

Magic Bullets? Television Violence and Aggression in Children

Simon Jonas Hadlich

Communication

Bruce Mutsvairo

December 13, 2010

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Mass media are often an easy scapegoat to blame for outbreaks of violence. Especially television, given its pre-eminent role in mass communication during the second half of the 20th century, has been at the centre of attention from both popular media and researchers. In particular, studies have found evidence that children's exposure to television violence is positively related to immediate and later aggressive behaviour (Huesmann et al., 2003). Media effects theories aim at modelling and quantifying this influence. Theories of mass communication have suggested that mass media have a limited (Klapper, 1960) or powerful (Noelle-Neumann, 1973) influence on their audiences. To model this influence, various media effects theories have been proposed. Cultivation theory, put forward by Gerbner and Gross (1976), claims a universal impact of television on all members of the audience, creating common world-views and values. Social learning theory, adapted by Bandura (1994) from psychology, assumes that members of the audience learn behaviours by observing them on television. However, Bandura (2001, pp. 139-142) finds that media's influence is not conveyed via one pathway, but rather through a "multipattern flow of influence". In the specific case of television violence, two prevailing hypotheses concern stimulating effects due to imitation and disinhibition (Severin & Tankard, 2010, pp. 283-286). Huesmann et al. (2003) argue that short- and long-term effects of exposure to television violence differ, the latter being caused by observational learning of cognitions (p. 201), the first also by priming and imitation (ibid.). In fact, causes seem to interrelated and dependent on other factors, suggesting a multipattern rather than singular model. In the following, this paper will first cast the analytical framework by outlining general media effects theories, as well as those specifically concerned with television violence. It will then evaluate empirical evidence for a positive relationship between children's exposure to violent television content and aggressive behaviour. In conclusion, this paper will provide suggestions whether, which, and how media effects theories can be applied to this specific question.

Analytical framework: Communication-Theoretical Models

A wide range of communication theories are concerned with mass media's influence on their audiences, asserting both limited and powerful effects (Severin & Tankard, 2010, p. 263-266). Among general media effects theories, cultivation and social learning seem particularly suited to analyse the relationship between TV violence and aggression. More specifically, a range of theories concern themselves with the effects of TV violence on the audience, establishing both a reduction and increases in aggressive behaviour (p. 283-286).

Theories of Mass Communication

Early theories of mass communication, later referred to as "(magic) bullet" or "hypodermic needle" theory (Chaffee & Hochheimer, 1985), predicted strong and direct impacts of mass media messages on all audience members (Severin & Tankard, 2010, pp. 262-263). However, this view is today perceived as "naive and simplistic" (p. 263). Contemporary communication theories can be divided into limited- and powerful-effects models.

The limited-effects model predicts that mass media have little influence on their audiences. It evolved from the refutation of the earlier hypodermic needle theory by Lazarsfeld (Lazarsfeld, Berelson, & Gaudet, 1948) and Hovland (Hovland, Lumsdaine, & Sheffield, 1949), among others. In particular, Hovland found that films were effective in conveying information, but failed to change people's attitudes (cited in Severin & Tankard, 2010, p. 263). Klapper (1960) describes mass media as only one of several interrelated factors and influences (p. 8), acting as "a contributory agent, but not the sole cause" of people's behaviour (ibid.).

The powerful-effects model, on the contrary, predicts a strong influence of mass media on their audiences (Severin & Tankard, 2010, p. 264-266). It was first proposed by Noelle-Neumann (1973), and later tested experimentally, e.g. by Ball-Rokeach, Rokeach, and Grube (1984). Their study lead to the conclusion that "a single half-hour television program was able to change viewers' attitudes, their rankings of basic values, and their willingness to engage in behaviour of a political nature" (Severin & Tankard, 2010, p.

266). However, this and other experiments focused specifically on campaigns aimed at influencing their target audience, and may not be suitable for inference over general television programming.

Media Effects Theories

Media effects theories, whether following the limited- or the powerful-effects model, aim at explaining how mass media influence their audiences. While many of these theories are concerned with the formation of opinions and attitudes, some of them can be useful in analysing the impact of TV violence on aggressive behaviour. Cultivation theory and social learning theory seem particularly suited for this aim.

Cultivation theory is concerned with the power of television as the most prevalent mass medium during the second half of the 20th century. It assumes that "television virtually monopolizes and subsumes other sources of information, ideas, and consciousness" (Severin & Tankard, 2010, p. 268). This monopoly leads to cultivation, i.e. the creation of "a common world-view, common roles, and common values" (ibid.) among the audience.

In its original form, put forward by Gerbner and Gross (1976) and developed in response to a long-term research program, cultivation theory essentially claimed "uniform and across-the-board effects of television on all heavy viewers" (Severin & Tankard, 2010, p. 269). Later, Gerbner et al. (1980) revised the theory to include the concepts of mainstreaming and resonance. Television viewing is seen to interact with other factors, meaning that certain effects, such as higher perceived levels of crime in society, might only occur in some subgroups of heavy viewers, while being absent in others (Severin & Tankard, 2010, p. 269).

A second media effects theory, social learning theory, claims that learning often takes place through the observation of the behaviour of others (Severin & Tankard, 2010, p. 276). It has been adapted from the field of psychology, where it compliments reinforcement theory (the concept that learning takes place when behaviour is reinforced with a reward). Bandura (1994) argues that social learning is particularly effective through a mass medium such as television. He claims that much of the influence of mass media can be attributed to social learning (2001).

Despite his support for social learning theory, Bandura (2001) asserts that "most behaviour is the product of multiple determinants operating in concert" (p. 139). He outlines a model of "dual paths of influence", arguing that communication systems operate via two pathways, one being direct, and one being socially mediated (p. 141). While a comparative study of several media effects theories by Watt and van den Berg (1978) found the strongest evidence to be in favour of the direct pathway, Bandura (2001, p. 141) argues that "the major share of behaviour changes is promoted within [...] social milieus"

Media effects theories such as the cultivation and the social learning theory aim at providing a general framework for the analysis of mass media's impact on their audiences. As Bandura (2001, pp. 139-142) shows, "There is no single pattern of social influence." (p. 142) Rather, media and social actors interact in a "multipattern flow of influence", in which psychosocial causes for media effects are interrelated and coexisting (ibid.).

Effects of Television Violence

A subset of media effects theories are concerned with the specific case of television-mediated violence and its impact on members of the audience (Severin & Tankard, 2010, pp. 283-286). This has its roots in the pre-eminent role of television in the second half of the 20th century, and the high rate of violent television content (p. 283). While there is little support for an extenuating effect on viewers' aggression, studies have suggested stimulation through imitation and disinhibition (ibid.).

The imitation or modelling hypothesis suggests that people learn aggressive behaviour through observation from television, later reproducing it (ibid.). On the contrary, the disinhibition hypothesis argues that television violence desensitizes people, lowering their inhibitions about aggressive behaviour towards other people (ibid.). This hypothesis suggests that television may establish a general norm treating violence as acceptable behaviour (ibid.).

Huesmann et al. (2003) have pointed out that different hypotheses may apply to short- and long-term effects (p. 201). Bushman and Huesmann (2001) ascribe long-term relations to the acquisition of three social-cognitive structures through observational

learning: schemas about a hostile world, scripts for social problem solving that focus on aggression, and normative beliefs that aggression is acceptable. While these factors may also play a role in short-term effects of exposure to TV-mediated violence, Huesmann et al. (2003) attribute these effects primarily to priming and arousal processes (p. 202), but also imitation of specific behaviour (p. 201). They note that, while the effect may be short-termed, primed scripts, schemas, and beliefs may have been acquired earlier, and in different contexts (*ibid.*).

Empirical Evidence: Psychological Studies

There is abundant evidence that children's exposure to violence on film or television is causally related to later aggressive behaviour, both from experimental and observational studies (Huesmann et al., 2003, p. 203). While experimental research focuses on short-term effects, observational field and in particular longitudinal studies give insight into long-term impacts of exposure to televised violence.

In experimental studies, both male and female children have frequently been found to behave more aggressively after having been exposed to filmed or televised violence (see reviews by Comstock, 1980; Geen, 1983, 1990; Geen & Thomas, 1986). When comparing children who watched a violent short film with those who watched a non-violent one, the first group is consistently found to behave more aggressively towards each other (Bjorkqvist, 1985; Josephson, 1987), as well as towards surrogate objects (Bandura, Ross, & Ross, 1961, 1963a, 1963b). These experiments highly suggest that children's exposure to film violence causes more aggressive behaviour in the immediate aftermath.

Further evidence for a positive relationship between a child's regular exposure to violence on television and in the movies and aggressive behaviour comes from one-shot field studies. Children who consume more such violent content have been found to behave more violently, and to hold beliefs more approving of aggressive behaviour (see reviews by Anderson, 1977; Chaffee, 1972; Comstock, 1980; Huesmann, 1982; Huesmann & Miller, 1994; Paik & Comstock, 1994; Wood, Wong, & Chachere, 1991). Although Huesmann et al. (2003) note that correlations found in experiments and field studies are

"modest" (p. 203), they find them to be "highly replicable" (ibid.), supporting the thesis that children's exposure to televised violence and aggressive behaviour are positively related.

Evidence for long-term influences of television and film violence on children can most directly be found in longitudinal studies. Boys' exposure to televised violence in childhood has been found to be related to aggressive behaviour (Eron, Huesmann, Lefkowitz, & Walder, 1972; Lefkowitz, Eron, Walder, & Huesmann, 1977) and criminality (Huesmann, 1986) in adults; more recent studies report similar findings across genders and different countries (Huesmann & Eron, 1986). Huesmann et al. (2003) summarize that "in most countries, the more aggressive children also watched more TV, preferred more violent programs, identified more with aggressive characters, and perceived TV violence as more like real life than did the less aggressive children." (p. 203)

Experimental, field, and longitudinal studies clearly indicate a positive relationship between children's exposure to violent television and film content and immediate and later aggressive behaviour, casting media exposure to media violence as a "long-term predisposing and short-term precipitating factor" (Huesmann et al., 2003, p. 201) in aggressive behaviour. However, while significant, the effects are small (p. 203), and may be subordinate to other factors, such as "neurophysiological abnormalities, poor child rearing, socioeconomic deprivation, poor peer relations, attitudes and beliefs supporting aggression, drug and alcohol abuse, frustration and provocation." (p. 201) Nevertheless, children's exposure to violent media content needs to be seen as part of this nexus of causalities that lead to aggressive behaviour.

Conclusion

A broad body of research suggests that children's exposure to film and television violence is positively related to aggressive behaviour. These studies also provide some insights into how this causation takes place. Huesmann et al. (2003) argue that long-term effects are primarily caused by long-term observational learning of cognitions that support aggression (p. 201), while short-term effects might also be due to priming and

imitation of specific behaviours (ibid.). However, they acknowledge that media violence is only one of several interrelated factors which lead to aggressive behaviour (ibid.), which might suggest evidence in favour of the limited-effects model.

General media effects theories, such as the cultivation and the social learning theory, do not seem suited to explain the relationship between children's exposure to mediated violence and aggressive behaviour alone. Rather, a complex, interrelated set of factors incorporating some of these theories' aspects seems to be necessary to explain this dependency. Indeed, Bandura's (2001) suggestion that "there is no single pattern of social influence" (p. 142), but rather a "multipattern flow of influence" (p. 139) seems best fit to act as a overarching framework for Huesmann et al.'s (2003) more detailed models.

Further insight might come from neuroscientific studies. In this field, exposure to film and television violence has been found to diminish response in the right lateral orbitofrontal cortex (right lOFC) and to decrease right lOFC-amygdala interaction, which has been associated with decreased control over reactive aggression (Kelly, Grinband, & Hirsch, 2007, p. 1). Another study found that adolescents who more often watched violent movies and television had lower left lateral orbitofrontal cortex density, which has been identified as a possible risk factor for altered socio-emotional functioning (Strenziok et al., 2010, p. 1). However, neuroscientific evidence for an impact of television violence on children's aggressiveness is still scarce, and is not yet fit to inform models of media effects.

Bibliography

- Andison, F. S. (1977). TV violence and viewer aggression: A cumulation of study results 1956–1976. *Public Opinion Quarterly*, 41, pp. 314-331.
- Ball-Rokeach, S. H., Rokeach, M., & Grube, J. W. (1984). The Great American Values Test. *Psychology Today*, November, pp. 34-41.
- Bandura, A. (1994). Social Cognitive Theory of Mass Communication. In: J. Bryant & D. Zillman (eds.), *Media effects: Advances in theory and research (1st ed.)*, pp. 61-90. Hillsdale, NJ: Erlbaum.
- Bandura, A. (2001). Social Cognitive Theory of Mass Communication. In: J. Bryant & D.

- Zillman (eds.), *Media effects: Advances in theory and research (2nd ed.)*, pp. 121-153. Hillsdale, NJ: Erlbaum.
- Bandura, A., Ross, D., & Ross, S. A. (1961). Transmission of aggression through imitation of aggressive models. *Journal of Abnormal Social Psychology*, 63, pp. 575-582.
- Bandura, A., Ross, D., & Ross, S. A. (1963a). Imitation of film-mediated aggressive models. *Journal of Abnormal and Social Psychology*, 66, pp. 3-11.
- Bandura, A., Ross, D., & Ross, S. A. (1963b). Vicarious reinforcement and imitative learning. *Journal of Abnormal and Social Psychology*, 67, pp. 601-607.
- Bjorkqvist, K. (1985). *Violent films, anxiety and aggression*. Helsinki: Finnish Society of Sciences and Letters.
- Bushman, B. J., & Huesmann, L. R. (2001). Effects of televised violence on aggression. In D. Singer & J. Singer (Eds.), *Handbook of children and the media*, pp. 223-254. Thousand Oaks, CA: Sage.
- Chaffee, S. H. (1972). Television and adolescent aggressiveness (overview). In G. A. Comstock & E. A. Rubinstein (eds.), *Television and social behaviour: Vol. 3. Television and adolescent aggressiveness*, pp. 1-34. Washington, DC: U.S. Government Printing Office.
- Chaffee, S. H., & Hochheimer, J. L. (1985). The beginnings of political communication research in the United States: Origins of the "limited-effects model." In: M. Gurevitch & M. R. Levy (eds.), *Mass Communication Review Yearbook*, 5, pp. 75-104. Beverly Hills, CA: Sage.
- Comstock, G. A. (1980). New emphases in research on the effects of television and film violence. In: E. L. Paler & A. Dorr (eds.), *Children and the faces of television: Teaching, violence, selling*. New York, NY: Academic Press.
- Eron, L. D., Huesmann, L. R., Lefkowitz, M. M., & Walder, L. O. (1972). Does television violence cause aggression? *American Psychologist*, 27, pp. 253-263.
- Geen, R. G. (1983). Aggression and television violence. In: R. G. Geen & E. I. Donnerstein (eds.), *Aggression: Theoretical and empirical reviews: Vol. 2. Issues and research*, pp. 103-125. New York, NY: Academic Press.
- Geen, R. G. (1990). *Human aggression*. Pacific Grove, CA: Brooks/Cole.

- Geen, R. G., & Thomas, S. L. (1986). The immediate effects of media violence on behavior. *Journal of Social Issues, 42*, pp. 7-28.
- Gerbner, G., & Gross, L. P. (1976). Living with television: The violence profile. *Journal of Communication, 26*(2), pp. 172-199.
- Hovland, C. I., Lumsdaine, A. A., Sheffield, F. D. (1949). *Experiments on Mass Communication*. New York, NY: Wiley.
- Huesmann, L. R. (1982). Television violence and aggressive behavior. In: D. Pearl, L. Bouthilet, & J. Lazar (eds.), *Television and behavior: Ten years of scientific progress and implications for the eighties: Vol. 2. Technical reviews*, pp. 126-137. Washington, DC: U.S. Government Printing Office.
- Huesmann, L. R. (1986). Psychological processes promoting the relation between exposure to media violence and aggressive behavior by the viewer. *Journal of Social Issues, 42*, pp. 125-139.
- Huesmann, L. R., & Eron, L. D. (1986). *Television and the aggressive child: A cross-national comparison*. Hillsdale, NJ: Erlbaum.
- Huesmann, L. R., & Miller, L. S. (1994). Long-term effects of repeated exposure to media violence in childhood. In L. R. Huesmann (ed.), *Aggressive behavior: Current perspectives*, pp. 153-186. New York: Plenum Press.
- Huesmann, L. R., Moise-Titus, J., Podolski, C.-L., & Eron, L. D. (2003). Longitudinal Relations Between Children's Exposure to TV Violence and Their Aggressive and Violent Behavior in Young Adulthood: 1977-1992. *Developmental Psychology, 39*(2), pp. 201-221.
- Josephson, W. L. (1987). Television violence and children's aggression: Testing the priming, social script, and disinhibition predictions. *Journal of Personality and Social Psychology, 53*, pp. 882-890.
- Lazarsfeld, P. F., Berelson, B. R., & Gaudet, H. (1948). *The People's Choice*. New York, NY: Columbia University Press.
- Lefkowitz, M. M., Eron, L. D., Walder, L. O., & Huesmann, L. R. (1977). *Growing up to be violent: A longitudinal study of the development of aggression*. New York, NY: Pergamon Press.
- Kelly, C. R., Grinband, J., & Hirsch, J. (2007). Repeated Exposure to Media Violence Is

- Associated with Diminished Response in an Inhibitory Frontolimbic Network. *PLoS ONE*, 2(12), e1268. doi:10.1371/journal.pone.0001268
- Klapper, J. T. (1960). *The Effects of Mass Communication*. New York, NY: Free Press.
- Noelle-Neumann, E. (1973). Return to the concept of powerful mass media. In: H. Eguchi & K. Sata (eds.), *Studies of Broadcasting: An International Annual of Broadcasting Science*, pp. 67-112. Tokyo: Nippon Hoso Kyokai.
- Paik, H., & Comstock, G. A. (1994). The effects of television violence on antisocial behavior: A meta-analysis. *Communication Research*, 21, pp. 516-546.
- Severin, W. J., & Tankard, J. W. (2010). *Communication Theories: Origins, Methods, and Uses in the Mass Media*. New York, NY, et al.: Pearson.
- Strenziok, M., Krueger, F., Pulaski, S. J., Openshaw, A. E., Zamboni, G., van der Meer, E., & Grafman, J. (2010). Lower Lateral Orbitofrontal Cortex Density Associated With More Frequent Exposure to Television and Movie Violence in Male Adolescents. *Journal of Adolescent Health*, 46, pp. 607-609.
- Watt, J. H., & van den Berg, S. (1978). Time series analysis of alternative media effects theories. In: B. Rubin (ed.), *Communication Yearbook II*. New Brunswick, NJ: Transaction Press.
- Wood, W., Wong, F. Y., & Chachere, G. (1991). Effects of media violence on viewers' aggression in unconstrained social interaction. *Psychological Bulletin*, 109, pp. 371-383.