

EXPLORING EFFECTS OF EARLY-LIFE EXPOSURE TO FRIGHTENING MEDIA  
CONTENT AND OF LONG-TERM TELEVISION USE ON ENJOYMENT,  
AVOIDANCE, AND MEAN WORLD PERCEPTION  
IN ADULTS AGED 65 AND OVER

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## ABSTRACT

This study used Cultivation Theory (Gerbner, 1969) and Social Cognitive Theory (Bandura, 1986) to examine if a relationship existed between viewing a single frightening media program as a child, teen, or young adult, lifetime television use, and viewing habits later in life. A convenience sample of adults aged 65 and over was recruited to participate in an online survey. The respondents were predominantly white, well-educated, middle- to upper-income women, and were 72 years old on average. It was hypothesized that a Vivid Triggering Event Memory (VTEM) of seeing frightening or disturbing content as a child would be related to avoidance of or enjoyment of similar content at their current age. Contrary to the hypothesis, results showed that the presence of a VTEM had no relationship to either avoidance or enjoyment of watching scary movies. It was also found that a VTEM was not related to general Lifetime Television Exposure (LTE), meaning a memory of a frightening event as a child didn't lead people to avoid television long term. LTE, however, was significantly related to avoidance and enjoyment of frightening content at their current age. Those who reported watching more television in general throughout three stages of their life (youth, middle age, current age) reported less avoidance of frightening content and more enjoyment of the genre at their current age. They also reported watching more frightening content throughout their lifetime. This study also explored VTEM and LTE in relation to Mean World view. Neither VTEM nor LTE independently was found to be significantly related to Mean World perception in older adults in the study. However, the two constructs produced an interaction that mirrors the mainstreaming

effect found in previous Cultivation studies. Respondents who did not watch a lot of television over their lifetime but who had a high VTEM generally had as high a Mean World score as respondents who watched a lot of television. In other words, the only group with a significantly lower perception of the World as a frightening place was those who watched less television and had low VTEM scores.

## DEDICATION

I have many people to thank for the successful conclusion of this dissertation. I am grateful for their love, moral support, and occasional kick in the pants. The most important person to thank is my mother, Shirley J. Andrews, whose faith in me has never wavered and whose unconditional love is the cornerstone of my life. This work is also dedicated to the memory of my father, Joel B. Andrews. Though he's been gone for 30 years, his love is an inspiration that is with me still. My sister, Marilyn Sears, has cheered me on since I began my educational career in community college. She has continued to encourage me when I needed it, and to scold me when necessary. My best friend, Alan Callender, and my godson, Douglas, helped to keep my spirits up after I moved from Arkansas to Alabama to begin my doctoral program. They have continued to text and call, and to visit whenever possible. And last, but certainly not least, I am grateful for the encouragement of Liz, Lisa, Jessica, and Marty Maggi during the last year of my research. I thank Liz, especially, for that occasional kick in the pants that helped to keep me focused and on track during the final write-up.

## LIST OF ABBREVIATIONS AND SYMBOLS

LTE	Lifetime Television Exposure
VTEM	Vivid Triggering Event Memory
MCQ	Memory Characteristics Questionnaire
SMQ	Scary Movies Questionnaire
EFF	Enjoyment of Frightening Films
IES	Impact of Event Scale
M/SW	Mean/Scary World
$n$	Sample size
$F$	A variable of distribution
$M$	Mean
$SD$	Standard deviation
$R^2$	Coefficient of determination for a multiple regression
$r$	Correlation coefficient
$p$	Probability of a value being as large as or larger than the observed value
$\eta^2$	Eta squared
$<$	Less than
$>$	Greater than
$=$	Equal to

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In closing, I want to say that I am grateful to all of my committee members in regard to my defense, which was rescheduled twice because of weather conditions. Their patience and commitment throughout this dissertation process has been truly inspiring, and I am confident that my research skills have grown under their tutelage.

## CONTENTS

ABSTRACT.....	ii
DEDICATION.....	iv
LIST OF ABBREVIATIONS AND SYMBOLS .....	v
ACKNOWLEDGEMENTS.....	vi
CONTENTS.....	vii
LIST OF TABLES.....	viii
LIST OF FIGURES .....	ix
I. A BRIEF HISTORY OF MEDIA-EFFECTS RESEARCH.....	1
II. THEORETICAL RESEARCH OF MEDIA-RELATED EFFECTS.....	11
III. METHOD .....	40
IV. RESULTS.....	62
V. DISCUSSION .....	78
REFERENCES .....	104
APPENDIX A.....	113
APPENDIX B.....	124
APPENDIX C.....	134

## LIST OF TABLES

1. Participant Estimated Income Levels Throughout Lifetime.....	64
2. Descriptive Statistics Scores.....	65
3. Bivariate Correlations for All Scores.....	69
4. Correlations between General Viewing and Watching Scary Content.....	71
5. Tests of Between Subjects Effects for LTE and VTEM on Four Dependent Variables.....	73
6. Coefficients Regression Table.....	77

## LIST OF FIGURES

1 Estimated Means for Mean World.....	75
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## CHAPTER I

### A BRIEF HISTORY OF MEDIA-EFFECTS RESEARCH

This chapter will explain the purpose of the researcher's study of long-term media effects. There is no current research that studies correlations between long-term attitudes and/or behaviors in adults aged 65 and over related to initial exposure to frightening or disturbing television content as children, teens, or young adults. The current research did so, and to the knowledge of the author it was a unique study. The concept was to survey adults aged 65 and over to determine if access to an unprecedented flow of audio/visual content early in life may have affected attitudes and/or behaviors in the long-term. The age range was selected because this group would likely have been children, teens, or young adults when they first had access to television in their home.

Participants were also asked about movies seen in theaters and radio programs listened to in the home as a contrast to television experiences. Further, this was not a study that explicitly examined the participant's experience with content that was intended to be frightening. The study sought to find if any type of TV program, movie, or radio program (fiction, reality based, news, etc.) that frightened an individual as a child, teen, or young adult would have an effect lasting into later adult life.

In the current generation, television exposure is virtually inescapable. Gerbner and Gross (1976) noted that, "from cradle to grave, it (television) penetrates nearly every home in the land" (p. 41). This was not necessarily true of the first television generation. It remains to be seen

whether television programming initially had or now has a more powerful impact on the first television generation than it may have for native television generations.

It is noted in this chapter that media effects research has evolved in conjunction with the advance of media technology. The indication would seem to be that the stronger and more complex media input becomes, the stronger and more complex the effect of media input may be. However, children, teens, and young adults have been the primary targeted groups for media fear effects research. The pages in this chapter show that the data gained from researching these groups is not sufficient to apply to the older age group of 65 and over. The variety of research did, however, provide a basis for the study of the effect that television could have on older adults when exposed to it as children, teens, or young adults, and, consequently, over long-term exposure.

Concern about the effects of mass-media exposure on the general public has existed since at least the 19<sup>th</sup> century (Starker, 1989). The fear expressed at the time was that reading popular novels would erode the minds of young women, or that dime novels and even newspapers were sending a bad message in general. However, no research was discovered in the course of this study to show that this idea was anything other than opinion during that time.

Media effects research did not formally begin as such until the early 20<sup>th</sup> century. Initially, the concern was for the effect of violent content on the audience. Early research like the Payne Fund Studies presented evidence that certain viewers experienced fear effects from movies (Blumer, 1933), but violence and aggression remained the prominent topics of media effects research until the 1960s. The advent of the television age led to a renewed interest in media violence effects. The most prominent target audience for media effects research has traditionally been (but not entirely limited to) children and teens, as they have generally been

considered to be the most potentially vulnerable to exposure to media violence. In that vein of research, numerous studies have documented increased aggression of varying degrees and lengths of duration among children after exposure to violent content (Bandura, Ross, & Ross, 1961; Bandura, Ross, & Ross, 1963; Zillmann; 1971; Liebert & Baron, 1972; Paik & Comstock, 1994).

The introduction of the television into U.S. homes in the 1950s brought increased exposure of potentially harmful content to entire families. For example, the popular 1960s Saturday morning cartoon show “The Flintstones” at different times featured Fred and Barney smoking as advertisement for a particular brand of cigarettes, as well as advertising a brand of beer (<http://www.youtube.com/watch?v=FqdTBDkUEEQ>, <http://www.youtube.com/watch?v=fEZGaLILfcY>).

It was the prevalence of violence in cartoons, rather than any moral ambiguity, that relates to this particular research. The impact that violent cartoons may have on children has been extensively examined (Mussen & Rutherford, 1961; Zusne, 1968; Hapkiewicz, 1979). Some of this research has focused on the type of violence included in cartoons. Zusne (1968), for instance, found that comic violence had less of a negative impact than did “straight” violence. However, comic violence in popular cartoons such as *Bugs Bunny* and *The Roadrunner* often involved deadly acts of violence that incurred no lasting effects (Nodelman, 1982). In at least one cartoon, *Daffy Duck* was repeatedly shot in the face with a rifle by the antagonist, *Elmer Fudd*, yet was never seriously injured. A possible harm from children’s exposure to violent cartoons might be to disassociate violent acts from true consequences (Nodelman, 1982). This introduces Cultivation Theory and Social Cognitive Theory into the equation.

Cultivation Theory (Gerbner, 1969) describes a cumulative effect of long-term exposure to television messages that could eventually determine the social perceptions of viewers. The nature of cultivation is that it has a drip-drip effect, and therefore may not be noticeable until the damage has been done. The damage related to cultivation includes what has been termed the Mean/Scary World syndrome (Gerbner & Gross, 1976). Simply described, this theory states that individuals exposed in the long-term to violent or frightening media (news programs or crime dramas, for example) will come to view the world is a mean, scary place.

Social Cognitive Theory (Bandura, 1986) stressed the potential impact of vicarious observation. Bandura stated that vicarious influence can have long-lasting effects, such as attitudes or reacting similarly to emulated emotions by a model. He also believed that vicarious observation could affect individual morals, values, and beliefs, etc. The fear-effect aspect of SCT has been somewhat more difficult to research in children, given that adults may not always understand what frightens a child. Cantor (2002) gives a number of examples that one might not consider frightening but that children have nevertheless reported as frightening to them. The television programs *The Incredible Hulk* and *Barney* are two examples.

Children, however, are not the only population that may potentially be vulnerable to fear effects, which leads to the main topic of this research. Of special relevance to this study is any research related to adult fright reactions. Research by Johnson (1980) found that adults could be disturbed by frightening film for a median length of about three days, and that at least some adults had experienced a significant stress reaction for about two days. Sparks, Spirek, and Hodgson (1993) found similar results. Harrison and Cantor (1999) indicated intense, long-lasting reactions of adults to frightening content, including anxiety, specific fears, recurrent thoughts, and disturbances in eating and sleeping. Some subjects in the study reported suffering reactions

for as long as six years. Extreme cases have resulted in acute and disabling anxiety states of short to long-term duration, with some individuals requiring hospitalization. These states were brought on from watching severely frightening films (Buzzuto, 1975; Mathai, 1983; Simons & Silveira, 1994). Many of the subjects had no prior psychiatric issues. The acute response was considered to be a combination of viewing the film in conjunction with current stressors in the subject's lives.

Some of these studies included child subjects, but the authors did not say if any of the adults were senior citizens. Prior research has involved seniors' viewing habits pertaining to soap operas and para-social interaction (Fogel & Carlson, 2006). It has also been observed that older adults watch more television than younger people (Chory-Assad & Yanen, 2005; Cohen & Metzger, 1998) simply because they have more time on their hands. However, no studies were found that pertained specifically to fear-effects in older adults.

It might also be argued that the first television generation, as children and teens, possessed imaginations already honed by exposure to radio programming. There is some evidence that for stress reduction, audio stimulation alone may be more powerful than visual stimulation (De Kort & Ijsselsteijn, 2006). If this is accurate, it may also be that excitement-based audio stimulation, such as in early radio programs, might have enhanced imaginative processing.

Cantor (2004) suggested that children exposed to frightening content may suffer "more intense and longer lasting effects" (p. 285) than might be expected. Cantor further suggested that examining the memories of adults who were frightened as children might help us understand the phenomenon of long-term mediated fear effects. The current study carried this idea forward to include adults aged 65 and older.

Walter Lippmann (1922) was not considering the impact of radio when he wrote of the “pictures in our heads” (Chapter 1). He was writing of what people believed to be reality as it related to their current information. Given this concept, this first television generation might potentially have been at greater risk of violent or fright reactions than generations accustomed to television. Remember that about 20 years prior to the spread of television as the dominant form of entertainment, much of the nation had panicked over H.G. Wells’ “War of the Worlds” radio broadcast (Lovgen, 2005). The “pictures” in their heads, though falsely generated, were very real to them. At least a portion of the first television generation would have been born into this highly imaginative, radio-dominated environment.

Cantor (2004) indicated that people might basically be wired to empathize with victims. If so, one implication could be that viewers high in empathy, regardless of age or gender, might be more apt to suffer long-term effects. Zillmann and Cantor (1977) suggested, in fact, that with the presence of empathy, viewers were more likely to vicariously relate to the emotions of the actors. Tamborini, Stiff, and Heidel (1990) used a set of constructs for empathy research. Among these was imagination, which they believed heightened the empathetic reaction and was necessary for empathy to occur. They believed that the degree of imagination correlated with the level of empathy experienced.

The vicarious nature of empathy substantiates the choice of the Social Cognitive Theory for this study. Given the SCT’s grounding in vicarious learning, it should seem reasonable to expect that a vicarious empathetic media-induced episode could potentially have life-long repercussions. Though it is not studied by Gerbner (1969), the Cultivation Theory would also appear to include a degree of empathy.

It seems from the literature, however, that media-effects studies among older adults has related more to fear of crime or loneliness than to frightening content. Now that individuals are living longer than ever before, and are more likely to maintain their health and mental faculties as they age, it would seem obvious to the researcher why the study needed to be conducted at this time. There is a limited opportunity remaining to gain insight from a generation that is not native to the television era, and no opportunity to explore the phenomena of media-related effects should be squandered.

Researchers have long sought to understand the short and long-term effects of media exposure, and much of this research has relied on the memory of the participants to obtain results (Blumer, 1933; Sparks, 1986; Cantor & Omdahl, 1991; Cantor, 1998/2002; Riddle, 2010), especially as they related to fear-effects. A notable drawback to the majority of media-effects research has been the near-total exclusion of senior citizens. It is unclear if researchers in general do not trust the memories of older participants, but this is not a practical exclusion.

Van der Kolk (1998) stated that “terrifying experiences may be remembered with extreme vividness” (p. S98). This was in reference to PTSD, and not related to media effects. However, the same concept should hold true for a potentially less traumatic experience of media-related fear effects. Pillemer (2003), in discussing directive functions in autobiographical memory, stated that, “A personal event memory represents a pinpointed event that happened at a particular time and place, and it includes the rememberer’s unique circumstances at that time, with associated sensory images and feelings” (p. 194). Pillemer also was not referencing media effects, but the statement easily transfers to the current study.

It is clear from prior research (Blumer, 1933; Sparks, 1986; Cantor & Omdahl, 1991; Cantor, 1998/2002; Riddle, 2010) that affects from exposure to media content that frightens an

individual as a child or teen have been experienced and reported into at least early adulthood. Survey research was therefore be conducted to determine if older individuals aged 65 and over can have a vivid memory of frightening content observed during childhood/adolescence, whether reality-based or fictional, and if this memory may have cultivated a life-long avoidance to similar content. The study attempted to determine if individuals within this age bracket, given a lifetime of media use, will have developed behaviors or attitudes that help them avoid or cope with exposure to content that may potentially disturb or frighten them.

The primary constructs for this research were Vivid Triggering Event Memory (modified from Hoekstra et al., 1999) and Lifetime Television Exposure (Riddle, 2010). The VTEM construct was used to determine if there is a conscious avoidance of media content that might potentially remind an individual of frightening or disturbing content previously encountered. The LTE construct was used to determine if a singular exposure to frightening or disturbing content as a child, teen or young adult can have an effect on an individual's viewing or listening habits into older adulthood. The VTEM and the LTE were the independent variables for the study. The dependent variables were Mean World perception (a media-induced concept of the world as a generally dangerous place), enjoyment of frightening or disturbing content, and avoidance of frightening or disturbing content. Five research questions have been structured to examine the relationship between the dependent and independent variables, and five hypotheses have been structured to anticipate potential findings.

RQ1: Is there a relationship between VTEM and the amount of LTE among older adults?

RQ2: Is the interaction of LTE and VTEM related to Mean World perception in older adults?

RQ3: Is the interaction of LTE and VTEM in older adults related to avoidance of frightening or disturbing media content?

RQ4: How is the interaction of LTE and VTEM related to enjoyment of frightening or disturbing media content?

RQ5: Will demographics have a moderating effect in the relationship between the two independent variables (VTEM, LTE) and the three dependent variables (mean world perception, and enjoyment or avoidance of frightening or disturbing media content)?

H1: Higher LTE will be related to higher perception of a Mean World in older adults.

H2: Higher LTE in older adults will be related to lower avoidance of frightening or disturbing media content.

H3: Higher VTEM in older adults will be related to higher avoidance of frightening or disturbing media content.

H4: Higher LTE will relate to older adults higher enjoyment of frightening or disturbing media content.

H5: Higher VTEM will relate to older adults lower enjoyment of frightening or disturbing media content.

Chapter I explained the reasoning behind the current study. It included a brief overview of the history of media-effects research dating from the late 19<sup>th</sup> century to the early 21<sup>st</sup> century. Chapter I introduced the two media-effects theories that were used for the current study, Cultivation Theory (Gerbner, 1969) and Social Cognitive Theory (Bandura, 1986). Chapter II reviews the differences and similarities between the CT and SCT, as well the strengths and weaknesses that each presented for the current study. The chapter also expands on the premises and results of a variety of media-effects studies that helped the researcher choose the primary constructs for this research, Vivid Triggering Event Memory (modified from Hoekstra et al., 1999) and Lifetime Television Exposure (Riddle, 2010). This chapter also looks at studies that have examined the dependent variables of Mean World, Enjoyment, and Avoidance, as well as other demographic variables that have been studied in relation to violent or frightening programming. Chapter III explains why an analytical survey was the chosen method to gather the data for the current research. Further, the methods, procedures, and measurements used are

detailed. Chapter IV presents the results of the study as they pertain to each of the hypotheses and research questions. Chapter V offers a summary of the findings, a discussion of how the results of this study fit into existing literature and the conclusions of the research.

## CHAPTER II

### THEORETICAL RESEARCH OF MEDIA-RELATED EFFECTS

#### **Theoretical Perspectives**

The current study examined long-term, media-induced fear-effects in adults aged 65 and over. Cultivation Theory (Gerbner, 1969) and Social Cognitive Theory (Bandura, 1986) are well suited to a study of this nature. This chapter reviews the differences and similarities between the CT and SCT, as well as the strengths and weaknesses that each presented for the current study. It explains why the researcher chose Vivid Triggering Event Memory (modified from Hoekstra et al., 1999) and Lifetime Television Exposure (Riddle, 2010) as the primary constructs for this study. The chapter also introduces the dependent variables for the study, which are Mean World, Enjoyment and Avoidance.

Cultivation Theory (Gerbner, 1969) describes a drip-drip effect, which means that ideas and concepts build up over time. Social Cognitive Theory (Bandura, 1986) describes the effect of vicarious observation on individual behaviors, beliefs, and/or attitudes. At the time of their individual conceptions, however, neither theory was developed specifically for media research. Rather, both were used for social-interaction research. Each one was later adapted for media effects use by its designers and various interested researchers.

Shrum (1995) thought SCT could almost be considered an extension of Cultivation. He suggested that SCT reinforces Cultivation, at least under certain circumstances, and that the two could be used in conjunction with one another.

That is, television viewing increases the accessibility of information in memory, and set-size judgments are inferred from the degree of this accessibility... Here again, social cognition theory and research may not only help account for past cultivation research but may also indicate areas of future investigation (p. 422).

On closer inspection, though, Cultivation Theory would actually appear to fall under the social behavioral umbrella of Social Cognitive Theory. Cultivation Theory is a long-term, emotion-based theory that may overall viewing may have an accumulative attitude and behavior effect. SCT is a short-to long-term, action-based theory which posits some viewers may be vicariously effects by exposure to certain content. These two theories have some differences, but also strong similarities. Several studies have been grounded in these similarities to examine constructs such as self-efficacy, vicarious observation, and stereotyping (Tan, Fujioka, & Lucht, 1997; Fujioka, 1999; Bernhardt, Sorenson, & Brown, 2001).

### **Cultivation Theory (Gerbner, 1969)**

Cultivation (Gerbner, 1969) is the theory that television can shape and determine an individuals' concept of social reality. Gerbner believed such a theory was necessary to gauge and keep track of changes in symbolism presented through television, reasoning that media messages periodically changed to reflect social and economic goals (p. 138). Gerbner included cultivation as factor in his study of Cultural Indicators, but he described a concept of cultivation that did not rest on "direct communication effects" (p. 139). He considered cultivation instead to be a cumulative effect of long-term exposure to television messages.

Cultivation Theory, in its simplest form, states that views of reality can be affected by the amount of television an individual watches. Gerbner (1969) separated the level of viewing into light, moderate, and heavy. In his concept, heavy viewers would be the most affected by the symbolism presented in television programming. Television tended to reinforce stereotypes (women, minorities, wealthy, poor, criminals, victims, etc.), and heavy viewers should be more susceptible to believing those stereotypes to be reality. In 1969 this was an interesting idea that was based, in Gerbner's own words, on three major networks and a handful of less prominent independent stations. The media offered viewers a limited choice in what to watch at any given time.

Time, then, rather than programming, dictates viewing choice (Gerbner, Gross, Morgan, & Signorelli, 1994). It was for this reason that Cultivation was designed as a theory of immersion rather than selectivity. Gerbner (1969) explained that television was basically a vehicle for social control, and that those in power influenced the perception of social reality in their own favor. The generic nature of available programming (Signiorelli, 1986) reinforced the idea that the public was being systematically and continually influenced in how it viewed reality. Furthering this idea is the term "subjective", which has been used in conjunction with perceived social reality (Schutz, 1970; Bilandzic, 2006).

Gerbner (1969) pointed out that traditional media effects research, which is based on evaluating specific information, did not always readily accept the Cultivation Theory because of its emphasis on immersion versus selective viewing. From the 1970s and at least until 1995, Gerbner and several colleagues conducted research to examine the influence of viewing violent programming on individual belief in the world as a mean and scary place. The ongoing project was called the Cultural Indicators study, and included annual Violence Profiles by Gerbner and

his colleagues (Gerbner and Gross, 1974, 1976, 1976; Gerbner et al., 1977; Gerbner et al., 1978; Gerbner et al., 1979a, 1979b). Data was gathered using the National Opinion Research Center (NORC) General Social Survey. Each report detailed the increase and decrease in violent programming by network and time slot. The amount of violence was measured using the Violence Index and the Cultivation Index, among other means.

Signorielli, Gerbner, and Morgan (1995) explained that the Violence Index uses three data sets (prevalence, rate, and role) as “measures of the extent to which violence occurs at all in the programs sampled, the frequency and rate of violent actions, and the number of roles calling for characterizations as ‘violent,’ ‘victims,’ or both,” (p. 281).

Hirsch (1980) (in)famously reevaluated Gerbner et al.’s. research (1976-1979) and reported several flaws in their findings regarding heavy viewers’ perception of a Mean World. He believed that age, socioeconomic status, race, and gender should be as much or more of a factor as viewing habits because women, minorities, and seniors may tend to view the world as mean or scary regardless of the amount of viewing (p. 404). Hirsch also added the categories of non-viewer and extreme viewer, and found that non-viewers had a higher Mean World perception than light viewers and that “extreme viewers are less perturbed than heavy viewers” (p. 408).

Cultivation Theory was specifically designed to study the long-term effects of television on viewers, and Gerbner (1969) argued it was never meant to examine the effects of short-term exposure. This presumably meant that cultivation was inherent within the increasing multitude of images and messages that viewers were being exposed to in varying degrees. Research also indicates that Cultivation Theory primarily relates to emotion rather than attitudes or behavior (Gerbner, 1969/1980; Hirsch, 1980; Bilandzic, 2006).

### *Mainstreaming and Resonance*

Gerbner and Gross (1976) conceived mainstreaming and resonance as two aspects of the Mean/Scary World syndrome. These are not so much off-shoots of M/SW as they are factors that can help determine individual world view. Gerbner (1980) prominently discussed mainstreaming as an expansion of cultural effects. He described it as occurring when heavy viewers of different demographic groups are basically drawn to similar conclusions of social reality as represented on television. In 1998, Gerbner described mainstreaming this way:

‘Mainstreaming’ means that heavy viewing may absorb or override differences in perspectives and behavior which ordinarily stem from other factors and influences. In other words, differences found in the responses of different groups of viewers, differences that usually are associated with the varied cultural, social, and political characteristics of these groups, are diminished in the responses of heavy viewers in these same groups (p. 183).

Gerbner believed that heavy viewers, regardless of demographic grouping, are more likely to share a common, homogenous view of a dangerous world than their moderate or lighter viewing cohorts. If this is true, it may help to explain misguided or incorrect opinions of the law enforcement and medical professions in heavy viewers. Gerbner (1998) also showed that education plays a role in mainstreaming. He combined data gathered in 1980, 1983, and 1986 (p. 185) and found that lower educated light and heavy viewers would similarly see the world as a mean and scary place. Gerbner found that even some college education made a difference in Mean World view. Among this more educated group, heavy viewers were more likely than light

viewers to see the world as mean and scary. He concluded from this data that “heavy viewers of otherwise different groups are both in the ‘television mainstream’ ” (p. 185).

Shrum and Bischak (2001) described mainstreaming as “the view that people’s life experiences may moderate the cultivation effect” (p. 190). They cited evidence from Gerbner et al. (1980) that variables of income and race can influence the belief that crime is more rampant than it actually is. Gerbner et al. (1980) found that a majority of low-income light *and* heavy viewers were likely to have a Mean World view (p. 19). They also found that higher income heavy viewers were more likely to have a Mean World view than higher income light viewers. In other words, the act of heavy TV viewing “mainstreamed” the higher income viewers to the Mean World levels of the lower income viewers. Additionally, light-viewing minorities were less likely than whites to have a Mean World view. Conversely, heavy-viewing minorities may have a similar Mean World view to white viewers, which would bring them “closer to the ‘mainstream’ ” (p. 17).

Resonance is similar to mainstreaming in that it considers the role of life experience in relation to reactions to content (Gerbner, 1980). The essence of resonance is that previous personal victimization, as opposed to just living in a high crime area, should lead viewers to believe that crime is rampant. Resonance as explained by Gerbner, however, doesn’t affect just individuals. Racial, religious, or other types of groups that feel unfairly treated may be cultivated to believe there is more crime or discrimination against them as a whole. In resonance, then, more perceived experience with crime could lead to a stronger cultivation effect.

Doob and McDonald (1979) tested the Cultivation Theory by conducting door-to-door surveys in Toronto to determine crime-prevalence opinions among heavy and light television viewers. The surveys were conducted in both high crime and low crime neighborhoods, where

the level of crime was found to be associated with socioeconomic factors. Crime was, in essence, higher in low income housing areas than in middle class neighborhoods. The findings point towards heavy viewers thinking crime was more prevalent than did light viewers, especially if their neighborhood had a high crime rate. Doob and McDonald (1979) did not use the word ‘resonance’, but their findings are in line with the effect.

### **Social Cognitive Theory (Bandura, 1986)**

Bandura, Ross, and Ross (1961) believed that vicarious observation could affect individual morals, values, and beliefs. Social Cognitive Theory (SCT) (Bandura, 1986) specifically examines the concept that individuals can learn through observation. Bandura’s SCT stressed the potential impact of this vicarious observation. He stated that vicarious influence can have both short-term and long-lasting effects, such as attitudes or reacting similarly to emulated emotions by a model. SCT delved into the cognitive, behavioral, and environmental aspects of actions or reactions to media content. Bandura, Ross, and Ross (1963) built the SCT on the idea of social learning, which by then had become a fairly well-grounded concept.

Sigmund Freud may have been among the first to recognize the importance of social learning. He used the term “personality development” and considered it to be a psychoanalytical issue (Grusec, 1992). Freud (1933) considered imitation to be relative to identification (Zentall, 2011). Grusec traced the evolution of social learning from Freud to the Yale Institute of Human Relations. YIHR’s “unified science of behavior” construct (Grusec, 1992, p. 2), which began in 1935, eventually led to Miller and Dollard’s (1941) experiments in Social Learning Theory.

Albert Bandura began his research in the same vein of social learning during the 1950s, but soon began to question the conceptual approach to social learning. In 1963 he discarded the psychoanalytical approach for a “socio-behavioristic approach” (Grusec, 1992, p. 5). Bandura

(1967) determined that the psychoanalytical approach did not adequately explain the acquisition of social behavior (p. 1). He believed that the concept of “vicarious reinforcement” (perceived reward) needed to be included in the Social-Learning Theory (Bandura, 1967, p. 4). This began his evolution toward the Social Cognitive Theory.

SCT (Bandura, 1986) turned away from the SLT view that individuals learned only through direct social observation/interaction and experience (p. 19). Bandura considered that behavior can also be learned through exposure to television and other indirect observations. People, rather than simply being drones with no will, would consider what they had seen and decide on content for future viewing. The epiphany is that while people may learn vicariously, they have a greater measure of control concerning media exposure than they might have in exposure to social behavior.

Bandura (1986) suggested four criteria necessary for learned behavior to be integral to the receiver’s emotions, attitudes, or behaviors. The first is Attention, where the viewer must be attentive to and understand the behavior being observed. The second is Retention, meaning the viewer constantly replays the observed content and any resulting attitude or behavior depends on how well the model is understood. The third criteria, Production, means that the viewer must believe the observed content can be replicated. The basic factor in this model is whether or not the viewer believes the content can actually occur. The fourth is Motivation, meaning the viewer must have some reason real or imagined to want the content to be replicated (Bandura, 1986; Tan, Fujioka & Lucht, 1997; Nabi & Krcmar, 2004).

Social Cognitive Theory is adaptable to a variety of research interests, including health, child development, business, and education (Graves, 1999; Martino et al., 2005; Liao, Liu & Loi, 2010; Martin et al., 2011). SCT has kept pace with the evolution of technology, and is also

adaptable to the increasing use of social networks (Bandura, 2001). However, the basic tenet of SCT has always been the concept that “what people think, believe, and feel affects how they behave” (Bandura, 1989, p. 3), and that has not changed.

### **Media Effects Research**

From the beginning of television there has been an ongoing dispute about the social importance of research concerning media content and aggressive behavior. Most researchers now agree that the viewer is affected, at least to some extent. Subsequently, the focus has become not whether there is an effect, but rather what *kind* of effect and how strong it may be (Perse, 2001).

A great amount of research has been conducted relating to the phenomenon of media effects (Bandura, Ross, & Ross, 1961; Bandura, 1962; Bandura, Ross, & Ross, 1963; Liebert & Baron, 1972; Gerbner and Gross, 1976; Perse, 2001). Numerous studies have added volumes to our understanding of the potential impact of exposure to both violent and frightening media content (Blumer, 1933; Himmelweit, Oppenheim, & Vince, 1958; Schramm, Lyle & Parker, 1961; Furu, 1962; Williams, 1986; Cantor & Omdahl, 1991; Cantor, 1998; Cantor, 2002).

Both Cultivation and SCT have been used to study the effect of vicarious observation on attitudes and behavior (Tan, Fujioka & Lucht, 1997; Fujioka, 1999). Tan et al. (1997) investigated the cultivation of stereotyping by television programming. They found that employing stereotyping in decisions or actions would be a result of perceived reward, as per SCT, and concluded that stereotyping was contingent on perceived reality and lack of direct contact.

## *Effects of Violence*

Until relatively recently, studies of the effects of violent content has been the mainstay of media effects research. Bandura et al. (1961), for instance, concluded that children exposed to aggressive video clips tended to display aggressiveness toward peers, at least temporarily.

Research in this area has matured with methodological progress. The “Bobo doll” research of Bandura, Ross, and Ross (1961) showed that children exposed to aggressive content might be more likely to act aggressively than children exposed to nonviolent content. Bandura, Ross, and Ross (1963) also provided indications of social learning when children were more prone to imitate rewarded rather than punished aggression.

Critics of Bandura et al.’s (1963) research agree that hitting an inflatable doll did not necessarily represent aggression toward an actual person. Another criticism was that the children were exposed to adult specific rather than child specific violent content. Regardless of the criticism, most researchers tend to agree that exposure to violent content *could* lead to aggressive behavior.

Using a variation of Bandura’s model, Liebert and Baron (1972) conducted a widely cited study of 5-9 year-old children randomly exposed to short clips of either aggressive content or non-aggressive content. They were then asked to play a game. The children were told that they could help or hinder an unseen child to play a game, simply by pressing buttons labeled “help” or “hurt.” They were told that the “hurt” button could cause discomfort to the other child. They found that children exposed to the aggressive content were more likely to press the “hurt” button and hold it down longer than those exposed to nonaggressive content.

Tannis McBeth Williams (1986) found a rather unique opportunity in 1973 to conduct research in three Canadian towns with varying degrees of television exposure. The first, Notel,

had no television reception to speak of. It was not an isolated community, but reception was unreliable because of the location geographic (Williams, 1986, p. 4). The second, Unitel, had received one nationally-owned channel for seven years. The third, Multitel, had access to cable television and received four channels, including ABC, CBS, and NBC. Unitel and Multitel were the control groups for the experiment.

William's (1986) study examined several potential impacts from regular television viewing, including implications for reading skills, creativity, vocabulary, and aggressive behavior (p. 1). It was also unique for the time in that it included children and adults in the same research. Williams noted that prior to this, most aggression research included primarily children and teens (cited by Williams, p. 2: Himmelweit, Oppenheim & Vince, 1958; Schramm, Lyle & Parker, 1961; Furu, 1962). Williams (1986) considered the importance of including all age ranges within her research, stating that, "Individual change can lay the foundation for social change; whether it does or not, it is of major psychological importance" (p. 362). Williams found that as NoTel gradually began to receive signals, the increasing exposure to violent content led to more aggressive behavior in younger people of both genders.

### *Effects of Frightening Content*

The Payne Fund Studies conducted in the 1920s and 1930s examined the effects of movies on young viewers. Herbert Blumer (1933) found during his research for the Payne Fund that exposure to frightening content as children or teens could leave a negative impression, resulting in their experiencing fear-effects of varying degrees and duration. Blumer (1933) wrote:

One might be inclined to think that the state of fear induced by the picture in children and youths lasts just as long as the picture is

witnessed and then disappears after the individual leaves the theater. Very frequently, however, this is not the case. The feeling of fright may continue for some time and show its presence in a number of ways. The most conspicuous of its expressions is in the form of nightmares and terrifying dreams. The recognition that mysterious or fear-inspiring pictures may lead to terrifying dreams helps one to appreciate this power over emotions (p. 80).

Evidence suggests that, during that same era, radio had the ability to truly frighten listeners, up to and including entire communities. Lovgen (2005) argued that during the era prior to television, radio had a lot of influence over imagination. The primary example is the 1938 radio broadcast of H.G. Welles "War of the Worlds." Even though it was publicized beforehand, it still caught people by surprise and was very convincing as a mock newscast (Lovgen, 2005).

The 1970s brought a new type of film that could previously not have been made, due in part to technology and relaxed moral rigidity. Movies like "The Exorcist," "Jaws," and "The Omen" caught the world by storm. Some of these films prompted the addition of the PG-13 rating to protect children younger than 13. The purpose of the rating system was to shield children from content that they might not be prepared to handle.

Cantor, Byrne, Moyer-Guse, and Riddle (2007) examined the long-term results of childhood exposure to frightening content. Particular mention was made of films in which the antagonist victimized children. This research, which focused solely on children, gathered information on the lasting emotional effects of watching a frightening film. More than 200 children, kindergarten through sixth grade, completed an open-ended questionnaire asking if they had been frightened by a film, and how long the fear lasted.

The goal of Cantor et al. (2007) was to have the children explain the effect of a single frightening mediated event in their own words. Older children (8-12 years) were given a two-part questionnaire. The first part was open ended, and the second part consisted of yes or no answers. The researchers considered that simple yes/no answers would not provide viable results for the younger group (5-8 years old), so they were administered only the open-ended questionnaire.

Cantor et al. (2007) discovered that, regardless of age or gender, the majority of participants reported that a movie or program had frightened them. Young children and older girls were more likely than older boys to use visible mechanisms (whether behavioral or cognitive) to deal with the effects of exposure (p. 26). The average reported length of the effect of the exposure was one week to one month, with some of the children reporting ongoing effects (Cantor et. al., 2007, p.14), emotional coping mechanisms notwithstanding.

Johnson (1980) provided evidence that 65 out of 125 respondents in a fear effects survey had been disturbed by a violent or frightening film. Data from the survey also showed that a reported reaction to being disturbed by a movie could last at up to two or more days (p. 775). Johnson concluded that, “depending on several factors including degree of identification, ability to maintain a stress barrier and the areas of vulnerability in the viewer's life, that person can experience via film a traumatic episode they would normally never experience” (p. 785).

A single triggering event is often a key factor in media fear-effects research. It is an unexpected, independent variable that is the catalyst for the resulting reaction(s). Fear is not difficult to manipulate in the film or television industries. Physical danger, monstrosities, and empathetic immersion (Cantor, 2002), alone or in combination, have demonstrated great power to scare young viewers.

It is critical to understand that developmental differences exist in what is considered frightening (Cantor & Ohmdal, 1991; Cantor, 1998). Cantor (1998), for example, found that as children age there is a change in the type of content that frightens them. In this evolution, fear of fictional constructs such as monsters, witches, etc., decreases as children grow older, and fear of potential reality begins to increase. However, the memory of exposure to frightening content as a child or adolescent, whether fictional or news-based, can remain clear into adulthood. Riddle (2011) found that at least half of 328 university undergraduates could recall a particular news story that frightened them as a child, and that 7.3% were still frightened by the incident (p. 750).

Hoekstra et al. (1999) suggested that being frightened by a movie as a child is a commonplace occurrence in modern culture (p. 126), and that reactions to the exposure can last into adulthood. They also found that a high percentage of viewers identified with a character in a film, primarily with the victim or protagonist. Hoekstra et al. (1999) created a scale to measure long-lasting memories of adults exposed to frightening films as children or teens. This scale will be covered in detail in the method section.

Dulin and Passmore (2010) conducted a survey of older adults aged 65-94 to determine the effects of life-long accumulated trauma. This study related to real-life experience, and not to media exposure, but for the purpose of the current study it was considered relatable. This was a quantitative study that used items from the Traumatic Events Questionnaire created by Vrana and Lauterbach (1994). The study found that accumulated traumatic events might result in higher levels of anxiety later in life (p. 298). However, Dulin and Passmore (2010) also determined that the effect would more likely come from events experienced in young adulthood and middle age than from childhood events.

Hiskey (2012) suggested that trauma symptoms, specifically Post-Traumatic Stress Disorder (PTSD), can be related to early life experiences. Hiskey wrote that in older adults, a traumatic memory “may follow a recent event or it may relate to a much earlier time, with symptoms running a chronic, intermittent or delayed-onset course” (p. 12). A deeper understanding of PTSD was not necessary for the current study. This research is cited only as evidence that disturbing events experienced early in life can continue to be experienced, or can be re-experienced, as an older adult.

### *Memory*

This study did not measure an actual exposure to frightening mediated content, but the perceived memory of the event held by the individual participant. Memory is complex and has many constructs that should be considered. For example, declarative (explicit) memory includes both episodic and semantic memory. Episodic memory can be considered autobiographical. It encodes an individual's unique life events, it is keyed to other memories, and it is virtually instantly accessible.

Tulving (1972) described episodic memory as when, where, and what in relation to an event. A strong factor in creating a long-term episodic memory is the strength of an event's impression. A flashbulb memory is formed when an event, either public or personal, occurs that is imprinted in an individual's memory (Davidson & Gliskey, 2002; Talarico, 2009).

Non-declarative (implicit) memory controls emotions and skill sets. Davis (2001) refers to non-declarative memory as not needing the context of the memory, and as working in tandem with declarative memories, which do need a context. The two appear to work together to form a whole picture. The memory of an event is combined with an emotional response to the memory

of an event. Davis also explained two concepts of memory that are adaptable to the current study:

First, memory processes are active and interactive; that is, experience is transformed as it is represented, and the expression of memory shapes and is shaped by current circumstances. Second, memory is not a homogeneous entity. Different aspects of experience are processed and represented simultaneously in multiple mappings (Davis, 2001, p. 450).

Sutin and Robbins (2007) stated that, “Memories produce intense phenomenological experiences. In fact, our most personally meaningful memories are defined by their phenomenology: they are affectively intense, vivid, and related to enduring concerns or unresolved conflicts” (p. 390). Since the most basic definition of phenomenology would be an individual's perception of occurrences or events, it should be self-evident that individual perception would obviously affect the vividness of a given memory. Rimmele, Davachi, and Phelps (2012) stated that, “Emotion intensifies the subjective sense of remembering, that is, the subjective vividness of the memory, the sense of reliving the emotional event, and confidence in the accuracy of the memory” (p. 834).

Memory considerations also come into play in measuring overall lifetime media consumption. Riddle (2010) suggested that long-term memory can be a handicap to the study of long-term media effects as a result of forgetfulness or inaccurate memory. She developed the Lifetime Television Exposure (LTE) scale, a measure of *memories* for past and present viewing exposure (p. 241-242), rather than the actual amount of exposure. Riddle (2010) focused her research on three age ranges during the lives of college students: elementary school, high school, and the present. Her results suggested that television exposure as a child does have an effect on

perceptions of social reality as adults (p. 250). Riddle realized there were limitations to her research and called on subsequent researchers to study older adults, concentrating on their childhood and current age. She suggested that:

Future research may want to further explore adults' memories of television-viewing habits as children to determine the effects of *what* they watched in addition to *how much* they watched. Meanwhile, the LTE scale should be employed with a sample of older adults to determine whether the significant impact of early childhood viewing upholds. (p. 252)

Riddle et al. (2011) examined vivid memory of violent television or film content. They sampled college students using a survey questionnaire concerning past viewing experiences. Participants who reported having a vivid memory of a violent film or program were asked to provide as much detail of the memory as possible. They found that “people who hold vivid memories for the gory details of movies and television programs seen in the past appear to have social reality beliefs that reflect these violent memories” (p. 182). They also found that women presented more vivid memories of violent media than men do, given that women were more likely than men to include graphic details in a written account of previously viewed violent media (p. 184). However, this finding may be skewed given that 82% of participants were female.

#### *Self-Perception of Memory Vividness*

Johnson, Foley, Suengas, and Raye (1988) investigated whether individuals could determine real memories from imagined memories. They conducted two studies that elaborated on Johnson and Raye's (1981) idea that perception-based memories would include color, sound,

time, place, etc., and that thought-based memories “should have more information about the cognitive operations (e.g., sensory, perceptual, or reflective processes, see Johnson, 1983) that generated them” (p. 371).

Johnson et al. (1988) studied the variables of memory origin (perceived or imagined) and memory age (length of time remembered), and developed the Memory Characteristics Questionnaire (MCQ) as a measure for these variables. Participants were asked to think of actual, dream, or fantasy occurrences within an allotted time to help determine real from imagined memories. The idea was that perceived memories would be remembered more quickly. The results of the questionnaire indicated that vividness of memories for perceived events was more realistic for childhood event memories, and that the average childhood memory event occurred at 9.2 years (p. 372). However, the study also found that perceived memories were stronger for items like vividness, tone, and order of events for recent memories, and that about 85% of participants’ recent memories were from occurrences within the past year. Therefore, vividness of memory also comes into play in examining relationships of variables. Research question 1 therefore asks:

RQ1: Is there a relationship between VTEM and the amount of LTE among older adults?

### **Specific Reactions to Frightening Content**

Every individual will have varying responses to frightening or disturbing media content. It has not yet been determined if a one-time exposure or lifetime exposure to such content would leave the strongest impression. Individuals may experience a number of exposure-induced effects that could reflect reactions to either a one-time frightening exposure event or to lifetime media exposure. These effects could include the Mean/Scary World syndrome, continuing avoidance of

specific mediated content, and enjoyment of frightening content. These three potential media effects were therefore selected as dependent variables to be examined in this study.

### *Mean (Scary) World Syndrome*

Gerbner's (1969) cultivation hypothesis was confirmed in subsequent "mean world" survey research conducted by Gerbner and Gross (1976). Gerbner and Gross explain the mean/scary world syndrome as an effect of being continuously exposed to television violence, leading viewers to believe there is a greater chance of being victimized in the real world. Gerbner's concept of a mean or scary world view stemmed from studying heavy viewers beliefs of social reality.

There is evidence that Mean World syndrome affects children as well as adults. Comer et al. (2008) found that "children's television use was associated with elevated perceptions of personal (but not societal) vulnerability to world threats (i.e., crime, terrorism, earthquakes, hurricanes, and floods), and this finding was particularly strong in youth with high anxiety (p. 628)".

The accumulated trauma effect described by Dulin and Passmore (2010) compliments, at least in concept, the cultivation effect described by Gerbner (1969). Accumulated effects are central to both areas of research. The research by Dulin and Passmore (2010) offers further evidence that Cultivation Theory should be a feasible means of studying long-term media fear effects.

Two prominent studies conducted more than six decades apart (Blumer, 1933; Cantor, 1998) found that exposure to violent or frightening media content can induce anxiety in children and young adults. The Payne Fund Studies (Blumer, 1933) provided some of the first information of fear effects in film. Blumer gathered data from young adults who had been

frightened by a movie. Many responded that they had been, and experienced symptoms including lasting anxiety.

Cantor (2002) defined fear as "an emotional response of negative hedonic tone related to avoidance or escape, due to the perception of real or imagined threat" (p. 290). She presented evidence that exposure to frightening and/or disturbing content does contribute to children's level of anxiety. Avoidance of activities related to the content is one symptom of exposure to frightening content (Cantor & Omdahl, 1991). It can also have long-lasting, intense, and debilitating effects (Cantor, 1998).

Cantor (2004) analyzed 530 papers written by college students between the years 1997 and 2000. The students could write about their own reaction to frightening content or the observed reaction of another person. The majority of papers related to the students' own experience, with age of exposure ranging from two years to adulthood. The results could suggest that a child exposed to a film such as *Poltergeist*, in which the main protagonist is a child attacked by familiar "safe" objects, may suffer a loss of a sense of safety in formerly safe surroundings. Some may go so far as to take precautionary measures, such as locking away toys or sleeping with a nightlight. A significant number of subjects reported long-lasting effects after exposure to the film, with 31% reporting persistent effects (Cantor, 2004).

This concept is easily adaptable to media-effects research. The field has reached the point where scholars and researchers no longer question whether or not individuals can experience anxiety after exposure to disturbing content. Subsequently, a large number of studies (Blumer, 1933; Buzzuto, 1975; Johnson, 1980; Mathai, 1983; Simons & Silveira, 1994; Sparks, Spirek, & Hodgson, 1993; Harrison & Cantor, 1999; Cantor, 2002; Cantor, 2004; Riddle, 2010) have made

it clear that anxiety experienced as a child or adolescent can have an effect on an individual well into adulthood. Therefore hypothesis 1 states that:

H1: Higher LTE will be related to higher perception of a Mean World in older adults.

Research question two asks:

RQ2: Is the interaction of LTE and VTEM related to Mean World perception in older adults?

### *Avoidance of Media Content*

Experiential avoidance is defined as “the unwillingness to experience unwanted thoughts, emotions, or bodily sensations and an individual’s attempts to alter, avoid, or escape those experiences” (Plumb, Osillo, & Luterek, 2004, p. 245). Anxiety has frequently been linked to avoidance of violent or frightening media content (Cantor, 1998; Harrison & Cantor, 1999; Krahe, Moller, Berger, & Felber, 2011). Harrison and Cantor (1999) found that children would avoid and/or dread content that was even similar to the initial frightening content. Harrison and Cantor also found that the anxiety symptoms reported for media content were similar to those experienced in real-life situations (p. 105).

Gerbner and Gross (1976) found that heavy viewers, regardless of demographics, were more likely to hold a dim view of social reality and tended to believe that crime was more prevalent than it actually was. In short, they surmised that watching a lot of violent content, whether real or fictional, advanced a negative world view. Subsequent research has similarly found that heavy viewers will have a negative outlook on life or society (Morgan, 1984; Shrum, 1999, p. 16; Riddle, Potter, Metzger, Nabi, & Linz, 2011).

Johnson (1980) explored previous viewing and avoidance in a study based on psychological reactions to stress-inducing frightening and/or violent films including *The Exorcist*, *Texas Chainsaw Massacre*, *Deliverance*, and *One Flew Over the Cuckoo’s Nest*,

among others. He sampled two populations, which were adult residents of a middle class community (aged 16-72; mean age 33.3) and individuals standing in theater lines to watch films (aged 16-55; mean age 29.9).

Johnson (1980) found that out of 53 community respondents, 39.6% admitted to being disturbed by a movie, and a total of 28% said they would avoid certain types of films based on previous exposure to the genre (pp. 777, 782). The study found that 66.6% of community respondents who were disturbed by a movie reported not being prepared for the content, and that 93.3% of community respondents who were disturbed by a movie cited the “intensity of film” (p. 782).

He also found that out of 72 theatre respondents, 61.1% admitted to being disturbed by a movie, and 12.5% said they reacted to disturbing films by avoiding certain types of films (pp. 778, 781-783). The study found that 48.1% of theatre respondents who were disturbed by a movie said they “were not prepared for what I saw”, and that 59.3% of the respondents who were disturbed by a movie cited the “intensity of film” (p. 784).

There was no indication of how long respondents from either population would avoid disturbing types of films. However, the average length of time the community population reported feeling otherwise upset or disturbed was three days. The average length of time the theatre population reported feeling otherwise upset or disturbed was two days.

Johnson (1980) further found that some degree of lasting effect from a disturbing film may be more widespread and frequent than previously thought (p. 785). Given his findings, Johnson stated that, “thus it is one thing to walk away from a frightening or disturbing event with mild residue of the images and quite another thing to ruminate about it, feel anxious or depressed for days, and/or to avoid anything that might create the same unpleasant experience,” (p. 786).

Debiac and Ledoux (2004) emphasized that, while some fears may be genetic, much of the fear humans experience is learned (p. 807). Krahe et al. (2011) called attention to the concept of repression and sensitization in relation to anxiety. The concept is that while some may cope by avoiding content that causes anxiety, others may cope by actively seeking it out. In basic terms, repressors don't want to think about the content, while sensitizers want to understand why it makes them anxious. Both are considered defensive mechanisms of coping with the "fear of fear" (Krahe et al., 2011, p. 168).

Horowitz et al.'s (1979) review of existing avoidance research found that avoidance was a frequent symptom of stress reaction. They found that in prior studies:

Avoidance responses included ideational constriction, denial of the meanings and consequences of the event, blunted sensation, behavioral inhibition or counter phobic activity, and awareness of emotional numbness. (p. 210)

Avoidance may seem to be a good defense against re-experiencing anxiety or fear, but the tactic can backfire. Active avoidance may lead to higher frequency of re-occurrence and intensity of related emotion (Plumb et al., 2004, p. 246). This suggests that the trigger event may in essence grow stronger in the mind of the individual. The physiological factor of avoidance of real (versus mediated) pain or danger has been studied extensively (Chen, Li, Li, & Kirouac, 2011; Debiac & Ledoux, 2004; Ledoux, 1998).

Chen, Li, Li, and Kirouac (2011) conducted experimental fear/avoidance studies with rats, a common practice generalizable to humans. They reported that even in rats, avoidance of reminders of fear-inducing stimuli is apparent. Chen et al.'s research (2011) involved a traumatic experience that triggered fear and, subsequently, avoidance. They further noted that avoidance

may have no apparent relation to the original experience. A sight, a sound, or even a smell (Davis & Whalen, 2001) can trigger avoidance.

Other research has reported what Carstensen and Mikels (2005) termed the *positivity effect*. Langeslag and van Strien (2009) described positivity as “a trend for adults to *increasingly process positive* and/or *decreasingly process negative* information compared with other information with advancing age (p.369, *italics added by me*).”

The literature in this section suggests that frightening or painful experiences, whether mediated or real, may induce some form of avoidance. The form and degree of avoidance will depend on individual memory and perception of the triggering event. Hypotheses 2 and 3 will examine the relationship, if any, of lifetime exposure and vivid memory to participants’

avoidance of frightening content:

H2: Higher LTE in older adults will be related to lower avoidance of frightening or disturbing media content.

H3: Higher VTEM in older adults will be related to higher avoidance of frightening or disturbing media content.

Research question 3 examined the relationship between lifetime exposure and vivid memory to avoidance of frightening films:

RQ3: Is the interaction of LTE and VTEM in older adults related to avoidance of frightening or disturbing media content?

### *Enjoyment*

Research suggests that people actively seek out frightening content for a variety of reasons. Hoffner and Levine (2005) confirmed prior research, finding that gender (p. 224), sensation seeking, level of empathy, and level of aggression (p. 223) played a role in enjoyment of frightening content. Males with lower empathy and heightened aggression were the most likely audience to enjoy such content.

Walters (2004) believed there was no single reason to explain enjoyment of frightening films. He studied several reasons, including curiosity, excitation transfer and gender role socialization (p. 1). Walters (2004) suggested that frightening films are used in a dating context where young men have the opportunity to appear brave while young ladies may appear to be frightened. Walters (2004) called this the *snuggle theory* (p. 8). A new type of horror movie called “slasher films” became popular in the 1970s, and seemed pretty much custom made for a younger audience seeking thrills.

Sparks (1986) developed the Enjoyment of Frightening Films scale (EFF) based on the Greene and Sparks (1983) concept that decisions or actions related to communication anxiety are dependent on long-term memories of prior experiences (p. 66). Sparks (1986) expanded on the long-term memory concept to include media-induced fear effects. Put simply, he suggested that long-term memories of frightening films could be triggered by the same or similar stimuli. Sparks stated that, “The individual utilizes these activated elements in an evaluation or appraisal of the situation. In the case of fear, the result of this process is an appraisal of at least some aspect of the situation as dangerous or threatening to the overall well-being of the individual,” (p. 66).

Sparks (1986) considered that if a researcher could identify individual perceptions of long-term memory of exposure to frightening content, it could be possible to predict which individuals would experience a fear reaction during future exposure to similar content. Sparks noted that prior experience in viewing scary films should be a strong indicator of enjoyment or dislike of the genre (p. 67).

Nabi and Krcmar (2004), while not specifically mentioning frightening films or television programming, similarly discussed media enjoyment in relation to past viewing experience (p.

294). They noted that it is possible to enjoy a program in a genre that one would not normally watch, and to not enjoy a program from a preferred genre (p. 290). They also wrote: “we leave open the possibility that one can be entertained (*by contextual factors*) without enjoying the program itself.” (p. 291). Nabi and Krcmar (2004) have been taken somewhat out of context in this example, but the concepts they applied to non-frightening content could be valid for frightening content as well.

Vorderer, Klimmt, and Ritterfeld (2004), similar to Nabi and Krcmar (2004), did not consider the application of enjoyment to frightening content. They did, however, examine the elements of suspense, thrills, fear, relief (p. 394), and parasocial involvement (p. 396) in relation to other genres. They cited research by Weaver (2000) that found that viewers had preferences for specific genres, and these preferences can interact with the individual personality traits of the viewers (p. 398). These concepts could be ascribed to the enjoyment, or lack thereof, of frightening content.

Given the need to determine single-event and lifetime enjoyment or fright reaction of the participants, two hypotheses and one research question were developed to examine the role of enjoyment related to this study.

H4: Higher LTE will relate to older adults higher enjoyment of frightening or disturbing media content.

H5: Higher VTEM will relate to older adults lower enjoyment of frightening or disturbing media content.

Research question 4 will examine the relationship between lifetime exposure and vivid memory to enjoyment of frightening films:

RQ4: Is the interaction of LTE and VTEM related to enjoyment of frightening or disturbing media content?

### *Other Related Factors*

Hoekstra et al. (1999) listed a few of the elements that have been studied in relation to the effects of frightening films. Among these elements are sensation-seeking, gender, disinhibition, and the lure of the forbidden (p. 118). They suggested that the reason(s) for watching scary movies will also affect the emotions experienced by the individual. They also stated that (then) existing research clearly showed that exposure to violent and/or frightening content does cause some measureable fear effect.

Hoekstra et al. (1999) considered that some of the films listed by research participants as having frightened them may not have been age appropriate at the time they were viewed (p. 128). The mean age of the student participants was 20.1 years, and the mean age of exposure to the frightening film was 11.1 years. The general result would seem to be that the younger a child was when exposed to a scary movie, the more likely the child was to have a long-lasting frightening memory related to the movie.

However, they also found that the degree of fear was not universal because variables like age, gender, and empathy had moderating effects. The results found that men were more likely than women to choose a scary movie and to watch it alone, and that women reported a higher number of fear effects than men (p. 125), including specific fears (W-22.0% to M-13.2%) and nightmares (W-24.0% to M-15.9%) (p. 126). Women were also more likely than men to watch scary movies with a group (W-25.0% to M-11.8%).

Demographics have also generally been shown to be important in previous media effects research (Fujioka, 1999; Martino, Collins, Kanouse, Elliott, & Berry, 2005; Collimore, McCabe, Carleton, & Asmundson, 2008; Riddle, 2010; Custers & Van den Bulck, 2011). Therefore,

demographics, including age, gender, ethnicity, and education were measured to determine if they are related to the constructs examined in this study.

Age is an important aspect of any human reaction-based research. It played a critical role in the current study. The process of aging may itself be a culprit in recurring anxiety in older adults (Hiskey, 2012). Hiskey suggested several reasons why this might happen, including cognitive aging. He stated that, “The cognitive aging stance is that age-based reductions in attention increase the likelihood of distressing memories intruding into the person’s consciousness” (p. 14). It may be, then, that lifetime exposure to disturbing or frightening media could potentially increase the amount of anxiety inducing material to be pulled from memory.

Gender has been shown to be a factor in previous media-effects research. Hoekstra et al. (1999) presented evidence that women consistently showed less preference for violent films and exhibited higher empathy than men. Both prior and subsequent research corroborates the evidence that women and girls tend to express (or at least admit to) higher levels of empathy, fear or anxiety both during and after a disturbing or frightening experience (Horowitz et al., 1979; Doob & McDonald, 1979; Sparks, 1986; Custers & Van den Bulck, 2011). Nabi and Sullivan (2001) found that women were more likely than men to believe crime was prevalent and to engage in protective behavior.

Ethnicity is also a factor in media-effects research. Nabi and Sullivan (2001) found that white participants were less likely than non-white participants to experience Mean World beliefs or behaviors. Research has shown that minorities and residents of low income/high crime areas tend to report higher estimates of perceived crime and violence (Riddle et al., 2011, p. 180). It has also been shown that minorities are less willing to seek help for trauma related issues

(Hiskey, 2012, p. 12). Hiskey was referring to PTSD, but the current study adapted the concept to media-effects research.

Custers and Van den Bulck (2011) did not specifically mention Mean World, but they did note that fear of crime, either from television viewing or direct experience, did decrease with higher education (p. 611). They performed a multiple regression and found that “level of education and TV viewing were significant predictors of dispositional fear of violent crime” (p. 610).

Riddle et al. (2011) believed that real-world experience would affect individual crime estimates (p. 170). Gerbner (1976) showed evidence that real world experience has a direct effect on resonance. Resonance is the concept that individuals who have had first-hand experience with crime will be more strongly affected by media messages (Shrum & Bischak, 2001, p. 191). In the most basic terminology, the message ‘resonates’ with the viewer based on personal experience.

Considering all of these variables, Research Question 5 asked:

RQ5: Will demographics of the older adults sample have a moderating effect in the relationship between the two independent variables (VTEM, LTE) and the three dependent variables (mean world perception, and enjoyment or avoidance of frightening or disturbing media content)?

The following three chapters will explain the methodology used in the study and the results found, and will summarize and discuss the findings. Chapter III explains why an analytical survey was used to gather the data for the current study and details the procedures and measurements employed. Chapter IV presents the results of the study as they pertain to each of the hypotheses and research questions. Chapter V offers a summary of the findings, a discussion of how the results of this study fit into existing literature and the conclusions of the research.

## CHAPTER III

### METHOD

Remember that the study wanted to find out if there was an obvious connection between exposure to frightening or disturbing media content as a child, and lifelong and current viewing choices and/or lifelong and current attitudes and behavior. This chapter will explain why a survey was chosen as the method to gather data for the study. A variety of research methods including survey, in-depth-interviews, experimental laboratory observation, a short written essay, and focus group were considered for this study. Each of these methods would have been adequate to gather the necessary data. The in-depth-interview was rejected due to time concerns, and focus group was rejected because the researcher was concerned about forthright discussion of the topic among members of the age group. This brought the researcher down to two choices, survey and experimental laboratory observation.

These two research methods were considered by the researcher to be most relatable to the current study. Each offers a unique perspective in quantitative research. An experiment gathers data from direct observation of participant reactions, usually in a laboratory setting. A variety of tools, including the electroencephalogram (EEG), electrocardiogram (ECG), skin conductance, and behavioral observation allow the researcher to record the actual and accurate reactions of the participant during exposure to selected material.

An experiment could help determine if media content might negatively affect any given individual, and to what extent (Bandura, Ross, & Ross, 1963; Bernhardt, Sorensen & Brown, 2001). An experiment has the advantage of establishing *evidence* of “cause and effect” (Wimmer

& Dominick, 2000, p. 210). The researcher has complete control over the pace and order of exposure to the variable or variables being studied. Experimental research has the disadvantages of “experimenter bias,” “cost,” and “artificiality” (Wimmer & Dominick, 2000, p. 211). One disadvantage is that data is limited to the duration of the experiment. Long-term effects of media exposure cannot be studied.

A survey, by comparison, can gather information about past details. The data is limited only by the number respondents. Participants can complete the survey at their convenience without interacting with the researcher, which may reduce any potential bias. A limitation of a survey is that individual respondents may contaminate the given research with faulty knowledge or memory. Given the potentially large response rate, though, a well-planned survey can provide the researcher with a maximum of data for a minimum of effort and cost.

Surveys can be either descriptive or analytical. The descriptive survey takes a sample from a population to describe the current condition of a larger population. This is useful for political poll surveys (Wimmer & Dominick, 2000) or public servant polls (Dowler, 2002), to name just two. However, for the current study it was not sufficient to just examine current attitudes derived from long-term exposure to media effects.

The selected methodology, therefore, was an analytical survey. An analytical survey is used to examine “why certain situations exist” (Wimmer & Dominick, 2000, p. 161), and allows researchers to examine relationships and/or interactions between variables. The analytical survey is highly useful because as few as two variables can be measured through a questionnaire format to test proposed hypotheses (Wimmer & Dominick, 2000). For this study, the analytical survey helped the researcher to examine if and/or how frightening or disturbing media viewed as a child or teen had a current effect on an individual’s behavior or attitude toward similar content.

Johnson (1980) showed the efficacy of the analytical survey in a study of stress reactions to frightening films viewed in the past. Participants were simply asked if they had been frightened or disturbed by any aspect of a film they had seen, and, if so, if they had been frightened or disturbed badly enough to avoid the genre for any length of time. Johnson did not study long-lasting traumatic effect, but his study was a valid use of the analytical survey. Riddle et al. (2011) and Sparks (1986) also developed analytical questionnaires to study lifetime media exposure and fear effects, respectively. These studies present a sound basis for using an analytical survey to study older adults' memories of fright reactions to content viewed as children or young adults and later behaviors and attitudes.

### **Survey Sample**

Probability sampling and nonprobability sampling are tools used for gathering data in an analytical study. They are virtually opposite to one another in regard to strengths and weaknesses. Simply put, the strengths of probability sampling are generally the weaknesses of nonprobability sampling and vice versa. Probability sampling, for example, is best used for long-term, in-depth research that can gather data representative of an entire population (Babbie, 2010). Representative sampling is used to gather data over an extended period of time from the target population, and every member of the population has an equal chance to be chosen to participate in the survey. A major weakness of probability sampling is a potentially high cost. Researchers must determine if the amount and detail of the potential data would outweigh the cost of using this type of sampling.

On the other hand, a representative sample would be a weakness in nonprobability sampling. Nonprobability sampling is more effective when there is limited access to the sample population or the full parameters of the population are unknown. Babbie (2010, p. 192)

suggested that nonprobability sampling is a good choice when there is no list of the target population, as with the current study. Nonprobability sampling is better used when there is limited time and financial resources, and is not designed to be all-inclusive in the selection process within the sample population (Daniel, 2011). As a result, the research may lose some generalizability. However, because the nonprobability sample is exploratory in nature, it can help to identify elements within the target population that may need closer examination.

The choice between using a probability or nonprobability sample should be made prior to designing the research survey. The goal of the study should dictate the choice. In this case, it was decided that it would not be feasible to provide the entire target population in the surrounding area an equal opportunity to participate in the survey. Therefore, a nonprobability sample was considered best for the current study. Nonprobability sampling would generally be considered more ideal for qualitative research (Babbie, 2010; Daniel, 2011). However, the researcher determined that the strengths of nonprobability sampling outweighed the weaknesses for the current quantitative research.

The strengths of nonprobability sampling include “small sample size,” “easy operational procedures,” providing an “illustrative sample,” and reaching “specific elements in the population” (Daniel, 2011, p. 69). Weaknesses include making “statistical inferences from the sample,” “minimizing selection bias,” and gathering data from a “heterogeneous population” (p. 67). These strengths and weaknesses would be reversed for a probability sample. It was considered that the survey design would mitigate any potential inherent weaknesses of a nonprobability design survey.

Nonprobability sampling has four types of designs, including availability sampling, purposive sampling, quota sampling, and snowball (respondent-assisted) sampling (Babbie,

2010; Daniel, 2011). Availability sampling offered the best opportunity for gathering the sought after data for the current study. However, availability sampling has a further subset of design types, including “convenience sampling, haphazard sampling, accidental sampling, chunk sampling, etc.,” (Daniel, 2011, p. 83). Convenience sampling describes the available population, and was selected as the best means of reaching the target population.

The target population for this study was, specifically, older adults aged 65 and over. This age bracket falls in line with research conducted by the National Institute on Aging. The updated 2007 NIA online publication, *Growing Older in America: The Health and Retirement Study*, differentiated between age groupings of 55-64, 65-74, 75-84, and 85+. The study also cited subcategory ages of 55-59, 60-64, 65-69, 70-74, 75-79, 80-84, and 85+.

The researcher was confident that the selected age bracket would offer the greatest possibility of useful data. Responses from individuals outside of this age range and/or without full cognitive function were excluded from statistical calculations. It was acceptable for physically disabled respondents to have their answers recorded by another person.

Geographic location was not a bar to participating in an online survey. To ensure a high response rate, however, volunteers were recruited within a more localized area using personal contacts of the researcher and his supervising committee. Family members and friends who met the age requirements of the study were invited to participate. It was expected that there would be a limited snowball effect, as each person who participated would be asked to pass the invitation on to others. Residents of the University of Alabama’s Capstone Village were invited via email to participate, as well as participants in the Osher Lifelong Learning Institute on the UA campus. Participants were also enlisted through the social network Facebook. Going through social

networks and email contacts of individuals aged 65 and over should reasonably have been expected to ensure participants with high cognizance.

The current study, in accordance with non-probability sampling, was exploratory in nature. The goal of the study was to examine the relationship between memories of exposure to frightening media content as a child or young adult, lifetime exposure to media content, and existing fear or anxiety and other variables in older adults. The survey was administered online using the survey tool Qualtrics, which has previously been shown to be effective in conducting quantitative media effects research (Esralew & Young, 2012). The sample population consisted of adults aged 65 and over with full cognitive function. Aside from the age factor, demographics for the survey also included gender, race, education, and socioeconomic status.

A minimum of 900 individuals were invited to participate in the survey. In this way, the researcher was reasonably hopeful of obtaining at least 150 responses. This was the considered minimum number of participants necessary to achieve generalizable statistics for the target population. This number was arrived at by using the danielsoper.com statistical calculator for multiple regressions. For the calculation, anticipated effect size was set at .1, statistical power level was set at .8, number of predictors is 7, and probability was .05.

### **Independent Variables**

The results of this study were entirely dependent on the memories of the participants. Therefore, the independent variables for the study are one-time exposure to a frightening movie or program and long-term media exposure (a vivid memory of a triggering event, or VTEM, and lifetime television exposure, or LTE). The measures for the VTEM and LTE were adapted from three existing scales. The Scary Movies Questionnaire (SMQ, Hoekstra et al., 1999) and a few items from the Memory Characteristics Questionnaire (Johnson et al., 1988) were used to

measure VTEM, and a modified Lifetime Television Exposure scale (Riddle, 2010) were used to measure life time television exposure. All scales used in this study are included in their final form and in the original form in the appendices.

*Perceived Vivid Memory of Trigger Event (VTEM)*

*Scary Movies Questionnaire (SMQ, Hoekstra et al., 1999)*

The first step to creating a measure of VTEM was to have participants recall a scary movie or program they watched as a teen or child and the effects they remember experiencing in relation to that viewing. To do so, this study used a modified version of the Scary Movies Questionnaire (Hoekstra et al., 1999). This measured participants' memories of their immediate reaction to and their perception of long-term effects of early exposure to one frightening movie or program. Only slight modifications were made to the original SMQ for this study. These included changing the response format on a few items and dropping questions not relevant to the current study (See Appendix A).

The formulation of Hoekstra et al.'s (1999) questionnaire began with the research team asking whether long-term memories of being frightened by a movie as a child or teen affected future film preferences. Hoekstra et al. also looked for any relationship between long-term fear memories and empathy.

Study 1 of Hoekstra et al.'s (1999) research included 202 college students, mean age 19, who completed the Scary Movies Questionnaire as part of a larger questionnaire measuring multiple constructs of interest. In the SMQ section, participants were asked to name a scary movie that frightened them the most as a child or teen. The first study included several open-ended questions about the conditions under which they viewed a singular frightening movie,

their behaviors while watching it and resulting effects they remembered experiencing after viewing it. There was no time limit for completion.

Study 2 (1999) recruited 136 students from the same population as study 1. Participants completed a revised Scary Movies Questionnaire based on information gained from the questionnaire in study 1. This revised questionnaire (1999) was expanded to cover more items, such as co-viewers, who chose the film, specific behaviors while viewing the film, and specific fear effects experienced after the film (p. 124). Most items that were added were closed-ended measures based on the responses from the open-ended questions in study 1. The current study questionnaire was influenced by Hoekstra et al.'s (1999) revised questionnaire.

The modified SMQ (Appendix A) is used almost in its original version (see Appendix B) for the current study, with a few modifications. The modified version retains six questions about the original viewing experience used by Hoekstra et al. (name of program, brief description of program, age of viewer, viewing location, who chose to watch the program, and co-viewers present).

Hoekstra found through factor analyses that most of the items measuring effects during and after the viewing experience loaded into two factors, and therefore she averaged 12-items to create a single measure of fear response, and three items about watching the whole movie. The items produced reliable scales (Cronbach alpha .65 for fright and .87 for the “watched the whole movie” construct). She also looked at the responses individually, finding that a sense of general fear was the most frequently reported (28%) effect of watching a scary movie. Nightmares were reported by 20% of participants.

The final two questions used in this section were taken directly from the original questionnaire and ask if the participants had seen the movie or program again, and if they subsequently watched similar movies or programs.

This section of the current study questionnaire therefore had 13 items. The first item asked the participant to agree or disagree to participate. If the participant did not agree to participate, the survey ended at that point. If the participant agreed to participate, they were taken to the next item, which asked their current age (under 65, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, over 85). If the participant was under 65, the survey ended at that point. If the participant was 65 or over, they were taken to the next item.

Item three asked if the participant had ever been frightened by one particular TV program, movie, or radio program when they were a child or teen (18 or under). If the participant answered “No” to the question, they were taken to the next section of the survey. If the participant answered “Yes” to the question, items four asked if they remembered the name of the program and, if so, to provide the name. Item five asked for a brief description of the program. Item six asked if it was a TV program, radio program, or full-length movie.

Items seven through 10 asked “About how old were you when you saw or heard the TV program, movie, or radio program? (4 or under, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19 or older),” “Where did you watch or listen to this TV program, movie, or radio program (at your home, at a friend’s house, in a theater, at a drive-in, other),” “Whose choice was it to watch or listen to this TV program, movie, or radio program? (yours, a date(s), a friend(s), a sibling(s), a parent(s), a group decision),” “Who watched or listened to this TV program, movie, or radio program with you? (watched alone, a date, a friend, sibling(s), parent(s), group of friends).”

Question 11 included seven items taken directly from Hoekstra et al.'s (1999) revised SMQ. They had asked participants to recall seven specific effects they remember having occurred after viewing the movie or program for the first time. These included a general sense of fear, a specific fear (such as fear of sleeping alone), sleeping with the lights on, recurring nightmares, insomnia, and wild imagination. All of these were used in the current survey, but the response format was changed from a yes/no (they recall experiencing the effect or they didn't experience it) to a Likert-type response of 1-7, where 1= Strongly Disagree and 7= Strongly Agree.

Item number 12 asked, "Did you ever see or hear this TV program, movie, or radio program?" (Choices of answers were: Yes, several times; Yes, once; No). Item number 13 asked, "After watching or listening to this TV program, movie, or radio program, did you often watch or listen to similar TV programs, movies, or radio programs?" (Choices of answers were: Yes, No).

*Memory Characteristics Questionnaire (MCQ, Johnson et al., 1988)*

To examine vividness of the memory of the first exposure to a frightening movie or program, the VTEM questionnaire included five items (numbers 14-18 in Appendix A) adapted from Johnson et al.'s (1988) Memory Characteristics Questionnaire for autobiographical events, real and imagined. It is important to note that the data from Johnson et al.'s (1988) study has been taken somewhat out of context in that it was developed to compare imagined memories and real events. But this study was interested in memories, whether real or imagined. Therefore the adaption is appropriate.

The MCQ is an uncomplicated scale designed to measure two variables: "the origin of the memory (perceived vs. imagined)" and "the age of the memory (recent vs. childhood)" (p. 372).

Imagined memories were not a factor in the current study, but the measure is nevertheless valid. The original MCQ (see Appendix B) is a 39-item questionnaire using a semantic differential scale to measure responses. Participants could choose 1-7 for answers to questions about their memories for the event. Examples of answers include “1= dim; 7= sharp/clear” and “1= vague; 7= clear/distinct” (Johnson et al., 1988, p. 376).

The questionnaire for this study used five items adapted from the MCQ (see items 14-18 in Appendix A). These questions asked the participants to estimate the strength of their memory of the triggering event (viewing the specific scary program or movie). The five items were intended to measure the vividness of the memory, emotional state at the time of the event, current emotion of remembering the event, memory of events after the trigger event, and perceived accuracy of the memory. The questionnaire used the original semantic differential response format of 1 to 7. It was necessary to adapt Johnson et al.'s (1988) MCQ to five items to guard against fatigue of a lengthy questionnaire and threats to internal validity, including the length of the survey and respondent fatigue or mortality.

The Scary Movies Questionnaire (Hoekstra et al., 1999) and the Memory Characteristics Questionnaire (Johnson et al., 1988) were used together to create a score of VTEM, one of the two independent variables used in this study. A multiplier was used on these two constructs. Based on factor and reliability analyses, a single score was created from the 12 immediate and long-term behavioral effects from the SMQ, which in theory ranged from 1 to five. Next, a single score was created by averaging the five items in the MCQ. These were multiplied so that the theoretical range of scores was from 1 to 25 for the participants in the study. Higher scores related to a more vivid memory and more intense effects.

### *Perceived Lifetime Television Exposure (LTE)*

The current study used a modified version (See Appendix A) of Riddle's (2010) Lifetime Television Exposure (LTE) scale (See original scale in Appendix B) to research media-related fear effects. The LTE scale was developed to benefit Cultivation Theory and "the study of long-term media effects in general" (p. 241). The LTE scale is based in part on the Self-Memory System (SMS, Conway & Pleydell-Pearce, 2000) concept of three levels of memory; "event-specific knowledge" (specific events), "general event knowledge" (exposure to regular repetition), and "lifetime periods" (occurrences throughout one's lifetime) (p. 242-243).

Riddle (2010) tested the LTE in a study of college students' memory of television use through elementary school and high school, as well as current use. She developed a total of 10 questions relating to viewing habits at various times during the day and various days of the week. The questionnaire included questions like, "how often do/did you watch television when you first wake/woke up in the morning?", "how often do/did you watch television late at night, before going to bed?", and "how often do/did you watch television on Saturday nights?"

The same 10 questions were asked for each of the three life periods that Riddle (2010) was examining, for a total of 30 answers. To generate a Lifetime Television Exposure item, Riddle weighted responses from the three time periods (childhood, teen years, current). Riddle did not report reliability for this measure. The original response format was a 1 to 7 scale where 1 = Never and 7 = Almost Always. The current study kept the original 1-7 response format.

The LTE was adapted for the current study by reversing the order of the main sections and rewording parts of the original questions. For example, the original scale was in reverse chronological order. This study ordered the sections in chronological order. The young adult

section was changed to ask participants in this study about television use in young adulthood or middle-age.

Three of the 10 original scale items were used in the Childhood/teen and Adult sections for the adapted scale. These items asked participants to remember how much television they watched during weekdays, on Saturdays, and on Sundays. The discarded seven items asked participants to remember how much television they watched at specific times during the day. These items were considered to be too specific to be remembered 60 or more years later.

Three additional items designed by the researcher were added to the scale. These items measure the participant's self-perception of television use. One of the items was added only to the Childhood/teen and Adult sections of the scale. The item, "Your family TV was turned on..." is measured on a 1-7 response format, where 1 = Never and 7 = Almost Always. The remaining two items were added to all three sections. The first of these is, "Compared to others around me, I watched TV a lot." The second is, "I watched a lot of scary movies or programs," which measured the participant's self-perception of their exposure to frightening content during each of the three life periods. Both items were measured on a 1-7 response format, where 1 = Strongly Disagree and 7= Strongly Agree.

The Childhood/teen and Adult sections of the adapted scale each therefore had six items (see items 19-24 and 25-30 in Appendix A). The first four items, "How often did you watch TV on weekdays?" "How often did you watch TV on Saturday?" "How often did you watch TV on Sunday?" and "Your family TV was turned on," measured on a scale of 1-7 response format, where 1 = Never and 7 = Almost Always. The remaining two items, "Compared to others around you, you watched TV a lot," and "You watched a lot of scary programs or movies" measured on a 1-7 response format, where 1 = Strongly Disagree and 7= Strongly Agree.

The “current” section is virtually the same as Riddle’s because participants could be more nearly specific. Eight out of 10 items from the “current” section of the original LTE scale were kept in the adapted scale. The questions asking if participants watched television during lunch and dinner were discarded as irrelevant. Items 31-38 (see Appendix A) asked participants how much they currently watch television in the morning, in the afternoon, early at night, late at night, during the day on Saturday, Saturday night, during the day on Sunday, and on Sunday night. These items were measured on a 1-7 response format, where 1 = Never and 7 = Almost Always. Also in the current viewing section, item 9, “Compared to others around me, I currently watch TV a lot,” and item 10, “I currently watch a lot of scary movies or programs,” measured participants responses on a 1-7 response format, where 1 = Strongly Disagree and 7 = Strongly Agree.

After factor and reliability analyses, these measures of TV exposure at different periods of life were combined into one score in a weighted proportion a la Riddle. Further, the items about exposure to scary movies and programs at different lifetime periods were averaged into another single score. Current overall viewing *and* viewing of scary programs also were analyzed as an individual measure and used as an independent variable in relation to the dependent variable of avoidance (see dependent variables below).

### **Dependent Variables**

Three dependent variables helped determine the level to which participants were affected by initial exposure to frightening or disturbing television, movie, or radio content. These variables were Mean/Scary World Syndrome, Avoidance, and Enjoyment. The M/S W was measured with the Mean World Scale (Nabi & Sullivan, 2001). Avoidance was measured by a 5-item scale created by the researcher, based loosely items in the Impact of Event Scale (IES,

Horwitz, Wilner, & Alvarez, 1979). Enjoyment of frightening content was measured using the Enjoyment of Frightening Film scale (EFF, Sparks, 1986).

### *Mean/Scary World Syndrome*

Prolonged exposure to disturbing media content has been shown to affect individual perceptions of social reality (Gerbner & Gross, 1976). Perceived social reality in itself was not an aspect of the current study. However, the study did examine if the media conditions and elements that contribute to the Mean/Scary World viewpoint also contributed to fear or avoidance of specific content.

The current study used a shortened version of Nabi and Sullivan's (2001) Mean World Scale to measure current individual perception of the results of lifetime media exposure (See Appendix A for shortened version - See Appendix B for original version). Nabi and Sullivan developed the scale from existing research, and it includes sections testing beliefs, attitude, intention, and behavior (p. 812). The *beliefs* section of their scale included 20 questions about perceptions of crime in general and localized crime. Reliability for the *beliefs* section was shown by a Cronbach's alpha of .88 (Nabi & Sullivan, 2001). The *attitude* section of the scale contained only three questions related to the "social environment." Reliability was  $\alpha = .67$ . The *intentions* section of their scale included six items related to perceived personal protection. Reliability was  $\alpha = .67$ .

The section of Nabi and Sullivan's (2001) Mean World scale that relates most directly to this study is the *Protection Behaviors Items*. This section includes 14 items to measure protective behavior. This section was measured differently than prior sections. Questions were asked in a "how often" format and included questions such as, "How often do you lock your door while driving," and "How often do you carry a means of self-protection?" The answers were measured

in a response scale of 1= never, 2= rarely, 3= sometimes, 4= often, and 5= always. Reliability for these items was  $\alpha = .77$ .

The current study used a variation of Nabi and Sullivan's (2001) Mean World Scale to determine if exposure to frightening or disturbing content as a child or adolescent is related to self-report of current behaviors. Only one question, "How often do you use the University escort walk/shuttle service," was discarded as irrelevant to the current study. Therefore 13 items were used that asked participants, "In general, how often do you do any of the following: "Lock your door while you are *not* home", "Lock your door while you *are* home", "Leave a light on in your home when you are away", "Leave your windows open at night", "Lock your car door when *not* driving", "Lock your car door while driving", "Walk alone on a (city) street at night", "Walk to your car alone at night", "Stay alert as you walk through parking garages or lots", "Notice and avoid a suspicious looking person", "Carry a means of self-protection", "Open your front door without knowing who is there", "Worry about being the victim of a crime." The response format was changed to a 1-7 format, where 1= Never and 7=Almost Always (See Appendix A).

### *Avoidance*

Horowitz, Wilner, and Alvarez (1979) understood that stress could be intensified by the subjective effect of specific experiences. Unsatisfied with then-existing measures, they devised the Impact of Event Scale to measure the stress of individual real-life experiences and the current existing effects. When they tested the scale, they found that effects of "a single, very intense, intrusive image" were nearly the same as multiple, less intense experiences (p. 210).

Unfortunately, the scale devised by Horowitz et al. (1979) was developed specifically for measuring stress reactions to real-life experiences, which presented a problem to its inclusion in

the current study. It was not easily adaptable to media-effects research. Horowitz et al.'s study did, however, provide valid information on the nature of avoidance.

The current study used a five-item questionnaire developed by the researcher based loosely on the results of the Horowitz et al. study (See Appendix A for the created scale). Items included in the Current Avoidance questionnaire are, "I avoid going to frightening or graphic movies in the theater," "If a scary movie or program comes on television, I change the channel," "I use the cable guide to make sure I do not click into a frightening program," "I try not to remember frightening programs I have seen," and "I try not to discuss scary movies with my friends or family" (see items 54-58 in Appendix A). The response format used by Horowitz et al. was to check the one that applied, with the choices being, "Not at all," "Rarely," "Sometimes," and "Often." The current avoidance questionnaire used a 1-7 response format, where 1 = Strongly Disagree and 7 = Strongly Agree (see Appendix A).

### *Enjoyment*

Enjoyment of frightening content has been an important aspect of fear-effects research. Sparks (1986) considered it necessary to point out that not all exposure to frightening content resulted in either short term or lasting fear effects. To this end he created the Enjoyment of Frightening Film scale, and several steps were needed to obtain the final product (See original scale in Appendix B). This study used a modified version of the EFF scale (See Appendix A).

Sparks developed the EFF by first recruiting 45 college students to complete a questionnaire about their past exposure to frightening content, and whether they had enjoyed or disliked the films. He did not define the terms "frightening," "scary," or "horrific" for the preliminary or follow-up study (p. 67). The assumption was that participants would understand the terms, but that, if not, the questionnaire could be amended to include definitions.

Sparks (1986) originally devised a 50-item scale with a 1-5 disagree strongly/agree strongly format. The scale was reduced to 20 items for a second study. It was then further reduced to 10 items for the end product, and kept the original 1-5 Disagree strongly/Agree strongly format.

Reliability on the 10 items was achieved with a Cronbach's alpha of .87 for men and .92 for women. Validity was first supported by correlating EFF scores with the number respondent-reported exposures to 35 pre-listed frightening films (females:  $r = .40, p < .001$ ; males:  $r = .34, p < .001$ ) (p. 69). Concurrent validity was supported by correlating the EFF scale and the sum of enjoyment of four specific films (females:  $r = .64, p < .001$ ; males:  $r = .44, p < .001$ ). Test-retest reliability was achieved in study 2 by administering the EFF to 49 study 1 participants after an unspecified amount of time. The results were deemed satisfactory at .87.

The 10 items in the EFF Scale were arranged in a reverse coding format (See Appendix B). Sparks' (1986) then summed up the responses to calculate a score for the scale (p. 69). Five of the items refer to positive effects of watching frightening content. These include items such as, "I feel exhilarated inside my body when I watch a scary film," and "The faster my heart beats when I see a scary movie, the more I enjoy the film." Five of the items refer to the negative effects of watching frightening content. These include items such as frightening films have too much graphic violence, and don't enjoy being frightened by a scary film.

The current study used nine items of Sparks' (1986) EFF Scale in full to examine if these results could be replicated in a subject pool of adults aged 65 and over. The five reverse-order items were recoded to reduce confusion and maintain consistency. These were: "Frightening films contain endings that are too shocking for me to really enjoy," "The frightening films I have seen have almost always contained too much graphic violence to make them really enjoyable," "I

feel exhilarated inside my body when I watch a scary film,” “I don't enjoy the feeling of being frightened when I watch a scary film” (See Appendix B). The fifth item, “Frightening films have so much blood that you can't enjoy yourself,” was slightly changed to, “Frightening films can be too bloody to watch” (See Appendix A). Sparks used a 1-5 response format in the original scale. The current study modified the original scale to use a 1-7 response format, where 1 = “Strongly Disagree” and 7 = “Strongly Agree” (See items 59-68 in Appendix A).

#### *Covariates or Moderating Variables*

The personal victimization section asked the participant about personal experience with crime. This section was adapted from question number 41.a on the 2012 U.S. Bureau of Justice Statistics National Crime Victimization Survey (Dept. of Justice, 2012). Question 41.a in the BJS victimization survey asks: Has anyone attacked or threatened you in any of these ways - (Exclude telephone threats) - (a) With any weapon, for instance, a gun or knife, (b) With anything like a baseball bat, frying pan, scissors, or stick, (c) By something thrown, such as a rock or bottle, (d) Include any grabbing, punching, or choking, (e) Any rape, attempted rape or other type of sexual attack, (f) Any face to face threats (See original scale in Appendix B).

The personal victimization section explored the Mean World theory that heavy viewers who have real-life experience with crime may believe that crime is more prevalent than it actually is. This phenomenon is known as resonance (Gerbner, 1976). The section was adapted to better fit the demographic scale for the current study in the following way. Item 69 asked participants if they or a loved one had ever been attacked or threatened by someone with a weapon. Item 70 asked participants if they or a loved one had ever been attacked or threatened by someone without a weapon. Item 71 asked participants if they or a loved one had ever been the victim of a non-violent crime No examples were offered, but this could have been any type of

non-violent crime, such as a home break-in, stolen car, stolen checks/credit card, etc. The provided responses for each of these questions were be “me,” “a loved one,” and “no.”

Participants could select one or both of “me” or “a loved one” (See Appendix A).

Demographics, as explained in the literature review, are a necessary aspect of research in the social sciences. For the current study of lifetime fear effects experienced by adults aged 65 and over, these demographics included more than age and gender. Participants were asked to indicate their ethnicity based on choices taken from the 2010 U.S. Census questionnaire. The choices were White, African American, Hispanic, American Indian or Alaskan Native, and Asian (census.gov, 2010). The study questionnaire adapted these choices to Hispanic, White, African American, Native American or Alaskan Native, and Asian. Participants could select one or more as the choices relate to them. They were also asked their gender (See items 72-73 in Appendix A).

Level of education (item 74) was measured on an 8-item scale of no high school, some high school, GED, high school graduate, some college, bachelor degree, some graduate school, and graduate degree. The survey questionnaire also asked participants to report their perceived socio-economic status for the three life-stages under study, which included child/teen, young adult to middle age, and current age (See items 75-77 in Appendix A).

### **Data Analysis Plan**

The online survey tool Qualtrics was used to gather the data. The data was then transferred to a Microsoft *Excel* sheet to clean data by removing incomplete responses and some items not needed for this study. The remaining data was then transferred to the statistics tool SPSS for final analysis. This data was used to determine whether the hypotheses were accepted or rejected, and to determine the answers to the research questions.

First, items that were intended to be part of scales were analyzed for reliability. When bad items were dropped, scales were finalized and tested for reliability and scores for each construct were computed with averages of the items in a scale. After scale analyses, the hypotheses and research questions were tested as follows:

RQ1: Is there a relationship between VTEM and the amount of LTE among older adults?

ANALYSIS for RQ1: Research Question 1 was analyzed by a correlation with the two scores (See Table 3 in Chapter IV).

RQ2: Is the interaction of LTE and VTEM related to Mean World perception in older adults?

RQ3: Is the interaction of LTE and VTEM in older adults related to avoidance of frightening or disturbing media content?

RQ4: How is the interaction of LTE and VTEM related to enjoyment of frightening or disturbing media content?

ANALYSIS for RQ2-RQ4: Research Questions 2-4 were analyzed with a Multiple Analysis of Covariance with LTE and VTEM as independent variables, ethnicity and gender as covariates and Mean World, Avoidance (and its behavioral corollary, Watch Scary Movies), and Enjoyment as dependent variables (See Table 5 in Chapter IV).

RQ5: Will demographics have a moderating effect in the relationship between the two independent variables (VTEM, LTE) and the three dependent variables (mean world perception, and enjoyment or avoidance of frightening or disturbing media content)?

ANALYSIS for RQ5: Research Question 5 was analyzed with hierarchical blocked regressions that included demographics, personal experience with crime, the independent variables VTEM and LTE, and the dependent variables Mean World, Avoidance, and Enjoyment (See Table 6 in Chapter IV).

H1: Higher LTE will be related to higher perception of a Mean World in older adults.

H2: Higher LTE in older adults will be related to lower avoidance of frightening or disturbing media content.

H3: Higher VTEM in older adults will be related to higher avoidance of frightening or disturbing media content.

H4: Higher LTE will relate to older adults higher enjoyment of frightening or disturbing media content.

H5: Higher VTEM will relate to older adults lower enjoyment of frightening or disturbing media content.

Analysis: Hypotheses 1-5 were analyzed with bivariate correlations between the scores created after performing the scale analyses (See Table 3 in Chapter IV).

## CHAPTER IV

### RESULTS

#### **Demographic Statistics**

More than 900 people were invited through e-mail to participate in the online survey. The survey link also was posted on social media pages, but it is unknown how many potential respondents viewed these invitations. In total, 119 responses came from the digital invitations to participate. In addition, nine hardcopy surveys were completed by individuals who wanted to participate, but not online. This brought the number of responses to 128. Twenty-four of these were discarded because they were not 65 or older or they had answered fewer than 15 questions beyond their age and whether they had been frightened by a TV program, radio program, or movie. The minimum number was set at 15 beyond the first two questions because it represented about 20% of the survey questions.

Eliminating those who did not complete at least 20% of the survey brought the number of viable responses to 104. Out of these, 33 respondents reported they had not been frightened by a TV program, radio program, or movie. Those respondents were directed to complete items 19-71. These responses were used for research questions about lifetime television use and reactions to frightening content in general (Avoidance and Enjoyment) and overall world view (Mean World Syndrome). These individuals also were included in the demographics of the respondents. The actual number of surveys with all questions answered was 71. The actual number of respondents varies based on the data used for each analysis, and that number is indicated in describing each results.

The age parameters were 65 to 85. The mean age of participants was 72.19 (median = 71, SD= 6.03). The majority of respondents (74.0%) were between the ages 65 and 75. Ages 66 and 72 were the most represented, each having 12 (11.5% of the total sample) respondents, for a combined representation of 23%. The next most represented age was 85, with 9 (8.7%) respondents. It should be noted that the top age choice was 85 and higher, meaning that some of the 9 respondents in that age group could have been more than 85 years old. Although the researcher initially planned to eliminate those older than 84, these 9 respondents were cognitively functional enough to complete an online survey. A review of their responses did not raise any alarms about the validity of the answers. Therefore, these nine cases were retained. Respondents younger than 65 were directed to the end of the survey after an initial age screener question, so no one in the final sample reported being younger than 65.

Out of 104 valid responses, 89 respondents indicated gender. Female respondents (n = 57; 64.0%) outnumbered male respondents (n = 32; 36.0%). Ninety-two respondents provided their race. The majority of respondents (n = 89; 96.7%) said they were white. Two (2.2%) said they were African-American and 1 (1.1%) reported being Hispanic/Latino. Three of the respondents who identified as white also indicated a second ethnicity. Two (1.9%) indicated being white and Native American, and one (1.0%) indicated being white and Hispanic/Latino.

Ninety-three participants responded to the education question. Of these, 48 (51.6%) indicated a graduate degree, indicating a highly educated sample. No one reported no high school or only attending high school, 1 (1.1%) indicated a GED, 6 (6.5%) were high school graduates, 19 (20.5%) had some college, 15 (16.1%) had a bachelor's degree, and four (4.3%) had some graduate school.

As Table 1 shows, participant responses for estimated income for each of the three life periods (Youth, Middle Age, and Current) showed increased from the young to middle-aged adult to the current life periods. Each was scored on a 1-5 item scale, with 1 being the lowest reported income and 5 being the highest income. The youth income scored a mean of 2.32 (SD = 1.07), the middle age income measure scored a mean of 3.42 (SD = .86), and the current measure scored a mean of 3.58 (SD = 1.03).

Table 1  
*Participant Estimated Income Levels Throughout Lifetime*

Income	Youth		Middle Age		Current	
	n	%	n	%	n	%
Lower	28	30.4	1	1.1	5	5.4
Lower Middle	20	21.7	8	8.7	6	6.5
Middle	32	34.8	45	48.9	28	30.4
Upper Middle	11	12.0	27	29.3	37	40.2
Upper	1	1.1	11	12.0	16	17.4

n = 92    %. = Valid Percent

### Scale analyses

Before scores could be calculated for constructs acting as independent variables (VTEM and LTE) and dependent variables (Mean World, Avoidance, Enjoyment) in the analyses below, reliability analyses were run on scales (See Table 2 below). If reliability was low, exploratory factor analyses also were used to understand how items separated into distinct constructs.

Table 2  
*Descriptive Statistics Scores*

Scale Analysis					
	N	Min	Max	Mean	SD
VTEM	69	1.75	44.36	19.13	10.13
Scary Movie Effects	70	1.00	7.00	3.94	1.61
Memory	70	1.75	7.00	4.74	1.29
LTE	95	1.67	5.94	3.51	0.91
Youth TV	95	1.00	6.25	3.17	1.28
Mid TV	93	1.00	7.00	3.72	1.03
Current TV	94	1.33	6.88	3.60	1.10
Mean World	94	2.25	6.67	5.03	0.94
Avoidance	94	1.00	7.00	4.30	1.60
Enjoyment	93	1.00	4.50	2.47	1.08
Watch Scary Movies	95	1.00	6.00	2.10	1.20

“Watch Scary Movies” spans three life periods

### **Independent Variables**

#### *Vivid Triggering Event Memory (VTEM)*

Two scales were used to measure VTEM. First, anxiety caused by exposure to a frightening movie, TV program, or radio program as a youth was measured through Hoekstra’s Scary Movies Questionnaire, with seven items that measured reactions respondents recalled experiencing after viewing a frightening movie or TV program, or hearing a frightening radio program. This is termed the “Scary Movie Effects” scale. Second, the vividness of the memory was measured through Johnson et al.’s Memory Characteristics Questionnaire, which is termed the “Memory” scale (See Table 2).

#### *Scary Movie Effects scale*

The seven anxiety items produced a highly reliable scale (Cronbach’s alpha = .90). All seven items were averaged to create a single anxiety measure. Theoretical and actual scores ranged from 1 to 7, with 7 indicating the highest anxiety. Seventy participants answered the items, and the average scary movie effects score for the sample was 3.93 (SD = 1.61).

### *Memory scale*

The memory scale originally had five items total. One of these items (about the intensity of the feelings associated with the memory) decreased reliability and was dropped from the scale. The remaining four items produced a reasonably reliable scale (Cronbach's alpha = .76). The researcher determined that dropping more items would not be helpful. Theoretical scores for the scale ranged from 1 to 7, with 7 indicating the most vivid memory. The actual score ranged from 1.75 to 7. Seventy respondents answered the memory items. The average memory score for the sample was 4.73 (SD = 1.28).

To create the VTEM score, the researcher took the intensity of the experience (as measured by the scary movie effects score) multiplied by the strength of the memory about that event (as indicated by the memory score), which produced theoretical a score that ranged from 1 to 49. The actual scores for VTEM ranged from 1.75 to 44.36 with a mean of 19.13 (SD = 10.13) (See Table 2).

### **Lifetime Exposure to Television (LTE)**

The LTE measured television exposure during three different life periods; youth, middle-age, and current. The scale for the youth and middle-age time periods each included the same four items. The scale for the current life period included eight items. Theoretical scores for all three scales ranged from 1-7, with 7 indicating the highest amount of viewing (See Table 2).

The youth TV scale was highly reliable (Cronbach's alpha = .89). Ninety-five respondents answered all four questions, and the responses were averaged to create a single score for each individual. The actual scores for the youth period were 1 to 6.5, with a mean of 3.17 (SD = 1.28).

The middle-age scale was also reliable (Cronbach's alpha = .85). Ninety-three respondents answered all four questions, and the responses were averaged to create a single score for each individual. The actual scores for the middle age period were 1 to 7, with a mean of 3.71 (SD = 1.02).

The current TV scale was reliable at Cronbach's alpha = .84. Ninety-four respondents answered all eight questions, and the responses were averaged to create a single score for each individual. The actual scores for the current life period were 1.33 to 6.88, with a mean of 3.60 (SD = 1.10).

All 16 items from these scales were then averaged to create a single LTE score for each respondent. Theoretical scores ranged from 1-7, with 7 indicating the participant watched TV a lot. That scale was highly reliable (Cronbach's alpha = .87), with a mean of 3.51 (SD = .91) (See Table 2).

### ***Dependent variables***

#### *Mean World scale*

The Mean World section originally had 13 items total. Four of these items interfered with reliability and were dropped from the scale. The discarded items asked respondents if they left windows open at night, walked alone on street at night, walked alone to their car at night, or opened the front door without knowing who was there. The remaining nine items produced a reasonably reliable scale (Cronbach's alpha = .72). The researcher determined that dropping more items would not be helpful. Theoretical scores for the scale ranged from 1 to 7, with 7 indicating the highest mean-world view. The actual scores were 2.25 to 6.67. The average Mean World score for the sample was 5.03 (SD = .94) (See Table 2).

### *Avoidance scale*

The five avoidance items produced a highly reliable scale (Cronbach's alpha = .85). Therefore, all five items were averaged to create a single avoidance measure. Both theoretical and actual scores ranged from 1 to 7, with 7 indicating the highest avoidance. The average avoidance score for the sample was 4.30 (SD = 1.56).

Another way to look at avoidance was how much respondents reported watching scary programs over their lifetime (youth, middle age, and currently). These three items produced a reliable scale (Cronbach's alpha = .83) and therefore they were averaged into one lifetime scary movie viewing score. Theoretical scores ranged from 1 to 7, with 7 indicating the highest amount of watching scary movies during each life period. The actual scores ranged from 1 to 6. The average lifetime scary program viewing score for the sample was 2.10 (SD = 1.20) (See Table 2).

### *Enjoyment scale*

The 10 enjoyment of scary movie items produced a highly reliable scale (Cronbach's alpha = .87). All 10 items were averaged to create a single enjoyment measure. Theoretical scores ranged from 1 to 7, with 7 indicating the highest enjoyment of frightening or disturbing media content. The actual scores ranged from 1 to 4.50. The average enjoyment score for the sample was 2.46 (SD = 1.08) (See Table 2).

Before testing the hypotheses and research questions, the scale scores were examined for overall correlation. Table 3 reports the bivariate correlations for all scores used in the analyses. As expected, scores for several variables in Table 3 were significantly correlated. Notably, scores measuring two distinct constructs used as dependent variables in the analyses below were highly related. Avoidance of scary programs and its behavioral counterpart, watching scary movies, were correlated ( $r = -.468$ ), meaning that as avoidance went up, viewing went down. These two

scores represent the behavioral construct in the research questions and hypotheses below.

Enjoyment of scary movies, an affective construct, also was significantly correlated with the two behavioral measures (-.758 and .596), suggesting that as participants watched more scary movies (and avoided them less), their enjoyment was higher.

Table 3  
*Bivariate Correlations for All Scores*

Correlations	1	2	3	4	5	6
1. LTE	--					
2. VTEM	-.076	--				
3. Mean World	.053	.298*	--			
4. Avoidance	-.230*	.102	.177	--		
5. Enjoyment	.247*	-.069	-.048	-.758**	--	
6. Watch Scary Movies	.362**	.064	.016	-.468**	.596**	--

\*p < 0.05 (2-tailed)

\*\*p < 0.01 (2-tailed)

n = 61 to 95, as respondents had to complete full scales on each construct

More important from our point of view is the R value. Salkind (2008, p. 85) noted that .0-.2 = no relationship, .2-.4 = weak relationship, .4-.6 = moderate relationship, .6-.8 = strong relationship, and that .8 and above = very strong relationship. The correlations between LTE/Avoidance, LTE/Enjoyment, and LTE/Watch Scary Movies each show a weak but significant relationship, as does the correlation between VTEM/Mean World.

### **Tests of the RQs and Hypotheses**

Research Question 1 and Hypotheses 1 to 5 examine the relationships between constructs of interest in this study. All of these were analyzed with bivariate correlations between the scores created after performing the scale analyses above. Correlations are reported in Table 3.

Research Question 1 asked if there was a relationship between VTEM and LTE among older adults. As Table 3 shows, there was no relationship between a vivid triggering event memory and lifetime television viewing ( $r = -.08, p > .05$ ).

Hypothesis 1 stated that higher LTE would be related to higher perception of a Mean World in older adults. Results ( $r = .05, p > .05$ ) did not support the hypothesis (See Table 3). This means that, in the sample, increased exposure to media content throughout their lifetime was not related to a stronger belief that the world is dangerous. Hypothesis 1 was therefore rejected.

Hypothesis 2 stated that higher LTE in older adults would be related to lower avoidance of frightening or disturbing media content. This was examined through two analyses, using the two behavior-related scores. First, LTE and avoidance were significantly and negatively related. However, even though it was significant, it was also weak ( $r = -.23, p < .03$ ). This means that as overall lifetime television viewing increased, avoidance of scary movies showed slight but significant decrease. This also was tested by examining how much respondents reported watching scary movies over the three periods in their lifetime. LTE was significantly and positively related to overall scary movie viewing ( $r = .36, p < .01$ ). Again, this was weak but significant based on the R value. As general viewing increased with this population, so did viewing of scary movies and programs (See Table 3). Therefore, even though both findings were weak, they were significant enough to lend some support to Hypothesis 2, which was tentatively accepted.

To examine this hypothesis another way, general viewing reported at each stage of their lifetime was correlated with reported viewing of scary movies at the three stages examined in the questionnaire. Table 4 shows a relationship between general television viewing and scary

movie viewing at each stage of the respondent’s life. At each stage, as their reported overall television viewing went up, so did their viewing of frightening content. The relationship stayed fairly consistent throughout all periods examined.

Table 4  
*Correlations between General Viewing and Watching Scary Content*

General Viewing	Scary movie viewing (r =)
Youth	.343**
Middle	.262*
Current	.307**

\*p < 0.05 (2-tail)  
 \*\*p < 0.01 (2-tailed)  
 n = 95

Hypothesis 3 stated that older adults with a higher VTEM would have a higher avoidance of frightening or disturbing media content. As Table 3 shows, results did not support this hypothesis (r = .10, p > .05). This shows that individuals with a vivid memory of being frightened by a TV program or a movie did not avoid frightening or disturbing media content at a rate any different than those without a vivid memory. Similarly, the correlation between VTEM and the average watching scary movie score was not significant (r = .06, p > .05) Hypothesis 3 was rejected.

Hypothesis 4 stated that older adults with higher LTE would have a higher enjoyment of frightening or disturbing media content. Results (r = .25, p < .017) showed a weak but significant relationship between the two constructs (See Table 3). As LTE increased, respondents’ enjoyment of frightening or disturbing media content also slightly increased. The correlation was weak, but, again based on the R value, was significant enough that Hypothesis 4 was tentatively accepted.

Hypothesis 5 stated that higher VTEM would be related to lower enjoyment of frightening or disturbing media content. Results (r = -.07, p > .05) did not support the

hypothesis (See Table 3.) Individuals with a vivid memory of being frightened by a TV program or a movie did not differ in their enjoyment of disturbing media content as they grew older from those with a less vivid memory. Hypothesis 5 was therefore rejected.

Before addressing the remaining research questions, LTE and VTEM were each separated into two groups. The LTE was split into a high lifetime viewing and a low lifetime viewing category (See Table 5). The LTE score was split at the midpoint of the distribution of respondents' scores, which was 3.375. When LTE was split, 46 respondents were classified in the high viewing category (above 3.375 on a 1 to 7 point score), and 49 respondents were in the low viewing category. The VTEM score also was split into a high vivid memory category and a low vivid memory category. VTEM score was split at the midpoint of the distribution of respondents' scores, which was 17.25. This was very low for a score that theoretically ranged from 1 to 49. When split, 34 respondents were in the high vivid memory category and 35 respondents were in the low vivid memory category. The split for both LTE and VTEM was somewhat artificial because the majority of scores clustered near the center. Future studies that use this split-score concept may want to consider using the more extreme scores of each level.

Once the theoretical independent variables were split, a general linear model was designed using LTE split into two levels and VTEM split into two levels as the fixed levels. The dependent variables were scores for Mean World, Avoidance (and its behavioral corollary, Watch Scary Movies), and Enjoyment. Finally, to control for gender and ethnicity, these variables were added in as covariates (coded as 1-male or 2-female, 1-white or 2-minority). Because respondents had to have all data points to be included in the analyses, only 59 participants were retained for the overall model.

Research questions 2 through 4 asked if the interaction of LTE and VTEM were related to differences in scores on the dependent variables of Mean World, Avoidance (also Watch Scary Movies), and Enjoyment. Table 5 shows the full model summary used to answer these research questions. Significant models using Multiple Analysis of Covariance (MANCOVA) emerged for LTE ( $F = 2.79, p < .05, \eta^2 = .182$ ) and for the interaction of LTE and VTEM ( $F = 2.69, p < .05, \eta^2 = .177$ ). VTEM was not associated with a significant model.

Table 5  
*Tests of Between Subjects Effects for LTE and VTEM on Four Dependent Variables*

		Between Subjects' Variables				Model summary F ( $\eta^2$ )		
		VTEM 2 levels		LTE 2 levels		LTE 2 levels	VTEM 2 levels	LTE 2 levels x VTEM 2 levels
		Low	High	Low	High			
		M	SD	M	SD			
MW	Total	4.92	1.11	5.28	0.70	3.57 (.063)	3.72 (.066)	5.60* (.096)
	Low	4.48	1.21	5.27	0.70			
	High	5.41	0.77	5.28	0.72			
Avoid	Total	4.78	1.19	3.89	1.55	4.29* (.075)	0.02 (.075)	0.02 (.000)
	Low	4.77	1.04	3.83	1.72			
	High	4.80	1.38	3.93	1.42			
Enjoy	Total	2.01	0.93	2.70	1.07	4.81* (.083)	0.10 (.002)	0.08 (.001)
	Low	2.02	0.92	2.61	0.98			
	High	2.00	0.99	2.78	1.20			
Watch	Total	1.54	0.73	2.64	1.51	8.44** (.137)	3.06 (.055)	2.40 (.043)
	Low	1.51	0.65	2.10	1.19			
	High	1.58	0.84	3.13	1.63			

\* $p < 0.05$ ,

\*\* $p < 0.01$

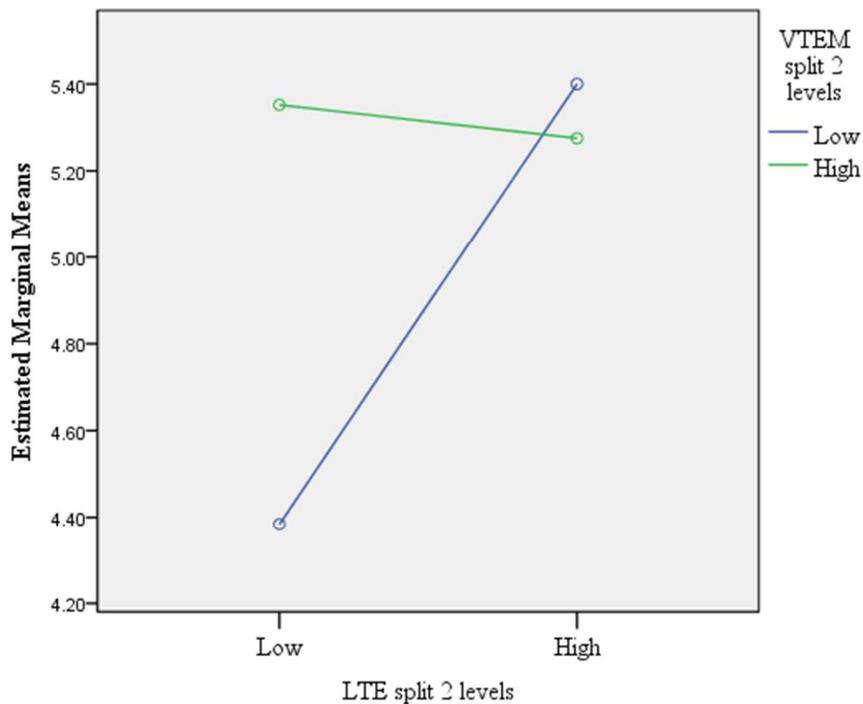
$n = 59$

The significant model for LTE was expected given the results from hypotheses 1, 2 and 4, which examined the relationship of LTE and the dependent variables. Supporting the findings for those hypotheses, the MANCOVA results showed that higher LTE was related to less avoidance of and more viewing of frightening programs over a lifetime, and greater enjoyment of scary movies. Similarly, the lack of significant model produced for VTEM further supports

the findings for Hypothesis 3 and 5. No relationship was found for VTEM in isolation and any of the dependent variables (See Table 5).

Research Question 2 examined the interaction of LTE and VTEM related to Mean World perception. As noted above, a significant interactive model emerged overall. Interestingly, this model was driven solely by variance in the Mean World score ( $F = 5.60, p < .03, \eta^2 = .096$ ). Almost 10% (.096) of the variance in effects sizes was explained by the interaction of the scores. Table 5 also shows that neither LTE nor VTEM independently were related to variation in perceptions of Mean World. However, an interactive effect emerged. As the means show, those with higher overall lifetime viewing had high overall Mean World scores regardless of the presence of a VTEM ( $M = 5.27$  and  $M = 5.28$ ). Lower viewers without a VTEM had lower Mean World scores, as Hypothesis 1 had predicted ( $M = 4.48$ ). However, low LTE participants with high VTEM scores had higher Mean World scores compared to their high LTE counterparts ( $M = 5.41$ ). This is illustrated in Figure 1.

Figure 1  
*Estimated Means for Mean World*



Covariates appearing in the model are evaluated at the following values: Race = 1.08, Gender = 1.68

Research questions 3 and 4 examined the interaction of LTE and VTEM on avoidance of and enjoyment of frightening or disturbing media content. As Table 5 shows, no significant interactive effects emerged for any of the other dependent variables. The LTE scores were the driving difference in tests of between-subjects effects of the Watch Scary Movies ( $p < .01$ ), Avoidance ( $p < .05$ ), and Enjoyment scores ( $p < .05$ ).

Research Question 5 examined the role of demographics in relationship to VTEM and LTE on the three dependent variables (Mean World, Avoidance, and Enjoyment). To analyze this, separate blocked hierarchical regressions were performed on each dependent variable (See Table 6). The three sets of predictor variables in the regression models were the same for each variable. Block 1 included the demographic variables race, gender, education, and income over all periods. Block 2 included two variables measuring personal experiences with crime. Because

the crime variables did not load into one reliable scale and they were not correlated with each other, two were examined independently. These were whether the individual had been personally attacked with a weapon and personally attacked but without a weapon. Block 3 included LTE and VTEM. Block 3 in Table 6 shows the continuous version of LTE (1-7) and VTEM (1-49) data, and should not be confused with the split version in Table 5.

Each consecutive block in all three regressions also incorporated the data from the previous block. Collinearity diagnostics were run with VIF and tolerance. No numbers stood out in any of the three models, nor were there any high correlations in the predictor variables. With eight predictor variables, a desired statistical power level of .8 and a probability level of  $p < .05$ , an a-priori sample size calculator for multiple regression suggested that 69 subjects would be needed to detect an effect size of .25. Only 53 cases could be included in the analysis because not all respondents had each data point recorded. Thus, the results below should be viewed with caution because of the slightly smaller sample than needed.

The first regression was performed on the Mean World score. The  $R^2$  for all three blocks was .289 or below, indicating little outcome predictability. However, the final model was significant (See Table 6). The analysis with Block 3 (which included the accumulated data from Blocks 1 and 2) produced a significant model ( $R^2 = .289$ ). In the final analysis for Mean World, only education and VTEM emerged as significant predictors for variation in Mean World scores. Respondents who reported higher education had lower Mean World scores, and respondents who reported higher VTEM had higher Mean World scores. No differences were driven by other demographic variables or any of the crime variables. The regression model was repeated for the Avoidance and Enjoyment scores. As Table 6 shows, no significant model

emerged for either dependent variable. Demographic and experience with crime were not related to variation in those scores, nor did VTEM or LTE predict variation.

Table 6  
*Coefficients Regression Table*

Predictor Variables	Betas		
	Mean World	Avoidance	Enjoyment
Block 1: Demographics			
Race (1 = White; 2 = Minority)	-.122	.094	-.073
Gender (1 = M; 2 = F)	.051	.158	-.217
Education	-.267	-.050	-.250
Income	.119	.084	.025
Model F (r <sup>2</sup> )	1.11 (.083)	.518 (.041)	1.29 (.095)
Block 2: Viewing			
Race (1 = White; 2 = Minority)	-.100	.125	-.088
Gender (1 = M; 2 = F)	.021	.148	-.210
Education	-.335*	.021	-.278
Income	.141	.011	.025
Attacked w/weapon	-.150	-.188	.098
Attacked w/o weapon	.317	-.035	-.009
Model F (r <sup>2</sup> )	1.33 (.145)	.662 (.078)	.895 (.103)
r <sup>2</sup> change	.062	.037	.007
Block 3: Crime Victim			
Race (1 = White; 2 = Minority)	-.138	.129	-.105
Gender (1 = M; 2 = F)	.020	.094	-.131
Education	-.399*	-.005	-.256
Income	.313	.008	.107
Attacked w/weapon	-.069	-.152	.066
Attacked w/o weapon	.245	-.052	-.003
LTE	.154	-.139	.245
VTEM	.386**	.065	.007
Model F (r <sup>2</sup> )	2.29 (.289)*	.608 (.098)	1.00 (.151)
r <sup>2</sup> change	.144*	.020	.049

B = Standardized Beta Coefficients for Full Model (with all 3 blocks)

\*p < .05, \*\*p < .01, n = 53

## CHAPTER V

### DISCUSSION

Understanding of the effects of exposure to violent, aggressive, or frightening media content has grown considerably since the late 19<sup>th</sup> century (Blumer, 1933; Bandura, Ross, & Ross, 1961; Liebert & Baron, 1972; Starker, 1989; Paik & Comstock, 1994; Cantor, 2004). The concept of socially acceptable media content has evolved with each succeeding generation, as has the technology to produce increasingly graphic media content. This has provided researchers in the field with a cornucopia of potential personally and socially problematic media-based issues to examine.

This study has explored the possibility that exposure to frightening or disturbing media content as a child or teen could result in the avoidance of similar content into what is currently considered old age. It also attempted to add to the understanding of the Cultivation Theory (Gerbner, 1969) and the Social Cognitive Theory (Bandura, 1986). Cultivation posits in part that a high level of television viewing could cause an individual to view the world as a mean or scary place. The SCT posits that vicarious viewing can affect individual attitude and behavior. This study relied on these theories to explore the possibility that any initial exposure to frightening or disturbing media content as a child or teen might have a two-fold result. First, such exposure might cause an individual to have a life-long avoidance of similar content, and second, such exposure might cause an individual to hold a long term view of the world as a mean or scary place.

This chapter will discuss the results and limitations of this study. It will first summarize the research results. It will next discuss theoretical implications for Cultivation Theory and Social Cognitive Theory in conjunction with VTEM and LTE. The final section will discuss the limitations of the study and potential paths for future research.

### **Summary of Results**

This research, through addressing the hypotheses and answering the research questions, has positively added to the body of knowledge of media effects research. Participants were recruited from among residents of the University of Alabama's Capstone Village, the participant pool listed with the UA Center for Health and Aging, and through Facebook postings and emails of my committee members and myself. Respondents were predominantly white, well-educated, middle- to upper-income women. The mean age of participants was 72.19, which is slightly less than midrange between the target ages of 65-84. The results below should be viewed in the context of this sample.

The research was designed to examine the lifetime impact of exposure to frightening or disturbing media content as a child, teen, or young adult. Dependent variables Mean World, Avoidance of frightening media content, and Enjoyment of frightening media content were tested in conjunction with the independent variables Vivid Triggering Event Memory (VTEM) and Lifetime Television Exposure (LTE), as well as the demographics of age, gender, race, income, education, and personal experience with crime.

#### *VTEM*

The researcher expected a VTEM of viewing frightening or disturbing content as a child to be a factor in long-term avoidance of or enjoyment of similar content. On its own, however, VTEM had no effect on avoidance (and conversely watching scary movies) or on enjoyment.

Results showed that VTEM also was not related to LTE, as a traumatic experience wasn't related to lower television viewing over a lifetime. However, while not hypothesized, VTEM was clearly related to variation in Mean World scores. As shown in correlations (Table 3) and in the regression (Table 6), individuals with a high VTEM score also had a high Mean World score. Also, those with a high VTEM score having a significantly higher Mean World score than those with a low VTEM score was just shy of statistical significance in the MANCOVA (Table 5).

### *LTE*

The hypotheses predicted that high LTE would be related to higher Mean World scores, higher enjoyment and lower avoidance of frightening content. Cultivation theory suggests more viewing leads to greater perception of Mean World. Looking at LTE in isolation, there was no relationship with Mean World Scores found in this study. However, high LTE was related to higher enjoyment and lower avoidance, as predicted. Respondents' reported viewing of scary movies and programs generally increased with overall LTE. The same pattern was found for enjoyment. Those who watched more television in general over their lifetimes reported enjoying scary content more. Two different analyses confirmed these results. Enjoyment consistently showed up with the straight correlations (Table 3) and in the MANCOVA (Table 5) when examining the main effect of LTE on the dependent variables. This effect of LTE on either enjoyment or avoidance was not consistent in the regression analyses (Table 6), but that could be due to the small sample size for the number of variables tested in that model. This could limit the ability for clear relationships to appear.

### *Interaction*

This study wanted to examine the interaction of the two independent variables LTE and VTEM, and the three dependent variables of Mean World, Avoidance, and Enjoyment. It was expected that higher LTE would relate to higher Mean World, and that lower LTE would relate to lower Mean World. As stated earlier, this main effect was not seen. However, a significant interactive effect was found for Mean World. Those with low LTE but high VTEM scores reported significantly higher perceptions of Mean World than those with low LTE but low VTEM scores. In other words, in the absence of a vivid triggering event memory, low television viewing was linked to low Mean World Scores and high television viewing was linked to high Mean World Scores. But when participants had a vivid memory of a triggering event, both light and heavy television viewers had virtually identical Mean World scores. There was no significant interactive effect found for Avoidance or Enjoyment.

Although some past studies have linked personal experience with crime and Mean World perception, this link was not found in this study. Multiple regression analyses showed that personal experience with crime did not predict variation in scores of Mean World, Avoidance, or Enjoyment.

Demographics (race, gender, education, and income) were also tested for predictability in the regression analyses. Gender and income had no effect on Mean World, Avoidance, or Enjoyment. Race also did not emerge as a predictor, however, only six respondents reported being of a racial minority. Education was the only variable outside of VTEM in the regression analyses that was linked to Mean World. Those with higher education had lower Mean World scores. No demographic or experience with crime variables emerged in any form to predict variance in Avoidance or Enjoyment.

## **Discussion**

This section will be organized by the dependent variables Mean World, Avoidance, and Enjoyment. Each subsection will discuss the findings in the contexts of the origin and/or the concept of the dependent variable as it pertains to this study, as well as its relationship with the independent variables LTE and VTEM. Each subsection will also discuss interactions, if any, between dependent variables, independent variables, and demographics variables.

### ***Mean World***

#### *Mean World and LTE*

The concept of Mean World has its roots in Cultivation Theory (Gerbner, 1969), which posits that individual views of social reality can be affected by the amount of television a person watches. Gerbner separated viewing levels into light, medium, and heavy, and believed that heavy viewers would be more susceptible to media content. In keeping with the theory, it may be assumed that throughout one's lifetime, regardless of viewing level, one is likely to be exposed to a variety of media content that will help to shape views and opinions.

The current study followed that line of thought to determine if Lifetime Television Exposure (LTE) was related to a Mean World view in people aged 65 and older. However, the study did not find a straight-line relationship between high Lifetime Television Exposure (LTE) and Mean World for this age group when those variables were examined in isolation. This finding appears on the face to contradict the Cultivation Theory (Gerbner, 1969), which concludes that long-term, heavy viewers will believe the world is a meaner and scarier place than will light viewers. In this study, participants' higher television exposure throughout their lifetime was not shown to be related to a higher Mean World perception.

The current study was perhaps the first to examine Cultivation solely in older adults (age 65-85), and no correlation was found between lifetime viewing and Mean World for this narrow age group. The findings in this study seem more in line with Hirsch (1980), in his reevaluation of Gerbner and his teams' Violence Profile research as part of the Cultural Indicators studies. The surveys were intended to measure the amount of violence perpetrated by or experienced by television characters, and viewer responses to the violence to determine the level (if any) of cultivation of a Mean World.

Hirsch (1980) reported finding a number of flaws in the research, including socioeconomic, age, gender, and race factors. He found the elderly, among other specialized populations, to be in the extreme viewer category, but argued that this "victimized" population may be vulnerable to Mean World effects independent of amount of viewing (p. 404). Hirsch suggested that specialized populations like the elderly watched more television simply because they had more time, but also stated that there was a "relative absence of cultivation effects found for this viewing category" (p. 450). The concept of cognitive aging may lend credence to Hirsch's findings. Hiskey (2012) described cognitive aging as an increasing loss of attention as people grow older that can allow bad memories to surface more easily (p. 14). This could potentially create or add to an existing Mean World view regardless of how much TV is watched.

In this study, the seniors reported watching less TV on average in their current lives than they recalled watching in middle age. Television viewing in middle age and currently was significantly higher than in their youth, likely because television sets and programming were more limited in 1940s, 1950s, and 1960s. It would seem necessary, then, to add demographics and personal experience with crime into the equation to get a full picture of Mean World. In this

study, however, there was no correlation between personal experience with crime and Mean World. One demographic factor, education, did emerge in the regression analysis for Mean World. Those with higher education reported lower Mean World scores, which is consistent with past studies (Gerbner, 1998). Even though this was an expected outcome, it should be noted that this sample was highly educated and the results might not be generalizable to all populations (See more in the limitations section below).

Desensitization also may play a role in individual perceptions of a Mean/Scary World. Fanti et al. (2009) found that short-term emersion in violent media can desensitize viewers to such content, at least temporarily. Harris et al. (2000) also found that young people who watched scary movies became desensitized to the violence (p. 265). It was not investigated in this study, but it may be that desensitization to violent and/or disturbing media content may in turn reduce the mean/scary world effect in some individuals. Perhaps this possibility is related to the lack of direct correlation between LTE and Mean World found in this study.

#### *Mean World and VTEM*

A relationship was found between Mean World and VTEM that was neither predicted nor expected. The presence of a VTEM was related to a higher Mean World in both the correlation ( $p < .05$ ) and the regression ( $p < .01$ ) analyses.

While the methods used in this study cannot pinpoint the reasons for this relationship, there are several possibilities. It may be that an early or mid-life VTEM had a lasting effect on the participant's world view. It may also be that people who have high Mean World views as seniors are more likely to remember a scary triggering event as a child or to remember an incident as being more frightening than it actually was at the time. In other words, their current world view could influence their perception of the childhood viewing event they were asked to

describe in the study. There is also the possibility that an unmeasured third variable causes these respondents to have these vivid memories and a high Mean World. For example, people who are easily frightened in general likely could have been more frightened by a program as a youth and report higher Mean World views as a senior. Because these statistical tests only measure correlation, causation cannot be determined in this study.

#### *Mean World and the Interaction of LTE and VTEM*

Perhaps the most significant and surprising finding in regard to Mean World, and in fact in this study, is the significant interactive effect found between a Vivid Triggering Event Memory (VTEM) and viewing levels. Although Lifetime Television Exposure (LTE) did not appear to have an effect on Mean World, as Cultivation Theory would suggest, a relationship emerged when the responses were analyzed with LTE and VTEM together. This study has shown, in contrast to Hirsch and in a twist on Cultivation Theory, that even light television viewers may have a high Mean World view when a VTEM is included in the equation.

Social Cognitive Theory (Bandura, 1989) tells us that people can be affected by vicarious observation, and that vicarious influence can have short- to long-term effects. In Bandura's own words, SCT basically states that "what people think, believe, and feel affects how they behave" (Bandura, 1989, p. 3). This short-term effect links easily with Gerbner and Gross's (1976) description of mainstreaming, a long-term effect. Still, it was unanticipated to find that Mean World scores of low LTE participants with a strong VTEM would be comparable with Mean World scores of high LTE participants. One explanation could be that having a strong VTEM alters one's perspective over a lifetime, regardless of amount of viewing. This could make VTEM a lynchpin to Cultivation that previous research has not considered. Given

the results of this study, it can be conjectured that light viewers with a VTEM could parallel heavy viewers with no VTEM in experiencing Mean World.

Assume for the sake of argument that VTEM on its own has a direct effect on Mean World perception. If it is assumed that A is causing B, then people with a high VTEM, whether they have high or low LTE, should have a higher Mean World, which is what the data in this study indicated. People with no or weak VTEM but who are high in LTE are mainstreamed up to the high Mean World levels of the high VTEM respondents. The views of the respondents are similar. Based on this evidence, then even without a strong VTEM, high LTE viewers will have a high Mean World, which is basically what Gerbner stated. The straight correlation between LTE and Mean World was not seen in this study, therefore, because those with a strong VTEM were at comparable levels of heightened Mean World, regardless of lifetime television exposure. In a sense, the traditional Cultivation effect in this population was masked within the mainstreaming effect shown in the VTEM analysis (Figure 1). The same sort of mainstreaming effect can be seen for people who are lower educated, lower income, or minorities. Again, assuming causation, heavy viewing without a VTEM brings viewers up to that high anxiety or Mean World reported by those with a strong VTEM.

Of course, as was noted above, the study's design does not allow the researcher to conclude that VTEM or LTE is causing Mean World perception, because survey research cannot establish causation, especially of a long-term effect. Other possibilities for the relationships found in this study could be that the Mean World perception that respondents reported was causing them to report or remember a stronger VTEM. In other words, the causal arrow may be reversed. It may be possible that respondents found in their memory an event that frightened

them to a much lesser degree but built it up in their mind to have a self-explanation for seeing the world as mean and scary.

Another explanation for the relationships noted in this study may also be that certain individuals are simply prone to higher anxiety or generally afraid of the world anyway. Anxiety or some other third untested variable could cause both VTEM and Mean World to increase. Gerbner's (1969) contention is that cultivation is a lifetime effect, not a quick hit. So a person can have a lifetime effect from heavy viewing, or they just be could be "wired" to be anxious and have a high Mean World. People who report high VTEM may do so because they're frightened, just as they were frightened by something that happened 60 years ago. They're anxious, and they report a high VTEM and a high Mean World. It could be an underlying pattern that people with a high VTEM may be nervous no matter how much they watched television.

Still, the respondents who stand out in this study as not fearful of the world are the people who are low viewers who have low VTEM. The finding remains that those with both low VTEM and low viewing saw the world as significantly less scary than did all other respondents. Clearly, television viewing and the perception of a frightening mediated event in their youth are important variables to examine in relation to Mean World, regardless of the causation.

This study breaks new ground in that it has identified a variable that is not demographic as playing a role in mainstreaming effects related to Mean World. Unlike other studies, race, gender, or income, did not emerge as factors in mainstreaming. This study introduced a viewing event, or a mediated event in somebody's background, that mimics the same mainstreaming effect shown in those demographic analyses for Mean World. No study known to the researcher has done that before, because mainstreaming research to date has all been based on demographics of people and on lifetime generalized media use. To put it simply, people with a

strong VTEM have a high Mean World. In the absence of a VTEM, people who watch a lot of television are going to look like those people that are really fearful and who report a fearful mediated event. This finding moves mainstreaming research into a new direction to look beyond demographics. It must be considered that there may be mediated events in a persons' lifetime that could explain a Mean World view.

As it pertains to Mean World and education, some discrepancy was found between the current study and Gerbner (1998) in regard to the mainstreaming of Cultivation. Gerbner found that higher educated heavy viewers were more likely than higher educated light viewers to have a higher Mean World view. In fact, in Gerbner's work, the heavy viewing "mainstreamed" higher educated respondents to the Mean World levels of the lower-educated viewers. In this study, this mainstreaming effect was not found for education. A straight association was found with education and Mean World, as shown by the regression analysis in which higher educated seniors reported lower Mean World. However, no interactive or "mainstreaming" effect was found. This is likely because the sample was highly educated. Even those classified as lower educated in this study had at least a high school diploma or some college. The majority of those in the study had at least some graduate work.

Likewise, no mainstreaming effect was found for income or race. Although race and income were measured, none of these on their own had a direct relationship to Mean World. However, it can't be discounted that any of these variables play a role, because there was little variation in these factors in the sample. Most respondents were middle to upper income and identified as white.

The findings for personal experience with crime were unexpected. Both the Cultivation Theory (Gerbner, 1969) and the Social Cognitive Theory (Bandura, 1986) would suggest that

personal experience with crime or vicarious observation of victimization should create or escalate a Mean World view. Cultivation in particular would predict that resonance from personal experience should affect Mean World levels. The results of this study were inconsistent with those predictions. Direct experience with crime was not found to be related to Mean World perceptions. There was variation in crime experiences in the sample. Seven participants (out of 93 who answered the question) reported being attacked or threatened with a weapon, 14 participants (out of 87 who answered the question) reported being attacked or threatened without a weapon, and 56 (out of 93 who answered the question) reported being a victim of a nonviolent crime (home break-in, etc.). One explanation might be that the narrow range of ages of participants explains the lack of correlation between personal experience with crime and Mean World. Older people may simply have a similar Mean World perception, despite other variables of interest.

#### *Avoidance and Enjoyment*

Avoidance and enjoyment are discussed together in this section because, based on this study's findings, the constructs are basically mirror images. Avoidance was measured in two ways, avoidance of scary movies and watching scary movies. It is reasonable to assume that if one watches scary movies of their own accord then one would enjoy them. Results suggest this was the case. Watching increased with higher enjoyment, and watching decreased with higher avoidance. Earlier research also has shown a link between these concepts. Zillmann (2003) described enjoyment as "having been placed in a lingering, highly desirable mood state" (p. 559). Therefore, avoidance might be considered a reaction to having been placed in a lingering, highly *undesirable* mood state by exposure to frightening or disturbing media content.

### *Avoidance/Enjoyment and LTE*

The results of the study suggest that Lifetime Television Exposure (LTE) is more closely related to avoidance and enjoyment of frightening media content than to a single frightening mediated experience (VTEM) as a youth. Data from participant responses show that increased LTE was correlated with less avoidance of frightening or disturbing media content. Two methods of statistical analysis, a Multiple Analysis of Covariance (MANCOVA, Table 5) and Bivariate Correlations (Table 3), both show statistically significant but weak relationships with LTE and each of the three dependent variables related to viewing (Avoidance, Enjoyment, and Watching Scary Movies). It should be noted here that this statistically significant relationship between LTE and these variables was not found in the Regression analyses, but that could be a factor of the small sample size. Viewing of frightening or disturbing content at each stage of life referred to in the study (youth, middle, and current) increased as reported overall television viewing increased. The relationship between overall viewing and watching frightening content remained fairly consistent through each period in a person's in this population (See Table 4). However, this finding, though significant, was weak.

The question, however, is whether these are "real" findings, given the limitations of the study (discussed below). If so, there may be a few explanations. It may be that heavy viewers are heavy viewers across the board, regardless of genre or content. Perhaps people who watch a lot of television don't really discriminate; they let a lot of everything in, and that's bound to include frightening content. The age group in the current study likely watched frightening content as children and up through middle age because of the limited number of available television channels until the mid to late 1980s. Heavy viewers wanted to watch TV, but they would have had very little program choice until cable and digital channels became available.

The second explanation may be related to the genre of frightening content. Heavy viewers in general may also watch more content variety. This explanation could mean that even if a person does not particularly like frightening content, if they watch a lot of it anyway they may end up enjoying it in the long run simply by default. Conversely, if they enjoy what they watch, they may tend to watch more. So this generalized behavior of more viewing and more enjoyment could be related to more enjoyment and viewing of a specific genre like scary movies.

This study found that heavy viewing throughout one's lifetime (the Watch Scary Movies score) was significantly correlated with less avoidance and more enjoyment of the frightening content genre in the participants' current stage of life (See Table 3). These findings are in line with previous research. Nabi and Krcmar (2004) studied media enjoyment in relation to past viewing experience (p. 294). They noted that one could enjoy a program in a genre that they wouldn't generally watch, and not enjoy a program from a preferred genre (p. 290). Perhaps over time, even those who didn't enjoy the frightening content genre initially could bring their preferences in line with their viewing habits. Vorderer et al. (2004) suggested that people may have a genre preference generally in line with their personality (p. 398). Johnson (1980) found a relationship between genre and avoidance, and Sparks (1986) believed he could predict a viewer's genre choices based on past reactions to the same or similar genre (p. 67).

Saturation of television content could also be a factor in why heavy viewers may enjoy and not avoid the scary movie genre. Saturation, as defined by Websters New World dictionary (2003), refers to being filled with the most that can be absorbed (p. 571). It should be noted that saturation of and desensitization to violent media content (magazines, music, video games, television, etc.) have been presented (usually unsuccessfully) by criminal defendants and by civil plaintiffs in U. S. court proceedings (Perry, 2003). However, for the purpose of this study,

saturation refers to an individual's immersion in television viewing regardless of the genre. Harris et al. (2000) and Fanti et al. (2009) found that viewers can be desensitized to violent media content, and it is not unreasonable to suggest that saturation could lead to or even induce desensitization toward frightening genre over time. This could in turn reduce or even eliminate avoidance. To put it simply, even if at one point heavy viewers avoided or didn't enjoy frightening content, they could be "broken down" by this saturation of television viewing to bring their behavior (watching more/avoiding less) and attitudes (enjoyment) more in line with what they were watching.

This explanation is certainly in line with Cultivation Theory, which suggests that world view would change over time based on heavy exposure to television content. It should not be surprising that if one watches a lot of television in general, then one will unavoidably be exposed to some content that frightens them. An analogy might be a perpetually leaky faucet. Regardless of the length of each exposure, the effects of this drip-drip-drip of frightening content over time could lead to lower avoidance. Over time, people will bring their attitudes (enjoyment) in line with their behavior (not avoiding such content). Therefore, exposure over time could lead to higher enjoyment of this type of content. Even if not immediately noticeable by the individual viewer, the continual dripping could eventually intrude into their awareness. This may help explain the correlations between Avoidance, Enjoyment, and LTE.

The link between enjoyment of frightening content at their current age and avoidance of such content specifically over a lifetime are pertinent to discuss when examining LTE of general content. As noted above, avoidance and enjoyment of frightening content were significantly correlated. Less enjoyment of the horror genre throughout one's lifetime was linked to watching it less, while more enjoyment of the horror genre throughout one's lifetime was linked to

watching it more. The increase or decrease of avoidance had a similar, opposite correlation with enjoyment, meaning that as viewers found media content unpleasant or disturbing, they avoided it more. These genre-specific patterns mirrored the overall findings for the relationship between LTE (general viewing) and avoidance/enjoyment of frightening content.

#### *Avoidance/Enjoyment and VTEM*

The research data shows that the presence of a VTEM was not related to avoidance or enjoyment of frightening or disturbing media content, contrary to what was initially anticipated at the outset of the study and posited in the hypotheses. Respondents who reported a VTEM from a television or radio program or a movie did not report avoiding frightening or disturbing media content any more than did respondents who did not report a VTEM.

This finding is in contrast to two earlier studies. Sparks (1986) specifically discussed individual exposure to and reaction to the horror genre in creating his Enjoyment of Frightening Films (EFF) scale. He believed that if a person had a long-term memory of being scared by a movie or television program, then he could predict that persons' reaction to watching similar content. Incidentally, he also thought that having been frightened by a scary film should be a strong indicator of enjoyment or dislike of the genre (p. 67). This study used Sparks' EFF scale in full, but did not find similar results. Johnson (1980) studied stress reactions to motion pictures, and found that about 40.5% of his two survey populations combined (total of 125 respondents) would avoid frightening or disturbing movies because of personal reactions to previous exposure. Johnson used the term "ruminate" to describe the focus individuals placed on the initial experience, which he argued could lead to avoidance of the same or a similar experience (p. 786).

The current study, counter to Sparks (1986) and Johnson (1980) and to the initial hypotheses, found no relationship between a senior citizen's vivid memory of being frightened by a program as a youth and lifetime avoidance or current enjoyment of frightening or disturbing content. Respondents who reported a vivid memory of being frightened by a mediated event did not show greater avoidance or less enjoyment than did their counterparts without a vivid memory.

There could be any number of reasons that the data in this study did not reflect a relationship between VTEM and avoidance and enjoyment. First, it is entirely possible that a VTEM may simply not have the long-term effects that this study expected to find. Sparks (1986) found that the college students in his study reported limited effects over time of being frightened by mediated content. Johnson (1980) asked participants in a two-part survey "whether or not they had ever seen a motion picture which had 'disturbed' them 'a great deal'" (p. 780), but did not ask how long ago this had happened. The results of his survey showed that the reported short-term effect on respondent attitudes or behavior from the exposure was two to three days on average. Out of 125 total respondents ranging in ages from 16 to 72, about half ( $n = 64$ ) said they had been disturbed by a movie, and less than a fifth ( $n = 11$ ) said they would avoid movies similar to the ones that had frightened or disturbed them. The current study, in contrast, was looking for lifetime effects of a singular frightening mediated experience.

It may be in the current study that too much time had passed between the initial experience in youth and the current age of the senior citizens in the study. In most cases, the gap between the initial exposure to the program that caused the VTEM and respondents' current age was at least 50 years. Therefore, the study might suggest that if there are effects from a VTEM, these fade over time. While effects may be present when viewers are queried as young adults, as

Sparks and Johnson found, the effects do not necessarily hold over the course of a lifetime. One question in the survey provides evidence that avoidance effects may fade over time. Of all the respondents who reported a VTEM, 63 answered the question of whether they had ever watched the program again; 36 (57%) said they had. Therefore, the majority of the respondents said they had seen the same content that caused the VTEM at least once more in their lifetimes.

It is unclear as to how long the effects of such frightening exposure last, and the methods used in this study are not adequate to pinpoint when these effects fade. Perhaps if the effects were measured right after initial exposure, again in young adulthood, again in middle-age, and finally in older adulthood (65 or beyond), behavioral effects from that initial exposure might be more obvious. Of course, over time, individuals are exposed to other content and life events that make isolating the effect of a single program, even in the short term, difficult. These difficulties are compounded over a lifetime.

A second explanation for the lack of relationship between VTEM and avoidance/enjoyment could be traced to issues with internal validity, both in terms of respondents' memory over time or with measurement issues. It's also possible that respondents could have manufactured a memory because they were in a frightened state brought on by the questionnaire, or because they thought that it was the "expected" thing to do. Or they could be downplaying something that was really traumatic because they had forgotten it over the years. Some respondents, due to advanced age, may not remember either having been frightened or any resulting behavioral or attitudinal effects from being frightened. Measurement of these complicated constructs also could be an issue. Although established scales were used, they had not been used with this population in the past. Also, the VTEM scale was created by using two

modified scales measuring two separate constructs. It had not been tested in the past (see more in Limitations section below).

The current study, though primarily quantitative, provided for limited qualitative responses in relation to the VTEM. These responses offer some interesting clues to the type of media content that respondents considered frightening. For example, it may not only be intentionally scary content that can frighten an individual. Survey participants listed news programming, children's movies and TV programs (*The Wizard of Oz*, *Bambi*, *Superman*), and a period-piece romance movie (*Gone with the Wind*) as having frightened them. Qualitative responses also indicated that when a VTEM is involved, one need not be exposed to the entire movie or television program, or even to the actual movie or television program, to experience an effect. One respondent wrote of being frightened by the horror movie *The Blob*, but admitted: "I've never actually seen the movie - this was a preview of coming attractions and it has stayed with me all these years."

This is in line with research findings by Cantor and Omdahl (1991) and Cantor (2002) that children can be frightened by so-called "safe" films or television programs, and that the memory of these experiences can remain with them sometimes into adulthood. The current study shows, therefore, that memories of frightening content can last even into older adulthood. While the memories may be vivid, the data did not support a link between strong memories (a VTEM) and avoidance/enjoyment or even Lifetime Television Exposure (LTE, as posited in RQ1).

#### *Avoidance/Enjoyment and the interaction of LTE and VTEM*

The interaction between LTE and VTEM did not produce effects for either Avoidance or Enjoyment. There was no evidence of the mainstreaming effect seen for Mean World on these two dependent variables, nor was the corollary resonance effect found in the analysis. In short,

LTE was related to avoidance/enjoyment, VTEM was not, and the two constructs did not interact in any way on these dependent variables. One explanation for this could be found in reviewing Table 5. As shown in the GLM, the main effects for both LTE and VTEM were approaching statistical significance for the dependent variable of Mean World, and the interaction was significant. In contrast, for the avoidance and enjoyment dependent variables, the effects of VTEM were non-existent. When VTEM was combined with LTE, the statistical predicative power as indicated by partial eta squared, mirrored that of VTEM alone. Again, measurement and memory issues could also explain this non-finding. The instrument could not isolate all reasons people enjoy or avoid scary content, so there could be some other construct that might investigate potential affective and behavioral attitudes within this paradigm.

### **Limitations and Future Research**

As noted throughout Chapter III and this chapter, the method and design used to investigate how older adults respond to frightening content and overall television exposure has some drawbacks. The findings of the current study must be viewed in light of the limitations. These issues include problems with survey as a methodology, online distribution methods of reaching participants, the demographics of the sample, sample size, measurement issues, and memory issues. Each of these limitations, however, carry with it opportunities for future research.

The study used an analytical survey to explore links between viewing and attitudes and behavior. The natural drawbacks of survey methodology are that causation cannot be assumed, events cannot be measured in real time, and direct observation is replaced with a reliance on self-reporting. One major issue is that even though a relationship was found between VTEM and Mean World, it cannot be assumed that the VTEM caused that worldview. As stated, perhaps

people with a more cautious personality will remember a more vivid VTEM. That stated, a survey was the most valid means of collecting data that spanned more than 60 years of an individual's life. Neither direct observation of lifetime viewing nor creating an experimental exposure to frightening stimuli is practical in examining long-term effects. With a quantitative survey, one cannot gather the same nuanced expressions and detail.

In addition, the study also clearly exposed the limitations of online survey methodology, particularly with the participant age range of 65 years and older. One cannot simply assume that members of this age bracket have difficulty with online instruments, but the number of incomplete surveys does indicate a problem of some kind. Also, reaching senior citizens online is problematic in that not all of them have ready access to a computer in an environment in which they could complete a 30-minute survey. Future researchers interested in surveying this age bracket might want to consider using hardcopy surveys.

Future studies might consider using qualitative methods. In-depth interviews, for example, could allow participants to provide greater detail of any mediated VTEM and its short- or long-term effects on behavior and/or viewing habits. This could also allow the researcher to observe participants' reactions when recounting the experience. Combining an in-depth interview with a personality-trait test might help identify whether personality or media exposure, either singularly or interactively, are more predictive of Mean World, for example. Alternatively, researchers could ask participants to provide a written account of a mediated VTEM they might have experienced. Cantor (2004), for example, analyzed papers from college students who reported having short- to long-term varying effects (i.e., sleep disturbance and anxiety, p. 283) because they were frightened by a movie at an earlier time.

As has been noted, the demographic variability of the respondents was highly limited. By their nature, analytic surveys using convenience samples do not allow for generalizability to a larger population. Although the method can allow researchers to investigate relationships among variables, they cannot use these results to make assumptions to a larger population. That limitation was noted in the method section. Still, the convenience sample of respondents was primarily well-educated, mid- to upper-income white women. Minorities were not well-represented, as only six respondents identified any other racial or ethnic background. This is likely because of the distribution method via online survey. The survey reached contacts of the researcher and his faculty mentor, and the sample therefore tended to mirror their demographics. Also, a large portion of those who responded were from a group of university retirees, those living in the retirement community on the campus, and those enrolled in a lifelong learning program at the university. One might expect Mean World scores to be high for a group of respondents that consisted were primarily women aged 65 and older. Past studies have found that those in more vulnerable situations (minorities, lower income, less education, and older) could have higher Mean World scores. Even though this group was older, it was white, well educated, and affluent, leading to little variation in Mean World perception.

Clearly, attracting a larger and more diverse demographic participant pool is needed for future studies. One key factor in the lack of variability in the sample could be the distribution method and sampling frame. Upper income and more educated people, especially among older adults, have more ready access to computers to take such a survey. Changing the distribution method to pencil and paper, as mentioned above, and seeking out respondents in other venues, such as area churches, senior centers, and retirement homes may help diversify the sample in future studies.

A low response rate also presented problems. The small sample size did not allow for a statistically powerful Regression Analysis. All other tests, including Correlations, Scale Analysis, and MANCOVA had sufficient statistical power. A response rate cannot be calculated for this online convenience sample, as the researcher is unclear how many potential respondents were reached through social media and listservs. Still, it is likely quite low as one listserve alone had more than 800 e-mails on it.

Once people started the survey, the drop off rate also was a concern. Of the 128 surveys that were started, only 104 respondents completed at least 20% of the survey. Of these 104 respondents, 33 indicated not being frightened by media content as a child, teen, or young adult, and therefore did not complete the entire section on VTEM. Of those 33 without a VTEM, 19 completed the rest of the survey. Still, any analyses that needed respondents with both a VTEM and the completed LTE scales were problematic with the low sample size. The primary finding that the presence of a VTEM interacted with low/high LTE in relation to Mean World may be an anomaly caused by the low response rate and low demographic disparity. Increasing the sample size in future research is the solution to this issue. It may also be possible, however, that low viewers who had no VTEM felt safer regardless of any frightening or disturbing media content, whereas low viewers with a VTEM felt less safe. However, this can only be speculation at this point, as the method cannot establish causation.

In terms of measurement, all of the items used to create the instrument for the study were taken from established scales. Scales were modified to be better fit the current research, but they still may not have been sufficient to tease out long-term effects of a frightening mediated experience or viewing over time. The VTEM scale, for example, was created by taking two scales (Johnson et al., 1988; Hoekstra, 1999) and using them in an equation whereby the

strength of memory was used as a multiplier for the behavioral and attitudinal effects respondents listed about a frightening experience. This approach has not been used in the past, and the measure needs further testing. Also, as noted VTEM does not really measure an actual event or actual behaviors and attitudes after that event. The scale measures the perception of a memory of an event, real or imagined. The fact that about one third of participants could not recall a single frightening mediated exposure from their youth indicates that the measure could be improved.

As mentioned throughout this study, memory issues in respondents 65 years or older - or in virtually anyone asked to recall events from decades ago - pose a problem. The findings could be attributed to people not accurately remembering much they actually watched - both in general and with frightening content specifically - as a result of faulty memory. Memory of a frightening mediated event, whether perceived or real, was a key element for the current study. Prior research has examined the memories of children and young adults for reactions to exposure to frightening media content (Blumer, 1933; Sparks, 1986; Cantor & Omdahl, 1991; Cantor, 1998/2002; Harrison & Cantor, 1999; Riddle, 2010). The current study asked individuals aged 65 and beyond to remember reactions to watching frightening media content as children and young adults.

It must be stated here that the difference between a vivid memory and a traumatizing memory was not taken into account as a variable in this exploratory study. It may well be that having a vivid memory of being frightened at a young age, regardless of the length of time one may have experienced any negative effects, did not equate to a traumatic experience. An individual with a vivid memory of a frightening media-induced experience may then still enjoy, or at least not avoid, frightening content. Future research should consider using each concept

and defining each term as dictated by the needs of the study. It is possible that each may produce very different immediate and/or long-term behavioral and attitude changes.

It appears evident from the results of this study that, aside from severe circumstances (Buzzuto, 1975; Mathai, 1983; Simons & Silveira, 1994), reactions to, if not the clarity of, a vivid memory of being frightened by a mediated event may weaken with time. There is not enough data to determine if either the memory or the reaction actually disappears over time, nor was it the purpose of this study to explore this. Future research might want to take this into consideration, and perhaps examine the average lifespan of a memory of or the reaction to a frightening media-induced event. The fact that two-thirds of the respondents who completed the study had a vivid memory of something from decades ago, while a third did not, is an interesting finding itself. Why do some people retain that information and others do not? Or were the third without a VTEM simply not frightened by media content at any point in their lives? Again, in-depth interviews or focus groups could investigate this phenomenon.

Future studies might also consider observational research. The researcher could observe and record physiological reactions (skin conductance, heart rate, etc.) of the participant responding to open ended questions regarding their memory of the type and intensity of reactions to exposure to frightening content, and of how long any attitude or behavioral reactions may have lasted. This could offer a deeper understanding of reactions to even the memory of being frightened.

## **Conclusion**

This study explored the idea that exposure to frightening or disturbing media content as a child or teen could result in the avoidance of similar content as an older adult. This hypothesis was not supported, as no relationship was found between the presence of a VTEM and either

avoidance or enjoyment of frightening content in this population. This finding, rather than being disappointing, offers exciting opportunities for future research, as mentioned above.

However, the data did reinforce and even add to the Cultivation Theory. The study found, for instance, strong relationships between LTE and avoidance and enjoyment. Respondents who watched more television in general over their lifetimes reported enjoying scary content more. While neither LTE nor VTEM were independently related to variations in Mean World, the results show that higher overall lifetime television viewing resulted in higher overall Mean World scores. Importantly, though, the inclusion of higher education was related to higher overall lifetime viewing and *lower* overall Mean World scores. VTEM, on the other hand, had an effect only in relation to Mean World. In what is perhaps the most exciting finding of the study, participants with *low* LTE and *high* VTEM scores reported higher Mean World than those with *high* LTE and *low* VTEM scores. This finding has therefore identified VTEM as a mainstreaming variable.

This study, to the researcher's knowledge, is the first to identify a non-demographic mainstreaming variable. This major finding adds to the study of the Cultivation Theory. It demonstrates that expanding mainstreaming and Mean World research to include a VTEM or similar phenomena, either in conjunction with or beyond demographics and lifetime viewing effects, should be the next step in Cultivation research.

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## APPENDIX A

A vivid memory from early-life exposure to frightening media content may increase Mean World perception in older adults:  
An exploratory study of adults aged 65 and over

(Research Instrument/Survey)  
Michael D. Andrews

Thank you for considering being part of this study. This study involves examining potentially long-term media effects in people aged 65 and over.

This survey includes questions about your earliest memories of watching television when it first came into your home or watching movies at an early age. You will be asked to recall if you have brightened by a particular television program, movie, or radio program, and, if so, to describe the nature of the program. You will be asked about your media use over your lifetime and your current behaviors. This survey will take 20 to 30 minutes.

If you have any questions about this study, you may contact the primary investigator, Michael David Andrews, at [mdandrews@crimson.ua.edu](mailto:mdandrews@crimson.ua.edu) or you may contact his adviser, Dr. Jennifer Greer at [jdgreer@ua.edu](mailto:jdgreer@ua.edu). If you have questions about your rights as a research participant, contact Ms. Tanta Myles (the University Compliance Officer) at 205-348-8461 or toll-free at 1-877-820-3066. If you have complaints or concerns about this study, file them through the UA IRB outreach website at [http://osp.ua.edu/site/PRCO\\_Welcome.html](http://osp.ua.edu/site/PRCO_Welcome.html).

[Click here](#) to view full details, including risks and benefits, provided in the Participant Information Sheet.

1. If you agree to participate, click the “I agree” button to begin the survey.

I agree      I disagree

2. First, please choose your current age.

Under 65   65   66   67   68   69   70   71   72   73   74   75   76   77   78   79   80   81   82  
83   84   85   Over 85

The first questions ask you to think of a TV program, a radio program, or a movie (viewed or listened to at your home, another home, or in a theater) that frightened you when you were a child or teen (18 or under). This does not need to be a TV program, radio program, or movie that was intended to frighten the audience. We just want you to think of some mediated message you perceived as frightening in your youth. This could be fiction/science fiction, a news report, etc.

To answer these first questions, think of one TV program, radio program, or movie that frightened you, recall your viewing or listening experience, and then reflect on how this experience affected you.

3. Do you remember being frightened by one particular TV program, movie, or radio program when you were a child or teen (18 or under)?

\_\_\_\_ Yes      \_\_\_\_ No (This will take you to the next section of the survey)

These questions ask about your experiences while viewing the TV program, movie, or radio program that you remember.

4. If you remember the title of the TV program, movie, or radio program, please type it here.

\_\_\_\_\_

5. Please provide a brief description of the TV program, movie, or radio program.

\_\_\_\_\_

6. What type of content was this?

- A TV program
- A radio program
- A full-length movie

7. About how old were you when you saw or heard the TV program, movie, or radio program?

4 or under   5   6   7   8   9   10   11   12   13   14   15   16   17   18   19 or older

8. Where did you watch or listen to this TV program, movie, or radio program?

a) at your home   b) at a friend's house   c) in a theater   d) at a drive-in   e) other \_\_\_\_\_

9. Whose choice was it to watch or listen to this TV program, movie, or radio program?

a) yours   b) a date   c) a friend(s)   d) a sibling(s)   e) a parent(s)   f) a group decision

10. Who watched or listened to this TV program, movie, or radio program with you?

a) watched alone   b) a date   c) a friend   d) sibling(s)   e) parent(s)   f) group of friends

11. Do you remember experiencing any bad effects after seeing or hearing the TV program, movie, or radio program? Please click a circle on each line.

a) general sense of fear or anxiety

Strongly Disagree    Disagree    Somewhat Disagree    Neither Agree nor Disagree  
Somewhat Agree    Agree    Strongly Agree

b) a fear of something specific (e.g., sharks, power tools, spiders, the dark, rats, camping)

Strongly Disagree    Disagree    Somewhat Disagree    Neither Agree nor Disagree  
Somewhat Agree    Agree    Strongly Agree

c) insomnia (stayed awake, couldn't get to sleep)

Strongly Disagree    Disagree    Somewhat Disagree    Neither Agree nor Disagree  
Somewhat Agree    Agree    Strongly Agree

d) fear of sleeping alone

Strongly Disagree    Disagree    Somewhat Disagree    Neither Agree nor Disagree  
Somewhat Agree    Agree    Strongly Agree

e) needing to sleep with the lights on

Strongly Disagree    Disagree    Somewhat Disagree    Neither Agree nor Disagree  
Somewhat Agree    Agree    Strongly Agree

f) serious or recurring nightmares, scary dreams related to the movie

Strongly Disagree    Disagree    Somewhat Disagree    Neither Agree nor Disagree  
Somewhat Agree    Agree    Strongly Agree

g) wild imagination (e.g., monsters under the bed, someone sneaking up on you)

Strongly Disagree    Disagree    Somewhat Disagree    Neither Agree nor Disagree  
Somewhat Agree    Agree    Strongly Agree

12. Did you ever see or hear this TV program, movie, or radio program?

\_\_\_\_\_Yes      \_\_\_\_\_No

13. After watching or listening to this TV program, movie, or radio program, did you often watch or listen to similar TV programs, movies, or radio programs?

\_\_\_\_\_Yes                  \_\_\_\_\_No

Now we'd like to ask you about your memory of viewing or hearing the TV program, movie, or radio program.

How strong is your memory of the TV program, movie, or radio program you described?

14. My overall vividness for this memory is

Not Vivid    Vague    Somewhat Vague    Neither Vague nor Vivid  
Somewhat Vivid    Vivid    Very Vivid

15. I remember how I felt at the time I watched or listened to the TV program, movie, or radio program.

Not at all    Vaguely    Somewhat Vaguely    Neither Vague nor Clear  
Somewhat Clearly    Clearly    Very Vividly

16. As I am remembering the TV program, movie, or radio program now, my feelings are

Calm    Not Intense    Somewhat Intense    Neutral    Intense    Very Intense    Disturbing

17. I remember events relating to the TV program, movie, or radio program after I watched or listened to it.

Not at all    Vaguely    Somewhat Vaguely    Neither Vague nor Clear  
Somewhat Clearly    Clearly    Very Vividly

18. I have no doubts of the accuracy of my memory about watching this TV program, movie, or radio program.

Strongly Disagree    Disagree    Somewhat Disagree    Neither Agree nor Disagree  
Somewhat Agree    Agree    Strongly Agree

Now we would like to ask about general television viewing during your lifetime. First, think back to your childhood/teen years (18 and under). Based on your memory of watching TV at that point in your life, answer the following questions. For each question, please click the appropriate circle.

19. How often did you watch TV on weekdays?

Never Rarely Sometimes Often Most of the Time Almost Always Always

20. How often did you watch TV on Saturday?

Never Rarely Sometimes Often Most of the Time Almost Always Always

21. How often did you watch TV on Sunday?

Never Rarely Sometimes Often Most of the Time Almost Always Always

22. Your family TV was turned on

Never Rarely Sometimes Often Most of the Time Almost Always Always

23. Compared to others around you, you watched TV a lot

Strongly Disagree Disagree Somewhat Disagree Neither Agree nor Disagree  
Somewhat Agree Agree Strongly Agree

24. You watched a lot of scary programs or movies

Strongly Disagree Disagree Somewhat Disagree Neither Agree nor Disagree  
Somewhat Agree Agree Strongly Agree

Now think about how much you watched television as a young to middle-aged adult (ages 19 to 64). Based on your memory of watching TV during that point in your life, answer the following questions. We know this is a large age span, so just estimate generally. For each question, please check the appropriate circle.

25. How often did you watch TV on weekdays?

Never Rarely Sometimes Often Most of the Time Almost Always Always

26. How often did you watch TV on Saturday?

Never Rarely Sometimes Often Most of the Time Almost Always Always

27. How often did you watch TV on Sunday?

Never Rarely Sometimes Often Most of the Time Almost Always Always

28. Your family TV was turned on

Never Rarely Sometimes Often Most of the Time Almost Always Always

29. Compared to others around you, you watched TV a lot

Strongly Disagree Disagree Somewhat Disagree Neither Agree nor Disagree  
Somewhat Agree Agree Strongly Agree

30. You watched a lot of scary programs or movies

Strongly Disagree Disagree Somewhat Disagree Neither Agree nor Disagree  
Somewhat Agree Agree Strongly Agree

Now think about how you currently watch television and answer the following questions. For each question, please check the appropriate circle.

31. How often do you watch television when you first wake up in the morning?

Never Rarely Sometimes Often Most of the Time Almost Always Always

32. How often do you watch television in the afternoon?

Never Rarely Sometimes Often Most of the Time Almost Always Always

33. How often do you watch television early at night?

Never Rarely Sometimes Often Most of the Time Almost Always Always

34. How often do you watch television late at night, before going to bed?

Never Rarely Sometimes Often Most of the Time Almost Always Always

35. How often do you watch television during the day on Saturday?

Never Rarely Sometimes Often Most of the Time Almost Always Always

36. How often do you watch television on Saturday nights?

Never Rarely Sometimes Often Most of the Time Almost Always Always

37. How often do you watch television during the day on Sunday?

Never Rarely Sometimes Often Most of the Time Almost Always Always

38. How often do you watch television on Sunday nights?

Never Rarely Sometimes Often Most of the Time Almost Always Always

39. Compared to others around me, I currently watch TV a lot.

Strongly Disagree Disagree Somewhat Disagree Neither Agree nor Disagree  
Somewhat Agree Agree Strongly Agree

40. I currently watch a lot of scary movies or programs.

Strongly Disagree Disagree Somewhat Disagree Neither Agree nor Disagree  
Somewhat Agree Agree Strongly Agree

The next questions ask about your lifestyle and behaviors now in relation to safety.  
In general, how often do you do any of the following?

41. Lock your door while you are *not* home

Never Rarely Sometimes Often Most of the Time Almost Always Always

42. Lock your door while you *are* home

Never Rarely Sometimes Often Most of the Time Almost Always Always

43. Leave a light on in your home when you are away

Never Rarely Sometimes Often Most of the Time Almost Always Always

44. Leave your windows open at night

Never Rarely Sometimes Often Most of the Time Almost Always Always

45. Lock your car door when *not* driving

Never Rarely Sometimes Often Most of the Time Almost Always Always

46. Lock your car door while driving

Never Rarely Sometimes Often Most of the Time Almost Always Always

47. Walk alone on a (city) street at night

Never Rarely Sometimes Often Most of the Time Almost Always Always

48. Walk to your car alone at night

Never Rarely Sometimes Often Most of the Time Almost Always Always

49. Stay alert as you walk through parking garages or lots

Never Rarely Sometimes Often Most of the Time Almost Always Always

50. Notice and avoid a suspicious looking person

Never Rarely Sometimes Often Most of the Time Almost Always Always

51. Carry a means of self-protection

Never Rarely Sometimes Often Most of the Time Almost Always Always

52. Open your front door without knowing who is there

Never Rarely Sometimes Often Most of the Time Almost Always Always

53. Worry about being the victim of a crime

Never Rarely Sometimes Often Most of the Time Almost Always Always

Now we turn back to current media use.

How do you currently react to TV programs or movies with content that frightens you?

54. I avoid going to frightening or graphic movies in the theater.

Strongly Disagree Disagree Somewhat Disagree Neither Agree nor Disagree

Somewhat Agree Agree Strongly Agree

55. If a scary movie or program comes on television, I change the channel.

Strongly Disagree Disagree Somewhat Disagree Neither Agree nor Disagree

Somewhat Agree Agree Strongly Agree

56. I use the cable guide to make sure I do not click into a program that might frighten me.

Strongly Disagree    Disagree    Somewhat Disagree    Neither Agree nor Disagree

Somewhat Agree    Agree    Strongly Agree

57. I try not to remember frightening programs I have seen.

Strongly Disagree    Disagree    Somewhat Disagree    Neither Agree nor Disagree

Somewhat Agree    Agree    Strongly Agree

58. I try not to discuss scary TV programs or movies with my friends or family.

Strongly Disagree    Disagree    Somewhat Disagree    Neither Agree nor Disagree

Somewhat Agree    Agree    Strongly Agree

59. Frightening films contain endings that are too shocking for me to watch.

Strongly Disagree    Disagree    Somewhat Disagree    Neither Agree nor Disagree

Somewhat Agree    Agree    Strongly Agree

60. The frightening films I have seen have almost always contained too much graphic violence to make them really enjoyable.

Strongly Disagree    Disagree    Somewhat Disagree    Neither Agree nor Disagree

Somewhat Agree    Agree    Strongly Agree

61. I feel exhilarated inside my body when I watch a film that frightens me.

Strongly Disagree    Disagree    Somewhat Disagree    Neither Agree nor Disagree

Somewhat Agree    Agree    Strongly Agree

62. I don't like the feeling of being frightened when I watch a scary film.

Strongly Disagree    Disagree    Somewhat Disagree    Neither Agree nor Disagree

Somewhat Agree    Agree    Strongly Agree

63. Frightening films can be too bloody to watch

Strongly Disagree    Disagree    Somewhat Disagree    Neither Agree nor Disagree

Somewhat Agree    Agree    Strongly Agree

64. Scary films show too many people being abused or victimized.

Strongly Disagree    Disagree    Somewhat Disagree    Neither Agree nor Disagree

Somewhat Agree    Agree    Strongly Agree

65. Scary films entertain me.

Strongly Disagree    Disagree    Somewhat Disagree    Neither Agree nor Disagree

Somewhat Agree    Agree    Strongly Agree

66. I love the feeling of my adrenalin flowing when I watch the most horrifying parts of horror movies.

Strongly Disagree    Disagree    Somewhat Disagree    Neither Agree nor Disagree

Somewhat Agree    Agree    Strongly Agree

67. As far as I'm concerned, the scarier a movie is - the better.

Strongly Disagree    Disagree    Somewhat Disagree    Neither Agree nor Disagree

Somewhat Agree    Agree    Strongly Agree

68. The faster my heart beats when I see a scary movie, the more I enjoy the film.

Strongly Disagree    Disagree    Somewhat Disagree    Neither Agree nor Disagree

Somewhat Agree    Agree    Strongly Agree

Now we would like to ask if you have had a personal experience with crime.

69. Have you or a loved one ever been attacked or threatened by someone with a weapon?  
(Click all that apply)

Yes, me     Yes, a loved one     No

70. Have you or a loved one ever been attacked or threatened by someone without a weapon?  
(Click all that apply)

Yes, me     Yes, a loved one     No

71. Have you or a loved one ever been the victim of a non-violent crime (home break-in, stolen car, stolen checks/credit card, etc.)? (Click all that apply)

Yes, me     Yes, a loved one     No

Finally, we'd like to know a bit about you. No individual responses will be reported in this study. We want to ensure that we have a representative group of respondents, so this information is helpful to us.

72. Ethnicity (Check all that best apply):

White     African American     Hispanic   
Native American/Alaskan Native     Asian     Other

73. Gender: M    F

74. Highest grade completed:

a. No high school    b. Some high school    c. GED    d. High school graduate  
e. Some college    f. Bachelor degree    h. Some graduate school    i. Graduate Degree

What is your estimated household income at the three (3) stages of life indicated?  
(Check the selection that best applies in each period of your life)

75. Child/teen (18 or under)

Lower Income    Lower Middle    Middle    Upper Middle    Higher Income

76. Young to middle aged adult (18-64)

Lower Income    Lower Middle    Middle    Upper Middle    Higher Income

77. Current age

Lower Income    Lower Middle    Middle    Upper Middle    Higher Income

## APPENDIX B

### Original Scales

#### Scary Movies Questionnaire (Hoekstra et al., 1999)

This study is investigating memories were movies over long periods of time. Think of the movie that frightened you when you were younger (a child or teen). Think about that movie for a few minutes. Think about the experience of watching it and how it made you feel and how it affected you at the time and afterwards. Then answer the following questions. Of course, there are no right or wrong answers; we are only interested in your honest opinions of your memories.

Name of Movie \_\_\_\_\_ (or brief description).

- f. About how old were you when you saw this movie? \_\_\_\_\_  
How old are you now? \_\_\_\_\_  
What is your gender?      Man                  Woman                  (circle one)
2. Where did you watch this movie?  
a) at your home    b) at a friends house    c) in a theater    d) at a drive-in    e) other \_\_\_\_\_
3. What time of day was it?  
a) morning    b) afternoon    c) evening after dark    d) late at night
4. Whose choice was it to watch this movie?  
a) yours    b) a date(s)    c) a friend(s)    d) a sibling(s)    e) a parent(s)    f) a group decision
5. Who else watched it with you?  
a) no one else    b) a date only    c) one friend    d) sibling(s)    e) parent(s)    f) group of friends
6. Which of the following describe your behavior while viewing this movie?  
(Circle all that apply)  
a. I watched the movie start to finish  
b. I frequently hit my eyes or look away  
c. I was shaking  
d. I was crying/yelling/screaming  
e. I held onto someone else  
f. I was generally very jumpy  
g. My heart was beating fast  
h. I tuned in and out or left the room and returned repeatedly  
i. I shut the movie off for stopped watching before it was over

7. Who (if anyone) did you most identify with in the movie?
8. What or who was particularly scary about this film and why?
9. Which affects the remember experiencing after seeing the movie? (Circle all that apply)
- a) general sense of fear or anxiety, nervous, jumpy, looking over your shoulder
  - b) a fear of something specific (e.g., Sharks, power tools, spiders, the dark, rats, camping)
  - c) insomnia (stayed awake, couldn't get to sleep)
  - d) fear of sleeping alone
  - e) needing to sleep with the lights on
  - f) serious or recurring nightmares, scary dreams related to the movie
  - g) wild imagination (e.g., monsters under the bed, someone sneaking up on you)
  - h) other (please specify) \_\_\_\_\_
10. On a scale from 1 to 7, how realistic did you find this movie to be at the time? (circle one)  
 completely unrealistic 1 2 3 4 5 6 7 completely realistic
11. Did you ever see this movie again?  
 \_\_\_\_\_ Yes, several times      \_\_\_\_\_ Yes, once      \_\_\_\_\_ No
12. After watching this movie, how often did you see got similar movies to watch it later times?  
 never 1 2 3 4 5 6 7 very frequently
13. To what degree do you think that this movie would scare you today?  
 Not at all 1 2 3 4 5 6 7 a lot
14. Do you like this sort of movie today?  
 No, not at all 1 2 3 4 5 6 7 yes, very much

Memory Characteristics Questionnaire (MCG)  
(Johnson et al., 1988)

My memory for this event

- f. is  
1 = *dim*, 7 = *sharp/clear*
2. is  
1 = *black and white*; 7 = *entirely color*
3. involves visual detail  
1 = *little or none*; 7 = *a lot*
4. involves sound  
1 = *little or none*; 7 = *a lot*
5. involves smell  
1 = *little or none*; 7 = *a lot*
6. involves touch  
1 = *little or none*; 7 = *a lot*
7. involves taste  
1 = *little or none*; 7 = *a lot*
8. Overall vividness is  
1 = *vague*; 7 = *very vivid*
9. My memory for the event is  
1 = *sketchy*; 7 = *very detailed*
10. Order of events is  
1 = *confusing*; 7 = *comprehensible*
11. Story line is  
1 = *simple*; 7 = *complex*
12. Story line is  
1 = *bizarre*; 7 = *realistic*

13. My memory for the location where the event takes place is  
1 = *vague*; 7 = *clear/distinct*
14. General setting is  
1 = *unfamiliar*; 7 = *familiar*
15. Relative spatial arrangement of objects in my memory for the event is  
1 = *vague*; 7 = *clear/distinct*
16. Relative spatial arrangement of people in my memory for the event is  
1 = *vague*; 7 = *clear/distinct*
17. My memory for the time when the event takes place is  
1 = *vague*; 7 = *clear/distinct*
18. for the year is  
1 = *vague*; 7 = *clear/distinct*
19. for the season is  
1 = *vague*; 7 = *clear/distinct*
20. for the day is  
1 = *vague*; 7 = *clear/distinct*
21. for the hour is  
1 = *vague*; 7 = *clear/distinct*
22. The event seems  
1 = *short*; 7 = *long*
23. The overall tone of the memory is  
1 = *negative*; 7 = *positive*
24. In this event I was  
1 = *a spectator*; 7 = *a participant*
25. At the time, the event seemed like it would have serious implications  
1 = *not at all*; 7 = *definitely*
26. Looking back, this event did have serious implications  
1 = *not at all*; 7 = *definitely*

27. I remember how I felt at the time when the event took place  
1 = *not at all*; 7 = *definitely*
28. Feelings at the time were  
1 = *negative*; 7 = *positive*
29. Feelings at the time were  
1 = *not intense*; 7 = *very intense*
30. As I am remembering now, my feelings are  
1 = *not intense*, 7 = *very intense*
31. I remember what I thought at the time  
1 = *not at all*; 7 = *clearly*
32. This memory reveals or says about me  
1 = *not much*; 7 = *a lot*
33. Overall, I remember this event  
1 = *hardly*; 7 = *very well*
34. I remember events relating to this memory that took place: in advance of the event  
1 = *not at all*; 7 = *yes, clearly*
35. after the event  
1 = *not at all*; 7 = *yes, clearly*
36. Do you have any doubts about the accuracy of your memory for this event?  
1 = *a great deal of doubt*; 7 = *no doubt whatsoever*
37. Since it happened, I have thought about this event  
1 = *not at all*; 7 = *many times*
38. Since it happened, I have talked about it  
1 = *not at all*; 7 = *many times*
39. About when did this event happen? Circle one:  
Just today  
Yesterday  
Few days ago  
Last week  
Few weeks ago  
Last month  
Few months ago  
Last year  
Longer (if childhood, indicate age)

Lifetime Television Exposure Scale  
(Riddle, 2010)

*CURRENT TV-VIEWING HABITS*

Instructions Given to Participants:

I would like you think about your current levels of exposure to television. In other words, think of your lifestyle over the past year or so. Based on this current lifestyle, think about your exposure to television when answering the following questions. For each question, please circle a number from 1 to 7.

*HIGH SCHOOL TV-VIEWING HABITS*

Instructions Given to Participants:

I would now like you to think back to your high school years. In other words, think of the lifestyle you experienced when you were in high school. Based on your high school lifestyle, think about your exposure to television when answering the following questions. For each question, please circle a number from 1 to 7.

*ELEMENTARY SCHOOL TV-VIEWING HABITS*

Instructions Given to Participants:

I would now like you to think back to when you were a younger child, during elementary school. Think of the lifestyle you experienced when you were a younger kid. Based on your lifestyle when you were a kid (elementary school), think about your exposure to television when answering the following questions. For each question, please circle a number from 1 to 7.

*QUESTIONNAIRE ITEMS*

Weekdays

During \_\_\_\_, how often do/did you watch television when you first wake/woke up in the morning?

During \_\_\_\_, how often do/did you watch television during lunchtime?

During \_\_\_\_, how often do/did you watch television in the afternoon?

During \_\_\_\_, how often do/did you watch television during dinnertime?

During \_\_\_\_, how often do/did you watch television after dinner?

During \_\_\_\_, how often do/did you watch television late at night, before going to bed?

Weekends

During \_\_\_\_, how often do/did you watch television during the day on Saturday?

During \_\_\_\_, how often do/did you watch television on Saturday nights?

During \_\_\_\_, how often do/did you watch television during the day on Sunday?

During \_\_\_\_, how often do/did you watch television on Sunday nights?

*Note.* All questions measured with scales ranging from 1 (Never) to 7 (Almost Always). In the “current” time period, questions began with “How often do you watch . . .”

Mean World Questionnaire  
(Nabi & Sullivan, 2001)

**Belief Items**

1. During any given week, comedy people out of 100 are involved in some kind of violence?
2. What percent of all crimes of violent crimes – like murder, rape, robbery, and aggravated assault?
3. What percent of murders are committed by strangers?
4. If a child were to play alone in a park for an hour during daylight each day for a month, what do you think the chances are (on a scale of 1 to 100) that he or she would be the victim of a violent crime?
5. Of mentally ill people, what percent would you say commit violent crimes?
6. What percentage of the time the police use unjustified force to subdue a suspect?
7. How many times per month does the average police officer fire a weapon in the line of duty?
8. What percentage of people are the victims of gunshots in their lifetime?
9. What percentage of car accidents involve drivers under the influence of alcohol?
10. What percent of crimes involve a suspect with a weapon?
11. What percent of murders remain unsolved every year?
12. What do you think the chances are (on a scale of 1 to 100) that you, a member of your family, or one of your close friends might be the victim of an assault during the next year?
13. What do you think the chances are (on a scale of 1 to 100) big your house or the house of one of your close friends would be broken into during the next year?
14. If you were seriously harmed by someone, what are the chances (on a scale of 1 to 100) that that person would be a stranger?
15. What do you think the chances are (on a scale of 1 to 100) that you personally will be robbed within the next year?
16. What percentage of (university city) adolescents are members of gangs?
17. How many murders take place in (university city) every year?
18. During the past year, how many people do you think were murdered in the New York City subway?
19. What do you think the chances are (on a scale of 1 to 100) that if you lived in New York City for one year, that you would be the victim of a serious crime?
20. If you were to walk by yourself when our every night in a park in New York City for a month, what do you think the chances are (on a scale of 1 to 100) that you would be the victim of a serious crime?

### **Attitude Items**

1. Do you think that most people would try to take advantage of you if they get a chance or would they try to be fair?
2. Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people?
3. Would you say that most of the time people try to be helpful, or that they are mostly just looking out for themselves?

### **Intention to Engage in Protection Behaviors Items**

1. If your car broke down the highway at night, would you accept a ride from a passer-by?
2. If you were walking alone on a street in (university city) at night and you saw someone you didn't know walking toward you, would you keep walking, or go to the nearest safe place?
3. Would you feel nervous about walking alone on campus late at night?
4. Would you park your car in a (university city) parking garage when you would have to retrieve it on your own late at night?
5. Would you stop on the highway at night to help someone whose car broke down?
6. If you were visiting New York, would you be worried about being the victim of a crime?

### **Protection Behavior Items**

In general, how often do you (never, rarely, sometimes, often, always)

1. Lock your door while you *are not* home
2. Lock your door while you *are* home
3. Leave a light on in your home when you are away
4. Leave your windows open at night €
5. Lock your car door when not driving
6. Lock your car door while driving
7. Walk alone in a (city) street at night €
8. Walk to your car alone at night
9. Notice and avoid a suspicious looking person
10. Carry a means of self protection
11. Use the University escort walking/shuttle service
12. Open your front door without knowing who is there €
13. Worry about being the victim of a crime
14. Stay alert as you walk through parking garages or lots

Enjoyment of Frightening Films Scale (Sparks, 1986)  
EFF Scale to Assess Past Experiences with Frightening Films

- f. Frightening films contain endings that are too shocking for me to really enjoy.  
Disagree strongly    1    2    3    4    5    agree strongly
2. The frightening films I have seen have almost always contained too much graphic violence to make them really enjoyable.  
Disagree strongly    1    2    3    4    5    agree strongly
- f. I feel exhilarated inside my body when I watch a scary film.  
Disagree strongly    1    2    3    4    5    agree strongly
- f. I don't enjoy the feeling of being frightened when I watch a scary film.  
Disagree strongly    1    2    3    4    5    agree strongly
- f. Frightening films have so much blood that you can't enjoy yourself.  
Disagree strongly    1    2    3    4    5    agree strongly
- f. Scary films show too many people being abused or victimized.  
Disagree strongly    1    2    3    4    5    agree strongly
- f. Scary films entertain me.  
Disagree strongly    1    2    3    4    5    agree strongly
- f. I love the feeling of my adrenalin flowing when I watch the most horrifying parts of horror movies.  
Disagree strongly    1    2    3    4    5    agree strongly
9. As far as I'm concerned, the scarier a movie is – the better.  
Disagree strongly    1    2    3    4    5    agree strongly
10. The faster my heart beats when I see a scary movie, the more I enjoy the film.  
Disagree strongly    1    2    3    4    5    agree strongly

2012 Bureau of Justice Statistics National Crime Victimization Survey – Item 41.a

41a. (Other than any incidents already mentioned,) has anyone attacked or threatened you in any of these ways (Exclude telephone threats) –

Read each category.

(a) With any weapon, for instance, a gun or knife –

(b) With anything like a baseball bat, frying pan, scissors, or stick –

€ By something thrown, such as a rock or bottle –

(d) Include any grabbing, punching, or choking,

€ Any rape, attempted rape or other type of sexual attack –

(f) Any face to face threats –

APPENDIX C  
IRB



May 14, 2014

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The University of Alabama  
Box 870172

Re: IRB # EX-14-CM-066 "The Long-Term Effects of Early-Life Exposure to Frightening and/or Disturbing Media Content: An Exploratory Study of 65-84-Year-Old Adults"

Dear Mr. Andrews:

The University of Alabama Institutional Review Board has granted approval for your proposed research.

Your protocol has been given exempt approval according to 45 CFR part 46.101(b)(2) as outlined below:

- (2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless:
- (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and
  - (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

Your application will expire on May 13, 2015. If your research will continue beyond this date, complete the relevant portions of Continuing Review and Closure Form. If you wish to modify the application, complete the Modification of an Approved Protocol Form. When the study closes, complete the appropriate portions of FORM: Continuing Review and Closure.

Should you need to submit any further correspondence regarding this proposal, please include the assigned IRB application number.

Good luck with your research.

Sincerely,



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Carpagnoto T. Myles, MSM, CIM, CIP  
Director & Research Compliance Officer  
Office for Research Compliance  
The University of Alabama

IRB Project #: EX-14CM-066

UNIVERSITY OF ALABAMA  
INSTITUTIONAL REVIEW BOARD FOR THE PROTECTION OF HUMAN SUBJECTS  
REQUEST FOR APPROVAL OF RESEARCH INVOLVING HUMAN SUBJECTS

I. Identifying information

	Principal Investigator	Second Investigator	Third Investigator
Names:	Michael D Andrews	Jennifer Greer	
Department:		Journalism	
College:	Communications and Information Sciences	Communications and Information Sciences	
University:	University of Alabama	University of Alabama	
Address:			
Telephone:	205-344-0426	205-348-7155	
FAX:			
E-mail:	mdandrews@crimson.ua.edu	jdgreer@ua.edu	

Title of Research Project: The long-term effects of early-life exposure to frightening and/or disturbing media content: An exploratory study of 65-84-year-old adults

Date Submitted:  
Funding Source:

Type of Proposal  New  Revision  Renewal  Completed  Exempt

Please attach a renewal application

Please attach a continuing review of studies form

Please enter the original IRB # at the top of the page

UA faculty or staff member signature: 

II. NOTIFICATION OF IRB ACTION (to be completed by IRB):  
Type of Review: \_\_\_\_\_ Full board \_\_\_\_\_ Expedited

IRB Action:

\_\_\_ Rejected Date: \_\_\_\_\_

\_\_\_ Tabled Pending Revisions Date: \_\_\_\_\_

\_\_\_ Approved Pending Revisions Date: \_\_\_\_\_

Approved-this proposal complies with University and federal regulations for the protection of human subjects.

Approval is effective until the following date: 5-13-15

Items approved: \_\_\_ Research protocol (dated \_\_\_\_\_)

\_\_\_ Informed consent (dated \_\_\_\_\_)

\_\_\_ Recruitment materials (dated \_\_\_\_\_)

\_\_\_ Other (dated \_\_\_\_\_)

Approval signature:  Date: 5/4/2014