

Does Exposure to Violence in Entertainment Media Make People Aggressive?¹

TOBIAS ROTHMUND, MALTE ELSON, MARKUS APPEL, JULIA KNEER,
JAN PFETSCH, FRANK M. SCHNEIDER & CARMEN ZAHN

An expert commission of seven media psychologists was put together by the Media Psychology Section of *Deutsche Gesellschaft für Psychologie* (German Psychological Society) in 2013. The task of this commission was to summarize the current state of research on whether exposure to violence in entertainment media can make people aggressive. The commission addressed questions such as the following: Why do people find violence entertaining? Is it possible to effectively observe or measure the effect of media violence? Does violence in entertainment media affect the thoughts, feelings and behaviour of recipients? Can violence in entertainment media turn persons into perpetrators of violence? In the present chapter, we give an overview about the results of the commission's work that was published online in 2015. We also discuss challenges and insights that arose from the commission work in which scientists with different readings of the state of research were developing a common understanding.

1 This text is translated from a German version that was published in 2015 on www.spektrum.de/mediengewalt: Rothmund, T., Elson, M., Appel, M., Kneer, J., Pfetsch, J., Schneider, F. M. & Zahn, C. (2015). Macht Gewalt in Unterhaltungsmedien aggressiv? *Gehirn und Geist*, 10, 28-35. The translated text was not revised or adapted and reflects the authors' evaluation of the state of research at the time of the original publication.

WHAT DO WE MEAN WHEN WE TALK ABOUT VIOLENCE IN ENTERTAINMENT MEDIA?

Movies and computer games feature fighting and murder; news programs report on war and terror; in social networks individuals insult and denigrate each other on a daily basis. These are all examples of violent acts portrayed or carried out in mass media.

We define entertainment media as media contents that individuals mainly use because they hope to derive pleasure or distraction from them – for example, novels, TV and cinema films, music, or computer games [1]. We distinguish entertainment media from news media (reports of violence, for example, on wars and unrest) and from other communication media (for instance, cell phone videos), which are explicitly not included in this report. The topic has been restricted in this way because the potential dangers of violence in entertainment media, for example in films and especially in computer games, have repeatedly been a matter of public debate in recent years. Although this topic has also been the object of extensive research, the debate is often rather one-sided and includes only parts of the research.

In psychology, the term *violence* is used to describe specific forms of aggression that result in severe physical damage, which can range from bleeding wounds to broken bones, and even death. In general, however, the term aggression refers to behaviour conducted with the intention of harming or injuring another living creature [2].

The portrayal of violence in entertainment media is embedded in more or less fictional stories and can be realistic (such as a brawl in the German police television series *Tatort*) or artistically distorted (a battle against a dragon in an online role play).

- [1] Reinecke, L. & Trepte, S. (2012). *Unterhaltung in neuen Medien* [Entertainment in new media]. Köln: Herbert von Halem.
- [2] Krahé, B. (2007). Aggression [Aggression]. In K. Jonas, W. Stroebe & M. R. C. Hewstone (Eds), *Sozialpsychologie. Eine Einführung* (pp. 265-294). Heidelberg: Springer. doi:10.1007/978-3-540-71633-4_8

HOW WIDESPREAD ARE VIOLENT IMAGES IN ENTERTAINMENT MEDIA?

This question can be examined from two angles: On the one hand in terms of supply: How much violence is there in entertainment media? On the other hand in terms of usage: Who consumes these genres and how often?

Researchers apply content analysis methodology to explore the quantity of violent content in the media. To this end, they investigate a selection of media contributions that is as representative as possible to determine whether they contain violent images. According to such an analysis of the German television program in 2005 published by Petra Grimm and colleagues, about 58 per cent of all programs analysed featured at least one violent scene. However, in this analysis, the researchers investigated not only entertainment content but also news programs and also classified accidents and natural disasters as depictions of violence. The segments with violent content accounted for only 2.6 per cent (i.e. 30 hours) of the total sample of 1,162 hours of broadcast footage investigated.

When analysing a thriller, for example, only the duration of the murder scene was classified as violent, but not the entire thriller [1]. Thus, depending on the approach adopted, the proportion of violence can either be seen as high (two-thirds of all programs) or as relatively low (1/40 of airtime). It is even more difficult to determine the prevalence of depictions of violence in computer games because the game content is not generally static, but influenced by the behaviour of the player. In general terms, we can conclude that the share of violence in media content varies greatly depending on the methodologies used.

Researchers conduct studies to find out who uses media contents featuring violence as well as how these contents are used and how often. For example, they try to determine the extent to which violent media contents are used by potentially vulnerable target groups such as children and adolescents. In the 2014 *KIM study*, one in five children aged six to thirteen years stated that they had previously seen TV contents that they did not feel to be child-friendly. Alongside violent images, the participants also named scary and sexual scenes [2]. When using the Internet, 14 per cent of the respondents had already come across contents that were unsuitable for them. In the 2014 *JIM study*, 71 per cent of twelve to nineteen-year-olds reported that their friends played violent computer games [3] and 43 per cent reported that they also used such games. Research has shown that boys and men use media featuring violent content far more frequently than girls and women (see next question). Furthermore, individuals who report that they have a tendency to be aggressive are more likely to consume corresponding media content [4].

- [1] Grimm, P., Kirste, K. & Weiss, J. (2005). *Gewalt zwischen Fakten und Fiktionen: Eine Untersuchung von Gewaltdarstellungen im Fernsehen unter besonderer Berücksichtigung ihres Realitäts- bzw. Fiktionalitätsgrades* [Violence between facts and fiction: An investigation of depictions of violence on television with particular regard to their degree of reality or fiction]. Berlin: Vistas.
- [2] Feierabend, S., Plankenhorn, T. & Rathgeb, T. (2014a). *KIM-Studie 2014. Kinder + Medien, Computer + Internet* [KIM study 2014. Children + media, computer + Internet]. Stuttgart: Medienpädagogischer Forschungsverbund Südwest. Retrieved from https://www.mpfs.de/fileamin/files/Studien/KIM/2014/KIM_Studie_2014.pdf
- [3] Feierabend, S., Plankenhorn, T. & Rathgeb, T. (2014b). *JIM-Studie 2014. Jugend, Information, (Multi-)Media* [JIM study 2014. Youth, information, (multi-)media]. Stuttgart: Medienpädagogischer Forschungsverbund Südwest. Retrieved from https://www.mpfs.de/fileadmin/files/Studien/JIM/2014/JIM_Studie_2014.pdf
- [4] Krcmar, M. & Kean, L. G. (2005). Uses and gratifications of media violence: Personality correlates of viewing and liking violent genres. *Media Psychology*, 7(4), 399-420. doi:10.1207/S1532785XMEP0704_5

WHY DO PEOPLE FIND VIOLENCE ENTERTAINING?

According to theories of media psychology, one of the reasons why individuals use media is to influence their own mood and to actively arouse emotional states [1]. For this reason, individuals generally select media content depending on the effect they are hoping it will have.

When exposed to violent media contents, they experience suspense and are physically and mentally activated, which recipients often find entertaining [2]. A viewer who strives to experience fear and adventure in this way is described as *sensation-seeking*. Sensation-seeking is a personality trait, which means that people differ fundamentally with regard to the amount of excitement and kicks they seek.

Computer games containing violence are also strongly characterized by competitive elements. They are about winning or losing and competing with others. Research findings indicate that this is an important incentive for using media of this kind. When playing the games, individuals feel effective, competent and independent. In this way, they can satisfy their fundamental need to be competent and autonomous [3].

On average, men strive more to experience suspense, are generally more competitive and tend to be more aggressive than women. This at least partly explains why men consume violent entertainment content more often than women [4][5]. The motives for using media of this kind, however, can vary considerably from one individual to another. In other words, individuals have different and specific reasons for why they find given media contents appealing or not.

- [1] Zillmann, D. (1988). Mood management: Using entertainment to full advantage. In L. Donohew, H. E. Sypher & E. T. Higgins (Eds), *Communication, social cognition, and affect* (pp. 147-171). Hillsdale, NJ: Lawrence Erlbaum Associates.
- [2] Hoffner, C. A. & Levine, K. J. (2005). Enjoyment of mediated fright and violence: A meta-analysis. *Media Psychology*, 7(2), 207-237. doi:10.1207/S1532785XMEP0702_5
- [3] Przybylski, A. K., Rigby, C. S. & Ryan, R. M. (2010). A motivational model of video game engagement. *Review of General Psychology*, 14(2), 154-166. doi:10.1037/a0019440
- [4] 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(1), 105-121. doi:10.1111/j.1460-2466.2003.tb03008.x
- [5] Hartmann, T. & Klimmt, C. (2006). Gender and computer games: Exploring females' dislikes. *Journal of Computer-Mediated Communication*, 11(4), 910-931. doi:10.1111/j.1083-6101.2006.00301.x

DOES VIOLENCE IN ENTERTAINMENT MEDIA AFFECT THE THOUGHTS, FEELINGS AND BEHAVIOUR OF RECIPIENTS?

Research on whether violence in entertainment programs influences media users has mainly been concerned with violence in films, television and computer games. Social scientific research on the effects of media violence dates back to the *Payne Fund Studies* of the 1930s. At that time, the focus was on cinema films. Between the 1950s and 1990s, scholars mainly explored the effect of violence in television [1]. In a *meta-analysis* published in 1994, US communication researchers Haejung Paik and George Comstock synthesized more than 200 studies on this question. Their analysis revealed a small to medium effect of film and TV contents containing violence on different indicators of antisocial behaviour or aggressive thoughts [2]. There have been no more recent meta-analyses on the impact of TV contents.

Since the 1980s, more than 200 studies on the impact of violence in computer games have been published in scientific journals. Meta-analyses of these studies have also identified a small to medium effect of depictions of violence on aggressive thoughts, feelings and behaviours [3][4][5][6].

Some scientists have questioned the meaningfulness of these meta-analyses. Their criticism is mainly related to the following points:

- a) according to some researchers, although the analyses have revealed short-term effects, there are not yet sufficient findings to identify long-term effects;
- b) the methodologies used to measure aggression in laboratories have, some scholars argue, little validity; and
- c) it is currently still not clear what the practical significance of the effects observed in the experiments and surveys are, in particular in terms of whether they explain real-world violent crimes.

These questions are a matter of debate within the scientific community [7][8]. In a survey published in 2014 which examined a sample of 239 communication researchers and 132 media psychologists, the majority of respondents agreed that violence in various entertainment media such as television, computer games, literature or music can favour aggressive behaviour [9].

Overall, according to the current state of research and the opinion of a majority of media researchers, depictions of violence in entertainment media can underpin the development of aggressive thoughts, feelings and actions. However, it is unclear what role this effect plays with regard to the occurrence of real-life violence.

- [1] Huesmann, L. R. & Miller, L. S. (1994). Long-term effects of repeated exposure to media violence in childhood. In L. R. Huesmann & L. S. Miller, *Aggressive Behavior*, (pp. 153-186). Boston, MA: Springer. doi:10.1007/978-1-4757-9116-7_7
- [2] Paik, H. & Comstock, G. (1994). The effects of television violence on antisocial behavior: A meta-analysis. *Communication Research*, 21(4), 516-546. doi:10.1177/009365094021004004
- [3] Ferguson, C. J. (2007). Evidence for publication bias in video game violence effects literature: A meta-analytic review. *Aggression and Violent Behavior*, 12(4), 470-482. doi:10.1016/j.avb.2007.01.001
- [4] Sherry, J. L. (2007). Violent video games and aggression: Why can't we find effects? In R. W. Preiss, B. M. Gayle, N. Burrell, M. Allen & J. Bryant (Eds), *Mass media effects research: Advances through meta-analysis* (pp. 245-262). Mahwah: Laurence Erlbaum.
- [5] Anderson, C. A., Shibuya, A., Ihori, N., Swing, E. L., Bushman, B. J., Sakamoto, A. & Saleem, M. (2010). Violent video game effects on aggression,

- empathy, and prosocial behaviour in eastern and western countries: A meta-analytic review. *Psychological Bulletin*, 136, 151-173. doi:10.1037/a0018251
- [6] Greitemeyer, T. & Mügge, D. O. (2014). Video games do affect social outcomes: A meta-analytic review of the effects of violent and prosocial video game play. *Personality and Social Psychology Bulletin*, 40(5), 578-589. doi:10.1177/0146167213520459
- [7] Elson, M. & Ferguson, C. J. (2014). Twenty-five years of research on violence in digital games and aggression: Empirical evidence, perspectives, and a debate gone astray. *European Psychologist*, 19, 33-46. doi:10.1027/1016-9040/a000147
- [8] Krahé, B. (2014). Restoring the spirit of fair play in the debate about violent video games: A comment on Elson and Ferguson. *European Psychologist*, 19, 56-59. doi:10.1027/1016-9040/a000165
- [9] Bushman, B. J., Gollwitzer, M. & Cruz, C. (2015). There is broad consensus: Media researchers agree that violent media increase aggression in children, and pediatricians and parents concur. *Psychology of Popular Media Culture*, 4(3), 200-214. doi:10.1037/ppm0000046

DOES THE EFFECT OF VIOLENT PORTRAYALS DEPEND ON THE MEDIUM?

In the past, researchers have explored violence in different media such as radio, cinema films, television and computer games. Their findings have been relatively consistent to date; all of these types of media have comparable effects on different signs of aggression. They have even shown that mere still images or single words (such as *fist* or *grenade*) can trigger aggressive thoughts and behaviours to a similar degree to complex and graphically realistic scenes of violence in films or computer games [1].

This finding is surprising because there are good reasons to assume that games containing violence stimulate aggressive behaviour to a greater extent than other media types, such as film and television. Indeed, users of computer games do not only perceive brutal contents passively, but also shape contents actively. Moreover, players are rewarded with points, victories or new equipment for the behaviour they trigger with the touch of a button. It is therefore plausible to assume that they are more likely to learn and adopt aggressive behaviours as a result. In addition, media users can identify more easily with a figure they control themselves

than with a character in a film or from the television – a factor that should also promote learning processes.

Overall, there are still too few studies that systematically compare the effect of violence in computer games with violence in other media. So far we can only conclude that there is not sufficient evidence to show that depictions of violence in computer games have a more harmful influence than violence in media viewed passively.

- [1] Anderson, C. A., Benjamin Jr, A. J. & Bartholow, B. D. (1998). Does the gun pull the trigger? Automatic priming effects of weapon pictures and weapon names. *Psychological Science*, 9(4), 308-314. doi:10.1111/1467-9280.00061

ARE SOME INDIVIDUALS ESPECIALLY VULNERABLE TO THE EFFECT OF VIOLENCE IN ENTERTAINMENT MEDIA?

An assumption that is frequently voiced is that exposure to violence in entertainment media is only problematic for some individuals. This statement can be understood in two different ways. One interpretation is that exposure to violent media only impacts some individuals negatively, whereas others are ‘immune’ to its effects. This could, for example, be because some individuals are not able to differentiate sufficiently between fiction and reality or that they are generally more sensitive to the effects of media than their contemporaries.

However, research findings tend to contradict this assumption. Indeed, it has been repeatedly shown that viewing violence affects an individual’s automatic processing, which cannot be consciously controlled and is similar for all individuals. For example, there are indications that a person is more likely to interpret ambiguous facial expressions as hostile after having used violent games [1]. In addition, depictions of violence do not have different average effects for different cultural groups (for example, in Japan compared to in Western nations), genders or ages of the participants in the study [2].

An alternative assumption is that violence in entertainment media only causes some people to behave in a physically aggressive manner. Psychology explains the occurrence of acts of violence with risk and protective factors. While risk factors raise the likelihood of such behaviour occurring, protective factors counteract it. With this in mind, the effect of violence in media as described above can only ever be understood as one puzzle piece which interacts with other risk factors to increase the probability of aggressive behaviour [3]. There are currently too few

scientific studies that enable us to evaluate the magnitude of the influence of violent media in relation to other, well-documented risk factors. These can be traits such as a high degree of neuroticism or low tolerance, for instance, or provocations experienced in specific situations, stress level, parental negligence and bad role models within the peer group. As a rule, the more risk factors that concur in an individual, the greater the danger that he or she will actually behave aggressively [4].

- [1] Kirsh, S. J., Mounts, J. R. & Olczak, P. V. (2006). Violent media consumption and the recognition of dynamic facial expressions. *Journal of Interpersonal Violence*, 21(5), 571-584. doi:10.1177/0886260506286840
- [2] Anderson, C. A., Shibuya, A., Ihori, N., Swing, E. L., Bushman, B. J., Sakamoto, A. & Saleem, M. (2010). Violent video game effects on aggression, empathy, and prosocial behaviour in eastern and western countries: A meta-analytic review. *Psychological Bulletin*, 136, 151-173. doi:10.1037/a0018251
- [3] Gentile, D. A. & Bushman, B. J. (2012). Reassessing media violence effects using a risk and resilience approach to understanding aggression. *Psychology of Popular Media Culture*, 1(3), 138-151. doi:10.1037/a0028481
- [4] Markey, P. M. & Markey, C. N. (2010). Vulnerability to violent video games: A review and integration of personality research. *Review of General Psychology*, 14(2), 82-91. doi:10.1037/a0019000

IS IT POSSIBLE TO EFFECTIVELY OBSERVE OR MEASURE THE EFFECT OF MEDIA VIOLENCE?

To explore the effect of media violence on aggressive behaviour, it is essential that behaviour is recorded precisely and reliably. There are a number of different approaches for doing this which have specific advantages and disadvantages. The most frequently used method is surveys. This involves researchers collecting information on how often somebody behaves aggressively or even criminally either from the individuals concerned or people who are close to them, for example, family members or teachers [1]. However, the underlying uncertainty of this method is that we do not know whether the respondents are able or want to answer correctly. Nevertheless, suitable interview instruments can capture individual differences in the inclination to aggressive behaviour.

Another option is to observe social interactions. Particularly in studies with children, however, it is not always easy to distinguish between serious aggression or violence and playful tussles and rampaging, for example in a cops-and-robbers

game. In spite of this, behavioural observation is the most convincing and valid indicator for aggression of all.

In laboratory experiments with adult test persons, researchers often simulate situations in which the participants have the possibility to harm another person. As ethical and legal boundaries are often encountered with experiments of this kind, researchers have developed methods that do not result in any serious impairment. For instance, they measure the amount of spicy sauce one test subject mixes in the meal of another [2], how many pins he or she sticks into a voodoo doll representing another person [3] or the volume settings of an unpleasant tone which somebody else allegedly has to listen to [4].

The suitability of this methodology for capturing the inclination to aggression in real social situations is currently a matter of heated debate. There is not yet sufficient convincing evidence that these methods can also predict everyday forms of violence [5]. It is therefore necessary to develop new methods for measuring aggression and also to more systematically investigate the reliability of the methods used to measure aggressive behaviour so far.

- [1] Krahé, B., Möller, I., Huesmann, L. R., Kirwil, L., Felber, J. & Berger, A. (2011). Desensitization to media violence: Links with habitual media violence exposure, aggressive cognitions, and aggressive behavior. *Journal of Personality and Social Psychology*, 100(4), 630-646. doi:10.1037/a0021711
- [2] Barlett, C., Branch, O., Rodeheffer, C. & Harris, R. (2009). How long do the short-term violent video game effects last? *Aggressive Behavior*, 35(3), 225-236. doi:10.1002/ab.20301
- [3] DeWall, C. N., Finkel, E. J., Lambert, N. M., Slotter, E. B., Bodenhausen, G. V., Pond Jr, R. S., Renzetti, C. M. & Fincham, F. D. (2013). The voodoo doll task: Introducing and validating a novel method for studying aggressive inclinations. *Aggressive Behavior*, 39(6), 419-439. doi:10.1002/ab.21496
- [4] Anderson, C. A. & Dill, K. E. (2000). Video games and aggressive thoughts, feelings, and behavior in the laboratory and in life. *Journal of personality and social psychology*, 78(4), 772-790. doi:10.1037/0022-3514.78.4.772
- [5] Ferguson, C. J. & Savage, J. (2012). Have recent studies addressed methodological issues raised by five decades of television violence research? A critical review. *Aggression and Violent Behavior*, 17(2), 129-139. doi:10.1016/j.avb.2011.11.001

CAN VIOLENCE IN ENTERTAINMENT MEDIA TURN PERSONS INTO PERPETRATORS OF VIOLENCE?

The effect of media violence is often discussed in the aftermath of serious acts of violence, in particular after school shootings. As a rule, public debate focuses on how such a tragedy could happen and whether media usage has an influence on adolescents turning into violent criminals. These questions can hardly be answered with conventional research methodologies because such acts of violence are extremely rare and their development can therefore only be explored in retrospect. Thus, the effects of violent media cannot be used to directly explain serious violent crimes. A review by criminologists Joanne Savage and Christina Yancey even suggests that the consumption of violent media has no direct influence on criminal behaviour [1].

There have been no findings to date showing that depictions of violence in media or expression of aggressive fantasies in computer games can have a key influence on whether an individual commits an act of violence.

Instead, we can assume that committing mass murder in schools, for example, is the outcome of a long-term, disordered development process [2]. Public humiliation, social rejection and fantasies of violence and revenge seem to play an important role. Personality disorders and access to weapons are deemed to be other risk factors [3].

It is difficult to investigate whether and to what extent the use of violent media causes individuals to develop fantasies of violence and put them into practice. There are, however, indications that violent criminals use media partly as a form of expression of their so-called *pre-delict* fantasies [4]. In other words, aggressive impulses are sometimes put into practice in the media world first, before an individual commits a real crime. However, there have been no findings to date that show that violent images in media or the expression of aggressive fantasies in computer games have a decisive influence that leads to a serious act of violence [5].

- [1] Savage, J. & Yancey, C. (2008). The effects of media violence exposure on criminal aggression: A meta-analysis. *Criminal Justice and Behavior*, 35(6), 772-791. doi:10.1177/0093854808316487
- [2] Levin, J. & Madfis, E. (2009). Mass murder at school and cumulative strain: A sequential model. *American Behavioral Scientist*, 52(9), 1227-1245. doi:10.1177/0002764209332543
- [3] Bondü, R. (2012). *School Shootings in Deutschland: Internationaler Vergleich, Warnsignale, Risikofaktoren, Entwicklungsverläufe* [School shootings

in Germany: International comparison, warning signals, risk factors, trajectories] (Doctoral dissertation, Freie Universität Berlin). Retrieved from http://www.diss.fu-berlin.de/diss/servlets/MCRFileNodeServlet/FUDISS_derivate_000000011902/Bondue_Dissertation_SchoolShootings_vollstaendig_fin.pdf?

- [4] Robertz, F. J. (2011). *Gewaltphantasien: Zwischen Welten und Wirklichkeiten* [Phantasies of violence: Between worlds and realities]. Frankfurt am Main: Verlag für Polizeiwissenschaften.
- [5] Ferguson, C. J. (2008). The school shooting/violent video game link: causal relationship or moral panic? *Journal of Investigative Psychology and Offender Profiling*, 5(1-2), 25-37.

WHY IS THE EFFECT OF MEDIA FEATURING VIOLENCE SO FREQUENTLY A SUBJECT OF CONTROVERSIAL DEBATE?

The debate about the harmful effect of media already started before televisions and computers became part of our everyday lives. In the first half of the 20th century, depictions of violence in radio broadcasts and comics were already criticized. Today, discussions on the topic among researchers, policy-makers and concerned parents are still extremely heated. In public, the debate about violence in media is dominated by strong convictions, concerns and fears. For example, older persons who have not grown up with computer games are afraid of the broader impact of the medium and, therefore, are in favour of more extensive state control than younger persons with gaming experience [1]. Persons who do not play themselves but have grown up with the medium tend to defend the use of violent computer games as they perceive them to be a contemporary activity and unproblematic hobby [2].

Furthermore, people tend to assess and interpret research findings differently depending on their own convictions. Those that believe that violent computer games lead to aggression view studies that support their opinion positively and dismiss studies with contradictory findings. Persons who do not believe violent computer games have this effect do the exact opposite. Due to these biased assessments, existing attitudes are reinforced rather than changed [3]. In addition, there is evidence that shows that computer gamers feel offended and stigmatized by research findings on the impact of violent media [4]. This emotional reaction partly explains why gamers are often excessively critical of research on the topic.

- [1] Przybylski, A. K. (2014). Who believes electronic games cause real world aggression? *Cyberpsychology, Behavior, and Social Networking*, 17(4), 228-234. doi.org/10.1089/cyber.2013.0245
- [2] Kneer, J., Munko, D., Glock, S. & Bente, G. (2012). Defending the doomed: Implicit strategies concerning protection of first-person shooter games. *Cyberpsychology, Behavior, and Social Networking*, 15(5), 251-256. doi:10.1089/cyber.2011.0583
- [3] Greitemeyer, T. (2014). I am right, you are wrong: How biased assimilation increases the perceived gap between believers and skeptics of violent video game effects. *PLoS one*, 9(4), e93440. doi:10.1371/journal.pone.0093440
- [4] Nauroth, P., Gollwitzer, M., Bender, J. & Rothmund, T. (2014). Gamers against science: The case of the violent video games debate. *European Journal of Social Psychology*, 44(2), 104-116. doi:10.1002/ejsp.1998

HOW SHOULD PARENTS AND EDUCATORS DEAL WITH VIOLENCE IN MEDIA?

The public discussion about the impact of media violence has given rise to concern among many parents and educators. For this reason, it is essential that the advantages and disadvantages of media usage are assessed in a critical and balanced manner [1]. It is neither realistic nor desirable to generally prohibit the consumption of violent contents. On the one hand, contents of this kind are particularly widespread and attractive among male youths (see below *Why do people find violence in media entertaining?*). There are even indications that bans and age restrictions might boost the appeal of such media content and thus have the opposite effect than intended [2].

On the other hand, children and youths cannot learn to deal with such contents critically if they are not exposed to them. It makes more sense for them to constructively and critically examine their media usage as a whole and, more specifically, violence in a process that is supervised by educators (cf. [3]). We would like to present four important points in this context: resource orientation, role model function, monitoring media usage and media education.

Resource Orientation

As previously explained, violence in media can be understood as a risk factor that leads to aggression. At the same time, however, there are a large number of protective mechanisms that make violent behaviour less likely. It might therefore be

beneficial to focus on reinforcing these resources. If an individual is excessively confrontational with an adolescent or regards using such media as taboo, he or she runs the risk of forfeiting important protective factors, such as the relationship of trust with the adolescent. This can, in turn, raise the risk of aggressive behaviour. Positive relationships with parents and other adults, on the other hand, reduce aggression.

From the age of twelve to thirteen years, adolescents start to use media independently. During this phase, collective, critical reflection on contents plays an increasingly important role, together with trust in the competences of adolescents.

Role Model Function

Parents and educators can set a good or a bad example in two respects. If they frequently consume media featuring violence and are not critical of images of aggression themselves, this is likely to favour similar attitudes and preferences in children and adolescents [4]. The way adults deal with conflicts in real life also plays an important role. Non-violent social behaviour shaped by mutual respect is a significant protective factor.

Monitoring Media Usage

There are many approaches that educators can adapt to violence in media [5] [6]. One way of protecting youths and children is to set limits on media usage with regard to content and time. This involves forbidding specific TV programs and computer games or monitoring the time children spend using specific media with time accounts.

Concepts based on educating users and fostering constructive reflection, on the other hand, aim to promote media literacy. These are understood as the ability to reflect on one's own responsibility for media usage [7][8]. When adolescents and educators experience media together, it is an opportunity to discuss problematic personal experiences and analyse them critically [9] [10].

Depending on the age and stage of development of the user, the following strategies are recommended [11]: it is essential that younger children experience media together with adults. For this reason, televisions and computers should be installed in the lounge and not in children's bedrooms. Furthermore, it makes sense to establish rules, such as time limits and restrictions to media that are suitable for the age of the user. From the age of twelve to thirteen years, youths start to use media independently. During this phase, collective, critical reflection on

contents plays an increasingly important role, together with trust in the competences of youths. On the whole, research has shown that talking to children about their media experience in a manner that is appropriate for their age leads to well-reflected processing of violent contents [12].

Media Education

Up until now, there have been few large-scale educational programs with relevant accompanying studies that aim to prevent the negative impact of violent media contents on children and adolescents [13]. A German-language program achieved initial success [14]. According to a study by Ingrid Möller and colleagues in 2012, it resulted in participants examining their media usage habits critically and, in general, consuming fewer violent media contents. Adolescents with a higher inclination to violence before the program showed a lower acceptance of aggressive behaviours and fewer physical and social forms of violence after the training [15].

In summary, parents and other educators influence the way children and adolescents deal with media and can support their development in particular with regard to the effect of violent contents.

- [1] Appel, M. & Schreiner, C. (2014). Digitale Demenz? Mythen und wissenschaftliche Befundlage zur Auswirkung von Internetnutzung [Digital dementia? Myths and current state of scientific findings on the effects of Internet use]. *Psychologische Rundschau*, 65, 1-10. doi:10.1026/0033-3042/a000186
- [2] Bijvank, M. N., Konijn, E. A., Bushman, B. J. & Roelofsma, P. H. (2009). Age and violent-content labels make video games forbidden fruits for youth. *Pediatrics*, 123(3), 870-876. doi:10.1542/peds.2008-0601
- [3] Zahn, C., Schaeffeler, N., Giel, K. E., Wessel, D., Thiel, A., Zipfel, S. & Hesse, F. W. (2014). Video clips for YouTube: Collaborative video creation as an educational concept for knowledge acquisition and attitude change related to obesity stigmatization. *Education and Information Technologies*, 19(3), 603-621. doi:10.1007/s10639-013-9277-5
- [4] Nathanson, A. I. & Yang, M. S. (2003). The effects of mediation content and form on children's responses to violent television. *Human Communication Research*, 29(1), 111-134. doi:10.1111/j.1468-2958.2003.tb00833.x
- [5] Cantor, J. & Wilson, B. J. (2003). Media and violence: Intervention strategies for reducing aggression. *Media Psychology*, 5(4), 363-403. doi:10.1207/S1532785XMEP0504_03

- [6] Süss, D., Lampert, C. & Wijnen, C. (2013). *Medienpädagogik. Ein Studienbuch zur Einführung* [Media pedagogy. An introductory textbook]. Heidelberg: Springer. doi:10.1007/978-3-531-19045-7
- [7] Baacke, D. (1997). *Medienpädagogik. Grundlagen der Medienkommunikation* [Media education. Principles of media communication]. Tübingen: Max Niemeyer.
- [8] Groeben, N. (2004). Medienkompetenz [Media competence]. In R. Mangold, P. Vorderer & G. Bente (Eds), *Lehrbuch der Medienpsychologie* (pp. 27-49). Göttingen: Hogrefe.
- [9] Nathanson, A. I. & Cantor, J. (2000). Reducing the aggression-promoting effect of violent cartoons by increasing children's fictional involvement with the victim: A study of active mediation. *Journal of Broadcasting & Electronic Media*, 44(1), 125-142. doi:10.1207/s15506878jobem4401_9
- [10] Kirwil, L. (2009). Parental mediation of children's internet use in different European countries. *Journal of Children and Media*, 3(4), 394-409. doi:10.1080/17482790903233440
- [11] Heinz, D. & Schmölders, T. (2012). *Elternabend Computerspiele. Handreichung für Referentinnen und Referenten* [Parents' evenings on computer games. Handout for referents]. Ludwigshafen: Klicksafe (Landeszentrale für Medien und Kommunikation Rheinland-Pfalz).
- [12] Nathanson, A. I. (2004). Factual and evaluative approaches to modifying children's responses to violent television. *Journal of Communication*, 54(2), 321-336. doi:10.1111/j.1460-2466.2004.tb02631.x
- [13] Pfetsch, J. & Steffgen, G. (2007). Gewalthaltige Computerspiele – Wirkmechanismen und Präventionsansätze [Violent computer games – Effect mechanisms and approaches of prevention]. In M. Gollwitzer, J. Pfetsch, V. Schneider, A. Schulz, T. Steffke & C. Ulrich (Eds), *Gewaltprävention bei Kindern und Jugendlichen. Aktuelle Erkenntnisse aus Forschung und Praxis* (pp. 104-122). Göttingen: Hogrefe.
- [14] Möller, I. & Krahé, B. (2013). *Mediengewalt als pädagogische Herausforderung: Ein Programm zur Förderung der Medienkompetenz im Jugendalter* [Violence in media as pedagogical challenge: A program to promote media competence during adolescence]. Göttingen: Hogrefe.
- [15] Möller, I., Krahé, B., Busching, R. & Krause, C. (2012). Efficacy of an intervention to reduce the use of media violence and aggression: An experimental evaluation with adolescents in Germany. *Journal of Youth and Adolescence*, 41(2), 105-120. doi:10.1007/s10964-011-9654-6