Violent media content is common and takes many forms. Physically aggressive acts such as hitting, kicking, and shooting are frequently displayed in TV shows, video games, music videos, and even in children’s cartoons. Portrayals of relational aggression, for example gossiping or social exclusion, are equally pervasive (Martins & Wilson, 2012). These depictions are often unrealistic, presenting aggression as justified, normative, and without negative consequences for the perpetrator, or in many cases for the victim (this is especially prevalent in children’s media). Violent acts are often coupled with wildly inaccurate stereotypical portrayals of religious and ethnic minorities; for instance entertainment and news TV shows, films, and video games frequently link black characters to gun violence and show Muslim characters as terrorists. Finally, the increased use of cybertechnologies such as social network sites and microblogs has led to the proliferation of a new form of violence in the media, cyberbullying, which involves repeatedly harming others through hostile or aggressive messages sent via digital media. Whereas passive media such as movies and TV shows serve purely as a source of aggressive content, cybertechnologies enable people to use the media themselves as a tool for harm, transforming users into consumers, viewers, victims, and perpetrators.

The increasing prevalence of various forms of violent and aggressive content in the media has led to concerns among parents, policymakers, and other members of society about potential adverse effects (including effects on aggressive behavior, aggressive cognitions, hostile affect, desensitization to violence, and decreased prosocial behavior). The scientific basis of potentially harmful media violence effects is sometimes portrayed as controversial in the popular press and has been a topic of public debate for decades. Many social commentators—usually without any relevant scientific credentials—have questioned whether violent media content has any significant effects on consumers. A few very vocal critical “scholars” repeatedly make the same discreditable claims about supposed weaknesses in the literature (see review by Anderson, DeLisi, & Groves, 2013).
In contrast, the research evidence concerning media violence effects is clear. Over six decades of research reveals that media violence increases the risk of aggressive behavior in both short-term and long-term contexts, while also reducing helping behavior and empathy toward victims of violence (Anderson et al., 2003, 2010; Greitemeyer & Mügge, 2014). Similar effects have been found across different media types, including violent video games, TV shows, movies, music videos, music lyrics, and comic books. These effects have been demonstrated in various populations: children and adults, men and women, aggressive and nonaggressive individuals, people from Eastern and Western cultures. Robust media violence effects have been found using different research methods, for example laboratory and field experiments, cross-sectional correlational studies, and longitudinal studies. Meta-analytic reviews—which statistically combine effect sizes across relevant empirical studies—consistently show that effects of media violence on antisocial and prosocial outcomes are remarkably consistent across these different populations and different methodologies (Anderson et al., 2010; Greitemeyer & Mügge, 2014). Media violence effects tend to be of small to moderate magnitude, which has led some critics to question whether these effects are important. Because aggressive behavior is influenced by a large number of risk factors (e.g., genetic factors, cultural norms, parenting practices, personality), no single factor can explain more than a small proportion of individual differences in aggression. However, even small effect sizes can have important consequences. If large portions of the population are exposed to a risk factor and if effects accumulate across time, the risk factor can significantly influence the individual and society (Anderson et al., 2010). In fact, the obtained effect size of violent video games on aggression is similar to that of risk factors such as drug use, poverty, and abusive parenting.

This entry reviews the current research literature that examines the effects of violent media content on its consumers. Most of this research literature has focused on effects of media violence involving portrayals of physical aggression on aggression-related outcomes. Therefore this entry pays special attention to effects of portrayals of physical aggression and violence in the media. However, newer lines of research are also discussed—lines that have examined effects of relational aggression in the media, crossover effects in which one type of portrayal (e.g., physically violent video games) influences another type of real-world aggression (e.g., relational) in real life, effects of the representation of violent stereotypes on attitudes and behaviors toward minorities, and effects of cyberbullying. These findings are discussed as part of the general aggression model (GAM; Anderson & Bushman, 2002b; Anderson & Carnagey, 2014), which provides a comprehensive biosocial–cognitive–developmental framework for understanding media violence effects on a range of outcomes.

**Definition of media violence**

This entry adopts a broad definition of media violence, as any media content that involves individuals intentionally harming or attempting to harm others. The definition encompasses different types of aggressive portrayals: media content showing physical aggression (which involves intentionally hurting others by direct physical means,
for instance by kicking or shooting someone), verbal aggression (which involves intentionally hurting others by verbal means, for instance by calling someone a racial slur) and relational aggression (which involves intentionally harming another person's relationships, for instance by spreading a harmful rumor about someone). This definition of media violence exposure encompasses the use of both passive media (such as watching violent movies or TV shows) and active media (such as playing a violent video game or being a victim or a perpetrator of cyberbullying). Note that this scientific definition of media violence, like the consensus definition among mainstream scholars in this area, does not require blood, gore, screams of pain or terror, death, or any other additional feature that is commonly used by the general public in its nonscientific understanding of the term. Certainly these additional features are likely to have a wide array of effects on consumers but are not necessary for a media product to be considered “violent” by media violence scholars. More details about the prevalence of specific violent portrayals in the media will be provided later in the entry, when discussing effects of different types of media violence.

**Theoretical approaches to understanding media violence effects**

A number of theoretical approaches have been used to predict and explain the mechanisms through which media violence influences viewers. This section provides a brief overview of several specific models that contribute to our understanding of media violence effects. These are social learning theory and social cognitive theory, script theory, cultivation theory, and desensitization theory. Finally, the section outlines the GAM, which unites key tenets from earlier domain-specific models and provides a comprehensive framework for understanding media violence effects.

**Social learning theory**

Bandura’s social learning theory and social cognitive theory emphasize observational learning as a powerful mechanism in the acquisition of new social behaviors in childhood and adulthood (see Anderson et al., 2003). Children learn aggressive behavior by observing others—family members, peers, teachers, and characters portrayed in movies, TV shows, and video games.

Observational learning plays a role in both short-term and long-term effects of media violence on aggression. While brief exposure to media violence leads to short-term mimicry, repeated exposure contributes to long-term increases in aggression (Anderson et al., 2003; Anderson & Carnagey, 2014). Importantly, the likelihood of imitating the observed behavior depends on the observed consequences of the aggressive behavior. Children are more likely to imitate aggression witnessed in the media if aggressive actions were rewarded and less likely to imitate it if they were punished. Thus social learning and social cognitive theories help explain the acquisition of novel aggressive behaviors in the absence of immediate reward (Anderson & Carnagey, 2014).
Script theory

Behavioral scripts are cognitive schemas that include sets of “rules” for how to understand and respond to different social situations, including interpersonal conflict (see Anderson et al., 2003). Scripts influence how people interpret events; scripts also guide behaviors. Observing violent behaviors in real life or in the media leads children and adults to learn aggressive behavioral scripts. For example, depictions of TV characters as using a gun to resolve a dispute may lead viewers to learn a “conflict → use gun → resolution” script (Anderson & Carnagey, 2014). Repeated exposure to violent content and mental rehearsal of aggressive behaviors make aggressive scripts highly accessible and easily retrieved from memory. Such chronically accessible scripts influence people’s perceptions and interpretations of events. Indeed, a number of studies present evidence that media violence exposure causes viewers to interpret ambiguous behaviors of others as intentional provocations and increases the likelihood of aggressive responses (Anderson et al., 2003).

Cultivation theory

Cultivation theory emphasizes the fact that media tend to produce a fairly small and consistent set of messages. News media, TV shows, movies, and video games tend to overrepresent instances of violent crimes and offer negative stereotypical depictions of racial and religious minorities (e.g., Dixon, 2008). In turn, such depictions influence and bias viewers’ perceptions of reality.

Cultivation theory has received consistent empirical support. People who frequently watch television consistently overestimate the danger of crime in their own neighborhoods (Gerbner et al., 1980 in Anderson & Carnagey 2014). Watching news that portrays Muslims as terrorists prompts viewers to develop aggressive perceptions of Muslims and to support aggressive public policies that target Muslims domestically and internationally (Saleem et al., 2015).

Desensitization theory

Within the context of media violence, desensitization is defined as a reduction in physiological and emotional responsiveness to violence as a result of extended exposure (Anderson & Carnagey, 2014). Violence in real life becomes more acceptable after much greater violence was viewed on the screen. A number of experimental studies demonstrate desensitization as a result of short-term exposure to violent media. Viewing violent films and playing violent video games can lead to physiological desensitization to violence, decreased empathy for victims, and decreased helping (Anderson et al., 2003, 2010; Bushman & Anderson, 2009; Greitemeyer & Mügge, 2014). Other research shows evidence of chronic desensitization to violence. Long-term exposure to violent video games, TV shows, and movies is associated with more positive attitudes toward violence and is negatively associated with empathy (Anderson et al., 2003).

Desensitization to violence is considered to be one of the key mediating mechanisms of media violence effects on aggression and related variables. Although desensitization
can be useful in some contexts (e.g., surgeons in training are desensitized to the sight of blood), desensitization to violence has predominantly harmful effects, including disinhibition in relation to aggressive behavior and reduced likelihood of helping victims of violence (Anderson & Carnagey, 2014).

**The general aggression model**

The GAM (Anderson & Bushman, 2002b; Anderson & Carnagey, 2014) was created to provide a universal framework and terminology that integrates decades of past research on different forms of aggressive behavior. Thus the GAM incorporates several domain-specific aggression theories and describes the psychological processes that instigate aggressive behavior in the short term and contribute to the development of aggressive tendencies in the long term.

The short-term GAM explains how aggression unfolds in a current social encounter. The likelihood that someone will act aggressively at any given moment is influenced by a number of personal variables (e.g., beliefs, attitudes, and personality traits) and situation variables (e.g., provocation, frustration, or exposure to aggressive primes such as viewing acts of aggression in real life or in the media). These different factors jointly influence one’s present internal state—a person’s thoughts, emotions, and arousal levels at a given moment.

Subsequently, internal state variables affect a person’s judgment and decision-making processes. For instance, playing a violent video game may cause people to view another person’s ambiguous behavior as an intentional and malevolent provocation (Anderson et al., 2003, 2010). Such hostile attributions increase the likelihood that the person will respond with aggressive behavior.

The long-term aspect of GAM outlines some of the processes that contribute to the development of habitual aggressive tendencies over time. Repeated exposure to certain experiences (such as bullying, social rejection, or exposure to media violence) leads to the creation and repeated activation of particular knowledge structures (such as aggressive scripts and schemata). Through repeated activation, these knowledge structures are reinforced, become automatized, and are more likely to be used in future situations. Thus exposure to violence, real or virtual, can make people develop hostile expectations and perceptions and aggressive attitudes, beliefs, and behavior (Anderson et al., 2003; Anderson & Carnagey, 2014).

Next the entry presents an overview of empirical research findings concerning media violence effects on antisocial and prosocial outcomes. Effects of media portrayals of physical aggression and violence have received most attention in research and are thus discussed in greater detail. Then newer areas of research are summarized.

**Effects of media portrayals of physical aggression**

Most of the research in the media violence literature has examined the effects of portrayals of physical aggression in the media, which involves characters intentionally harming others by direct physical means (e.g., hitting, stabbing, or shooting other characters).
Portrayals of physical aggression are very common across different types of media. According to some estimates, an average child growing up in the United States witnesses 200,000 murders, rapes, and assaults on television by his or her teenage years (Huston et al., 1992 in Anderson et al., 2003). Depictions of physical aggression and violence are also frequent in video games, movies, music videos, and even children’s cartoons (Anderson et al., 2003).

Many consumers believe that violent media can help people become less aggressive by letting them “blow off steam” and vent aggressive impulses. In contrast, empirical research clearly demonstrates that consuming violent media does not reduce aggression—it increases it (Anderson, Gentile, & Buckley, 2007). Over 60 years of research have yielded clear evidence that media violence increases the risk that the consumer will subsequently have increases in aggressive thoughts, feelings, and behaviors while also experiencing less empathy and emitting fewer prosocial behaviors (Anderson et al., 2003, 2010; Greitemeyer & Mügge, 2014).

One of the greatest strengths of this research literature is its methodological diversity—findings demonstrating media violence effects on antisocial and prosocial outcomes are remarkably consistent across studies that use different types of research designs and measures. In this overview, several studies will be highlighted that illustrate the successful use of various research methodologies in the exploration of media violence effects.

**Experimental studies**

In experimental studies researchers manipulate the exposure to media violence and measure the short-term effects of brief exposure. Typically, participants are randomly assigned to a brief episode of media violence use (such as watching a violent versus a nonviolent TV show, or playing a violent versus a nonviolent video game) before the outcome variable is measured. Over 200 methodologically rigorous experimental studies have tested the effects of violent media; they clearly demonstrate that such media significantly increase aggressive behavior, aggressive thinking, and aggression-related emotions in the current situation. For example, Anderson and Carnagey (2009) conducted a set of three experiments that examined the effects of playing violent versus nonviolent sport video games on aggressive cognition, affect, and behavior; these effects were measured immediately after game play. In each of the three studies, participants were randomly assigned to groups that played either a violent sports video game (MLB Slugfest Baseball, NFL Blitz Football) or a same-sport nonviolent video game (MVP Baseball 2004, Madden Football) for 20 minutes. Then outcome measures of aggressive cognition (Study 1), aggressive affect (Study 2), or aggressive behavior (Study 3) were obtained. In Study 1, participants who had just played a violent video game identified aggressive words faster than participants who played a nonviolent game, which indicated an increase in aggressive thinking. In Study 2, violent video game play led participants to score higher on a questionnaire that measured aggressive affect and included items such as “I feel furious” and “I feel like I’m about to explode.” Finally, Study 3 demonstrated significant effects of violent video game play on physically aggressive behavior. In this study participants were given the opportunity to aggress a supposed
opponent in a reaction time task in which the winner could deliver an aversive noise blast to the loser. Participants who played a violent game delivered over 76% more high-intensity noise blasts to their opponents than did those who had played a similar but less violent sports game. These findings are a clear empirical demonstration of the basic predictions of the GAM, which posits that violent media content increases the immediate risk of aggressive behavior by priming aggressive thoughts and by causing hostile affect (Anderson & Bushman, 2002b; Anderson & Carnagey, 2014). Importantly, this set of studies demonstrated that violent video games increased aggressive affect, cognitions, and behavior even after controlling for the perceived competitiveness of the games, which confirms that these effects are due to the violent content of the games and not the result of competitiveness.

A different line of research reveals that media violence does not only increase aggressive outcomes—it also reduces prosocial outcomes. For instance, Bushman and Anderson (2009) examined effects of violent video games and violent movies on helping behavior. In the experimental Study 1, participants played either a violent or a nonviolent game. Then they heard sounds of a fight outside the lab, a fight in which a person appeared to be injured (from moans and statements made by the “victim” after the “perpetrator” apparently left the scene). Participants who had played a violent video game were more likely to ignore the fight, perceived it as less serious, and took more time to help the victim (over 450% longer) than participants who had played a nonviolent game. In the quasi-experimental Study 2, a young woman with a wrapped ankle dropped her crutches and struggled to retrieve them outside a movie theater, either before or after a violent or nonviolent movie was shown. Prior to the movie, there was no difference in willingness to help among those heading to the movie theater. However, after the movie, participants exiting from a violent movie took longer to help than participants who either watched a nonviolent movie or had not yet watched any movie. These findings and several other high-quality experimental studies demonstrate that media violence desensitizes viewers to the pain and suffering of others and, consequently, reduces helping.

Similar effects have been observed among children and adolescents. For example, Saleem, Anderson, and Gentile (2012) randomly assigned 9- to 14-year-olds to play a violent, a neutral, or a prosocial video game. Next, a puzzle task was used for measuring aggression and helping. In this task participants are asked to assign a set of tangram puzzles to a supposed partner, who has to solve them in 10 minutes in order to win a prize. Participants can choose to assign easy, moderately complex, or very difficult puzzles. The number of hard puzzles chosen constitutes a measure of aggression (it harms the other person by making it very hard or impossible to win the prize), whereas the number of easy puzzles is seen as a type of helping behavior. As expected, participants who had just played a violent game made more aggressive choices, whereas participants who had played a prosocial game made more prosocial choices.

Cross-sectional correlational and longitudinal studies

Both cross-sectional correlational studies and longitudinal studies offer evidence of how media violence influences antisocial outcomes and prosocial outcomes in the
long term. Cross-sectional correlational studies examine associations between media violence use and various outcomes at a single point in time. A key advantage of correlational studies is that real-world outcomes can be assessed that could not be observed in laboratory experiments because of ethical concerns; these outcomes include both low-level aggression and extreme violent behavior (such as assaults and juvenile delinquency).

For example, DeLisi et al. (2013) examined how violent video game play habits relate to antisocial behavior among institutionalized juvenile delinquents. A sample of 227 adolescent juvenile offenders participated in structured interviews that contained questions concerning their violent and nonviolent delinquent offenses (such as stealing, carrying a weapon, or attacking someone), violent and nonviolent video game use, and enjoyment, sociodemographic characteristics, and psychopathy (a personality disorder strongly linked to criminal and violent behavior and characterized by traits such as callousness, remorselessness, and impulsiveness). Data analyses revealed that violent video game play habits were a significant predictor of both delinquency and violent behavior, even when psychopathic traits and a range of sociodemographic characteristics were statistically controlled for. In other words, the study found a significant link between exposure to video game violence and violent behavior that was not just a spurious relationship caused by psychopathic traits, gender differences, or other sociodemographic characteristics. These results represent evidence that violent media use may contribute to severe forms of aggressiveness in real life.

A notable limitation of cross-sectional studies is that this kind of research, by itself, does not clearly establish the direction of the relationship between media violence use and other variables. Such studies cannot distinguish between socialization effects (media violence influencing aggression and other social outcomes), selection effects (aggressive individuals choosing to consume more violent media), and bidirectional effects (in which both socialization and selection effects occur, producing a downward spiral). Longitudinal studies address this limitation by examining relationships between media violence use and other variables over time. In one of the most extensive studies of this type, Huesmann et al. (2003) followed a sample of first- and third-grade children into their middle twenties. Children's exposure to violent television at the ages of 6 to 10 was examined as a predictor of adult aggressive behavior 15 years later. Researchers conducted interviews with participants, their spouses, and their friends and also collected archival state data as an objective measure of criminal behavior. Results showed that children who viewed more TV violence showed significantly more aggressive behavior as adults, including extreme violent behaviors. For instance, men who watched large amounts of violent television as children were almost twice as likely to have assaulted their spouses 15 years later and were 18% more likely to have threatened someone with a knife or gun. Importantly, exposure to violent television in childhood remained a significant predictor of adult aggressive behavior even when effects of early intellectual ability and of socioeconomic status and a range of parenting factors were statistically controlled for. Similar effects of media violence were found for both men and women and for both aggressive and nonaggressive individuals, showing evidence that no group is invulnerable to violent media effects.
Several cross-sectional and longitudinal studies have clarified some of the mechanisms through which long-term media violence use leads to an increased risk of aggression. Social cognitive models of aggressive behavior, including the GAM (Anderson & Bushman, 2002b; Anderson & Carnagey, 2014), predict that long-term media violence effects on aggression are mediated by changes in both aggressive cognitions (such as beliefs that aggression is normative and appropriate) and affective functioning (such as increased trait hostility and desensitization to violence). Research offers evidence in support of both of these mediating mechanisms.

For instance, Bartholow, Sestir, and Davis (2005, Study 1) used cross-sectional methods to explore mechanisms linking the experience of playing violent video games with increased aggression. A sample of 200 young adult men filled out measures of video game habits, aggressive behavior, and personality traits. Long-term violent video game use was found to predict increased aggressive behavior, and this relationship was mediated by several traits indicative of desensitization to violence (decreased empathy and increased hostile personality characteristics).

A recent longitudinal study by Gentile et al. (2014) suggests that cognitive factors (such as hostile perceptions or beliefs that violence is normal and acceptable) may be an even more important route to the influence of media violence on aggression than are affective factors. In this study a sample of 3,034 children from Singapore were measured three times over a period of 2 years. Children gave self-reports of their media use habits, aggressive behavior, empathy, and aggressive cognitions (normative beliefs about aggression, aggressive fantasies, and hostile attributions). Violent video game play predicted increased aggressive behavior over time even when initial levels of aggressive behavior and sociodemographic characteristics were statistically controlled for. The effect of violent video game use on later aggression was mediated primarily by aggressive cognitions, not by trait empathy. These findings suggest that media violence increases aggressive tendencies in the long run primarily by teaching aggressive thinking, though other potential affective routes remain to be tested in future research.

Finally, a recent cross-sectional study by Swing and Anderson (2014) produced initial evidence of an additional mechanism through which violent media use increases aggression: increased attention problems and impulsiveness. In this study, a sample of 422 young adults completed measures of violent media use, aggressive behavior, several established processes that underlie media violence effects on aggression (aggressive beliefs and schemata, trait anger and hostility) as well as measures of proposed new mediators (attention problems and impulsiveness). Both the total time spent using screen-based media and violent media use were associated with significantly more aggressive cognitions, anger and hostility, and attention problems and impulsiveness. Aggressive cognitions and affect, attention problems and impulsiveness predicted more aggressive behavior. Mediation analyses revealed a significant effect of media violence on aggression through increased attention problems and impulsiveness. Interestingly, this mediated effect was significant for impulsive aggression (e.g., “When angry, I reacted without thinking”), but not for premeditated aggression (e.g., “Sometimes I purposely delayed acts until a later time”). Further experimental and longitudinal
research is needed to show whether the effects found in this study are causal. Nonetheless, these initial findings point to attention problems and impulsiveness as a possible key mechanism in the media violence effects of aggression, especially impulsive aggression.

A different line of research demonstrates that long-term media use decreases prosocial outcomes and elucidates the mechanisms underlying these effects. For example, Gentile and colleagues (2009) used both cross-sectional and longitudinal methods to examine long-term effects of violent and prosocial media use on prosocial behavior. The cross-sectional study measured video gaming habits and several prosocial and antisocial outcomes in a sample of Singaporean school children. Violent video game use was positively associated with hostile attribution bias and negatively related to helping behavior. Importantly, prosocial video game play (which involves character acting in kind, helpful, and cooperative ways) had opposite effects, increasing prosocial outcomes while decreasing antisocial outcomes. The longitudinal study tracked video game habits and prosocial behavior in a sample of Japanese children and adolescents. Measures were obtained in two waves (about 3 to 4 months apart). Statistical analyses revealed that playing more violent games at time 1 led to subsequent decreases in helping and increases in hostile attributions at time 2. In contrast, prosocial video game play at time 1 contributed to increased helping and decreased hostile attributions at time 2. These findings clearly demonstrate that media violence can undercut prosocial behavior in the long term and highlight the fact that prosocial media can have equally powerful positive effects.

Meta-analytic reviews

Meta-analyses statistically combine effect sizes from a number of empirical studies that test the same hypothesis. Thus meta-analyses can provide an objective estimate of the typical strength of an effect found across studies, its variability, its statistical significance, and the variables that moderate it. For example, one can get a good estimate of the average size of the effect of violent video game play on aggressive behavior and can further test whether that effect is bigger, smaller, or about the same size for males and females.

The existence of significant media violence effects on antisocial and prosocial outcomes has been confirmed by a series of meta-analytic reviews. A few years ago, Anderson and colleagues (2010) conducted the most comprehensive meta-analysis of violent video game effects to date. The meta-analysis examined effects of violent video games on six outcomes (aggressive behavior, aggressive cognition, aggressive affect, physiological arousal, empathy/desensitization, and prosocial behavior). The authors combined 381 effect sizes from 136 published and unpublished papers in a total sample of over 130,000 participants. A subsample of studies that met all best practice criteria of methodological quality contained 221 effect sizes with a total of 61,000 participants. The results of this subsample of methodologically superior studies were summarized in a table (Table 1 in the original 2010 article). Even analyses of the results of the poorer quality studies yielded very similar findings (see the article itself for details). Significant effects of violent video game play were found on all six outcomes.
clearly demonstrated that playing violent video games increases aggressive behavior, aggressive cognitions, aggressive affect, and physiological arousal while also decreasing empathy and prosocial behavior. This pattern of results was replicated across different research designs, thereby demonstrating that violent video games effect important psychological and behavioral outcomes in the current situation (which is registered in experimental studies) and over time (which is registered in cross-sectional and longitudinal studies). Further analyses of moderating variables revealed that violent video game effects are similar for both males and females, for younger and older participants, and for participants from Western cultures (e.g., the United States) and from Eastern cultures (e.g., Japan). Numerous meta-analyses of other types of media violence have similarly yielded consistently harmful effects (e.g., Anderson & Bushman, 2002a). These findings leave little doubt that violent media act as a risk factor for aggression.

Greitemeyer and Mügge (2014) have replicated these results in a smaller sample of new studies published after 2008. Importantly, this meta-analysis simultaneously examined effects of violent video games and effects of prosocial video games in which characters act in kind, caring, or cooperative ways. In conformity with the results of Anderson and colleagues (2010), the new meta-analysis by Greitemeyer and Mügge (2014) showed that violent video games increase aggressive behavior and aggression-related outcomes while also decreasing prosocial outcomes. Prosocial video games had the opposite effects, fostering prosocial outcomes and reducing antisocial outcomes. This study demonstrates yet again that media content matters: just as violent media teach aggressive patterns of thinking, affect, and behavior, prosocial media teach empathy and prosocial behavior.

Media effects on aggression and related outcomes tend to be small to moderate in size, which leads some critics to dismiss them as trivial. However, it is important to keep in mind that the size of media violence effects is actually similar to that of effects of many other established risk factors for aggression, such as substance use, living in a violent neighborhood, and abusive parenting. None of these factors can be considered “the” single or most important cause of aggressive and violent behavior, mainly because antisocial behavior is multidetermined. That is, each risk factor causes a small but significant increase in the risk of later aggressive behavior. When effects of a risk factor accumulate over a period of time and when a large percentage of the population is exposed to that factor (as in the case of media violence), even small effect sizes lead to significant consequences for individuals and for our society.

Effects of media portrayals of relational aggression

Though most media violence research has focused on physical forms of aggression both in the type of media violence portrayed and in the type of aggressive behavior assessed in consumers, a growing body of research examines the effects of viewing nonphysical forms of aggression in the media. Most of this research has focused on relational aggression, defined as behavior intended to manipulate or harm another person’s relationships or social standing in the group (e.g., gossiping, spreading rumors, causing social exclusion; Archer & Coyne, 2005).
Relational aggression is commonly represented in the media but is frequently not thought of by the producers, consumers, or regulators of media content as “media violence.” Content analyses reveal that this type of behavior features frequently in various media, for example in TV programs, novels, and films that are popular among adolescents, prime-time television, children’s TV programs, and Disney films (see Coyne & Stockdale, 2014, for a review). Relational aggression is typically portrayed as normative, justified, and consequence-free, aggressors being often presented as popular, attractive, and powerful (e.g., Coyne & Archer, 2004; Martins & Wilson, 2012). Unfortunately the media paint a picture far removed from reality: Relational aggression can be extraordinarily harmful, as victims report a host of social, psychological, and emotional problems (e.g., Crick & Grotpeter, 1995) that sometimes lead to suicide.

As in the case of media violence studies, research has found that viewing relational aggression can influence attitudes, cognitions, and relationally aggressive behavior. For example, Coyne, Archer, and Eslea (2004) found that British adolescents who viewed relational aggression in the media were more relationally aggressive toward a male confederate of the experimenter in a laboratory study, specifically trying to get him fired from his job. Other research has examined the long-term bidirectional relationships between relational aggression and the media. Coyne (2016) found that viewing relational aggression on television in early adolescence was associated with relational aggression 2 years later, even after controlling for initial levels of aggression. Notably, the opposite was not true: Early levels of relational aggression did not predict future viewing of relational aggression. This suggests that the relationship between relational aggression in the real world and exposure to relational aggression in the media is primarily a socialization effect.

Crossover effects of media violence on different forms of aggression

Though most media violence studies have examined the effects of physical media violence on subsequent physical aggression, it is possible that there are crossover effects, in which viewing one form of media aggression may influence the development of other forms of actual aggression (Coyne et al., 2008). According to the GAM (Anderson & Bushman, 2002a), viewing media violence can influence a person’s cognitions, affect, and arousal, in effect priming the individual for aggression (short-term effects) and creating highly accessible and general knowledge structures for aggression over time (long-term effects). However, the vast majority of individuals do not play a violent video game (in which they murder, rape, and maim hundreds of game characters), finish playing the game, and then rush out to murder, rape, and maim real people. Such behavior would be viewed as unacceptable in our society and would have serious consequences for the aggressor. Indeed gamers and the industry frequently point to this supposed “gap” as evidence that violent games do not have any harmful effects on later aggression or violence. Nonetheless, the overwhelming research evidence shows that violent media do cause an increased likelihood of later aggressive and violent behavior, most of which is of a specific form that is not directly taught by the violent media. To be sure,
there are many instances of copycat violence, in which a real violent crime is directly modeled on a specific violent media product. But these cases are relatively rare.

Given that individuals who are exposed to media violence may be primed for aggressive behavior and that they see the world in ways that encourage solving potential conflicts by attacking other people, there is considerable room for them to generalize or extend such solutions well beyond the specific behaviors modeled by violent media. In the real world, then, people may choose a more socially sanctioned form of aggression to solve their problems, one that likely will not result in being incarcerated, or one that they believe they can carry out successfully. Such aggression could consist of relational, verbal, or other nonphysical forms of aggressive behavior and could incorporate less severe forms of physical aggression (e.g., hitting instead of shooting).

A number of studies suggest that crossover effects exist. Research shows that viewing media violence can influence subsequent relational aggression (see Coyne & Stockdale, 2014, for a review). This research includes one longitudinal study spanning 15 years in length (Huesmann, et al., 2003). Its results may answer one common criticism from media violence skeptics: Why do so many individuals play violent video games, yet so few commit violent crimes? Media violence does influence aggressive behavior; however, the aggression is not necessarily physical or immediate in every case.

A few studies suggest a crossover effect of viewing relational aggression in the media, though this effect is generally not as strong as in the case of physical media violence. In an experimental study, Coyne et al. (2008) found that exposure to relational aggression in the media was associated with increased physical as well as relational aggression. This effect may be of a long-term nature, as Coyne (2016) found that viewing relational aggression in the media was associated with manifestations of physical aggression 2 years later.

In sum, there are many effects of viewing media violence. Though a strong body of research suggests that viewing physical violence in the media has a direct effect on subsequent physical aggression, the effect is not limited to physical forms of violence. Study of crossover effects and nonphysical forms of aggression will help researchers understand the wider impact of viewing aggression in the media.

**Violent stereotypes**

Media violence can be especially harmful when coupled with negative stereotypical portrayals of racial, ethnic, and religious minority groups. For instance, blacks are over-represented as criminals on news programs in the United States (Dixon, 2008). What is more, black characters are often linked with violence and criminality in US movies, TV shows, and video games. Muslim characters are almost always portrayed as terrorists across several different media types.

The GAM offers clear predictions concerning how such negative stereotypical portrayals in the media influence consumers: They help create and perpetuate negative stereotypes. One aspect of the GAM views media use as a series of learning trials in which specific concepts are activated. When concepts are frequently activated together, they become associated or interconnected in memory and form highly accessible
knowledge structures. For example, every time a person watches a movie scene in which a Muslim character is shown as a terrorist, this activates and reinforces the link between Muslims and terrorism, strengthening the stereotype of Muslims as violent and dangerous.

Short-term experimental studies support these predictions. For example, Saleem and Anderson (2013) conducted two experiments in order to examine how playing a video game in which Arabs are terrorists influences both implicit and explicit negative attitudes toward Arabs. In Study 1, playing a stereotypical terrorism-themed video game generated more negative attitudes, both implicit and explicit, toward Muslims; these attitudes were measured immediately afterward. Even after playing a terrorism-themed game that had Russian but no Arab terrorists, participants were more likely to endorse negative statements about Muslims such as “Arabs/Muslims tend to be fanatical” and “Most of the terrorists in the world today are Arabs/Muslims”—which demonstrates explicit negative attitudes toward Arabs and Muslims. Participants were also faster at linking Arab names with negative words and were more likely to draw pictures of a “typical” Arab man as a person who would display negative affect and would hold a weapon; thus participants demonstrated greater implicit bias. Study 2 replicated these results and revealed that playing a terrorism-themed video game caused participants to display more negative attitudes and affect toward Arabs and Muslims than did playing a nonviolent game. Interestingly, playing violent games without the theme of terrorism and without Arab characters did not increase anti-Arab attitudes.

Cross-sectional correlational studies suggest that long-term exposure to negative stereotypes in the media has lasting effects on attitudes toward stereotyped groups. For example, Dixon (2008) conducted a survey study designed to examine how exposure to news that overrepresents blacks as criminals relates to people’s perceptions of blacks. Participants who reported habitually watching crime news expressed more concern about crime, perceived blacks as more violent, and gave harsher culpability ratings to a hypothetical black suspect (but not to a white suspect). Other research has found that non-Muslim Americans’ exposure to news that shows Muslims as terrorists increases support for aggressive public policies against Muslim immigrants and Muslim Americans (Saleem et al., 2015).

These findings leave little doubt that violent stereotypes that occur in the media about minority groups have both immediate and long-term negative effects on aggressive attitudes, affect, and behaviors toward the groups in question.

**Cyberbullying**

Thus far, the entry has discussed research that highlights media content effects; however, there are other avenues for the media to be related to aggression. Although the media can be a source of aggressive content, individuals can also use them as the tool for harm. Cyberbullying is defined as harming another repeatedly by electronic means (Tokunaga, 2010) and has become a worldwide social problem. As technology continues to become more sophisticated, media converge, the world becomes more “wired,”
and youth have more access to the Internet, it is likely that cyberbullying will continue to concern parents, teachers, and scientists alike.

Most of the research has examined the psychological and behavioral consequences of being cybervictimized. In line with the traditional bullying literature, countless studies have shown that cybervictims are psychologically harmed as a result of online attacks. Indeed, research has shown that cybervictimization is positively correlated with fear, depression, and suicide ideation (Hinduja & Patchin, 2010)—among other consequences. However, one criticism in this domain is raised around the theoretical and statistical overlap between cyber- and traditional victimization frequency, which casts doubt on the incremental validity of cybervictimization effects.

There have been several theoretical developments in and around the early 2010s that have elucidated the learning processes that underlie the perpetration of cyberbullying. Barlett and Gentile (2012) proposed a theoretical model derived from broader learning (Gentile et al., 2009) and aggression (Anderson & Bushman, 2002b) theories in order to predict cyberbullying frequency. Focusing on the differences between cyber- and traditional bullying, Barlett and Gentile (2012) posited that, after each successful cyberbullying action, the aggressor likely learns that s/he is anonymous and that the physical power differential observed in the real world is of less concern in the mediated world. Eventually, after several cyberbullying actions, the beliefs about anonymity and the lack of concern for the power differential becomes automatic and leads to the formation of positive attitudes toward cyberbullying, which in turn predict cyberbullying behavior.

Support for this model has been found in myriad studies. For instance, Barlett, Gentile, and Chew (2016) longitudinally showed that perceived anonymity at wave 1 predicted positive attitudes toward cyberbullying at wave 2, which predicted cyberbullying frequency at wave 3—a process that demonstrates the mediated learning effect—in an emerging adult sample. Additionally, Barlett and Gentile (2012) showed that the lack of concern about the strength differential was directly and indirectly related to cyberbullying frequency through the formation of positive attitudes toward cyberbullying. This model is parsimonious, highlights the differences between cyber- and traditional bullying, draws on existing learning theories, and has a body of research in its support.

There is a paucity of research testing the relations between using the media to cause harm and watching the media deliver violent content. Fanti, Demetriou, and Hawa (2012) used a longitudinal design to measure cyberbullying frequency, cybervictimization, and media violence exposure at wave 1 and cyberbullying perpetration and victimization at wave 2, approximately 1 year later. Results showed that media violence exposure predicted cyberbullying frequency longitudinally. However, caution is warranted with these effects, because other spurious variables (e.g., trait aggression) may account for variance in both media violence exposure and cyberbullying frequency. Additionally, we are unaware of any pro-cyberbullying TV programs, movies, or video games that model and positively reinforce cyberbullying behavior; however, this is an area of research that needs empirical attention.
Conclusion

Violent content is ubiquitous in modern media, be it in the form of portrayals of physical aggression and violence, relational aggression, violent stereotypes, or cyberbullying. Media executives, members of the general public, and even some researchers have hypothesized that violent media might help lower societal levels of aggression and violence by allowing people to “vent” their aggressive impulses. Research evidence has conclusively shown that this hypothesis is incorrect. Instead of helping lower aggression, violent media increase it.

A large and consistent research literature accumulated over the past 60 years clearly demonstrates that violent media content causes increased aggressive affect, cognitions, and behavior, in combination with decreased empathy and prosocial behaviors (Anderson et al., 2003, 2010). These effects occur both immediately and over time, shaping the development of aggressive tendencies from childhood to adulthood (Huesmann et al., 2003). Media violence may be especially detrimental when coupled with negative stereotypical depictions of ethnic, racial, or religious minority groups that build and reinforce viewers’ negative attitudes and behaviors toward the groups in question (Saleem & Anderson, 2013). Although studies examining media violence effects have mainly focused on portrayals of physical aggression and violence, there is growing research interest in the effects of portrayals of relational aggression and in the causes and consequences of cyberbullying.

Overall, this research literature clearly demonstrates that the effects of violent media are not trivial and should not be ignored. The same processes of priming and social learning through which people learn from real-life experiences also account for the powerful effects of media content on thoughts, affect, and behavior. No group is immune to such effects: Violent media influence both children and adults, both men and women, both aggressive and nonaggressive individuals, both people from Eastern and people from Western cultures. Although media violence effects tend to be small, given the fact that many children and adults spend large amounts of time consuming media violence, small effects accumulate and can exert a large influence on individuals and on our society at large.

SEE ALSO: Agenda-Setting: Individual-Level Effects Versus Aggregate-Level Effects; Content Effects: Online and Offline Games; Cultivation Theory: Idea, Topical Fields, and Methodology; Cyberbullying; General Aggression Model; Media Representation: Minorities; Media Representation: Racial and Ethnic Stereotypes; Priming; Prosocial Media Use and Effects; Reinforcing Spirals Model; Risk Perception as Media Effect; Social Learning Theory and Social Cognitive Theory; Socialization as Media Effect; Stigma: Media Influence on

References


**Further reading**


Sara Prot completed her PhD at Iowa State University, USA. Her research expertise is in social psychology, with an emphasis on processes underlying media effects, prosocial behavior, and aggressive behavior. Her work has been guided by the theoretical framework of the general aggression model and general learning model.

Craig A. Anderson gained his PhD in social psychology from Stanford University, USA, in 1980 and is Distinguished Professor of Psychology at Iowa State University, USA. He has published over 200 works and is widely cited in textbooks and the scientific literature. His book Violent Video Game Effects on Children and Adolescents (with Doug Gentile and Katherine Buckley, 2007) included the first longitudinal study of this topic. His general aggression model has been applied to clinical, social, personality, and developmental psychology; pediatrics; criminology; and war and climate change; among other fields.

Christopher P. Barlett is assistant professor in the Psychology Department at Gettysburg College, USA. His expertise is in the area of aggression and cyberbullying. Specifically, Dr. Barlett’s work focuses on identifying the situational and personality predictors of aggressive behaviors (including cyberbullying frequency) and the methods by which we reduce aggression. Dr. Barlett’s work has been recently published in Aggressive Behavior, Emerging Adulthood, Journal of Adolescence, Personality and Social Psychology Bulletin, Psychology of Popular Media Culture, and Psychology of Violence.

Sarah M. Coyne is associate professor of human development in the School of Family Life at Brigham Young University, USA. Her research interests involve media, aggression, gender, and child development.

Muniba Saleem is assistant professor in the Department of Communication Studies and faculty associate at the Institute for Social Research, both at the University of Michigan, USA. Dr. Saleem’s research explores the role of media in interpersonal and intergroup conflicts. In the domain of interpersonal conflict, Dr. Saleem has explored how media violence can influence aggression and reduce prosocial behaviors. In the domain of intergroup conflict, Dr. Saleem has explored the role of media stereotypes in influencing aggressive perception and aggressive behaviors toward depicted groups.