

# Predicting Emotional Responses to Horror Films from Cue-Specific Affect

Kimberly A. Neuendorf and Glenn G. Sparks

*Applying theories of cognition and affect that predict emotional responses to a stimulus on the basis of prior affect toward specific cues included in that stimulus, a study was conducted assessing individuals' fear and enjoyment reactions to horror films. Prior fear of specific cues included in each film was a significant predictor of overall fear reactions, after controlling for prior exposure to the film, fear of specific cues not included in the film, and manifest anxiety. Prior liking of specific cues included in each film did not emerge as a significant predictor of overall enjoyment. The contributions of gender and of level of forewarning about the film's content were also assessed.*

**KEY CONCEPTS** *Cognition, affect, cue-specific affect, fear, emotion, media effects, mass communication, horror, film, forewarning.*

**KIMBERLY A. NEUENDORF** (Ph.D., Michigan State University, 1982) is Assistant Professor in the Department of Communication at Cleveland State University, Cleveland, OH 44115. **GLENN G. SPARKS** (Ph.D., University of Wisconsin, 1983) is Assistant Professor in the Department of Communication at Purdue University, West Lafayette, IN 47906.

**A**fter nearly two decades of focus on the question of how violent content might affect aggressive behavior (Liebert, Sprafkin, & Davidson, 1982), the mass communication research community has begun to realize that there are other important types of media effects that have not received such systematic attention. It is now apparent, for example, that in addition to affecting aggressive behavior, exposure to violent media content may also induce such emotional responses as fear, distress and anxiety. And, there is a rich and venerable tradition of media designed specifically to "chill the spine" (King, 1981). While there seems to be no dearth of frightening media over the last several years (e.g., *The Exorcist*, *Jaws*, *The Shining*, *Poltergeist*, *Alien*, *Nightmare on Elm Street*, *The Fly*, etc.), we are just beginning to learn about the processes and effects that may accompany the viewing of this type of entertainment, notably with regard to their intended and resultant responses.

Dorr (1982) has indicated that media researchers should make the current decade one in which significant progress is made in the area of *affective* reactions and mass media entertainment. Some researchers have begun this task by identifying the role that affect plays in determining communication content preferences. For example, Zillmann, Hezel and Medoff (1980) found manipulated affective state to have an impact on a subject's choice of TV program type (i.e., comedy, game show or action drama). Further, Zillmann and Bryant (1985) have explicated a theory of affect-dependent stimulus arrangement that specifies the processes by which individuals choose communication stimuli to (a) reduce the intensity of aversive affective states

(largely by choosing communication stimuli that are engaging, absorbing and hedonistically positive), and/or to (b) perpetuate and increase the intensity of pleasurable affective states (largely by avoiding potentially distracting communication stimuli).

Other researchers have responded to Dorr's suggestion with studies identifying the reactions that frightening films induce in adults and children (Cantor, Ziemke, & Sparks, 1984; Sparks, 1986). This research has extended our knowledge about media effects and contributed to the current debate regarding the nature of the relationship between cognition and emotion (cf. Lazarus, 1984; Zajonc, 1984). Several studies that have examined children's responses to frightening media have employed a developmental perspective. These studies have attempted to explain children's fear reactions to mass media by examining differences in the cognitive structures and processes of children at different ages (Cantor & Reilly, 1982; Cantor & Sparks, 1984; Cantor & Wilson, 1984; Sparks & Cantor, 1986). These studies have offered a possible *explanation* for developmental changes in fear reactions and they stand in contrast to studies that have focussed simply on the *description* of these changes (Dysinger & Ruckmick, 1933; Graziano, DeGiovanni, & Garcia, 1979; Maurer, 1965; Palmer, Hockett, & Dean, 1983).

Unlike the developmental research focussing on the types of content that may induce fear at different levels of cognitive development, the present study focusses on the general relationship between emotion and cognition among individuals assumed to be at the same level of cognitive development. The present study explores the emotional reactions of college students, who represent an important subject population to investigate because many of them attend scary movies frequently and are often a target audience of film producers. Another reason for examining college students instead of children is to extend the generalizability of theoretical ideas linking emotion and cognition.

### **What Processes Give Rise to Emotions?**

Several recent cognitive approaches to emotion emphasize the role played by information stored in memory. This information becomes activated in particular situations and leads to an emotional response. For example, Greene and Sparks (1983) show that certain situational cues in interpersonal communication situations may activate "procedural records" in memory. These records contain information about particular outcomes associated with particular actions. The individual's evaluations of the potential outcomes associated with the actions at his or her disposal give rise to emotional experiences.

Another cognitive approach to the cognition-emotion link conceives of *affect* as an integral part of a cognitive schema. The schema is a generic knowledge structure that results from the abstraction of specific events, containing a variety of interrelated pieces of information about the most common example of the class of events it represents (Fiske, 1982; Rumelhart & Ortony, 1977). Fiske elaborates on how *affect* can also be a part of any schema. She states:

Simply put, affect is assumed to be stored with the generic knowledge structure. The affect is available immediately upon categorization, so evaluations and affect are cued by categorization, that is by fitting an instance to a schema. In this view, a perceiver first comprehends an input, by assimilating it to an existing knowledge structure, and then evaluates the instance on the basis of the affect linked to the schema. (p. 60)

It is also possible to conceive of affect as being "primed" by the activation of key nodes in a spreading activation memory model (Berkowitz & Rogers, 1986). These approaches suggest that one way of understanding the right response to any movie or TV program is to appeal to information already stored in memory. For example, consider the case of the individual who has never seen a scary movie. This individual decides to watch the movie, *Friday the 13th* (which features many depictions of people being stabbed and bloodied). Suppose that these sorts of events are already represented in memory and are associated with affectively negative information (e.g., knives represent a threat to my well-being; blood upsets me, etc.). To the extent that the events depicted in the movie activate this information, the likelihood increases that negative affect will be experienced upon viewing these events. Likewise, the negative affect experienced while viewing *Friday the 13th* constitutes new information that is stored in memory and may be associated with various sorts of cues that were present in the movie. Consequently, the next time the individual perceives a film containing similar objects, music, characters, events, etc., the negative affect is again experienced. Consistent with this general view is the one articulated by a popular practitioner, the modern-day prince of fictional horror, Steven King. He has noted the importance of *specific* themes in eliciting fear:

[Horror] is looking for what I would call phobic pressure points . . . Do spiders give you the horrors? Fine. We'll have spiders, as in *Tarantula*, *The Incredible Shrinking Man*, and *Kingdom of the Spiders*. What about rats? In James Herbert's novel of the same name, you can feel them crawl over you . . . and eat you alive. How about snakes? That shut-in feeling? Heights? Or . . . whatever there is. (King, 1981, p. 18)

One direct implication of this view is that a person's emotional response to a frightening movie should be predicted by the affect associated with particular objects, settings or events that are depicted in the movie. For example, if a given individual has a memory representation of "cemeteries" that is associated with the emotion of "fright," then a movie that contains many scenes of cemeteries should activate this information and the individual watching should experience fear—more fear than someone who has no previous fright associations with cemeteries.

### Background and Hypotheses

In applying these notions to the situation of an individual watching a scary film, the most basic prediction would be the following: Prior ratings of affect for objects that are depicted in a scary movie should account for a significant portion of the variance in the overall emotional response to the movie. In order to test this hypothesis, it is necessary to expose subjects to particular scary movies. Prior to this exposure, subjects need to provide affective ratings for objects that are depicted in the film. It is obviously possible that for some subjects, exposure to a particular film may not constitute their *first* exposure; this fact has direct theoretical implications. It may be that the affective ratings of particular objects depicted in the film are a direct result of having seen the film before. This possibility is consistent with the theoretical framework; the general prediction should hold *regardless of how* the affective reactions to specific objects became associated in memory. Consequently, the above prediction is expected to hold even when controlling for prior exposure to the stimulus movie.

In addition to testing this basic prediction, we also wished to explore the impact of

several other variables on the overall affective reactions to frightening films. Recent research suggests that one key variable in predicting the intensity of affective reactions to scary movies may be the level of forewarning about the film that a subject has received. Cantor et al. (1984) discovered that subjects who had received an explicit forewarning about four short film clips depicting a vampire reported higher levels of fright and upset immediately after individual viewing of the clips in a laboratory experiment. In the present study, we sought to replicate this finding in another context. While Cantor et al. used an audio forewarning just prior to viewing, we examined how different levels of written forewarning might affect emotional reactions. This choice for a replication/extension was made because of the common availability of written forewarning statements in print media advertisements and reviews.<sup>1</sup>

Two control variables were also considered important to an understanding of how cue-specific affect contributes to overall affect: The trait tendency to experience that overall affect and the tendency to experience cue-specific affect. For example, overall fear reactions may be a manifestation of the tendency to be anxious and fearful in general and/or to be fearful of specific cues (regardless of what those cues are—i.e., whether they are similar to those in the stimulus material or not). Controlling for these tendencies allows the unique contribution of the fear of *relevant cues* to be identified.

Finally, a number of recent studies reveal that females tend to report higher levels of fright to mass media than do males (Cantor & Reilly, 1982; Palmer, Hockett, & Dean, 1983; Sparks, 1986), without providing an explanation for such differences. Consequently, we were interested in examining the role of gender in emotional responses to a scary movie. Specifically, we were interested in how much of the variance in emotional responses to a scary movie could be accounted for by gender, *after* considering other variables outlined above, thereby identifying some *reasons* for gender's past identified role in predicting affect.

## Methods

In order to test these notions in a realistic viewing situation, a study was designed which exposed subjects to horrific films *in their entirety in a mass-viewing theatre environment*. Two different replications were executed—i.e., the study was conducted with two different horror films with protocol, manipulations and measurement procedures identical in both cases. The thrust of each replication was to examine whether (a) forewarning about the frightening events to follow, (b) gender, and most importantly, (c) prior fear of specific cues integral to the horror of the particular film would predict the fear and the enjoyment experienced by an individual viewing the film, while controlling for prior exposure and general tendencies toward the affective response.

### *Independent Variables*

A manipulation of the amount of information given about the frightening content in each film was developed, consisting of three levels of forewarning: (a) low amount of information—a brief mention of the film's name, the film's producer, its release date, and the fact that it was rated "R", (b) moderate amount of information—all the information included in the "low" operationalization *plus* an indication of what types of horrifying content the movie contained, and (c) high amount of information—all of

the information supplied to those subjects in the moderate group *plus* a brief statement about a particular graphic "key scene." For example, for one of the films, Texas Chainsaw Massacre, the *low* level of forewarning contained the following information:

The film you are about to see was rated R by the Motion Picture Association of America. Entitled Texas Chainsaw Massacre, it was produced in 1974 by Tobe Hooper.

The *medium* level of forewarning contained all of the above information *plus* the following:

This contemporary horror film contains scenes of violence, including murder and dismemberment.

Finally, the *high* level of forewarning contained *all* of the information in the low and medium condition *plus* the following information about a specific scene:

One key scene in the film shows a paraplegic being sawed in half by a chainsaw-wielding masked maniac.

The second film used was Night of the Living Dead. These films were chosen because they are classic horror films that routinely appear on inventories of horror film consumption and are generally available in 16mm form for mass viewing in theatre-type environments.

Subjects were 121 undergraduate students enrolled in introductory communication courses at an urban university; most were *not* communication majors.<sup>2</sup> Subjects were solicited from classes and asked to attend an out-of-class screening of a film in a university auditorium. Some subjects viewed Texas Chainsaw Massacre, and other subjects were exposed to Night of the Living Dead on a different day at the same location.

In order to measure those variables considered antecedent to the viewing situation, a pretest questionnaire was administered to each subject during the week preceding his or her film exposure. Completed questionnaires were collected from subjects before they entered the viewing auditorium. Sets of items measuring the subject's prior exposure to several dozen films of various types (including the experimental films), the subject's fear of and linking of a score of potentially horrifying cues (including those critical to the two films used in the study—e.g., dead bodies and cemeteries for Night of the Living Dead and chainsaws for Texas Chainsaw Massacre), demographics (including gender), and standard indexes of manifest anxiety (used as a measure of one's tendency to be anxious and fearful; Taylor, 1953)<sup>3</sup> and sensation-seeking (used as a measure of one's tendency to enjoy excitement; Zuckerman, 1979),<sup>4</sup> all having been pilot tested in an earlier questionnaire. Even though the pretest questionnaire was administered a number of days prior to the viewing, additional efforts were made to avoid demand characteristics. The pretest questionnaire included many items unrelated to the study at hand. For example, the prior exposure measure included names of comedies and dramas as well as horror films, and the potentially horrific cues were presently within a longer list that included such innocuous cues as "children."

Upon arrival at the viewing auditorium, subjects were seated and each was given a sheet of paper, headed "Movie Study Participation Form," on which was printed one of the three sets of forewarning information. The form also informed the subject

that participation in the study was voluntary. The forms were randomly distributed to subjects after they were seated in the auditorium, immediately preceding the screening of the film. Subjects did not know anything about the film that they were to view until the participation forms were distributed.

Efforts were made to ensure that subjects did not recognize the manipulative nature of the forewarning sheets. First, the three versions were typed so that they appeared to be of similar length. Second, subjects were asked to not converse while in the auditorium awaiting the screening, and the forewarning sheets were collected immediately after subjects had read them. Following these activities, the subjects were exposed to the experimental film in a naturalistic way—the lights were turned out during the screening and quiet was *not* maintained during the group viewing situation (i.e., there was some screaming), although popcorn was not served.

### ***Dependent Variables***

A posttest questionnaire included items measuring reported fear of the film in general and reported enjoyment of the film in general. These items were chosen because they constitute two salient affective indicators, one negative and one positive. All fear and liking items on both pretest and posttest were operationalized on an 11-point (0=not at all, 10=extremely) response scale. Subjects were fully debriefed at the conclusion of the experiment.

### ***Analyses***

Hierarchical multiple regression analyses were conducted for the two films separately. In each case, one equation predicting liking of the film in general and another equation predicting fear of the film in general were attempted. These four regressions used the following hierarchical (i.e., forced entry) model:

1. The index of manifest anxiety was entered in the first step of the hierarchical model as a control for general fear potential; the index of sensation-seeking was entered in the first step as a control for general enjoyment of potentially frightening stimuli.

2. Prior exposure to the experimental film (coded yes=1, no=0) was entered in the second step of the hierarchical model for both fear and enjoyment.<sup>5</sup>

3. Fear (or liking) of potentially horrifying cues that were *not* pertinent to each experimental film was entered next. For *Night of the Living Dead* this measure was an additive index of eleven items, each having utilized an 11-point response scale (0=not at all, 10=extremely); for *Texas Chainsaw Massacre*, a seven-item index was constructed.

4. Pre-exposure fear (or liking) of specific cues pertinent to each experimental film was entered next. For *Night*, this consisted of seven items, and for *Texas*, eleven items. Note that this was entered *after* the indicator of prior exposure in order to parse out the effect of prior affect toward specific objects on general affect *independent* of having seen that particular film before.

5. Gender (coded 1-male, 2-female) was entered on the fifth step so that all variance explained by the previously described, more operative (and potentially controllable) independent variables would be accounted for first. The proportion of variance explained by gender was then an indication of *additional* variance, after considering the impact of prior affect (both general and cue-specific) and prior exposure.

6. Level of forewarning (coded high-2, moderate-1, and low-0) was entered on the sixth and last step.

Note that the three control variables were entered first, followed by the three independent variables of primary theoretic interest. The entry order among these latter three was based on the decision to see how much variance fear of relevant cues could account for first—i.e., to discover how much of the predictive power of gender and forewarning could be “captured” by cue-specific affect.

### Results

The results of the regressions predicting overall fear for the two films are shown in Table 1. Regression equations for both films were significant at least at the .05 level.

**TABLE 1 Multiple Regression Results for Prediction of Overall Fright**

Night of the Living Dead: [ $F(6, 53) = 5.71, p < .01$ ]					
Variable	Mult. $R$	$R^2$	$R^2$ Change	Simple $r$	Beta
Manifest Anxiety	.37	.13	.13**	.37**	0.18
Prior Exposure	.38	.15	.01	-.16	-0.03
Fear of Cues Not Included in Film	.47	.22	.08*	.39**	-0.03
Fear of Cues Included in Film	.58	.34	.11**	.55**	0.41
Gender	.63	.39	.06	.42**	0.25
Forewarning	.63	.39	.00	-.02	-0.00
Texas Chainsaw Massacre: [ $F(6, 48) = 2.84, p < .05$ ]					
Variable	Mult. $R$	$R^2$	$R^2$ Change	Simple $r$	Beta
Manifest Anxiety	.02	.00	.00	-.02	-0.10
Prior Exposure	.27	.07	.07	-.26	-0.19
Fear of Cues Not Included in Film	.35	.12	.05	.17	-0.12
Fear of Cues Included in Film	.51	.26	.14**	.44**	0.50
Gender	.51	.26	.00	.19	0.03
Forewarning	.51	.26	.00	.06	0.04

\* $p < .05$

\*\* $p < .01$

For Night of the Living Dead, the six independent variables accounted for 39% of the variance in ratings of overall fright ( $F(6,53) = 5.71, p < .01$ ). Three individually significant predictors emerged: Manifest anxiety ( $R^2$  change = .13,  $F(1,58) = 7.54, p < .01$ ), fear of non-pertinent cues ( $R^2$  change = .08,  $F(1,56) = 5.27, p < .05$ ), and fear of pertinent cues ( $R^2$  change = .11,  $F(1,55) = 7.76, p < .01$ ).

For Texas Chainsaw Massacre, the six independent variables accounted for 26% of the variance in ratings of overall fright ( $F(6,48) = 2.84, p < .05$ ). Here, fear of specific pertinent cues served as the only significant individual predictor ( $R^2$  change = .14,  $F(1,50) = 7.95, p < .01$ ).

The results of the regressions predicting overall enjoyment of the two films are displayed in Table 2. The overall equation for Night was non-significant, while the equation for Texas was significant at  $p < .05$  ( $F(6,45) = 2.77$ ). For Texas, the six predictor variables accounted for 27% of the variance in ratings of overall enjoyment;

**TABLE 2 Multiple Regression Results for Prediction of Overall Enjoyment**

Night of the Living Dead: [ $F(6, 45) = 0.68, n.s.$ ]					
Variable	Mult. $R$	$R^2$	$R^2$ Change	Simple $r$	Beta
Sensation-seeking	.05	.00	.00	.05	0.01
Prior Exposure	.14	.02	.02	.14	0.00
Liking of Cues Not Included in Film	.17	.03	.01	.13	0.18
Liking of Cues Included in Film	.20	.04	.01	.17	0.05
Gender	.27	.07	.03	-.21	-.021
Forewarning	.32	.10	.03	.14	0.17
Texas Chainsaw Massacre: [ $F(6, 45) = 2.77, p < .05$ ]					
Variable	Mult. $R$	$R^2$	$R^2$ Change	Simple $r$	Beta
Sensation-seeking	.27	.08	.08	.27	0.13
Prior Exposure	.45	.20	.13*	.41**	0.32
Liking of Cues Not Included in Film	.47	.22	.02	.19	0.06
Liking of Cues Included in Film	.50	.25	.03	.36**	0.20
Gender	.50	.25	.00	-.19	-.05
Forewarning	.52	.27	.02	.07	0.15

\* $p < .05$ \*\* $p < .01$ 

only one predictor—prior exposure to Texas Chainsaw Massacre—proved to be a significant individual contributor ( $R^2$  change = .13,  $F(1,49) = 6.92, p < .05$ ).

## Discussion

As with any experiment or response study, the stimulus materials chosen represent only a fraction of all possible stimuli suited to the task at hand. Their uniqueness does not invalidate the study; indeed, it is the specific nature of an operationalization that gives us cause for thought and analysis. This consideration is the touchstone from which theory evolves. And thus in this study, the nature of the two stimulus films may aid us in interpreting the results.

Night of the Living Dead and Texas Chainsaw Massacre are similar in that they are both "classic" horror films—movies that at the time of production broke new ground in the horror genre. Both were produced on shoestring budgets by fledgling directors using non-star casts. Both films (but especially Texas) have inspired imitations over the years. But the two films are also quite different from one another in the type of *specific* horror each generates. Night evokes a wordless fear of totally uncontrollable origin (i.e., radiation from "outer space" which brings the dead to life), while Texas frightens by displaying the utter insanity of the human mind gone wild (i.e., a mentally defective rural family wielding chainsaws). Moreover, the two films differ in terms of the specific operants used to elicit terror. Night uses dead bodies come to life and a desolate country cemetery; Texas deals in human body parts as well as the obvious chainsaw. These two films were quite appropriate for the testing of the general theoretic perspective in that both relied heavily on the featuring of specific operants.

The results of the regression analyses for the prediction of overall fear of both movies provided support for the notion that information stored in memory becomes activated to form an emotional response. For both Night of the Living Dead and Texas



Chainsaw Massacre, prior fear of specific objects depicted in these films was significantly related to levels of fright experienced during the movie, and was the only predictor that held significant across the two replications. That we accounted for almost 40% of the variance in fear for one film (*Night of the Living Dead*) and for 26% of the variance in fear for the other (*Texas Chainsaw Massacre*) indicates the promise of the theoretic framework. We are hopeful that future efforts will increase these proportions via the further identification of specific cues and through clarification in the measurement of the fear of these cues. (For example, the cue "dead bodies" might better have been described as "dead bodies that come back to life" for the purpose of the *Night of the Living Dead* replication.)

It is important to note that these significant predictions emerged even when controlling for prior exposure to the films. This tends to support the notion that the fear of specific objects reported prior to viewing the movie in the present study developed from sources *other than the movie itself*. The results are consistent with the earlier theoretical logic which suggested that the *source* of the affect associated with some information stored in memory should not exert any special influence upon the likelihood of experiencing that affect when that information is activated.

Most importantly, we see the strength of the prediction of fear of relevant cues *after* controlling for individuals' general tendency to be anxious and fearful (operationalized as the standard manifest anxiety scale) and their general tendency to fear potentially horrifying concrete cues (in this case, those not relevant to the film viewing experience). This lends support to the notion that fear attached to specific cues is generated when such cues are encountered again, at least partially independent of one's general tendency to fear.

Unlike the results for overall fear of the movies, the ratings of prior "liking" for the specific objects depicted in the films did *not* predict overall levels of enjoyment. One possible explanation for this result has to do with the context in which cues are presented in the two films. It may be that the carryover of cue-specific affect applies especially in those situations where prior affect attached to specific objects matches the general affect suggested by the other context-defining cues. That is, in the case of a horror film, there are many cues that generate the expectation that fear is an appropriate emotional response to the entire presentation (style of music, lighting, camera angles, etc.). Consequently, in the case in which an individual fears some specific object that is depicted in a context suggesting fright, greater overall fear will result. On the other hand, liking of specific objects may not necessarily imply enjoyment of an entire movie that contains those objects in a frightening context.

In contrast to an earlier study which found that forewarning subjects about a film actually intensified ratings of fright and upset (Cantor et al., 1984), the present study revealed that forewarning had no impact upon levels of reported fright or enjoyment of the film. This failure to replicate past findings is probably best explained by examining some critical differences between the two studies. First, the forewarning information in the two studies was presented quite differently. In Cantor's study, subjects received an audio forewarning instead of a written one, as in the present study. In addition, the differences between the three levels of forewarning in Cantor's study were more extreme than the differences in the study reported here. Both of these differences could account for the observed results.

There were also other important differences in the general experimental environment that could have contributed to the divergent findings. While subjects in the present study watched an entire feature length movie between the time of forewarn-

ing and the time of reporting fright, the subjects in Cantor's study watched film clips that were about five minutes long. The relative salience of the forewarning for Cantor's subjects was, consequently, probably higher than in the present study's theatre-type environment. It is possible that this produced higher levels of attention to the forewarning information in Cantor's subjects. One further difference between the operationalizations involves this study's use of full-length, well-known, "classic" horror films vs. Cantor's use of lesser-known clips. It is possible that the films used in this study were so familiar to subjects, whether or not they had seen the film before, that the manipulation did not significantly increase knowledge about the film's content. If this is so, it suggests the importance of interpersonal communication processes that should be investigated in future forewarning studies. The failure to replicate Cantor's findings is a result that recommends a number of potentially important variables that future studies on forewarning should consider. In addition, media practitioners should be aware of the evidence suggesting that a brief forewarning may not be sufficient to alter the normal course of emotional responses to a media presentation.

The fact that gender was not a significant predictor of fright or liking of the movies after the other variables had been entered into the equation could represent an important finding. It may help, for example, to provide some explanation of *why* males and females differ in reported levels of fright and liking of scary films. According to the present results, such differences may in some cases be attributed to prior exposure to the given movie, as well as to fear of specific objects in the environment, cultivated via social encouragement for males to be exposed to more frightening stimuli. Future studies investigating gender differences should focus on precise explanations of why such differences arise.

The study reported here has provided evidence that knowing in advance the level of fear a person has for certain concrete objects will aid significantly in predicting that person's overall fear response toward a horrific media event featuring those objects. Of what utility is such a prediction?

First, it helps us formulate a picture of what mechanisms the human mind uses to assign a fright response to a given experience. Based on the evidence presented here, it seems that, given some prior negative experience with some object (e.g., a chainsaw), the negative affect will indeed carry over into the general affective response toward the entire media presentation. The presence of a specific theme becomes more important than audience members having seen the entire movie before.<sup>6</sup>

Support for the theoretic notions explicated earlier also provides us with a better understanding of people's real-life fear-provoked behavior. Some of us are afraid of attics—although we know perfectly well there's nothing dangerous up there. Others are scared of bats, others of spiders, others of skeletons—again, with little rational basis for fear of imminent danger. Simply hearing about these objects may lead to the experience of emotions connected to the objects in a *prior* real-life or media-generated event. The conscious awareness that "the thing won't hurt you" in the present instance is not enough to eradicate fear, and understanding that fact could go a long way in helping both adults and children deal with these fears.

This study did not examine the details of the mechanisms involved in the generation of cue-specific affect. It did, however, provide baseline evidence that such responses do occur. If horror does touch what King (1981) calls "phobic pressure points," it is apparent that individuals will be subject to a variety of "phobia" in

differing degrees. Future research on the specific cognitive processes involved in fear responses and individual differences that may mediate those processes is warranted.

## NOTES

<sup>1</sup>However, given that the main focus of this study was not on variables differentiating among forewarning messages, a "neutral" presentation of the written forewarning was chosen. That is, no source was identified, nor was a mock-up of a print ad or article attempted. Such manipulations are recommended for future studies.

<sup>2</sup>The 121 subjects were all students at a large urban university, unique for its slightly older (average student age=27 years), middle-class and working-class student body. Although most were freshmen and sophomores, the subjects ranged in age from 17 to 41 years and averaged 21.5 years of age. Fifty-two percent were male; 82% were white and 17% were black. Forty-five percent of the sample reported that they were "about average economically," with 36% "above the economic average." The subjects represented a wide variety of academic majors and backgrounds.

<sup>3</sup>This index was a set of 28 items; sample items include the following: "I am about as anxious as other people," "My sleep is restless and disturbed," "I do not have as many fears as my friends" (reverse coded), and "I am often sick to my stomach."

<sup>4</sup>We utilized Zuckerman's Sensation Seeking Scale Form IV, including the general SSS items plus the thrill and adventure seeking (TAS) items, for a total of 30 items. Sample items include the following: "I get bored seeing the same old faces," "The most important goal of life is to live it to the fullest and experience as much of it as you can," and "I like to dive off the high board."

<sup>5</sup>Thirty-seven percent of those viewing *Night of the Living Dead* had seen it before; 23% of the *Texas Chainsaw Massacre* subjects were repeat viewers.

<sup>6</sup>One master director who obviously understood this was Alfred Hitchcock, whose classic films defined "horror" for generations to come. Note that while Hitchcock's films clearly possessed finely developed plots and careful characterizations, almost without exception they also relied upon specific fear-evoking cues—e.g., fear of heights in *Vertigo*, birds in *The Birds*, showering in *Psycho*.

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