

If the Television Program Bleeds, Memory for the Advertisement Recedes

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Abstract

In public surveys, the most common complaint about television is the amount of violence depicted on the screen. More than half the programs shown on television are violent, and hundreds of studies have shown that viewing TV violence causes an increase in societal violence. Nevertheless, advertisers continue to sponsor violent programs. For an advertisement to be effective, people should be able to remember the brand advertised and the message in the advertisement. This article reviews the effect of TV violence on memory for ads. A meta-analysis integrating the results from 12 studies involving more than 1,700 participants shows that TV violence impairs memory for ads. The impairment occurs for males and females, for children and adults, and for people who like and do not like to watch TV violence. These results suggest that sponsoring violent programs might not be

a profitable venture for advertisers.

Keywords

televised violence; memory; commercials; meta-analysis

Since it was introduced at the 1939 World's Fair in New York, television has become an integral part of American society. The average number of American households with TV sets has increased from 9% in 1950 to over 98% in 1998. The ratio of television sets to people is higher in the United States than in any other country, about 776 per 1,000 people. There are more television sets in the United States today than there are toilets.

EXTENT OF VIOLENCE ON TELEVISION

Surveys indicate that most Americans believe there is too much violence on television. In one survey, for example, people were asked to say, in their own words, what

made them angry about television programming. The most common complaint was "too much violence" (TV Guide, 1992). In the National Television Violence Study (1998), researchers videotaped more than 8,000 hr of programming on cable and broadcast television in the United States, sampling between the hours of 6:00 a.m. and 11:00 p.m., 7 days a week, for 3 consecutive years. A content analysis showed that about 60% of the programs contained violence. Less than 4% of the violent programs contained an antiviolence theme. In most programs, violence was depicted as trivial, glamorous, and sanitized.

Over time, the number of violent acts an individual sees on television can accumulate to a staggering amount. By the time the average American child graduates from elementary school, he or she will have seen more than 8,000 murders and more than 100,000 other assorted acts of violence (e.g., assaults, rapes) on network television (Huston et al., 1992). The numbers are even higher if the child has access to cable television or a videocassette player, as most children do.

EFFECT OF TELEVISED VIOLENCE ON SOCIETAL VIOLENCE

Scholars have been investigating television violence as a potential

contributor to societal violence almost since television was introduced to society. One reason is that the trend of violence in the industrialized world has paralleled the increase in television usage during the second half of the 20th century. Research from hundreds of studies conducted over several decades has shown that viewing violence causes an increase in societal violence (see Bushman & Huesmann, 2001, for a review).

How Strong Is the Effect of TV Violence on Aggression?

The relation between televised violence and aggression is quite strong (see Fig. 1)—nearly as strong as the relation between smoking and lung cancer. The smoking analogy is a useful one (Bushman & Anderson, 2000). Not everyone who smokes gets lung cancer, and not everyone who gets lung cancer is a smoker. Although smoking is not the only factor that causes lung cancer, it is an important factor. Similarly, not everyone who watches violent television becomes aggressive, and not everyone who is ag-

gressive watches violent television. Although televised violence is not the only factor that causes aggression, it is an important factor. Like a first cigarette, the first violent program seen can make a person nauseated. Later, however, the person craves more and more. Repeated exposure to both cigarettes and televised violence can also have harmful long-term effects. Smoking one cigarette has little impact on the likelihood that a person will get lung cancer, but repeated exposure to tobacco smoke dramatically increases the risk of lung cancer. Similarly, watching one violent TV program has little impact on the likelihood that a person will behave more aggressively, but repeated exposure to televised violence dramatically increases aggressive behavior (see Bushman & Huesmann, 2001, for a review).

I Watch TV Violence and It Doesn't Affect Me!

The fact that TV violence does not noticeably increase aggression in everybody does not mean that TV violence does not increase aggression in anybody. Medved (1995)

pointed out that when an ad is shown on TV, no one expects that it will influence everybody. If the ad influences just 0.1% of viewers, it is considered highly successful. Suppose, for example, that a particular violent TV program increases aggression immediately in just 0.1% of viewers. Should society be concerned about a percentage so small? Yes! Suppose that 10 million people watch the program. If the program increases aggression in just 0.1% of viewers, then 10,000 people will behave more aggressively afterward. Because so many people are exposed to TV violence, the effect to society can be immense even if only a small percentage of people are immediately affected by what they see.

It might be that only 0.1% of viewers will behave more aggressively immediately after viewing a particular program, but the cumulative effects of watching violent TV are likely to increase the aggressiveness of most (if not all) of the viewers. Furthermore, laboratory experiments have shown that merely viewing 15 min of a relatively mild violent program increases the aggressiveness of a substantial proportion of the viewers, at least one fourth (Bushman, 1995).

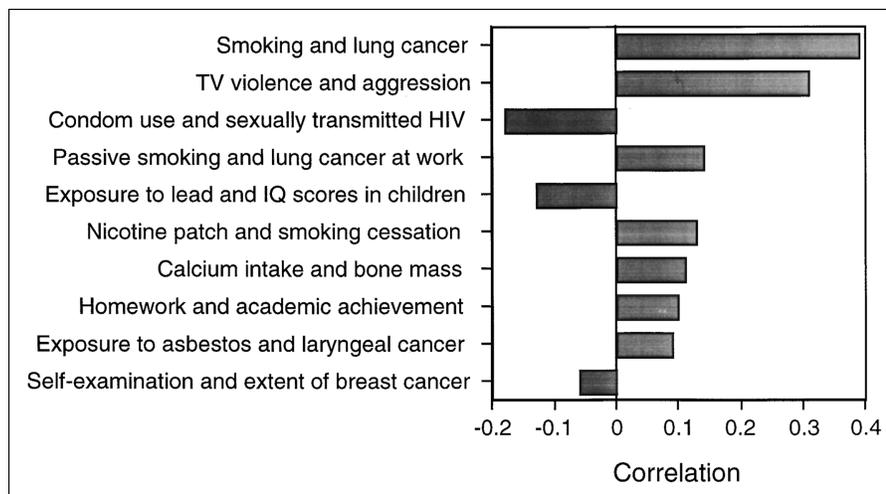


Fig. 1. Comparison of the effect of violent television programs on aggression with well-known effects from other domains. Based on meta-analytic data reported in Bushman and Anderson (2000). All of the correlations shown are significantly different from zero.

DOES TV VIOLENCE MIRROR VIOLENCE IN THE "REAL" WORLD?

Surveys indicate that most Americans consider "TV" to be an acronym for "too violent" (e.g., TV Guide, 1992). If most Americans say they do not like violent programs, then why do so many programs contain violence? Television industry leaders answer this question by claiming that their programs merely reflect the violence that already exists in society. For example, Leonard Goldenson of ABC said, "We are presently reaping the harvest of

having laid it on the line at a time when many Americans are reluctant to accept the images reflected by the mirror we have held up to our society" ("The Industry: Fighting Violence," 1968, p. 59). However, few scholars of the subject accept this claim. As film critic Medved (1995) wrote:

If this were true, then why do so few people witness murders in real life but everybody sees them on TV and in the movies? The most violent ghetto isn't in South Central L.A. or Southeast Washington D.C.; it's on television. About 350 characters appear each night on prime-time TV, but studies show an average of seven of these people are murdered every night. If this rate applied in reality, then in just 50 days everyone in the United States would be killed and the last left could turn off the TV. (pp. 156–157)

If the television industry is a mirror that reflects the level of violence in society, then it is a fun-house mirror that provides a distorted, violent image of reality. There is far more violence in the "reel" world than in the "real" world. Even in reality-based TV programs, violence is grossly over-emphasized.

WHY DO ADVERTISERS SPONSOR VIOLENT PROGRAMS?

Perhaps the most obvious reason that advertisers sponsor violent TV programs is because they believe that violent programs draw larger audiences than do nonviolent programs. A larger audience leads to a larger consumer population. Is there any truth to the belief that violent programs attract larger audiences? Historically, violent TV programs have actually attracted smaller audiences than have nonviolent programs (Hamilton, 1998). But even though violent programs

do not attract larger audiences, they are valued by advertisers for at least two other reasons (see Hamilton, 1998). First, violent programs attract younger viewers. If the viewers of violent programs are categorized by age and gender, men aged 18 to 34 are the most common viewers, followed by women aged 18 to 34. Thus, although the primary audience of violent media is young men, young women have a good showing, too. This is important because women purchase many of the products that are used in households. Also, this age group of viewers is highly valuable to advertisers because younger consumers are more inexperienced than are older consumers. It takes a lot of money, time, and effort to persuade older consumers to switch brands or to try something new. It is much easier to persuade younger consumers. Second, violent programs are less expensive for advertisers to sponsor than are nonviolent programs, in terms of cost per thousand viewers in the 18- to 49-year age range.

EFFECT OF TELEVISED VIOLENCE ON MEMORY FOR COMMERCIAL MESSAGES

Advertisers especially want viewers to remember their ads. An ad may be interesting, enjoyable, and persuasive, but it may not be effective if the potential buyer cannot remember the brand advertised or the message contained in the ad. In this section, we review the scientific literature on the effect of violent programming on memory for commercial messages.

Scientific evidence from a collection of studies can be integrated and summarized in a narrative (qualitative) review or in a meta-analytic (quantitative) review. In a traditional narrative review, the reviewer uses "mental algebra" to

combine the findings from a collection of studies, and describes the results verbally. In a meta-analytic review, the reviewer uses statistical procedures to integrate the findings from a collection of studies, and describes the results using a numerical effect-size estimate. An effect-size estimate provides a measure of how strongly two variables are related (e.g., smoking and lung cancer). Narrative reviews are more susceptible to the subjective judgments, preferences, and biases of a particular reviewer's perspective than are meta-analytic reviews. Therefore, we used meta-analytic procedures in our review of the effect of televised violence on memory for commercial messages.

To locate relevant studies, we searched *PsychINFO* (*PsychLIT* and *Psychological Abstracts*) from 1939 (the year TV was introduced to the American public) to 2000. We conducted a broad search to be sure that no relevant studies were excluded. The following terms were used: (*memory* or *remember** or *recall** or *recogni**) and (*violen** or *aggress**). The asterisk allows terms to have all possible endings. For example, the term *recogni** will retrieve studies that used the terms *recognize*, *recognized*, and *recognition*. The literature review yielded a total of 1,926 studies. We read the abstracts to determine which studies to include in the meta-analysis. A study was included if the researchers used at least one (a) violent TV program, (b) nonviolent TV program, (c) TV commercial, and (d) measure of memory for the commercial (e.g., recall, recognition). Twelve studies met the inclusion criteria. These 12 studies included a total of 1,772 participants.²

In the typical study on this topic, the researcher flips a coin to determine which participants watch a violent TV program and which participants watch a nonviolent TV program. The same ads are embedded in the two types of programs.

After viewing the program, participants are given surprise memory tests (e.g., they are asked to recall the names of the brands advertised and the details in the commercial messages).

The average correlation between televised violence and memory for commercial messages for the 12 studies was $-.19$, with a 95% confidence interval ranging from $-.23$ to $-.14$. Because the confidence interval does not include the value zero, it can be concluded that televised violence significantly decreased memory for commercial messages in these studies. The average correlation is quite large. It is the same size as the correlation between wearing a condom and contracting HIV, the virus that causes AIDS (see Fig. 1).

No sex differences were found in any of the studies. That is, TV violence impaired memory for ads in both males and females. Also, no age differences were detected. TV violence impaired memory for ads in viewers of all ages. Habitual exposure to televised violence was measured in 4 of the 12 studies, but this variable did not affect the results. Television violence impaired memory for ads in people who preferred to watch violence and in people who preferred not to watch violence.

In 2 of the 12 studies, researchers included a delayed memory measure.³ Memory was assessed 24 hr after exposure in one study and 1 month after exposure in the other study. In both studies, TV violence impaired delayed memory for ads ($r = -.22$ for 24 hr after exposure, $r = -.40$ for 1 month after exposure).

WHY DOES TV VIOLENCE IMPAIR MEMORY FOR COMMERCIAL MESSAGES?

The meta-analytic results clearly indicate that if the television pro-

gram bleeds, then memory for the ad recedes. It is now time to move beyond the question of whether TV violence impairs memory for ads and ask why this impairment occurs. One possible reason is that televised violence puts people in a bad mood (e.g., it makes them angry). In a previous study (Bushman, 1998), we found that viewing violence made people angry, and the more angry people were the less they remembered about the ads. There are at least three reasons why anger might impair memory. First, negative moods interfere with the brain's encoding of information (e.g., Ellis, Thomas, & Rodriguez, 1984). Second, the angry mood induced by viewing violence might cause people to have aggressive thoughts that interfere with mental rehearsal of the ads (e.g., Berkowitz, 1984). Third, angry people might try to remedy or repair their bad mood, which takes a lot of effort (e.g., Morris & Reilly, 1987). During the time that advertisers hope viewers are absorbing the messages in ads, viewers might actually be focusing on themselves, trying to calm the anger brought on by what they have just seen on the screen. Other possible reasons for the impairment should be investigated in future research (e.g., physiological arousal, activation of aggressive thoughts).

IMPLICATIONS

It is unlikely that moral appeals from parents and other concerned citizens will influence the TV industry to reduce the amount of violent programming. The bottom line—profits—really determines what programs are shown on television. If advertisers refused to sponsor them, violent TV programs would become extinct. According to former CBS Programming Chief Jeff Sagsky, "The number one priority in television is not to transmit qual-

ity programming to viewers, but to deliver consumers to advertisers. We aren't going to get rid of violence until we get rid of advertisers" (Kim, 1994, p. 1434).

Several years ago, a spokesperson for the J. Walter Thompson Company stated: "The more we probe the issue, the more we are convinced that sponsorship of television violence is potentially bad business, as well as a social risk" ("Lousy Frames," 1977, p. 56). The scientific evidence reviewed in this article supports this conclusion. Advertisers might want to think twice about sponsoring violent programs.

The results reviewed in this article also have implications for people who are not advertisers. For example, many students study while watching television. This might be a bad idea if they are watching violent programs. If the violent programs put students in a bad mood, they might have a more difficult time recalling the material in the classroom during an exam and in the real world.

Recommended Reading

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Notes

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2. A list of the studies included in the meta-analysis can be obtained from the first author.

3. These two correlations were not included in the overall meta-analysis.

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