

**The Fright Night Psychological Experiment:  
Social Effects of Fear on Individuals in a Group**

N. S. Halleran

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Rosalyn King

Northern Virginia Community College

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### **Abstract**

This experiment was designed to explore the field of social psychology. More specifically, the experiment tested how an individual's relationship to a group of other people would be affected by the outside stimulus of fear. The main research question was, "When faced with frightening situations, will an individual react by relying on others in his or her group or by separating from the group to fend for him or herself?" Data for this study was retrieved from qualitative observations of participants that were made throughout the event. The participants were customers of "The Fright Night" and were therefore random in that they were not selected just for the purposes of the experiment. Ages ranged from five years old to approximately sixty years old. Participants of both genders and of many ethnicities were included. The results supported the hypothesis that most people reacted to fear by relying on the rest of their group for support. Analysis of the data showed that gender and age had some effects on the outcome. Regardless of these effects, fear seems to have a positive effect on the unity of a group. These results also resonate with literature on other studies in similar topics.

### **Purpose**

The purpose of this experiment was to study the effects of fear on an individual in regards to the individual's relation to other people. Although fear is a fairly common experience, its effects can be great on the person experiencing the fear. According to a study on the Terror Management Theory done by Conrad (2009), people are motivated to think and behave differently when made aware of the impending reality of death, especially in regards to symbolic immortality through the action of having children. Many similar studies have been conducted to display other ways that people mentally try to avoid or overcome the fear of death. The study presented in this paper is designed to extend research on these effects of fear in regards to the desire to feel close and unified with other people to deal with fear. My hypothesis was that significantly more groups would be united than would stay separated as a response to fear. This would require a larger number of participants in most groups to be reaching out to others in the group. I also hypothesized that males would be significantly less likely to reach out than females, and that participants in the middle to high school age range will be significantly less likely to reach out than those both younger and older than them. Finally, my hypothesis regarding ethnicity was that ethnicity would have no significant effects on the outcome.

### **Methodology**

The Fright Night is a haunted trail that is put on every year around Halloween at The Community Church in Ashburn, Virginia. This is traditionally a common time for people to enjoy the thrills and festive events of the holiday by admitting themselves to events that generate a sense of fear and terror. The Community Church takes full advantage of the season with its 25-minute walking trail of ten scenes that are full of terrifying actors who are trained specifically for the purpose of scaring participants.

## **Participants**

The customers of this event are the subjects on which this study is based. Therefore, the participants in this study were not selected, but instead were randomly a part of the study because of their decision to attend the event. This random method for acquiring participants resulted in a wide variety of participants in all regards to age, sex, and ethnicity. Due to the large number of Fright Night customers, which was a total of over 5,000 people, and the necessities of my responsibilities as a Fright Night volunteer, I was unable to get specific demographic information from customers. Therefore, the following details were estimated after discussion with other people working at the event. Participants were approximately 46% male and 54% female. Participants ranged from age five to about sixty with a mean age of about twenty-three. Participants were categorized into one of the following four general categories of ethnicity: Caucasian (~42%), African-American (~26%), Hispanic (~19%), and Other (~13%).

## **Research Design**

The actual research for this experiment was done during the time that a group was walking through the haunted trail. All of the data gathered for the study was done so through the form of qualitative observations. The independent variables that were accounted for included gender, age, and ethnicity. The dependent variable was the way that the individual reacted to fear in regards to their relations with other people in the group. This reaction to fear was labeled as either “reaching out” or “keeping-to-self”. Based on this measure, the group as a whole was then recorded as displaying either “unity” or “separation”.

## **Measures**

Gender and ethnicity were both measured simply by observation. Age was estimated by observation for most participants and those whose age could not be determined were asked. The

participant's reaction to fear was a qualitative measure based on observation during and after the walk through the trail. The participants were measured on three points to determine their overall response to fear as either reaching out or keeping-to-self: communication, physical contact, and staying with the group. Encouraging or supportive communication was considered to be a reaching out response, while negative communication or a lack of communication with others was considered a keeping-to-self response. If a participant was touching other group members to support or guide them or to be supported or guided through a scene that was dark, disorienting, or difficult to navigate for any reason, that was considered to be a response that indicates a reaching out response to fear. A lack of physical contact was counted as a keeping-to-self response. Any physical contact that was violent in nature was counted as a keeping-to-self response and the person committing the violent act was asked to leave the property. A participant making an effort to stay with the rest of the group was a reaching out response, while any attempts to avoid a frightening actor or scene by removing himself from the group was counted as a keeping-to-self response. The individual was considered as responding as reaching out if he or she was marked as displaying two or more of the aforementioned reaching out actions. A participant displaying two or more keeping-to-self actions was considered as responding to fear by keeping-to-self overall. The group as a whole was labeled as exemplifying either unity or separation based on whether more individual group members were reaching out or keeping-to-self, respectively. An example of a group displaying unity can be seen in Figure 1.



Figure 1 (J. Whitlow, personal communication, December 2, 2011)

## Procedures

The Fright Night advertizes through the church, on the radio, with a large sign on Route 7 in Ashburn, through fliers at local shops and schools, and on their website—thefrightnight.com. These customers of the Fright Night are the same participants used for this study. The following procedures were repeated on seven different nights spread out over the course of three weekends so that the Fright Night was open Friday and Saturday of the first and second weekends, and Friday, Saturday, and Sunday. When the customers arrived, they signed the consent forms and paid the fee to go through the Fright Night. Each customer is assigned to a group of twenty based on the time of sign in. The group then waits in a large circus tent where they can purchase food and drinks, listen and dance to music from a live DJ, enjoy two large bonfires, and play carnival-style games until their group number is called to go on the trail. At this time the group members gather in a smaller tent where they are checked in and debriefed about what to expect and some of the rules of the trail. The participants are told to expect a frightening twenty-five minute walk through the trail during which they will be touched by the actors, put into very dark and sometimes disorienting lighting situations, and walking on slippery and unstable surfaces. The two main rules for the trail are no cell-phones or anything else that will produce light, and to refrain from touching actors.

If none of the participants have any questions, the group is then loaded onto a hayride that carries them to the beginning of the trail. The group walks through the first room; a recreation of a movie scene with monsters attacking a caver and the participants. After the first scene, an actor meets the group to help lead them through the rest of the trail. The rest of the scenes are as follows, in order: a simulated horror movie-style checker-board-walled insane asylum with disorienting strobe lights and both caged and free-roaming actors in straight-jackets;

an ambush of participants by masked murderers in the woods who wield sledgehammers and clubs; a completely dark maze with unseen actors grabbing and brushing participants as they try to navigate the tight spaces and confusing turns; a creepy carnival full of rogue clowns, a very tight and shrinking hallway of hay bails that participants must squeeze through as they are grabbed by unseen actors; a completely dark and disorienting room full of what appears to be floating heads and unseen actors that grab the participants; a mausoleum full of zombies that lunge at participants from closed coffins that the participants must try to avoid while walking on an unstable elevated walk way; a frightening junk yard with an elusive exit that is full of flames and criminals with realistic chain saws and other weapons; and finally a simulation of a rogue butcher's freezer complete with a freezing temperature and fake meat hanging from the ceiling with a realistic smell, appearance, and feel that is hard for participants to avoid as they are bombarded by actors that portray the rogue butcher and his half-dead victims. Examples of some of the actors and rooms can be seen in Figure 2. At this point participants are free to walk to their cars and go home, or to return to the holding area and enjoy those activities again.

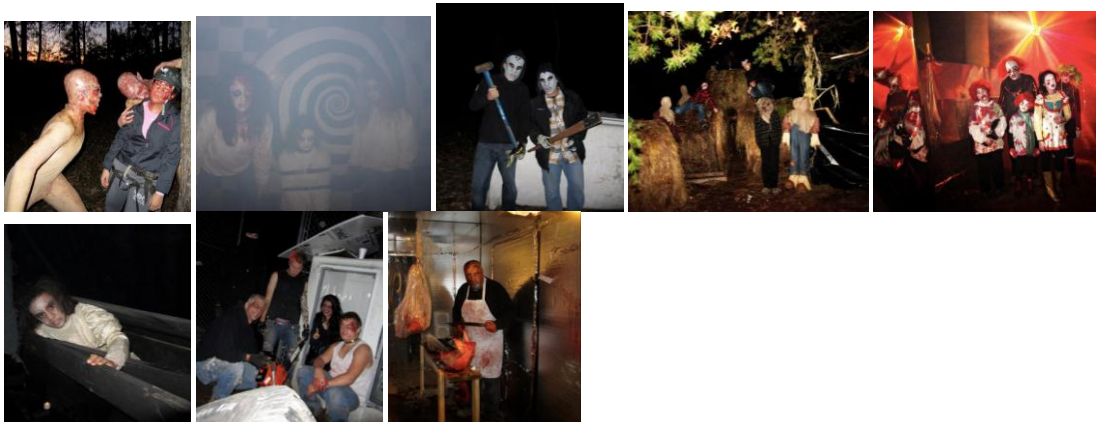


Figure 2 (J. Whitlow, personal communication, December 2, 2011)

Due to the large quantity of customers and my other duties as a volunteer at the event, I was unable to collect data on all groups. However, the data that was collected was done so from

multiple perspectives. The first and most common way that I collected data was by observing groups as they walked through the scenes from a hidden spot in or outside of the scene with an open view of the participants. I also joined groups and walked through the trail as the last member of the group. From this confederate perspective I was able to experience first hand the different responses that participants showed to fear. Thirdly, I was able to question some participants after their walk through the trail and gain their perspective on how they themselves and other people in the group were treating the group as a reaction to the fear. Finally, I interviewed several actors and trail guides about what they saw from the participants as they passed through the trail and used this general information to help shape my conclusion of the study.

### **Results**

The exact percentages and detailed numbers for the results of this experiment are estimated based on a combination of the specific data that I gathered throughout the event and the general information gathered from customers and other Fright Night volunteers to make up for the fact that I was unable to record exact observations for all groups due to my other responsibilities. The measure of significance used for this study was .05, such that a significant result must be at least five percent different to confirm or deny any hypothesis. The main measure of responses to fear, which was the group measure of unity versus separation, showed that ~67% of groups showed unity. This significantly supported the hypothesis. However, only ~58% of individual participants were marked as reaching out. Significantly more females than males displayed reaching out behavior: ~70% of females and only ~46% of males. This also supported my hypothesis. The percentages of individuals categorized as reaching out for different age groups are as follows: under middle school ~85%, middle school ~55%, high



school ~54%, college ~49%, and twenty-five years and up ~48%. My hypothesis that middle and high school aged students would reach out less than participants younger than them was significantly confirmed. However, my hypothesis that middle and high school students would reach out less than those participants older than them was rejected by significant data. My hypothesis that ethnicity would have no effects on the outcome was confirmed by a lack of significant data.

### **Discussion**

The group measure of unity versus separation confirmed my hypothesis that more groups would come together to help its members to cope with the fear. Participants revealed that being near someone else or talking with others in the group made them feel better and more hopeful about the frightening situations they were in. The lower percentage of participants who reached out to group members than the overall group unity percentage indicates that most of the individuals who reached out were concentrated in the same groups. I believe that this implicates that once a few group members showed a tendency to reach out, the tendency to help a group spread throughout the group very quickly. This may be an interesting point for greater research on the contagiousness of positive and encouraging attitudes in social psychology.

I believe that men were less likely to reach out to others due to the societal norm that men are supposed to be unafraid and able to handle scary situations alone. This likely inhibited their likelihood of relying on others. I believed that a similar principal would apply for middle and high school aged students who are at an age that typically includes strong displays of independence. However, after observations, it is clear that the boy-girl attraction that is also highly active in adolescence had a stronger effect in my measures due to the resulting physical contact. This is supported by a study by Bischof (1975) that found people, particularly during

puberty, often respond to fear by relating to less familiar individuals based on rules of attachment that were established in early childhood development. Young children had a high percentage of reaching out due to the presence of their parents and their natural reaction to cling to their parents in stressful situations. This percentage was notably higher than anticipated, however. I incorrectly predicted that very young children might not even recognize some of these scenes as a threat. A study by Öhman (2009) showed that threatening faces, such as those of the actors in my study, are stimuli that are programmed into the mind to elicit fear as a result of evolution.

Although the information gained from this study was interesting, there were several limitations of this study, and many places for my research to be improved. Most of these limitations are due to the fact that my data was gathered as observations at the Fright Night, which was a separate event. The data would have been much more complete and valid if the study was designed solely as a study and was therefore controlled better from the process of participant recruitment and collection of demographic information all the way through to the actual testing and data collection. The results of this study would have been more valid if groups were completely randomized. Participants were naturally more likely to reach out to the people that they already knew in their groups, so the testing did not give an accurate measure of a person's willingness to reach out to anyone for support in response to fear as I had hoped to test. The data collection process would have been far more useful and precise if I did not have other responsibilities for Fright Night. As a whole, this study would have been far more useful and valid in the field of psychology if I had had the time and resources to dedicate to designing the controlled study rather than observing an event that had been planned for other purposes.

## **Review of Literature**

It was difficult to find studies that were similar to my own experiment, but I did find several studies that relate to specific aspects of my findings in regards to fear. My general conclusion, that groups unified to help overcome fear, is supported by a study of child therapy that found group therapy was very successful in reducing social fear and anxiety (Manassis, Mendlowitz, Scapillato, Avery, Fiksenbaum, Freire, Monga & Owens, 2002). This principle that groups are effective therapy also proved itself in adults in my study.

A study on unconscious vigilance done by Holbrook, Sousa, and Hahn-Holbrook (2011) showed that, “mortality-salience led to exaggeratedly contrastive evaluations of pleasant versus aversive images” (p. 7). By this logic, group members who were reaching out would have a strong positive influence the participants experiencing fear. This could cause those scared participants to reach out as well, creating a domino effect. The opposite would also be true. A study by Lester, Field, and Muris (2011) showed that this type of principle is especially effective in children under age fifteen. Children in their study were easily affected by any bias to a fear stimulus. Applying that theory to my study would explain that if a group were fun and supportive of each other with a positive outlook on the event, other group members, especially children would be biased to be less afraid throughout the trail. Therefore the opposite is also true. This data supports my theory that most participants who reached out to others in my study were concentrated in the same groups.

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