The impact of reality-based violent content on perceived victimization and protective behavior: The case of the "World's Wildest Police Videos"

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The impact of reality-based violent content on perceived victimization and protective behavior: The case of the “World’s Wildest Police Videos”

by

Yen-Wen Chang

A thesis submitted to the graduate faculty
in partial fulfillment of the requirements for the degree of

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Program of Study Committee:
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Iowa State University
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2003

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This is to certify that the master’s thesis of

Yen-Wen Chang

has met the thesis requirements of Iowa State University

Signatures have been redacted for privacy
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ABSTRACT

This study used the General Aggression Model to elaborate on cultivation theory, and found that those who viewed a 45-minute reality-based violent TV program, World's Wildest Police Videos exhibited more intentions to protect themselves against crime than those who viewed a non-violent show on Animal Planet. Besides, subjects' cognitions about the likelihood of crime victimization increased after they watched the World's Wildest Police Videos, but the difference was not statistically significant. This study also treated aggressive personality as a covariate but aggressive personality had no effect on people's cognitions about becoming crime victims or intentions to protect themselves.

The most important finding in this study is that short duration exposure to violent reality-based programs has an effect on cultivation theory. According to Gerbner's cultivation theory, viewers regularly expose themselves to over long periods of time cultivates the common conceptions of reality. However, this study found that a short period of time exposure such as a 45-minute violent stimulus could cause the same effects. In addition, previous cultivation studies particularly focused on fictional violent content on television rather than reality-based TV shows. This study found cultivation effects could be true for both fictional and reality-based shows.
CHAPTER 1. INTRODUCTION

Previous Television Violence Research

Concerns about television violence have sparked intense debate since television's earliest years, and some of the very first empirical studies of the medium reflected those concerns. Smythe (1954) and Head (1954) both coded programs and found a considerable amount of violence in samples of New York City television programming in the early 1950s. These prior studies indicated that violence appeared in two-thirds to three-quarters of all television programs at a rate of between six and ten incidents per hour in primetime and at rates three or four times as much in children's programming (Signorielli, Gerbner, & Morgan, 1995). Today, it seems that violence is an essential part of television programming and filmmaking.

Three major content analyses of television violence have been conducted in the United States. The first analysis spanned 22 years from 1967 to 1989 by George Gerbner and his colleagues. They found that 80% of all the shows in the study contained some element of physical violence. However, their definition of violence was very broad. "Physical force" might be a more accurate term. The second study was conducted by Bradley Greenberg and colleagues in the mid-1970s. Their analysis included verbal aggression and other forms of antisocial behavior. These researchers estimated that there are 14.6 violent acts on an average hour on American television. The third major content analysis was conducted by the National Cable Television Association during the 1990s. The National Television Violence Study used
a more precise definition of violence and found such content in 60% of prime-time programming (Giles, 2003).

For decades, the effects of TV violence have become an essential topic in communication research. In developing a theory of violent media effects, George Gerbner, one of the pioneers of television research, began his cultivation analyses in the mid-1960s in an attempt to describe the “world” of television, and particularly the amount of violence in that world. Gerbner and his colleagues tried to discover how watching television drama influences viewers’ everyday conceptions of reality.

Conceptions of Reality – Gerbner’s Cultivation Theory

According to Gerbner’s (1973) cultivation theory, the message systems of a culture not only inform us but also form common images. People’s attitudes, tastes, and preferences are created by the content of media to which they expose themselves. Style of expression, quality of representation, and artistic appreciation are obtained from mass-produced messages that, in the long term, may significantly affect people’s attitudes, concept of the environment, and behavior (Gerbner, 1973). In today’s media mix, communication scholar Denis McQuail singles out television as responsible for a major ‘cultivating’ and ‘acculturating’ process in modern society. As television becomes ubiquitous, he explains, people can learn and relearn their thinking structures from it (McQuail, 2000).

Cultivation theory states that the more people watch TV, the more they are likely to think that TV content is reality. This becomes a scary proposition, considering that violent content is widespread in TV programs, including serials, movies, cartoons, and news. The extent of violent content in TV programs would have audiences believe that it is indeed a
vicious world. In the absence of real experience, mediated violence may be perceived as the “truth” (Gerbner & Gross, 1976; Gerbner, Gross, Eleey, Jackson-Beeck, Jeffries-Fox, & Signorielli, 1977; Gerbner, Gross, Morgan, & Signorielli, 1980; Gerbner, 1998). Focusing on the impact of television viewing on fear of crime and perceptions of violence in society, the Gerbner research indicates that in comparison to light viewers, heavy television viewers tend to see the world as a more mean and violent place and are more willing to engage in a variety of protective behaviors (Gerbner et al., 1977). Regular exposure to violent TV content has been seen as an explanation for increased fear of personal victimization among viewers (Gerbner & Gross, 1976; Gerbner, Gross, Morgan, & Signorielli, 1994). Once they feel they live in a violent environment that might cause them harm, they would adopt or change some actions to reflect feelings of nervousness, fear, panic, or dread. Some people, for example, might avoid being out at night, might carry weapons, or install more locks on their doors. Parents might ask their children to come home earlier than before, sensing more danger in their environment as perceived by the programs they watch on TV. In short, violent TV images may result in people taking actions to protect themselves against a “violent” world.

More Real, More Effects

Although cultivation theory argues that heavier viewers are more likely than lighter viewers to score high on indices of interpersonal mistrust, anomie, and fear of walking alone at night, cultivation analysis always focuses on violent drama; that is, fictional violent TV shows (Gerbner et al., 1977, Gerbner, Gross, Jackson-Beeck, Jeffries-Fox, & Signorielli, 1978). However, a number of studies suggest that the more “real” or credible the content, the more likely that content will influence perceptions of social reality (Hawkins & Pingree, 1981). Slater and Elliott (1982) reported that people with higher levels of perception about
the realism of law enforcement programs are less likely to believe that society is safe, less likely to understand law enforcement, and more likely to accept the television portrayals as real. Atkin (1983) indicates that fictional presentations may be interpreted by the viewer as a less reliable guide to aggressive techniques or appropriate norms, since drama need not faithfully reflect true-to-life motivations, actions, and consequences. In his experiment, 98 sixth grade students watched different “reality news” and “fantasy entertainment,” he found that a violent incident presented as realistic news has greater impact on aggressiveness than the same scene portrayed as fantasy entertainment (Atkin, 1983). Real events are more involving compared to fiction. Real things are also more likely to be acted upon. For example, violent scenes, when they are real, have a greater likelihood of resulting in aggression (Condry, 1989).

**Reality-Based TV Shows in the United States**

As a matter of fact, the so-called reality-based or “docu-cop” programming has been extremely dominant with television audiences and producers over the past decade. Shows like “World’s Wildest Police Videos,” “Cops,” and “America’s Most Wanted” are cheap to make and wildly successful with viewers. Such shows, with their manufactured atmospheres of immediately and close attention to the details of street life, also cross a thin line between entertainment and information (Anderson, 1994). Indeed, media “access” to the police took a significant turn in the 1980s when Americans were introduced to reality programming on television (Cavender & Fishman, 1998). These kinds of programs present actual footage of the real life adventures of police officers, criminals, emergency medical personnel, and everyday citizens performing heroic feats (Eschholz, Blackwell, Gertz, & Chiricos, 2002).
The Impact of World's Wildest Police Videos

This study focuses on the cultivation effects of reality-based TV programs. This includes the fear of being victims of crime and the desire to engage in behavior to protect against crime. This study examines these cultivation effects in a reality-based program called “World’s Wildest Police Videos.” This program displays real criminal incidences at the time they happen. The content of the program comes from video footage of police departments all over the world. People can see, for example, an actual robbery in a jewelry store or a convenience store captured on camera in real time. They can also witness police officers attempting to catch suspects, video-taped by a camera mounted in front of police cars. As such, audience members experience real acts of violence. Unlike fictional or documentary types of programs that are mostly fake or just descriptive, these shows are only superficially edited. Therefore, the impact of these programs might be more powerful.

World’s Wildest Police Videos, produced by Paul Stojanovich, is an instant hit especially among young men. A rating investigation by Nielsen Media Research (“Demo Derby,” 2000) in November 2000 found that this program was taking control of Friday’s leadoff hour (Table 1). Although the content of this program is collected all over the world, much of it is culled from the United States. The producers proclaim the show’s social value by stating that, “those who realize the danger they might meet can avoid it.”

Because of the real violent content, audiences are likely to perceive more terror, worry, and anxiety from watching these shows. Based on the cultivation hypothesis, they are likely to believe that crime victims might be their neighbors or themselves, and crime could possibly happen within two blocks of their homes.
Table 1. Ratings of the top three Friday night TV programs by gender and age group (Nielsen Media Research, 2000)

<table>
<thead>
<tr>
<th>Show</th>
<th>A18-49</th>
<th>A18-34</th>
<th>M12-17</th>
<th>M18-34</th>
<th>M35-49</th>
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<tbody>
<tr>
<td>Police Videos (Fox)</td>
<td>15</td>
<td>19</td>
<td>14</td>
<td>22</td>
<td>14</td>
</tr>
<tr>
<td>Providence (NBC)</td>
<td>12</td>
<td>9</td>
<td>4</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>The Fugitive (CBS)</td>
<td>7</td>
<td>6</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

Note. A = Age, M = Male

The impact of the “World’s Wildest Police Videos” on audience cognitions and behaviors is the focus of this study. One can hypothesize that people who watch real crimes are significantly different from those who watch none of these programs. People who expose themselves to such content would have more worries about safety and security, and take more precautions against robbery and other crimes than those who do not watch. For fear of getting victimized, people might spend more time and money to protect themselves and their families. This study divides experimental subjects into two groups: The first group was composed of those who watch this program; the second group was made up of people who do not watch the program. According to cultivation theory, the first group will elicit more protective behavior because they were immersed in the programs.

**Social Problem and TV Violence**

In the process, the study looks at the social responsibility of the mass media, especially television. Among the highly developed Western nations, the United States has scored at the top for the past several decades on most objective measures of interpersonal violence (Huesmann & Miller, 1994). Studies show that Americans spend three hours per day watching TV. This means that a person would have sat in front of the TV set for nine years if
he/she lives to be 75 years old. Watching TV is the most important activity occupying people’s leisure time, which leads to “TV addiction” (Kubey and Csikszentmihalyi, 2002). Speculation about the role of media violence in stimulating violent behavior has been prevalent ever since motion pictures depicting violent acts were first distributed (Huesmann & Miller, 1994). This finding behooves communication experts, therefore, to assess the impact of reality-based violent TV content on society. The findings of this study can provide insights into how producers could develop suitable program content for audiences, and how audiences can choose suitable programs to watch.

From a policy perspective, it has been observed that fear of crime is often disproportionate to its actual occurrence and severity may be an emerging social problem. The impact of both reality-based and fictional television on such fear could yield dysfunctional influences, particularly given the biases in the content of both (Skogan & Maxfield, 1981). Such influences may affect not only citizen perceptions of the severity of crime and their vulnerability to it, but also their views of how crime can best be dealt with and the social and political ramification of such views. Such citizen orientations obviously may affect not only individual behaviors but system-level legislative and judicial action as well (O’Keefe, 1984).
CHAPTER 2. LITERATURE REVIEW

This study aims to determine whether people who watch actual real crime scenes aired in the television program “World’s Wildest Police Videos” will develop a view of the world as a dangerous place, and whether such exposure affects their crime prevention behaviors. This study therefore treats a reality-based televised program as a stimulus that would influence viewers’ cognitions about the world as well as their crime prevention behaviors. This study departs from most media effects analyses in the past that have concentrated on the influences of fictional TV violence. This investigation closely examines the impact of a reality-based show with a great deal of violent content. In doing so, this study uses the General Aggression Model (GAM) to elaborate on cultivation theory for examining the cognitive and behavioral cultivation effects of a reality-based program that shows violent content.

Cultivation Through Television

In short, cultivation is based on a simple hypothesis – that watching a great deal of television will be associated with a tendency to hold specific and distinct conceptions of reality, conceptions that are congruent with the most consistent and pervasive images and values of the medium (Shanahan & Mogan, 1999).

The message systems of a culture not only inform but form common images. They not only entertain but they also create reality (Gerbner, 1973). In the process of cultivation, the “facts” of the television world are learned quite well, whether or not viewers are able to
distinguish between factual and fictional presentations (Gerbner, 1998). As such, cultivation is dependent on a manifestation of the extent to which television's imagery dominates viewers' sources of information (Morgan & Signorielli, 1990). And because modern people's views of the world are based far more on second-hand media reality rather than on first-hand experience, the situations projected on TV become many people's reality in their mind.

Among the modern media, TV has arguably the most significant effects on audiences. People spend a lot more time with television than with other media. That is, more time is spent watching television than doing anything else besides working and sleeping (Morgan & Signorielli, 1990). Past studies indicate that television is the source of the most broadly shared images and messages (Gerbner, 1998). It is the mainstream of the common symbolic environment into which children are born and in which many live out their lives. For most audiences, the new types of broadcasting systems such as cable, satellite, or digital TV present a deeper penetration and integration of the dominant patterns of images and messages. Indeed, within the realm of psychology, TV is accorded a very different role from the one it plays within the communication process. In the more 'simple' models, TV is seen to cause objects to be distorted, hindering accurate reception through the transmission of stereotypical information. TV is viewed as a site for the production of meanings — a system of signification. Instead of distorting the 'real', the medium is seen to be one place where particular meanings are constituted, playing a part in actually producing and framing the way in which people come to understand their social world (Blackman & Walkerdine, 2001).

Aside from this, one of the central principles of operant conditioning, and indeed of psychology in general, is reinforcement, which refers to any event that follows a response and increases the probability of that response occurring again (Harris, 1999).
Within any given narrative, TV violence can generate excitement, build emotional tension, enhance a thrilling climax, and generally provide a satisfying vicarious experience for many in the audience (Shanahan & Morgan, 1999). Television can therefore be thought of as a continuous process of priming or cuing. This is true whether an announcer overtly prepares viewers for upcoming visuals or more subtle visual cues are used to promote attention (Reeves, Thorson, & Schleuder, 1986).

Television neither simply “creates” nor “reflects” images, opinions, and beliefs. Rather, it is an integral aspect of a dynamic process. Institutional needs and objectives influence the creation and distribution of mass-produced messages which create, fit into, exploit, and sustain the needs, values, and ideologies of mass publics. These publics, in turn, acquire distinct identities as publics partly through exposure to the ongoing flow of messages (Gerbner, 1998).

Stated most simply, as hinted above, those who spend more time watching television are more likely to perceive the real world in ways that reflect the most common and recurrent messages of the television world, compared to people who watch less television but are otherwise similar in terms of important demographic characteristics (Shanahan & Morgan, 1999). The effects of media violence, however, do not fall equally on all viewers. Some people are affected more than others, and some portrayals of violence have more effect than others (Harris, 1999).

**Violent Content and Perceptions of the World as a “Dangerous Place”**

To examine effects, cultivation research usually combines descriptive content analyses of television programming with viewer survey data to investigate the influence of exposure to television on beliefs about the world (Diefenbach & West, 2001). This study does not have
to deal with the former. The program “World’s Wildest Police Videos” inherently contains many violent scenes. Instead, this study focuses on a survey of people’s orientations toward and perception of the real world after exposure to this program that portrays violence in “real time.”

Cultivation theory suggests that heavy viewing of a program such as this one is linked to greater perceptions of the prevalence of violence, greater perceived danger, and greater anxiety and fearfulness about the immediate environment. Studies in content domains other than violence have shown that heavy television viewing is related to a greater faith in doctors, greater interpersonal mistrust, a heightened perception of the prevalence of divorce, higher estimates of the prevalence of prostitution, drug addiction, and alcohol addiction (Shrum, Wyer, & O’Guinn, 1998).

Two studies can provide more support for this assertion. In the first study, conducted by Diefenbach and West, 410 respondents were interviewed between October 28 and November 5, 1997. Respondents were asked how many hours of television they watch on a typical day, and how many people they thought were murdered in Buncombe County, North Carolina since the beginning of the year. Those who watched more TV per week were likely to overestimate the number of murders in their community (Diefenbach & West, 2001).

The second study, conducted in 1994, investigated the relationship between violent news and fear of crime. The researchers considered four sources of news: television, radio, newspapers, and weekly magazines, and examined the relationship between news consumption and fear, controlling for age, gender, race, victim experience, and other crime perceptions, including the perception of risk. More importantly, the researchers explored the possibility that relationships between fear of crime and news consumption vary in ways that
reflect socially patterned differences among respondents. They designed their questions as:

On a scale of one to ten, with ten representing the most fear and one representing the least fear, how much do you fear being robbed by someone who has a gun or knife; someone breaking into your house to steal things; someone stealing your car; someone attacking you physically? The researchers found that women and African Americans are significantly more fearful than men and whites, respectively. Fear is also consistently elevated for those who feel less safe or perceive crime to be increasing in their neighborhood or in the country. The study also notes that people who more often listen to radio news or watch television news express significantly higher levels of fear and that significant TV news effects are found for female, white, and middle-aged audiences and for those with recent victim experiences, low income, and those living in disproportionately black neighborhoods (Chiricos, Eschholz, & Gertz, 1997).

Despite the wealth of literature on cultivation studies, few dealt exclusively with the impact of “real TV” or television programs with scenes that are true recordings of actual or “real life” violent incidents. Therefore, this study examines the effects of a prominent reality program on people’s perceptions, attitudes and behavior.

In previous studies, scholars have emphasized the difference between fear of victimization and the probability of being victimized. Sparks and Ogles (1990), for example, indicate that because of the role played by coping ability, it is possible to conceive of situations in which a person might perceive a relatively high likelihood of criminal victimization but might experience a low level of fear. It suggests that true fear of victimization is conceptually distinct from estimates of probability of victimization. Sparks and Ogles therefore suggest avoiding the use of the probability of being victimized to
evaluate the fear of victimization (1990). Therefore, this study evaluated both fear of victimization and fear of crime.

**Violent Content and Behavior**

The psychological literature documents a range of ‘media effects’ on ‘the vulnerable individual’, from behavioral disturbances, including aggression and arousal, to a range of psychological symptoms. In the most relevant research, scholars evaluate how television influences people’s mind in terms of their behavior.

When viewers make judgments about the real world, they tend to rely on media images that are readily available in memory due to heavy or recent exposure to TV programs (Sparks, Nelson, & Campbell, 1997). This judgment later translates into people’s behavior. Viewers are enticed into believing that what they see on television is what they will get in real life. In fact, it can be said with some degree of certainty that all of television – daytime, nighttime, entertainment, and news – is based on an intense effort, more often than not successful, by the people who manufacture television programs to make the viewers believe that it is in fact a picture of real life (Mankiewicz & Swerdlow, 1978).

Another important attribute or contextual factor that qualifies the extent of influence of violent TV on audiences is the degree of realism associated with a violent portrayal. Public reaction to televised images illustrates that realistic scenes of violence can have a significant impact on viewers (Wilson et al., 1998). This contention assumes that people are born into a symbolic environment with television as its mainstream. Because children begin viewing several years before they begin reading and well before they can even talk, television viewing can be said to both shape and be a stable part of lifestyles and outlooks. It links the individual to a larger, synthetic world, a world of television’s own making (Gerbner, 1998).
Comstock, Chaffee, Katzman, McCombs and Roberts (1978) note that the perceived reality of a portrayal is an important factor in the acting out of aggressive responses. The likelihood of viewers’ behaviors being influenced increases when they are highly involved in the observed scene, thinking of themselves as carrying out the portrayed behaviors. The reality of the media depiction can thus determine how involved they will be in the scene that they observe (Berkowitz & Rogers, 1986).

Another important mediating factor is whether the violence is presented as real or fictional: that is, the degree of perceived reality. Some studies like those done by Feshbach (see Feshbach, 1976; Feshbach & Singer, 1971) have shown that cartoon violence has less negative effects than more realistic violence (Weimann, 2000). Some other research suggests that difference in realism may play an important role in terms of viewers’ response. Specifically, perceived realism is thought to be associated with stronger cultivation effects on beliefs about crime and victimization, and with stronger effects on involvement, arousal, and aggression (Atkin, 1983; Condry, 1989; O’Keefe, 1984; Potter, 1986; Potter, 1988; Slater & Elliott, 1982). Given that viewers presumably perceive reality-based crime shows as more realistic than their fictional counterparts, previous research on perceived reality would imply that reality-based programming may be particularly influential (Oliver & Armstrong, 1995). Therefore, this study asserts that real violence, as depicted in the “World’s Wildest Police Videos,” will have significant effects on viewers’ every day behavior.

**Cultivation Theory and General Aggression Model**

The origins of media effects research can be attributed to a serious concern about the potential massive effects that media content might have on audiences’ behaviors. Cultivation
theory (Gerbner, 1973) arose from the concern for the potentially negative effect violent television programming might have on people's worldviews and related behavioral responses. However, although cultivation research has established links among television exposure, beliefs, and worldviews, the further connection to behaviors has been left rather unexplored, as have the processes through which television exposure might finally lead to certain behavioral outcomes (Nabi & Sullivan, 2001).

Recently, scholars have begun to draw on social psychological perspectives to elaborate on sociological-based theories of the effects of media such as cultivation. For example, Shrum (1995) sensibly employed the notion of priming, or information accessibility, to explain television-viewing impact on expressed beliefs in the cultivation context (Nabi & Sullivan, 2001).

The General Aggression Model is a psychological theory related to cognition change and behavior that expands on cultivation research in two ways. First, it provides a clearer understanding of the process through which television exposure may ultimately affect personal behavior. Second, it offers a conceptual guide for the development of cultivation measures.

**The General Aggression Model (GAM)**

According to this model, people's behavior is largely based on the activation and application of knowledge structures stored in memory (Bushman & Anderson, 2002). As shown in Figure 1, this model describes a multistage process by which personological and situational input variables lead to behavior. This multistage process includes the activation of several related internal states and the outcomes of an automatic and controlled appraisal
process (Anderson & Dill, 2000). GAM specifies that social knowledge structures develop over time via a process that allows people to learn how to perceive, interpret, judge, and respond to events in their physical and social environment (Bushman & Anderson, 2002).

GAM deals with two kinds of input variables — personological and situational — that it posits influence the present internal state of the person through cognitive, affective, and arousal routes (Anderson & Dill, 2000).

Personological variables usually indicate aggression-related individual characteristics and differences, and these differences are seen as influencing behavior via a series of psychological processes (Dill, Anderson, Anderson, & Deuser, 1997). Personality, or dispositional, variables have been increasingly built into media violence research designs. Most obvious, perhaps, is the level of aggression exhibited by participants at the outset of a study. Bushman (1995) assessed trait aggression (the biological tendency for an individual to display aggression) in a series of studies that examined both preferences for violent media and the amount of noise delivered against an opponent in a reaction-time task following exposure to violent film. High levels of aggression measured by a standard questionnaire predicted both a preference for violent films and a preference for higher noise levels as shown in the reaction-time task. Trait hostility also influences multiple aggression-related mechanisms. People who score high for trait hostility and express a higher level of state hostility, are more likely to have aggressive thoughts when exposed to aggression-related situational cues, and respond more to even relatively neutral situations than do low-trait-hostile people (Lindsay & Anderson, 2000).
In short, personality can influence people's behaviors according to this formulation. Previous studies have noted that people who have a high-level aggressive personality also demonstrate high hostile perception, expectation, and attribution biases (e.g., Anderson, 1997; Anderson & Dill, 2000; Crick & Dodge, 1994; Dill et al., 1997). For instance, people with aggressive personalities are likely to view their environment through "blood-red tinted" glasses. That is, people with aggressive personalities tend to expect and perceive more
hostility and aggression in diverse situations than do people with lower aggressive tendencies. As a consequence of these more hostile expectations and perceptions, people who score higher in aggressive personality tests display different behaviors from those who have low aggressive personalities (Dill et al., 1997).

Situational factors include any important features of the situation, such as the presence of a provocation or an aggressive cue (Anderson & Bushman, 2002). Situational input variables also influence behaviors through their impact on the person’s present internal state, consisting of cognitive, affective, and arousal variables (Anderson & Bushman, 2001). In 1995, Anderson, Deuser, & DeNeve conducted two experiments and found that hot temperature (situational provocation) produced increases in hostile affect, hostile cognition, and physiological arousal. Hot temperature also produced decreases in perceived arousal and general positive affect (Anderson, Deuser, & DeNeve, 1995). Situational variables usually are seen as a provocation to induce people’s behavior. In past studies, aggressive behaviors usually result from situational provocation such as viewing violent TV programs or playing violent video games (Bushman, 1998; Anderson & Bushman, 2001; Anderson & Dill, 2000; Bushman & Anderson, 2002).

In GAM, cognitions, affects, and arousal are three important factors that influence people’s behavior, and these three variables are highly interrelated in the person’s internal state (Anderson & Dill, 2000). In the cognitive route, personological and situational variables increase the accessibility of hostility-related thoughts, schema, and behavioral scripts to help people interpret the information they receive from their environment. If the information has violence-eliciting properties, this variable can result in increased violent cognitions.

Berkowitz and LePage (1967) first provided evidence suggesting a purely cognitive link
between aggressive thoughts engendered by the presence of a weapon and subsequent aggressive behavior (Lindsay & Anderson, 2000). Building on social learning theory, Huesmann proposed a social cognitive theory of media-related aggression. Huesmann suggested that when children observe violence in the mass media, they learn aggressive scripts for social behavior (Huesmann, 1986). Behavioral mechanisms have cognitive components, and that cognitive mechanisms have behavioral consequences. Our perceptual systems reverberate with some kinds of situations more than others. Some kinds of stimulation are quick to draw attention (Condry, 1989). Bushman (1998) found that scenes of violence in the mass media prime aggressive constructs in memory, making them more accessible to viewers. The cognitive effects of media can be grouped into two very broad categories: They may elicit obtrusive thoughts such as dreams, fantasies, or preoccupations about violence, or they may work at a more conscious level by stimulating ideas about how to behave (Giles, 2003). Some factors, such as viewing media violence, can prime aggressive thoughts (Anderson & Dill, 2000; Bushman, 1998).

In the affective route, the two input variables can increase hostility, violence, and aggressive mood states. Anderson (1997) indicated that the effect of media violence on feelings of anger and hostility suggests that one way in which violent media may increase aggression is through its effects on affect. In his experiment, participants who watched a violent movie clip reported their state hostility level to be almost a quarter of a scale point higher on the 5 point rating scale. This effect of media violence on emotion may well be large enough to shade a person’s judgments of another’s intent in ambiguously aggressive situations, and may thus increase the likelihood of an aggressive response (Anderson, 1997).
Input variables can also directly influence affect, setting the stage for later effects on aggressive behavior (Anderson & Bushman, 2002).

In the arousal route, the input variables work by excitation transfer or a misattribution of the arousal process. An exciting movie will speed up heart rate and increase blood pressure and skin conductance. Excitation transfer takes place when the adrenalin produced by an exciting stimulus carries over to later activity and as a result may be misidentified. Arousal effect is rather easier to test experimentally because it is a short response. It is also easier to measure because overt physiological responses are involved (Giles, 2003). There have been numerous experimental studies examining the short-term arousal effects of viewing violence, and these have generally produced positive associations between violent media and subsequent behavior (Paik & Comstock, 1994). If people find unexplained arousal, it may lead them to search the environment for cues about its cause (Anderson, Anderson, & Deuser, 1996). Anderson and Bushman (2002) indicated that arousal could influence aggression in three ways. First, arousal from an irrelevant source such as exercise can energize or strengthen the dominant action tendency, including aggressive tendencies. Second, arousal elicited by irrelevant sources can be mislabeled as anger in situations involving provocation, and producing anger-motivated aggressive behavior. Thirdly, it is possible that unusually high and low levels of arousal may be aversive states, and may therefore stimulate aggression in the same way as other aversive or painful stimuli.

As shown in figure 1, the contents of these three routes are highly interconnected. Before GAM was established, Berkowitz (1984) posited that thoughts, feelings, and action tendencies are linked together in memory, thereby forming an associative network, an idea borrowed from cognitive psychology. Berkowitz extended the idea of associative networks
by proposing that the aggressive ideas suggested by a violent movie can prime other semantically related thoughts, and heighten the chances that viewers will have other aggressive ideas in this period (Berkowitz, 1984). Knowledge structures include thoughts, feelings, memories, and behavioral scripts. Activation of one element in a network tends to automatically increase the accessibility of other elements in that network (Anderson et al., 1996).

The appraisal stage follows these three interrelated internal variables in the GAM process (see figure 2). Immediate appraisals (also called “automatic appraisals”) are evaluations of the present environment and internal state, and are made instantly with little or no awareness. The process is commonly referred to as the “fight or flight” response. For example, when hit in the body, people will quickly perceive the environment as threatening, causing them to be angry and/or afraid (Anderson & Dill, 2000). Immediate appraisals require relatively little cognitive effort. People determine how to interpret the present environment with particular reference to harm, intent, and malice (Anderson et al., 1995). The process of immediate appraisal includes cognition and emotion, either of which can feed directly into the process of choosing to engage in some behaviors (Anderson et al., 1996). However, the exact response will differ considerably from person to person, depending on personal factors such as personality and present state of mind, and which knowledge structures are currently accessible (Anderson & Bushman, 2002).
Sometimes reappraisal occurs in the process of behavioral decision. This happens depending on the perceived importance of an event and the availability of resources. That is, if the person thinks that the event is important and the resources are available, and if the immediate appraisal outcome is both important and unsatisfying, then the person will engage in a more effortful set of reappraisals. Compared with immediate appraisals, reappraisal refers to a more thoughtful, effortful, and conscious cognitive process (Anderson et al., 1996; Anderson et al., 1995; Anderson & Bushman, 2002). Additional attribution and related decision processes arise at this stage, finally leading to a behavioral response (Anderson et al., 1995). Whether a behavioral response takes place depends on what behavioral scripts have been activated by the various input variables and the appraisal process (Anderson & Dill, 2000). The outcomes of these decision processes themselves determine the final action.
of the episode. The final outcomes then cycle through the social encounter to become part of the inputs for the next episode, as depicted in Figure 1.

GAM argues that some people tend to interpret ambiguous social events in a relatively hostile way, a phenomenon referred to as “hostile bias.” Hostile bias is the inclination to perceive actions by others as intentional rather than accidental (Bushman & Anderson, 2002). However, what makes people interpret their environment in a hostile way? This is decided upon, according to the model, by the two input variables. Increases in hostile thoughts and schema, hostile affect, and arousal as a result of any input variable may put the individual in a hostile frame of mind or affective condition, which may cause him or her to interpret the environment in a more malicious manner (Anderson, Anderson, Dill, & Deuser, 1998). Besides, this cognitive bias is used by people to perceive and realize social events in general, and not just personally relevant events (Anderson et al., 1998). If an input variable (e.g., watching a reality-based violent TV program) results in hostile bias, this becomes a clear indication that people “learn” that the world is a dangerous place, and they will likely deal with the environment with conflict and anger (Bushman & Anderson, 2002).

**Hypotheses**

This study explores the relationships among reality-based television show viewing, audiences’ cognitive evaluations of the likelihood of victimization, and their resulting actual self-protection behaviors—all of which represent variables of interest, to some degree, to both cultivation theory and GAM.

According to GAM, situational provocation influences people’s cognition, and results in hostile bias. One can hypothesize, therefore, that people who watch a lot of real crimes (thus
experiencing a great deal of situational provocation) are significantly different from those who watch less of these types of programs. People who expose themselves more to such content would have more worries about safety and security, and take more precautions against robbery and other crimes than those who do not or those who watch less. For fear of getting victimized, people might spend more time and money to protect themselves and their families.

This study attempts to determine whether people who are exposed to reality-based violent content indeed (1) perceive themselves as more likely to be victims of crime and that they (2) will exhibit intention to perform crime-prevention and protection behavior. Specifically, the study examines the effect of a single television program, World’s Wildest Police Videos, on such cognitions and behaviors.

The hierarchy of effects suggested by GAM is such that once people receive situational provocation (after viewing World’s Wildest Police Videos), their cognitions and behaviors will reflect that fear. Therefore, if those viewers who watch World’s Wildest Police Videos are found to be significantly different in their cognitive evaluation of victimization and the crime prevention behaviors they take as a consequence of that exposure, this could be taken as empirical evidence to substantiate the GAM hypothesis. It is thus hypothesized that people who watch World’s Wildest Police Videos would see themselves to be likely victims of crime and that they will be more likely to perform actions to protect their security than those who view shows without real violent content.

In this study, GAM was used to elaborate on cultivation theory. Because the internal state, cognition, is pertinent to testing cultivation theory, two other internal state, affects and arousal, was removed from this study. As such, this study hypothesizes:
Hypothesis 1: Viewing World’s Wildest Police Videos will be positively related to cognitions about the likelihood of crime victimization. That is, people who view World’s Wildest Police Videos will consider their environment more dangerous than those who view non-violent TV content.

Hypothesis 2: Viewing World’s Wildest Police Videos will be positively related to greater intentions to perform crime-prevention and protection behaviors. That is, people who view World’s Wildest Police Videos will be more likely to engage in more protection behaviors against crime than those who view non-violent TV content.

In addition to situational provocation, personological variables such as having an aggressive personality is another factor influencing viewers’ cognitions and behaviors. Therefore, this study proposes four other hypotheses to examine the interaction effects between the input variables proposed by GAM, and their impact on the two dependent variables – cognitions about victimization and the intention of crime protection behaviors.

Hypothesis 3: Aggressive personality scores and viewing World’s Wildest Police Videos will be positively related to cognitions about the likelihood of crime victimization. That is, after viewing World’s Wildest Police Videos, people who possess highly aggressive personalities will consider their environment more dangerous than those who have low aggressive personalities.

Hypothesis 4: Aggressive personality scores and viewing World’s Wildest Police Videos will be positively related to greater intentions to perform crime-prevention and protection behaviors. That is, after viewing World’s Wildest Police Videos, people who possess highly aggressive personalities will be more likely to engage in more protection behaviors against crime than those who have low aggressive personalities.
**Hypothesis 5:** Aggressive personality scores and viewing World's Wildest Police Videos will have an interaction effect on cognitions about the likelihood of crime victimization. That is, people who possess highly aggressive personalities and who view World's Wildest Police Videos will consider their environment more dangerous than those other subjects.

**Hypothesis 6:** Aggressive personality scores and viewing World's Wildest Police Videos will have an interaction effect on intentions to perform crime-prevention and protection behaviors. That is, people who possess highly aggressive personalities and who view World's Wildest Police Videos are more likely to engage in more protection behaviors against crime than those other subjects.
CHAPTER 3. METHODOLOGY

The Research Design

This study conducted a pretest-posttest control group experiment design (Figure 3). The total subjects who participated in this study were 60 students from a mass communication theory course, evenly split between the experimental and control groups. The subjects included 27 males and 32 females, of whom 28 considered the place they grew up as rural and 31 as urban. In the first class meeting, the researcher met with all the students to explain the experimental procedures. Then, the subjects were asked to complete a questionnaire (see Appendix B) as a pretest to measure their cognition about the likelihood of crime victimization and protection behavior to prevent becoming crime victims, and took the Caprara Irritability Scale (CIS) test to measure aggressive personality as a covariate (see Appendix A).

After a week, the 60 subjects were randomly assigned to two groups. The experimental group watched half of an episode of World’s Wildest Police Videos for 45 minutes, while the control group watched a non-violent nature-oriented program from the Animal Planet Channel also for 45 minutes. Immediately after watching the two programs, the subjects in the two groups were asked to respond to the questionnaire again to measure their cognition about the likelihood of crime victimization and to determine the behaviors they intend to take avoid becoming crime victims.
Step 1 Pretest

(After a week)

Step 2 Group divisions (Random assignment)

Total number of subjects: 60
A CIS test measured aggressive personality, and a questionnaire measured cognition and intention to perform crime prevention behaviors.

Experimental group: 30 subjects
Control group: 30 subjects

Step 3 Experimental treatment

Exposure to World's Wildest Police Videos
Exposure to Animal Planet program

Step 4 Measure changes in cognition and behavior

Experimental group: the same questionnaire was used to measure cognition and intention to perform crime prevention behavior after the experiment.
Control group: the same questionnaire was used to measure cognition and intention to perform crime prevention behavior after the experiment.

Figure 3. The experimental procedure
This project was approved by Iowa State University Human Subjects Research Office before being conducted. See the approval letter in Appendix C.

**Measurement of Variables: Three Indices**

In this study, viewing violent content on TV is a nominal variable with two categories (viewing World's Wildest Police Videos or not, coded as a 0-1). The questionnaire and CIS test were intended to (1) examine the subjects' cognitions about being potential victims of crime as well as their behavioral intentions to protect themselves against crime, and (2) measure their aggressive personality as a covariate.

**Caprara Irritability Scale (CIS)**

The CIS measures aggressive impulsiveness or the proclivity toward quick and impulsive reactions to what the individual perceives as provocation or frustration (Anderson & Dill, 2000). The CIS consists of 30 Likert scale items (20 effective and 10 control) (Caprara, Cinanni, D’Imperio, Passerini, Renzi, & Travaglia, 1985). In this test, respondents were asked to indicate the extent to which they agree or disagree with the 30 items, based on a five-point scale, which was used to create a simple, summed index which ranged from 30 – 150. There were 10 control items which contained positively worded statements. A response of ‘strongly agree’ to the control items was the equivalent of a response of ‘strongly disagree’ to the negatively worded items, so the control items were recorded accordingly.

The 30 items were (C = control items):

1. I easily fly off the handle with those who don’t listen or understand.
2. I am often in a bad mood.
3. Usually, when someone shows a lack of respect for me, I let it go by. (C)
4. I have never been touchy. (C)
5. It makes my blood boil to have somebody make fun of me.
6. I think I have a lot of patience. (C)
7. When I am irritated, I need to vent my feelings immediately.
8. When I am tired, I easily lose control.
9. I think I am rather touchy.
10. When I am irritated, I can’t tolerate discussions.
11. I could not put anyone in his place, even if it were necessary. (C)
12. I can’t think of any good reason for resorting to violence. (C)
13. I often feel like a powder keg ready to explode.
14. I seldom strike back even if someone hits me first. (C)
15. I can’t help being a little rude to people I don’t like.
16. Sometimes when I am angry I lose control over my actions.
17. I do not know of anyone who would wish to harm me. (C)
18. Sometimes I really want to pick a fight.
19. I do not like to make practical jokes. (C)
20. When I am right, I am right.
21. I never get mad enough to throw things. (C)
22. When someone raises his/her voice, I raise mine higher.
23. Sometimes people bother me just by being around.
24. Some people irritate me if they just open their mouth.
25. Sometimes I shout, hit and kick and let off steam.
26. I don’t think I am a very tolerant person.
27. Even when I am very irritated, I never swear. (C)

28. It is others who provoke my aggression.

29. Whoever insults my family or me is looking for trouble.

30. It takes very little for things to bug me.

The results of a reliability analysis showed that Chronbach’s Alpha was .8073.

Elimination of any single item only slightly decreased or increased Chronbach’s Alpha between .8073 and .8087.

**Measuring Cognition**

All subjects answered a questionnaire to measure their cognition about being crime victims and the behaviors to protect against crime they were likely to perform. The questionnaire consisted of three sections (see appendix B). The first section contained ten questions that attempted to measure the subjects’ cognition about the perceived possibility of being victims of crime. To measure this, the Mean World Index was adapted. This index gauges the subjects’ feelings about their environment (Gerbner et al., 1977; Gerbner et al., 1978). This index includes three questions:

1. Do you think that most people would try to take advantage of you if they get a chance of would 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?

In this study, these questions were changed into direct statements as follows:

1. Most people would try to take advantage of me if they get a chance.
2. Generally speaking, I can’t be too careful in dealing with people.

3. Most of the time, people are just looking out for themselves.

In addition, seven more questions were added to measure this concept.

The 10 questions were:

1. Most people would try to take advantage of me if they get a chance.

2. Generally speaking, I can’t be too careful in dealing with people.

3. Most of the time, people are just looking out for themselves.

4. I think we need more police officers in Ames.

5. I feel unsafe going out alone at night.

6. I feel unsafe living alone.

7. I think a member of my family, one of my close friends, or I would become victims of a violent crime.

8. I think someone would break into my house.

9. I think someone would rob me.

10. I would go to the nearest safe place when walking alone on a street at night.

The questionnaire used in this study was developed by some previous studies. In order to test subjects in Ames, the researcher added or omitted some questions to fit needs. Questions 1 to 3 were from Mean World Index. Questions 7 to 10 of this section were from a previous study conducted by Nabi and Sullivan. In that study, Nabi and Sullivan tried to find if television viewing relate to engagement in protective action against crime (Nabi & Sullivan, 2001). Overall scores on this section were computed by totaling subjects’ answers to these 10 questions, using a Likert response scale with a response range of 1 “strongly disagree”, 2 “disagree”, 3 “neutral”, 4 “agree”, and 5 “strongly agree”.
A reliability analysis showed that Chronbach’s Alpha was .6333. Elimination of any single item only slightly increased or decreased Chronbach’s Alpha between .6333 and .6603.

**Measuring Perceived Behavior**

The second section contained 12 questions aimed to test the subjects’ intentions to perform protective behaviors to safeguard themselves against crime. Protective behaviors refer to actions people take in their daily lives to defend or protect themselves against crime. A subject’s total points were summed to form the behavioral intention index. The 12 questions were:

1. I will bring a baseball bat (or any kind of weapon) in my car.
2. I will lock the doors in my house even if I am home.
3. I will keep a close watch on my neighborhood.
4. Most of the time, I will help strangers when I find they need help.
5. When I go out, I will ask a member of my family or a friend to accompany me.
6. When I leave my house for a long time, I will ask relatives or friends to watch my house.
7. I will install a security system in my house.
8. I think I need a guard dog (or dogs).
9. I think I need to purchase insurance against burglary, robbery, or other crimes.
10. I will leave a light on in my home when I am away.
11. I will ask DPS guard service if I go home late alone.
12. If somebody hits me, I will hit back.
In this section, questions 2, 10 and 11 were from Nabi and Sullivan, and question 12 was from AQ Scale developed by Buss and Perry (Buss and Perry, 1992). Overall scores on this section were computed by totaling subjects’ answers to these 12 questions, using a Likert response scale where 1 was “strongly disagree”, 2 was “disagree”, 3 was “neutral”, 4 was “agree”, and 5 was “strongly agree”.

This project did not attempt to measure subjects’ actual behavior but their intention to perform crime-prevention and protection behavior. That is, the behavior that they perceive to engage in when they encounter some crime or threatening situation.

A reliability analysis showed that Chronbach’s Alpha was .7406. Elimination of any single item only marginally increased or decreased Chronbach’s Alpha between .7406 and .7620.

The third section of the questionnaire contained these two questions about the subjects’ gender and the places they grew up. The two questions were:

1. What is your gender?
2. Do you consider the place you grew up as rural or urban?

**Pilot Test**

Before the experiment, the procedures were pilot tested to a convenience sample of five people to make sure the questions made sense and were clear. The test subjects commented that the 12 questions on the second section should have responses on a five-point scale, similar to the first section. Modifications were made on several questions to make them clearer. The final questions used are listed above and in Appendix B.
Statistical Tests and Data Analysis

Data analysis was conducted using the general linear model (GLM) univariate procedure. The GLM univariate procedure provides regression analysis and analysis of variance for one dependent variable by one or more factors and/or variables. In addition, the effects of covariates and covariate interactions with factors can be included. In this study, the GLM univariate procedure with repeated measures was used to test the difference among means in order to see if the subjects’ evaluations of being a potential victim of crime and their intentions to perform crime prevention behaviors had changed after watching one of the two TV programs used in this experiment.
CHAPTER 4. RESULTS

This study found that those subjects who viewed World’s Widest Police Videos exhibited more behavior intentions to protect themselves against crime than those subjects who viewed the non-violent show on Animal Planet, and their cognitions about the likelihood of crime victimization increased. However, the difference of their cognition did not find a statistically significant support. Tables 2 and 3 show the cognition and behavior means for the two groups before and after the experiment, which are plotted in Figures 4 and 5. Figure 4 and 5 show a more pronounced change for subjects in the experimental group in regard to cognition about crime victimization and protection behavior. The statistical analysis below provides significant support for the change in protection behaviors.

Table 2. Means showing change in cognition about the likelihood of crime victimization

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Before exposure</th>
<th>After exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental group</td>
<td>30</td>
<td>24.373</td>
<td>25.800</td>
</tr>
<tr>
<td>Control group</td>
<td>30</td>
<td>26.733</td>
<td>27.033</td>
</tr>
</tbody>
</table>

Table 3. Means showing change in the adoption of crime protection behaviors

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Before exposure</th>
<th>After exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental group</td>
<td>30</td>
<td>31.364</td>
<td>34.000</td>
</tr>
<tr>
<td>Control group</td>
<td>30</td>
<td>32.200</td>
<td>32.533</td>
</tr>
</tbody>
</table>
Figure 4. Group mean scores showing change in cognition of the two groups before and after exposure to the television programs
Figure 5. Group mean scores showing change in behavior of the two groups before and after exposure to the television programs
Hypotheses Tests

Hypothesis 1: Viewing World's Wildest Police Videos will be positively related to cognitions about the likelihood of crime victimization. That is, people who view World's Wildest Police Videos will consider their environment more dangerous than those who view non-violent TV content.

Table 4. GLM univariate test for cognition change in the experimental and control groups

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>19.037</td>
<td>1</td>
<td>19.037</td>
<td>1.36</td>
<td>.244</td>
</tr>
<tr>
<td>Intercept</td>
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<td>44.715</td>
<td>3.26</td>
<td>.076</td>
</tr>
<tr>
<td>Groups</td>
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<td>1</td>
<td>19.037</td>
<td>1.36</td>
<td>.244</td>
</tr>
<tr>
<td>Error</td>
<td>796.730</td>
<td>58</td>
<td>13.737</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>860.482</td>
<td>60</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>815.767</td>
<td>59</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To test this hypothesis, the GLM univariate procedure was used. As Table 4 shows, after viewing a 45-minute episode of World’s Wildest Police Videos, subjects in the experimental group somewhat changed their cognitions about the likelihood of crime victimization although the difference between the experimental and control groups was not statistically significant (F = 1.36, P < .244). However, the difference was in the right direction. People who viewed World’s Wildest Police Videos considered their environment more dangerous than those who viewed the 45-minute segment from the Animal Planet program. This result
offers some support for the hypothesis that the reality-based program affects people’s cognition of crime victimization.

**Hypothesis 2:** Viewing World’s Wildest Police Videos will be positively related to greater intentions to perform crime-prevention and protection behaviors. That is, people who view World’s Wildest Police Videos will be more likely to engage in more protection behaviors against crime than those who view non-violent TV content.

The results shown in Table 5 support this hypothesis ($F = 4.610, P < .05$). Subjects who viewed 45-minute World’s Wildest Police Videos showed more intention to engage in protection behaviors to prevent becoming crime victims. On the other hand, subjects who viewed Animal Planet showed no significant change in intention to perform protection behaviors for themselves to prevent becoming crime victims. This statistically significant result supports Hypothesis Two: that a reality–based TV show influences people’s intention to protect themselves against crime.

**Table 5. GLM univariate test for behavior change in the experimental and control groups**

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
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<tbody>
<tr>
<td>Corrected Model</td>
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<td>4.610</td>
<td>.036</td>
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<tr>
<td>Intercept</td>
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<td>132.268</td>
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<tr>
<td>Groups</td>
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<td>1</td>
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<td>4.610</td>
<td>.036</td>
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<tr>
<td>Error</td>
<td>1000.855</td>
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<td>Total</td>
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<tr>
<td>Corrected Total</td>
<td>1080.400</td>
<td>59</td>
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</table>
**Hypothesis 3:** Aggressive personality scores and viewing World’s Wildest Police Videos will be positively related to cognitions about the likelihood of crime victimization. That is, after viewing World’s Wildest Police Videos, people who possess highly aggressive personalities will consider their environment more dangerous than those who have low aggressive personalities.

No support was found for the hypothesis that aggressive personality had an effect on people’s cognition about the likelihood of crime victimization and protection behavior to prevent becoming crime victims. As shown in Table 6, there was no significant difference in cognition between subjects with high and low scores for aggressive personality. People who had a high score on the CIS test did not show more worry about their environment than those who had a low score on the CIS test even after viewing a reality-based TV show, World’s Wildest Police Videos.

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
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<tr>
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<tr>
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<tr>
<td>Agg. Personality</td>
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<td>1</td>
<td>.313</td>
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<td>.882</td>
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<tr>
<td>Groups</td>
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<td>17.960</td>
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<tr>
<td>Error</td>
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<td>815.767</td>
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</table>

**Hypothesis 4:** Aggressive personality scores and viewing World’s Wildest Police Videos will be positively related to greater intentions to perform crime-prevention and protection
behaviors. That is, after viewing World's Wildest Police Videos, people who possess highly aggressive personalities will be more likely to engage in more protection behaviors against crime than those who have low aggressive personalities.

A similar situation could be found in table 7, which showed hypothesis 4 was not supported in this study. GAM predicts that having an aggressive personality would lead to more protective behaviors. This hypothesis, however, was not supported. No matter whether their aggressive personality was high or low, there was no significant change in subjects' intentions to perform behavior to protect against crime after viewing World's Wildest Police Videos.

```
Table 7. GLM univariate test for aggressive personality effects on behavior change
Dependent Variable: Behavior Difference

<table>
<thead>
<tr>
<th>Source</th>
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```

Hypotheses 5 and 6 tested interaction effects. To summarize, aggressive personality scores and exposure to World Widest Police Videos did not produce any significant change in subjects' cognitions or behaviors.

**Hypothesis 5:** Aggressive personality scores and viewing World's Wildest Police Videos will have an interaction effect on cognitions about the likelihood of crime victimization. That is,
people who possess highly aggressive personalities and who view World’s Wildest Police Videos will consider their environment more dangerous than those other subjects.

This hypothesis considers whether viewing violent TV content causes cognition change, especially for those subjects who had high aggressive personality scores. According to Table 8, there was no significant change in cognitions. Thus, subjects with aggressive personalities were not more likely to consider their environment dangerous after viewing World’s Wildest Police Videos.

Table 8. GLM univariate test for interaction effect on cognition change
Dependent Variable: Cognition Difference

<table>
<thead>
<tr>
<th>Source</th>
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<tr>
<td>Group * AGPER</td>
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</table>

Note. Group * AGPER = Interaction effect variable

**Hypothesis 6**: Aggressive personality scores and viewing World’s Wildest Police Videos will have an interaction effect on intentions to perform crime-prevention and protection behaviors. That is, people who possess highly aggressive personalities and who view World’s Wildest Police Videos are more likely to engage in more protection behaviors against crime than those other subjects.
As shown in tables 8 and 9, there was no support for this hypothesis. That is, viewing World’s Wildest Police Videos did not result in behavior change even for those subjects who demonstrated high aggressive personality scores.

<table>
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</tbody>
</table>

Note. Group * AGPER = Interaction effect variable

Gender and Residence as Covariates

Following the cultivation theory, this study, gender and the place where subjects grew up were treated as covariates. As shown in Tables 10 and 11, no significant effect was found for gender and residence. That is, neither gender nor place of residence did not influence subjects’ cognition about crime or the protection behavior they reported.

The results indicate that World’s Wildest Police Videos changed subjects’ protection behavior that the subjects perceived to prevent becoming crime victims. As a covariate, aggressive personality did not influence subjects’ cognition and behavior. The next chapter provides discussion about the results of this study.
**Table 10. GLM univariate test for gender or residence effect on cognition change**  
Dependent Variable: Cognition Difference

<table>
<thead>
<tr>
<th>Source</th>
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</table>

**Table 11. GLM univariate test for gender or residence effect on behavior change**  
Dependent Variable: Behavior Difference

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<tr>
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CHAPTER 5. DISCUSSION AND CONCLUSIONS

The main findings in this study were that viewing a 45-minute reality-based violent TV program changed viewers’ intention to perform crime-prevention and protection behaviors. Subjects’ cognitions about the likelihood of crime victimization also increased, but were not statistically significant. In addition, having high aggressive personality scores did not significantly influence cognition and intention, at least no significant statistical evidence was found in this study. There was also no evidence to support the contention that having an aggressive personality and viewing World’s Wildest Police Videos could combine to have an interaction effect on viewers’ cognitions and behaviors. Gender and place where subjects grew up also had no significant effect on their cognitions and behaviors.

**Implications**

This study tested a mass communication theory, cultivation, and a psychological theory, the General Aggression Model. The results suggest some implications for these two theoretical frameworks.

According to Gerbner’s cultivation theory, the pattern of programming that viewers regularly expose themselves to over long periods of time cultivates the common conceptions of reality. Watching a great deal of television is associated with a tendency to hold specific and distinct conceptions of reality, conceptions that are congruent with the most consistent and pervasive images and values of the medium. Cultivation analysis and previous relevant studies particularly focused on fictional violent content on television rather than reality-based
TV shows, such as the experimental stimulus used in this study, World's Wildest Police Videos. Perhaps the strongest finding of this study is that short-term exposure could produce cultivation effects. In this case, a 45-minute violent stimulus could cause behavioral change. The study also showed that not only fictional TV programs but also reality-based content could bring about cultivation effects.

In the General Aggression Model, many previous studies focus on situational factors that can result in aggressive behavior (Anderson & Bushman, 2001; Anderson & Dill, 2000; Anderson et al., 1995; Bushman, 1995; Bushman & Anderson, 2002). Few studies examined whether situational stimuli such as viewing violent TV content or playing violent video games could bring about change in cognition. This study tested situational effects on perceived behavioral intentions and cognitions, and found results were in the right direction. That is, acceptance of outside situational manipulation can result not only in behavior change but also in cognition change.

In addition, GAM suggests that a personological variable is one of two input variables categories that can influence people’s behavior. This assertion was not supported in this study. The results indicated that there was no significant connection between aggressive personality and people’s cognition or intention of crime protective behavior. One possible explanation is that the subjects were homogenous. This suggests that place of residence have some links with cognitions and behaviors, and this environmental variable could also have some interaction effects with people’s personality.

According to findings in this project, producers have to pay more attention on the programs that they produce, and parents have to pay more attention on the programs that children watch. In this study, a 45-minute reality-based program can influence viewers’
cognitions about likelihood of becoming victims of crime and intentions to perform crime-prevention and protection behavior change. As stated in chapter one, the findings of this study can provide insights into how TV shows producers could develop suitable program content for audiences, and how audiences can choose suitable programs to watch, especially in the United States, where has scored at the top for the past several decades on most objective measures of interpersonal violence (Huesmann & Miller, 1994). The same principle can be applied in my country, Taiwan. Although there may be not such serious violence as in the United States, producers ignore possible impact on their viewers when they create programs. This study could provide more thoughts to them.

**Research Limitations and Shortcomings**

This study was conducted at Iowa State University in Ames, which is generally peaceful and has a low crime rate. In this relatively safe environment, the effects of reality-based TV violence may be reduced. This may explain the non-significant findings. All of the subjects in this study were ISU students, and the low crime rate in Ames may cause them to feel less concerned about crime and becoming victims of crime. In addition, the crime footage of World’s Wildest Police Videos shown to the subjects took place in seven different states, but not in Iowa. As much, the subjects may have thought that those crime events stand a better chance of happening in other cities, not in Ames. Even though they viewed real crimes, this was not enough to make them think their environment was as dangerous as those cities portrayed in the experimental clips. Therefore, if this study were conducted in big cities such as New York, Los Angeles, or Chicago, it might produce different results.
Hypotheses 3 and 4 were not supported that those high in aggressive personality did not affect people’s cognition and perceived protection behavior about crime as suggested by GAM. The explanations cited above may also explain the non-significant finding. Because the subjects perceived themselves as living in a safe city, even those who had high aggressive personality scores did not exhibit a significant change in cognitions and behaviors. An additional possible explanation for this result is that the subjects in this study were likely to have received a certain amount of violent stimuli in their TV viewing history. If some subjects were used to watching this kind of reality-based violent TV shows, this 45-minute excerpt from World’s Wildest Police Videos would not easily induce a change in cognition and/or behavior. The higher aggressive personality scores of some subjects might have resulted from viewing other very violent TV content before this experiment. Viewing World’s Wildest Police Videos, therefore, could add little to cognition and behavioral change.

Because this research did not investigate the subjects’ TV watching habits, the impact of previous exposure could have considerably influenced the result.

The questionnaire also did not define for the subjects what is meant by a rural and urban place of residence. Instead, the subjects determined subjectively whether they grew up in a rural or urban setting. Generally speaking, a rural and urban classification should adopt a minimum population, a percentage of the working population engaged in non-agriculture, the density of population, and so on. These criteria would have allowed the subjects to make judgments about whether the place where they grew up was rural or urban.

This experimental design had relatively homogeneous subjects. All of them were ISU students attending a similar course. Because all of the subjects were selected from the same
location, they were more likely to have a similar background. Therefore, the results of this study cannot be generalized to all populations.

**Suggestion for Future Research**

A future study could replicate this experimental design in metropolitan areas to check if viewers' living environment would affect their cognition and behavior as a result of violent TV content stimulus. In metropolitan areas, heavier television viewers have been found to be more likely to give incorrect estimates of violent crime rates than lighter viewers (Diefenbach & West, 2001; Oliver, 1994). A study reported that approximately 80% of crime news stories on television stations concerned murder and robbery, whereas police statistics showed that these types of crimes accounted for approximately 13% of all reported crimes (Sheley & Ashkins, 1981). Situational factors, therefore, may have more obvious effects in metropolitan areas. Additionally, future studies may guide experiments in different cities or areas. For example, researchers could conduct the same experiments in metropolitan, micropolitan, and rural areas to check different effects in different areas.

Future studies may also consider viewers' TV viewing habits. As stated in Chapter 1, watching television is the most important activity occupying people's leisure time nowadays. Maybe some viewers spend lots of time watching violent TV programs, but some others do not. Possibly, viewers who are used to watching violent TV shows may not be affected by another violent program even it is reality-based. The future study can conduct an investigation of viewing habits for those who participate in the experiment in order to confirm if viewing habits would affect their reaction to short-term reality-based TV violence.
A large heterogeneous sample is also in order. Heterogeneity can prevent effects of the same background. For example, recruiting subjects from different social levels could help test if people change their cognition and behavior because of viewing TV violence regardless of their background.

Future study could also attempt to expand perceived intention to perform crime-prevention and protection behavior to actual behavior in the lab and beyond the lab. Perceived behavior and actual behavior might have difference. However, researchers need to notice the factor jeopardizing validity such as when people are observed, they might change their behavior.

In summary, the current study found that short duration exposure to violent reality-based programs has an effect on cultivation theory. Future studies such as the ones previously mentioned are needed to determine if short period of time violent TV exposure can cause cognition and behavior change in viewers. Frequent viewing of violent TV programs (whether for long or short periods of time) might cause many effects that communication researchers still do not understand. This may be true for both fictional and reality-based shows.
APPENDIX A. THE CAPRARA IRRITABILITY SCALE

Please circle the extent to which you agree or disagree with the following statements:

1. I easily fly off the handle with those who don’t listen or understand.
   - strongly agree  agree  neutral  disagree  strongly disagree

2. I am often in a bad mood.
   - strongly agree  agree  neutral  disagree  strongly disagree

3. Usually, when someone shows a lack of respect for me, I let it go by.
   - strongly agree  agree  neutral  disagree  strongly disagree

4. I have never been touchy.
   - strongly agree  agree  neutral  disagree  strongly disagree

5. It makes my blood boil to have somebody make fun of me.
   - strongly agree  agree  neutral  disagree  strongly disagree

6. I think I have a lot of patience.
   - strongly agree  agree  neutral  disagree  strongly disagree

7. When I am irritated, I need to vent my feelings immediately.
   - strongly agree  agree  neutral  disagree  strongly disagree

8. When I am tired, I easily lose control.
   - strongly agree  agree  neutral  disagree  strongly disagree

9. I think I am rather touchy.
   - strongly agree  agree  neutral  disagree  strongly disagree

10. When I am irritated, I can’t tolerate discussions.
strongly agree  agree  neutral  disagree  strongly disagree

11. I could not put anyone in his place, even if it were necessary.
   strongly agree  agree  neutral  disagree  strongly disagree

12. I can’t think of any good reason for resorting to violence.
   strongly agree  agree  neutral  disagree  strongly disagree

13. I often feel like a powder keg ready to explode.
   strongly agree  agree  neutral  disagree  strongly disagree

14. I seldom strike back even if someone hits me first.
   strongly agree  agree  neutral  disagree  strongly disagree

15. I can’t help being a little rude to people I don’t like.
   strongly agree  agree  neutral  disagree  strongly disagree

16. Sometimes when I am angry I lose control over my actions.
   strongly agree  agree  neutral  disagree  strongly disagree

17. I do not know of anyone who would wish to harm me.
   strongly agree  agree  neutral  disagree  strongly disagree

18. Sometimes I really want to pick a fight.
   strongly agree  agree  neutral  disagree  strongly disagree

19. I do not like to make practical jokes.
   strongly agree  agree  neutral  disagree  strongly disagree

20. When I am right, I am right.
   strongly agree  agree  neutral  disagree  strongly disagree

21. I never get mad enough to throw things.
   strongly agree  agree  neutral  disagree  strongly disagree
22. When someone raises his/her voice, I raise mine higher.
   strongly agree  agree  neutral  disagree  strongly disagree

23. Sometimes people bother me just by being around.
   strongly agree  agree  neutral  disagree  strongly disagree

24. Some people irritate me if they just open their mouth.
   strongly agree  agree  neutral  disagree  strongly disagree

25. Sometimes I shout, hit and kick and let off steam.
   strongly agree  agree  neutral  disagree  strongly disagree

26. I don’t think I am a very tolerant person.
   strongly agree  agree  neutral  disagree  strongly disagree

27. Even when I am very irritated, I never swear.
   strongly agree  agree  neutral  disagree  strongly disagree

28. It is others who provoke my aggression.
   strongly agree  agree  neutral  disagree  strongly disagree

29. Whoever insults my family or me is looking for trouble.
   strongly agree  agree  neutral  disagree  strongly disagree

30. It takes very little for things to bug me.
   strongly agree  agree  neutral  disagree  strongly disagree
APPENDIX B. COGNITION AND BEHAVIOR QUESTIONNAIRE

I. Please circle the extent to which you agree or disagree with the following statements:

1. Most people would try to take advantage of me if they get a chance.
   strongly agree agree neutral disagree strongly disagree

2. Generally speaking, I can't be too careful in dealing with people.
   strongly agree agree neutral disagree strongly disagree

3. Most of the time, people are just looking out for themselves.
   strongly agree agree neutral disagree strongly disagree

4. I think we need more police officers in Ames.
   strongly agree agree neutral disagree strongly disagree

5. I feel unsafe going out alone at night.
   strongly agree agree neutral disagree strongly disagree

6. I feel unsafe living alone.
   strongly agree agree neutral disagree strongly disagree

7. I think a member of my family, one of my close friends, or I would become victims of a violent crime.
   strongly agree agree neutral disagree strongly disagree

8. I think someone would break into my house.
   strongly agree agree neutral disagree strongly disagree

9. I think someone would rob me.
   strongly agree agree neutral disagree strongly disagree
10. I would go to the nearest safe place when walking alone on a street at night.

   strongly agree  agree  neutral  disagree  strongly disagree

II. Please circle the extent to which you agree or disagree with the following statements:

1. I will bring a baseball bat (or any kind of weapon) in my car.
   strongly agree  agree  neutral  disagree  strongly disagree

2. I will lock the doors in my house even if I am home.
   strongly agree  agree  neutral  disagree  strongly disagree

3. I will keep a close watch on my neighborhood.
   strongly agree  agree  neutral  disagree  strongly disagree

4. Most of the time, I will help strangers when I find they need help.
   strongly agree  agree  neutral  disagree  strongly disagree

5. When I go out, I will ask a member of my family or a friend to accompany me.
   strongly agree  agree  neutral  disagree  strongly disagree

6. When I leave my house for a long time, I will ask relatives or friends to watch my house.
   strongly agree  agree  neutral  disagree  strongly disagree

7. I will install a security system in my house.
   strongly agree  agree  neutral  disagree  strongly disagree

8. I think I need a guard dog (or dogs).
   strongly agree  agree  neutral  disagree  strongly disagree

9. I think I need to purchase insurance against burglary, robbery, or other crimes.
   strongly agree  agree  neutral  disagree  strongly disagree

10. I will leave a light on in my home when I am away.
strongly agree  agree  neutral  disagree  strongly disagree

11. I will ask DPS guard service if I go home late alone.

strongly agree  agree  neutral  disagree  strongly disagree

12. If somebody hits me, I will hit back.

strongly agree  agree  neutral  disagree  strongly disagree

III. Tell us a little about you. Please fill in or circle an appropriate answer to every question. All of your responses will be used for statistical purposes only and will be kept confidential.

1. What is your gender? (1) female (2) male

2. Do you consider the place you grew up as rural or urban?

Rural  Urban
APPENDIX C. HUMAN SUBJECTS RESEARCH APPROVAL LETTER

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

TO: Yen-Wen Chang
FROM: Human Subjects Research Office

PROJECT TITLE: "The Impact of Real Violent Content on Perceived Victimization and Protective Behavior"

RE: IRB ID No.: 03-608

APPROVAL DATE: August 8, 2003
REVIEW DATE: July 17, 2003
LENGTH OF APPROVAL: 1 year
CONTINUING REVIEW DATE: August 7, 2004

TYPE OF APPLICATION: ☒ New Project ☐ Continuing Review

The Human Subjects Review Study has been approved. Please make sure that you obtain the consent of the parents and participants before you conduct the study.

Your human subjects research project application, as indicated above, has been approved by the Iowa State University IRB #1 for recruitment of subjects not to exceed the number indicated on the application form. All research for this study must be conducted according to the proposal that was approved by the IRB. If written informed consent is required, the IRB-stamped and dated Informed Consent Document(s), approved by the IRB for this project only, are attached. Please make copies from the attached "masters" for subjects to sign upon agreeing to participate. The original signed Informed Consent Document should be placed in your study files. A copy of the Informed Consent Document should be given to the subject.

If this study is sponsored by an external funding source, the original Assurance Certification/Identification form has been forwarded to the Office of Sponsored Programs Administration.

The IRB must conduct continuing review of research at intervals appropriate to the degree of risk, but not less than once per year. Renewal is the PI's responsibility, but as a reminder, you will receive notices at least 60 days and 30 days prior to the next review. Please note the continuing review date for your study.

Any modification of this research project must be submitted to the IRB for review and approval, prior to implementation. Modifications include but are not limited to: changing the protocol or study procedures, changing investigators or sponsors (funding sources), including additional key personnel, changing the Informed Consent Document, an increase in the total number of subjects anticipated, or adding new materials (e.g., letters, advertisements, questionnaires). Any future correspondence should include the IRB identification number provided and the study title.

HSRO/ORC 8/02
You must promptly report any of the following to the IRB: (1) all serious and/or unexpected adverse experiences involving risks to subjects or others; and (2) any other unanticipated problems involving risks to subjects or others.

Your research records may be audited at any time during or after the implementation of your study. Federal and University policy require that all research records be maintained for a period of three (3) years following the close of the research protocol. If the principal investigator terminates association with the University before that time, the signed informed consent documents should be given to the Departmental Executive Officer to be maintained.

Research investigators are expected comply with the University’s Federal Wide Assurance, the Belmont Report, 45 CFR 46 and other applicable regulations prior to conducting the research. These documents are on the Human Subjects Research Office website or are available by calling (515) 294-4566.

Upon completion of the project, a Project Closure Form will need to be submitted to the Human Subjects Research Office to officially close the project.

C: Greenlee School of Journalism and Communication
REFERENCES


ACKNOWLEDGEMENTS

This project could not have been completed without assistance of a great committee, Dr. Kim Smith, Dr. Lulu Rodriguez, and Dr. Norman Scott. I would like to offer special thanks to my major professor, Kim Smith, for his thoughtful insights and encouragement, which guided me to understand what research is and to Lulu Rodriguez for her guide about the experiment, figures, and tables, which was valuable to this project. I would additionally like to thank Norman Scott for his direction. His opinions also provided a lot of assistance on this project. Over the past year, they have generously shared their time, knowledge, and encouragement.

I would like to give my appreciation to Dru Frykberg, Kathy Box, and Kim Curell. They have made the Greenlee School as a comfortable place for all members.

I would like to thank my friends for their friendship and support. Their company gave me more confidence and energy for the life in the United States.

A special thanks is offered to my parents and sister who have always supported me. Their love and encouragement allowed me to bring this project to fruition. A final special thanks is given to Yueh-Mei who has been always been with me as a congenial friend.

You all made such a difference. Thank you very much.