

More Than Words Alone: Incorporating Broadcasters' Nonverbal Communication Into the Stages of Crisis Coverage Theory—Evidence From September 11th

Renita Coleman and H. Denis Wu

This study advances the theoretical development of Graber's (2002) stages of crisis coverage by explicating the role of nonverbal communication. It begins the process of enlarging the theoretical framework to account for the effects of nonverbal cues. Results support the idea of 3 distinct stages of crisis coverage with journalists' nonverbal expressions of emotion peaking in the 2nd stage, which is where journalists attempt to make sense of an event. Theoretical developments are explicated and implications for audience effects in news coverage are discussed.

Ethical norms in broadcasting require journalists to present the news in a neutral manner regardless of the journalists' personal beliefs, attitudes, or emotions (Cohen, 1987). Whether covering politicians on the campaign trail, routine city council meetings, dangerous breaking news, or emotional events, broadcast journalists are expected to appear calm, detached, and unemotional. Political coverage has been a natural focus of such research, which also has tended to target almost exclusively the verbal part of communication, even when television, a primarily visual medium, is examined. This study extends the inquiry of nonverbal communication to broadcast journalists' coverage of news outside the traditional campaign arena, specifically the breaking news of a crisis—September 11, 2001. It analyzes the nonverbal behavior of broadcasters from four networks covering 9/11 in an effort to expand Graber's (2002) theory of the stages of crisis to include not just what reporters communicate with their words and pictures but also with their nonverbal communication. Because facial expressions provide information about people's affective states (Burgoon, Birk, & Pfau, 1990), such expressions from broadcasters may communicate important information to audiences, which may vary with the stage of crisis coverage. Journalists' projec-

Renita Coleman (Ph.D., University of Missouri) is an Assistant Professor in the School of Journalism at the University of Texas at Austin. Her research interests include visual communication and ethics.

H. Denis Wu (Ph.D., University of North Carolina–Chapel Hill) is an Associate Professor in the Manship School of Mass Communication at Louisiana State University. His research interests include political communication and international communication.

tions of anger, fear, or stress may induce the same emotions in viewers (Englis, 1994), and if the public perceives that journalists show bias in their reporting, then media credibility suffers (American Society of Newspaper Editors, 1999). The central research question is whether broadcasters showed significant positive and negative nonverbal behavior. This study explores how successful professionally trained broadcasters were in controlling their nonverbal communication during what was the most traumatic and emotional event in recent memory, whether broadcasters' nonverbal expressions follow the pattern of behavior outlined in Graber's theory, and if the valence of their expressions was more likely to convey calm or fear. The nonverbal communication of broadcasters is particularly important because of the potential for these journalists to affect a large audience (Nacos, 2003) and the effects that nonverbal communication can have on viewers (Englis, 1994).

Studies have examined viewers' emotions surrounding 9/11 (Kanihan & Gale, 2003), but not journalists' emotions, even though professional journalists acknowledge they also experience the full range of human emotions to such events (Minarcin, 2003) and that they must try to hide them from the public (Casey, 2003). This study does not intend to criticize the journalists who covered this unfolding disaster, often at great personal risk. We acknowledge they did an exceptional job under unprecedented pressures, but we also realize that journalists are human and nonverbal displays can be difficult to control, even for trained professionals. Even though journalists may not intend to convey nonverbal messages, they can still have consequences for viewers. A look at the communication of implicit messages via visual channels in coverage of 9/11 can be instructive in understanding audiences' reactions. Placing it in the theoretical framework of Graber's (2002) stages of crisis can help explain these behaviors and predict them and their consequences in future crises.

Literature Review

The study of nonverbal behavior has long been atheoretical (Burgoon et al., 1990), yet the field has grown steadily (Babad, 1999). To overcome this theoretical deficit, Burgoon and colleagues linked nonverbal communication to credibility and persuasion, beginning the process of erecting a larger theoretical framework to account for the effects of nonverbal cues. Others have linked emotional expressivity to trustworthiness (Boone & Buck, 2003), another related concept that also is important to journalists. This research continues the process by examining nonverbal communication as it relates to credibility and trustworthiness in a different setting—that of news rather than persuasive communication. This study examines whether network news is affected by journalists' nonverbal displays, and whether such displays follow a pattern that can be used to explain and predict future displays. Nonverbal behaviors are important in the viewers' formation of impressions. Positive expressions have been linked to judgments of higher credibility (Burgoon et al., 1990) and have been shown to convey that the sender is trustworthy, or reli-

able, having integrity and good character, whereas negative expressions convey the opposite (Boone & Buck, 2003). This study is important for broadcasters seeking to be seen as credible news conveyors. September 11th is not the only circumstance where this knowledge is useful; terrorist acts are becoming more frequent (e.g., Oklahoma City, Waco, the Madrid train bombings, and Russian school massacre). Broadcasters also may be overcome with emotion covering news such as school shootings, hostage standoffs, hurricanes, tornados, the aftermath of car crashes, and out-of-control fires; even trials that feature graphic images and emotional testimony from victims' relatives can move reporters to emotional displays (Himmelstein & Faithorn, 2002). September 11th is unique, yet it resembles any dramatic event filled with uncertainty as it unfolds. The space shuttle tragedies, the tsunami in Indonesia, and the Kennedy assassination come to mind. The lessons learned from 9/11, as extreme as it was, can be generalized to numerous other circumstances in which reporters find themselves, from wars to gruesome car accidents. Future research should examine if the patterns of broadcasters' nonverbal expressions on 9/11 apply to other situations; 9/11 simply provides us with an extreme situation, and therefore, we have the ability to maximize comparisons. If reporters do exhibit emotional nonverbal expressions of a particular valence, they can surely be expected to do so under the circumstances of 9/11.

Graber's (2002) three-stage model of crisis coverage is important to this study as it describes and explains how journalists operate when reporting extraordinary events, allowing prediction of journalists' operation in future events. One element it does not address is journalists' nonverbal behaviors and emotional expressions. This study examines whether the nonverbal component of communication also follows the crisis model. If it does, this study will make a contribution by expanding the theory to explicate the role of nonverbal communication in crisis coverage. Graber's theory says that, during the first stage of a crisis, journalists are focused on describing what happened. The media are the major source of information during the first stage, even for public officials. "Media reports serve to coordinate public activities and to calm the audience" (Graber, 2002, p. 142); nonverbal communication, with its superior ability to communicate emotion, is germane to this duty to calm. During this stage, there is pressure to speculate about the cause of the disaster, which may lead to reporters injecting their own prejudices (Graber, 2002); bias of this type may be subconsciously conveyed by nonverbal means, not just spoken reports. In the second stage, journalists turn toward making sense out of the situation, correcting past errors, and putting things into perspective (Graber, 2002). Besides seeking information, audiences turn to the media for interpretation (Graber, 2002). We posit that journalists' nonverbal communication has the potential to influence audiences' interpretations. In the third stage, the media prepare audiences to cope with the aftereffects and also attempt to sustain morale (Graber, 2002). Graber describes how media information can relieve uncertainty, can reassure people that their grief and fears are shared, and can calm people (Graber, 2002). Again, the role of sustaining morale, relieving, reassuring, and calming are all emotional

components that nonverbal behavior is adept at influencing. The examples Graber gives include not showing gruesome pictures and avoiding inflammatory language; the role of journalists' nonverbal behavior—facial expressions, gestures, and posture—is never mentioned. Graber does give an example of how nonverbal communication hurt efforts in the Exxon oil spill in Alaska in 1989; in this instance, however, it is the lack of appropriate emotional display by a public relations person. We argue that this model of crisis coverage *implies* the importance of nonverbal communication but does not explicate it well, especially as it relates to journalists. The theory is rife with discussion of the relationship of emotion and the media in crisis coverage, yet the primary way that emotion is conveyed—nonverbally—is never made explicit. From Graber's description of the media's role in the three stages of crisis, different nonverbal behaviors would be expected during different stages of the event. To test this assumption, this study divided the first 24 hours of coverage of 9/11 into three equal time frames in order to examine journalists' nonverbal behaviors within this theoretical framework.

Even without benefit of well-explicated theories, studies of nonverbal communication have generated a wealth of empirical evidence. It has been shown that much subtle and implicit information is conveyed through nonverbal channels in a few seconds or even a fraction of a second (Rosenthal, Hall, DiMatteo, Rogers, & Archer, 1979), and people are quite accurate in decoding these brief instances of nonverbal communication (Burns & Beier, 1973; Izard, 1977). Of all the nonverbal cues, facial expressions carry the most information (Mehrabian, 1968). They are rich sources of direct and inferred information because they readily reveal mental states (Ekman, 1983). It is well established that specific nonverbal behaviors accompany certain feelings and that nonverbal cues are especially adept at communicating information about emotion and mood (Ekman, 1983). A new theoretical model that incorporates nonverbal communication specifies that a particular state of the sender is expressed in nonverbal behaviors such as gestures and facial expressions (Burgoon et al., 1990). Such behaviors lead observers to make attributions about the sender's traits or states, such as whether the sender is competent or composed. In the case of broadcast journalists, it is important to their reputations and ratings to be seen as competent, composed, credible, and trustworthy; therefore, they can benefit from knowing whether their nonverbal behaviors are sending the appropriate messages.

The nonverbal component of communication is at least as important as the verbal content (Argyle, Alkema, & Gilmour, 1971; Graber, 1990). For example, when verbal and nonverbal messages contradict, receivers typically believe the nonverbal message (Richmond, McCroskey, & Payne, 1991). On television, especially, "expressions usually dominate words" (Meyrowitz, 1985, p. 103). Verbal communication is more persuasive when factual arguments are presented, but nonverbal communication is more relevant to impression formation and emotional expression (Burgoon et al., 1990). In the case of 9/11 coverage, one of the most emotional events in recent history, viewers were decoding both factual and emotional information in an attempt to make sense of the event. Studies that examine only the verbal information and not the

visual lead to an incomplete understanding of the impressions viewers may form. Effective communication involves both content and affect (Pfau, 1990).

Although often unintentional, nonverbal behaviors can have powerful effects on viewers (Englis, 1994). A few studies have examined nonverbal behavior and credibility, which is especially relevant to broadcasters. They show that a sender's credibility increased with proximity to observers, less rigid body orientation, more eye contact, nodding, smiling, facial pleasantness, and moderate gesturing (Coker & Burgoon, 1987; Helmsley & Doob, 1978). In fact, positive nonverbal behaviors fostered favorable credibility ratings on all but one dimension in a study by Burgoon et al. (1990). In a study on a related concept, trustworthiness, Boone and Buck (2003) concluded that "it is likely that the critical component involved in communicating trustworthiness operates on a nonverbal level" (p. 174). Another study by Montepare and Dobish (2003) showed similar results for different traits: Positive expressions conveyed higher dominance and affiliation, negative expressions conveyed lower dominance and affiliation, and these were independent of facial attractiveness.

Emotion is the primary concern of most nonverbal behavior research. Nonverbal behaviors that express emotion can influence observers' evaluations and have great potential to generate powerful similar emotions in viewers (Englis, 1994; McHugo, Lanzetta, Sullivan, Masters, & Englis, 1985). Most research focuses on interpersonal communication, and a few studies show that these effects transfer when the nonverbal communication is mediated by television. Television resembles interpersonal communication more than other modes because it features intimate, visual contact with a source and places greater emphasis on relational messages than on content (Pfau, 1990). In fact, the relational dimension accounted for more variance in television than the content (Pfau, 1990). Many studies show that television-mediated visual imagery can affect public opinion and voting (Kepplinger & Donsbach, 1987; Moriarty & Garramone, 1986; Moriarty & Popovich, 1991; Rosenberg, Bohan, McCafferty, & Harris, 1986; Rosenberg & McCafferty, 1987).

There is ample support for the nonverbal behaviors of television communicators eliciting emotion in viewers (Englis, 1994; Englis, Vaughan, & Lanzetta, 1982; Haley, Richardson, & Baldwin, 1984). These nonverbal expressions evoke emotional reactions in observers, which generally parallel the emotion of the expresser (Apple & Hecht, 1982). Because nonverbal behavior is one of the primary ways emotion is communicated, it is likely that emotional nonverbal displays of newscasters affects viewers' emotions and their processing of information. There is evidence of increased anger (Kanihan & Gale, 2003), stress (Schuster, 2001), depression, posttraumatic stress disorder, sleeplessness, and other psychological problems after 9/11, even in those who did not directly experience the event but saw it on television (Pew Research Center, 2002). It is assumed that the vicarious experience of viewing the devastation of 9/11 is responsible, yet it is also possible that negative emotions communicated nonverbally by broadcasters could have contributed to these feelings in viewers. Evidence from numerous studies of nonverbal behavior and emotion suggest it is even likely.

Another consistent finding regarding nonverbal expressiveness is a gender effect; it is well documented that women convey emotion better than men (Hall, 1984; Knapp & Hall, 2002; Wagner, Buck, & Winterbotham, 1993). This is important because at least 33% of broadcast journalists are female (Weaver, Beam, Brownlee, Voakes, & Wilhoit, in press).

Such findings about nonverbal communication have important implications for the study of broadcast news. They show that impressions are more accurate than one would expect, and people communicate a great deal of information quickly and without intent. Nonverbal communication has been studied mainly in the context of political candidates on television; this study extends this to the nonverbal communication of television journalists. Ethical norms require journalists to refrain from expressing emotion (Cohen, 1987; Lewis, 1984), but much less attention is paid to emotion in their nonverbal behavior. Professional journalists have acknowledged this was a particularly important issue for coverage of September 11th (Casey, 2003). Although expressions may be masked with facial management techniques (DePaulo, 1992; Ekman & Friesen, 1975) or overridden by suppressing or counterfeiting them (Buck & VanLeer, 2002), few journalists are trained in these techniques. The fact that broadcast journalists are instructed to be neutral in their display of emotions and attitudes makes this study even more important. Most studies of nonverbal communication of emotion examined expressive displays of school teachers, judges, political candidates, or others not taught to be objective (Ambady & Rosenthal, 1993; Babad, Bernieri, & Rosenthal, 1991; Babad & Taylor, 1992). However, studies also show that professionals such as police, fire, and emergency workers who frequently experience extreme incidents are quite capable of performing for long periods in a rational manner as though nothing were wrong (Duckworth, 1991). A few studies have examined the similarities between emergency workers and journalists who regularly cover these same events (Himmelstein & Faithorn, 2002; Pyevich, Newman, & Daleiden, 2003); although journalists' nonverbal expressions have not been studied specifically, it is anticipated the same would be the case for them, that is, that they would be able to cover news such as 9/11 without showing nonverbal expressions of emotions. Still, the question of whether journalists' training and professional practice enables them to better control unintentional emotional displays has not been answered.

Studies of Broadcast Journalists

Only a few studies investigated the nonverbal behavior of TV journalists, all in the context of political coverage and usually seeking to discover bias or objectivity in the form of positive or negative nonverbal displays. Babad (1999) found that Israeli TV interviewers exhibited differential nonverbal behavior toward politicians they were interviewing and, in some cases, were blatantly preferential. Four of five U.S. network anchors exhibited significant differences in their facial expressions when they referred to the presidential candidates in the 1976 election (Friedman, Mertz, &

DiMatteo, 1980). B. Mullen et al. (1986) replicated that study in 1984 and found one of the three network anchors showed significantly more positive facial expressions toward one candidate. Political campaigns may be unique in evoking nonverbal displays in broadcasters due to the highly partisan nature of politics. Journalists' facial displays have not been studied in other situations, which may be expected to produce different results. In the interest of maximizing comparisons and finding effects if they do exist, this study examines the nonverbal communication of broadcasters under the most emotional event in recent memory—the disasters of September 11, 2001.

This project extends these studies to examine broadcasters' nonverbal behavior in a different context—coverage of breaking news of a disaster rather than political campaigns. Breaking news is a unique genre in broadcasting journalism. Studies indicate that such coverage is highly desirable to stations and that going live is an increasing trend (Tuggle & Huffmann, 2001). None of these studies examined whether broadcast reporters divulged their own emotions when covering news.

Studies of 9/11 Coverage

Television was Americans' main source of information on September 11, 2001 (Robertson, 2001). They watched an average of 8 hours of television on September 11th with 18% viewing 13 hours that day.

When any disaster occurs, the first to arrive at the scene are police, fire, and emergency crews. And journalists. Studies of first responders show they experience empathic engagement with the victims' trauma or symptoms of "vicarious traumatization" (Phipps & Byrne, 2003). Although journalists have not been included in these studies, they are often among those first on the scene, so it is reasonable to expect that news professionals would also experience the same empathic engagement. Psychological literature indicates that vicarious traumatization can affect professional performance (Gal, 1998) and that the quality of the performance can suffer (Collins & Long, 2003; Duckworth, 1991). In broadcasters, this might show up in their nonverbal behavior.

Graber's (2002) theory of the stages of crisis and empirical evidence regarding nonverbal behavior leads to two hypotheses and a research question:

- H₁: Broadcasters communicated significantly more total nonverbal expressions (positive and negative combined) than neutral expressions during the first 24 hours of September 11th coverage. This will be tested with a *t* test.
- H₂: Female broadcasters exhibited significantly more total nonverbal expressions than male broadcasters during the first 24 hours of September 11th coverage. This will be tested with a *t* test.

- RQ₁: Was there a significant difference in broadcasters' total nonverbal expressions and neutral expressions according to the three stages of crisis model? That is, were broadcasters more likely to show emotion in the first, second, or third 8-hour period of coverage of 9/11? This will be answered with a chi-square and an analysis of variance.

Method

Tapes of the first 24 hours of coverage of September 11, 2001, were obtained from the Vanderbilt Television News Archives for ABC, CBS, NBC, and CNN. A random sample was generated from the universe by dividing the 24 hours into 15-minute increments and randomly selecting 25% of the 15-minute units. This produced twenty-four 15-minute segments. The unit of analysis was the shot, the most basic unit of an audiovisual message, defined as a fragment of visual material that has no break in continuity of action, that is, video that does not contain editing cuts (Gianetti, 1982). In a shot, the camera movement is unedited; if the camera's position changes it may be due to zooms or pans but not cuts (Van Leeuwen & Jewitt, 2001). We content analyzed only shots that lasted at least 4 seconds to increase coder accuracy (Rosenthal et al., 1979).

We measured six nonverbal dimensions that had been tested in previous studies—eyebrows, mouth and lips, head, overall face, overall body, and overall gesturing (Moriarty & Garramone, 1986; Moriarty & Popovich, 1991; L. Mullen, 1998; Sullivan & Masters, 1988). Following tests of nonverbal behavior from psychology, coders did not judge the emotion shown in the face according to anger, fear, and so forth, nor did they judge it as positive, negative, or neutral. Instead, they distinguished particular movements (Ekman, 1983; Knapp & Hall, 2002), for example, whether the eyebrows were raised up, lowered or furrowed toward the middle, or normally positioned. The movements were later recoded along a three-point dimension—positive, negative, and neutral—by the researchers using the findings from previous studies. These procedures have been shown to increase intercoder reliability and measurement validity. Specifically, *eyebrows* were coded as negative if they were lowered or furrowed toward the middle; positive if raised up or not furrowed; and neutral if normal or expressionless. *Mouth and lips* were coded as negative if the corners were retracted or pulled back as if in a grimace, or tight or frowning; positive if raised, or retracted and raised as if smiling or laughing; and neutral if normal or nonexpressive. *Head* was coded as negative if it was turned facing downward as if dejected or tired; positive if it was up with the chin pointed up; and neutral if normally positioned or straightforward. *Overall face* was coded as negative if it was serious, tense, unhappy, or worried; positive if it was happy, lighthearted, calm, or peaceful; and neutral if it was normal or expressionless. *Overall body* was coded as negative if it was stiff or tense; positive if relaxed; and neutral if it was normal or expressionless. *Overall gesturing* was coded as negative if the journalist engaged in much gesturing, hand waving, and so forth, at shoulder level or above; positive if there was some gesturing such as small expressions with the hands at waist level or below shoulder level, and neutral if there was none.

This resulted in an interval-level variable we called “total nonverbal expressions”—an index of the total amount of nonverbal expressions across the six measures. This was a sum of the number of nonneutral expressions without regard to valence; in other words, both negative and positive expressions were counted as nonverbal expressions of emotion and were summed across the six measures. Va-

lence was computed using the Janis–Fadner Coefficient of Imbalance to measure the degree of bias (Janis & Fadner, 1965). Computation of this coefficient allows for one variable that measures bias rather than separate variables, one measuring positive, one negative, and one neutral nonverbal expressions. It eliminates the problem of positive and negative values canceling each other out when summing variables; after all, a positive expression does not “cancel out” the effects of a negative one, resulting in a neutral. The coefficient used the valence scores, positive, negative, and neutral, for the six variables. For each measure, positive expressions were given a value of 1, negative expressions a value of -1 , and neutral expressions a value of 0. The coefficient is a simple statistical measure of the extent of difference in the ratios of favorable, unfavorable, or balanced/neutral material assigned to the traits within the analysis. It is designed so that it will always increase when the frequency of favorable content increases, decrease when the frequency of unfavorable content increases, and equal zero if the units of content are balanced/neutral or if the numbers of units of favorable content are equal to the number of unfavorable units (Janis & Fadner, 1965). The formula can produce a number between $+1.0$ and -1.0 representing the strength of journalists' nonverbal expressions.

Although we examine nonverbal communication only as it is conveyed via the visual channel, we acknowledge that tone of voice, inflection, and other nonverbal messages also carry important information. However, the need to constrain the variables and make the study manageable led to a study of nonverbal communication via the visual channel. This study is still important because it includes the channel that is most effective at conveying nonverbal messages (Knapp & Hall, 2002); most studies ignore the nonverbal modes altogether. We also coded time of day when each shot occurred in accordance with Graber's (2002) theory of stages, as well as by gender—because studies of nonverbal communication show women convey more nonverbal expressions of emotion—and network.

Two independent coders were trained and separately coded 10% of the shots. Reliabilities using Scott's pi were as follows: eyebrows = .85; mouth and lips = .94; head = 1.0; face = .87; body = .93; gesture = 1.0; gender = 1.0; journalists' location = .93; city = .97. The volume was turned off so that spoken language was not audible to the coders. This was designed to eliminate possible bias based on verbal cues (Burns & Beier, 1973). Coders also were able to pause the video, allowing them to consider longer the subtleties and avoid confusion over an expression.

Results

This study of the first 24 hours of newscasts about September 11th generated a total of 2,067 shots. CNN contributed about 30% of the total shots, ABC 26%, CBS 22%, and NBC 22%. A total of 653 journalists and their nonverbal expressions were coded.

Hypothesis 1 predicts that broadcasters communicated significantly more total nonverbal expressions (positive and negative combined) than neutral expressions

Table 1
Percentages of Total Nonverbal Expressions and Valence
by Time Category

	9 a.m.–5 p.m. (9/11)	5 p.m. (9/11)– 1 a.m. (9/12)	1 a.m.–9 a.m. (9/12)	Total
None	24.1	53.4	22.4	100
Total nonverbal expressions	40.6	45.6	13.8	100

Note: $\chi^2(2, N = 654) = 7.083, p = .029$.

during the first 24 hours of coverage of September 11th. This hypothesis was supported. Journalists exhibited significantly more nonneutral expressions ($M = 9.0$) than neutral expressions ($M = 2.94$) during the first 24 hours of September 11th coverage, $t(662) = 48.57, p < .001$.

Hypothesis 2 states that female broadcasters exhibited significantly more total nonverbal expressions than male broadcasters during the first 24 hours of coverage of September 11th. Contrary to what prior research predicts, this finding indicates that there is no significant difference between male and female broadcasters when they covered September 11th (male $M = 2.62$; female $M = 2.65$), $t(661) = -0.291, p = .771$. The second hypothesis is rejected.

Research Question 1 asks if there was a significant difference in broadcasters' total nonverbal expressions and neutral expressions according to the three stages of crisis. That is, were broadcasters more likely to show emotion in the first, second, or third 8-hour period of coverage?

We divided the first 24 hours evenly into three periods and discovered there were significant differences according to time of day (see Table 1). During the second time period, September 11th from 5 p.m. to September 12th at 1 a.m., the average of nonverbal expressions reaches its peak—45.6% of the expressions were positive or negative, not neutral. The next highest was the first time period, 9 a.m. to 5 p.m. on September 11th, with 40.6% nonneutral nonverbal expressions. The third time period, September 12th from 1 a.m. to 9 p.m., had the fewest number of nonverbal expressions—13.8%. These differences across time were statistically significant, $\chi^2(2, N = 654) = 7.083, p < .05$. Furthermore, the valence of nonverbal expressions was significantly different according to time of day (see Table 1). Reporters made the most negative nonverbal expressions during the first period (46%), immediately followed by the second period (44%). This finding is echoed by results from the Janis–Fadner coefficient, $F(2, 651) = 10.078, p < .001$.

Discussion

Despite widespread industry commitment to the goal of not showing emotion, broadcast journalists are not always successful in conveying it in their nonverbal be-

havior. This study found that broadcasters overwhelmingly exhibited nonverbal behavior that was negative or positive rather than neutral during the first 24 hours of coverage of the September 11th terrorist attacks. This finding may not be too surprising given the enormity of the tragedy that journalists' underlying attitudes and emotions were revealed nonverbally, or that the nonverbal information they conveyed was overwhelmingly negative. Broadcast journalists, however, would be surprised at this finding; they believe they are more successful at adhering to the journalistic tenet of unemotional delivery. Yet, this was not upheld—at least not in nonverbal communication. Audiences, however, would probably be less surprised. Audiences continue to say that journalists show bias, even though studies using trained, objective coders fail to detect any systematic bias (D'Alessio & Allen, 2000). Perhaps what viewers are picking up on is not contained in the verbal reports usually examined in bias studies, but in the nonverbal communication of journalists. This study used trained, objective coders and did find bias, much as audiences do.

These displays of nonverbal behaviors are better understood in the context of the time of day of the coverage. During the second 8 hours of coverage, broadcasters were least able to control their nonverbal expressions than in the first and third 8-hour periods. One might intuitively expect that the early hours of the event would find anyone more emotional than later. It makes more sense when looking at this through Graber's (2002) three stages of crisis framework. During the first stage, journalists are focused on describing what happened (Graber, 2002). The first time period corresponds to this stage. When the first plane struck the World Trade Center, journalists covering the news were focused on getting accurate information and getting it out. It was not until the second stage, where journalists turn toward making sense out of the situation (Graber, 2002), that they had the time and motivations to consider the enormity of the situation. Only after the event had unfolded and no more incidents occurred did journalists begin to contemplate the implications of such a massive, planned undertaking in an attempt to make sense of it for audiences. In this second period, they lost their professional demeanor and began to feel, and uncontrollably express, emotions. This phenomenon resembles the work with other professionals in vicarious traumatization.

The findings about gender are counter to what previous research shows; however, they are entirely understandable given the nature of the population studied. Unlike teachers, judges, couples, and others, the female broadcasters in this sample were not more likely to reveal emotion in their nonverbal expressions than male broadcasters. Although broadcasters overall may not have been entirely successful in concealing their nonverbal expressions, men and women had about the same rate of success (or failure) in this regard. This finding should help put to rest any lingering concerns over women being able to report as well as men on certain stories. We are unable to say from this correlational study whether female broadcasters learn to conceal their emotions better than women in other occupations, or whether women who go into broadcasting already have this trait (DePaulo, 1992). We take it as encouraging that, for once, there is no gender difference when other indications say there should be.

Conclusion

This study advances the theoretical development of Graber's (2002) stages of crisis coverage by explicating the role of nonverbal communication. It begins the process of enlarging the theoretical framework to account for the effects of nonverbal cues. Graber's theory describes and explains how journalists operate when reporting extraordinary events, thereby allowing us to predict their behavior in future events. As news organizations become more attuned to the problems of crisis coverage, this theory, first explicated 25 years ago (Graber, 1980), will take on more importance in helping understand and predict journalists' behavior. However, the theory is lacking in its development of the nonverbal channel of communication and the emotional messages it conveys. It hints at the role of nonverbal communication but does not explicate it well; only one specific anecdote of nonverbal emotional displays during a crisis is offered, and that relates to public relations practitioners, not journalists. Despite this, the theory is rife with discussion of the relationship of emotion and the media in crisis coverage; yet, the primary way that emotion is conveyed—nonverbally—is never made explicit. This study helps fill that theoretical void.

These findings as a whole support the idea of three distinct stages of crisis coverage with evidence of significantly different nonverbal expressions of emotions by journalists during the three phases of 9/11. From the findings, we theorize that journalists' nonverbal expressions of emotion take the shape of a curve, peaking in the second stage, and being lower in the first and last stages. In the first stage, journalists' nonverbal expressions will be moderate because their primary duty to gather information and quickly convey it to audiences allows them to focus on a task and distracts them from the horrors of the crisis unfolding around them. Although one might intuitively expect that the early hours of the event would find anyone more emotional than later, that is not the case for journalists and is similar to other emergency workers. Journalists are actually able to do their duties with less emotion and fewer nonverbal displays in the earliest stage of a crisis. This mirrors the work on vicarious traumatization, which finds that emergency professionals initially are able to perform their duties with few displays of emotion, acting as if nothing out of the ordinary were going on while in the midst of horrific disasters and gruesome scenes (Phipps & Byrne, 2003). In interviews, journalists also report this sense of being able to carry on as if it were business as usual by focusing on the task of collecting information (Himmelstein & Faithorn, 2002) and compartmentalizing their emotions (Simpson & Boggs, 1999). From their relatively restrained nonverbal displays of emotion, it appears that this coping mechanism works.

The highest number of nonverbal expressions will occur in the second stage. It is during this second, sense-making period when journalists' focus shifts from gathering new information to attempting to understand and explain it to audiences. This shift of cognitive tasks also results in a shift of emotions, which manifests as significantly more nonverbal displays than in any other stage. As journalists switch from collecting data to understanding it, they begin to comprehend the enormity of the event. In addition, the pressure of rapidly collecting and disseminating new information as it

quickly unfolds begins to recede as the event winds down, giving journalists more time to think instead of having to simply react. This time to think is also a time to feel. The task of cognitively processing what has happened and making sense of it occurs as the same time as their emotional processing begins; the two types of processing together are simply overwhelming.

The third stage will find journalists exhibiting the fewest nonverbal expressions because this is when they regain their composure and sense of professional demeanor. During this stage, journalists again concentrate on discharging their professional duties, which at this time, when there is little new information to report, they see as calming people's fears, sustaining morale, reassuring, and relieving audiences. Calm, neutral nonverbal expressions are used to achieve this. In addition, broadcast journalists are aware that their credibility suffers when they exhibit displays of emotion, so they also concentrate on masking their valenced nonverbal expressions.

This theoretical process is posited to apply to journalists' coverage of any crisis, not just 9/11. Whether the event is a natural disaster such as a tsunami, earthquake, or destructive fire, or a man-made one such as mass shootings or even gruesome car accidents, these three stages of nonverbal displays of emotion should hold true. Replication of these findings in the context of other events is necessary to test and expand this theoretical addition to Graber's (2002) stages of crisis.

Although broadcast journalists are cautioned to keep their nonverbal behaviors in check, few courses or continuing education seminars actually train broadcasters in facial management techniques that would help them achieve this goal of neutral nonverbal behavior. One outcome of studies such as this should be to make broadcasters aware of this tendency to betray objectivity and point out the work in psychology on impression management (DePaulo, 1992). Broadcast organizations should be encouraged to incorporate nonverbal communication into plans for crisis coverage. Psychologists call for training in the kind of preparation and self-management necessary for those who are first-line disaster workers. We extrapolate that advice to journalists who cover disasters and suggest that, for broadcasters, training and preparation in facial management techniques is appropriate. Graber's (2002) crisis theory acknowledges that journalism organizations, especially broadcast, have plans to cope with problems of crisis coverage. Like emergency personnel, journalists need to develop emotionally neutral ways of interpreting the events they deal with (Duckworth, 1991). It is especially important to journalists in the second stage of crisis (Graber, 2002) because an important aspect of this stage is that the media try to ease tensions among the audience and increase national morale. This is where the 9/11 journalists were least able to show neutral expressions. If their nonverbal behavior does not convey this reassuring message, then it is unlikely that their words will have the intended effect.

Beyond the implications for whether controlling nonverbal expressions is an impossible goal for journalists, the results of this study raise questions of what effects these expressions of emotions have on viewers, keeping in mind that individual differences no doubt play a role in interpretations. Such conclusions cannot be determined by this study, but numerous other projects have found that nonverbal behavior of

journalists can influence viewers (Moriarty & Garramone, 1986), stir viewers' emotions, influence the opinions they form (Graber, 1988), and even affect their attitudes and behavior (Sullivan & Masters, 1988). Future studies should link the broadcasters' nonverbal messages with their effects on audiences.

This project extends the study of broadcasters' nonverbal behavior beyond the context of campaign coverage; scholars are encouraged to consider other story contexts as well to discover what types of stories and at what level of severity broadcasters are better able to conceal their nonverbal expressions. For instance, it may be hypothesized that routine, nightly newscasts may lead to more neutral nonverbal communication but that other breaking news events reduce the likelihood of broadcasters' maintaining control of their nonverbal expressions. Comparative data are needed to generalize beyond a single event. Besides the campaign studies, this is the first to examine broadcasters' nonverbal communication.

Although future research should provide answers to some of these questions, the study reported here contributes substantially to a better understanding of the way broadcasters communicate using more than words alone. It is also the first empirical test of Graber's (2002) stages of crisis theory in the nonverbal realm. By studying different story content, and also using trained coders and objective measures instead of untrained viewers, these results help confirm the proposition that nonverbal displays of broadcasters vary considerably, despite their best efforts and commitment to journalistic values, and follows Graber's theoretical pattern.

We purposely chose to study coverage of 9/11 because this event is unlike any other since Pearl Harbor in 1941; if seasoned, network journalists—not local journalists, talk show hosts, or sensational news magazine reporters—who are trained to be neutral were likely to convey nonverbal behaviors that were not neutral, it surely would be during an event as horrific as this. But the nature of the event studied should not serve to dismiss these findings; consider that numerous studies of election coverage also show that broadcast journalists convey positive and negative nonverbal expressions (Babad, 1999; Friedman et al., 1980; B. Mullen et al., 1986). Clearly, it is not only emotional events of the magnitude of 9/11 that produce such nonverbal displays in journalists. Although political campaigns may no doubt stir partisan attitudes in journalists, the magnitude of these attitudes should be much less than the magnitude of emotions evoked by a massive terrorist attack resulting in 3,000 deaths. That broadcasters do exhibit valenced nonverbal behavior in at least two different settings makes it less likely that the content of the story is the only explanation.

References

- Ambady, N., & Rosenthal, R. (1993). Half a minute: Predicting teacher evaluations from thin slices of nonverbal behavior and physical attractiveness. *Journal of Personality and Social Psychology, 64*, 431–441.
- American Society of Newspaper Editors. (1999). *Examining our credibility: Perspectives of the public and the press*. Reston, VA: Author.

- Apple, W., & Hecht, K. (1982). Speaking emotionally: The relation between verbal and vocal communication of affect. *Journal of Personality and Social Psychology, 42*, 864–875.
- Argyle, M., Alkema, F., & Gilmour, R. (1971). The communication of friendly and hostile attitudes by verbal and nonverbal signals. *European Journal of Social Psychology, 1*, 385–402.
- Babad, E. (1999). Preferential treatment in television interviewing: Evidence from nonverbal behavior. *Political Communication, 16*, 337–358.
- Babad, E., Bernieri, F., & Rosenthal, R. (1991). Students as judges of teachers' verbal and nonverbal behavior. *American Educational Research Journal, 28*, 211–234.
- Babad, E., & Taylor, P. (1992). Transparency of teacher expectancies across language, cultural boundaries. *Journal of Educational Research, 86*, 120–125.
- Boone, R. T., & Buck, R. (2003). Emotional expressivity and trustworthiness: The role of nonverbal behavior in the evolution of cooperation. *Journal of Nonverbal Behavior, 27*, 163–182.
- Buck, R., & VanLeer, C. A. (2002). Verbal and nonverbal communication: Distinguishing symbolic, spontaneous, and pseudo-spontaneous nonverbal behavior. *Journal of Communication, 52*, 522–541.
- Burgoon, J. K., Birk, T., & Pfau, M. (1990). Nonverbal behaviors, persuasion, and credibility. *Human Communication Research, 17*, 140–169.
- Burns, K. L., & Beier, E. G. (1973). Significance of vocal and visual channels in the decoding of emotional meaning. *Journal of Communication, 23*(1), 118–130.
- Casey, G. (2003). From the professionals. *Newspaper Research Journal, 24*(1), 110–113.
- Cohen, A. (1987). *The television news interview*. Newbury Park, CA: Sage.
- Coker, D. A., & Burgoon, J. K. (1987). The nature of conversational involvement and nonverbal encoding patterns. *Human Communication Research, 13*, 463–494.
- Collins, S., & Long, A. (2003). Too tired to care? The psychological effects of working with trauma. *Journal of Psychiatric & Mental Health Nursing, 10*, 17–27.
- D'Alessio, D., & Allen, M. (2000). Media bias in presidential elections: A meta-analysis. *Journal of Communication, 50*(4), 133–156.
- DePaulo, B. M. (1992). Nonverbal behavior and self-presentation. *Psychological Bulletin, 111*, 203–243.
- Duckworth, D. H. (1991). Facilitating recovery from disaster-work experiences. *British Journal of Guidance & Counselling, 19*(1), 13–22.
- Ekman, P. (Ed.). (1983). *Emotion in the human face* (2nd ed.). New York: Cambridge University Press.
- Ekman, P., & Friesen, W. V. (1975). *Unmasking the face*. Englewood Cliffs, NJ: Prentice-Hall.
- Englis, B. G. (1994). The role of affect in political advertising: Voter emotional responses to the nonverbal behavior of politicians. In M. C. Eddie, T. C. Brock, & D. W. Stewart (Eds.), *Attention, attitude and affect in response to advertising* (pp. 223–247). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.
- Englis, B. G., Vaughan, K. B., & Lanzetta, J. T. (1982). The conditioning of counterempathetic emotional responses. *Journal of Experimental Social Psychology, 18*, 375–391.
- Friedman, H. S., Mertz, T. I., & DiMatteo, M. R. (1980). Perceived bias in the facial expressions of television news broadcasters. *Journal of Communication, 30*(4), 103–111.
- Gal, R. (1998). Colleagues in distress: "Helping the helpers." *International Review of Psychiatry, 10*, 234–238.
- Gianetti, L. D. (1982). *Understanding movies*. Englewood Cliffs, NJ: Prentice-Hall.
- Graber, D. (1980). *Mass media and American politics*. Washington, DC: CQ Press.
- Graber, D. (1988). *Processing the news: How people tame the information tide*. White Plains, NY: Longman.
- Graber, D. (1990). Seeing in remembering: How visuals contribute to learning from television news. *Journal of Communication, 40*(3), 134–155.
- Graber, D. (2002). *Mass media and American politics*. Washington, DC: CQ Press.
- Haley, R. L., Richardson, J., & Baldwin, B. M. (1984). The effects of nonverbal communication in television advertising. *Journal of Advertising Research, 24*(4), 11–18.

- Hall, J. A. (1984). *Nonverbal sex differences: Communication accuracy and expressive style*. Baltimore: Johns Hopkins University Press.
- Helmsley, G. D., & Doob, A. T. (1978). The effect of looking behavior on perceptions of a communicator's credibility. *Journal of Applied Social Psychology, 8*, 136-144.
- Himmelstein, H., & Faithorn, P. (2002). Eyewitness to disaster: How journalists cope with the psychological stress inherent in reporting traumatic events. *Journalism Studies, 3*, 537-555.
- Izard, C. E. (1977). *Human emotions*. New York: Plenum.
- Janis, I. L., & Fadner, R. (1965). Coefficients of imbalance. In H. Laswell, N. Leites, & Associates (Eds.), *Language of politics* (pp. 153-169). South Norwalk, CT: George W. Stewart.
- Kanihan, S. F., & Gale, K. L. (2003). Within 3 hours, 97 percent learn about 9/11 attacks. *Newspaper Research Journal, 24*(1), 78-91.
- Kepplinger, H. M., & Donsbach, W. (1987). The influence of camera perspectives on perception of a politician by supporters, opponents, and neutral observers. In D. L. Paletz (Ed.), *Political communication research* (pp. 62-72). Norwood, NJ: Ablex.
- Knapp, M. L., & Hall, J. A. (2002). *Nonverbal communication in human interaction*. Belmont, CA: Wadsworth.
- Lewis, C. (1984). *Reporting for television*. New York: Columbia University Press.
- McHugo, G. J., Lanzetta, J. T., Sullivan, D. G., Masters, R. D., & Englis, B. G. (1985). Emotional reactions to a political leader's expressive displays. *Journal of Personality and Social Psychology, 49*, 1513-1529.
- Mehrabian, A. (1968). Inference of attitudes from the posture, orientation, and distance of a communicator. *Journal of Consulting and Clinical Psychology, 32*, 296-308.
- Meyrowitz, J. (1985). *No sense of place: The impact of electronic media on social behavior*. New York: Oxford University Press.
- Minarcin, P. W. (2003). The Tampa Tribune. *Newspaper Research Journal, 24*(1), 31-33.
- Montepare, J. M., & Dobish, H. (2003). The contribution of emotion perceptions and their overgeneralizations to trait impressions. *Journal of Nonverbal Behavior, 27*, 237-254.
- Moriarty, S. E., & Garramone, G. M. (1986). A study of newsmagazine photographs of the 1984 Presidential campaign. *Journalism Quarterly, 63*, 728-734.
- Moriarty, S. E., & Popovich, M. N. (1991). Newsmagazine visuals and the 1988 presidential election. *Journalism Quarterly, 68*, 371-380.
- Mullen, B., Futrell, D., Stairs, D., Tice, D. M., Baumeister, R. F., Dawson, K. E., et al. (1986). Newscasters' facial expressions and voting behavior of viewers: Can a smile elect a president? *Journal of Personality and Social Psychology, 51*, 291-295.
- Mullen, L. (1998). Close-ups of the president: Photojournalistic distance from 1945 to 1974. *Visual Communication Quarterly, 5*(2), 4-6.
- Nacos, B. L. (2003). Terrorism as breaking news: Attack on America. *Political Science Quarterly, 118*, 23-52.
- Pew Research Center. (2002, February 23). *American psyche reeling from terror attacks*. Retrieved April 5, 2003, from www.people-press.org/reports/display.php3?reportID=3.html
- Pfau, M. (1990). A channel approach to television influence. *Journal of Broadcasting & Electronic Media, 34*, 195-214.
- Phipps, A. B., & Byrne, M. K. (2003). Brief interventions for secondary trauma: Review and recommendations. *Stress and Health, 19*, 139-147.
- Pyeich, C. M., Newman, E., & Daleiden, E. (2003). The relationship among cognitive schemas, job-related traumatic exposure, and posttraumatic stress disorder in journalists. *Journal of Traumatic Stress, 16*, 325-328.
- Richmond, V. P., McCroskey, J. C., & Payne, S. K. (1991). *Nonverbal behavior in interpersonal interactions*. Englewood Cliffs, NJ: Prentice-Hall.
- Robertson, L. (2001). Anchoring the nation. *American Journalism Review, 23*, 40-45.
- Rosenberg, S. W., Bohan, L., McCafferty, P., & Harris, K. (1986). The image and the vote: The effect of candidate presentation on voter preference. *American Journal of Political Science, 30*, 108-127.

- Rosenberg, S. W., & McCafferty, P. (1987). The image and the vote: Manipulating voters' preferences. *Public Opinion Quarterly*, 51, 31-47.
- Rosenthal, R., Hall, J., DiMatteo, M. R., Rogers, P., & Archer, D. (1979). *Sensitivity to non-verbal communication: The PONS test*. Baltimore: Johns Hopkins University Press.
- Schuster, M. A. (2001). A national survey of stress reactions after the September 11, 2001, terrorist attacks. *New England Journal of Medicine*, 345, 1507-1512.
- Simpson, R. A., & Boggs, J. G. (1999). An exploratory study of traumatic stress among newspaper journalists. *Journalism & Communication Monographs*, 1(1), 26.
- Sullivan, D. G., & Masters, R. D. (1988). "Happy warriors": Leaders' facial displays, viewers' emotions, and political support. *American Journal of Political Science*, 32, 345-368.
- Tuggle, C. A., & Huffman, S. (2001). Live reporting in television news: Breaking news or black holes? *Journal of Broadcasting & Electronic Media*, 45, 335-344.
- Van Leeuwen, T., & Jewitt, C. (2001). *Handbook of visual analysis*. London: Sage.
- Wagner, H. L., Buck, R., & Winterbotham, M. (1993). Communication of specific emotions: Gender differences in sending accuracy and communication measures. *Journal of Nonverbal Behavior*, 17, 29-54.
- Weaver, D., Beam, R., Brownlee, B., Voakes, P., & Wilhoit, G. C. (in press). *The American journalist in the 21st century*. Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

Copyright of *Journal of Broadcasting & Electronic Media* is the property of Lawrence Erlbaum Associates and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.