

**GUN VIOLENCE THROUGH TELEVISION AND THE IMPACT ON YOUNG
ADULTS: AN INVESTIGATION OF CULTIVATION THEORY**

By: Nick Bentz

A Thesis Submitted in

Partial Fulfillment of the Requirements

For the degree of Master of Science in Communication

at

The University of Wisconsin-Whitewater

May, 2014

The University of Wisconsin-Whitewater

Thesis Approved

Nicholas Bentz

Date: _____

Committee Members: _____

Dr. Ed Frederick, Chair _____

Dr. Ray Baus _____

Dr. Corey Davis _____

Table of Contents

Abstract.....	iv
Introduction.....	1
Literature Review.....	2
Cultivation Studies.....	4
Media: Violence and Fear.....	11
Gun Violence and Gun Control.....	22
Guns and Politics.....	30
Method.....	34
Participants.....	34
Measures.....	34
Results.....	44
Discussion.....	48
Weaknesses.....	53
Future Research.....	55
Conclusion.....	57
References.....	59
Appendix A.....	65
Appendix B.....	73
Appendix C.....	75

Gun Violence through Television and the Impact on Young Adults: An Investigation of Cultivation Theory

By

Nick Bentz

The University of Wisconsin – Whitewater, 2014
Under the Supervision of Dr. Edward Frederick

Over the past thirty years there has been fierce debate over the issue of gun control and gun rights, yet empirical evidence surrounding the issue has been limited. The purpose of the current study was to identify if various television programming cultivates pro-gun and anti-gun culture. Using the lens of cultivation theory, 526 survey responses were analyzed regarding consumption of television in conjunction with pro-gun and anti-gun beliefs. The results of the study found that specific types of television programming are significantly correlated to pro-gun and anti-gun beliefs. However, gender and political affiliation were the most significant indicators of pro-gun and anti-gun support. Lastly, only certain aspects of mean world syndrome were significantly related to television consumption.

Introduction

Politicians and political pundits argue that the years since 1969 have been some of the most violent in the nation's history. To support such a claim one needs to look no further than prime examples from the last five years. In December of 2012, tragedy struck Newtown, Connecticut at Sandy Hook Elementary School when Adam Lanza, murdered his mother and 20 children and injured six adults before taking his own life. Then in July 2012 James Holmes burst into a movie theatre in Aurora, Colorado armed with heavy artillery and gunned down innocent civilians. And in 2007 Seung-Hui Cho murdered 32 people on the campus of Virginia Tech University before taking his own life. The media dubbed it the Virginia Tech Massacre. Tragic shootings paired with growing media coverage have placed the gun debate at the forefront of American consciousness.

The debate over gun control and gun rights continues to rage as new legislation is constantly being pushed by lawmakers while both politicians and lobbyists wrestle to gain ground in a hostile environment. One side of the debate blames guns while the other blames media yet neither side has yet provided substantial evidence to support its cause. Debates such as the aforementioned have intensified since the 1980s to the current juncture (Price, Dake, & Thompson, 2002). Tragedies such as those mentioned above, albeit horrifying, offer a unique opportunity for scholars to investigate the effects of media coverage of these events.

For many years there has been a great deal of research dedicated to the effects of media. However, research that demonstrates whether or not media impact public opinion on gun control and gun rights have been scarce at best. The current study aims to employ

cultivation theory to examine if and how various forms of televised media influence pro-gun and anti-gun beliefs. The issue is not only one that is timely but also one that may have important ramifications for both scholars and the general public. This research will contribute to a growing body of literature on media effects and shed light in an area that has yet to receive the attention needed to provide the public and scholars with sufficient evidence on public opinion of gun control and gun rights. Furthermore, this study will offer the public substantial evidence on whether media impact pro-gun and anti-gun beliefs. Literature will be reviewed that will provide further understanding of this important topic.

Literature Review

As previously mentioned this study will identify the role media plays in the debate on gun beliefs using the lens of cultivation theory. It is important to have a thorough understanding of this critical mass media theory from its conception. Since the late 1960s, cultivation theory has been one of the most influential theories in studying media effects and will serve to provide heuristic value to future research regarding public opinion on gun control and gun rights. Cultivation theory provides a context for assessing how television can affect social reality for its viewers (Gerbener, Gross, Morgan & Signorielli, 1986, Morgan & Shanahan, 2010). When the theory was first conceptualized, television was viewed as a powerfully influential form of media that could easily manipulate its viewers, similar to the hypodermic needle theory. Since that time the theory has undergone revisions to account for viewers' choices in media consumption and their ability to critically assess media sources (Infante, Ranger, & Avtgis, 2010).

Cultivation was born through the Cultural Indicators Project that began in 1967 (Gerbner, 1969, Gerbner & Gross, 1976). From this project Gerbner and Gross (1976) argued that television programming cultivates a social reality in its audiences. The core assumption of cultivation theory asserts people who are heavy viewers of television will likely view the world as reflective of the types of television (fiction or non-fictional) they watch, impacting their social reality (Gerbner, 1998, Gerbner et al., 1986; Morgan & Shanahan, 2010). Furthermore, cultivation theory suggests that television is different than any other form of media; it is pervasive and creates a different influence on the viewer than other form of media (Gerbner 1998; Gerbner & Gross, 1976). Due to its pervasive nature, it shapes society's way of thinking and perpetuates societal norms (Gerbner 1998; Gerbner & Gross 1976), creating a mainstreaming effect where viewers believe what they see on television is the culturally dominant reality (Gerbner, 1998, Gerbner et al., 1980, 1986). Another important aspect of cultivation is resonance. Resonance takes place when heavy viewers are exposed to television that mirrors a reality that is the same or reinforces their own (Gerbner et al., 1980, 1986). In addition, Gerbner and his colleagues argued that heavy television consumption creates exaggerated perceptions of fear, victimization, mistrust and dangers, along with other inaccurate beliefs about the world (Gerbner & Gross, 1976; Morgan & Shanahan, 2010). These inaccurate perceptions were analyzed by focusing on the messages, repetitive images and various representations of which the public is exposed to through television (Signorielli & Morgan, 2009). The exaggerated perceptions of fear, victimization, mistrust and danger create mean world syndrome (Gerbner, Gross, Morgan & Signorielli, 1980, 1986). In addition, mean world

syndrome suggests that heavy viewers will perceive that others are not to be trusted and most people are only looking out for themselves (Gerbner, Gross, Morgan & Signorielli, 1980, 1986). The mean world view adopted by some viewers is important to the current study, as it suggests viewers who have adopted this view may have a higher degree of fear which may impact their views concerning guns. Cultivation theory is significant to research of pro-gun and anti-gun beliefs because it indicates that heavy doses of media will impact the social reality of the viewer (Gerbner, 1998). With that in mind, it is possible that viewers' opinions concerning gun beliefs could likely be affected by media consumption habits.

Cultivation Studies

In addition to literature explaining cultivation theory, it is important to examine how cultivation theory has been utilized in the past to understand how it will be applied to the current study. In 1984, Gerbner, Gross, Morgan and Signorielli set out to identify the validity in a study conducted by the Television Information Office of the National Association of Broadcasters concerning the association's assertion that television does not impact academic achievement. The TIO argued that television was not "the" cause of poor academic achievement in children. The researchers agreed that television was not "the" overall cause and that there are other factors that may be contributing to poor academic achievement. However, they noted that cultivation research has demonstrated that children who are heavy viewers of television have lower test scores and certain groups may be more vulnerable than others (Gerbner et al., 1984). Furthermore, years of cultivation research has revealed that heavy television viewing is significantly related to

poor reading skills (Gerbner et al., 1984). This research is significant for a few reasons. First, it is a clear indication that television consumption in general does impact the viewer further supporting the notion that consuming large amounts of television is likely to impact public opinion concerning gun control and gun rights. But it also demonstrates the need to conduct more recent research identifying how media impacts viewers today. It was also suggested that television consumption tends to create mindlessness (Gerbner et al., 1984). If this is true, it suggests that when television consumption increases heavy viewers may struggle thinking critically about important social issues such as the gun debate. In addition, the researchers note that the overall size of the effect imposed by media is not as important as the consistency and direction the effect creates (Gerbner et al., 1984). This suggests that consistently viewing certain programming is likely going to have an effect on the viewer. If some viewers watch a great deal of violent programming or programming where gun violence is prevalent, it is plausible to assume that those viewers will have strong views concerning gun control and gun rights.

Another early study using cultivation theory focused on identifying how mental illness was portrayed on television (Signorielli, 1989). To conduct this study the researcher analyzed 17 week long samples of primetime television. The study indicated that the mentally ill were typically portrayed in a negative light (Signorielli, 1989). The study found that mentally ill characters were shown in roughly one fifth of all television programming, and those characters were often more likely to be shown committing violent acts or involved in violent acts (Signorielli, 1989). Although this study did not analyze viewers' perceptions, the author argues that based on the implications of

cultivation theory one could postulate that overrepresentation of the mentally ill portrayed as deviant and violent will cultivate negative views of the mentally ill in viewers (Signorielli, 1989). This research demonstrates that television programming does not always portray accurate depictions of reality and this inaccuracy has the potential to impact viewers' beliefs. Similar programming could impact fear and beliefs concerning gun rights and gun control.

Another study conducted in 1992 identified how television viewing impacted attitudes and perceptions of children regarding sex roles and behavior (Signorielli & Lears, 1992). The researchers wanted to identify if adolescents' perceptions about household chores were impacted by their television viewing. More specifically they wanted to find out if students believed certain chores were "for boys" or "for girls" based on television viewing (Signorielli & Lears, 1992). The results of the study indicated that students' attitudes about sex-stereotyped chores were positively related to television viewing (Signorielli & Lears, 1992). The research also found that children who watched more television were likely to indicate that certain chores are only for women and other chores are only for men based on stereotypical sex-based chores portrayed in media. In addition, research demonstrated that children were likely to hold negative views of the chores they actually performed if those chores were stereotypically performed by a member of the opposite sex (Signoielli & Lears, 1992). This study measured viewers' attitudes and demonstrates that media consumption does impact attitudes and beliefs of the viewer. Although this study focused on the beliefs of children, cultivation theory would suggest that this impact can be extended to adults as well as children, indicating

that television consumption impacts public perception. Furthermore, it should be noted that regardless of content, television consumption in general seems to impact public beliefs. This suggests that television consumption could also impact enculturation to a pro-gun and anti-gun culture.

In a similar study conducted, Signorielli and Kahlenberg (2001) analyzed the role of television and how programming depicted various job roles. The researchers argued that it may be possible television inaccurately depicts various job titles and the types of people working those jobs. In addition, the researchers suggested that some viewers, especially children, may not be able to adequately decipher between fiction and reality when it comes to portrayals of various job roles (Signorielli & Kahlenberg, 2001). The results of the study indicated the labor force depicted in television was not in agreement with actual statistics from the U.S. labor force (Signorielli & Kahlenberg, 2001). They found that white collar jobs were overrepresented in comparison with blue collar jobs and the types of people occupying these job roles in regards to gender were inaccurate as well (Signorielli & Kahlenberg, 2001). As the researchers suggest, these inaccurate depictions could have important ramifications for children and heavy viewers providing an inaccurate perception of the types of jobs they can hold in society (Signorielli & Kahlenberg, 2001). Furthermore, this lends credence to the notion that television has developed a habit of offering programming with inaccurate depictions of the real world. Following in line with cultivation theory, one would argue these depictions will eventually lead to false perceptions of the real world. If we take this one step further, one

can argue that inaccurate depictions in television will also impact pro-gun and anti-gun beliefs.

Signorielli (2009) conducted a similar study focusing on race and gender depictions in television, analyzing various primetime programming from the fall of 1997 to the fall of 2006. The focus of this study was to identify how race and gender were portrayed in terms of occupation in television programming in comparison to the actual race and gender distribution within occupations in the United States (Signorielli, 2009). The results of this study found stark contradictions with the occupational roles assumed by members of different race and gender. The results demonstrated that women and minorities tend to be depicted incongruently of reality of the actual working world in which people exist (Signorielli, 2009). It was found that minorities appear far less on primetime television, women, especially black women are often depicted as not having a job or not working outside of the home, law enforcement jobs are shown disproportionately to blue collar and white collar jobs, and black women are least likely to be cast as professionals in certain programming (Signorielli, 2009). Overall the study found that women, particularly black women, were least likely to be portrayed in diverse and prestigious jobs whereas men were more likely to be shown in a wide variety of jobs and levels of prestige (Signorielli, 2009). White women also were found to hold jobs of low prestige (Signorielli, 2009). The author notes that the research indicates there is a lack of racial diversity in terms of the roles that people may actually hold in the real world giving viewers an inaccurate and limited view of the occupational roles that people can potentially hold in reality (Signorielli, 2009). This portrayal could have the biggest

impact on heavy viewers. Although this research did not demonstrate a direct media effect, it provides support for the current study. It demonstrates the importance of conducting a study to identify if certain programming impacts the viewer. Lastly, this study shows that television programming has the potential to impact viewers' opinion based on the content portrayed. Cultivation theory would support this assertion.

A more recent study was conducted aimed at identifying how gender roles and identity are portrayed in tween programming (Gerding & Signorielli, 2014). The authors argue that prior research has demonstrated that men and women were not portrayed accordingly with the gender distribution of the United States and that identity roles have often been stereotypical giving youth a limited view of the identity they can develop over the course of their lives (Gerding & Signorielli, 2014). Gerding and Signorielli (2014) specifically focused on gender distribution, characteristics of the characters and attractiveness in tween programming; teen scene (geared towards girls) and action-adventure (geared toward boys). The age group that typically watch this type of programming are children between the ages of 8 and 12. To conduct this study the researchers performed a content analysis of 49 episodes of 40 distinct tween programs airing in 2011. The researchers found that females were underrepresented in the action adventure genre but the gender distribution was more even in teen scene programming (Gerding & Signorielli, 2014). However, overall, females were underrepresented. Furthermore, it was discovered that women were portrayed as being more concerned with their looks and received more comments about their looks than men did. But in the action-adventure programming men were shown in varying degrees of attractiveness and

were also portrayed more stereotypically of the identity and gender roles assumed by men (Gerding & Signorielli, 2014). The research suggests, this type of programming could give children a narrow view of the identity and roles they can take on throughout their lives (Gerding & Signorielli, 2014). In addition, television is a socializing agent that teaches children, suggesting the portrayals will have a profound impact on child development. But as cultivation theory would posit, this type of programming may also impact adults (Gerding & Signorielli, 2014). Although this study did not identify the direct impact of these portrayals on the audience, cultivation theory would suggest that this type of programming will have an impact on the viewer. Children are more at risk in terms of the cultivation effects of television but this research does indicate that certain types of programming are likely to have an impact on viewers. It is possible that the types of programming that adults and students view could impact their opinions on gun control and gun rights. Lastly, it demonstrates the flexibility and utility of cultivation theory; it can be used to analyze more than just violent programming.

Some of the studies previously analyzed do not appear to offer utility to the current study and their usefulness may not seem readily apparent. However, these studies are significant to our understanding of how cultivation theory can be applied to the current study. It indicates that cultivation theory is flexible in terms of the capacity in which it can be applied. In addition it demonstrates that media, regardless of content, has the pervasive abilities to potentially impact the views and reality of its viewers. Furthermore, some of the studies were twenty to thirty years old, indicating that newer research is necessary to identify the cultivating effects of television. Lastly, it

demonstrates that cultivation theory can be applied to research investigating how media consumption can impact beliefs concerning gun control and gun rights.

Media: Violence and Fear

Many studies over the last several decades have been dedicated to studying violence in television. Another study of great importance to media effects research is the cultural indicators project. As previously mentioned this project was commissioned by Gerbner in 1967 to identify the rate of violence in television programming (Signorielli & Gerbner, 1995). Similar studies have been found dating back to 1954 where researchers identified the rate of violence in television programming in New York. These were some of the first studies demonstrating that television is often riddled with violence (Signorielli & Gerbner, 1995). The studies that have been conducted over time have demonstrated that although the type of violence that is depicted has transformed, violence is still prevalent, of great importance to media effects studies, and profoundly impacts viewers (Signorielli & Gerbner, 1995). Signorielli and Gerbner (1995) argue it is impossible for anyone to deny the high frequency at which violence is depicted in television.

Furthermore, based on the core tenets of cultivation theory, television serves as a purveyor of cultural norms and the public learns from what they see on television; people are likely to be impacted by what they view on television and especially impacted by violence (Signorielli & Gerbner, 1995). The vast number of studies that have been conducted demonstrate the importance of identifying how the prevalence of violence may potentially impact the opinions of viewers. In addition, violent programming has been

linked to mean world syndrome, a product of violent television consumption (Gerbner et al., 1980, 1986).

A great deal of research using cultivation theory has been dedicated to studying fear, specifically fear of crime (Morgan & Shanahan, 2010). In addition many cultivation studies have been conducted analyzing the impact of violent television on the viewer. Chiricos, Escholz and Gertz (1997) identified how violent television, mainly news, impacts fear of crime among audience members. To conduct this study the researchers analyzed survey responses from 2,092 adults in Tallahassee, Florida, during a time when fear of crime was at an all-time high. The authors noted that crime was steadily decreasing in the United States but they argued that because of televised and radio broadcast news coverage of violent crime, fear was rising (Chiricos, et al., 1997). Furthermore, the researchers suggested that prior studies indicated there is a distinct relationship between the belief of reality in television drama and fear of crime (Chiricos, et al., 1997). The researchers found that after controlling for gender, race, age and past real-life experience with violent crime, consuming television news and listening to radio news was significantly related to fear of crime (Chiricos, et al., 1997). In addition, they found a significant relationship between fear of crime and white women (Chiricos, et al., 1997). This research suggests that consumption of violent television, especially news, will most likely cultivate fear of crime or belief in a mean world. In addition when controlling for various audience attributes this research only found a distinct relationship between white women and fear of crime. However, this study was conducted 17 years ago and one could argue that gender and identity roles have dramatically changed since

that time indicating it may be possible there is also a relationship between consumption of television and fear of crime in all audiences, including men. Showing fear was often seen as a weakness in men and it may be possible men in the late 90s were aware of this social belief therefore, inaccurately responding that they were not fearful of crime.

Lastly, the literature in this study noted a relationship between the belief in the reality of television drama and fear of crime (Chiricos et al., 1997). This indicates that crime drama may be an indicator of fear of crime and that fear may result in pro-gun support.

In 2001, Diefenbach and West conducted a content analysis to identify the rate of crime in primetime television and how viewing impacted public perception regarding crime rate. The results of the study indicated the murder rate on television was overrepresented in comparison to the actual murder rate in the United States (Diefenbach & West, 2001). The murder rate on television was 932 per 100,000 characters in comparison to the actual murder rate in the United States which was 9.4 per 100,000 people (Diefenbach & West, 2001). Furthermore, results suggested respondents who watched television programming with over representative murder rates were likely to overestimate the murder rate in their community (Diefenbach & West, 2001). This research is significant for several reasons. First, the researchers note that primetime television over represents the crime rate in programming supporting the notion that television is rather violent in nature. Second, the research suggested that viewers watching television with over representative crime rates were likely to overestimate the rate of violent crime in their community and in the United States (Diefenbach & West, 2001). This suggests that television cultivates mean world beliefs. Furthermore, this study

supported the main tenets of cultivation theory, suggesting that heavy television viewing skews reality for the viewer. But more importantly the research demonstrates that media play an integral role in shaping public opinion; media could impact enculturation to pro-gun and anti-gun culture.

Other studies have indicated similar findings. Nabi and Sullivan (2001) found that overall television viewing predicted fear of victimization. But this study also found that perceived prevalence of violence led to distrust of others in the general public. This in turn led to people taking preventative measure to avoid being victims of crime (Nabi & Sullivan, 2001). This study is significant for a couple of reasons. Similar to the study by Diefenbach and West (2001), this study found that overall television viewing impacts mean world beliefs, indicating that television is inherently violent. Furthermore, this research is significant because it suggests that public opinion may not be the only factor impacted by television consumption, but that fear, or mean world influence, could lead people to purchase and own firearms for protection, thus suggesting they will hold beliefs that favor pro-gun culture.

Hoffner and Buchanan (2002) conducted a study to identify the perceived media effects regarding how parents monitor their children's viewing experience. Prior research had been conducted to identify perceived media effects on adults but this study focused on how parents believe media can affect their children (Hoffner & Buchanan, 2002). The study indicated that parents generally believed that violent media would affect other children more than their own but it could have a negative effect on both (Hoffner & Buchanan, 2002). Parents reported perceptions that violent media would negatively affect

their children. This study offered significant findings. First, it indicated that the parents who participated in the study do believe the media is violent and it can have negative effects on their children. Cultivation theory would extend this belief one step further and argue the parents have also been impacted by media consumption. The study also indicates that certain television programming could affect public opinion and news coverage may not be the only culprit. Parents also reported mean world perceptions, which is an effect often caused by violent media (Hoffner & Buchanan, 2002), indicating that violent television programming could also impact public opinion in regards to pro-gun and anti-gun beliefs. This research suggests that public opinion regarding gun beliefs should be further researched.

In 2003, Romer, Jamieson, and Aday conducted a study to identify the effects of crime-saturated local news. The researchers indicated that arrests and victimization were in decline throughout the 1990s (Romer, et al., 2003); however, a Gallup Poll conducted in 1994 showed that concern over crime was at an all-time high. The results of the study indicated that viewing local and national televised news corresponded with increased perceptions of fear of crime (Romer, et al., 2003). This research is noteworthy because it illustrates the pervasive and influential power of television news. Furthermore, it supports the notion that television is consistent in portraying violence and crime; both influence fear, or mean world view. Also, fear influenced by television exposure has been identified in previous research (Nabi & Sullivan, 2001). It is reasonable to conceive that fear may fuel pro-gun and anti-gun beliefs.

Similarly in 2003 Signorielli analyzed prime-time television from 1993 to 2001. Signorielli (2003) asserts that since the earliest days of television, researchers generally agree that television programming consists of violence which has the potential to impact the viewer. A content analysis was conducted over the course of eight years analyzing the rate of violence in programming (Signorielli, 2003). The study consisted of 13 weeks of primetime network drama programming, with 1,127 episodes, and a total of 4,885 main and supporting characters that appeared in the episodes. The results of the study indicated that for every ten episodes six shows contained violence with an average rate of violence at 4.5 violent acts per episode (Signorielli, 2003). Furthermore, Signorielli (2003) found the rate of violence in television increased from the early nineties to the end of the study in 2001. In addition, violence was often portrayed without consequence. Characters were portrayed as unapologetic for their violent acts and were not punished. The violence that appeared was portrayed as necessary, "sanitary," and not immoral thus possibly giving viewers the impression that violent acts are more common than in real life and that violent acts often go unpunished (Signorielli, 2003). Just as the author suggests, this research is significant for a few reasons. First, it has been demonstrated that viewing violence over a lengthy period of time could impact the viewer to the extent that he or she will overestimate the rate of violent crime, that he or she may develop fear of being attacked and take preventative measures to avoid victimization (Nabi & Sullivan, 2001; Signorielli, 2003). Furthermore, it indicates that violence in television has remained stable from the 1970s to 2001 (Signorielli, 2003), and as a result is likely to be similar today. In addition many of the shows that appear during the primetime period are crime

drama, indicating research should examine how consumption of crime drama impacts the viewer. Lastly, the high rate of violence that tends to appear on television may be one of the factors impacting enculturation to a pro-gun and anti-gun culture.

Other studies have identified more specific aspects of television. For example, Diefenbach and West (2007) evaluated attitudes towards mental disorders in relation to television consumption. The authors assert that television continuously perpetuates stereotypes. However, many television networks are now more sensitive to stereotyped roles related to gender, race and other similar criticism. Despite this newfound sensitivity to cultural differences there are still areas of concern, one of which is the portrayal of mental health issues (Diefenbach & West, 2007). The research analyzed how television consumption impacted viewers' attitudes toward mental health issues. The results of the study indicated that media continuously portray the mentally ill as violent characters. Furthermore, results demonstrated that in primetime television when mentally ill characters were shown, one out of every three characters was depicted committing an act of violence (Diefenbach & West, 2007). In addition, survey respondents reported concern for their own safety if they were to see mental health services present in their community (Diefenbach & West, 2007). This research illustrates that primetime television is violent and offers inaccurate depictions. Also, this research tells us that consumption of violent television, no matter the types of characters depicted, impacts fear and concern for one's own safety.

Similarly, specific research has been dedicated to identifying the validity of mean world syndrome. Salmi, Smolej and Kivivouri (2007) studied how interpersonal trust was

potentially impacted by consumption of television. The researchers assert that many scholars agree media cultivates a certain level of mistrust, or mean world belief, in viewers. They argue that this perception of mean world leads to a high degree of mistrust, most often shown by heavy consumers of television (Salmi, et al., 2007), assertions that have been well established thus far in the literature. The results of the study had significant findings. First, the authors determined a degree of violence in television, most notably reality crime programs. Second, they found that regular consumption of reality crime programs led to lower levels of trust in the viewer (Salmi, et al., 2007). The participants in this study were adolescents, however, cultivation theory would suggest the participants in this case are irrelevant and the effects would be similar to an adult audience (Gerbner et al., 1980, 1986).

Few studies have looked at the cultivating effects of crime drama. However, Grabe and Drew (2007) identified the effects of various television programming on viewers analyzing the effects created by crime drama, reality cop shows and news. To conduct this study, the researchers performed interviews using a random sample of 505 participants from Indiana. The authors hypothesized, based on prior research (Nabi & Sullivan, 2001) that exposure to crime drama would increase fear of crime and lead to an increase in taking preventative measures to avoid victimization (Grabe & Drew, 2007). The results of the study found that crime drama was not a significant predictor of fear of crime nor taking preventative measures to avoid becoming a victim of crime. These results are perplexing as they seem to counteract prior research that indicates consumption of violent television will impact beliefs associated with fear and preventing

being a victim of crime (Nabi & Sullivan, 2001; Grabe & Drew, 2007). However, it should be noted with importance that crime related news created cultivating effects and consumption of reality cop shows was significantly related to gun ownership suggesting that viewers may be taking steps to avoid victimization of crime (Grabe & Drew, 2007). This research supports previous research indicating that consumption of news cultivates fear in viewers. Furthermore, there have been few studies analyzing the cultivating effects of crime and based on the mixed results of the effects of crime drama (Holbert Shah & Kwak, 2004), this research indicates it is important to conduct further research on the potential impact of crime drama on the viewer.

In a study conducted by Hetsroni (2011) the researcher sought to identify the impact of violent television ads on public opinion of Israelis and Americans. To conduct this study the researcher performed a content analysis of 1,785 American advertisements and 1,467 advertisements that appeared in television programs in Israel (Hetsroni, 2011). The content analysis revealed that violence was prominent in 2.5 percent of American ads and an even smaller margin of 1.5 percent of Israeli ads. The most prominent type of violence was bare-handed assault (Hetsroni, 2011). The researcher also administered a public opinion survey that demonstrated that concern over violent television ads was significantly related to overestimation of the prevalence of violent crime (Hetsroni, 2011). Interestingly, despite the fact that the content analysis revealed the most prevalent type of violence was depicted without a weapon, survey respondents reported overestimated occurrences of vandalism and assault with a weapon (Hetsroni, 2011). It is the cultivation of fear within the viewer that offers value to the current study. Viewing

violent television programming and/or ads may fuel fear in the viewer, compelling the viewer to purchase a gun and accepting the gun as a means of protection. In addition, although the amount of violence in advertising was relatively small, it demonstrates that even the smallest amount of violence on television can impact the viewer. Furthermore, this research demonstrates that even advertisements may be violent, suggesting commercials in addition to television programming are potentially cultivating certain beliefs. Lastly, not only does this type of violence in television impact behavior but it may also alter or reinforce pro-gun and anti-gun attitudes.

Recently, Kahlor and Eastin (2011) applied cultivation theory to the study of violence toward women in television. The study aimed to link television viewing to beliefs about rape. The researchers asserted that television in America is not only violent but reaffirms a culture of violence toward women (Kahlor & Eastin, 2011). The authors suggest that heavy television consumption causes “rape myth belief.” This phrase encompasses a couple of meanings. First, it suggests that people believe women are likely to fabricate rape out of regret after consensual intercourse (Kahlor & Eastin, 2011). The phrase also alludes to the perception that women who accuse rape are “promiscuous, have bad reputations, and dress provocatively,” (Kahlor & Eastin, 2011, p. 216). It describes the perception that women who are raped cause their own demise due to their attire. The results of the study indicated there was a significant link to heavy television consumption and perpetuated beliefs of rape myth in both men and women (Kahlor & Eastin, 2011). In addition, the results showed that both men and women were more accepting of rape myth as a result of television consumption. They also found the genre

of television was significant in the viewer's beliefs concerning rape myth (Kahlor & Eastin, 2011). This study was significant because it suggests that television consumption impacts people's opinions. If adapted effectively this research may indicate if people's beliefs concerning pro-gun and anti-gun attitudes are impacted by media consumption.

More recent research has also aimed to identify the harmful effects of violent television on children. Agarwal and Dhanasekaran (2012) found that consumption of violent media promotes anti-social behavior most notably in children. But what is most significant about this study was it found support that television is still offering violent portrayals that have a profound impact on the viewer (Agarwal & Dhanasekaran, 2012).

The literature presented demonstrates and supports with overwhelming evidence that television is often riddled with violence (Agarwal & Dhanasekaran, 2012; Diefenbach & West, 2001, 2007; Hetsroni, 2011; Kahlor & Eastin, 2011; Signorielli, 2003) and consumption of violent programming significantly cultivates mean world beliefs (Chiricos et al., 1997; Diefenbach & West, 2001, 2007; Hoffner & Buchanon, 2002; Romer et al., 2003). Based on the evidence in the literature, the following hypotheses are offered:

H1: Exposure to violent programming will be positively related to enculturation of a mean world.

It is important to also offer a hypothesis that measures attention to violent programming. Valkenburg and Peter (2013) argue that effects sizes of exposure to media are often small or non-existent, making the measure of attention important to media effects studies. In addition, attention is important to study because less attentive media

use will cultivate views differently than attentive consumption of media (Grabe & Drew, 2007). This measure will be discussed at greater length in the methods section.

H2: Attention to violent programming will be positively related to enculturation of a mean world.

Gun Violence and Gun Control

Research analyzing how media impacts pro-gun and anti-gun beliefs has been infrequent. However, there has been significant research dating back to the early nineties that will enhance our understanding of this important societal issue. In 1992, Mauser and Kopel conducted a study analyzing the accuracy of media polls regarding public opinion on gun control. The researchers found that many polls, due to a myriad of sampling flaws, published results that were not accurate (Mauser & Kopel, 1992). Many of the polls published results claiming with overwhelming support that the public supported stricter gun laws. The questions that often appeared were “slanted, loaded, or technically incompetent” (Mauser & Kopel, 1992, p. 86), resulting in views that showed support of gun control. In reality it was difficult to adequately assess public opinion based on the questions that were used for polling (Mauser & Kopel, 1992). This research is significant because it not only suggests that media polls are inaccurate benchmarks for public opinion but it also suggests the media may be pushing an agenda that could impact pro-gun and anti-gun support. Due to the large number of flaws in media polling questions, it offers an overly simplified and inaccurate view of public opinion (Mauser & Kopel, 1992). Not only does this research demonstrate an inaccurate assessment of public opinion on gun control and gun rights but it is also more than two decades old. This indicates that it

is important to conduct more recent research to identify if media consumption is a contributing factor for beliefs concerning pro-gun and anti-gun attitudes.

Few studies have analyzed the depictions of guns and gun violence on television. However, one such study was conducted in 1992, analyzing the frequency in which guns were displayed or used in prime-time television (Price, Merrill & Clause). The authors argue that children spend more time watching television than they do in school, and due to their high rate of television consumptions they witness countless rapes, murders, assault, robberies and witness roughly eight “aggressive” acts per hour on television (Price, et al., 1992). However, the rate at which guns appear on television and how they are modeled on TV is a debatable topic (Price et al., 1992). In addition, research suggests that frequently viewing violent television has a significant impact on the viewer in terms of their acceptance of violence and aggression (Price et al., 1992). This study utilized a content analysis of two weeks of primetime television programming appearing on *ABC*, *NBC*, *CBS*, and *FOX*. Researchers identified the rate of guns and their usage for each program appearing on each network during the primetime period (Price et al., 1992). The study found that in 75 percent of the scenes, guns were depicted and most often used by white males (Price et al., 1992). Furthermore, the research found that handguns were most often depicted, and those using guns often did not suffer consequences (Price et al., 1992). This research has several implications for the current study. First, guns were displayed on average 2.5 scenes per hour (Price et al., 1992). If heavy viewers consistently see guns in television programming they may begin to adopt views that suggest guns are normal and necessary in everyday life. In addition, given the high rate of

exposure to guns and gun violence the “mere exposure effect” would suggest viewers of guns will likely begin to adopt favorable views towards guns even if they are not paying attention to the programming (Potter, 2014). The mere exposure effect argues that when viewers are subconsciously exposed to a certain object, regardless of whether not they are paying attention, the viewer will begin to adopt a positive view of the object even though they have difficulty explaining why (Potter, 2014). In addition, the cultivation effect suggests consuming television with high rates of violence will have an impact on the viewer (Gerbner et al., 1984). Furthermore, criminals and citizens used guns in roughly 25 percent of the scenes featuring guns and gun violence. In those scenes guns and gun violence was most often used to attack another character (Price et al., 1992). This suggests that those viewing these depictions may begin to adopt a mean world view and a positive view of guns as a necessary means of protection (Price et al., 1992). In this case, consumption of violent television and fear may impact support for gun rights.

In 1993 Kauder aimed to identify the level of support regarding a gun control initiative in the state of Virginia. During that year state legislators passed a bill that limited the number of handguns a person was allowed to own. Shortly after the law was approved a survey was administered to assess public acceptance of the bill (Kauder, 1993). The law indicated that no more than one gun could be purchased per month per person in the state of Virginia (Kauder, 1993). The study indicated that when polls regarding gun control are administered heated debate will follow. This study suggested overwhelming support of the gun control law that was passed (Kauder, 1993). Furthermore, the study found that proponents and supporters varied greatly in terms of

demographics (Kauder, 1993). This research is significant for a couple reasons. First, it proposes the public has strong opinions regarding pro-gun and anti-gun beliefs. But it also indicates that research needs to be conducted to identify the sources that are impacting public opinion. It is likely, given that most information concerning government affairs is gathered through the media, that media is playing a significant role in shaping public opinion concerning gun beliefs.

Other studies, however, have focused more on how media impacts beliefs concerning gun control and gun rights. For example, a study conducted in 1997 identified if heavy consumption of violent television impacted support or opposition for gun control legislation and freedom of speech (Atkin, Jeffres, & Neundorf, 1997). The authors argue that violence on television continued to be a controversial topic in the nineties and that many agree violence on television is prevalent and could impact viewers. The authors argue that a variety of polls conducted throughout the early to mid-90s indicate that perception of crime was at an all-time high and many respondents to public surveys suggested they were in favor of greater gun control measures (Atkin, Jeffres & Neundorf, 1997). To conduct this study 302 surveys were collected by a random phone sample (Atkin, Jeffres & Neundorf, 1997). The results indicated a significant relationship between consumption of violent television and support for greater gun control measures. In sum, media was a predictor of gun control attitudes with support for greater restrictions of gun ownership (Atkin, Jeffres & Neundorf, 1997). However, the researchers noted that many of the significant relationships that emerged began to wane in strength when inserted in a regression analysis equation suggesting that future research

is needed to identify how television impacts gun beliefs. (Atkin, Jeffres, & Neundorf, 1997). They go on to state that it's possible heavy viewers will begin to adopt the pro-gun norm pushed by television networks (Atkin, Jeffres & Neundorf, 1997). While this study did find a relationship between consumption of violent television and greater restrictions for guns the scale used to measure beliefs must be called into question. The survey directed respondents to respond to questions concerning restriction of gun ownership and television programming using a four point Likert scale ranging from strongly agree to strongly disagree. However, this type of scale does not allow the respondent to choose neutral. This demonstrates that respondents were forced to either agree or disagree with the statement regardless of whether or not they truly held an opinion. It is difficult to identify how viewers truly felt when questions concerning gun beliefs are posed based on the scale that was used. In addition this suggests that more research is needed to assess pro-gun and anti-gun views employing a scale that offers respondents the opportunity to remain neutral on the topic if they so choose. The authors indicate that we don't truly know how people feel about guns. It is necessary (and plausible) for future research to identify if people support gun control due to fear that the world is dangerous or if they reject gun control because the world is dangerous and guns are needed for protection (Atkin, Jeffres, & Neunedorf, 1997). Despite the flaws in this study it does indicate that violent television programming impacts the viewers' beliefs. Given the mixture of research results indicating some are more likely to favor gun control (Atkin, Jeffres, & Neundorf, 1997), research that indicates audience members are likely to take preventative measures to avoid being a victim of crime (Nabi & Sullivan, 2001) and that consumption

of television cultivates a fear of crime (Chricos et al., 1997; Hoffner & Buchanon; Diefenbach & West, 2001, 2007; Romer et al., 2003), it is important to consider that consumption of violent television may impact support *and* opposition of pro-gun and anti-gun beliefs.

In a study conducted in 2004 researchers analyzed the effects of viewing crime related television and the impact on support for gun ownership and capital punishment (Holbert, Shah, & Kwak). The research looked at three specific types of television; news, reality police shows, and crime drama. The authors note there has been a great deal of research dedicated to studying the effects of news and police reality shows but very little to crime drama (Holbert, Shah, & Kwak, 2004). To conduct this study, researchers mailed surveys to respondents measuring consumption of news, crime drama, and police reality shows in conjunction with beliefs concerning capital punishment and attitudes toward guns and gun ownership. The researchers found there was a relationship between overall television consumption and support of capital punishment, and favorability and the likelihood of gun ownership (Holbert, Shah, & Kwak, 2004). In addition viewing television news is significantly related to fear of crime and this fear is related to support of the death penalty and handgun ownership. It was also found that viewing police reality shows cultivates support for handgun ownership, the death penalty and the likelihood of gun ownership (Holbert, Shah, & Kwak, 2004). Interestingly, there was not a significant relationship between viewing crime drama and support for gun ownership nor a relationship between viewing crime drama and fear of crime. This research is significant for several reasons. First, it suggests that viewing violent television (e.g. news) cultivates

fear of crime. Also, there was no support for a relationship between viewing crime drama and fear of crime and gun ownership. However, this contradicts previous research that suggests when viewers develop a fear of crime they are likely to take preventative measures to avoid being a victim of crime (Nabi & Sullivan, 2001). Holbert, Shah, and Kwak (2004) suggested that previous research seems to yield mixed results concerning the effects of crime drama indicating that more research is necessary to identify the effects of crime drama on the viewer. In addition, this research did not ask many questions concerning mean world syndrome and beliefs concerning support and/or opposition to gun rights. This suggests that more research should be conducted digging deeper and asking more questions to identify if relationships truly exist between consumption of various forms of television and support and/or opposition for guns and mean world syndrome. Lastly, this research was published in 2004, exactly ten years ago. The nature of television and programming has changed since that time. Therefore, it is important to identify how more recent programming impacts viewers.

More recent research has suggested further implications of the media's effect on public opinion. In 2007, one of the more heavily publicized shootings took place on the campus at Virginia Tech. Seung-Hui Cho, a senior at the university, massacred 32 fellow students and wounded 15 on campus before committing suicide. The horrifying events prompted a great deal of local and national media coverage. In 2012, Seate, Cohen, Fujioka, and Hoffner conducted a study prompted by the shooting that occurred at Virginia Tech and the subsequent media frenzy that followed. The study aimed to identify attitudes of self and others toward gun control based on news coverage of the

shooting (Seate, et al., 2012). The media coverage turned to the inevitable issue of gun control policies along with a varying number of other topics indirectly related to the shooting (Seate et al., 2012). The shooting, albeit horrible, provided a unique opportunity to gauge the effect of media on public opinion. The research conducted by Seate et al. (2012) concluded that gun owners generally believe that the public, specifically those who are not gun owners, would be negatively affected by the news coverage that took place in lieu of the shootings at Virginia Tech. It was also determined that there was a significant correlation between public opinion of non-gun owners and the effects of news coverage of gun related issues (Seate et al., 2012). This means that non-gun owners acknowledged that their opinion was in fact impacted by the media's reporting of tragic shootings.

The literature presented thus far offers several important implications. First, television, no matter the genre or specific network tends to be violent in nature, especially primetime broadcast television programming (Agarwal & Dhanasekaran, 2012; Diefenbach & West, 2001, 2007; Hetsroni, 2011; Holbert, Shah, & Kwak, 2004; Kahlor & Eastin, 2011; Signorielli, 2003). Second, violent television tends to cultivate fear of crime (Chricos et al., 1997; Diefenbach & West, 2001, 2007; Hoffner & Buchanan, 2002; Romer et al., 2003). Fear of crime leads viewers to take preventative measures to avoid victimization of crime (Grabe & Drew, 2007; Nabi & Sullivan, 2001). Thus, it is plausible to assume that violent television consumption will lead viewers to express pro-gun beliefs (Price et al., 1992). Although there seem to be mixed beliefs about the specific impact of crime drama (Holbert et al., 2004), this study asserts that crime drama,

inherently violent, will cultivate pro-gun beliefs. Lastly, the literature presented in this section indicates television consumption does impact beliefs concerning pro-gun and anti-gun beliefs (Atkin, Jeffres, & Neunedorf, 1997, Seate et al., 2012, Holbert, et al., 2004). With that said the following hypotheses are offered:

H3: Exposure to violent television programming will be positively related to enculturation to pro-gun culture.

Similar to the previous hypotheses presented, it is important to measure viewers' attention to media based on the assertion that it is possible viewers were exposed to certain media but if attention to the media is low the cultivating effects could be limited.

H4: Attention to violent programming will be positively related to enculturation to pro-gun culture.

Based on the notion that violent television consumption will be positively related to pro-gun enculturation, the literature would indicate that consumption of television will be negatively related to anti-gun beliefs.

H5: Exposure to violent programming will be negatively associated with enculturation to an anti-gun culture.

Again, it is important to measure attention of media in relation to anti-gun beliefs.

H6: Attention to violent programming will be negatively associated with enculturation to an anti-gun culture.

Guns and Politics

The gun debate has been inherently rooted in political ideology. With that said, it is important to further our understanding of how this issue has been impacted by both

politics and gender. Frank and Kellerman (1999) conducted a study to identify accurate statistics regarding firearm ownership by female physicians. Female physicians are often required to provide counseling to patients regarding firearm safety but there is little research indicating the number of female physicians who personally own a firearm (Frank & Kellerman, 1999). The researchers examined responses from over 4,000 physicians responding to questions regarding gun ownership. The results found that 16.5 percent of female physicians in the United States reported owning a gun (Frank & Kellerman, 1999). Furthermore, it was indicated that the number of female physicians owning a gun was only half of that reported by female non-physicians and only one third of the reported gun ownership for men (Frank & Kellerman, 1999). This research is significant for a few reasons. First, it suggests that there may be a difference in gun ownership reported by men and women. Also, this study suggests that due to differences reported in gun ownership between men and women that it is possible men and women will differ in pro-gun and anti-gun beliefs. A similar study was conducted in 1998. Ludwig, Cook, and Smith aimed to identify gun ownership statistics in households across the United States (1998). The researchers argue that previous studies citing various statistics regarding gun ownership were not accurate because most of the studies only interviewed one adult from each household suggesting there may be inaccuracies regarding guns owned by other members of the household (Ludwig et al., 1998). To identify and correct inaccuracies, the researchers examined results from three surveys regarding gun ownership reported by wives and husbands in the same household (Ludwig et al., 1998). The results found that men were more likely than women to report gun

ownership by an average of 12 percent (Ludwig et al., 1998). The reason for the inaccuracy was because women were more likely to be reporting on gun ownership regarding guns they do not personally own, often reporting the gun ownership of their husband (Ludwig et al., 1998). The survey also discovered that inaccurate reports of gun ownership may be due to social desirability bias on the part of the women who were less likely than men to be pro-gun (Ludwig et al., 1998). This research demonstrates there are gender differences regarding gun ownership and pro-gun and anti-gun opinions; specifically indicating that men are more likely than women to own guns and to be in favor of gun rights (Ludwig et al., 1998).

In a more recent study Price et al. (2002) analyzed congressional voting behavior among members of the United States congress from 1993 to 2000. The authors argue that research has demonstrated support of strategies to regulate the sale and purchase of firearms, however, legislatures have yet to agree upon terms of regulation (Price et al., 2002). The purpose of the study was to analyze congressional voting in conjunction with, “political affiliation, military service, geographic location of representatives, education level, sex, and gun rights and gun control contributions,” (Price et al., 2002, p. 419). The results of the study were somewhat predictable. It was determined that interest groups supporting pro-gun rights were highly likely to donate money to members of the U.S. House and Senate (Price et al., 2002). Furthermore, researchers found that members of the Republican Party were more likely to support pro-gun legislation than members from the Democratic Party (Price et al., 2002). This is likely due to the large sums of money donated by gun interest groups such as the National Rifle Association (Price et al., 2002).

They also discovered that men were more likely than women to receive funding from gun rights groups. Republicans were more likely than Democrats to receive funding from pro-gun groups. In addition, according to a graph provided by the researchers, congress members with a doctorate or master's degree were less likely to receive funding from pro-gun rights groups than those with less than a bachelor's degree (Price et al., 2002). It was determined that males in congress were 3.87 times as likely than females to vote in favor of gun rights and Republicans were 13 times as likely than Democrats to vote in favor of pro-gun legislation (Price et al, 2002). This research is significant for several reasons. First, it supports the possibility that people who typically align themselves with Republican ideology will favor gun rights initiations more so than people who consider themselves Democrats. It is possible that men will be more likely than women to support gun rights legislation. Lastly, this research indicates that education level also impacts pro-gun and anti-gun beliefs; specifically suggesting that the higher one's education level, the less likely that person will be to support gun rights initiatives.

The literature presented has two distinct implications. First, it is likely that men and women will differ in pro-gun and anti-gun beliefs (Frank & Kellerman, 1999, Ludwig et al., 1998). Furthermore, it is highly likely there will be a distinct difference in pro-gun and anti-gun beliefs based on political affiliation (Price et al., 2002). Based on the findings in the literature presented, the following hypotheses are posited:

H7: Republicans will be significantly more favorable toward pro-gun beliefs than Democrats.

H8: Men will be significantly more favorable toward pro-gun beliefs than women.

Method

Participants

The current study was conducted by sampling 526 undergraduate students enrolled in undergraduate communication classes across a wide variety of majors at the University of Wisconsin-Whitewater. This study applied a 58 item survey that was distributed by the researcher in hard copy. The total number of completed surveys was 526 with a 100 percent response rate. Students enrolled in the undergraduate communication classes were offered extra credit for their participation in the study. Each respondent was asked to complete an informed consent form prior to participation in the survey, however, there was no physical harm associated with participation in this study and psychological harm was unlikely. Participation was voluntary. A copy of the exact informed consent form is located in Appendix B.

Measures

As indicated previously, the current study was guided by cultivation theory. Based on the literature presented it was imperative to construct a survey that measured exposure to television (hours watched), attention to television, pro-gun and anti-gun beliefs, gun ownership, mean world beliefs, and political affiliation. This study also measured for basic demographic information.

Based on the literature presented, it is clear that consumption of violent television, including news and crime drama tend to cultivate beliefs in higher rates of violence and fear (Chiricos et al., 1997; Diefenbach & West, 2001, 2007; Hoffner & Buchanon, 2002; Romer et al., 2003) and in some cases cause the public to take preventative measures to

avoid victimization of crime (Grabe & Drew, 2007; Nabi & Sullivan, 2001). It is plausible to assume based on these studies that pro-gun and anti-gun beliefs may be impacted by the types of television people are exposed to. Therefore, it was necessary to create a survey that measured survey respondents' media consumption habits in conjunction with pro-gun and anti-gun attitudes. In addition, it was imperative to measure mean world syndrome as it is a potential indicator of the cultivating effects of television (Gerbner et al., 1980, 1986). Similarly, based on the study conducted by Price et al. (2002), it was important to create survey items measuring political affiliation, education level, and gender. Lastly, gun ownership has been impacted by media consumption as well (Atkin et al., 1997; Holbert et al., 2004). For that reason, items were created measuring gun ownership.

This study, similar to others, measured survey respondents' demographic information including, age, sex, level of education completed, ethnicity and political affiliation. For ease of measurement survey respondents were asked to provide their age, ethnicity, and gender (only if they chose a sex other than male or female). As there are multiple ethnicities at the university it was important to allow students to choose the ethnicity with which they identify. A list of all ethnicities were compiled and given numbers to allow for easy identification during analysis. Survey respondents were given a list to choose from for level of education completed, gender and political affiliation.

Consumption of television has been studied at great length through various studies regarding cultivation theory as demonstrated through the literature. To properly create the scale measuring consumption of television previous literature was consulted. It

was important to find a scale that measured television consumption in a way that was accurate and provided a detailed measure of exposure. A study by Kahlor and Eastin (2011) provided the scale that yielded the most reliable results in regards to measuring exposure for the research hypotheses. In the study Kahlor and Eastin (2011) measured consumption of television using a survey asking respondents to think about their television consumption daily and then for the total week. Respondents were then asked to indicate how much television they watch on a daily basis and weekly basis in separate questions. Options ranged from 0 to 8 or more hours for daily and weekly exposure (Kahlor & Eastin, 2011). Respondents were then asked to indicate how much time they spend watching crime dramas with options ranging from 0 to 4 or more hours (Kahlor & Eastin, 2011). The researchers were able to yield significant results linking consumption of television and effects cultivated by the media (Kahlor & Eastin, 2011). For that reason, this study utilized a similar method to measure exposure to television. However, a few changes were made to the current study that differed from the study conducted by Kahlor and Eastin (2011). The current study extended the smaller scale (0 to 4 or more) allowing respondents to choose up to 8 hours or more for all measurements of exposure to television. This was used for purposes of consistency. Furthermore, the participants for this study were college students, and it is possible they watch more than four hours of television in their free time. Allowing respondents to choose up to 8 or more allows for a more specific measure of television exposure. In addition, this study chose to eliminate the question concerning the amount of overall television respondents watch each week and instead just included a measure concerning overall television exposure each day

(hours watched each day). The measure for overall television exposure each day correlated significantly to all other exposure items ($r=.33$), indicating overall television watched each day had validity. Furthermore, in the study conducted by Diefenbach and West, referenced previously, the researchers asked respondents to indicate their consumption of television on a daily basis also asking respondents to answer questions concerning broadcast television consumption and news consumption; including local and national news (2001, 2007). The actual questions asked regarding news and broadcast television were not included in their manuscript. Similarly, studies have measured consumption of television using specific broadcast channels such as *ABC*, *NBC*, *CBS*, and *FOX* (Diefenbach & West, 2001; Price et al., 1992) and others measured just local news consumption (Romer, Jamieson, & Aday, 2003). This study asked questions pertaining to broadcast and news (local and national) exposure as well, however, this study did not measure exposure to *FOX* broadcast channel. This channel was omitted by accident and will be discussed further in the discussion. Furthermore, we can accept that television news is often violent in nature; although it was not directly demonstrated in the literature, it is reasonable to assume that cable news channels, *FOX News*, *CNN*, and *MSNBC* are violent and therefore, should be included in the exposure and attention analysis. It is possible consumption of news programming on these channels may impact pro-gun and anti-gun beliefs. In addition, many studies have analyzed the amount of violence on television including broadcast and news programming. Furthermore it has been demonstrated this type of programming is often violent (Agarwal & Dhanasekaran, 2012; Chiricos, et al., 1997; Diefenbach & West, 2001, 2007; Hetsroni, 2011; Kahlor & Eastin,

2011; Nabi & Sullivan, 2001, Price et al., 1992, Salmi, et al., 2007, Signorielli, 2003, Signorielli & Gerbner, 1995). This research demonstrates that television is violent therefore, a content analysis of violent television wasn't necessary.

In addition to measuring exposure to television, it was important to also measure attention to television. As previously mentioned, effects sizes of exposure to media are often small or non-existent (Valkenburg & Peter, 2013). For this reason, there is great importance in measuring attention to television if we are to yield an accurate measure of consumption. There is a need to measure direct effects (e.g. attention) and indirect effects (e.g. exposure) (Valkenburg & Peter, 2013). Furthermore, as indicated by Grabe and Drew (2007) measuring attention is important because less attentive consumption will shape views differently than attentive consumption of media. To create the attention scale previous research was consulted. Previous studies measured attention to media (Stevenson & Gonzenback, 1990) using items with scales ranging from 1 to 10; 1 equaling very little attention and 10 equaling very high attention (Neuwirth & Frederick, 2004). For this study the scale was contracted ranging from 1 to 5 with 1 equaling very little attention and 5 equaling very high attention. A 1 to 5 scale was used to maintain consistency with the five point Likert scale that was used throughout the survey. This also made data analysis quick and concise.

For this study a five point Likert scale was used for all scales measuring respondents' beliefs ranging from strongly disagree to strongly agree. Strongly agree to strongly disagree was dummy coded one through five for ease of analysis. The Likert scale worked well because it measures support and opposition whereas scales utilizing a

one through ten only measure little support versus high support but does not demonstrate opposition to the item being measured. Similarly, Kahlor and Eastin (2011) utilized a seven point Likert scale when measuring viewers' beliefs for some items. Although their study measured beliefs concerning rape myth belief, this study found a Likert scale useful. It was determined a five point Likert scale would be useful and substantial in measuring respondents' beliefs instead of the seven point Likert scale used by Kahlor and Eastin (2011). A seven point Likert scale would provide a more nuanced measurement, however, it was unnecessary for this study. Similarly, the study conducted by Atkin et al. (1997) utilized a four point Likert scale ranging from "strongly agree to strongly disagree." The researchers argued this scale was useful, however, the scale does not truly measure viewers' beliefs because it failed to include "neutral" as an option. Instead it forces respondents to either agree or disagree with the statement when in reality they may have no opinion concerning the issue. For this reason the four point Likert scale was not used. For this study, all items using a Likert scale to measure beliefs were recoded creating two measures for each item, one item measuring the degree of agreement and one item measuring the degree of disagreement giving each subject a separate measurement for support and opposition to each item. Each item was recoded (0, 2, 3). This allowed for the researcher to clearly identify how much agreement or disagreement was given from each respondent. If each item had not been broken in half it would still measure accurately but it was transformed into a different metric that provided a separate score for support versus opposition. Meaning the outcome would have likely been similar

but it would have been difficult to discern the difference between low support rather than outright opposition to each item.

The main purpose of the study was to analyze how exposure and attention to television impacted pro-gun and anti-gun beliefs. To create the scale measuring pro-gun and anti-gun beliefs it was difficult to consult previous literature as few studies created detailed scales measuring gun beliefs. For example, in the study conducted by Atkin, et al. (1997) they asked respondents one question about beliefs concerning gun control, simply telling respondents to indicate how much they agree or disagree with support of gun control initiatives. While this measure would certainly be quick in measuring respondents' beliefs it does not provide enough depth in measuring gun beliefs. But the question was useful as it provided insight for a similar question asked in the current study. Likewise, Holbert et al. (2004) only included one measure in their study measuring pro-gun beliefs. In a more recent study conducted by Seate et al. (2012) the researchers measured if viewers' beliefs were impacted by news coverage of the shootings that took place at Virginia Tech. While this measure would prove useful for their study it would not be the only measurement used in the current study as it does not measure gun beliefs separate from media exposure and attention. Furthermore, their questions may have created user bias as viewers' may want to appear as though their opinions were not influenced by the media. However, this study did ask one question pertaining to consumption of media depicting mass shootings that took place in the past in conjunction with gun control beliefs. That question was adapted from a similar question asked by Seate et al. (2012). With that said, this scale asked respondents to respond to eight

statements concerning respondents' gun beliefs. The researcher chose to ask eight questions to eliminate any perception of researcher bias and to gain in-depth details of respondents' gun beliefs. Many of the questions included in the scale were created based on issues that have been recently discussed in the media concerning gun control, conceal carry weapon laws, bans on assault rifles and also more general questions concerning pro-gun and anti-gun beliefs. In addition, because it was difficult to find literature to consult when constructing the scale measuring gun beliefs, the researcher conducted a pilot study using the scale. It proved to have both scale reliability and face validity and was thus used in the current study. As mentioned previously, each item in each scale was broken down into two items creating a scale that measured pro-gun beliefs (support for guns/gun rights) and a scale that measured anti-gun beliefs (opposition to guns or support for gun control). Both of these scales had high reliability. The pro-gun scale had a Cronbach's alpha of .88 and the anti-gun scale had a Cronbach's alpha of .81.

Although this study did not offer any hypotheses measuring exposure or attention to television and its impact on gun ownership, it was important to include such a measurement if this data is to be useful to future studies. For that reason eight items were included measuring gun ownership and reasons for owning firearms. To create these measure past studies were consulted. Kauder (1993) conducted a study identifying public opinion of gun control measures in the state of Virginia. Although this study was conducted twenty years ago, the items used to measure gun ownership proved reliable and was thus useful to the current study. Kauder (1993) asked respondents if they own guns for hunting, protection, and "other" reasons. This study also provided items

measuring gun ownership for reasons associated with hunting, protection and “other” instructing respondents to indicate “yes” or “no” except for the “other” reasons item. Similarly, Seate et al., (2012) asked respondents to indicate if they own guns by answering “yes” or “no.” This proved useful in their study but this study chose a different approach. The first question included in this scale simply asked respondents how many guns they own. By creating this measure there was no need to ask respondents two questions, if they own guns and how many they own. If respondents wrote “zero” it was clear they did not own guns. Two other measures were used including asking respondents if they own firearms for “target shooting” and if they intend to purchase a firearm in the next three months. Media scholars advised that this research include the measure concerning target shooting. It is possible that respondents may choose to purchase a gun based on their consumption of violent television therefore, it was important to measure intent to purchase.

The literature presented in this manuscript demonstrated the importance of measuring mean world syndrome as it is a clear indicator of the cultivating power of television exposure. In addition, a true cultivation study is not complete without a measure of mean world syndrome. To create an accurate scale measuring mean world beliefs, previous literature was consulted. Many of the previous studies measuring mean world syndrome used few items to measure mean world. For example, Chiricos et al. (1997) used four items to measure mean world beliefs asking questions concerning how much the respondent feared being a victim of robbery, of having their house broken into, having their car broken into, and of being physically attacked (Chiricos et al., 1997). The

current study also included items measuring fear of being attacked and concern over crime. However, the measurement for concern over crime was an all-encompassing item that could measure concern over robbery, having items stolen and other similar aspects. Also, Diefenbach and West (2001) included items measuring concern over crime locally and nationally, supporting the measurement for the current study. Their results were significant and one could assert that concern over crime is an aspect of mean world syndrome. Similarly, Romer et al., (2003) found consumption of television impacted fear of crime locally and throughout the nation offering further support for creating measurements that specifically measure crime throughout the nation and crime in one's community. Similar to Chiricos et al., 1997, Holbert et al. (2004) only used one item to measure mean world beliefs; asking participants if they worry about being a victim of crime. This is not a sufficient number of items measuring mean world beliefs. However, the current study did ask a similar item, fear of being attacked, which is an aspect of mean world beliefs.

To properly measure mean world beliefs a more in-depth scale with seven items measuring mean world was created. In addition to the scales in studies recently referenced, this scale was guided by Gerbner's description of mean world syndrome (Gerbner et al., 1980, 1986). Gerbner asserted that mean world beliefs would be exhibited through exaggerated perceptions of fear, victimization, mistrust and dangers, along with other inaccurate beliefs about the world (Gerbner & Gross, 1976; Gerbner et al., 1980, 1986; Morgan & Shanahan, 2010). This seminal research offered by Gerbner was the basis for measurement of mean world in this study. There were three items, one

measuring trust and two items measuring the degree to which respondents were concerned with being taken advantage of for themselves and others. In addition, a single item was included to measure the perception of danger in the world and another item measuring how much the respondent feared being attacked. The measure of danger in the world was provided from the study conducted by Hoffner and Buchanon (2002) and supported by past research (Gerbner et al., 1980, 1986). Their measurement was similar to the Likert scale allowing for this study to utilize that item with only a minimal change. Lastly, as previously stated there were two items measuring concern over crime; one measuring concern of crime locally and one item measuring concern over crime nationally; both items were adapted from the study conducted by Diefenbach and West (2001). While previous literature proved useful in constructing the scale to measure mean world, it was not possible to use extant scales because this study utilized a Likert scale for all items measuring beliefs. Other mean world scales mentioned in this study did not use this method. It was presumed these items would create a scale that would accurately measure mean world beliefs. Contrary to this assumption, the scale yielded low reliability with a Cronbach's alpha of .60. However, significant results were found with several of the single items used in the mean world scale. These items along with their significance will be discussed at greater length in the discussion. The survey used in this study is located in Appendix A.

Results

All statistical analysis was conducted using SPSS version 22. Neither H1 or H2 were supported. To test H1 a Pearson correlation was conducted and there wasn't a

significant correlation between hours of daily television watched and beliefs in a mean world ($r=.01$). Moreover, a Pearson correlation was conducted to test H2, and there was not a significant correlation between attention to daily television and beliefs in a mean world ($r=.02$). Hence, this study found no correlation between exposure and attention to violent programming and mean world beliefs. These hypotheses were tested using the original seven items that were recoded and combined to create a mean world scale. It is possible these correlations were not significant because the mean world scale had low reliability (Cronbach's $\alpha = .60$). However, partial support was found. Significant correlations were found using items measuring consumption of television and attention and the individual items measuring mean world beliefs. Those correlations will be further discussed in the discussion.

Hypotheses 3 through 6 had sub hypotheses included. The results for hypotheses and their accompanying sub hypotheses are reported below.

Partial support was found for H3. To test H3, a Pearson correlation was conducted. The score of the significance between exposure to *FOX News* ($n=516$) and pro-gun beliefs ($n=520$) was a positively significant correlation ($r=.15$, $p=.00$). In addition, the correlation between exposure to *MSNBC* ($n=517$) and pro-gun beliefs ($n=520$) was approaching negative significance ($r=-.09$, $p=.053$). The direction of this correlation was expected given the liberal perspective in reporting offered by *MSNBC*. The correlation between hours of daily television watched and pro-gun beliefs ($r=.06$) was not significant. The correlation between hours of crime drama watched and pro-gun beliefs ($r=-.02$) was not significantly correlated. The correlation between hours of

broadcast television watched and pro-gun beliefs ($r=-.01$) was not significantly related.

Lastly, the correlation between time spent watching *CNN* and pro-gun beliefs ($r=.01$) was not significantly related. These results indicate that exposure to violent television is significantly related to pro-gun beliefs for *certain* programming.

Partial support was found for H4. To test H4, Pearson correlations were conducted. The score of the significance between attention to *FOX News* ($n=135$) and pro-gun beliefs ($n=520$) was a positively significant correlation ($r= .20, p=.04$). The correlation between attention to daily television viewing and pro-gun beliefs ($r=.02$) was not significantly related. The correlation between attention to viewing crime drama and pro-gun beliefs ($r=.05$) was not significantly related. The correlation between attention to broadcast television and pro-gun beliefs ($n=520$) was not significantly related. The correlation between attention to *CNN* ($n=121$) and pro-gun beliefs ($r=.09$) was not significantly related. The correlation between attention to *MSNBC* and pro-gun beliefs ($r=-.21$) was not significantly related. This research indicates that attention to *certain* violent television programming (only *FOX News*) impacts enculturation to a pro-gun culture.

Partial support was found for H5, measuring daily exposure to television ($n=526$) and anti-gun beliefs ($n=520$). This correlation was negatively significant ($r= -.10, p=.04$). In addition, hours viewed of *FOX News* ($n=516$) and anti-gun beliefs ($n=520$) were negatively correlated ($r= -.10, p=.03$). Lastly, hours of *MSNBC* watched ($n=517$) and anti-gun beliefs ($n=520$) were positively correlated ($r= .10, p=.02$). Research would suggest that consumption of violent television would increase pro-gun beliefs (Holbert, et

al., 2004), but since *MSNBC* reports from a liberal perspective, the positive relationship found between *MSNBC* and anti-gun beliefs is not unexpected. But it is important to note that causality cannot be determined and those with anti-gun beliefs may be naturally inclined to consume media that has a liberal perspective. The correlation for time spent watching crime drama and anti-gun beliefs ($r=-.06$) was not significantly related. The correlation between watching broadcast television and anti-gun beliefs ($r=-.02$) was not significantly related. The correlation between hours of *CNN* viewed and anti-gun beliefs ($r=.02$) was not significantly related. This research indicates that exposure to *certain* violent programming is associated with support and opposition of an anti-gun culture.

Partial support was found for H6. Correlations were conducted to test these hypotheses. It was predicted that attention to *MSNBC* would be negatively related to anti-gun beliefs. The correlation for attention to *MSNBC* ($n=66$) and anti-gun beliefs ($n=520$) was significantly related ($r=.50, p=.00$). The correlation was not in the direction predicted by the research. Similar to H5, it is possible that viewers of *MSNBC* are having their anti-gun beliefs impacted by the anti-gun perspective often provided by liberal news agencies such as *MSNBC*. However, again, one must take caution with this correlation. It does not indicate causality. The correlation for attention to watching television and anti-gun beliefs ($r=.04$) was not significantly related. The correlation for attention to *FOX News* and anti-gun beliefs ($r=-.11$) was not significantly related. The correlation for attention to crime drama and anti-gun beliefs ($r=.04$) was not significantly related. The correlation for attention to broadcast television and anti-gun beliefs ($r=-.01$) was not significantly related. Lastly, the correlation for attention to *CNN* and anti-gun beliefs ($r=.15$) was not

significantly related. This research demonstrates that attention to specific programming (only *MSNBC*) is positively related to anti-gun beliefs. Further statistical results for significant correlations can be found in Table 1 located in appendix C.

The final two hypotheses, H7 and H8, were analyzed by conducting an independent t-test. H7 asserts that Republicans will be significantly more favorable toward gun support than Democrats. The independent t-test was conducted to test favorability toward pro-gun beliefs based on political affiliation. The results demonstrate that Republicans ($n=170$) average 14.67 ($s=4.34$) on pro-gun beliefs. Democrats ($n=137$) averaged 10.88 ($s=3.06$) on pro-gun beliefs. This difference was statistically significant ($df=300.02$, $T=8.97$, $p=.000$) suggesting that Republicans were more likely to score higher on pro-gun beliefs thus more favorable toward gun support and providing support for H7.

To test H8, another independent t-test was conducted. H8 asserted that men will be significantly more favorable towards gun support than women. The results found that men ($n=254$) averaged 13.78 ($s=4.63$) on pro-gun beliefs. Women ($n=266$) averaged 11.76 ($s=3.53$) on pro-gun beliefs. This difference was statistically significant ($df=472.71$, $t=-5.60$, $p=.000$) suggesting that men were more likely to score higher on pro-gun beliefs than women thus were more favorable toward gun support and providing support for H8. Statistical analysis for H7 and H8 can be found in tables two and three respectively, located in appendix C.

Discussion

It is clear that this research study on its own does not sufficiently answer whether or not media cultivates a pro-gun or anti-gun culture. However, this study offered significant findings and laid the groundwork for future cultivation studies identifying how media impacts this important social issue.

The most profound impact on pro-gun and anti-gun beliefs appeared to arise from political affiliation and gender. For example, the research demonstrated there was a statistically significant difference when considering political affiliation in regards to pro-gun beliefs. Republicans were significantly more likely than Democrats to express pro-gun beliefs. This supports previous research (Price et al., 2002). Furthermore, Democrats were significantly more likely to support anti-gun beliefs than Republicans. This too supports previous research (Price et al., 2002). The research also found that men were significantly more likely to support pro-gun beliefs than women, and women were significantly more likely to be anti-gun than men. This has a couple of implications. The data indicates that political affiliation is a stronger indicator of gun beliefs than media exposure and attention. But this may also be the reason the research found the most significant correlations between consumption/attention of *FOX News* and *MSNBC* in regards to pro-gun and anti-gun beliefs. It is entirely possible that individuals who align with Democratic or Republican views attend to respective media with established beliefs about guns and choose to attend to political television programming because of their beliefs, suggesting the cultivating effects are not as powerful as previously assumed.

The research found only partial support for consumption of television and mean world beliefs, supporting previous studies (Gerbner et al., 1980, 1986, Chiricos, et al.,

1997, Diefenbach & West, 2001, 2007, Hoffner & Buchanan, 2002, Romer et al., 2003).

However, H1 and H2 were not supported. As mentioned previously, this study aimed to create a mean world scale that offered more depth than provided in previous research studies. Several previous studies only offered one or two items measuring mean world (Atkin et. al., 1997; Chiricos et al., 1997, Holbert et al., 2004). It was the belief of the researcher in this study that those items were insufficient in measuring mean world.

Gerbner explains in his seminal research that there are at least four different aspects that comprise mean world (Gerbner et al., 1980, 1986). The scale that was created to measure mean world had a total of seven different items. That scale turned out to have low reliability (Cronbach's $\alpha = .60$) despite using variables described by Gerbner (1980, 1986) and other cultivation studies (Chiricos et al., 1997; Diefenbach & West, 2001, Hoffner & Buchanan, 2002, Seate et al., 2012). The low reliability of the scale impacts predictability and may be the reason H1 and H2 were not directly supported. Despite H1 and H2 not being fully supported, when specific consumption and attention variables were tested in relation to the individual items that made up the mean world scale, significant findings emerged. For example, the research suggested a significant relationship between attention to television and belief that the world is a dangerous place, supporting previous research (Hoffner & Buchannon, 2002). Attention to television was also significantly related to fear of being physically attacked. However, this correlation was negative, suggesting that as attention to television increases, fear of being attacked decreases. This finding was supported by the data. This also suggests that television may not be as violent as previously thought. It also indicates that future studies should analyze

a wider variety of channels; some of the channels that are attended to may not contain a great deal of violence; thus, cultivating effects would be limited. The researcher also found a significant relationship between consumption of crime drama and increased fear of being physically attacked. This supports previous findings (Chiricos et al., 1997). There was also a significant relationship between attention to crime drama and beliefs that the world is a dangerous place. This research suggests that as consumption and attention to crime drama increases so do increased perceptions of certain aspects of mean world syndrome. This is most important for heavy viewers. It indicates that heavy viewers of crime drama will be more likely to develop inaccurate perceptions about the world, consistent with Gerbner's assertions (1980; 1986). This finding is supported by the data.

The research also proposes that generally speaking, exposure to violent television was not a strong factor in cultivating pro-gun beliefs. In fact, in terms of exposure, the only channels that were significantly related to pro-gun beliefs were *FOX News* and *MSNBC*. The research suggested that as exposure to *FOX News* viewing increases, so do pro-gun beliefs. This finding is supported by the data. However, this is simply a correlation and does not indicate causation. It is possible that individuals holding pro-gun beliefs are more inclined to watch *FOX News*. There was also a significantly negative relationship between consumption of *FOX News* and anti-gun support, suggesting that as *FOX News* increases anti-gun support decreases. This was supported by the data. This finding also supports the belief that *FOX News* operates from a conservative point of view. Many would be hard-pressed to argue with this assertion, and this research supports

the belief. In addition, there was also a significant correlation with exposure to *MSNBC* and pro-gun beliefs. This correlation was negative, suggesting that as exposure to *MSNBC* increases pro-gun beliefs decrease. This finding has a couple of significant implications. First, it suggests it is possible that exposure to *MSNBC* is leading viewers to relinquish pro-gun beliefs and instead may cultivate anti-gun beliefs. However, it is also possible some viewers never had pro-gun beliefs to begin with. Second, it suggests that *MSNBC* is liberally biased. Research has shown that liberals tend to support an anti-gun culture (Price et al., 2002). The research suggests that exposure to *MSNBC* appears to negatively impact pro-gun beliefs, supporting the belief that *MSNBC* is liberally biased. However, this research only suggests a negative relationship between exposure to *MSNBC* and pro-gun beliefs. It does not indicate which variable is creating the effect. Moreover, attention to *MSNBC* was significantly related to anti-gun beliefs. This correlation was stronger than any of the other relationships found in the analysis ($r=.50$). Also, the research suggests that, in general, viewers of *FOX News* and *MSNBC* are more involved in the gun debate. In fact, the only significant relationship found outside of consumption of *MSNBC* and *FOX News* was a relationship between exposure to daily television viewing and anti-gun support; however, this correlation was rather weak. Generally speaking, this study found only limited cultivating effects of television in regards to pro-gun and anti-gun beliefs. Future research would be wise to conduct a panel study to identify if these cultivating effects grow stronger over time. Gerbner would argue that if exposure to these programs remains constant, the cultivating effects of said

programming would increase throughout the life of the viewer (Gerbner, 1998; Gerbner, et al., 1986; Morgan & Shanahan, 2010).

Weaknesses

While this study did yield significant results and contributed positively to the media effects and cultivation literature, there were shortcomings. One of the more obvious weaknesses of this study was its inability to demonstrate with any certainty the cultivating power of television consumption. When cultivating effects were demonstrated, mostly through correlations, those correlations were not very strong. Furthermore, the scale to measure mean world syndrome proved ineffective. Future studies should compile exact measures that proved reliable in previous research studies (Chiricos et al., 1997; Diefenbach & West, 2001, 2007, Hoffner & Buchannon, 2002; Seate et al., 2012) to develop an adequate control measure for mean world. However, certain aspects that comprised the mean world scale (fear of being attacked, belief that the world is dangerous and crime being a problem in the U.S.) were significantly related to consumption. This suggests that these items were a reliable measure of mean world, but more research is needed to construct a sufficient mean world scale as many studies did not truly measure mean world as described by Gerbner (1980, 1986).

This study also did not consider high versus low viewers during analysis. One of the core assumptions made by Gerbner (1980, 1986, 1998) is that heavy viewers of television will be more likely to be cultivated by television than low viewers. A future study would be wise to consider heavy versus low viewers as the cultivating effects will likely be more profound. However, it should also be mentioned that defining heavy

viewing versus low viewing has plagued scholars since cultivating studies began. A great deal of research mentions Gerbner's assertion concerning heavy viewing but does not provide an operational definition of heavy versus low viewing (Valkenburg & Peter, 2013). Future research might also provide a working definition of heavy viewing that is suitable for all scholars conducting research in cultivation.

In addition, previous research analyzed four broadcast television stations (Price et al., 1992; Diefenbach & West, 2001). This study failed to include *FOX* broadcast channel as an option for exposure and attention to television in the survey. This may have contributed to the inability to identify an effect between the broadcast measure in relation to pro-gun and anti-gun beliefs. In addition, previous studies looked at the effects of primetime television consumption (Diefenbach & West, 2001, 2007; Price et al., 1992; Signorielli, 2003). This study failed to include a measure for primetime media consumption. Much of the violence present in media is portrayed during the primetime hours (Diefenbach & West, 2001, 2007; Price et al., 1992; Signorielli, 2003), suggesting that future research would be wise to measure primetime media use.

Lastly, this study is only generalizable to a college population; the sample did not include participants from the general population. Furthermore, this study lacked a diverse population in terms of race. More than 84 percent of the respondents in the study identified as white/Caucasian. Future studies should aim to obtain a more diverse group of respondents if researchers wish to gain a true understanding of how the public feels about the gun debate. Studies should also aim to sample the general population to allow for generalizability.

Future Research

Several areas of future research should be considered. Many cultivation studies are two-pronged (Gerbner, 1998). Researchers analyze certain types of programming by conducting a content analysis, and then beliefs associated with that viewing are measured (Gerbner, 1998; Kahlor & Eastin, 2011; Seate et al., 2012). This study did not include a content analysis because it was determined through previous research that media is inherently violent making a content analysis not necessary. However, future cultivation studies concerning the gun debate would be wise to include a content analysis. Significant correlations were discovered but because there was not a content analysis conducted, the answers to the survey could not be measured against *specific* depictions found on television. Instead this research relied on previous research that demonstrated media is violent. A content analysis, especially of political news channels such as *FOX News* and *MSNBC*, may lend insight to the types of depictions portrayed and how those depictions impact the viewer. It is possible that these channels are cultivating, or reinforcing, pro-gun and anti-gun beliefs. But this research does not demonstrate either possibility with certainty. Future studies would also be wise to construct a survey measuring a wider range of television channels. When previous research was conducted, broadcast television was the most popular television consumed. However, today there are multiple channels and multiple platforms, including cable and internet viewing via *Netflix* and *Hulu*. Some of the shows appearing on *Netflix* and *Hulu* can only be watched through those sites. In addition, *HBO* is another cable channel that has risen to prominence with

signature shows only available on their network. Television programming appearing on these various channels may have cultivating effects on the viewer.

Future studies should also consider belief superiority. The gun debate is inherently a political issue (Price et al., 2002). With that said, beliefs concerning politics and political affiliation are typically quite strong, and once political affiliation is established, people are not easily swayed. Belief superiority suggests that generally speaking, people tend to believe their views are accurate regardless of others. There are two hypotheses that exist concerning this issue. One theory argues that conservatives are more likely to hold their views in high esteem and are less dogmatic than other political affiliations (Toner, Leary, Asher, Jongman-Sereno, 2013). The other theory suggests that political extremism is a stronger indicator of dogmatism regardless of affiliation (Toner et al., 2013). Given the political nature of this study, similar studies in the future should measure belief superiority as it may impact pro-gun and anti-gun beliefs.

This study created a scale measuring gun ownership, however, that scale was not utilized in analysis or included in the research hypotheses. This should be considered for future studies. Previous research has indicated that gun ownership is significantly related to exposure of violent television (Holbert et al., 2004). It would have been wise to investigate the relationship between exposure and attention to television in regards to gun ownership. Furthermore, it would have been interesting to identify if there was a significant relationship between gun ownership and anti-gun and pro-gun beliefs.

More research must also be dedicated to the possible cultivating effects of crime drama. Research has offered mixed reports with few studies demonstrating support of the

cultivating effects of crime drama (Holbert et al., 2004, Nabi & Sullivan, 2001). This study found, similar to others that exposure to crime drama did not impact gun beliefs but did impact certain aspects of mean world. Based on the mixed results of the effects of crime drama on the viewer, recent studies cannot adequately discern if these shows have any impact at all. Currently, *NCIS* is the number one show on primetime television (Nielson, 2014). Given the high viewership of *NCIS* and other crime drama related television shows, future research focusing strictly on crime drama is needed to indicate if such programming is promoting ill effects.

In addition, as previously mentioned, political affiliation appears to be one of the factors impacting pro-gun and anti-gun beliefs. This research suggests that consumption of television may have less or no impact on pro-gun and anti-gun beliefs when political affiliation is a factor. Future studies should test exposure to television and political affiliation in conjunction with pro-gun and anti-gun beliefs to identify which is having the most or least impact.

Conclusion

Politicians and political pundits will continue to entertain the tired and overused talking points concerning the gun debate. In the meantime, it is incumbent upon us as scholars and researchers to continue our diligence and focus on the evidence. Tragic shootings will always spark fierce discussion, and the gun debate will only continue to intensify. It is our task to decipher how that debate is impacted by the media and to limit those effects; we must ensure that the electorate is presented with a body of evidence that is accurate and meaningful to make educated opinions about such an important social

issue. It is clear that this research on its own will not suffice to answer a question that lies at the heart of media effects. Research must continue to identify how various forms of media cultivate public opinion on gun control and gun rights.

References

- Agarwal, V., & Dhanasekaran, S. (2012). Harmful effects of media on children and adolescents. *Journal of Indian Association For Child & Adolescent Mental Health, 8*, 38-45.
- Atkin, D., Jeffres, L., & Neuendorf, K. (1997). Cultivation and public support for government restrictions on constitutional freedoms. *Mass Communication Review, 24*, 106-125.
- Chiricos, T., Eschholz, S., & Gertz, M. (1997). Crime news and fear of crime: Toward an identification of audience effects. *Social Problems, 44*, 342-357.
- Diefenbach, D.L., & West, M.D. (2001). Violent crime and poison regression: A measure and a method for cultivation analysis. *Journal of Broadcasting & Electronic Media, 45*, 432- 445.
- Diefenbach, D. L., & West, M. D. (2007). Television and attitudes toward mental health issues: Cultivation analysis and the third-person effect. *Journal of Community Psychology, 35*, 181-195.
- Frank, E., & Kellerman, A. (1999). Firearm ownership among female physicians in the United States. *Southern Medical Journal, 92*, 1083.
- Gerbner, G. (1969). Toward cultural indicators: The analysis of mass mediated public message systems. *AV Communication Review, 17*, 137-148.
- Gerbner, G. (1998). Cultivation analysis: An overview. *Mass Communication & Society, 1*, 175.

- Gerbner, G., & Gross, L. (1976). Living with television: The violence profile. *Journal of Communication, 26*, 173–199.
- Gerbner, G., Gross, L., Morgan, M., & Signorielli, N. (1980). The mainstreaming of America: Violence Profile No. 11. *Journal of Communication, 30*, 10–29.
- Gerbner, G., Gerbner, G., Gross, L., Morgan, M., & Signorielli, N. (1984). Facts, fantasies and schools. *Society, 21*, 9–13.
- Gerbner, G., Gross, L., Morgan, M., & Signorielli, N. (1986). Living with television: The dynamics of the cultivation process. In Bryant & D. Zillman (Eds.), *Perspectives on media effects* (pp. 17–40). Hillsdale, NJ: Earlbaum.
- Gerding, A., & Signorielli, N. (2014). Gender Roles in tween television programming: A content analysis of two genres. *Sex Roles, 70*, 43–56. doi:10.1007/s11199-013-0330-z
- Grabe, M., & Drew, D. G. (2007). Crime cultivation: Comparisons across media genres and channels. *Journal of Broadcasting & Electronic Media, 51*, 147–171. doi:10.1080/08838150701308143.
- Hetsroni, A. (2011). Violence in television advertising: Content analysis and audience attitudes. *Atlantic Journal of Communication, 19*, 97–112. doi:10.1080/15456870.2011.561170
- Hoffner, C., & Buchanan, M. (2002). Parents' responses to television violence: The third-person perception, parental mediation, and support for censorship. *Media Psychology, 4*, 231–252.
- Holbert, R., Shah, D. V., & Kwak, N. (2004). Fear, authority, and justice: Crime-related

TV viewing and endorsements of capital punishment and gun ownership.

Journalism & Mass Communication Quarterly, 81, 343-363.

Infante, D.A., Ranger, A.S., & Avtgis, T.A. (2010). Mass media contexts: Cultivation theory. *Contemporary communication theory* (pp. 354-357). Kendall Hunt:

Dubuque, IA.

Kahlor, L., & Eastin, M. S. (2011). Television's role in the culture of violence toward women: A study of television viewing and the cultivation of rape myth acceptance in the United States. *Journal of Broadcasting & Electronic Media*, 55, 215-231.

doi:10.1080/08838151.2011.566085.

Kauder, N. B. (1993). One-gun-a-month: Measuring public opinion concerning a gun control initiative. *Behavioral Sciences & The Law*, 11, 353-360.

doi:10.1002/bsl.2370110403.

Ludwig, J., Cook, P. J., & Smith, T. W. (1998). The gender gap in reporting household gun ownership. *American Journal of Public Health*, 88, 1715-1718.

Mauser, G. A., & Kopel, D. B. (1992). "Sorry, wrong number": Why media polls on gun control are often unreliable. *Political Communication*, 9, 69-91.

Morgan, M., & Shanahan, J. (2010). The state of cultivation. *Journal of Broadcasting & Electronic Media*, 54, 337-355. doi:10.1080/08838151003735018.

Nabi, R. L., & Sullivan, J. L. (2001). Does television viewing relate to engagement in protective action against crime? A cultivation analysis from a theory of reasoned action perspective. *Communication Research*, 28, 802-825.

Neuwirth, K., & Frederick, E. (2004). "Peer and social influence on opinion expression:

combining the theories of planned behavior and the Spiral of Silence”.

Communication Research, 31, 1-35.

Potter, W. J. (2012). Effects on attitudes. In *Media Effects* (pp169-190). Thousand Oaks, CA: SAGE Publications, Inc.

Price, J. H., Dake, J. A., & Thompson, A. J. (2002). Congressional voting behavior on firearm control legislation: 1993-2000. *Journal of Community Health*, 27, 419.

Price, J. H., Merrill, E. A. Clause, M. E. (1992). The depiction of guns on primetime television. *Journal of School Health*, 62, 15-18.

Romer, D., Jamieson, K., & Aday, S. (2003). Television news and the cultivation of fear of crime. *Journal of Communication*, 53, 88-104.

Salmi, V., Smolej, M., & Kivivuori, J. (2007). Crime victimization, exposure to crime news and social trust among adolescents. *Young*, 15, 255-272.

Seate, A., Cohen, E. L., Fujioka, Y., & Hoffner, C. (2012). Exploring gun ownership as a social identity to understanding the perceived media influence of the Virginia Tech news coverage on attitudes toward gun control policy. *Communication Research Reports*, 29, 130-139. doi:10.1080/08824096.2012.667773.

Signorielli, N. (1989). The stigma of mental illness on television. *Journal of Broadcasting & Electronic Media*, 33, 325-331.

Signorielli, N. (2003). Prime-time violence 1993-2001: Has the picture really changed?. *Journal of Broadcasting & Electronic Media*, 47, 36.

Signorielli, N. (2009). Race and sex in prime time: A look at occupations and

occupational prestige. *Mass Communication & Society*, 12, 332-352.

doi:10.1080/15205430802478693

Signorielli, N., & Gerbner, G. (1995). Violence on television: The cultural indicators project. *Journal of Broadcasting & Electronic Media*, 39, 278.

Signorielli, N., & Kahlenberg, S. (2001). Television's world of work in the nineties. *Journal of Broadcasting & Electronic Media*, 45, 4-22.

doi:10.1207/s15506878jobem4501_2.

Signorielli, N., & Lears, M. (1992). Children, television, and conceptions about chores: Attitudes and behaviors. *Sex Roles*, 27, 157-170. doi:10.1007/BF00290015.

Signorielli, N., & Morgan, M. (2009). Cultivation analysis: Research and practice. In D. W. Stacks and M. B. Salwen (Eds.), *An integrated approach to communication theory and research* (pp. 106-121). New York: Routledge.

Stevenson, R. L., & Gonzenback, W. J. (1990, August). Media use, political activity and the "climate of opinion." Paper presented at the Association for Education in Journalism and Mass Communication annual conference, Minneapolis, MN.

Toner, K., Leary, M. R., Asher, M. W., & Jongman-Sereno, K. P. (2013). Feeling superior is a bipartisan Issue: extremity (not direction) of political views predicts perceived belief superiority. *Psychological Science (Sage Publications Inc.)*, 24, 2454-2462. doi:10.1177/0956797613494848

Top Ten & Trends. *Nielsen*. (2014). Retrieved from <http://www.nielsen.com/us/en/top10s.html>

Valkenburg, P. M., & Peter, J. (2013). Five challenges for the future of media-effects

research. *International Journal of Communication*, 7, 197-215.

Appendix A

1. Please indicate your age: _____
2. Please indicate your sex: _____
3. From the options below please circle the highest level of education you have completed:
High school graduate
Some college
College graduate
Post graduate college
4. Please indicate your ethnic background: _____
5. From the list below please select the option that best describes your political affiliation:
Republican
Democrat
Third party affiliation
No political affiliation

Please respond to the following questions by circling your response:

6. From the options below please indicate how conservative or liberal you are when it comes to social issues:
Very conservative conservative neutral liberal very liberal
7. From the options below please indicate how conservative or liberal you are when it comes to economic issues:
Very conservative conservative neutral liberal very liberal
8. From the options below please indicate how conservative or liberal you are when it comes to political issues:
Very conservative conservative neutral liberal very liberal

The following questions concern your use of television. For each question please circle the answer that most accurately describes the hours you spend watching television:

1. On a typical weekday how much time do you spend watching television (round up to the nearest hour)

0 1 2 3 4 5 6 7 8 or more

If you answered the previous question with "0" please skip this question and move onto the next question

2. How much attention do you give when watching television; one being very little attention and five being very high attention:

1 2 3 4 5

3. In a typical week how much time do you spend watching crime dramas (round up to the nearest hour)?

0 1 2 3 4 5 6 7 8 or more

If you answered the previous question with "0" please skip this question and move onto the next question.

4. How much attention do you give when watching crime dramas; one being very little attention and five being very high attention:

1 2 3 4 5

5. In a typical week how much time do you spend watching local news (round up to the nearest hour)?

0 1 2 3 4 5 6 7 8 or more

If you answered the previous question with "0" please skip this question and move onto the next question.

6. How much attention do you give when watching local news; one being very little attention and five being very high attention:

1 2 3 4 5

7. In a typical week how much time do you spend watching national cable news channel CNN; please round to the nearest hour)?

0 1 2 3 4 5 6 7 8 or more

If you answered the previous question with "0" please skip this question and move onto the next question.

8. How much attention do you give when watching national cable news channel CNN; one being very little attention and five being very high attention:

1 2 3 4 5

9. In a typical week how much time do you spend watching national cable news channel FOX News (please round to the nearest hour)?

0 1 2 3 4 5 6 7 8 or more

If you answered the previous question with "0" please skip this question and move onto the next question.

10. How much attention do you give when watching national cable news channel FOX News; one being very little attention and five being very high attention:

1 2 3 4 5

11. In a typical week how much time do you spend watching national cable news channel MSNBC (please round to the nearest hour)?

0 1 2 3 4 5 6 7 8 or more

If you answered the previous question with "0" please skip this question and move onto the next question.

12. How much attention do you give when watching national cable news channel MSNBC;

one being very little attention and five being very high attention:

1 2 3 4 5

13. In a typical week how much time do you spend watching national broadcast news

channel CBS (please round to the nearest hour)?

0 1 2 3 4 5 6 7 8 or more

If you answered the previous question with "0" please skip this question and move onto the next question.

14. How much attention do you give when watching national broadcast news channel CBS;

one being very little attention and five being very high attention:

1 2 3 4 5

15. In a typical week how much time do you spend watching national broadcast news

channel NBC (please round to the nearest hour)?

0 1 2 3 4 5 6 7 8 or more

If you answered the previous question with "0" please skip this question and move onto the next question.

16. How much attention do you give when watching national broadcast news channel NBC;

one being very little attention and five being very high attention:

1 2 3 4 5

17. In a typical week how much time do you spend watching national broadcast news

channel ABC (please round to the nearest hour)?

0 1 2 3 4 5 6 7 8 or more

If you answered the previous question with "0" please skip this question and move onto the next question.

18. How much attention do you give when watching national broadcast news channel ABC;

one being very little attention and five being very high attention:

1 2 3 4 5

Please indicate how much you agree or disagree with the following statements:

1. The local news consistently depicts violent images:
Strongly disagree disagree neutral agree strongly agree
2. National cable news rarely depicts violent images:
Strongly disagree disagree neutral agree strongly agree
3. National broadcast news is filled with violence:
Strongly disagree disagree neutral agree strongly agree
4. The shows I watch often depict violent images:
Strongly disagree disagree neutral agree strongly agree
5. The shows I watch rarely depict gun violence:
Strongly disagree disagree neutral agree strongly agree
6. Violence in crime drama is an accurate depiction of the real world:
Strongly disagree disagree neutral agree strongly agree

Please indicate how much you agree or disagree with the following statements:

1. I should be able to purchase guns as I see fit:
Strongly disagree disagree neutral agree strongly agree
2. I do not support conceal carry weapon laws:
Strongly disagree disagree neutral agree strongly agree
3. Guns provide safety that is not possible without them:
Strongly disagree disagree neutral agree strongly agree
4. I support laws limiting gun ownership:

Strongly disagree disagree neutral agree strongly agree

5. I support a ban on assault rifles:

Strongly disagree disagree neutral agree strongly agree

6. I support laws promoting gun ownership:

Strongly disagree disagree neutral agree strongly agree

7. I support a ban on all citizen owned guns:

Strongly disagree disagree neutral agree strongly agree

8. When I see real reports of mass shootings on television, I support gun control initiatives:

Strongly disagree disagree neutral agree strongly agree

This section measures gun ownership.

1. How many guns do you own? _____
2. Do you intend to purchase a gun in the next three months?

Yes No Maybe

If you DO NOT own guns please do not fill out this section and skip ahead to the next section of the survey.

3. I own guns for hunting

Yes No

4. I own guns for protection

Yes No

5. I own guns for target shooting

Yes No

6. I own guns for other reasons _____ (please specify)

Yes No

You are near the end of the survey. Please indicate how much you agree or disagree with the following statements:

1. If given the chance people I do not know will take advantage of me:
Strongly disagree disagree neutral agree strongly agree
2. I tend to trust people I do not know:
Strongly disagree disagree neutral agree strongly agree
3. People will take advantage of others if given the chance:
Strongly disagree disagree neutral agree strongly agree
4. The world is a dangerous place:
Strongly disagree disagree neutral agree strongly agree
5. I often fear that I may be physically attacked
Strongly disagree disagree neutral agree strongly agree
6. Crime is a major problem in the United States:
Strongly disagree disagree neutral agree strongly agree
7. Crime is a major problem in my neighborhood:
Strongly disagree disagree neutral agree strongly agree

This is the last section of the survey. The final questions measure how frequently you discuss politics with certain groups of people.

1. How frequently do you discuss politics with people who hold political views very different from you own, where 1 equals "never" and 5 equals "all the time?"
1 2 3 4 5
2. How frequently do you discuss politics with people with extreme conservative views?
1 2 3 4 5
3. How frequently do you discuss politics with people with extreme liberal views?

1 2 3 4 5

4. How frequently do you discuss politics with people of a different social status?

1 2 3 4 5

5. How frequently do you discuss politics with people of a different race or ethnicity?

1 2 3 4 5

Appendix B

Research Participant Informed Consent Form

1. **Explanation of the research and what you will do:**
You are being asked to participate in a research study assessing public opinion and consumption of television. The survey will take approximately 15 minutes. You must be at least 18 years old to participate in this study.
2. **Your rights to participate, say no, or withdraw:**
Participation in this study is completely voluntary. You have the right to say no if you do not wish to participate. This study will in no way impact your physical wellbeing and should not impact your emotional health. You also have the right to withdraw from the study at any time. You will not be penalized for not participating in the study, however, extra credit will not be awarded if the survey is not completed.
3. **Compensation for participation in the study:**
Your professor/instructor has the right to offer extra credit for participating in the study, however, extra credit is not guaranteed unless otherwise specified by your professor/instructor for the class where this survey is being administered. You must complete the survey to earn extra credit. At the beginning of the survey you will be asked to provide your name, section number, and class for which you are taking this survey. This information will be used for the sole purpose of providing extra credit to those who are offered extra credit by their instructor.
4. **Use of personal information:**
The personal information you provide at the beginning of the survey will be used for the sole purpose of providing extra credit to you if your instructor has agreed to provide extra credit. Every effort will be made to safeguard your identity and any information you provide from unauthorized access. Participants' names will not be used in any reports or presentations derived from this study. All personal information provided will be kept separate from your responses to the survey. All information you provide will be kept confidential to the extent of the law. This study is anonymous and your responses cannot be linked to you in anyway.
5. **Contact information for questions and concerns:**
If you have questions or concerns about this study, please contact either of the following individuals:

Nick Bentz, 262-472-5079
 Researcher
 Department of Communication
 University of Wisconsin-Whitewater
 800 W. Main St.
 Whitewater, WI 53190
 Email: bentzns16@uww.edu

Dr. Ed Frederick, 262-472-5066
 Principal Investigator
 Department of Communication
 University of Wisconsin-Whitewater
 800 W. Main St.
 Whitewater, WI 53190
 Email: frederie@uww.edu

Denise Ehlen, 262-472-5212
 IRB Administrator

Office of Research and Sponsored Programs
University of Wisconsin-Whitewater
800 W. Main St.
Whitewater, WI 53190
Email: ehlend@uww.edu

6. Documentation of informed consent:

Completing this survey indicates that I am at least eighteen years of age and give my informed consent to participate in this study. Please sign and print your name. Please write your section number to receive extra credit for participation.

Name	Signature	Section Number
Date		

Appendix C

Table 1: Correlation Matrix of Exposure Variables, Pro-Gun and Anti-Gun Variables

	1	2	3	4	5	6	x	S
1. <i>Pro-Gun</i>	—						12.75	4.22
2. <i>Anti-gun</i>	-.58***	—					11.01	3.13
3. <i>Overall exposure</i>	.063	-.09*	—				2.64	1.90
4. <i>Overall attention</i>	.02	.04	.18***	—			3.02	.90
5. <i>Exposure to CNN</i>	.01	.02	.09*	.03	—		.35	.87
6. <i>Exposure to FOX News</i>	.15***	-.10*	.12*	.08	.39***	—	.40	.90
7. <i>Exposure to MSNBC</i>	-.085	.10*	.05	-.00	.28***	.14**	.14	.46

Note: *p< .05, **p< .01, ***p< .001

Table 2: H7: Republicans will be significantly more favorable toward gun support than Democrats

	<i>Political Affiliation</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
<i>Pro-gun beliefs</i>	<i>Republican</i>	170	14.67	4.34	300.02	8.97	.000
	<i>Democrat</i>	137	10.88	3.06			
<i>Anti-gun beliefs</i>	<i>Republican</i>	170	10.00	2.50	277.60	-7.83	.000
	<i>Democrat</i>	137	12.81	3.75			

Table 3: H8: Men will be significantly more favorable toward gun support than women

	<i>Gender</i>	<i>N</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
<i>Pro-gun beliefs</i>	<i>Men</i>	254	13.78	4.63	472.71	-5.60	.000
	<i>Women</i>	266	11.76	3.53			
<i>Anti-gun beliefs</i>	<i>Men</i>	254	10.65	3.19	518	2.57	.010
	<i>Women</i>	266	11.36	3.04			