HUMAN COMMUNICATION RESEARCH

Human Communication Research ISSN 0360-3989

ORIGINAL ARTICLE

The Role of Graphic and Sanitized Violence in the Enjoyment of Television Dramas

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This experiment explores the relationship between television violence and viewer enjoyment. Over 400 participants were randomly assigned to one of 15 conditions that were created by editing five TV programs into three versions each: A graphically violent version, a sanitized violent version, and a nonviolent version. After viewing, participants reported their enjoyment of the content and emotional reactions to the content. Once we controlled for viewer perceptions of action in the program, we found that the nonviolent version was significantly more enjoyable than the two violent versions were. This finding held regardless of participants' sex, level of trait aggression, and sensation-seeking tendencies. Thus, the widely held belief that violence increases enjoyment was not supported.

doi:10.1111/j.1468-2958.2009.01358.x

Violence is a pervasive theme in much of U.S. media. Roughly two out of three programs on television contain instances of physical aggression, and a typical hour of television features an average of six different violent exchanges between characters (Wilson et al., 2002). Likewise, 60% of E-rated (for "Everyone") video games and 90% of T-rated (for "Teen") games feature physical aggression (Smith, Lachlan, & Tamborini, 2003). Even music, particularly rap and hip-hop, has been criticized for excessively violent lyrics (see Wilson & Martins, 2006).

There is considerable public concern that all this violence in the media may have harmful effects on individuals. Indeed, a large body of research demonstrates that exposure to media violence can increase aggressive attitudes and behaviors in youth (see Huesmann, 2007; Wilson, 2008). Violence in the media also can contribute to fear of victimization and to desensitization (see Kunkel & Zwarun, 2006). In fact, six major health organizations, including the American Medical Association (AMA) and the American Academy of Pediatrics (AAP), issued a joint statement to the U.S. Congress stating that "when the entertainment media showcase violence—and

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particularly in a context which glamorizes or trivializes it—the lessons learned can be destructive'' (AAP, 2000).

So why does media violence continue to exist in such large quantities? One reason for its widespread production is the pervasive belief that entertainment violence is attractive. The media industry is trying to capitalize on the idea that audiences, or at least certain segments of audiences, are drawn to violent content (Hoberman, 1998). According to an early report on television violence, ''although many among network personnel express interest in reducing violence in their programs, they feel constrained by the economic realities of broadcasting'' (U.S. Public Health Service, 1972, p. 79). William Baldwin, former president of the Creative Coalition, agrees, stating that ''Hollywood is simply responding to consumer demand'' when producing violent movies (Media Awareness Network, 2000).

Although there are several reasons that violent programming could be attractive, enjoyment is typically central to the above arguments (e.g., Mayer, 2007). Enjoyment is conceptualized as a pleasurable feeling or appreciation in response to an experience, in this case to media entertainment (see Tan, 2008). Current views of entertainment theory acknowledge that media stimuli may produce negative emotions as well, such as fear, disgust, and sadness, but that enjoyment is at the core of what individuals seek when they use entertainment media (Tan, 2008; Vorderer, Klimmt, & Ritterfeld, 2004). Many believe that violent content could provide this enjoyment (Jones, 2002).

Despite the widespread belief that violence is enjoyable, the existing research on this topic has produced contradictory results. Several studies have found that violence has no effect on audience enjoyment (e.g., Berry, Gray, & Donnerstein, 1999; Diener & DeFour, 1978; Lagerspetz, Wahlroos, & Wendelin, 1978). For example, Sparks, Sherry, and Lubsen (2005) conducted an experiment using two different versions of the movie *The Fugitive*. The violent version was the original theatrical release and the nonviolent version had 11 minutes of violent scenes edited out. Participants were randomly assigned to watch one of the two versions of the film and were then asked to rate their enjoyment of the movie. The researchers found no overall difference in enjoyment between the violent version and the nonviolent version of the film.

Other studies have found that violence makes programs *less* enjoyable (Diener & Woody, 1981; Herman & Leyens, 1977). For example, Diener and Woody (1981) conducted a series of three studies in which participants viewed programs that had been coded in advance as either violent or nonviolent and then they rated how much they liked the show. In the first experiment, there was no significant difference in enjoyment between the high-violence shows and the low-violence shows. The second experiment used 16 1-hour adventure shows and in this case, the low-violence programs were enjoyed more than the high-violence programs were. The third study followed the same format but included adults and children rather than undergraduates as participants. Again, the researchers found that the low-violence programs were enjoyed more than the high-violence programs were.

A careful examination of the research in this area, however, reveals that there are several methodological limitations. One problem concerns the way in which violence typically has been manipulated. In many of the prior studies of enjoyment, researchers used entirely different programs or clips for the nonviolent and violent conditions (e.g., Diener & Woody, 1981; Hansen & Hansen, 1990). Thus, in addition to violent content, the experimental versions also differed in plot, writing style, actors, amount of action, and amount of humor, among other things. Any of these factors could be influencing enjoyment and it is impossible to control for all of these when different programs are used in the various conditions.

The few studies that have clearly manipulated violence provide a better test, but they, too, are limited, in this case by using a single program. The use of a single program makes it difficult to generalize beyond a particular plot or type of violence when making claims about the results (Jackson, 1992). The program(s) used in these studies should be considered representative of a larger group of programs with a great deal of within-class variability. Thus, much like with participants who are samples of a larger group, it is important to use multiple messages in this type of study to help establish a more representative sample.

One of the goals of the present study is to address the limitations associated with prior research. In this experiment, we edited five programs from five different primetime television series to create nonviolent and violent conditions for each. Thus, our study employs edited versions of the same program for the experimental conditions, providing better control of the variable of interest (violence). This study also uses multiple messages (five different TV series in this case) to allow for increased generalizability of the results.

With these methodological concerns addressed, what might we expect about the influence of violence on audience enjoyment? Two widely cited theories of media entertainment, excitation-transfer theory and disposition theory, suggest that under certain circumstances violent content could increase the enjoyment of programs (see Raney, 2006; Zillmann, 2006). According to excitation-transfer theory, the physiological effects of arousal (faster heart rate, etc.) that are caused by one emotional event dissipate slowly and can be transferred to, and thus magnify, subsequent emotions (Zillmann, 1998). In the case of media violence, exposure to high amounts of screen conflict is physiologically arousing for viewers (Zillmann, 1991). Because individuals are not particularly good at sorting out the source of this arousal, it can be misattributed to other emotions. If the conflict is resolved at the end of the show, then the high level of arousal from the violence should magnify or intensify the satisfaction the viewer feels because of the happy ending. In other words, violence itself may not be inherently enjoyable but it can enhance the enjoyment of the story resolution via this transfer process (Zillmann, 1998).

Disposition theory has also been used to predict that media violence, or at least certain types of media violence, should be attractive (Raney, 2006; Raney & Bryant, 2002). According to disposition theory, viewers form moral judgments of characters based on their actions in the plot. Violence that is justified based on these

moral judgments should be enjoyable (Raney, 2002, 2004; Zillmann & Bryant, 1975). That is, viewers should enjoy seeing the hero engage in violence when he or she is triumphant and should also enjoy seeing the villain harmed by violent acts.

Although the above theories demonstrate contexts in which the audience should find violent content enjoyable, much of television violence does not meet these conditions. A large-scale content analysis of over 3,000 programs found that less than half (42%) of the violent incidents on television are perpetrated by good characters and under 10% are perpetrated by characters considered heroic (Wilson et al., 2002). Moreover, two separate content analyses of primetime programming documented that only one-third of violent incidents are portrayed as morally justified (Signorielli, 2003; Smith, Nathanson, & Wilson, 2002). Thus, the majority of television violence is not the type that disposition theory predicts the audience would enjoy.

In the era of the serialized television drama, excitation-transfer theory also loses some utility in predicting the enjoyment of television violence. Many of the most popular primetime programs in recent years come from a newer genre of programming in which there is no tidy resolution at the end of each episode (Axmaker, 2008; Dawidziak, 2007). In highly rated series such as *Lost* or *24*, for example, satisfying, conflict-resolving endings are rare for any given episode. In other words, the satisfactory conclusion that is a necessary condition of enjoyment according to excitation-transfer theory typically is not present.

Why, then, are these types of violent but morally ambiguous programs so popular? There are at least two other broad possibilities. One is that violence itself holds an inherent appeal for viewers, regardless of who perpetrates it or whether it is resolved in the end (see Sparks & Sparks, 2000). For example, violent or destructive scenes contain a number of features that could produce sensory delight such as complexity, novelty, uncertainty, and patterning (Allen & Greenberger, 1979). Thus, fistfights, gunshots, explosions, and the like all could enhance the enjoyment of a program by increasing sensory stimulation in the audience. As Sparks and Sparks (2000) point out, this potential aesthetic appeal of violence has not been empirically tested; however, the notion of violent content as intrinsically enjoyable remains plausible and is commonly cited in the popular press as a reason for the production of violence (e.g., Mayer, 2007).

Another possibility is that violent content is not inherently enjoyable, but instead is accompanied by other features that do increase enjoyment. Violent scenes often include high levels of action, conflict, suspense, and other qualities that audiences find pleasing (Cantor, 1998; Valkenburg & Cantor, 2000; Vorderer & Knobloch, 2000). It may be, for example, that viewers enjoy the arousal that comes from watching high-action, high-conflict violent scenes, but that they would enjoy similarly arousing nonviolent scenes just as much (Cantor, 1998). Again, this is an idea that has not been subject to empirical research. Indeed, as discussed earlier, one of the limitations of much of the research on the enjoyment of violence is that violence is often confounded with the other variables.

Of course, it is also possible that violent content may actually decrease enjoyment in certain contexts. Although contrary to the theoretical perspectives just discussed, this idea is consistent with some existing studies of media enjoyment (e.g., Diener & Woody, 1981). No one has explicitly advanced a theoretical explanation for such an outcome; however, evolutionary psychology might provide a basis for such a theory. Aggressive behavior, even in contexts in which the aggression serves some purpose (e.g., acquiring resources), is associated with significant costs (Duntley, 2005). Of course, one cost is the harm that comes to the victim, but the aggressor also faces the risks of retaliatory aggression (Berkowitz, 1993) and/or social exclusion, among other harms (Buss & Shackelford, 1997). From an evolutionary perspective, individuals with a healthy aversion to violence, excepting a few specific contexts, would be rewarded with self-preservation. This negative association with aggression, combined with the strong social sanctions against aggression in most cultures, could certainly influence viewers' reactions to media violence. We may enjoy the conflict associated with drama and suspense and we may like the action and special effects that are so often associated with violent scenes, but the visual displays of violence themselves may generate negative responses strong enough to reduce our overall enjoyment of a program, as Diener and Woody (1981) found.

In this experiment, we examined viewer responses to five different primetime, serialized dramas. All of the series are popular, critically acclaimed programs with high levels of violence. There was a certain moral ambiguity to the violence in each of these programs, as the violent acts were committed by antagonists just as much as protagonists and the majority of the violent acts were neither justified nor punished. Also, the violence in these shows served to move the plot along but did not provide any sort of resolution. In fact, none of the episodes wrapped up with satisfactory conclusions. In other words, the shows we used were representative of both serialized dramas (Axmaker, 2008) and primetime television violence as a whole (Signorielli, 2003).

By removing the violence from these shows while controlling other program traits, our goal was to test the enjoyment of violence. If violence does hold some inherent appeal, then the versions with the violence edited out should be less enjoyable than the versions with the violence left intact. If, however, violent content sparks adverse responses strong enough to influence overall evaluations of the program, then removing the violence should increase viewer enjoyment. Given these contrasting possibilities, we proposed the following research question:

RQ1: What is the impact of violence on viewer enjoyment of television programming?

The contradictory findings in prior research also could be due to factors that have yet to be carefully examined. In the next two sections, we explore a more nuanced conception of the appeal of violent entertainment, including consideration of the level of graphicness of media violence and the role of individual differences.

The role of graphicness in enjoyment

Violent programs differ greatly in how explicit or graphic they are (Wilson et al., 1998). Some feature blood, gore, and close-ups of the aggression and its consequences. Other programs sanitize violence by avoiding the portrayal of any blood or gore. The prior studies on enjoyment involve stimuli with very different levels of graphicness. For example, one study used an episode from the 1970s television program *Police Woman* (Diener & DeFour, 1978). According to the researchers, this episode was shown in black-and-white and the violent scenes did not result in any bloody consequences. At the other end of the spectrum is a study that used the movie *Reservoir Dogs* as a stimulus (Berry et al., 1999). In this case, participants watched clips featuring graphic gunfights, including a scene in which two police were shot at close range as the camera zooms in on their convulsing bodies with blood gushing from the wounds.

Research indicates that graphicness plays a crucial role in how people perceive programming (see Potter, 2008). Programs with more graphic scenes are rated as more violent, whereas sanitized violence often goes unnoticed by the audience (Potter, Pashupati, Pekurny, Hoffman, & Davis, 2002). No research to date has systematically examined the impact of graphicness on enjoyment, although two early studies do indicate that graphic violence can cause strong unpleasant reactions. Carruthers and Taggart (1973) had 34 participants watch the graphic movie, *A Clockwork Orange,* while a variety of physiological and chemical measures were assessed. Results revealed that participants experienced biological changes consistent with repulsion during the graphic scenes in the movie. Similarly, Rozin, Haidt, and McCauley (1993) found that most participants exposed to documentary footage of extremely graphic violence were disturbed enough to turn off the tape before the end of the scenes.

Again, from an evolutionary perspective, one would expect humans to be wired for an aversion to blood and gore. Medical research shows that individuals who inadvertently encounter blood or gore, whether in person or on screen, typically report feelings of disgust and repugnance (Marks, 1988; Marks & Nesse, 1994). In fact, mediated pictures of blood and gore are commonly used as ''aversive'' images in medical studies that compare participants' physiological responses to different types of noxious and neutral stimuli (Caseras et al., 2006).

Because this is an automatic response that should theoretically occur whether the stimulus is real or fictional (Caseras et al., 2006), we could expect the presence of blood and gore in a television drama to reduce viewers' enjoyment. On the other hand, experiencing negative emotions such as disgust or aversion, particularly if they are transitory responses to certain scenes, may not automatically result in a less enjoyable overall experience (Zillmann, 2006). To test the effect of blood and gore, we not only manipulated the presence or absence of violence, but we also varied the graphicness of the violence in the programs. Three versions of each program were created through editing: A condition with graphic violence, a condition with violence that was sanitized or stripped of graphic qualities such as blood and gore, and a

condition with no violence at all. Because no researchers have systematically assessed the impact of graphicness and there is some uncertainty as to how blood and gore might affect one's enjoyment of a television program, the following research question was posed:

RQ2: Does the graphicness of violence affect viewer enjoyment of television programming?

The role of individual differences in enjoyment

As mentioned earlier, individual differences may play a role in the enjoyment of violence. In this study, we explored three individual-level variables that have been identified in prior research as possible modifiers of people's reactions to media violence: Gender, sensation seeking, and aggressive disposition.

Gender-role socialization theory predicts that enjoyment of violence should differ for males and females. According to this theory, males are brought up to be more accepting of violence than females are (see Cantor, 1998). Males are taught that engaging in violence is tolerable, and in fact are often encouraged to act aggressively (e.g., playing with war toys, playing violent sports). Because of this socialization, males should find violent media more enjoyable than females do (Zillmann, 1998). Consistent with gender-role socialization theory, surveys have shown that males are more likely than females to seek out violent content in television (e.g., Knobloch, Callison, Chen, Fritzsche, & Zillmann, 2005) and movies (Sargent et al., 2002). In the study of enjoyment described earlier, Berry and his colleagues (1999) found that males enjoyed a violent version of the movie *Cliffhanger* more than a nonviolent version, whereas females showed the opposite pattern: They liked the violent version less. This finding was not replicated in a similar, more recent experiment by Sparks et al. (2005), but the researchers acknowledged that they had limited power for finding a treatment by sex interaction. In the present study, with greater power and multiple messages, we expected to find support for gender-role socialization theory. Therefore, we predicted that:

H1: Males will enjoy violent content more than nonviolent content, whereas females will enjoy violent content less than nonviolent content.

Sensation seeking is another variable that may influence enjoyment of violent media. Sensation seeking is a personality trait described as the desire to experience new and exciting stimuli (Zuckerman, 1994). Sensation seeking has been theoretically linked to attraction to media violence because such content is considered to be novel and arousing (Sparks & Sparks, 2000). Consistent with this expectation, researchers have found that high sensation seekers are generally more likely to seek out violent content than low sensation seekers are (e.g., Aluja-Fabregat & Torrubia-Beltri, 1998; Slater, 2003; Tamborini, Stiff, & Zillmann, 1987). Of course, seeking out violence and enjoying violence are two different things. However, if violent content provides the novelty and excitement that high sensation seekers are after and low sensation

seekers are hoping to avoid, then such content should increase enjoyment for the former but not for the latter. Therefore, we predicted:

H2: High sensation seekers will enjoy violent content more than nonviolent content, whereas low sensation seekers will show no such preference.

A third variable that may be related to enjoyment is trait aggression. Trait aggression is a relatively stable personality attribute that is meant to capture manifest aggressiveness (Buss & Perry, 1992). Trait aggression has been found to moderate the effect of media violence on aggression, such that individuals high in trait aggression are more susceptible to this effect (Bushman, 1995). Many studies also have found that aggressive individuals are drawn to violent programming (e.g., Fenigstein, 1979; Langley, O'Neal, Craig, & Yost, 1992). That is, individuals who are highly aggressive are more likely to select violent programs than nonviolent programs when given a choice, and individuals who score low in aggression are more likely to choose nonviolent programs. Unfortunately, no research has explored whether trait aggression predicts heightened enjoyment of a program once it is viewed. Nevertheless, the strong evidence for a relationship between trait aggression and selective exposure to violence led us to predict:

H3: Individuals high in trait aggression will enjoy violent content more than nonviolent content, whereas those low in trait aggression will enjoy violent content less than nonviolent content.

Method

Participants

The participants were 481 college students in undergraduate courses in communication at a large university in the Midwestern United States. Participants were between 18 and 26 years old (M age = 20). There were 197 males and 283 females in the sample. The racial breakdown was 64% White, 17% Black, 9% Latino, 7% Asian, and 3% other.

Procedure

Participants were recruited from undergraduate classes in communication, and were offered either extra credit or the chance to enter a drawing for a $100 gift certificate. The study was conducted in a quiet room with TV/video cubicles set up around the perimeter. Sessions were run with five or fewer participants at a time, with each person seated in front of a television wearing a set of headphones. Upon arrival, participants were told that this was a study of audience reactions to various television programs. They were given a consent form that stated that the program they were about to see could contain objectionable content, including sexual content, drug use, graphic violence, and profane language. Participants were advised that they could leave the study at any time without any negative repercussions. All of the participants who began the study finished it, meaning that no participants chose to stop viewing because of objectionable content (Table 1).

Table 1 Zero-Order Correlations for Key Variables

Variable	1	2	3	4	5	6	7	8
1. Program condition								
2. Sex	.00							
3. Sensation seeking	.00	−.16*						
4. Trait aggression	−.01	−.23*	.18*					
5. Perceived action	.24*	.02	.02	.06				
6. Enjoyment	.06	−.25*	.17*	.20*	.65*			
7. Positive emotions	−.04	−.29*	−.14*	−.26*	−.36*	.56*		
8. Negative emotions	.32*	.24*	−.15*	−.02	.21*	−.13*	−.07	

Note: Program condition was coded as 1 (*no violence*), 2 (*sanitized violence*), or 3 (*graphic violence*). Sex was a dichotomous variable coded as 1 (*male*) or 2 (*female*). Sensation seeking is the subjects' mean SS score, which ranged from 1.04 to 1.86. Trait aggression is the subjects' mean TA score, which ranged from 1.04 to 3.96. Perceived action and enjoyment were both coded as 0 (*not at all*), 1 (*a little*), 2 (*somewhat*), 3 (*a lot*), or 4 (*very much*). Positive emotions and negative emotions are the two emotional reaction factors, which both range from 0 to 4, with higher numbers indicating more strongly held emotions.
*$p < .01$.

After agreeing to take part and signing the consent form, participants filled out a questionnaire that contained a sensation-seeking scale, a trait aggression scale, a prior exposure to violent media scale, and a set of demographic items (e.g., sex, age, ethnicity). Following this initial questionnaire, participants were randomly assigned to view one of the 15 television programs (5 series × 3 versions of each). Immediately following the viewing, participants filled out a second questionnaire that assessed their enjoyment of the program, emotional reactions to the program, and judgments of the content. Participants were then debriefed and told how potential negative effects of media violence consumption could be mitigated.

Materials

Participants watched 1-hour television dramas from five different television series: *24*, *The Sopranos, The Shield, OZ*, and *Kingpin*. Once the programs were selected, each program was edited from the DVD version on an AVID digital editing bay. The graphic versions were largely unedited, with the exception of brief shots of onscreen nudity that were cut from three programs (*The Sopranos, OZ*, and *Kingpin*). The sanitized versions were created by removing any graphic material, which was defined as any onscreen shots of blood or gore. The nonviolent versions were created by removing all onscreen physical violence (e.g., shooting, punching, pushing) from the sanitized condition.

To ensure that the plot remained consistent and there were no noticeable edits, the different conditions were pretested. A total of eight graduate student coders who were blind to the hypotheses and research questions of the study watched individual programs and filled out a questionnaire about the plot and the editing. Specifically,

the coders were asked whether they observed any abrupt or unusual transitions (*yes, no*) or if anything seemed to be missing from the story line (*yes, no*). The coders were also asked to categorize each program (*containing graphic violence, containing only sanitized violence*, or *containing no violence*). Each program was shown to at least two graduate student coders. All 15 programs used in this experiment were correctly categorized with 100% intercoder agreement, and 100% of coders responded *no* to the questions about the editing.

Measures

Sensation seeking

A 30-item sensation-seeking scale was used, measuring three separate subscales: experience seeking, disinhibition, and boredom susceptibility (Zuckerman, 1994). Each of these subscales has been used in studies of selective exposure to violence (e.g., Krcmar & Greene, 1999). A fourth subscale, thrill and adventure seeking, was not included because it is not particularly relevant to low-risk media experiences (Zuckerman, 2007). Participant responses were averaged across all 30 items and a median split of the total score created a group of high sensation seekers and a group of low sensation seekers. In the present study, Cronbach's α for the sensation-seeking scale was .73, indicating acceptable internal reliability.

Trait aggression

The 28-item Buss–Perry aggression questionnaire (Buss & Perry, 1992) was used to measure trait aggression. The scores on this scale were averaged for each participant, and a median split created two groups. This particular scale has been used frequently in studies of media violence (e.g., Haridakis, 2002). In the present study, Cronbach's $\alpha = .88$ for the trait aggression scale.

Prior exposure to violent media

To control for prior exposure to violent media, a method used by Huesmann and Eron (1986) was adapted for this study. Participants were asked to rate how often they viewed each of 20 different television shows: *not at all* (0), *seldom* (1), *often* (2), or *every week* (3). Half of these shows were nonviolent, and the other half of the shows were violent. Participant scores for the 10 violent programs were averaged to create an exposure to violent television score.

Participants also were presented with 20 movies and asked whether they had seen each one: *yes* (1) or *no* (0). Responses to the 10 violent movies in the list were averaged for each participant to create a prior exposure to violent movies score. The violent television average and the violent movie average were standardized and combined to create a total exposure to violent media score. Cronbach's α for the entire exposure to violent media scale was .71.

Enjoyment measures

To assess enjoyment, participants were asked two questions immediately after viewing the program: "How much did you enjoy this program?" and "How entertaining was

this program?'' Each of the questions was answered on a 5-point scale: *not at all* (0), *a little* (1), *somewhat* (2), *a lot* (3), or *very much* (4). Previous studies of media enjoyment typically have used a single-item measure (e.g., ''Did you enjoy this?'') to assess this construct (e.g., Diener & DeFour, 1978; Knobloch & Zillmann, 2002; Krcmar & Kean, 2005). To produce a more stable and reliable measure, a few studies have incorporated additional items about how entertaining or likeable the program was (e.g., Krcmar & Albada, 2000) and we adopted this approach. In this study, our two measures were strongly correlated, $r = .82$, $p < .001$, and were averaged to create the enjoyment-dependent variable.

Participants were also asked an open-ended question: ''Why did you or did you not enjoy this program?'' Three trained coders analyzed the responses. Coders judged whether each response contained comments about five different topics: violence (comments about aggressive behavior), blood and gore, action (comments about pacing, excitement/boredom), realism, and genre (comments about their feelings toward the genre of the show). Within each of these five topics, coders were also asked to judge whether the comment was positive or negative. For example, one person who viewed the graphic version of the *Sopranos* stated, ''I enjoyed it somewhat because the acting was superb. Moreover, the plot played out more realistically than in most dramas. However, my enjoyment was hindered by the violence, blood, murder—a bit TOO explicit for my taste.'' This response was coded as containing a positive comment about realism, a negative comment about violence, and a negative comment about blood and gore. Percent agreement among the three coders ranged from 94.2% to 99.4% on the 10 categories (5 topics, 2 types of comments) ($M = 97\%$). Scott's pi ranged from .68 to .88 ($M = .79$).

Emotional reactions

Emotional reactions to the program were also assessed. Participants were presented with eight emotions that were adapted from the Multiple Affect Adjective Check List (Zuckerman & Lubin, 1965) and from similar studies of media use (e.g., Berry et al., 1999): disgusted, shocked, restless, anxious, happy, worried, amused, and frightened. They were asked to rate how the program made them feel on these eight dimensions, using a 5-point scale: *not at all* (0), *a little* (1), *somewhat* (2), *a lot* (3), or *very much* (4). A factor analysis was run on the eight emotion items to determine whether they could be reduced to a smaller set of factors. The principal components analysis revealed two factors with eigenvalues greater than 1. These two factors accounted for 57.65% of the common variance (Factor 1 = 36.23%, Factor 2 = 21.42%). Factor 1, labeled negative emotion, included disgusted, shocked, anxious, worried, and frightened. Factor 2, labeled positive emotion, included happy and amused.

Perceptions of violence

Two questions were used to assess participants' perceptions of the violence in the programs: ''How violent was this program?'' and ''How bloody or gory was this program?'' Both were presented as 5-point scales: *not at all* (0), *a little* (1), *somewhat*

(2), *a lot* (3), *very* (4). To determine whether participants detected differences between the treatment conditions, a one-way analysis of variance (ANOVA) was conducted on each of these measures using treatment as the between-subjects factor. Posthoc comparisons were conducted using the Scheffé procedure. Means having no letter in common in their subscripts differ at $p < .05$. There was a significant difference in viewer perceptions of violence between the three conditions, $F(2, 473) = 69.96$, $p < .001$, $\eta^2 = .24$. The graphic condition was rated the most violent ($M = 3.27_c$, $SD = .88$), the sanitized condition was in the middle ($M = 2.78_b$, $SD = .94$), and the condition with no violence was the lowest ($M = 1.96_a$, $SD = 1.10$).

The same pattern was found for viewer perceptions of graphicness. An ANOVA revealed a significant difference in graphicness between the three conditions, $F(2, 473) = 110.07$, $p < .001$, $\eta^2 = .32$. The graphic violence condition was perceived as the most graphic ($M = 2.95_c$, $SD = 1.09$), the sanitized violence condition was next ($M = 1.76_b$, $SD = 1.12$), and the no-violence condition was lowest ($M = 1.20_a$, $SD = 1.02$). These results indicate that the edits, although relatively minor, were enough to influence participants' perceptions of the violence and graphicness contained in the programs.

Perceptions of action

Because content was removed from some of the versions, the amount of action in each program is a potential confound in this study. Action is a contextual variable that influences both arousal and enjoyment (see Valkenburg & Cantor, 2000). If the removal of violent and/or graphic content results in different perceptions of action, then there could be a corresponding effect on enjoyment. To control for this potential confound, participants were asked: ''How action-packed was the program?'' A 5-point scale was used for this item: *not at all* (0), *a little* (1), *somewhat* (2), *a lot* (3), or *very* (4).

Statistical power

One potential concern in a multiple-message design is that adding messages reduces the number of participants in each cell, thus reducing the power to detect differences. For each of the analyses below, the power to find a medium-sized treatment effect ($\theta^2 = .05$) with a small amount of variance ($\sigma^2 = .01$) and $\alpha = .05$ was .89. The power to find treatment by individual difference interactions with $\theta^2 = .05$ and $\alpha = .05$ was .84 with a small amount of variance ($\sigma^2 = .01$) and .72 with a large amount of variance ($\sigma^2 = .05$).

Results

All 481 participants who started the study completed it. Four participants had partial or missing data and were excluded from the analysis. Thus, the total N was 477.

Data analysis

All hypothesis testing was done using a 3 (graphic violence, sanitized violence, no violence) $\times 2$ (male, female) $\times 2$ (individual difference) $\times 5$ (number of messages)

between-factors ANOVA, where the individual difference factor was either sensation seeking (low, high) or trait aggression (low, high). The message factor was treated as random. Scheffé posthoc tests ($p < .05$) were conducted to ascertain mean differences when a main effect for treatment or an interaction was significant. Two potential control variables were considered for this study: prior exposure to media violence and perceived action. Only the perceived action covariate affected the pattern of the results; thus, only the action covariate is included in the following analyses.

Overall impact of violence on enjoyment

Research questions 1 and 2 dealt with the impact of violence on enjoyment. An ANOVA on the two-item enjoyment measure revealed a significant main effect for treatment condition, $F(2, 8) = 10.24$, $p < .01$, $\eta^2 = .03$. Both the graphic version ($M = 2.29_a$, 95% CI = 2.21, 2.38) and the sanitized version ($M = 2.29_a$, 95% CI = 2.20, 2.38) were enjoyed significantly *less* than the no-violence version was ($M = 2.54_b$, 95% CI = 2.45, 2.63). Thus, to answer research question 1, violence had a negative effect on enjoyment when action was controlled.

Research question 2 dealt with the effect of graphicness on enjoyment. As the means displayed above indicate, there was no significant difference in the enjoyment of graphic violence versus sanitized violence. In other words, the presence of blood and gore had little impact on the overall enjoyment of a program.

Reasons for enjoyment

Pearson chi-square tests were conducted on each of the 10 reasons for liking or disliking the show in the open-ended responses (*present, absent*). Posthoc analyses were conducted using the chi-square analog to the Scheffé procedure. Three of the reasons produced significant results. First, negative comments about violence varied by treatment condition, $\chi^2(2) = 10.20$, $p < .01$, $V = .15$. A significantly higher proportion of viewers in the graphic condition ($28\%_b$) made negative comments about violence than did viewers in either the sanitized ($19\%_a$) or the no-violence ($14\%_a$) condition. As an illustration, one participant in the graphic violence condition wrote, "I enjoyed the investigation part of the show and that there was some drama. I didn't enjoy the violence and how he took out his anger on the guy at the end."

Second, negative comments about blood and gore varied by treatment condition, $\chi^2(2) = 50.81$, $p < .01$, $V = .33$. Most negative comments about explicit content came from viewers who saw the graphic version ($24\%_b$), with very few from those in the sanitized ($4\%_a$) and the no-violence ($3\%_a$) conditions. For example, one viewer in the graphic condition wrote that "[the program] was interesting but it was too gory." Another stated, "too gruesome! . . . the chopping up of a body was a little much."

Finally, negative comments about action varied by treatment, $\chi^2(2) = 11.27$, $p < .01$, $V = .15$. We did not observe many comments about action in the open-ended data, but they were more likely to be offered by viewers who saw the nonviolent version ($15\%_b$) than by those in who saw the sanitized ($7\%_a$) or graphic ($6\%_a$) versions. One participant in the nonviolent condition wrote: "It was different, but it got

kind of boring." Another wrote that "it was kind of slow moving, not enough excitement." None of the other coded reasons varied significantly by treatment condition.

Individual differences in the enjoyment of violence

The remaining hypotheses addressed individual differences in enjoyment. Hypothesis 1 stated that males would enjoy violent content more than nonviolent content, whereas females would enjoy the violent content less than nonviolent content. In the same ANOVA used to test the first two research questions about enjoyment, there was a significant main effect for sex, $F(1, 4) = 119.18$, $p < .01$. Males ($M = 2.69_b$, 95% CI = 2.57, 2.81) generally enjoyed all of the programs more than females did ($M = 2.12_a$, 95% CI = 2.03, 2.21). Unexpectedly, the sex by treatment interaction was not significant, $F(2, 8) = 1.56$, *ns*. When looking just at females in the analysis ($n = 283$), there was a main effect for condition, $F(2, 8) = 15.86$, $p < .05$, $\eta^2 = .05$. As described earlier, the no-violence version ($M = 2.36_b$, 95% CI = 2.24, 2.48) was enjoyed significantly more than either the graphic ($M = 2.04_a$, 95% CI = 1.93, 2.15) or the sanitized versions ($M = 2.15_a$, 95% CI = 2.04, 2.26). The same held true when just males were included in the analysis ($n = 194$), with a significant treatment effect, $F(2, 8) = 7.03$, $p < .05$, $\eta^2 = .04$, and with the no-violence version ($M = 2.71_b$, 95% CI = 2.57, 2.85) enjoyed significantly more than either the graphic ($M = 2.55_a$, 95% CI = 2.41, 2.68) or the sanitized version ($M = 2.43_a$, 95% CI = 2.3, 2.57). Thus, males enjoyed the programs overall more than females did, but both sexes liked the nonviolent version more than either of the violent versions, which means Hypothesis 1 was not supported.

Hypothesis 2 predicted that sensation seeking would influence the enjoyment of violence. The results revealed a significant main effect for sensation seeking, $F(1, 4) = 9.34$, $p < .05$. High sensation seekers ($M = 2.48_b$, 95% CI = 2.38, 2.58) generally enjoyed the programs more than low sensation seekers did ($M = 2.33_a$, 95% CI = 2.22, 2.44). However, there was no significant interaction between sensation seeking and condition, $F(2, 8) = .28$, *ns*. When looking just at high sensation seekers in the analysis ($n = 254$), there was a main effect for condition, $F(2, 8) = 16.26$, $p < .01$, $\eta^2 = .05$. Contrary to Hypothesis 2, high sensation seekers enjoyed the no-violence condition ($M = 2.64_b$, 95% CI = 2.52, 2.77) significantly more than either the graphic condition ($M = 2.38_a$, 95% CI = 2.25, 2.5) or the sanitized condition ($M = 2.34_a$, 95% CI = 2.22, 2.45). When looking just at low sensation seekers in the analysis ($n = 223$), there is no significant main effect for treatment, $F(2, 8) = 2.34$, $p = .16$, although the means follow the same pattern of more enjoyment of the nonviolent version ($M = 2.43$, 95% CI = 2.30, 2.57) than of the violent ones ($M = 2.21$, 95% CI = 2.09, 2.33). We also separately examined each of the three subscales of sensation seeking and none of these produced any significant main effects or interactions on enjoyment.

Hypothesis 3 predicted that trait aggression would influence the enjoyment of violence. There was no significant main effect for trait aggression in the ANOVA, meaning that individuals high and low in aggression did not differ in their overall

enjoyment of the programs, $F(1, 4) = 3.88$, *ns*. Contrary to Hypothesis 3, there also was no significant aggression by treatment interaction, $F(2, 8) = .55$, *ns*. When only individuals low in trait aggression were included in the analysis ($n = 245$), there was a significant treatment effect, $F(2, 8) = 7.05$, $p < .05$, $\eta^2 = .04$, with the no-violence version ($M = 2.48_b$, 95% CI = 2.35, 2.62) once again enjoyed significantly more than either the graphic ($M = 2.29_a$, 95% CI = 2.17, 2.42) or the sanitized ($M = 2.24_a$, 95% CI = 2.12, 2.36) versions. For individuals high in trait aggression ($n = 232$), there was also a main effect for treatment, $F(2, 8) = 4.48$, $p < .05$, $\eta^2 = .03$. Again, the no-violence version ($M = 2.55_b$, 95% CI = 2.43, 2.67) was enjoyed more than either the graphic ($M = 2.34_a$, 95% CI = 2.21, 2.46) or the sanitized version ($M = 2.36_a$, 95% CI = 2.23, 2.49).

Other emotional reactions to the program

To help shed light on the enjoyment data, we asked participants to rate other emotional reactions they had to the program. Each of these factors was analyzed as a dependent variable, using treatment condition, message (as a random factor), sex, and individual difference factor (sensation seeking or trait aggression) as independent variables. The ANOVA of the 5-item negative emotion factor produced a significant main effect for treatment, $F(2, 8) = 60.08$, $p < .01$. Posthoc comparisons revealed that participants in the graphic violence condition ($M = 1.80_b$, 95% CI = 1.67, 1.94) reported significantly stronger negative emotions than did those in either the sanitized violence ($M = 1.33_a$, 95% CI = 1.19, 1.46) or the no-violence ($M = 1.24_a$, 95% CI = 1.10, 1.38) conditions. The ANOVA of the positive emotion factor also produced a significant main effect for treatment, $F(2, 8) = 7.91$, $p < .05$. Mirroring the enjoyment pattern, participants in the nonviolent condition ($M = 1.00_b$, 95% CI = .87, 1.12) reported significantly stronger positive emotions in response to the program than did those in either the sanitized ($M = .71_a$, 95% CI = .59, .83) or the graphic ($M = .79_a$, 95% CI = .66, .91) conditions.

Main effects and interactions for the message factor

Multiple messages were used in this study and were treated as a random factor in each of the analyses above. There was a significant main effect for the message factor in the ANOVA used for the hypothesis tests described previously, $F(4, 416) = 6.18$, $p < .01$. This simply means that the programs differed from one another in terms of enjoyment. Despite this main effect for the message factor, there was no significant treatment by message interactions in any of the analyses. The lack of a treatment by message interaction indicates that for each of the programs, violence decreased enjoyment and graphic violence increased negative emotional reactions when controlling for action. In other words, there were no unusual patterns for any one program with regard to the dependent variables analyzed here.

Discussion

Previous empirical research in this area has produced inconsistent results, in part because of methodological shortcomings. We designed this experiment to overcome

some of these obstacles. We used the same program in the various experimental conditions to ensure control over other content features, we cleanly edited out the violence while maintaining the plot and without altering the duration of the programs much, and we used an entire program rather than short clips to maximize the realism of the viewing experience. In addition, we employed a multiple-message design to increase the generalizability of the findings. We also tested a large number of participants to ensure that we had sufficient statistical power. With all of these features in place, the results of this study indicate that violence in serialized dramatic programming is not as enjoyable as is commonly assumed. In fact, when controlling for action, eliminating the onscreen violence from a program made it *more* enjoyable for viewers. Moreover, this finding held even for subgroups of people expected to prefer violence, such as males, high sensation seekers, and those high in aggression.

These findings challenge the notion that violence is enjoyable because of some inherent or aesthetic appeal (Sparks & Sparks, 2000). If violence had such an appeal, we would expect enjoyment to decrease when the violent content was removed from a program; however, we found the opposite. To be sure, the programs in this study were quite popular in general, drawing relatively high Nielsen ratings and critical acclaim (Axmaker, 2008). Yet in this common primetime context when the violent content is often morally ambiguous and there is no satisfactory, justice-restoring conclusion, the explicit onscreen violence appears to have detracted from viewer enjoyment.

Instead, our data suggest that perhaps some other factor is driving enjoyment of these popular programs, presumably a program feature that often accompanies the violent content. One possibility that emerges from our findings is action. Indeed, we found that viewers' perceptions of action correlated with ratings of enjoyment, which is consistent with other research that has documented a relationship between action and enjoyment of programming (e.g., Valkenburg & Cantor, 2000). Moreover, when we controlled for perceived action in this study, violence decreased enjoyment; when we did not control for action, violence was unrelated to enjoyment. Unfortunately, we were not able to explicitly manipulate action, which seems like the logical next step for future research. An experiment that varies both action and violence independently could tease out how these two factors affect enjoyment. It may be that in the context of producing television programs, violence provides a convenient way to increase action, which is the actual trigger of viewer enjoyment.

Although action seems to have a positive effect on enjoyment, our data suggest that the violent content in and of itself hinders enjoyment. There are theoretical contexts in which violence should enhance the viewing experience, such as when the violence is morally justified (Raney, 2002) or the program comes to a satisfying conclusion (Zillmann, 1991), but what about when these preconditions are not met? One possibility raised earlier is that we naturally experience an aversive response to visual displays of violence. An evolutionary psychology perspective supports the idea that humans would develop an inclination to avoid violence as a means of self-preservation. If this is indeed a natural, ingrained response to violent displays,

it could affect our reactions to mediated violence as well. Although we may enjoy the action and conflict associated with violence, the visual violence itself may cause discomfort and decrease our enjoyment, which is ultimately what we found.

A related possibility is that visual violence may actually detract from a good plot. Given an evolutionary impetus to closely attend to violent displays lest one become a victim him or herself, it stands to reason that media violence would be highly salient, thus drawing attention away from other program features. Importantly, the programs used in this experiment all came from critically acclaimed series. Perhaps when shows feature quality story and character development, violent content may distract viewers and diminish the viewing experience. In the open-ended responses regarding enjoyment, participants in the nonviolent condition almost never commented about violence. In other words, no one missed the violence or stated that they wished the program was *more* violent. Instead, participants commented on the quality of the storyline and their connection with the characters. Participants in the violent conditions, on the other hand, commented more often about the violence (usually with a negative valence) and less about the quality of the plot. Future studies should examine the effect of removing violence in program genres that rely more on physical aggression and less on character development to drive the story.

Surprisingly, the presence of violent content decreased enjoyment even for those groups where the opposite was expected (males, high sensation seekers, and individuals high in trait aggression). Such a finding was unexpected, however, because previous research has consistently linked each of these three groups with increased selective exposure to media violence. These findings are not necessarily incompatible, of course. Selective exposure and enjoyment, although often treated as interchangeable, are distinct constructs. One possibility that needs to be explored further, then, is that there is some other gratification besides enjoyment (e.g., mastery of fear, validation of behavior) that these groups are seeking. Future research should explore possible alternative benefits that violent content could provide to viewers.

Given the effect that violence had on enjoyment for all of the included groups, it is perhaps surprising that the level of graphicness had no effect on enjoyment in this study. If sanitized violence elicits a negative response and/or distracts viewers from other, more enjoyable program characteristics, then adding blood and gore to the visuals would presumably make the negative effect even stronger. To be sure, participants who watched the graphic version reported enjoying it less than those who saw the nonviolent version did. However, there was no difference in enjoyment between the graphic and sanitized versions—they both produced less enjoyment than the nonviolent version did.

Although the graphicness manipulation did not influence enjoyment, it did affect other emotions that viewers experienced. Participants in the graphic condition reported feeling stronger negative reactions such as disgust, anxiety, and fear than did those in the other two conditions. Moreover, when compared to the other two groups, participants in the graphic condition were more likely to cite both explicitness and violence as reasons for not liking the program. Thus, there is some evidence for

the idea that viewers have an aversion to blood and gore, even when presented in a fictional context.

Why would graphic violence elicit strong negative affect, but not influence overall enjoyment of the program? Other researchers also have found that negative emotions felt during a program, which may be transitory in nature, do not necessarily decrease overall enjoyment (Zillmann, 2006). In our case, the graphic manipulation simply may not have been potent enough. The graphic scenes in these programs were relatively short and not as explicit as those featured in several popular violent movies today, such as *Kill Bill* or the *Saw* films. The graphic scenes averaged a total of about 2 minutes out of a 50-minute program. According to our findings, there was enough blood and gore to increase negative emotions and viewer perceptions of graphicness, but perhaps not enough to influence enjoyment of the entire program in the same way that the mere presence of violence did. It would be interesting to see how graphicness would affect enjoyment when it is a bigger part of the presentation, such as in the *Saw* horror films.

In sum, this study provides a test of the impact of television violence on viewer enjoyment using multiple messages with a high level of control over the violence manipulation. Our findings challenge conventional wisdom about the enjoyment of violence. In general, violence matters, although not in the way that many theories of enjoyment would predict. Indeed, both sanitized and graphic violence decreased enjoyment of a television drama when action was controlled, even for those groups that theoretically should prefer violent media over nonviolent media. Our findings underscore the need for a more sophisticated theory of media entertainment that explains when and why violent content might actually decrease enjoyment. Such a theory also needs to take into account other content features that frequently accompany violence (e.g., action, suspense) but ultimately may be more influential in enhancing audience enjoyment.

References

Allen, V. L., & Greenberger, D. B. (1979). Enjoyment of destruction: The role of uncertainty. *Journal of Nonverbal Behavior*, **4**, 87–96.

Aluja-Fabregat, A., & Torrubia-Beltri, R. (1998). Viewing of mass media violence, perception of violence, personality and academic achievement. *Personality and Individual Differences*, **25**, 973–989.

American Academy of Pediatrics (2000). Joint statement on the impact of entertainment violence on children. Retrieved August 15, 2007, from http://www.aap.org/advocacy/releases/jstmtevc.htm

Axmaker, S. (2008). Killer serials: Some of TV's best shows have complex stories that keep us coming back for more. *MSN TV*. Retrieved July 3, 2008, from http://tv.msn.com/tv/article.aspx/?news=233715

Berkowitz, L. (1993). *Aggression*. New York: McGraw-Hill.

Berry, M., Gray, T., & Donnerstein, E. (1999). Cutting film violence: Effects on perceptions, enjoyment, and arousal. *Journal of Social Psychology*, **139**, 567–582.

Bushman, B. J. (1995). Moderating role of trait aggressiveness in the effects of violent media on aggression. *Journal of Personality and Social Psychology*, **69**, 950–960.

Buss, A. H., & Perry, M. (1992). The aggression questionnaire. *Journal of Personality and Social Psychology*, **63**, 452–459.

Buss, D. M., & Shackelford, T. K. (1997). Homan aggression in evolutionary psychological perspective. *Clinical Psychology Review*, **17**, 605–619.

Cantor, J. (1998). Children's attraction to violent television programming. In J. H. Goldstein (Ed.), *Why we watch: The attractions of violent entertainment* (pp. 88–115). New York: Oxford University Press.

Carruthers, M., & Taggart, P. (1973). Vagotonicity of violence: Biochemical and cardiac responses to violent films and television programmes. *British Medical Journal*, **3**, 384–389.

Caseras, F. X., Fullana, M. A., Riba, J., Barbanoj, M. J., Aluja, A., & Torrubia, R. (2006). Influence of individual differences in the behavioral inhibition system and stimulus content (fear versus blood-disgust) on affective startle reflex modulation. *Biological Psychology*, **72**, 251–256.

Dawidziak, M. (2007). Writers' strike overshadows year in TV. *Cleveland Plain Dealer Extra.* Retrieved July 3, 2008, from http://blog.cleveland.com/pdextra/2007/12/writers_strike_overshadows_yea.html

Diener, E., & DeFour, D. (1978). Does television violence enhance program popularity? *Journal of Personality and Social Psychology*, **36**, 333–341.

Diener, E., & Woody, L. W. (1981). Television violence, conflict, realism, and action: A study in viewer liking. *Communication Research*, **8**, 281–306.

Duntley, J. D. (2005). Adaptations to dangers from humans. In D. M. Buss (Ed.), *The handbook of evolutionary psychology* (pp. 224–250). Hoboken, NJ: John Wiley & Sons.

Fenigstein, A. (1979). Does aggression cause a preference for viewing media violence? *Journal of Personality and Social Psychology*, **37**, 2307–2317.

Hansen, C. H., & Hansen, R. D. (1990). The influence of sex and violence on the appeal of rock music videos. *Communication Research*, **17**, 212–234.

Haridakis, P. M. (2002). Viewer characteristics, exposure to television violence, and aggression. *Media Psychology*, **4**, 323–352.

Herman, G., & Leyens, J. P. (1977). Rating films on TV. *Journal of Communication*, **27**(3), 48–53.

Hoberman, J. (1998). A test for the individual viewer: *Bonnie and Clyde*'s violent reception. In J. H. Goldstein (Ed.), *Why we watch: The attractions of violent entertainment* (pp. 116–143). New York: Oxford University Press.

Huesmann, L. R. (2007). The impact of electronic media violence: Scientific theory and research. *Journal of Adolescent Health*, **41**, S6–S13.

Huesmann, L. R., & Eron, L. D. (Eds.). (1986). *Television and the aggressive child: A cross-national comparison*. Hillsdale, NJ: Erlbaum.

Jackson, S. (1992). *Message effects research: Principles of design and analysis*. New York: Guilford Press.

Jones, G. (2002). *Killing monsters: Why children need superheroes, fantasy games, and make-believe violence*. New York: Basic Books.

Knobloch, S., Callison, C., Chen, L., Fritzsche, A., & Zillmann, D. (2005). Children's sex-stereotyped self-socialization through selective exposure to entertainment: Cross-cultural experiments in Germany, China, and the United States. *Journal of Communication*, **55**(1), 122–138.

Knobloch, S., & Zillmann, D. (2002). Mood management via the digital jukebox. *Journal of Communication*, **52**, 351–366.

Krcmar, M., & Albada, K. F. (2000). The effect of an educational/informational rating on children's attraction to and learning from an educational program. *Journal of Broadcasting & Electronic Media*, **44**, 674–689.

Krcmar, M., & Greene, K. (1999). Predicting exposure to and uses of television violence. *Journal of Communication*, **49**, 24–45.

Krcmar, M., & Kean, L. G. (2005). Uses and gratifications of media violence: Personality correlates of viewing and liking violent genres. *Media Psychology*, **7**, 399–420.

Kunkel, D., & Zwarun, L. (2006). How real is the problem of TV violence? In N. E. Dowd, D. G. Singer, & R. F. Wilson (Eds.), *Handbook of children, culture, and violence* (pp. 203–224). Thousand Oaks, CA: Sage.

Lagerspetz, K. M. J., Wahlroos, C., & Wendelin, C. (1978). Facial expressions of pre-school children while watching televised violence. *Scandinavian Journal of Psychology*, **19**, 213–222.

Langley, T., O'Neal, E. C., Craig, K. M., & Yost, E. A. (1992). Aggression-consistent, -inconsistent, and - irrelevant priming effects on selective exposure to media violence. *Aggressive Behavior*, **18**, 349–356.

Marks, I. M. (1988). Blood injury phobia: A review. *American Journal of Psychiatry*, **145**, 1207–1213.

Marks, I. M., & Nesse, R. M. (1994). Fear and fitness: An evolutionary analysis of anxiety disorders. *Ethology and Sociobiology*, **15**, 247–261.

Mayer, J. (2007). Whatever it takes. *New Yorker*, **83**(1), 66–82.

Media Awareness Network (2000). *Critics and filmmakers host a "violent" debate*. Retrieved December 3, 2001, from http://www.media-awareness.ca/eng/news/news/three/violentdebate.htm

Potter, W. J. (2008). *Media Literacy* (4th ed.). Thousand Oaks, CA: Sage.

Potter, W. J., Pashupati, K., Pekurny, R. G., Hoffman, E., & Davis, K. (2002). Perceptions of television: A schema approach. *Media Psychology*, **4**, 27–50.

Raney, A. A. (2002). Moral judgment as a predictor of enjoyment of crime drama. *Media Psychology*, **4**, 305–322.

Raney, A. A. (2004). Expanding disposition theory: Reconsidering character liking, moral evaluation, and enjoyment. *Communication Theory*, **14**, 348–368.

Raney, A. A. (2006). The psychology of disposition-based theories of media enjoyment. In J. Bryant & P. Vorderer (Eds.), *Psychology of entertainment* (pp. 137–150). Mahwah, NJ: Lawrence Erlbaum.

Raney, A. A., & Bryant, J. (2002). Moral judgment in crime drama: An integrated theory of enjoyment. *Journal of Communication*, **52**, 402–415.

Rozin, P., Haidt, J., & McCauley, C. R. (1993). Disgust. In M. Lewis & J. M. Haviland (Eds.), *Handbook of emotions* (pp. 575–594). New York: Guilford Press.

Sargent, J. D., Heatherton, T. F., Ahrens, B., Dalton, M. A., Tickle, J. J., & Beach, M. L. (2002). Adolescent exposure to extremely violent movies. *Journal of Adolescent Health*, **31**, 449–454.

Signorielli, N. (2003). Prime-time violence 1993–2001: Has the picture really changed? *Journal of Broadcasting & Electronic Media*, **47**, 36–57.

Slater, M. D. (2003). Alienation, aggression, and sensation seeking as predictors of adolescent use of violent film, computer, and website content. *Journal of Communication*, **53**, 105–121.

Smith, S. L., Lachlan, K., & Tamborini, R. (2003). Popular video games: Quantifying the presentation of violence and its context. *Journal of Broadcasting and Electronic Media*, **47**, 58–76.

Smith, S. L., Nathanson, A. I., & Wilson, B. J. (2002). Prime-time television: Assessing violence during the most popular viewing hours. *Journal of Communication*, **52**, 84–111.

Sparks, G. G., Sherry, J., & Lubsen, G. (2005). The appeal of media violence in a full-length motion picture: An experimental investigation. *Communication Reports*, **18**, 21–30.

Sparks, G. G., & Sparks, C. W. (2000). Violence, mayhem, and horror. In D. Zillmann & P. Vorderer (Eds.), *Media entertainment: The psychology of its appeal* (pp. 73–92). Mahwah, NJ: Erlbaum.

Tamborini, R., Stiff, J., & Zillmann, D. (1987). Preference for graphic horror featuring male versus female victimization: Personality and past film viewing experiences. *Human Communication Research*, **13**, 529–552.

Tan, E. S. (2008). Entertainment is emotion: The functional architecture of the entertainment experience. *Media Psychology*, **11**, 28–51.

U.S. Public Health Service (1972). *Television and growing up: The impact of televised violence*. Washington, DC: U. S. Government Printing Office.

Valkenburg, P. M., & Cantor, J. (2000). Children's likes and dislikes of entertainment programs. In D. Zillmann & P. Vorderer (Eds.), *Media entertainment: The psychology of its appeal* (pp. 135–152). Mahwah, NJ: Erlbaum.

Vorderer, P., Klimmt, C., & Ritterfeld, U. (2004). Enjoyment: At the heart of media entertainment. *Communication Theory*, **14**, 388–408.

Vorderer, P., & Knobloch, S. (2000). Conflict and suspense in drama. In D. Zillmann & P. Vorderer (Eds.), *Media entertainment: The psychology of its appeal* (pp. 59–72). Mahwah, NJ: Erlbaum.

Wilson, B. J. (2008). Media violence and youth aggression. In S. L. Calvert & B. J. Wilson (Eds.), *Blackwell handbook of child development and the media*. Malden, MA: Blackwell Publishing.

Wilson, B. J., Kunkel, D., Linz, D., Potter, W. J., Donnerstein, E., Smith, S. L., Blumenthal, E., & Berry, M. (1998). Violence in television programming overall: University of California, Santa Barbara study. *National television violence study*: Vol. 2 (pp. 3–204). Thousand Oaks, CA: Sage Publications.

Wilson, B. J., & Martins, N. (2006). The impact of violent music on youth. In N. Dowd, D. G. Singer, & R. F. Wilson (Eds.), *Handbook of children, culture, & violence* (pp. 179–202). Newbury Park, CA: Sage Publications.

Wilson, B. J., Smith, S. L., Potter, W. J., Kunkel, D., Linz, D., Colvin, et al. (2002). Violence in children's television programming: Assessing the risks. *Journal of Communication*, **52**(1), 5–35.

Zillmann, D. (1991). Television viewing and physiological arousal. In J. Bryant & D. Zillmann (Eds.), *Responding to the screens: Reception and reaction processes* (pp. 103–133). Hillsdale, NJ: Erlbaum.

Zillmann, D. (1998). The psychology of the appeal of portrayals of violence. In J. H. Goldstein (Ed.), *Why we watch: The attractions of violent entertainment* (pp. 179–211). New York: Oxford University Press.

Zillmann, D. (2006). Empathy: Affective reactivity to others emotional experiences. In J. Bryant & P. Vorderer (Eds.), *Psychology of entertainment* (pp. 151–182). Mahwah, NJ: Lawrence Erlbaum.

Zillmann, D., & Bryant, J. (1975). Viewer's moral sanction of retribution in the appreciation of dramatic presentations. *Journal of Experimental Social Psychology*, **11**, 572–582.

Zuckerman, M. (1994). *Behavioral expressions and biosocial bases of sensation seeking*. Cambridge: Cambridge University Press.

Zuckerman, M. (2007). *Sensation seeking and risky behavior*. Washington, DC: American Psychological Association.

Zuckerman, M., & Lubin, B. (1965). *Test manual for the Multiple Affect Adjective Check List (MAACL)*. San Diego: Educational and Industrial Testing Service.

生动与净滤暴力在电视剧享受过程中所扮演的的角色

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摘要

本研究探讨了电视暴力和观众享受之间的关系。我们将 400 名参与者随机分配到 15 种条件之中的 1 种。我们将 5 个电视节目剪辑成各 3 个不同的版本：一个生动暴力版本，一个净滤暴力版本，还有一个没有暴力的版本。看过之后，参与者报告他们的享受感及其对内容的情绪性反应。一旦控制了观众对节目中动作行为的感知，我们就发现非暴力的版本比其他两个带有暴力的版本更加让人愉悦。无论参与者的性别、内在侵略性的程度和寻求快感的倾向何如，上述发现都是一致的。因此，暴力增加快感这个广为接受的信仰没有得到本研究的支持。

Die Rolle von graphischer und „entschärfter“ Gewalt für das Unterhaltungserleben bei der Rezeption von Fernsehdramen

Das Experiment untersucht die Beziehung zwischen Fernsehgewalt und Unterhaltungserleben bei Zuschauern. Über 400 Teilnehmer wurden zufällig auf eine von 15 Versuchsgruppen aufgeteilt. Es wurden 5 Fernsehprogramme in 3 Versionen aufbereitet: eine graphisch gewalthaltige Version, eine „entschärfte“ gewalthaltige Version, und eine nicht-gewalthaltige Version. Nach der Rezeption berichteten die Teilnehmer über ihr Unterhaltungserleben und emotionale Reaktionen zum Inhalt. Nachdem wir das wahrgenommene Maß an Action im jeweiligen Programm kontrolliert hatten, zeigte sich, dass die nicht gewalthaltige Version signifikant unterhaltsamer war als die zwei gewalthaltigen Versionen. Diese Ergebnisse waren stabil unabhängig vom Geschlecht der Versuchspersonen, ihrer individuellen Aggressivität (Trait) und ihrer Sensation-Seeking Tendenz. Wir schlussfolgern, dass die allgemeine Annahme, dass Gewalthaltigkeit das Unterhaltungserleben erhöht, nicht nachgewiesen werden konnte.

Le rôle de la violence extrême et modérée dans l'appréciation des émissions télévisuelles dramatiques

Résumé

Cette étude explore la relation entre la violence à la télévision et le plaisir du téléspectateur. Plus de 400 participants furent assignés au hasard à l'une de 15 conditions créées en modifiant cinq émissions télévisées pour créer trois versions de chacune d'entre elles : une version présentant de la violence extrême, une version présentant de la violence modérée et une version non violente. À la suite du visionnement, les participants évaluaient leur appréciation et leurs réactions affectives face au contenu. Après avoir tenu compte de l'effet de la perception qu'avaient les téléspectateurs de la quantité d'action dans l'émission, nous avons découvert que la version non violente était, de façon significative, plus agréable que ne l'étaient les deux versions violentes. Ce résultat se maintenait peu importe le sexe des participants, leur niveau d'agressivité ou leur tendance à rechercher des sensations. Ainsi, la croyance répandue voulant que la violence accroisse le plaisir n'a pas été confirmée.

The Role of Graphic and Sanitized Violence in the Enjoyment of Television Dramas

텔레비젼 드라마 여흥이라는 점에서 명백한 그리고 다소 미화한 폭력의 역할

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요약

본 실험은 텔레비젼의 폭력성과 시청자의 여흥사이의 관계를 조사한 것이다. 400 명 이상의 참여자들이 작위적으로 1 부터 15 사이의 상황에 처하게 한바, 이러한 상황들은 5 개의 텔레비젼 프로그램을 3 개의 형태로 편집한 것에 의한 것이다. 이들은 명백하게 폭력적인 형태, 폭력을 건전하게 미화한 형태, 그리고 비폭력 형태이다. 이들 프로그램들을 시청한뒤, 참여자들은 프로그램 내용들에 대한 그들의 여흥과 감정적 반응에 대해 보고하도록 하였다. 결과들은, 참여자들은 비폭력 형태의 프로그램을 다른 두가지의 폭력적 형태의 프로그램들보다 중요한 정도차이로 더욱 즐길만하다고 보고하였다. 이러한 발견은 참여자의 성이나 큰 이야기거리를 추구하는 경향등에 관계없이 일정하게 나타났다. 그러므로, 본 논문은 폭력이 여흥을 증가시킨다는 일반적인 믿음은 지지되지 않는다는 것을 보여주고 있다.

El Rol de la Violencia Gráfica y Desinfectada sobre el Placer por los Dramas Televisivos

Resumen

Este experimento explora la relación entre la violencia en la televisión y el placer del televidente. 400 participantes fueron asignados aleatoriamente a 1 de 15 condiciones creadas mediante la edición de 5 programas de TV en 3 versiones diferentes. En cada una: una versión gráficamente violenta, una versión de violencia desinfectada, y una versión no violenta. Después de la exposición, los participantes reportaron su placer y reacciones emocionales sobre el contenido. Después que controlamos las percepciones de los televidentes sobre la acción del programa, encontramos que la versión no violenta fue significativamente más placentera que las dos versiones violentas. Este hallazgo se mantuvo a pesar del sexo de los participantes, el nivel del rasgo de agresión, y las tendencias de búsqueda de sensaciones. Así, la creencia ampliamente sostenida que la violencia incrementa el placer no encontró apoyo alguno.