Violence, Crime, and Violent Video Games: Is There a Correlation?

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What effect does exposure to violence in video games have on behavior? These authors examine the evidence.

Source:

Since the arrival of increasingly violent video games and the media coverage attracted by recent mass killings, an emotional debate has developed concerning the impact of video games on aggressive, violent, and criminal behavior. Findings from meta-analyses are contradictory: some studies show an increase in aggressiveness, while others suggest a decrease in criminality.

Game platforms are becoming increasingly diverse and easily accessible (computers, consoles, tablets, mobile phones). This dramatic growth is a source of concern. Considered in the past to be an eccentric pastime doomed to rapid disappearance, video games are now solidly anchored in the popular culture.

Impact of video games on behavior

The conclusions drawn by the first literature review on this topic in 1998 suggested that there is a link between violent video games and aggressiveness.\(^1\) Data showed an increase in aggressive moods or thoughts and hostility after playing violent video games and suggested impairment of prosocial behavior.

In 2000, Funk\(^2\) studied the mechanisms underlying the aggressiveness caused by video games. She hypothesized that under certain environmental conditions, aggressive behavior was likely a consequence of the desensitization and disinhibition caused by violent video games. The repetitive nature of the games was thought to promote aggressive types of cognitive schema. Once this schema is established, it is reinforced by the learning process and the repetitive enactment of violence seen in video games.\(^3\) Bensley and Van Eenwyk\(^4\) identified 3 studies that showed a rise in aggressiveness that resulted from the use of video games by children aged 4 to 8 years. The data concerning adolescents were insufficient to draw any conclusions; however, an experimental study revealed an increase in aggressiveness in high school students.

A meta-analysis by Anderson and Bushman\(^5\) revealed a positive correlation between exposure to violent video games and increased levels of aggressiveness in children and young adults of both sexes. This correlation appears to be proportional to the time spent playing games. The researchers concluded that video games increased behavioral, emotional, and cognitive aggressiveness, and decreased prosocial conduct.

The most recent meta-analysis by Greitemeyer and colleagues\(^6\) revealed a significant correlation between exposure to violent video games and a rise in aggressiveness, together with a decline in prosocial behavior. The results were similar to those of Carnagey and colleagues,\(^7\) who observed a lower level of neurovegetative stimulation during the viewing of genuine violent scenes in participants who had played a violent video game beforehand. Moreover, playing a violent video game even for 20 minutes led individuals to become less sensitive to real violence. The authors emphasized the fact that desensitization to violence could increase the risk of aggression.

Conflicting findings

Exposure to violence in video games did not always have a negative effect. Although human or fantasy violence was associated with a stronger effect than violence in sport games, overall the influence on aggressiveness was weak and less significant than that of violence on television.\(^8\) These findings informed Sherry’s\(^8\) rejection of the hypothesis that violent video games can induce aggression. Following this statement, an increasing number of scholars expressed skepticism regarding the link between violent digital games and real-life violence, and numerous studies have cast doubt on this link.

Ferguson and Kilburn\(^9\) suggested that the effects of violent video games were overestimated as a consequence of the biases introduced by publications challenging the correlation of aggressiveness.
with video games. Once the publication biases were corrected, the extent of the effect (eg, the
strength of the association between violent video games and aggressiveness) dropped to 0.04
[−0.03, 0.11].10 Also, by taking other variables into account, such as intra-family violence, the
correlation between video games and aggressiveness could no longer be established.11
The player’s personality also plays a moderating role in the relationship between video games and
aggressive thoughts or behavior.12 Ferguson and Rueda13 showed that measurements of
aggressiveness made in the laboratory were not correlated with violent acts encountered in real life.
The effects of game violence were not observed in the normal environment of players, thus
complicating the extrapolation of laboratory data.14
Ballard and colleagues15 looked at the effects of cardiovascular and affective response to video
games to gauge whether there were changes across social context or with game content (violent or
nonviolent video games). No significant differences were found between players of nonviolent video
games and players of violent video games. Similarly, Tear and Nielsen16 failed to find evidence that
playing violent video games led to diminished prosocial behavior after exposure to antisocial,
vviolent, nonviolent, or prosocial games. These results confirmed those of Unsworth and colleagues,17
who found that the majority of participants in their study were unaffected by exposure to video
game violence and several even experienced a decrease in anger.
Colwell and Kato18 observed that the preference for aggressive games was associated with lower
aggression scores among Japanese adolescents. Findings indicate that any correlation between
violent video game exposure and delinquency is nonsignificant.19 Kutner and Olson20 concluded that
“focusing on such easy but minor targets as violent video games causes parents, social activists, and
public-policy makers to ignore the much more powerful and significant causes of youth violence that
have been well established.”
Results from a long-term study show no relationship between game playing and aggression or
delinquency after 1 year of exposure.11 Nor were any effects seen on delinquency, aggressiveness,
vioence, or bullying at 1- and 2-year follow-up.21
Video games and criminality
A 2004 review of the literature did not show a clear relationship between an individual’s exposure to
violent representations and criminal acts.22 In fact, the preponderance of evidence shows a negative
correlation between violent video games and crime. A study by Ward23 revealed a negative
correlation between an increase in the sale of video games and criminality. Cunningham and
colleagues24 found that for a 1% increase in the sale of violent video games, the incidence of crime
decreased by 0.03%. Findings from Markey and colleagues25 also suggest that violent video gaming
is associated with a decline in criminality.
These various studies suggest that despite an increase in aggressiveness, violence in video games
could be the cause of a reduction in criminality. Moreover, it appears that the relationship between
media and crime is more complex than that revealed by experimental studies.
Although it has been suggested that several mass murderers were influenced by violent video
games, scientific data do not support any causal link between exposure to video game violence and
school shootings.26 Furthermore, no evidence was found of the use of violent video games by the
perpetrators of mass homicide.27
Conclusion
The concerns about the effects of violent video games on aggressive thought patterns, emotions,
and behavior are justified. Until now, no study has been able to show that exposure to violent digital
games is associated with an increase in criminality, aggressiveness, or violent behavior.
Nevertheless, these paradoxical results are not incompatible. There is indeed a tremendous
difference between aggressiveness and hetero-aggressive outburst. It is likely that the answer lies in
the complexity of the concept of committing an act. Exposure to violent video games could be one
factor, among many others, in a constellation of parameters leading an individual to commit an
aggressive act.
The research is inconsistent, and thus psychiatrists may wish to be more careful in their public
statements linking violent digital games to harm. There is indeed a lack of scientific data dealing
with the relationship between violent video games and this interaction between the individual’s
mental state and aggressive outcome. More research is needed before we can fully understand the
influence of violent video games on real life.

Disclosures:
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