounter the activation of multiple schemas at any given time, resulting in limited awareness of only those schemas that were easiest to activate.

The larger body of research, however, suggests that schema activation is not only a conscious process, but one that motivates an individual to pursue an idea actively. Iyengar and Kinder (1987) believed that priming was a conscious process, largely because people had to attend to a message and assess the salience of the issue at hand. Price and Tewksbury (1997) concurred, suggesting that people are active, not passive, in their use of constructs. They believed that once a schema was activated, people consciously assessed a situation to determine its relevance. This process could be enhanced by the recency or frequency of the activation. Ultimately, Price and Tewksbury maintained that an individual’s level of consciousness was largely dictated by relevance and interest.
Perhaps the most pertinent argument concerning consciousness of activation to the proposed Breaking News Model comes from Higgins and King (1981). If schema activation started out as a process of the unconscious, they contended, it could not remain so for long. Activation would lead to consciousness, and consciousness would lead to motivation to take action or to seek additional information. As an illustration, Higgins and King provided an example of witnessing someone being hurt. Schema activation would produce consciousness, which, in turn, would motivate a person to seek help for the injured party. On a more basic level, hunger triggers a schema that motivates an individual to find food. As it applies to this study, these conclusions suggest that exposure to breaking news has the potential to prime a person’s cognitive processes and also to influence conscious thoughts that will manifest themselves through purposive choices of media use.

The Breaking News Model

The model presented in Figure 1 is designed to establish a breaking news frame, ascertain ways in which breaking news primes audience cognitions, and explain how breaking news serves to influence future media use. Price and Tewksbury (1997) noted that repeated exposure to a single concept produces cumulative effects in viewers. Certainly the ubiquity of breaking news in television media provides ample opportunity for such cumulative effects to occur. The nature of these, effects, however, has not been explored through empirical research. I believe, and the Breaking News Model suggests, that consistent characteristics create a breaking news frame by which media present information to audiences. Exposure to breaking news prompts audiences to view such
Figure 1. Breaking News Model depicting framing, priming, and media use
reports as urgent. Viewers interpret the stories as being more important than other coverage, they assess the events involved as having occurred in the past several minutes or recent hours, and they often become curious to learn more. The model also predicts that an assessment of viewer salience can influence his or her approach to breaking news as an instrumental or ritualized user of media. The following discussion elaborates on each section of the model and the application of the theoretical principles that have been outlined thus far.

Entman (1993) maintained that a primary first step in understanding the context of a media message is to establish the frame involved. To that end, the first stage of the proposed model in Figure 1 establishes a breaking news frame. It is expected that a breaking news frame is characterized by specific language, such as “breaking news,” “this just in,” or “we are following a developing story.” Coverage would likely be accompanied by graphics featuring similar language. Additionally, anchors would ad-lib through breaking news coverage, and reporters would be featured live at the scene.

For viewers, exposure to the breaking news frame serves to influence their assessment of an event. The literature notes that the ways in which news is framed suggests to the audience members how they should think about various stories (Entman, 1991; Lawrence, 2000; Lipari, 1994; Ott & Aoki, 2002, Richards & King, 2000). Frames can even prompt changes in viewer behavior (Kepplinger & Roth, 1979). Frames contribute to the viewer’s construction of reality (Hansen et al., 1994; Kepplinger & Roth, 1979; Scheufele, 1999). A breaking news frame establishes the perception of urgency and importance given to developing stories by media organizations.
Scholars have observed that framing provides a foundation for priming, which is the influence of “the content of the media on people’s later behavior or judgments related to the content” (Roskos-Ewoldsen et al., p. 97). Iyengar and Simon (1993) believed that patterns of news coverage prime audiences to view their world in certain ways. Berkowitz and Rogers (1986) observed “people’s reactions to the messages they read, see, or hear in the media depend considerably on the way the message is interpreted and the thoughts and memories that are consequently activated” (p. 58). This leads to the next stage of the proposed model, in which recognition of breaking news occurs and audiences are primed through the activation of appropriate schemas.

Several breaking news characteristics serve to enhance the priming process. Research has established the role of visual cues in schema activation (Collins & Loftus, 1975; Fiske & Taylor, 1991; Potter et al., 2002). The combination of words and symbols are particularly important in activating audience primes (Scharrer, 2001). Schemas are also more likely to be triggered when a viewer hears multiple words instead of single words (Roskos-Ewoldsen et al., 2002). This observation has implications for breaking news coverage, because media outlets often present such stories in a “team coverage” fashion with catchphrases summarizing the event.

In addition, Iyengar and Kinder (1987) established that exemplars and the vividness of a story can provide added weight to a viewer’s assessment of a particular story. Such vividness can be enhanced by competitive factors that prompt media to emphasize a story as breaking (Price & Tewksbury, 1997). Schema activation is also enhanced by exposure, experience, and situations in which people recognize specific
events or familiar situations (Fiske & Taylor, 1991). The verbal and visual elements of breaking news would surely provide familiarity for viewers and contribute to their ability to place such reports in the context of a specific event.

Breaking news is characterized by a sense of urgency, an implication that the breaking report is more important than other stories, an assumption that viewers will become more curious, and that the event has recently occurred (Carr, 1999). Iyengar and Kinder (1987) noted that primes prompt the audience to think about stories in certain ways, thereby influencing their evaluations of the news. When people are exposed to a message, they establish cognitive shortcuts that allow them to evaluate coverage and establish a report’s importance.

Although individual salience and story attributes could influence perceptions of news reports, the foundation of priming suggests that a person’s memories of past exposure to breaking news contribute to his or her assessment of each successive exposure to breaking news. Brewer, Graf, and Willnat (2003) agreed, noting that “exposure to media coverage of an issue tends to make that issue more accessible in people’s minds; this heightened accessibility, in turn, increases the likelihood that people will base subsequent evaluations on their thoughts about the issue” (p. 494). Evaluation is also enhanced when information is presented in a thematic narrative, a characteristic that is quite common in coordinated coverage of breaking news. Hansen and Krygowski (1994) contended that thematic recognition allowed for easier schema access. Their conclusion meshed with comparable research: once a schema is primed, it is more likely to be accessed, even if a more appropriate schema could apply to a situation.
Although the final stage of the model was not tested in the current research effort, a brief discussion will be provided to explain the process. Once a viewer has been exposed to the appropriate stimulus that will prime the associated schemas, the model suggests that audience members will engage in a process of salience evaluation. Salience is the process which makes “a piece of information more noticeable, meaningful, or memorable to audiences” (Entman, 1993, p. 53). It is during this evaluative process that people assess a story’s relevance in terms of the issue’s importance, proximity, and overall interest (Gamson, 1992). From a cognitive perspective, the evaluation of salience triggers nodes along associated pathways of a given schema (Collins & Loftus, 1975).

It should be noted, however, that salience is not only determined by personal relevance. Media can also influence evaluations of salience. The ways in which stories are produced can enhance the ways in which viewers perceive issues and events (Price & Tewksbury, 1997). The placement of reports in a newscast can influence an individual’s assessment of salience. Salience can also be affected or guided by the intensity or vividness of a particular stimulus (Higgins & King, 1981). If media directly or indirectly imply that a story has particular value, viewers will be more likely to assess those reports as more highly salient. Watt and Krull (1977) suggested that the form of a story can influence perceived salience to a greater degree than story content. Furthermore, stories will be evaluated as more salient if constructs relating to those reports are chronically accessible (Price & Tewksbury, 1997).

The assessment of salience in the proposed breaking news model is not unlike the evaluation of persuasive messages in the Elaboration Likelihood Model (ELM) as
proposed by Petty and Cacioppo (1986). The ELM suggests that when people hear a persuasive message, they engage in a process of elaboration in which the information is evaluated for message characteristics, consequences, benefits, and other potential outcomes. The ELM suggests that persuasion occurs through one of two potential routes. The central route is direct in nature, in that individuals subject the message to extensive scrutiny and examine the issue for a high degree of personal salience. The peripheral route is more secondary. Decisions about the message’s importance may be assessed through the application of heuristics. The message is subjected to a less energetic evaluation, and may be adopted through a greater reliance on secondary cues. As assessed elaboration decreases, the chances of peripheral influence increase (O’Keefe, 1990).

The model proposed to assess the salience of breaking news operates in a similar fashion. Different people pay varying levels of attention to the message when first exposed to the breaking news frame and the corresponding breaking news primes. This leads to a process of salience evaluation in which some people might recognize a high degree of salience that would lead to attention akin to the central route. Others might see moderate to low levels of message salience, in which case their assessment of the story content would be based on more peripheral issues. In either case, however, viewers will be aware of the message, engage in some degree of evaluation, and emerge having judged the story with varying degrees of salience.

Following salience evaluation, the Breaking News Model predicts that the presence of breaking news will serve as an antecedent to motivate some viewers to seek
out more information. A viewer’s desire to learn more about a breaking news story will be influenced by the ways in which he or she uses media. This portion of the model is theoretically rooted in the uses and gratifications perspective, which posits that people are purposive and goal directed in their media choices in order to satisfy felt needs (Katz, Blumler, & Gurevitch, 1974).

The model suggests that instrumental viewers (Rubin, 1984) will be motivated to seek additional information about the breaking news story. This assumption follows the criteria set forth by Rubin, in which instrumental media users are purposive and goal-directed in their approach to news viewing, and are selective in their information-seeking behaviors. Instrumental news viewers exposed to breaking news would arguably be familiar with a breaking news frame, and, therefore, the breaking news primes would be more cognitively accessible. Such viewers are likely to have a substantial interest in the news genre and are likely to evaluate the breaking story as salient. Therefore, they are likely to be motivated to seek out additional facts about the breaking news story.

In contrast, the model suggests that ritualized viewers (Rubin, 1984) will not be motivated to seek additional information on a breaking news story. Such viewers, as suggested by Rubin, frequently watch television out of habit or to fill time. As a result, even if such viewers are exposed to a breaking news frame and the breaking news primes are activated, they may be unlikely to assess the story as particularly salient. After all, studies have suggested that some news viewers use the genre strictly as a form of entertainment (Vincent & Basil, 1997). Therefore, it could be less likely that a ritualized news viewer would be motivated to seek out more information.
The proposed Breaking News Model does, however, allow for the possibility that either type of news viewer will respond in a different manner once he or she has evaluated a story’s salience. Rubin (1984) acknowledged that “ritualized and instrumental television use may not be clearly dichotomous” (p. 76). The appropriate stimulus could serve to shift someone’s use of television news from ritualized to instrumental, or vice versa.

An individual who is habitually watching television news could be paying little attention to the content, that is, the television could just be on in the background. However, when breaking news is introduced with urgent language, dramatic music, and the appropriate graphics, people’s schemas are triggered and they become aware of the story. If the person evaluates the report to be particularly salient and wishes to obtain more information, that story is no longer just background noise. The person has now shifted from being a ritualized news viewer to an instrumental news viewer. Even if an individual is watching the news for entertainment purposes as opposed to satisfying information-seeking needs, exposure to breaking news might prompt such viewers to become purposive in obtaining additional information about a story.

Likewise, the opposite could occur. If an instrumental news viewer is engaged in information-seeking behavior when breaking news is introduced, that person could be exposed to the breaking news frame, breaking news schemas could be activated, and the individual could determine the story is extremely low in salience and of no value. For example, if the breaking news item is from the world of Major League Baseball and he or she is not a sports fan, then, at that point, a person’s instrumental use of television news
might become ritualized. Such an outcome could also result from overexposure to the media message and desensitization (Davis & Mares, 1998; Kinnick, Krugman, & Cameron, 1996). For example, if the breaking story is originating from Iraq, a person could decide that another piece of information from the Middle East does not matter to him or her at that point and the story becomes background noise.

Hypotheses and Research Questions

Establishing a Breaking News Frame

The literature suggests that the presence of frames in news coverage has the ability to shape the ways in which viewers interpret events (Entman, 1993; Iyengar, 1991; McLeod et al., 2002; Scheufele, 1999). Frames influence cognitive assessments by assisting the audience in evaluating information and providing structure for how people should think about the reports they see (Shah et al., 2004). The first phase of the Breaking News Model in Figure 1 calls for establishing the breaking news frame to which audience members will be exposed. To that end, I proposed the following research questions:

RQ1: What production elements (such as graphics and music) are consistently present in breaking news coverage?

RQ2: What verbal characteristics are consistently present in breaking news coverage?

RQ3: What visual characteristics (such as live pictures and videotaped images) are consistently present in breaking news?

RQ4: To what degree do production, verbal, and visual characteristics appear together to frame breaking news?
Breaking News and Priming

Priming research has consistently produced evidence suggesting that participants exposed to specified treatments will be primed according to the issue under investigation by the researcher. As noted earlier, several studies have produced results suggesting confirmation of this belief. Most notably, priming effects have been confirmed when examining media violence. Research has established that exposure to violent media images can increase a person’s aggressive behaviors (Berkowitz & Frodi, 1977; Berkowitz & Powers, 1979; Josephson, 1987), influence long-term cognitive assessments (Berkowitz, 1984; Jo & Berkowitz, 1994), and influence the process of spreading activation through associative pathways (Anderson, 1997). In addition, exposure to suggestive music videos has been found to prime a viewer’s evaluation of sexual situations and shape attitudes regarding sexual activities and stereotypes (Hansen & Krygowski, 1994). Researchers also have investigated the influence of political primes by linking exposure to assessments of foreign affairs (Brewer et al., 2003) and presidential performance (Holbert et al., 2003; Iyengar et al., 1984; Pan & Kosicki, 1997; Valentino, 1999). Based on this body of research, the following hypotheses were tested in this study:

H1: Participants exposed to a newscast containing a breaking news story will rate breaking news as being more urgent than participants exposed to a newscast with no breaking news story.

H2: Participants exposed to a newscast containing a breaking news story will rate breaking news as being more important than other reports in the newscast, compared to participants exposed to a newscast with no breaking news story.
H3: Participants exposed to a newscast containing a breaking news story will report a greater desire to learn more about breaking news than participants exposed to a newscast with no breaking news story.

H4: Participants exposed to a newscast containing a breaking news story will evaluate breaking news as happening more recently than participants exposed to a newscast with no breaking news story.

**Individual Differences**

Although priming research is designed to assess cognitive processes in the audience, it is not unprecedented for scholars to examine specific viewer attributes that are either empirically or intuitively related to the hypotheses. Such an approach provides a richer, more complete representation of the ways in which different individuals are primed. Iyengar et al. (1984) suggested that viewer characteristics were a critical consideration because “some people may be more vulnerable to manipulations of accessibility than others” (p. 779). In their assessment of priming’s influence on evaluations of presidential performance, for example, the researchers first established pre-existing levels of public affairs knowledge. Brewer et al. (2003) employed a similar approach by establishing participants’ foreign policy knowledge and attitudes towards foreign nations before studying the effects of priming on attitudes about overseas countries. In her exploration of priming’s influence on children’s aggression, Josephson (1987) first identified whether or not her subjects had a predisposition to aggressive behavior. Hansen and Krygowski (1994) went so far as to have participants in their study engage in exercise while watching sexually explicit music videos. Their goal was to
counter any effects of physical arousal brought on by the treatment stimulus and obtain a clearer picture of the videos’ abilities to prime the most extreme attitudes among their participants.

Given these examples, accounting for individual differences in the present study was also advisable. To that end, three antecedent variables depicted in Figure 1 were studied: frequency of viewing, need for orientation, and cognitive involvement.

**Frequency of television news viewing.** One of the most commonly used independent variables in media research is exposure (Slater, 2004). In fact, exposure is an important variable that provides a cornerstone for some media perspectives, such as cultivation analysis. Although some scholars have conceptualized exposure as simply the number of hours a person watches television (e.g., Gerbner & Gross, 1976), others have suggested that considering the types of programs a person watches will produce a greater understanding of exposure (Potter & Chang, 1990). Gunter (2000) believed that measuring exposure and viewer involvement (which will be discussed below) were the two cornerstones of media effects research.

Although exposure is traditionally considered a behavior that might result from other preceding factors, it was treated as an antecedent in this study because it is possible that exposure to a breaking news frame would occur independently of other factors. For example, although exposure could be the result of a person’s high need for orientation, someone with low need for orientation might be flipping channels and come across a breaking news story. Although, ordinarily, he or she might not have other motivations for being drawn to the coverage, exposure in and of itself might capture his or her attention.
and produce a desire to learn more about the incident. In such a case, exposure would serve as the antecedent leading to the person being primed by breaking news coverage to see the story as salient and worthy of additional interest.

As it relates to this cognitive exploration of breaking news, the frequency with which someone watches television news was a logical consideration. Cognitive research has established that the frequency of exposure to an idea or frame and the recency of schema activation are two key aspects that contribute to priming (Price & Tewksbury, 1997; Roskos-Ewoldsen et al., 2002). Price and Tewksbury contended that when a schema is triggered repeatedly, it results in chronic accessibility. When a schema is constantly available, an individual is more likely to use the schema to explain a given stimulus because it requires less effort than processing a message for alternative explanations. Accounting for chronic accessibility can provide a greater explanation of priming effects (Roskos-Ewoldsen et al., 2002). As a result, assessing the priming effects of breaking news should also include examining the frequency with which viewers are exposed to television news broadcasts.

Need for orientation. The need for orientation occurs when a person has “a high level of interest in the subject of a message . . . coupled with a high level of uncertainty regarding [a] subject” (Weaver, 1980, p. 365). The origins of the concept can be traced to Tolman (1948), who posited that maps in a person’s mind assist an individual to navigate situations in his or her environment. In the absence of such schematic references, a person will experience a high degree of uncertainty, which in turn will prompt the individual to desire information about his or her surroundings. According to Weaver, a
moderate need for orientation is produced when either the level of interest or uncertainty is high, and the other is low. Low levels of both interest and uncertainty results in a weak need for orientation.

The need for orientation was important to the present study because the Breaking News Model predicts that exposure to breaking news will influence cognitions by triggering a person’s curiosity about the story. Need for orientation is a utilitarian concept that serves to explain an audience member’s information-seeking behaviors (Weaver, 1980). Therefore, as I sought to evaluate the degree to which breaking news primed viewer curiosity about a story, the need for orientation was seen as a concept that could explain the reasons for and levels of curiosity experienced by the audience.

The need for orientation has been shown to influence several media effects, including persuasive influence of messages, increased media use, and a greater likelihood of agenda-setting effects (Weaver, 1980). Although the need for orientation was not originally a cornerstone of the agenda-setting perspective (McCombs & Shaw, 1972), it was developed to explain the degree to which viewers might experience agenda-setting effects (McCombs & Reynolds, 2002). McCombs and Reynolds explained that personal relevance, or interest in an issue, and uncertainty combined to create the need for orientation. If people see a story as being particularly relevant to their lives and they are uncertain about what’s happening in the world around them, the result is a higher need for orientation. When those with a high need for orientation pay attention to media, they have a greater likelihood of experiencing agenda-setting effects. It seems reasonable that
people’s desire to be aware of the world around them might also influence the degree to which they process information contained in a breaking news story.

*Cognitive involvement.* Examining viewer involvement has long been an element of cognitive media research (Lorch, 1994). Involvement addresses “the degree to which the individual interacts psychologically with a medium or its messages” (Levy & Windahl, 1985, p. 112). Studies have generally shown that involvement influences how a person processes media messages (Lorch, 1994; Perse, 1990). Evaluating involvement also indicates the cognitive effort required by a person to process a media message (Gunter, 2000). The higher a person’s involvement with a media message, the greater the effort exerted to process information (Petty & Cacioppo, 1986).

Cognitive involvement was important to consider in this study because it has been characterized as a means to evaluate issue salience. Higher levels of cognitive involvement indicate higher levels of interest and salience among audience members (Chaffee & Roser, 1986; Putrevu & Lord, 1994). Entman (1993) and Higgins (1996) maintained that salience is a critical factor in understanding cognitive processes because issues that are perceived to be highly salient are more likely to lead to the activation of related schemas. Miller (2003) believed that because viewers pay greater attention to breaking news than traditional story formats, examining cognitive involvement could provide a greater understanding as to how viewers learn from and react to this type of news coverage. In addition, Flora and Maibach (1990) noted “involvement is important, not only because it influences information-processing strategies and outcomes, but also because it operates largely independent of demographic effects” (p. 760).
An exploration of cognitive involvement and issue salience should provide additional value beyond this study. The third stage of the Breaking News Model, which was not tested in this study, suggests that salience of breaking news coverage will influence viewers’ motives to seek additional information about the story. This portion of the model is rooted in the uses and gratifications perspective of media research, which suggests that people are purposive and goal-directed in their media use (Blumler & Katz, 1974; Rubin, 1984, 1986, 2002). Scholars have suggested that, in addition to shaping the ways in which a person thinks or talks about a media message, levels of involvement can influence a person’s media goals (Levy & Windahl, 1984).

Rubin (1993) explained that involvement is the cornerstone of audience activity. Greater levels of involvement can result in more purposive behaviors by a person to think and learn about a media message. Audience activity helps explain how a person processes a message before, during, and after exposure, thereby providing explanation of relationships between television viewing and individual outcomes (Perse & Rubin, 1988). Blumler (1979) contended that examining audience activity must include factors such as the utility of the media, the existing motives that guide a person’s viewing intentions, and the ways in which existing interests guide media choices. Each of these could be heightened for someone watching breaking news, particularly given that Blumler believed a person’s level of activity can vary across certain types of media messages.

Information obtained about cognitive involvement in this study could provide potential guidance in future exploration of the model’s final stage, especially given that “involvement has been linked to media use motives that are grounded in beliefs about the
importance of the content and reflect a desire to acquire and share information” (Rubin & Perse, 1987, p. 63).

Research questions. As discussed above, the frequency with which someone watches television news, a person’s need for orientation, and a person’s cognitive involvement with a television newscast have the potential to explain someone’s evaluation of breaking news coverage. Therefore, I proposed the following research questions:

RQ5: Do frequency of viewing television news, need for orientation, and cognitive involvement explain a person’s evaluation of urgency about breaking news?

RQ6: Do frequency of viewing television news, need for orientation, and cognitive involvement explain a person’s sense of importance about breaking news?

RQ7: Do frequency of viewing television news, need for orientation, and cognitive involvement explain a person’s curiosity to learn more about breaking news?

RQ8: Do frequency of viewing television news, need for orientation, and cognitive involvement explain a person’s evaluation of how recently breaking news has occurred?

Oliver (2002) noted that examining individual differences was especially important in priming research because each person possesses a unique cognitive network. Activation of schemas and associated pathways are unlikely to affect all people in a
uniform manner. Therefore, accounting for individual differences should yield additional insight into the diverse ways people evaluate breaking news coverage.

Potter and Tomasello (2003) also advocated the inclusion of individual characteristics in cognitive media effects research. Most effects research, they maintained, focused on the demographics, states, and traits of subjects. They urged greater attention to factors that could influence people’s interpretations of media messages. Especially as they related to individual schema construction, Potter and Tomasello noted that individual differences “in terms of their experiences, perceptual abilities, cognitive styles, and emotional reactions” (p. 316) could account for a high degree of variance in media effects. Therefore, the viewer attributes are studied to understand whether or not these individual characteristics affect priming.

Summary

Breaking news has been part of the media landscape for decades. In recent years, however, it has taken on new significance as media organizations, particularly broadcast media, have turned to the breaking news phenomenon as a tool to distinguish coverage in an increasingly competitive arena. Breaking news has become a dominant frame in shaping television news coverage. This study has been designed to determine the degree to which such coverage prompts viewers to adopt a sense of urgency, curiosity, recency, and belief that breaking news is more important than other stories in the newscast.

The hypotheses and research questions outlined above provided a test of the first two stages of the Breaking News Model presented in Figure 1. The first stage of the model begins when the audience is exposed to the breaking news frame. The present
study ascertained the verbal, visual, and production elements that were consistently present in breaking news, thereby empirically establishing the frame indicated in the model. Once the frame was determined, the priming effects reflected in stage two of the model were examined via audience exposure to a breaking story reflective of those characteristics. Testing the proposed model should provide a greater understanding of the effects of breaking news on television viewers.
Presenting a story as “breaking news” has emerged as a common way for broadcasters to capture a viewer’s attention and reduce the likelihood that the viewer will change the channel (Carr, 1999; Seib, 2001). Although research has suggested that viewers pay greater attention to breaking news than other stories in a newscast (Miller, 2003; Miller & Perlmutter, 2004) and that people evaluate whether or not a breaking story warrants interruption of regular programming (Harrington, 1998), the ways in which such coverage influences a person’s cognitive processes have yet to be explored. Scholars have advocated such investigations to produce a greater understanding of the ways people process media messages (Geiger & Newhagen, 1993).

Therefore, the present study had two objectives. First, the study was designed to identify the elements that contribute to breaking news coverage. Second, this research identified and evaluated the ways in which breaking news primed viewers to influence their cognitive assessments of the story. Each of these goals, and the methodologies employed in reaching them, is discussed below.

Stage One: Identifying a Breaking News Frame

Content Analysis

The first stage of this study, which tested the Breaking News Model presented in Figure 1, involved a content analysis of breaking news coverage. Content analysis is a commonly used, empirical methodology that has assisted media researchers in examining characteristics of media messages, including political campaigns, portrayals of minority
groups, and violent content (e.g., the number and types of violent or antisocial acts that occur in a particular program). Content analysis was a key element of the Payne Fund Studies, the landmark exploration of media violence (Dale, 1935). The number of content analyses conducted by media scholars has increased six-fold in recent decades (Riffe & Freitag, 1997), due in large part to the method’s ability to provide a researcher with an objective and systematic method by which message characteristics may be examined.

The goal of any content analysis is to make inferences from the data (Krippendorf, 1980). The analysis produces descriptive accounts of media content, which allow for the interpretation of data based on theory, outcome goals, and the needs of the researcher (Gunter, 2002). Conclusions, however, are often drawn in tandem with other research techniques. Gunter noted that additional evidence must be generated to determine the effects of media content on members of the audience. Holsti (1969) maintained that message analysis in and of itself means little unless a researcher views results through a larger theoretical perspective.

A priori designation of the message characteristics one wishes to study is critical to ensuring an empirically sound content analysis (Neuendorf, 2002). The researcher must determine where the data come from and how much will be analyzed (Krippendorf, 1980). In addition, a single attribute rarely provides adequate understanding to interpret a message. Therefore, the complexities and characteristics of the message or messages to be scrutinized must be established in the early stages of the analysis (Reeves & Geiger, 1994).
Hansen, Cottle, Negrine, and Newbold (1998) explained that content analysis involves six key steps, each of which was followed in this study. First, the researcher must identify the objectives of the research, whether through hypotheses or research questions. Second, the researcher must select the media he or she wishes to study and collect the appropriate sample. The third step involves defining categories to be analyzed. This requires developing a coding scheme, which will guide researcher objectivity in step four. Step five involves establishing of a coding schedule and analyzing intercoder reliability. In the sixth and final step, data are analyzed and the appropriate statistical tests are calculated.

A variety of content analysis techniques are available to a researcher, depending on the objectives of his or her study. The present study employed a descriptive content analysis, which, as its name suggests, is designed to describe a particular message and/or its attributes. The descriptive approach is generally seen as among the most parsimonious forms of content analysis (Neuendorf, 2002). The technique reveals several message characteristics (e.g., words, images, and structural features), but does not necessarily require a conclusion to be drawn about message outcomes.

Data Collection

A researcher hoping to conduct a viable content analysis must first identify which sources will be used, how many samples will be selected, and which specific story elements will be coded and analyzed (Gunter, 2002; Holsti, 1969; Neuendorf, 2002). To that end, media messages examined in this study consisted of actual breaking news coverage produced by broadcast network affiliates and 24-hour cable news outlets. News
coverage was recorded from three cable channels (CNN, MSNBC, and Fox News Channel) and daily scheduled newscasts from four local affiliates (ABC, CBS, NBC, and Fox) in Cleveland, Ohio. These outlets were selected for their accessibility and the regularity with which they aired news programming. Because cable news programs are aired 24 hours a day and local newscasts tend to rely on breaking coverage to differentiate among multiple newscasts (Carr, 1999), these outlets were likely to yield substantially more examples of breaking news than recording regular network programming (e.g., interruption of daytime soap operas or primetime programs). In addition, networks have, in recent years, demonstrated a hesitancy to interrupt regular programming lest breaking news coverage negatively impacts ratings and revenues (Downie & Kaiser, 2002).

This portion of the study involved a nonprobability sampling of breaking news coverage. Six-hour blocks of cable news were recorded each day for 2 weeks in March of 2005. Both the network recorded and time of day recorded were randomized so as to produce a reasonable representation of the cable news landscape. The recording schedule emphasized daytime and primetime broadcasting hours (6 a.m. to 11:00 p.m.) because the cable networks repeat primetime programming during the overnight hours. Two weeks of newscasts were also recorded from the local network affiliates. Recording times were randomized to ensure that each station’s morning, noon, late afternoon, and late night newscasts were recorded multiple times.

It was hoped that this recording schedule would yield at least five examples of breaking news coverage from each media outlet, resulting in a total of 35 cases of
breaking news. However, if only three examples of breaking news had been recorded from a single outlet, the lesser number would have been acceptable because media outlets tend to use consistent production techniques so that music, graphics, and the overall “look” of their product will provide a familiar brand to the audience. Although one or two examples of breaking news may not reflect standard production techniques, it was believed that at least three examples of breaking news from any outlet would produce a reasonable representation of the ways in which that media brand consistently produced breaking news coverage.

Two media outlets, the ABC and NBC affiliates in Cleveland, yielded only four examples of breaking news during the recording schedule. All other recorded outlets generated five examples, resulting in 33 cases of breaking news to be examined in this content analysis.

Sample Size

Although the final tally of 33 breaking news examples was acceptable for this stage of the study, it should be noted that an appropriate sample size for a content analysis is difficult to identify. Scholars have often failed to agree on set numbers of data, both in theory and in practice. Neuendorf (2002) suggested that a basic content analysis should use a minimum of 384 examples of the unit being studied. However, she also acknowledged that content analyses could be conducted by following other methodologies set forth in established studies.

Krippendorff (1980) believed it was not necessary to have a set number of examples to conduct a valid content analysis. He explained that, because the goal of
content analysis is to make inferences about the data, it was more important for a researcher to be consistent in the collection of samples to be analyzed. In lieu of no set number of examples to be collected, Krippendorff recommended conducting a split-half analysis of gathered samples. If the split-half method indicated agreement, then a small sample, regardless of its size, would be acceptable. Holsti (1969) also acknowledged that an appropriate sample size was determined largely by the objectives of individual researchers. He believed that sample size was secondary to the elimination of bias, which posed a greater threat to validity than sampling design. Such bias can be reduced through appropriate coder training.

A review of literature involving content analyses revealed inconsistent approaches to establishing a sample size. Scholars conducting content analyses have performed studies with a few dozen examples (Durham, 1998) to a few hundred (Lawrence, 2000; Rohlinger, 2002). Some researchers have collected more than a thousand examples of the unit under investigation before conducting a content analysis (Kepplinger & Roth, 1979; Martin & Phelan, 2002). Yet a small collection of message samples also has been adequate for researchers to draw conclusions about media content. Entman (1991) focused primarily on a total of four newsmagazines – two issues of *Time* and two issues of *Newsweek* – to determine the tone of the KAL and Iran Air incidents. Eyal and Rubin (2003) coded 18 episodes of various television programs to establish the personalities of eight aggressive television characters. Results were then used to assist in measuring viewers’ levels of identification, parasocial interaction, homophily, and aggression with the characters. Stempel (1952) suggested that smaller samples could be just as effective
in providing conclusions about media content as larger samples. Stempel and his colleagues examined a single issue (which was not identified) as covered by a Wisconsin newspaper. Samples ranging from 6 to 48 were collected and studied. Stempel concluded that after 12 issues, larger sample sizes did not significantly affect results. He ultimately suggested “that increasing sample size may be a poor investment of the researcher’s time” (p. 334).

Stempel’s (1952) suggestion was particularly reassuring for the present study. Collecting examples of breaking news is problematic when compared to other analyses of media content. The examples noted above involved studies in which scholars examined media content that had already been produced and could be easily collected for examination. Breaking news, however, does not appear with regularity. As a result, the time required to accumulate dozens or hundreds of examples for analysis would have been prohibitive.

Coding of Data

The media messages that are collected for content analysis must be systematically examined using predetermined categories, precise units, and consistent enumeration (Holsti, 1969). Such procedures ensure the integrity of the coding process, in which data are used to ascertain attributes of the messages under study. A critical first step in this process is ensuring the categories developed for content analysis have face validity by reflecting the issue being investigated by the researcher. Categories must also be exhaustive, mutually exclusive, and independent of other categories (Holsti, 1969; Neuendorf, 2002). Units are single words, symbols, or themes of messages. Whether a
sentence, paragraph, or visual image, the unit in content analysis is the item that guides coders to determine in which category an element will be recorded in the study. Finally, the recording of units in categories must be quantified. A researcher may select any number of enumeration techniques, including the number of words used in producing a unit, or the length of time a unit lasts, or the frequency with which a unit appears (Holsti, 1969). The latter method was used in this study.

This content analysis focused on production elements that were consistently present in breaking news coverage. Coding, therefore, focused on the graphics, music, language, and visuals that were used in presenting breaking coverage. A coding book (see Appendix A) and coding form (see Appendix B) were created to provide coders with both coding protocols and a method of recording variables.

Production elements that were coded included the use of graphics and music. Graphics are electronically generated visuals that might appear over an anchor’s shoulder, as a banner in the lower-third of the television screen, or as a full screen element to introduce coverage or provide viewers with additional information (e.g., maps, lists of phone numbers). The language used on graphics was also observed. For example, some media outlets might use a graphic that reads Breaking News, whereas another might use a graphic capturing the theme of a story (e.g., The Crash of Flight 402 or Crisis in Iraq). Fonts might also be used in the production of breaking news. Fonts are simply words on the screen generated by the media outlet. Use of fonts could be as basic as placing Live in the upper corner of the screen, or fonts could provide a crawl along the bottom of a screen during coverage. Music in breaking news coverage would most likely
be used in introducing coverage as a means to capture viewers’ attention. However, this content analysis was designed so that coders could note other methods of music used in coverage.

*Verbal characteristics* used in breaking news coverage also were assessed in this content analysis. The language used by anchors and reporters were coded to determine not only recurring words or phrases, but the level of urgency portrayed by on-air personnel. Did anchors refer to a *breaking story* or developments that were *just in*? Did reporters relay details of the story with a level of certainty, or was there hesitation and uncertainty as they provided facts to viewers? This portion of the content analysis focused on establishing what the anchors and reporters were saying and how they were saying it, both of which could contribute to a breaking news frame and influence a viewer’s interpretation.

*Visual characteristics* also are an important element of breaking news coverage. The content analysis recorded if stations used edited video, raw video (usually indicated by use of font or verbal acknowledgement by on-air talent), live pictures, or live reporters (both in the field and in the newsroom). The analysis allowed for the possibility that visual elements might be limited to an anchor live in the studio or a reporter in the field.

Finally, I sought to determine the ways in which production, verbal, and visual elements appeared together in breaking news coverage. The coding process established the frequencies with which each of the elements described above appeared in tandem during breaking news coverage. For example, whether coverage involved an anchor talking over a live picture with a banner graphic or a pre-produced open with full screen
graphics, music, an anchor, and a live reporter, the combinations of these elements on screen at the same time was observed.

*Training and Intercoder Reliability.*

Content analysis relies on objectivity to produce accurate data detailing a message’s characteristics; therefore, it is critical that a content analysis demonstrates appropriate intercoder reliability. A basic requirement in achieving this objective is the training of all coders participating in the study (Holsti, 1969; Krippendorff, 1980; Lombard, Snyder-Duch, & Bracken, 2004; Neuendorf, 2002). For this study, two people assisted the primary investigator in coding recordings of breaking news. Prior to coding, all three coders met to discuss procedures, the coding book and the coding form. Coders also engaged in four preliminary coding exercises as practice before the start of the official research project. As a result of group consensus, minor changes were made to the original code book and coding form to provide clarity to the categories under examination. Some categories were collapsed into a single category, and other categories were added as a result of elements observed in training that were not reflected in the initial code book. The coders discussed each category to be recorded and its definition, and each coder was instructed so that viewing of breaking news coverage would be conducted in the same way. Every effort was made to ensure that coding results were independent of one another.

The goal of any coder training effort is to increase the potential for agreement. For this study, intercoder reliability was calculated by using Scott’s pi. The content analysis in this study was a simple, descriptive approach that sought to establish
consistent elements in breaking news coverage. These elements were established so that an example of breaking news could be produced as a treatment condition in the next stage of the study. To accomplish this, simple percentages of coder agreement could have been considered. However, Scott’s pi was used because it compensates for chance agreement among coders (Holsti, 1969; Neuendorf, 2002). It was hoped that agreement of at least .80 would be achieved for this study. After training, agreement among coders produced a Scott’s pi of .81 across all coding decisions.

Scott’s pi is just one of the many techniques available to measure the level of reliability among coders. For example, a researcher can simply calculate the percentage of agreement among coders, Holsti’s method, Scott’s pi, Cohen’s kappa, or Krippendorff’s alpha. Each method has its own pros and cons (Lombard et al., 2004). Researchers also have failed to agree on the level of coder agreement that is appropriate in a content analysis. Lombard et al. contended that reliability figures exceeding .90 were always acceptable, figures exceeding .80 were usually acceptable, and figures of .70 could be accepted provided that a researcher justified the reasons for accepting such a value. Ultimately, both the method of testing intercoder reliability and the level of acceptable agreement are up to the individual researcher.

Data Analyses

Upon completion of coding the breaking news samples, two statistical approaches were employed. First, frequencies were calculated to determine the regularity with which the elements of breaking news appeared in such coverage. Research Questions 1 through 3 sought to establish what kinds of production, verbal, and visual elements existed in
breaking news coverage. Examining frequencies accomplished two things. First, it established the rate of occurrence for each production element outlined in this study’s coding scheme. Second, frequency data provided guidance in answering Research Question 4, which asked the degree to which production, verbal, and visual characteristics appeared together to frame breaking news.

The use of descriptive statistics in content analysis is a common methodological approach. For example, in his assessment of coverage by *Time* and *Newsweek* of the Korean Air Lines and Iran Air disasters, Entman (1991) established coding categories and then noted the number of times each publication featured articles with those characteristics. Martin and Phelan (2002) also used frequencies of designated categories when examining discussions of Islam in Internet message boards.

The second statistical technique employed in stage one was chi-square analysis, which was used to determine if appearances of certain breaking news characteristics were statistically significant in that they appeared beyond chance occurrence. Chi-square analysis is an appropriate test when a researcher is examining categorical data, because it indicates if the differences between observed frequencies of data are statistically significant compared to the expected frequencies of data (Williams & Monge, 2001). In the present study, elements such as graphics, live pictures, and verbal contributions from anchors were nominal-level variables, an important assumption of the chi-square test.

As with frequency data, application of chi-square analysis in content analysis is a common approach in media research. For example, Rada (1996) used chi-square analysis when examining racially based commentary among network football announcers. He
determined that statistically significant differences existed between the observed number of racially oriented comments by announcers and the number that would have been expected to occur by chance. Likewise, Mastro and Greenberg (2000) used chi-square analysis to conclude that portrayals of Latinos and other minorities were significantly underrepresented as primary characters in network television programs compared to Whites.

The first stage of this study was designed to establish the characteristics of breaking news that allow media to frame coverage of such stories. Ultimately, the presence of seven elements was statistically significant. Although greater detail about the significance of these elements will be provided in the next chapter, these characteristics – generic breaking news open, anchor increase in intensity, videotape, anchor in studio, anchor reaching script, lower-third breaking news banner graphic, anchor calm delivery, and reference to a story as breaking news – were incorporated into the breaking news treatment that was used in the second phase of the study, which was an experiment designed to explore priming among viewers of television news.

Stage Two: Breaking News and Audience Primes

The second stage of this study involved an experimental design in which breaking news coverage was introduced as the treatment stimulus. The objective of this stage was to measure the degree to which exposure to breaking news coverage primes a viewer to evaluate such stories as urgent, more important than other stories in the newscast, how recently the story has occurred, and the provocation of curiosity in the viewer about the event (see the Breaking News Model in Figure 1). This stage of the study also evaluated
the degree to which priming effects were affected by exposure to news coverage, cognitive involvement, and need for orientation.

Participants

The Kent State University Institutional Review Board approved use of human subjects in stage two of this research. The experiment took place in April 2005, approximately 3 weeks after the completion of the content analysis. Participants were undergraduate students enrolled in a basic communication course at Kent State University. Participation in the study satisfied partial fulfillment of a research credit required for the course, which is a multi-section, liberal-education requirement offered by the School of Communication Studies. Although the use of college students by researchers is sometimes criticized because of a concern the students are a population of convenience (Brewer et al., 2003), students are a viable sample for studies involving television news because, despite the Internet, television remains the primary source of information for this demographic group (Miller & Perlmutter, 2004).

In addition, the basic communication course is a liberal-education requirement that is required by several departments on the university’s campus. Each semester the class enrolls more than 1,000 students, therefore research participants represented a variety of demographic characteristics, interests, and backgrounds. Participants were enlisted via a sign-up sheet on a bulletin board for posting research opportunities for the basic course. The only restriction placed on participants was the exclusion of any student who worked for TV-2, the campus television station that produced the treatment stimulus.
A minimum number of students to participate in the study was predetermined based on a power analysis formula provided by Cohen and Cohen (1983) and a power analysis table (Stevens, 2002). These analyses indicated that between 78 and 88 subjects would be required for a small to moderate effect size. For ease of scheduling, it was hoped that a minimum of 100 participants would be recruited to take part in two sessions of at least 50 people each. Ultimately, 113 individuals took part in the experiment. In each of the two sessions, every effort was made to divide participants evenly between the control group ($n = 58$) and the treatment group ($n = 55$).

**The Experiment**

As with other studies exploring priming effects of media, this study involved an experimental design in which participants were randomly assigned to one of two groups. Such an approach is advisable because experimental design is the only methodology that allows a researcher to manipulate independent variables to assess their influence on dependent variables (Kerlinger & Lee, 2000).

This study used a static-group comparison design. Such an experiment involves random assignment of participants into one of two groups. One group is designated to be the control group; the other is labeled the treatment group (Babbie, 2001). The treatment group is then exposed to a stimulus representing the independent variable. In several media priming studies, this has meant showing a form of media to both groups but introducing a different and unique element representing the independent variable only to the treatment group. Studies using this technique have included Hansen and Krygowski’s (1994) exploration of priming sexual attitudes from rock music videos, Iyengar et al.’s
(1984) examination of the influence of evening news programs on evaluations of
presidential performance, and Josephson’s (1987) research of violent television programs
and aggression in children. As will be explained below, this approach also was used in
this study.

Assignment of participants. Upon arrival, all participants in this study reported to
a central location. After checking their names off initial sign-up sheets, they were
instructed to draw a random number that would serve as their participant number. The
number also determined if they were to be a part of the control group or treatment
condition. Participants were given some brief, initial instructions such as turning off all
cell phones and pagers and refraining from talking throughout the study. Based on the
participant number drawn at check-in, students were then assigned to one of two
classrooms that served as laboratories in this study. Every effort was made to ensure that
the same approximate number of participants was assigned to each room.

Laboratory conditions. A critical factor in ensuring validity in experimental
research is creating laboratory settings that are identical for each group involved in a
study. For media studies, Lang (1994) pointed out that one could not just walk in and turn
on a television. Rather, a researcher must take painstaking efforts to control all aspects of
the room. From lighting and volume control to seating arrangements, television screen
size, and distance from the television to participants, the laboratory must be arranged
properly before participants ever enter the room. Once participants are in the laboratory,
their experiences must be identical regardless of group assignment. This would include
duplication of instructions, timing, and other processes associated with the experiment.
For this study, efforts were made to duplicate room conditions for participants in both the control and treatment condition. The two rooms used as laboratory settings were classrooms of similar size. Prior to participant arrival, chairs in both rooms were set-up in an identical fashion. Video clips (a regular news presentation for the control group and a breaking news segment for the treatment group) were shown on a large screen projector system that existed in both rooms. Each room’s volume was set at identical levels and tapes were cued to the same starting point. In addition, all window shades were lowered in each room to produce identical lighting conditions.

Once participants arrived in their designated rooms and took their seats (students were instructed to fill up all front seats first), the primary researcher and a research assistant followed an identical script (see Appendix C) and procedures in securing informed consent forms, showing the video clip, and administering the questionnaire. To control for potential effects caused by interpersonal interaction, participants were told not to engage in any conversations or to pass notes or attempt nonverbal communication with each other during the experiment until they had completed the questionnaire. Participants were told that anyone violating this request could be asked to leave the room and forfeit their research points. In addition to the group coordinator in each room, an additional research assistant helped monitor participants in both groups to ensure these conditions were met. None of the research coordinators or monitor assistants reported any violation of this rule.
The Treatment Stimulus

The stimulus introduced to the treatment group in this experiment was an artificial breaking news story produced by the student-operated television station on the campus of Kent State University. The station is one of the oldest and most honored student-run television operations in the country. Each weekday, the station produces two nightly newscasts. One newscast airs only on the university campus and the other is broadcast on the cable system of the county in which the university is located. The campus television station was selected to produce the clip for two reasons. First, it is a media source with which most of the students would likely be familiar. Given that the breaking news treatment involved an on-campus situation that was meant to be salient to a student population, it is logical that greater depth of coverage would be provided to students by the campus station. Second, the campus station was a more practical choice given that it provided greater access to production facilities than would a request for research assistance to a commercial television station that is engaged in the daily production of multiple newscasts.

The only other option for using a commercial or network newscast would have involved the use of taped breaking news. This option would have introduced validity concerns into the experiment because participants could have already been exposed to a tape-delayed story. These factors contributed to the decision to use a newscast from the campus station and to have their personnel create the breaking news treatment. Once the respective video clips were shown to the control and treatment groups, identical procedures were followed in administering the survey and debriefing participants.
An existing lead segment of a newscast produced by the campus station was selected for use in this experiment. The only restriction placed on the segment was that it could not contain a breaking news event. Students at the station then produced the artificial breaking news story. The story involved the on-going financial crisis facing colleges and universities in Ohio. The story indicated that, in a desperate effort to right numerous financial wrongs, Kent State University had announced plans to slash virtually all student scholarships and introduce a significant tuition increase for all students. Such a story arguably had salience for virtually every research participant.

The control group in this experiment was shown the newscast segment as it originally aired with the financial crisis story presented in a traditional voice-over format (see Appendix D). For the treatment group, the same segment was edited to include the financial crisis in breaking news format, thus creating the stimulus (see Appendix E). The artificial breaking story was produced to mirror elements of the breaking news frame established in stage one of this study. By using a student population watching a breaking story affecting students on a familiar student-produced media source, it was hoped that ecological validity would be assured.

Debriefing of participants. Because this study involved the use of a manufactured news story, participants in both groups were debriefed as soon as possible. After viewing the clip of the student newscast, participants in both the control and treatment groups were asked to complete a questionnaire. Once the surveys were completed and collected by the study administrators, the true nature of the artificial story was revealed to both groups (see Appendix C). The study’s purpose and the reasons for including the artificial
news story as a necessary element of their research experience was explained to them at that time.

A concern for this study was the time frame with which the experiment was conducted. Not all subjects participated at the same time. Rather, they signed up to take part in two sessions at different times. It was critical to conduct the last session as soon after the first session as possible so that participants who had completed the study did not discuss the nature of the project with participants who had yet to take part.

To minimize this risk, two considerations influenced the scheduling of experiment times. First, because the 100 minimum participants required for this project was a manageable size, sessions were scheduled to take place on a single day. Second, an appropriate time lag (25 minutes) was included between sessions so that subjects who had completed the experiment were not likely to encounter those who were arriving for the next session. It was hoped that these efforts eliminated most of the risk of the experiment’s purpose becoming known, and that it decreased the possibility of participant pool contamination.

*Message manipulation.* Reeves and Geiger (1994) advocated manipulating a message feature through purposive production. They noted that creating a message rather than using an existing message would provide a researcher with greater control. By changing a single element in two versions of the same message, a researcher “insures that all other message characteristics are equivalent between the two manipulations” (p. 171).

Achieving research goals through the production of artificial media has been used successfully in research. For example, de Vreese (2004) was interested in studying the
effects of issue coverage on political cynicism and people’s support of political issues. He was concerned that selecting a media depiction of what he was testing would introduce several validity issues into his study. de Vreese’s solution was to control all aspects of the study by producing each element of the media stimulus. He first conducted a content analysis of network news coverage in The Netherlands to identify elements of the specific coverage he was researching. He then worked in conjunction with a national television network to produce a stimulus that contained the elements he had identified in the content analysis. The network produced a news segment for de Vreese with an anchor introduction and a live reporter. A public official even provided a staged soundbite. By conducting his study in this manner, de Vreese eliminated issues of validity by ensuring his stimulus contained exactly the elements he needed to study.

This study involved methods similar to de Vreese (2004). The campus television station produced the breaking news story as directed by the researcher based upon results from stage one of this study. The station incorporated all statistically significant elements of the breaking news frame, including a generic breaking news open, an in-studio anchor, anchor delivery that was both calm and included an increase in intensity, a lower-third banner graphic, videotape, and a verbal reference to breaking news. In addition, although the presence of a reporter was not a statistically significant element of the breaking news frame, an reporter was used on-set to facilitate ease of production. This process protected the study’s validity by ensuring that the elements required in a breaking news frame were present, and that responses to questionnaires were based on the precise elements the study was designed to measure (de Vreese, 2004; Reeves & Geiger, 1994).
The Instrument and Measurement

This experiment relied on self-report data from participants. Questionnaires completed by research participants are a standard and accepted approach in quantitative research (Gunter, 2000). The instrument that was given to participants is described below.

Evaluation of breaking news. This study was designed to determine if viewers exposed to breaking news rate it as being more urgent, important, recent, and likely to provoke curiosity than those who are not exposed to breaking news. To that end, the instrument given to participants (see Appendix F) posed questions directly related to each of these concepts. Participants were asked to respond to the questions using a 7-point Likert scale. In addition to questions directly related to perceptions of breaking news, general questions about television news were provided so as to mask the direct purpose of the project (see Table 1). This approach should have reduced social desirability bias among participants who might have determined the purpose of the study (Babbie, 2001).

Once participants completed questionnaires, their responses were subjected to analysis to determine whether or not statistically significant differences existed between the control and treatment groups. These differences were established through specific questions that appeared on the measure. Question 5 measured the sense of urgency each person associated with breaking news, and corresponded to answer Hypothesis 1 and Research Question 5. Question 7 assessed the degree to which a viewer evaluated the importance of breaking news compared to other stories in a newscast. This question was used to analyze Hypothesis 2 and Research Question 6. Question 10 gauged
Table 1

*Viewer Evaluations of Television News*

<table>
<thead>
<tr>
<th>News Evaluation Item</th>
<th>Control Group</th>
<th>Treatment Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>1. I enjoy watching television news.</td>
<td>4.62</td>
<td>1.23</td>
</tr>
<tr>
<td>2. Stories in a television newscast represent my interests.</td>
<td>4.30</td>
<td>1.24</td>
</tr>
<tr>
<td>3. I am interested in breaking news.</td>
<td>5.22</td>
<td>1.24</td>
</tr>
<tr>
<td>4. I prefer local television news to national television news.</td>
<td>4.14</td>
<td>1.76</td>
</tr>
<tr>
<td>5. Breaking news is more urgent than other stories in a newscast. *</td>
<td>4.29</td>
<td>1.31</td>
</tr>
<tr>
<td>6. When watching a television newscast, I pay attention to the weather.</td>
<td>5.34</td>
<td>1.50</td>
</tr>
<tr>
<td>7. Breaking news is more important than other stories in a newscast. *</td>
<td>4.22</td>
<td>1.19</td>
</tr>
<tr>
<td>8. When watching a television newscast, I pay attention to sports.</td>
<td>4.63</td>
<td>2.03</td>
</tr>
<tr>
<td>9. Reporters and anchors on television news are more attractive than they are smart.</td>
<td>3.59</td>
<td>1.49</td>
</tr>
<tr>
<td>10. Breaking news has occurred more recently than other stories in a newscast. *</td>
<td>3.93</td>
<td>1.26</td>
</tr>
<tr>
<td>11. When I see breaking news, I want to know more about the story. *</td>
<td>4.81</td>
<td>1.26</td>
</tr>
<tr>
<td>12. I want to be entertained by television news.</td>
<td>4.53</td>
<td>1.56</td>
</tr>
</tbody>
</table>

*Note.* Response options ranged from *Very Strongly Disagree* (1) to *Very Strongly Agree* (7).  
* Item used in analyses.
the sense of timeliness respondents associated with breaking news and was used to investigate Hypothesis 4 and to answer Research Question 8. Question 11 considered whether breaking news provoked curiosity in a respondent. This question was used in the analysis of Hypothesis 3 and Research Question 7. The remaining questions focusing on attitudes about television news were included to reduce social desirability bias and were not used in the final analysis of this project.

Admittedly, this section of the measure provided single-item indicators of urgency, importance, recency, and curiosity. Although single-item indicators can be a source of error (Kerlinger & Lee, 2000), there are several reasons why this format should not pose a concern for this study. First, the issue of curiosity had additional support through the measurement of need for orientation. Second, there are no existing scales to measure the concepts of urgency, importance, and recency. Because urgency, recency, and importance are basic concepts, development of a multi-item scale to assess these ideas would have been too far-reaching. It is unlikely that participants experienced ambiguity in their interpretation of the questions. Because this was an exploratory study seeking to understand a snapshot of perceptions, directly asking participants to consider these ideas was deemed a parsimonious solution.

Frequency of television news viewing. One of the independent variables in this study was the frequency with which participants watched television news. This information was obtained via self-report data contained in the questionnaire (see Appendix G). Slater (2004) defined exposure as “the extent to which audience members have encountered specific messages or classes of messages/media content” (p. 168).
Although this conceptualization of exposure would appear to be straightforward, measuring exposure has resulted in inconsistent approaches by researchers.

Slater (2004) believed there is not one correct way to measure exposure. Potter and Chang (1990) examined five different established methods for measuring exposure in order to evaluate the effectiveness of each in predicting cultivation effects. Indeed, studies by Gerbner and his associates exploring the cultivation hypothesis illustrate the lack of consistency that has plagued media scholars in their evaluations of television exposure. For example, Gerbner, Gross, Jackson-Beeck, Jeffries-Fox, and Signorielli (1978) operationalized light television exposure as 2 hours of viewing or less per week. Medium levels of exposure were marked by 2 to 4 hours of weekly viewing, and heavy exposure was any amount of viewing exceeding 4 hours per week. Gerbner, Gross, Morgan, and Signorielli (1980), however, later changed those classifications. Although levels of light viewing were unchanged, medium levels of exposure were adjusted to include 4 to 6 hours of viewing. Heavy viewing was operationalized as any amount exceeding 6 hours. Gerbner, Gross, Morgan, Signorielli, and Shanahan (2002) later explained such discrepancies by noting “what is important is that there should be significant relative differences in viewing levels, not the actual or specific amount of viewing” (p. 50). Ultimately, Slater believed that it was up to the individual researcher to define exposure as whatever he or she wanted it to be.

For the purposes of this study, frequency of television news viewing was measured with an interval-level scale. Respondents were asked to indicate how often they watched television news each week on a 0 to 7 scale, ranging from Never to Every Day
(see Appendix G). All but 2 participants provided an answer to this question (see Table 2). Responses ($M = 3.59$, $SD = 1.88$) were relevant to Research Questions 5 through 8, which were designed to explain the degree to which frequency of watching television news affected a person’s evaluation of breaking news on urgency, importance, recency, and curiosity.

Table 2

*Frequency of Watching Television News (N = 111)*

<table>
<thead>
<tr>
<th>How Often Do You Watch?</th>
<th>$f$</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>4</td>
<td>3.6</td>
</tr>
<tr>
<td>1</td>
<td>13</td>
<td>11.7</td>
</tr>
<tr>
<td>2</td>
<td>18</td>
<td>16.2</td>
</tr>
<tr>
<td>3</td>
<td>16</td>
<td>14.4</td>
</tr>
<tr>
<td>4</td>
<td>25</td>
<td>22.5</td>
</tr>
<tr>
<td>5</td>
<td>18</td>
<td>16.2</td>
</tr>
<tr>
<td>6</td>
<td>7</td>
<td>6.3</td>
</tr>
<tr>
<td>7</td>
<td>10</td>
<td>9.0</td>
</tr>
</tbody>
</table>

*Note.* $M = 3.59$, $SD = 1.88$. Response options ranged from *Never* (0) to *Every Day* (7).

*Need for orientation.* The need for orientation is an independent variable that is used to understand a television viewer’s information-seeking behaviors (Weaver, 1980).
A high need for orientation suggests that a viewer is curious about the message content, and that the person is more likely to seek out additional information about the message. McCombs and Weaver (1985) explained that need for orientation is produced through a combination of relevance and uncertainty. The variable is measured by assessing a person’s level of relevance and uncertainty on the specific issue under study.

There is no established need for orientation scale; therefore, there is a paucity of information available as to the reliability and validity of efforts to measure the concept. However, the method of measuring need for orientation has been consistent across several studies. McCombs and Weaver (1985) explained that measuring need for orientation required the development of two statements about the issue being examined: one reflecting relevance and the second reflecting uncertainty. McCombs and Weaver then suggested measuring the mix of relevance and uncertainty by using a scale of high, medium, and low. They believed this was the most parsimonious method of measuring one’s need for orientation.

Hügel, Degenhardt, and Weiss (1989) duplicated this method when they tested a model of agenda-setting effects during election campaigns. The need for orientation was among several independent variables they considered. For their study, a statement about general political interest represented relevance. The researchers measured uncertainty with a statement about a person’s intent to vote. Rather than providing respondents with the high, medium, and low categories suggested by McCombs and Weaver (1985), Hügel et al. provided respondents a 5-point Likert scale by which they could indicate varying levels of agreement.
Likewise, Rössler and Schenk (2000) examined need for orientation in their study of agenda-setting effects among audiences during the reunification of Germany in the early 1990s. As with Hügel et al., Rössler and Schenk measured need for orientation by asking participants to respond on a 5-point Likert scale to statements of general political interest and uncertainty related to issues of reunification.

Based on the guidance of McCombs and Weaver (1985) and the works of Hügel et al. (1989) and Rössler and Schenk (2000), statements of relevance and uncertainty associated with the viewing of television newscasts were developed for this study (see Appendix H). Participants were given a 5-point Likert scale to express their level of agreement or disagreement with the statements: “the stories covered in a television newscast matter in my life” ($M = 3.59$, $SD = 0.82$) and “I need to know what is going on in the world around me” ($M = 4.27$, $SD = 0.75$; see Table 3). Results provided insight about Research Questions 5 through 8, which were designed to examine the degree to which need for orientation explained a person’s evaluation of breaking news urgency, importance, recency, and curiosity.

These two statements produced a Cronbach alpha of .59. Although of questionable reliability, the measure did have some evidence of validity. Not only did the construct emerge as a significant predictor of curiosity about breaking news (see Chapter 3), but significant, although modest, correlations were observed for the measure. The statement of relevance produced a modest, significant correlation ($r = .21$, $p < .05$) with the statement “when I see breaking news, I want to know more about the story,” as did the statement of wanting to know about events in the outside world ($r = .26$, $p < .01$). The
total score of the need for orientation measure \((M = 3.93, SD = .79)\) also produced a modest, significant correlation with curiosity about breaking news \((r = .28, p < .01)\).

Table 3

<table>
<thead>
<tr>
<th>Statements Indicating Need for Orientation</th>
<th>(M)</th>
<th>(SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The stories covered in a television newscast matter in my life</td>
<td>3.59</td>
<td>0.82</td>
</tr>
<tr>
<td>2. I need to know what is going on in the world around me</td>
<td>4.27</td>
<td>0.75</td>
</tr>
</tbody>
</table>

*Note.* Response options ranged from *Strongly Disagree* (1) to *Strongly Agree* (5).

*Cognitive involvement.* Cognitive involvement is an independent variable that is used to assess a person’s psychological involvement with a media message (Levy & Windahl, 1985). The construct also has been used to explain the ways in which people process the salience of media messages (Petty & Cacioppo, 1986). Higher levels of cognitive involvement reflect greater levels of perceived salience by a viewer.

For this study, cognitive involvement was measured using a scale adapted from Perse (1990a, 1990b; see Appendix I). Perse’s original measure was created to evaluate levels of audience involvement with local television newscasts. In one study (Perse, 1990a), cognitive involvement was used as an indicator of audience activity. Perse concluded that higher levels of involvement produced greater levels of cognitive
processing. In her second effort, Perse (1990b) used cognitive involvement as a means to evaluate information holding among viewers. She concluded that higher levels of cognitive involvement during newscast viewing resulted in greater levels of knowledge acquisition.

In both studies, Perse (1990a, 1990b) developed and used a 15-item measure of cognitive involvement. She later adapted the scale for measuring cognitive involvement among viewers while they changed channels (Perse, 1998). For that study, she reduced the original 15 items to 4 statements to which respondents indicated varying levels of agreement (1 = strongly disagree to 5 = strongly agree). Although the reliability of the original 15-item measure was not reported, the shortened 4-item measure was reliable (Cronbach α = .83).

In her 1998 study, Perse asked participants to think of a program they had recently watched. They were then given the 4-item measure to assess their levels of involvement. Statements in the measure referred to “the program.” For the purposes of this study, Perse’s 4-item measure was adapted to reflect involvement with “the newscast.” Statements such as “when I watched, I thought about what the newscast meant to me and my family” and “when I watched, I thought about how the newscast relates to other things that I know” were used to help answer Research Questions 5 through 8, which were designed to examine the ways in which cognitive involvement affected a person’s evaluation of the urgency, importance, recency, and curiosity of breaking news (see Table 4). The mean of the 4-item measure in the present study was 3.33 (SD = 0.92).
Table 4  
*Cognitive Involvement Scale*

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. When I watched, I thought about what the newscast meant to me and my family</td>
<td>3.35</td>
<td>1.06</td>
<td></td>
</tr>
<tr>
<td>2. When I watched, I thought about how the newscast relates to other things that I know</td>
<td>3.75</td>
<td>0.75</td>
<td></td>
</tr>
<tr>
<td>3. When I watched, I thought about what the newscast meant to other people</td>
<td>3.66</td>
<td>0.93</td>
<td></td>
</tr>
<tr>
<td>4. When I watched, I thought about the newscast over and over again</td>
<td>2.56</td>
<td>0.95</td>
<td></td>
</tr>
</tbody>
</table>

*Note.* Response options ranged from *Strongly Disagree* (1) to *Strongly Agree* (5).

Although Perse’s (1998) 4-item scale produced a Cronbach alpha of .83, reliability in this study was considerably lower (Cronbach $\alpha = .58$). Possible explanations and interpretations of this outcome are presented in Chapter 4.

*Data Analysis*

*Hypotheses*

Hypotheses 1 through 4 were designed to investigate whether or not exposure to a breaking news story would prime participants to evaluate breaking coverage as being more urgent, important, recent, and likely to provoke curiosity than those who were not exposed to the breaking news frame. The experimental manipulation of the breaking news stimuli served as the independent variable. The video clip to which the participants
were exposed (a breaking story edited into a newscast segment for the treatment group and the same story presented in a traditional story format for the control group) and a person’s rating of breaking news as urgent, important, recent, and provoking curiosity served as the dependent variables.

These hypotheses required the examination of differences between two groups on dependent variables that were arguably related conceptually. There were modest correlations among some of the variables (see Table 5). Given the relationships among dependent variables, a Multivariate Analysis of Variance, or MANOVA, was calculated to determine if statistically significant differences existed between the two groups on the questions of urgency, importance, recency, and level of curiosity. MANOVA allows a researcher to evaluate the main effects and interaction effects of one or more categorical independent variables on a set of two or more interval-level dependent variables (Kerlinger & Lee, 2000). It reduces the error variance that could occur by conducting separate t-tests or ANOVAs (Stevens, 2002). If the treatment group in this study produced higher scores that were significantly different from the control group, the outcome would suggest that those in the treatment group were primed by exposure to the breaking news story. When statistically significant, individual ANOVAs were examined to determine which dependent variable contributed to the significant results.

Research Questions

Research Questions 5 through 8 were designed to explain the potential influence of specified variables on the evaluation of breaking news coverage. Frequency of news viewing, need for orientation, and cognitive involvement were the independent variables.
Table 5

Correlation Matrix of MANOVA Dependent Variables

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Urgency</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Importance</td>
<td>.21*</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Curiosity</td>
<td>.37 **</td>
<td>.10</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>4. Recency</td>
<td>.20 *</td>
<td>-.07</td>
<td>.18</td>
<td>1.00</td>
</tr>
</tbody>
</table>

* *p < .05, **p < .01

participant evaluations of breaking news (urgency, timeliness, recency, and curiosity) were the dependent variables. Multiple regression analysis was used to answer these research questions.

Hierarchical regression was used in building the four regression models in the study. Although the tenets of priming do not provide guidance on which of the three predictor variables might be entered into the model first, the language used in Perse’s (1998) cognitive involvement scale uses past tense, suggesting the scale is to be administered after viewing has occurred. Language used to measure frequency of television news viewing and need for orientation was time neutral. Therefore, frequency of viewing television news and need for orientation were entered in Stage 1 of the hierarchical regression analysis because the two concepts were general inquiries that produced responses independent of the newscast to which participants had been exposed.
Cognitive involvement was entered in Stage 2 of the analysis because the wording of the measure was designed to assess thoughts following exposure to a media message. The results of these analyses are presented in the next chapter.
CHAPTER III

RESULTS

This study was divided into two phases. The first stage of the study employed a content analysis to identify the elements consistently present in breaking news coverage. That information was then used to create an artificial breaking news story that served as a treatment stimulus for the experiment conducted in stage two. In this chapter, I present the results for each stage of the study.

Stage One: Content Analysis

For this part of the study, three coders reviewed examples of breaking news ($N = 33$) that had been recorded from cable news channels and network affiliates in the Cleveland, Ohio, market. Examples varied in length from approximately 20 seconds to more than 2 hours, with most lasting between 60 and 90 seconds. Coders only recorded data for the first 30 minutes in cases where coverage lasted for an extended period of time, because it not only facilitated ease of coding but it was considered the portion of the story that was truly breaking. In addition, after 30 minutes many elements began to repeat themselves in coverage. Once intercoder reliability was established, results were subjected to chi-square analysis to answer the research questions.

Research Questions

Four research questions were proposed to identify production elements that are consistently present in breaking news coverage. Characteristics were broken down into the categories of musical and graphic elements, verbal characteristics, and visual characteristics. Although some samples of breaking news coverage might have included
multiple cases of a single element (e.g., two live reporters and three pieces of videotape),
characteristics were coded only once for the chi-square analysis to indicate whether the
element was or was not present.

Research Question 1

Research Question 1 asked what production elements (such as graphics and
music) were consistently present in breaking news coverage. A total of 13 musical and
graphic characteristics were represented on the coding form. Eight of those 13 were
observed in the 33 examples: lower-third banner graphic \((n = 30)\), generic breaking news
open \((n = 23)\), music in a breaking news open \((n = 20)\), on-screen font \((n = 17)\), full
screen graphic \((n = 4)\), over-the-shoulder graphic \((n = 3)\), crawl associated with the
breaking news story \((n = 2)\), and music accompanying full screen graphics \((n = 1)\).

Of those eight elements, only the lower-third breaking news graphic banner,
\(\chi^2 (1, N = 33) = 22.10, p < .001\), and the presence of the breaking news open,
\(\chi^2 (1, N = 33) = 5.12, p < .05\), were statistically significant. Therefore, of the eight graphic
characteristics, only a breaking news open and a lower-third breaking news graphic
banner appeared with a frequency beyond chance occurrence. These two elements are
used regularly across all media outlets during the production of breaking news coverage.

Research Question 2

Research Question 2 asked what verbal characteristics were consistently present
in breaking news coverage. A total of 19 verbal characteristics were represented on the
coding form, of which 18 were observed in the 33 examples: reference to “breaking
news” \((n = 31)\), anchor calm delivery \((n = 30)\), anchor increase in intensity \((n = 23)\),
reporter calm delivery \((n = 15)\), reporter ad-lib \((n = 14)\), anchor displaying emotion \((n = 13)\), anchor ad-lib \((n = 12)\), reference to a “developing story” \((n = 11)\), reference to “we’ll be following this story” \((n = 8)\), anchor hesitation \((n = 8)\), reference to “we’re just getting word” \((n = 6)\), reporter increase in intensity \((n = 5)\), reference to “details are coming in” \((n = 3)\), reference to “this just in” \((n = 2)\), reporter hesitation \((n = 2)\), reporter reading script \((n = 1)\), and reporter displaying emotion \((n = 1)\).

Four of these elements were statistically significant, indicating that their observed frequencies exceeded frequencies that would be expected by chance. The presence of an anchor with a calm delivery, \(\chi^2 (1, N = 33) = 22.09, p < .001\), reference to “breaking news,” \(\chi^2 (1, N = 33) = 25.49, p < .001\), an anchor reading a script, \(\chi^2 (1, N = 33) = 6.82, p < .01\), and an increase in intensity by the anchor, \(\chi^2 (1, N = 33) = 5.12, p < .05\), all occurred more frequently than would have been expected by chance. These four characteristics are used regularly across all media outlets during the production of breaking news coverage.

**Research Question 3**

Research Question 3 asked what visual characteristics (such as live pictures and videotaped images) were consistently present in breaking news. A total of 19 visual characteristics were represented on the coding form. Fifteen of those 19 were present in the 33 examples: anchor in-studio \((n = 24)\), videotape \((n = 24)\), live picture \((n = 18)\), live reporter on the scene \((n = 15)\), taped interview with official \((n = 12)\), anchor 2-shot \((n = 11)\), interview with station consultant \((n = 6)\), interview with involved person \((n = 6)\), reporter story on tape \((n = 4)\), live reporter in the newsroom \((n = 2)\), live reporter on the
news set \((n = 1)\), live reporter on the phone \((n = 1)\), raw videotape \((n = 1)\), live interview with official \((n = 1)\), and taped interview with eyewitness \((n = 1)\).

The presence of two visual elements was statistically significant: anchor in-studio, \(\chi^2 (1, N = 33) = 6.82, p < .01\), and videotape, \(\chi^2 (1, N = 33) = 6.82, p < .01\). These two visual characteristics appeared with a frequency that would be considered beyond chance occurrence. This suggests that the use of an anchor in-studio and videotape are used regularly across media outlets during the production of breaking news coverage.

**Research Question 4**

Research Question 4 asked to what degree production, verbal, and visual characteristics appeared together to frame breaking news. Table 6 displays the frequency of occurrence of the common production elements.

Specific graphic elements often worked in tandem. For example, the majority of examples contained a generic breaking news open \((n = 23)\), which appeared in 69.7% of all recorded examples of breaking news coverage. Of those, 100.0% included the use of a lower-third breaking news banner \((n = 30)\), which was observed in 91.0% of the samples. When such banners were used, they usually remained on-screen throughout the duration of the coverage. Interestingly, music also was a common element seen with a breaking news open \((n = 20)\), although the use of opening music was not statistically significant, \(\chi^2 (1, N = 33) = 1.50, p = .22\). Opens that did not contain music frequently featured an attention-grabbing sound effect ushering in the start of the coverage (e.g., a *swoosh* or
Table 6

*Frequency of Common Production Elements in Breaking News (N = 33)*

<table>
<thead>
<tr>
<th>Production Element</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Reference to Breaking News</td>
<td>31 ***</td>
<td>93.9</td>
</tr>
<tr>
<td>2. Anchor Calm Delivery</td>
<td>30 ***</td>
<td>90.9</td>
</tr>
<tr>
<td>3. Lower-Third Breaking News Banner Graphic</td>
<td>30 ***</td>
<td>90.9</td>
</tr>
<tr>
<td>4. Anchor in Studio</td>
<td>24 **</td>
<td>72.7</td>
</tr>
<tr>
<td>5. Anchor Reading Script</td>
<td>24 **</td>
<td>72.7</td>
</tr>
<tr>
<td>6. Videotape</td>
<td>24 **</td>
<td>72.7</td>
</tr>
<tr>
<td>7. Anchor Increase in Intensity</td>
<td>23 *</td>
<td>69.6</td>
</tr>
<tr>
<td>8. Generic Breaking News Open</td>
<td>23 *</td>
<td>69.6</td>
</tr>
<tr>
<td>9. Music in Breaking News Open</td>
<td>20</td>
<td>60.6</td>
</tr>
<tr>
<td>10. Live Picture</td>
<td>18</td>
<td>54.5</td>
</tr>
<tr>
<td>11. Font</td>
<td>17</td>
<td>51.5</td>
</tr>
<tr>
<td>12. Live Reporter on the Scene</td>
<td>15</td>
<td>45.4</td>
</tr>
<tr>
<td>13. Anchor Ad-Lib</td>
<td>12</td>
<td>36.3</td>
</tr>
<tr>
<td>14. Taped Interview with Official</td>
<td>12</td>
<td>36.3</td>
</tr>
<tr>
<td>15. Anchor 2-Shot</td>
<td>11</td>
<td>33.3</td>
</tr>
<tr>
<td>16. Live Reporter in the Newsroom</td>
<td>2</td>
<td>6.1</td>
</tr>
<tr>
<td>17. Live Reporter on the Set</td>
<td>1</td>
<td>3.0</td>
</tr>
</tbody>
</table>

*Note.* Chi-square analysis used to compare observed frequencies in comparison to expected frequencies. * * * p < .001, * * p < .01, * p < .05
similar sound). Therefore, in terms of graphic elements, a pre-produced start to the coverage and a constant banner reminding viewers they were watching breaking news coverage were consistent elements that helped frame breaking news coverage.

Specific visual elements also were frequently used, although not all proved to be statistically significant. An anchor was almost always seen on camera in coverage, whether the anchor appeared solo \( (n = 24) \), with a partner on a 2-shot \( (n = 11) \), or a combination of both during extended coverage. When an anchor was on camera, he or she spoke under videotape 63.6% of the time. Anchors often introduced a reporter for additional coverage, although the ways in which reporters were used were inconsistent and never statistically significant. The most common method of using reporters was to have them live on the scene \( (n = 15) \), which was observed in 45.4% of all examples. To a far lesser extent, reporters were incorporated into coverage by reporting live from the newsroom \( (n = 2) \) or live on-set with the anchors \( (n = 1) \). When reporters were used \( (n = 16) \), 87.5% incorporated videotape into their stories. On more rare occasions, reporters would introduce a pre-produced report on tape, or package, about the story they were covering \( (n = 4) \). A live font \( (n = 17) \) often appeared in the upper corner of the screen over a live picture, live reporter, or videotape. In virtually all these examples, anchors, reporters, and pictures were usually covered by the ubiquitous lower-third breaking news banner graphic.

Finally, the most common verbal element used to shape breaking news coverage was the use of terms announcing breaking news coverage \( (n = 31) \), which appeared in 93.9% of all examples. Not all media outlets used that specific term. For example, Fox
News Channel called breaking news a *Fox News Alert*. MSNBC called breaking news, *FlashNews*. However, each of these networks used the term in a similar fashion to indicate a story was breaking. Whereas one station might announce, “We have breaking news,” Fox News Channel would announce, “This is a Fox News Alert.” Anchors usually delivered a breaking story with a calm delivery ($n = 30$). In 69.6% of examples, however, anchors would increase their vocal intensity (e.g., increase in volume or emphasis on certain words or phrases) during breaking news reports. In 72.7% of breaking news examples, anchors read scripts during breaking coverage ($n = 24$). To a far lesser degree, ad-libbing, a characteristic that might be closely associated with the *where-do-we-go-next* style of breaking coverage, only appeared in 36.3% of the breaking news samples.

Ultimately, four production techniques appeared most frequently in combination with each other to provide a breaking news frame to the media coverage of the story. A breaking news open, a lower-third breaking news banner graphic, an anchor on camera, and a verbal identification of *breaking news* coverage appeared together in 66.6% of all examples. These characteristics provided consistent graphic, visual, and verbal support to frame coverage as being different from other stories in the newscast.

**Stage Two: The Experiment**

**Participants**

For the second stage of this study, I conducted an experiment to determine if differences existed between participants ($N = 113$) regarding their evaluations of breaking news based on their assignment to either a control group ($n = 58$) or treatment condition ($n = 55$). Members of each group were shown an actual lead news segment from TV-2,
the student-produced television newscast on the campus of Kent State University. A manufactured story regarding the University’s strained finances leading to an increase in tuition and slashing of financial aid was edited into each version. The control group saw the story in a traditional story format (see Appendix D). The treatment group saw the story presented in a breaking news format reflecting characteristics identified in the first phase of this study (see Table 6 and Appendix E).

A slight majority of participants in the experiment, 51.3%, were male \( (n = 58) \), and 48.7% were female \( (n = 55) \). The average participant was 20 years old \( (M = 20.47, SD = 3.45) \). Of those participants, 41.6% were freshmen \( (n = 47) \), 33.6% were sophomores \( (n = 38) \), 17.7% were juniors \( (n = 20) \), and 7.1% were seniors \( (n = 8) \).

As a group, the sample population did not consist of heavy television news viewers. Participants were asked to report the frequency with which they watched television news, ranging from Never \( (0) \) to Every Day \( (7; M = 3.59, SD = 1.88) \). As presented in Table 2, 68.5% reported watching four or fewer television newscasts each week. Another 3.5% \( (n = 4) \) reported never watching television news. Thirteen participants, or 11.5%, watched one newscast a week, and 8.8% \( (n = 10) \) watched a television newscast every day. Approximately one-third of participants watched television news frequently, with 31.5% indicating they watched between 5 and 7 newscasts a week. Two participants did not provide an answer to the question about their frequency of news viewing. Interestingly, although the group as a whole did not watch a substantial amount of television news, 34.5% reported having watched a newscast that day and 23.0% had watched their last newscast the previous day. Only 3.5% of
participants ($n = 4$) could not remember the last time they had watched a television newscast.

A clear majority ($n = 69$) of those taking part in the experiment, 61.1%, reported receiving some form of financial aid to attend Kent State University. Of those, 33 were in the control group and 36 were in the treatment group. The remaining 38.9% of participants ($n = 44$) indicated they did not receive any financial aid. This was an important fact to consider, given that the focus of the artificial breaking news story involved severe cuts in existing financial aid programs to Kent State University students.

Potential differences in perceptions about breaking news based on financial aid were not specifically stated in the study’s hypotheses and research questions, however, I compared response of those who received financial aid with those who did not. Although recipients of financial aid were more likely to express curiosity about breaking news than those who did not receive financial aid ($t = 2.25, p < .05$), Analysis of Variance (ANOVA) indicated there was no significant interaction effect when recipients of financial aid were considered with their assignment to the control or treatment conditions, $F(1, 112) = 0.21, p = .67$. Significant differences between those who did or did not receive financial aid were not observed on the issues of urgency, importance, or recency.

**Hypotheses**

Four hypotheses were tested to determine if exposure to breaking news influenced a person’s evaluation of the story as being urgent, important, having occurred more recently than other stories in a newscast, or influenced curiosity to learn more about the
breaking news story. A Multivariate Analysis of Variance (MANOVA) was used to test these hypotheses (see Table 7).

Table 7

Summary of MANOVA Testing Differences Between Control and Treatment Groups

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>df</th>
<th>F</th>
<th>η</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Urgency</td>
<td>1</td>
<td>3.97</td>
<td>.03</td>
<td>.05</td>
</tr>
<tr>
<td>2. Importance</td>
<td>1</td>
<td>0.77</td>
<td>.01</td>
<td>.38</td>
</tr>
<tr>
<td>3. Curiosity</td>
<td>1</td>
<td>4.13</td>
<td>.04</td>
<td>.05</td>
</tr>
<tr>
<td>4. Recency</td>
<td>1</td>
<td>6.87</td>
<td>.06</td>
<td>.01</td>
</tr>
</tbody>
</table>

Note. $F(4, 108) = 5.48, p < .001, \text{Wilks’ } \lambda = .83, \eta^2 = .17.$

Before examining results for individual hypotheses, characteristics of the data were observed. Box’s Test of Equality of Covariance Matrices was not significant ($p = .07$) and the test achieved an appropriate level of statistical power ($\beta = .97$). Further examination of MANOVA results indicated there was a significant difference between groups on the combined dependent variables of urgency, importance, recency, and curiosity, $F(4, 108) = 5.48, p < .001, \text{Wilks’ } \lambda = .83, \eta^2 = .17$. Individual ANOVAs were examined to determine specific differences and whether or not the null hypotheses should be accepted or rejected.
Hypothesis 1

Hypothesis 1 predicted that participants exposed to a newscast containing a breaking news story would rate breaking news as being more urgent than subjects exposed to a newscast with no breaking news story. Following the MANOVA, the univariate ANOVA indicated a statistically significant difference between the treatment group ($M = 4.73, SD = 1.00$) and the control group ($M = 4.30, SD = 1.31$) in evaluating breaking news as being more urgent than other stories in the newscast, $F(1, 112) = 3.97$, $p < .05$. Therefore, Hypothesis 1 was supported. Participants in the treatment group who watched the breaking news story were more likely to evaluate breaking news as being urgent than those in the control group.

Hypothesis 2

Hypothesis 2 predicted that participants exposed to a newscast containing a breaking news story would rate breaking news as being more important than other reports in the newscast, compared to subjects exposed to a newscast with no breaking news story. Following the MANOVA, the univariate ANOVA indicated that differences were not statistically significant between the treatment group ($M = 4.04, SD = 1.09$) and the control group ($M = 4.22, SD = 1.19$) in evaluating breaking news as being more important than other stories in the newscast, $F(1, 112) = 0.77$, $p = .38$. Therefore, Hypothesis 2 was not supported, and group differences were in the reverse of prediction.

Hypothesis 3

Hypothesis 3 predicted that participants exposed to a newscast containing a breaking news story would report a greater desire to learn more about breaking news than
subjects exposed to a newscast with no breaking news story. Following the MANOVA, the univariate ANOVA indicated a statistically significant difference between the treatment group ($M = 5.22, SD = 0.81$) and the control group ($M = 4.81, SD = 1.26$) in expressing a greater desire to learn more about breaking news, $F(1, 112) = 4.13, p < .05$. Therefore, Hypothesis 3 was supported. Participants in the treatment group who watched the breaking news story were more likely to express curiosity about breaking news than those in the control group.

**Hypothesis 4**

Hypothesis 4 predicted that participants exposed to a newscast containing a breaking news story would evaluate breaking news as happening more recently than subjects exposed to a newscast with no breaking news story. Following the MANOVA, the univariate ANOVA indicated a statistically significant difference between the treatment group ($M = 4.53, SD = 1.20$) and the control group ($M = 3.93, SD = 1.26$) and a perception that the breaking news had occurred more recently than other stories in a newscast, $F(1, 112) = 6.87, p < .01$. Therefore, Hypothesis 4 was supported. Participants in the treatment group who watched the breaking news story were more likely to evaluate breaking news as having occurred more recently than other stories in a newscast compared to those in the control group.

**Research Questions**

Four research questions were examined to determine the degree to which individual differences influenced perceptions of breaking news. The questions were answered with four separate, hierarchical multiple regression analyses.
Research Question 5

Research Question 5 asked if the frequency of watching television news, need for orientation, and cognitive involvement explained a person’s evaluation of the urgency of breaking news. A hierarchical regression analysis was conducted in which urgency was the criterion variable. Because frequency of watching television news and need for orientation were time-neutral concepts that functioned independently of the newscasts shown to the control and treatment groups, they were entered on Step 1 of the hierarchical regression analysis. Cognitive involvement, which was designed to be measured following exposure to a media message, was entered on Step 2 (see Table 8).

The first step of the hierarchical regression analysis did not produce a statistically significant model, $R = .07$, $R^2 = .01$, $F(2, 108) = 0.25, p = .78$. The frequency of viewing television news and need for orientation were not significant predictors of a person’s evaluation of breaking news being urgent. Step 2 of the analysis also failed to produce a statistically significant model, $R = .08$, $\Delta R^2 = .001$, $F(3, 107) = 0.21, p = .89$. Cognitive involvement also was not a significant predictor of a person’s evaluation of breaking news being urgent.

Hierarchical regression analysis also was conducted to determine if the predictor variables explained urgency, separately, within the control group and the treatment group. No significant models were produced. It should be noted, however, that the number of participants in each group (58 in the control group and 55 in the treatment condition) was below the number that would have been designated a priori to achieve appropriate statistical power. Therefore, the power of these separate follow up analyses was suspect.
Table 8

Summary of Hierarchical Regression Analysis for Breaking News Urgency (N = 113)

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1</strong></td>
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<td></td>
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<tr>
<td>Frequency of Watching Television News</td>
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<td>.07</td>
<td>.04</td>
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<tr>
<td>Need for Orientation</td>
<td>0.03</td>
<td>.10</td>
<td>.04</td>
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<tr>
<td><strong>Step 2</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequency of Watching Television News</td>
<td>0.03</td>
<td>.07</td>
<td>.05</td>
</tr>
<tr>
<td>Need for Orientation</td>
<td>0.04</td>
<td>.10</td>
<td>.05</td>
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<tr>
<td>Cognitive Involvement</td>
<td>-0.02</td>
<td>.05</td>
<td>-.04</td>
</tr>
</tbody>
</table>

*Note. R² = .01 for Step 1 (p = .78); ΔR² = .001 for Step 2 (p = .90).*

Research Question 6

Research Question 6 asked if the frequency of watching television news, need for orientation, and cognitive involvement explained a person’s evaluation of the importance of breaking news. A hierarchical regression analysis was conducted in which importance was the criterion variable. Because frequency of watching television news and need for orientation were time-neutral concepts that functioned independently of the newscasts shown to the control and treatment groups, they were entered on Step 1 of the hierarchical regression analysis. Cognitive involvement, which was designed to be measured following exposure to a media message, was entered on Step 2 (see Table 9).
Table 9

*Summary of Hierarchical Regression Analysis for Breaking News Importance (N = 113)*

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Frequency of Watching Television News</td>
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<td>0.06</td>
<td>0.03</td>
</tr>
<tr>
<td>Need for Orientation</td>
<td>-0.14</td>
<td>0.09</td>
<td>-0.17</td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequency of Watching Television News</td>
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<td>0.07</td>
<td>0.03</td>
</tr>
<tr>
<td>Need for Orientation</td>
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<td>0.10</td>
<td>-0.18</td>
</tr>
<tr>
<td>Cognitive Involvement</td>
<td>0.01</td>
<td>0.05</td>
<td>0.02</td>
</tr>
</tbody>
</table>

*Note. R^2 = .03 for Step 1 (p = .25); ΔR^2 = .00 for Step 2 (p = .42).*

The first step of the hierarchical regression analysis did not produce a statistically significant model, $R = .16$, $R^2 = .03$, $F(2, 108) = 1.40$, $p = .25$. The frequency of viewing television news and need for orientation were not significant predictors of a person’s evaluation of breaking news being important. Step 2 of the analysis also failed to produce a statistically significant model, $R = .16$, $ΔR^2 = .00$, $F(3, 107) = 0.94$, $p = .42$. Cognitive involvement was also not a significant predictor of a person’s evaluation of breaking news being urgent.
Hierarchical regression analysis also was conducted to determine if the predictor variables explained importance, separately, within the control group and the treatment group. No significant models were produced.

**Research Question 7**

Research Question 7 asked if the frequency of watching television news, need for orientation, and cognitive involvement explained a person’s curiosity to learn more about breaking news. A hierarchical regression analysis was conducted in which curiosity was the criterion variable. Because frequency of watching television news and need for orientation were time-neutral concepts that functioned independently of the newscasts shown to the control and treatment groups, they were entered on Step 1 of the hierarchical regression analysis. Cognitive involvement, which was designed to be measured following exposure to a media message, was entered on Step 2 (see Table 10).

The first step of the hierarchical regression analysis produced a statistically significant model, $R = .33$, $R^2 = .11$, $F(2, 108) = 6.40$, $p < .01$. The likelihood of someone expressing curiosity to learn more about breaking news was mostly predicted by the need for orientation ($\beta = .21$). Although Step 2 also produced a statistically significant model, $R = .34$, $\Delta R^2 = .01$, $F(3, 107) = 4.53$, $p < .01$, none of the predictor variables emerged as a significant predictor of curiosity on Step 2.
Table 10

Summary of Hierarchical Regression Analysis for Desire to Know More Breaking News (N = 113)

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
</tr>
</thead>
<tbody>
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<td><strong>Step 1</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Frequency of Watching Television News</td>
<td>0.10</td>
<td>0.06</td>
<td>0.17</td>
</tr>
<tr>
<td>Need for Orientation</td>
<td>0.17</td>
<td>0.09</td>
<td>0.21 *</td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequency of Watching Television News</td>
<td>0.10</td>
<td>0.06</td>
<td>0.17</td>
</tr>
<tr>
<td>Need for Orientation</td>
<td>0.15</td>
<td>0.09</td>
<td>0.18</td>
</tr>
<tr>
<td>Cognitive Involvement</td>
<td>0.04</td>
<td>0.04</td>
<td>0.09</td>
</tr>
</tbody>
</table>

*Note. R^2 = .11 for Step 1 (p < .01); ΔR^2 = .01 for Step 2 (p < .01).

Hierarchical regression analysis also was conducted to determine if the predictor variables explained curiosity, separately, within the control group and the treatment group. A significant model was observed for the control group on both Step 1, R = .39, R^2 = .02, F(2, 54) = 4.78, p < .05, and Step 2, R = .40, ΔR^2 = .00, F(3, 53) = 3.33, p < .05, although none of the predictor variables was identified as a significant predictor of curiosity. For the treatment group, Step 1 did not produce a significant model, R = .15, R^2 = .02, F(2, 51) = 0.62, p = .54, although Step 2 was significant, R = .39, ΔR^2 = .13, F(3, 50) = 3.00, p < .05, with curiosity predicted by cognitive involvement (β = .39). Again, statistical power was a limitation.
Research Question 8

Research Question 8 asked if the frequency of watching television news, need for orientation, and cognitive involvement explained a person’s evaluation of the recency of breaking news. A hierarchical regression analysis was conducted in which recency was the criterion variable. Because frequency of watching television news and need for orientation were time-neutral concepts that functioned independently of the newscasts shown to the control and treatment groups, they were entered on Step 1 of the hierarchical regression analysis. Cognitive involvement, which was designed to be measured following exposure to a media message, was entered on Step 2 (see Table 11).

Table 11

Summary of Hierarchical Regression Analysis for Breaking News Recency (N = 113)

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Frequency of Watching Television</td>
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<td>-.08</td>
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<tr>
<td>News</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Need for Orientation</td>
<td>0.07</td>
<td>.11</td>
<td>.07</td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frequency of Watching Television</td>
<td>-0.06</td>
<td>.08</td>
<td>-.09</td>
</tr>
<tr>
<td>News</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Need for Orientation</td>
<td>0.04</td>
<td>.11</td>
<td>.04</td>
</tr>
<tr>
<td>Cognitive Involvement</td>
<td>0.05</td>
<td>.05</td>
<td>.10</td>
</tr>
</tbody>
</table>

Note. $R^2 = .01$ for Step 1 ($p = .72$); $\Delta R^2 = .01$ for Step 2 ($p = .67$).
The first step of the hierarchical regression analysis did not produce a statistically significant model, $R = .08$, $R^2 = .01$, $F(2, 108) = 0.33$, $p = .72$. The frequency of viewing television news and need for orientation were not significant predictors of a person’s evaluation of how recently breaking news had occurred. Step 2 also failed to produce a statistically significant model, $R = .12$, $\Delta R^2 = .01$, $F(3, 107) = 0.52$, $p = .67$. Cognitive involvement was not a significant predictor of a person’s evaluation of breaking news as being urgent.

Hierarchical regression analysis also was conducted to determine if the predictor variables explained recency, separately, within the control group and the treatment group. No significant models were produced.

Summary

Some results of this study provide interesting insight. The first phase of the analysis identified consistent techniques used by media outlets to produce and frame breaking news coverage. Eight production techniques were used consistently by the seven media outlets during the presentation of breaking news stories: reference to breaking news, an anchor with calm delivery, a lower-third breaking news banner graphic, an anchor in the studio, an anchor reading a script, videotape, an increase in intensity by an anchor, and a generic breaking news open. Four of those production characteristics (a breaking news open, a lower-third breaking news banner graphic, an anchor in studio, and a verbal identification of breaking news) appeared most often together to frame breaking news coverage.
The results from the study’s second stage, however, were mixed. Results provided support for the perspective of priming and the three hypotheses regarding perceptions of urgency, curiosity, and recency of breaking news. A fourth hypothesis, addressing the perceived importance of breaking news, was not supported. In addition, the individual differences of frequency of watching television news, cognitive involvement, and need for orientation provided little explanation of how participants evaluated breaking news coverage.

The purpose of this study was to test the Breaking News Model by identifying elements used in a breaking news frame and then to examine the ways in which exposure to that frame primed audiences to evaluate breaking news. These goals were partially accomplished. In the next chapter, I will discuss the theoretical and practical implications of these findings, as well as the study’s limitations and directions for future research.
CHAPTER IV
DISCUSSION

This study was conducted to understand better the ways in which broadcast media present breaking news and how that coverage might influence audience evaluations of the story. To that end, the Breaking News Model was proposed as a means by which this process could be tested and explained. A content analysis of actual breaking news coverage was conducted to assess the first stage of the model, which posits that media present information in a breaking news frame connoting the coverage is different and more urgent than other stories in the newscast. An experiment manipulating breaking news coverage was conducted to test the second stage of the model. This stage suggests that exposure to a breaking news frame primes audiences to recognize certain characteristics of breaking news coverage. Breaking news is more urgent than other stories in the newscast, it has occurred more recently than other stories in the newscast, and it evokes curiosity in the viewer to learn more about the story.

In this chapter, I discuss the results of this study. I provide an overview of the key findings, discuss the theoretical implications of the results, and reflect on what this research suggests for producing broadcast news. In addition, I review limitations of the study and recommend directions for future research.

Content Analysis

The content analysis was designed to identify production characteristics consistently present in breaking news coverage. These characteristics contributed to a breaking news frame among the seven broadcast media outlets studied. Media frames
produce context that helps guide television viewers through the process of understanding and thinking about a media message (Gamson & Lasch, 1983). Frames assist news viewers to identify the most important elements of a newscast (Iyengar, 1991), often through the use of consistent language and images (Baker & O’Neal, 2001; Entman, 1991; Lawrence, 2000; Ott & Aoki, 2002).

To identify elements that contribute to a breaking news frame, 33 examples of breaking news coverage were randomly recorded from the three main cable news outlets and four broadcast network affiliates in the Cleveland, Ohio, television market. Three coders identified eight graphic, visual, and verbal characteristics typically contained in breaking news coverage: a breaking news open, a breaking news lower-third banner graphic, the presence of an anchor, an anchor with calm delivery, an anchor reading a script, verbal references to breaking news, an increase in vocal intensity by the anchor, and the use of videotape. Framing suggests these elements provide a context for viewers that shapes their opinions about the coverage, identifies the coverage as potentially unique, and allows viewers to engage in a process of salience evaluation.

Many of these elements are production characteristics used in any well planned and properly executed newscast: using an anchor who is reading a script in a calm manner, videotape, and pre-produced graphics (an open and lower-third banner in the case of breaking news). Only the use of verbal signposts identifying coverage as breaking news and an increase in vocal intensity by the anchor or anchors might reflect unplanned coverage. Breaking news has been defined as coverage that is unplanned and diverts newsroom resources from planned coverage activities of the day (Tuchman, 1978).
Coverage of breaking stories, therefore, should intuitively include characteristics that reflect a degree of uncertainty. The significant elements present in this content analysis, however, suggest the opposite is true of breaking news coverage.

Breaking news production appears to be formulaic for media outlets. Although some examples were recorded in which media outlets spent considerable time exploring breaking stories (e.g., the arrest of a suspect in a fatal Atlanta courthouse shooting and the court battle over Florida hospice patient Terri Schiavo), most produced breaking news in a consistent and predictable fashion. For example, WOIO-TV, the CBS affiliate in Cleveland, never deviated from its approach to presenting breaking news. In all examples taped from WOIO-TV broadcasts, breaking news began with an open, an anchor read a pre-written script, and videotape was used to lend visual support. In some cases, video did not even include new pictures, but rather, file video was aired. Breaking stories on this station rarely exceeded 20 to 30 seconds in length. Were it not for the graphic and verbal cues of *breaking news*, these stories would have been no different from the other stories included in the WOIO-TV broadcasts. Indeed, many examples observed in this study followed a template in which only the information and pictures varied from breaking story to breaking story.

Such an approach suggests that breaking news coverage is more a production technique to capture viewers’ attention than an immediate attempt to pass along details of a story just coming in to a newsroom. It also suggests a high degree of behind-the-scenes preparation before breaking news is put on the air. This allows producers, reporters, and anchors to practice or polish their presentation before showing it to viewers. It is
impossible to know the degree to which these efforts delay truly breaking information from getting on the air.

The ways in which the packaging of breaking news affects viewers can be better understood by returning to key principles of framing. The perspective explains that the ways in which media present stories shape an audience member’s socially constructed reality (Hansen et al., 1994; Scheufele, 1999). A person will formulate opinions and ideas based on the information he or she receives from media messages. When media present stories as breaking news, therefore, framing suggests that people would evaluate the story as being unique, different from other stories, and perhaps more valuable than other information contained in a newscast. This establishes the potential influence on a viewer’s cognitive processes. Shah et al. (2004) contended that a person’s cognitive responses and evaluation of information were directly related to how media framed information.

Additional insight into the implications of the content analysis can be found by examining the research questions posed for the first phase of the study. RQ1 asked what graphic and music characteristics were consistently present in breaking news coverage. Only two elements were statistically significant: a breaking news open and a lower-third banner graphic. Each of these elements may be found in a traditional newscast with nonbreaking stories. Every newscast has some type of open to begin the program. In addition, lower-third banner graphics are often used to identify location, to provide a theme to extended coverage that includes multiple reports, or to provide visual appeal to reports in a newscast. The fact that an open and lower-third banner are changed to reflect
breaking news rather than planned coverage hardly seems unique. In fact, such openings and graphics were identical each time they were used on any of the observed media outlets, suggesting that the breaking news open and graphic are always on standby should they be needed. These elements support the notion that such production tools are pre-packaged.

The ways a special open and lower-third banner graphic are used with breaking news sets the coverage apart from the rest of the newscast, thereby supporting key ideas related to framing. Although graphics are used throughout a newscast, they are usually on screen for a short time. During breaking news, however, the lower-third banner has a constant presence. An open is not unique to introduce the start of an entire newscast, but it is unusual for an individual story to have its own opening. When used with breaking news, these elements contribute to an episodic frame, which focuses on a single story (Iyengar, 1991). When a special open is used to introduce breaking coverage, it is set apart from other stories in the newscast. This separation is enhanced by the constant presence of a lower-third banner, which serves to remind viewers that the story involved is somehow different and worthy of being singled out. The use of certain visual characteristics, like graphics, can be critical in helping to shape how a person thinks about the story he or she is watching (Entman, 1991). These production characteristics, particularly the breaking news open that might be accompanied by dramatic music or sound effects, could contribute to a perception of urgency about breaking news.

RQ2 asked about verbal characteristics that were consistently present in breaking news coverage. An anchor reading a script, an anchor with calm delivery, an increase in
vocal intensity, and a verbal reference to *breaking news* were statistically significant verbal characteristics. The contributions of each to a breaking news frame are important to consider, given that verbal characteristics of a news story and, in particular, catchphrases, can enhance a frame for the viewer (Entman, 1991). When an anchor repeats the phrase *breaking news*, the viewer is reminded that the story should be thought of differently. These verbal references also contribute to creating exemplars for breaking news coverage. Exemplars include familiar characteristics that are easily identified by a viewer, allowing him or her to put a story into proper context (Zillmann et al., 1996).

When the verbal tag *breaking news* is used with coverage, viewers are able to remember past examples of similar coverage. They might associate the characteristics of a past breaking news event with current coverage. Regardless of whether or not the viewer perceives the story as being urgent, an anchor’s increase in vocal intensity may shape evaluation of the information. A dramatic tone could frame a story as being more critical than it actually is, thereby influencing what someone might think about the story and contributing to a breaking news frame.

Although the inherent nature of breaking news suggests verbal aspects of coverage would be unscripted, they were not. For example, when details are just coming in to a media outlet, one might expect anchors to exhibit behaviors associated with ad-libbing, such as looking at notes or peppering their delivery with “ums” and other verbal cues of hesitation. Not only were such behaviors not significant in the content analysis, but they were only observed in about one-third of all breaking news examples. Cases of anchors displaying hesitancy in where to go next (e.g., shuffling of scripts or notes,
slowly going to a reporter in the field who might not yet be ready, slowly transitioning to a live interview that might not be ready) were infrequent. Characteristics associated with a regular, pre-planned newscast, such as an anchor reading a script and having calm delivery, were significant. Interestingly, a verbal characteristic that appeared frequently to shape breaking news coverage was an increase in vocal intensity by the anchor or anchors. This suggests that on-air personnel are given pre-packaged materials to present as breaking, and that some may rely on increases in vocal intensity or emphasis on key words or phrases to introduce drama or urgency into the coverage.

RQ3 asked about visual characteristics that were consistently present in breaking news coverage. As with RQ2, elements that might have been expected to contribute to unscripted breaking news coverage failed to appear with any degree of consistency. When stories are breaking, one would expect a media outlet to include frequent examples of live coverage. Although live reporters and live pictures were often observed, they did not appear beyond chance occurrence. Rather, the statistically significant visual characteristics were elements that one sees in any newscast: an anchor in the studio and videotape. What makes the appearance of videotape so interesting is that a certain degree of time is required to put video on the air. Although videotape can be removed from a camera deck and aired immediately, some period of time is required to drive the tape to the studio, to transmit it via microwave signal to the newsroom, or even to pull it from the file tape library. More time would be required to edit the tape. Only one instance of unedited video being shown on the air was observed in the content analysis. The videotaping and editing process would produce an inevitable delay in putting breaking
news on the air. Thus, by the time the story is aired, a large degree of planning and preparation is introduced into the process that might not be expected if a media outlet is to get information out to the public immediately, which is a characteristic assumed to exist in breaking news.

The first three research questions were crafted to identify individual production techniques used in the creation of breaking news. RQ4 asked how these graphic, visual, and verbal elements worked together consistently to frame breaking news. Four items emerged as most frequently appearing in tandem to shape breaking news and provide graphic, verbal, and visual guidance for the viewer: a breaking news open, a lower-third banner graphic, an anchor, and verbally identifying the coverage as breaking news. These verbal and visual elements worked together to create a breaking news frame. As depicted in the Breaking News Model, when viewers are exposed to a breaking news frame, the characteristics of the story provide context and help viewers identify the nature of the story. The use of specific language and images directed viewers to think about the coverage as breaking, whether or not it actually was. These elements create a breaking news frame by providing viewers with recognizable characteristics that contribute to exemplars, which might influence perceptions of reality and ultimately guide one’s cognitive processes. These characteristics, therefore, help initiate the next stage of the process, the priming of attitudes about breaking news.

Experiment

The second stage of the study sought to understand how exposure to breaking news primes audience members to evaluate a media message. Priming suggests that
exposure to a media message can influence one’s mental processes, thereby shaping
cognitions or guiding behaviors (Berkowitz, 1984). According to the principles of
priming, the more recently or frequently a schema or set of schemas is activated, the
more likely a person will be to access those schemas to provide explanation, shape
opinion, and guide behavior (Roskos-Ewoldsen et al., 2002). The degree to which
exposure to breaking news primes viewer evaluations of coverage was the focus of the
second phase. The experiment involved a control group and a treatment group. An
artificial breaking news story reflecting the characteristics found in the content analysis
was introduced to the treatment group as a stimulus.

The hypotheses involved concepts that had been identified in broadcasting trade
publications as inherent characteristics of breaking news: urgency, importance, recency,
and provocation of curiosity in viewers (Carr, 1999; Heyboer, 2000; Palser, 2001). These
concepts provided a definition of breaking news. Because no empirical research is known
to have been conducted to examine the psychological effects of breaking news coverage,
these basic ideas seemed appropriate to examine. Although this phase of the study was
not designed as a manipulation check, the outcome provided partial support for the
successful manipulation of the treatment condition and evidence of priming.

Ultimately, statistically significant differences were observed between
participants in the control group and participants in the treatment group, providing
support for three of the four hypotheses. The tenets of priming suggest that exposure to
the breaking news frame shaped the ways in which those in the treatment population
cognitively processed the message. In other words, when exposed to breaking news
coverage, schemas about breaking news and its production characteristics were activated. This helped people understand what they were seeing and what the story meant. Because schemas associated with breaking news would have been more recently activated and accessible than those in the control group, priming would suggest treatment group participants would be more likely to provide different evaluations of the breaking news message.

H1 predicted that participants exposed to a breaking news story would evaluate such coverage as being more urgent than other stories in the newscast. Those exposed to breaking news did evaluate this type of coverage as being more urgent than other stories. By definition, a story perceived as urgent would demand immediate attention by the viewer. Priming suggests that the difference occurred because the concept of urgency had been more recently accessed in the minds of treatment group participants. At some point in the past, therefore, people could have been exposed to breaking news and associated it with the idea that the information demanded their attention. Once the treatment group was exposed to the breaking news frame as illustrated in the Breaking News Model, a process of cognitive evaluation began in which memories and associated ideas were triggered to help explain the story they were seeing. As a result, when asked to evaluate the urgency of breaking news, people in the treatment group were more likely to evaluate the story as urgent because those schemas had been triggered more recently and were more easily accessible.

H2 predicted that participants exposed to a breaking news story would evaluate such coverage as being more important than those in the control group. It was not
supported. Viewers exposed to breaking news evaluated the coverage as being urgent, but not necessarily important. Besides increases in anchor intensity, the graphic and visual cues relay a sense of urgency to the audience. Once details of the story are presented, however, the results suggest that audience members do not value the story more highly than they value other information in the newscast.

Priming would explain that, in the past, those in the treatment group had been exposed to breaking news coverage and engaged in a process of evaluating the story’s value. Among the stories included in the newscast shown to participants were two fires on or near the Kent State University campus, the deaths of three students in a house fire on the campus of Miami University, and structural improvements to a popular restaurant frequented by Kent State University students. Those exposed to the breaking news story might have viewed the coverage as urgent, but when compared to the entire newscast the story did not appear to cross a threshold in which financial issues overshadowed property destruction and loss of life. Those in the control group, on the other hand, evaluated the genre of breaking news as slightly more important than those in the treatment group. This outcome could be explained by the fact those in the control group had no actual breaking news to reference for comparison. In general, they might have evaluated the genre of breaking news as important, but those actually exposed to a breaking news story in the treatment group were able to place the coverage in a larger context.

The exploration of individual differences included in this experiment did not explain how importance was evaluated. The frequency of watching television news, cognitive involvement, and need for orientation of the participants did not significantly
explain why someone would evaluate breaking news as being more or less important than other stories in a newscast. The reasons why such distinctions are made could be an avenue to pursue in future studies. The failure to evaluate breaking news as more important than other stories in a newscast also could have implications for the potential desensitization of viewers exposed repeatedly to breaking news. I will elaborate on this idea when discussing directions for future research later in the chapter.

H3 predicted that people exposed to breaking news would be more curious to learn additional information about breaking news than those not exposed to a breaking news story. The treatment and control groups did differ. Aside from the fact that they were exposed to a breaking news treatment in the experimental manipulation, the data failed to yield insight into why treatment group participants were more curious about breaking news than control group participants. As noted earlier, participants who received financial aid were more likely to be curious, but their financial aid status produced no significant interaction with their experimental group assignments. This suggests that curiosity may not be guided simply by how one is personally affected by the information in the breaking story.

The curiosity expressed by those in the treatment group can be understood by the principles of priming. When exposed to a breaking news story that appeared to have a high degree of salience, those in the treatment group wanted to know more. Scholars have established that when a schema is triggered, people become conscious of an idea and engage in a process of evaluating its salience (Higgins & King, 1981; Price & Tewksbury, 1997). If the schema and associated pathways produced an appropriate level
of interest, a person would engage in a conscious and active process of obtaining additional information. Future research would prove valuable in studying how curiosity is manifested through behavior, such as purposive media use, to obtain additional information.

H4 predicted that participants exposed to a breaking news story would evaluate breaking news as happening more recently than other stories in the newscast. Those exposed to the breaking news story were more likely than those in the control group to evaluate the story as having occurred more recently than other stories in the newscast. According to priming, this difference occurred because those in the treatment group had just been exposed to a breaking news story in which not only was language used to denote the information was *just in*, but a reporter had just returned from covering the story and was joining the anchor with the latest details. The cognitive process associated with recency, therefore, was more accessible in the minds of treatment group participants than control group participants.

Viewer evaluations of recency also have practical implications for broadcasters. Many media outlets, particularly local television broadcasters, rely on breaking news to differentiate their late newscasts from information provided in earlier broadcasts (Carr, 1999). This study suggests that newsroom personnel are correct to assume that the breaking news label prompts viewers to evaluate the coverage as being more recent than other stories included in a late evening newscast, thereby leading them to believe they are receiving up-to-date information on a story, whether or not that is accurate.
Individual Differences

Oliver (2002) observed that considering individual differences is a key component of media research, particularly where priming is involved, because each person’s cognitive structure is unique. Potter and Tomasello (2003) believed that considering individual differences provides a greater amplification of research findings. Many priming studies have included individual characteristics that would be closely associated with the issue under investigation (e.g., Brewer et al., 2003; Hanson & Krygowski, 1994; Josephson, 1987).

For this study, the individual constructs of frequency of watching television news, need for orientation, and cognitive involvement were evaluated to assess their influence on perceptions of breaking news. Of these three, only the need for orientation was a significant predictor of attitudes about breaking news. This result makes sense when one considers that people with a strong desire to know what is happening in the world around them will seek out media to obtain information about a variety of topics. Someone with a high need for orientation would be curious, therefore, it is intuitive that he or she would want additional details about a breaking news story.

Several possible explanations exist for the lack of additional insight provided in the regression models. An examination of cognitive involvement indicated high levels of personal information in the breaking news story. The cognitive involvement scale established by Perse (1998) involves the consideration of self and others. Of the four questions, two focused on the individual and two asked participants to consider others and ponder information they had learned in the newscast. To examine how these
questions worked together in the present study, I conducted a principal components factor analysis of the four cognitive involvement statements. Only one of the statements, “When I watched, I thought about what the newscast meant to me and my family,” produced an eigenvalue greater than 1.0. This single statement with an eigenvalue of 1.81 accounted for more than 45% of total variance. The statement of self was the only component extracted in the factor analysis.

Besides individual differences, program attributes might influence assessments of coverage. The possibility exists that the production elements inherent in breaking news coverage evoke the responses of recency, urgency, and curiosity as opposed to characteristics of the person. For example, a person might not be cognitively involved with a news program, but when the appropriate graphics and language are used, he or she develops a sense of urgency about the content. In addition, the message content could capture one’s attention. If someone were exposed to breaking news of a plane crash when he or she is preparing to meet a loved one at the airport, the message itself would be intensely salient. Clearly, considerable opportunity exists to explore further the role of individual differences and their influence on evaluations of breaking news coverage.

Finally, it should be acknowledged that individual differences might explain evaluations of breaking news coverage. It is possible, however, that those particular individual differences were not included in this study. For example, a person’s evaluation of source credibility could influence breaking news attitudes. If a person does not trust a source, he or she may not be inclined to pay attention to breaking news from that source. Another possible construct to examine is perceived realism. It would be interesting to
explore whether or not the degree to which someone considers television news to be real influences his or her attitudes about breaking news.

Limitations of the Study

It is important to consider the results of this study in the context of issues that could have strengthened design and measurement. Although parts of the study yielded interesting data, other aspects introduced limitations that should be acknowledged before addressing future research directions.

The first concern relates to measurement. Both cognitive involvement and need for orientation were measured using scales that produced less than desirable reliability. Several explanations can be offered as to why the scale produced less than expected reliability. First, participants in this study took part in exchange for research points in their basic communication course. The possibility exists that participants were more involved in the process of getting through the experiment and completing their questionnaire to earn points than they were involved in the newscast presented to them. Second, as has been observed, the sample in this study was not made up of heavy television news viewers. Perhaps these participants did not have affinity with television as a source of information. If they were infrequent television news viewers, they might have been unlikely to be cognitively involved with the message. Unfortunately, their preferences for information sources (e.g., the Internet, newspapers, etc.) were not evaluated in this study.

In addition, as noted above, a principal components factor analysis indicated that the statement of self accounted for the majority of variance in the cognitive involvement
scale. This could be the result of a *Me Generation* that views life through a selfish lens, or, perhaps, the manufactured breaking news story involving financial doom was particularly salient. Such an outcome would support past research into audience evaluations of breaking news. In their exploration of breaking news and perceived relevance, for example, Miller and Perlmutter (2004) concluded that viewers were more likely to pay attention to breaking news if they believed the story directly affected their lives. This dynamic would seem to be at play in the present study, as well. Therefore, it is possible that the established cognitive involvement scale failed to capture issues of personal salience that occur when a viewer is exposed to breaking news coverage.

The measurement of need for orientation also produced relatively low reliability. Although closer examination provided some indication of the measure’s validity, an issue to consider is the lack of a standard need for orientation instrument. Scholars have established the concept should be measured using one statement of relevance and one statement of uncertainty (McCombs & Weaver, 1985; Weaver, 1980). This procedure has been used in studies examining need for orientation (Hügel et al., 1989; Rössler & Schenk, 2000); however, the reliability of these statements has not been specified in published results. The discipline would benefit from developing a valid and reliable instrument to measure need for orientation.

Some consideration of individual differences also was limited by the size of the control and treatment groups. The research questions probing the influence of individual differences on breaking news attitudes were designed as general statements meant to consider all participants in the study. A power analysis indicated that approximately 80
participants would be required to answer these questions successfully. The total number of participants exceeded this number and adequate power was achieved to answer the research questions. Additional explanation could have been provided, however, by examining the control and treatment groups separately. The number of participants in each individual group failed to reach the minimum required for adequate statistical power, thereby bringing those results into question. Although the general research questions were answered, the study failed to consider the value of examining individual differences based on group assignment.

Source credibility also could have been an issue. Although the students might have been familiar with TV-2, the degree to which participants viewed TV-2 as credible was not evaluated. A participant could be cognitively involved with a newscast on a network or local broadcast affiliate, but if he or she questioned the credibility of TV-2, he or she might not have been cognitively involved with that newscast.

Finally, the results in the second phase of the study may not be representative. This was an exploratory study designed for a student population watching a student media source and a breaking news story high in salience to students. These same people might not have had similar evaluations of a breaking news story on CNN involving a plane crash in France. Likewise, frequent viewers of television news might be interested in all breaking news coverage concerning all topics. Although the results suggest that, on some level, exposure to breaking news shapes evaluation of the story and curiosity to learn more, research could provide an understanding of how these attitudes are shaped by source and salience.
Future Research Directions

Despite these limitations, ample opportunity exists to build upon our knowledge of how breaking news is produced and the effects of breaking news on media audiences. Application of different theories, perspectives, and outcomes could provide fruitful avenues for future studies.

Uses and Gratifications

A logical next step in advancing inquiry into breaking news coverage and its effects on viewers is to apply the uses and gratifications perspective to testing the third stage of the Breaking News Model. This stage suggests that, after a viewer is exposed to breaking news and he or she is primed to evaluate breaking coverage in a certain way, the person will become curious about the story. Results support the idea that exposure could evoke curiosity and influence individual media use. This curiosity should guide the viewer to become more purposive in his or her media use so that more information will be sought and obtained about the breaking news story.

Although cognitive involvement, a common component of uses and gratification research, did not contribute significantly to explaining participants’ perceptions of breaking news coverage, the need for orientation did contribute to a person wanting to learn more about a breaking news story. If a person wants to know more about the story he or she should engage in purposive media use to satisfy the need for information. This could manifest itself in further use of broadcast media, controlled search behaviors via the Internet, or use of other media.
A future exploration of breaking news and audiences could benefit from the idea of instrumental and ritualized media use set forth by Rubin (1984). Instrumental use implies purposive and goal-directed media behaviors. In contrast, ritualized users often turn to media less purposively out of habit. The Breaking News Model suggests that exposure to breaking news could influence or alter a person’s media use. Instrumental users who already turn to media to satisfy information-seeking desires could be more highly motivated to seek additional information about a story. This process might not occur, however, if a person failed to find a breaking news story salient. Likewise, a person engaged in ritualized media use might happen across a breaking news story he or she finds particularly salient. This could alter his or her media use and lead to instrumental behavior that guides purposive use to learn. Research could focus on the type of media use exhibited by a person, and the type of sources he or she uses to satisfy curiosity. Some audience members might try to satisfy their curiosity by using other broadcast sources, whereas others might engage in more controlled searches of the Internet.

Uses and gratifications has long been used to understand the reasons people use media. Works by Greenberg (1974) and Rubin (1984) served to establish that passing time, diversion, arousal, relaxation, companionship, information-seeking, entertainment, convenience, escape, and habit were primary motives of media use. As it relates to this study, the need for information and surveillance is of particular importance. Whether people use media for surveillance in times of national crisis (Peled & Katz, 1974) or to obtain information about politicians and political issues (Blumler & McQuail, 1968; Choi
uses and gratifications is well suited to guide future explorations of how audiences use media to learn about breaking news. This study has established that exposure to breaking news can make someone curious to learn more about a story. Further exploration and the testing of the Breaking News Model’s third stage should produce insight into the effects produced in viewers by breaking news coverage.

*Additional Theories and Perspectives*

Several other perspectives also could be used to study breaking news. For example, the Breaking News Model focuses primarily on audience members and individual interpretation of breaking news coverage. Ample opportunity exists, however, to examine media outlets, as well. The first stage of the model established a breaking news frame among broadcast media outlets. Gatekeeping could provide underpinnings to understand the actions and decisions that are made to present coverage as breaking, and, therefore, offer insight about how media produce their product.

Gatekeepers are those who control the flow of information in the media (Snider, 1967). Gatekeeping “involves every aspect of message selection, handling, and control, whether the message is communicated through mass media or interpersonal channels” (Shoemaker, 1991, p. 1). Of particular interest to breaking news coverage are studies that have examined how group dynamics and decision-making processes in a newsroom serve to shape coverage. The ways in which stories appear might be based on organizational expectations (Dimmick, 1974) or case-by-case decisions shaped by key newsroom leaders (Berkowitz, 1990).
The results from this study’s content analysis suggest that breaking news coverage is formulaic and manufactured, possibly to introduce drama into a newscast and maintain a viewer’s attention. Gatekeeping could explain why newsroom personnel choose to present some stories as breaking, whereas equally recent stories are not. Such a framework also could guide qualitative analysis of the topic, for example, focusing on newsrooms and interviewing personnel as to the reasons for their decisions to pursue or frame coverage as breaking. Such an approach also could include in-depth longitudinal explorations of how news personnel handle breaking stories.

In addition, agenda setting could provide a framework by which to study breaking news. First suggested by McCombs and Shaw (1972), agenda setting posits that the attention media pay to stories will lead audiences to conclude those same stories are the most important issues on the public agenda. Agenda setting can be an important perspective to consider when looking at the story production process because the manner in which stories are covered has far reaching implications about how audiences view stories. Application of agenda setting to breaking news coverage could provide additional understanding about such stories by exploring if stories presented as breaking news correspond to issues of importance among viewers.

Two concepts that have been often explored as outcomes in media research, desensitization and viewer recall, also could provide directions for research about breaking news coverage. First, scholars have examined how repeated exposure to a media message desensitizes. A considerable amount of study has focused on how repeated exposure to media violence “may reduce the urgency to respond to violence in real life”
As it relates to specific types of news coverage, Kinnick, Krugman, and Cameron (1996) concluded that viewers who were repeatedly exposed to public affairs programming and stories about social issues became less sympathetic about the issues being reported. By labeling stories as breaking, especially if they are not, broadcast media could produce a “boy-who-cried-wolf” syndrome in which viewers ignore the breaking news label. Such desensitization and the process that might contribute to it, could be a valuable avenue for future studies.

Likewise, researchers have suggested that certain production techniques influence viewer recall of information contained in a news story. As with breaking news coverage, some broadcast media outlets rely on live coverage as a visible aspect of a newscast. Tuggle and Huffman (2001) concluded, however, that viewers were actually less likely to remember details of a live report than they were a traditional story presentation. Lang et al. (2003) identified specific techniques that could be used to enhance viewer recall, including length, language, and visuals. All these elements appear to some degree in breaking news. Therefore, a future study could examine the degree to which viewers recall details presented in a breaking news report.

**Priming Research Designs**

Several approaches have been taken to testing an audience’s psychological responses to media exposure. Although such studies routinely involve experiments, various designs have been introduced in priming research. Some are quasi-experimental and others are experimental designs with pre-test post-test procedures. Not all have mirrored the rigor of early works by Berkowitz (Berkowitz & Alioto, 1973; Berkowitz &
Frodi, 1977; Berkowitz & Powers, 1979). In addition, psychology literature often takes a thorough approach to priming research by introducing tests of response latency, reflective integration, accessibility measures (Petty, Ostrum, & Brock, 1981), and complex cognitive mapping through thought listing tasks (Shah et al., 2004). Psychologists contend such approaches are more credible in supporting findings of cognitive processes primed by an experimental stimulus.

Something occurs in the minds of viewers when they are exposed to certain media messages. The results of this research and existing priming studies support the notion that exposure to a message can influence cognitions and potential behaviors. Although the premise of experimental design suggests that a treatment causes differences, there seems to be ample room to question the degree to which differences were truly caused by experimental manipulation. Such efforts would strengthen future priming studies and satisfy skeptics of the perspective, resulting in more credible investigations into the role of media in the lives of audiences.

Summary

This study began with two primary goals. The first was to identify the consistent techniques used by broadcast media outlets to frame breaking news coverage. To that end, examples of breaking news were recorded and evaluated so that consistent elements could be identified. Although breaking news might be viewed as an unplanned approach by media to presenting information, the results suggest the opposite is true. Breaking news is often formulaic, pre-produced, and manufactured.
Nevertheless, results of the experiment suggest that exposure to breaking news influences the thought processes of viewers. Not only does this outcome lend support to the tenets of priming, but it also has practical implications for media professionals who need to be mindful of the influence their product can have on those who watch it.

Broadcast media have a tremendous responsibility in our society. They are the primary sources of information for a majority of citizens. Whenever techniques are introduced that distract from the goal of providing objective information (e.g., breaking news coverage, live coverage, multiple on-screen graphics), one could argue that the best interests of the viewers are not being served. At a time when media have been gripped by issues such as corporate ownership, an emphasis on profits, and a fixation with celebrities, it is important that scholars and audiences are aware of the ways in which media messages are produced and the effects such messages can introduce. Doing so should ultimately strengthen the media, and the societies they serve.
APPENDICES
APPENDIX A

Content Analysis Codebook

1. **Unit of Data Collection:** Each occurrence of breaking news coverage or coverage of a developing story that reasonably appears to be unplanned, developing, or unfolding live will be considered a unit. Each such unit will be recorded by coders.

2. **Story ID:** Fill in the story ID number, as indicated on the story ID list.

3. **Coder ID:** Indicate the number of the individual who coded that sheet, according to the coder ID list.

   Coder 1: Joe Watson    Coder 2: John Spinda    Coder 3: Tony Limperos

4. **Breaking News Event Description:** Provide a brief description of the breaking news event to be coded, for example, “passenger jet crash in L.A.” or “President Bush resigns.” Story descriptions are provided on the story ID list.

5. **Musical Elements:** Indicate what, if any, music is heard during coverage of the breaking news story. Musical elements present would be indicated by the number of this item and the appropriate letter. For example, music accompanying live pictures would be coded as 5C.
   - A. Music in specially produced breaking news opening
   - B. Music accompanying full screen graphic
   - C. Music accompanying live pictures
   - D. Music in background with on-camera anchor
   - E. Other (specify)

6. **Graphic Elements:** Indicate what, if any, on-screen graphics accompany breaking news coverage. Graphic elements present would be indicated by the number of this item and the appropriate letter. For example, a lower-third banner graphic would be coded as 6C.
   - A. Generic breaking news open (full screen graphics with music or other sound)
   - B. Over-the-shoulder graphic
   - C. Lower-third banner graphic
   - D. Full-screen graphic (could include maps, phone information, etc.)
   - E. Font (words on the screen, such as “Live” or contact phone number)
   - F. Crawl associated with breaking story (font repeatedly moving across lower screen directly related to breaking news story – not ubiquitous crawl with various news updates)
   - G. Theme coverage (series of graphics representing a “name” of coverage, e.g., “The Crash of Flight 402”)
   - H. Other (specify)
7. **Visual Elements**: Indicate the type of visual characteristics that are present during breaking news coverage. Visual elements present would be indicated by the number of this item and the appropriate letter. For example, the live interview of an eyewitness would be coded as 7O.

   A. Anchor in-studio
   B. Anchor 2-shot in studio
   C. Anchor 4-shot in studio
   D. Live reporter on the scene
   E. Live reporter in the newsroom
   F. Live reporter on the news set
   G. Live reporter on the phone
   H. Live picture
   I. Video tape
   J. Raw video tape
   K. Reporter package
   L. Live interview of station/network consultant (e.g., legal analyst, medical expert, etc.)
   M. Live interview of official involved in the story
   N. Live interview of person directly involved in the story
   O. Live interview of eyewitness
   P. Interview on tape of official involved in the story
   Q. Interview on tape of person directly involved in the story
   R. Interview on tape of eyewitness
   S. Other (specify)

8. **Verbal Elements**: Indicate the language used by anchors and reporters to provide information about the breaking news story. Verbal elements present would be indicated by the number of this item and the appropriate letter. For example, an anchor exhibiting an increase in vocal intensity would be coded as 8B.

   A. Anchor: Calm delivery
   B. Anchor: Increase in vocal intensity
   C. Anchor: Reading a script
   D. Anchor: Ad libbing details
   E. Anchor: Sense of hesitation, where to go next
   F. Anchor: Displayed emotion (concern, sadness, etc.)
   G. Reporter: Calm delivery
   H. Reporter: Increase in vocal intensity
   I. Reporter: Reading a script
   J. Reporter: Ad libbing details
   K. Reporter: Sense of hesitation, where to go next
   L. Reporter: Displayed emotion (concern, sadness, etc.)
   M. Reference to a “breaking story”
   N. Reference to “this just in”
   O. Reference to “details are coming in”
P. Reference to “we’re just getting word”
Q. Reference to a “developing story”
R. Reference to “we’ll be following this story”
S. Other (specify)
APPENDIX B

Sample Coding Form

*Characteristics of Breaking News*

<table>
<thead>
<tr>
<th>Story ID #</th>
<th>Coder ID #</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Description of breaking news story*

*Musical Elements*  

*Graphic Elements*  

*Visual Elements*  

*Verbal Elements*
APPENDIX C

Script for Breaking News Priming Experiment

**Introduction:** Thank you for signing up to participate in this research project. This study is divided into three parts. Please listen to the instructions and follow the directions. You will need a pen or a pencil for this exercise. If you need a pencil, please raise your hand. (*Administrators distribute pencils to those in need.*)

When you have completed all parts of this study, please remain seated and you will receive additional information at the end of the session. First, though, I am going to provide you with a form asking for your consent to participate in this project. You will receive two identical copies. Please read the form and sign both. Then, return one copy to me and keep the other for yourself as evidence you participated in today’s session.

(*Administrator PASS OUT & COLLECT CONSENT FORMS. Approximately 5 minutes*)

**Part I:** We are here today to learn your thoughts about television news. In order to accomplish this task, I am first going to ask you to watch a segment from a recent TV2 newscast. Please pay attention to the program, and once it has finished I will provide you with instructions for the last part of today’s study. Also, I ask that for the duration of this project, you refrain from speaking to anyone around you. In addition, do not communicate with your neighbors through written or nonverbal means. Anyone violating this request could be asked to leave the room, which would result in the forfeiture of your research points. (Approximately 15 minutes)
Part II: For the second and final part of today’s project, I am going to ask you to complete a questionnaire. Please take your time and answer the questions to the best of your ability. There are no right or wrong answers – the responses are strictly based on your opinion. You were given a card earlier that has a participant number on it. Please provide your participant number on the survey you are about to receive. Your identity is protected in this process. We will not be able to learn who filled out each survey based on participant numbers. (Administrator PASS OUT SURVEY & COLLECT SURVEYS) (15 minutes)

Conclusion (to be given at the end of the experiment after post-tests are collected)

Debriefing of Control Group: This study is being conducted to learn your thoughts about breaking news. You have all just seen an actual segment from a recent TV2 newscast. However, the story involving cuts in Kent State University’s financial aid and an increase in tuition was not real. It was produced only for use in this study and then edited into the existing news program. The other group in this study was shown the same story, but it was presented as a breaking news story. Exposing you to an artificial news story was necessary in order to ensure that you would not have previous knowledge and opinions about the story. Your responses about breaking news will now be compared to the other group’s responses about breaking news to determine if differences exist between the two groups. The goal of this study is to learn the ways in which exposure to breaking news makes members of the viewing audience think about the breaking story. Thank you for taking part in this study today. In order to earn your research points, you
need to sign out before leaving. Please be sure your call number is on the form as you sign out.

**Conclusion: Debriefing of Treatment Group:** This study is being conducted to learn your thoughts about breaking news. Although the news segment you just saw was real, the breaking news story never happened. It was created by TV2 for use in this study and edited into the existing program so that your opinions and thoughts about breaking news could be evaluated. Exposing you to an artificial breaking news story was necessary in order to ensure that you would not be familiar with any breaking story you would be shown. Again, the breaking news story portrayed in this TV2 newscast was not real. Another group taking part in this study was shown the same TV2 segment you just watched, however it did not include the breaking news story. The artificial story concerning financial problems for the University was presented to them in a traditional story format. Your responses about breaking news will now be compared to their responses about breaking news to determine if differences exist between the two groups. The goal of this study is to learn the ways in which exposure to breaking news makes members of the viewing audience think about the breaking story. Thank you for taking part in this study today. In order to earn your two points, you need to sign out before leaving. Please be sure your call number in on the form as you sign out.
--- ANCHOR ---

The latest round of state budget cuts will be hitting Kent State University students hard. The State of Ohio has announced more deep cuts in funding for higher education, and the result will be higher tuition and a significant decrease in scholarship funding.

--- VO ---

In order to make ends meet, the state is forcing Kent State to eliminate another 10 million dollars from its already shrinking budget. Administrators say that is likely to result in a 10 percent hike in tuition and fees – the maximum amount allowed by law. The state also estimates more than 80 percent of existing loans and scholarships will be slashed by the end of the school year. Exactly which scholarships would be affected, however, has yet to be announced.
We have breaking news just in to the TV2 newsroom concerning the ongoing financial crisis affecting universities in Ohio. A meeting of the Kent State Board of Trustees has just ended at the Student Center, where we understand devastating financial news has been announced that will impact virtually every student on campus.

TV2’s Shannon Peluso joins us now live in the studio with more on this breaking story. Shannon, I understand these are the deepest cuts yet.

That’s right, John. What was announced moments ago at the Student Center is by far the most distressing situation we’ve seen.

In order to make ends meet, the state is forcing Kent State to eliminate at least another 10 million dollars from its already shrinking budget. Administrators say that is likely to result in a 10 percent hike in tuition and fees for the 2006/2007 school year – that’s the maximum increase allowed by law. This will hit the pocket book of every student in the Kent State system. For many, a steep rise in tuition could mean they will no longer be able to afford to attend classes.

If those students hope to rely on loans or scholarships to pick up the slack, the news is even worse there. State leaders say a review will begin immediately of all
financial aid, and that more than 80 percent of existing programs are likely to be eliminated. That includes state and federal assistance for student scholarships, loans, and grants.

--- REPORTER ON CAMERA ---

What makes this news particularly scary for students receiving financial assistance is that the programs to be affected have yet to be determined. It could be several weeks before decisions are made about which funding stays and which funding goes. That’s going to be a nerve-wracking time for thousands of students. One student I spoke with a short time ago told me that if her loans are cut and tuition goes up, she will have to drop out and move back home. That’s a scenario we are likely to be seeing a great deal of between now and the start of the fall semester. (Name)?

--- 2 SHOT --- ANCHOR ---

Shannon, exactly how many students could be affected by these cuts?

--- REPORTER ---

More than 29-thousand students on Kent’s eight campuses receive some type of financial aid. That’s four out of every five students. The average award is just over 8-thousand dollars a year. We should be hearing more about which loans and scholarships will be cut by the early part of July. The only thing we know for sure right now is that thousands of Kent students are going to be getting some very bad news very soon. John?

--- ANCHOR ---

All right, TV2’s Shannon Peluso, thanks for that report.
APPENDIX F

News Evaluation Measure

PARTICIPANT NUMBER _____

Below are a variety of statements regarding the viewing of television newscasts. Please answer them to the best of your ability. There are no right or wrong answers. Indicate your level of agreement by circling the number that best represents your response. The numbers indicate responses as follows:

1 = Very strongly disagree
2 = Strongly disagree
3 = Disagree
4 = Neutral
5 = Agree
6 = Strongly agree
7 = Very strongly agree

1. I enjoy watching television news.

1  2  3  4  5  6  7

2. Stories in a television newscast represent my interests.

1  2  3  4  5  6  7

3. I am interested in breaking news.

1  2  3  4  5  6  7

4. I prefer local television news to national television news.

1  2  3  4  5  6  7

5. Breaking news is more urgent than other stories in a newscast.

1  2  3  4  5  6  7

6. When watching a television newscast, I pay attention to the weather.

1  2  3  4  5  6  7
7. Breaking news is more important than other stories in a newscast.

8. When watching a television newscast, I pay attention to sports.

9. Reporters and anchors on television news are more attractive than they are smart.

10. Breaking news has occurred more recently than other stories in a newscast.

11. When I see breaking news, I want to know more about the story.

12. I want to be entertained by television news.
APPENDIX G

Viewing Frequency Measure

This section of the questionnaire asks you about how often you watch television news. Please answer the questions to the best of your ability. There are no right or wrong answers.

1. How often do you watch a television newscast? (Circle the number that best represents your answer.)

NEVER 0 1 2 3 4 5 6 7 EVERY DAY

2. When was the last time you watched a television newscast?

___ Today
___ Yesterday
___ Some time this week
___ Last week
___ Last month
___ Longer than one month ago
___ I can’t remember
___ I never watch television news
APPENDIX H

Need for Orientation Measure

For these next questions, indicate your level of agreement by circling the number that best represents your response. The numbers representing your answers is a bit different than before. For these questions, the numbers indicate responses as follows:

1 = Strongly disagree
2 = Disagree
3 = Neutral
4 = Agree
5 = Strongly agree

1. The stories covered in a television newscast matter in my life.

1 2 3 4 5

2. I need to know what is going on in the world around me.

1 2 3 4 5
APPENDIX I

Cognitive Involvement Measure

For these next questions, indicate your level of agreement by circling the number that best represents your response. The numbers representing your answers is a bit different than before. For these questions, the numbers indicate responses as follows:

1 = Strongly disagree
2 = Disagree
3 = Neutral
4 = Agree
5 = Strongly agree

1. When I watched, I thought about what the newscast meant to me and my family.
   1 2 3 4 5

2. When I watched, I thought about how the newscast relates to other things that I know.
   1 2 3 4 5

3. When I watched, I thought about what the newscast meant to other people.
   1 2 3 4 5

4. When I watched, I thought about the newscast over and over again.
   1 2 3 4 5
APPENDIX J

Demographic Questions

Please provide some basic information about yourself. You are not required to provide this information and may leave this section blank if you wish.

1. What is your gender? _____ Male _____ Female

2. What is your age as of your last birthday? _____

3. What is your class rank? _____ Freshman _____ Sophomore _____ Junior _____ Senior

4. Do you receive any financial aid? _____ Yes _____ No


Lasica, J. D. (1997, October). Get it fast, but get it right. *American Journalism Review, 19*(8), 64.


