THE IMPACT OF TV VIOLENCE ON VIOLENT CRIME: REANALYZING META-ANALYSES AND LOOKING AT LONGITUDINAL FIGURES

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ABSTRACT

This article reviews studies on violent crime in television programmes and research documenting the impact of such content on criminal activities. The results of eight meta-analyses pertaining to the behavioural effects of the representation of violence in general and violent crime in particular in TV programming are reanalyzed and year-by-year figures concerning the share of crimerelated programming among the most often watched shows and the level of violent crime according to official statistics in America are juxtaposed. The study found no evidence that an increase in the share of crime-related programming predicts a similar increase in actual crime. In fact, the data even suggest that the effect of exposure to televised crime on criminal behaviour has been declining since the mid-1990s.

KEY WORDS

television – violent crime – violence – content – effect – news – drama – USA – public policy.

What do academics think about the connection between TV viewing and violent crime? A renowned pediatrician complained that "pediatricians are spending their precious few minutes of office counselling on car seats and bicycle helmets while the media may represent a far greater threat to the health of young people" (Strasburger 2007: 1399). A group of psychologists contended that the connection between TV violence and real-life aggression is nearly as strong as the connection between smoking and lung cancer (Bushman and Anderson 2001). Finally, a well-known criminologist came to the conclusion that television violence is the reason for no less than 10,000 homicide cases that occurred in the USA between the early 1950s and the late 1980s (Centerwall 1989).

In the current millennium, only a small number of scholars still believe that the effect of television violence on real world violence is negligent (Potter 2003), however, the popularity of the *strong effects school* does not necessarily mean that the effects are practically substantial. Often, ad-hominem attacks on fellow researchers come in lieu of documenting real effects (Ferguson 2010). Politicians, however, have considered the appearance of violent crime in television programmes a serious problem for years. Back in 1969, the late US Senator John Pastore already declared that television violence is "a public health risk" (Signorielli 2005). More recently, president Obama promised that curbing the appearance of overt sex and graphic violence in media outlets available to minors would be a major aim for his first-term government (Hetsroni 2009). European leaders have not

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been dramatically different from their American counterparts in expressing their fears. For instance, the late British Prime Minister Margaret Thatcher confessed that she "finds it difficult to believe that the effect of seeing so much violence on TV is not damaging to our young people." (cited in Moseley 1986: 5).

Whether these concerns are in place or not – a question addressed in this article by reanalyzing aggregate data – one cannot ignore worries that reflect a view that is popular also among the public at large. In the US, three out of four people believe that there is a proven relationship between violence on television and the national crime rate (Saad 2007), and a majority feel that television crime shows, violent films and television news items about crime contribute significantly to the national murder rate (Potter 2003). Public opinion in Britain and other European countries (although – compared to the USA – they have been less surveyed) is almost similar (Gunter et al. 2003). So profound is the belief in the potency of violent programming to nurture violent crime that when asked to select measures that would significantly reduce the level of such crime, Americans choose restrictions on the presentation of violence on television more frequently than they suggest firmer gun control regulations (Lichter et al. 1994: 30).

It cannot be denied that since the inception of commercial TV broadcasting in the early 1950s, the home has been swept with a long line of screened and non-screened programmes portraying violent crime. From the Naked City and the Untouchables in the 1950s and 1960s to the CSI and Law and Order in recent years, viewers in the US and worldwide have been exposed to a considerable amount of interpersonal and collective aggression, gunshots, gory images and even death (Roman 2005). The proliferation of research on the effects of television violence, which - a decade ago - already amounted to nearly 500 distinctive studies (Bushman - Anderson 2001), precludes attempts to compile a comprehensive article-length narrative-style review. The fact that no fewer than eight meta-analyses have been hitherto published on the topic (Andison 1977; Wood et al. 1991; Paik - Cosmtock 1994; Hogben 1998; Bushman - Anderson 2001; Christensen – Wood 2007; Savage – Yancey 2008; Ferguson – Kilburn 2009)¹ suggests that it can be beneficial to compare the findings of the previous meta-analyses while paying special attention to changes in the size of impact over the years. A longitudinal exploration of aggregate figures such as meta-analysis results and the year-by-year statistics documenting the level of crime on the streets and the amount of crime on TV may reveal the bigger picture of TV's impact on criminal violent behaviour over the years.

However, our examination of the positivistic claims made by media effects researchers is, despite the feasible critical conclusions, positivistic in its nature. A reference to less positivistic concerns about the validity of findings of TV violence research appears at the final section of the text.

1. Frameworks for studying the effects of TV crime

The impact of TV crime is one of the most often studied media effects. Research related to this topic began in the 1930s when television did not exist yet but cinema had a notable grip on pop culture and attracted the attention of sociologists, psychologists and criminologists who questioned the amount of crime in films and the impact of exposure to such mediated crime. Much of the scholarship exhibited concern about the consequences of this

¹ The meta-analyses were identified in searches in the following databases: Psychinfo, Communication Abstracts, Ebsco, Proquest, Google Scholar. The bibliographical lists of detected meta-analyses were also searched to make sure that no relevant article is omitted.

exposure (Lowery – DeFleur 1995). A popular metaphor used in that period for the effect of media was the *hypodermic needle*, connoting the idea that the media inject messages to mass audiences who lack any power of resistance (Lasswell 1935). The content became a matter of concern, as even back then the silver screen had already been saturated with crime and violence. Scholars were worried that if watching films in the cinema once or twice a week can be considerably influential – television might pose an immense risk (Lowery – DeFleur 1995). However, a long series of studies, ongoing since the 1950s, have acknowledged the fact that most media effects (including those attributed to television) are modest in size. These findings led to the *law of minimal consequences* as a general description of the *behavioural immediate effects* of media exposure (Klapper 1960).

This law, nonetheless, has not deterred researchers from continuing to blame the tube. In the 1960s apparent evidence arose according to which violent behaviour can be learned through an observational imitation of on-screen activities ("Bobo modeling" – the hitting of an inflatable doll), especially when the viewers are young children (for a summary see Bandura 2002). Subsequent criticism raised suspicion over the validity of the paradigm, suggesting that Bobo modelling may not examine aggression but the imitative behaviour of "rough and tumble play" and contending that the stimulus film does not resemble typical programming (Tedeschi – Quigley 1996). However, at the time Bandura's experiments were regarded as unequivocal proof that humans do learn to act violently from watching TV. To this day, *vicarious learning* is considered a mechanism that can explain how law offenders learn their trade (Bandura 2002), even though studies of inmates have failed to detect a heavy diet of violent media among those convicted of violent crime (Goldstein 1973). Moreover, this is despite the fact that *copycat* offenses, which are one-to-one imitations of crimes that had been reported in the media a short while before the commission of the acts, are actually very rarely linked to media exposure (Pease – Love 1984).

Other theories that are often mentioned, when discussing causal connections between exposure to TV crime and engaging in criminal behaviour, are: *priming* (suggesting that crime programming contains aggressive cues that can trigger illegal aggression); *arousal* (claiming that watching violence on the screen raises arousal that intensifies existing minor anger which leads to aggression); *desensitization* (contending that repeated exposure to televised violence reduces natural negative emotions and therefore makes the viewers more indifferent towards violence victims) (Sparks – Sparks 2002). All these theories share a rather simplistic Stimulus-Response view of the connection between TV viewing and aggressive behaviour (Perse 2001), assuming that watching crime on TV leads directly to acting violently and criminally in large numbers (Hetsroni 2009). As we will see later, the last part of the assumption is not supported when empirically tested.

2. The representation of violent crime on TV

Before assessing the effects of televised crime on viewers, one must first ascertain whether violent crime appears frequently and realistically in the most popular forms of TV programming: drama (fictional entertainment), news (non-fictional current affairs) and reality ("infotainment").

Most of the studies that have quantified the amount of crime in the programming used US programming to collect data. On surface, this fact casts a limitation on external validity but we should not forget that many of these shows are broadcast successfully worldwide. Even in the 1950s, when television was still epitomized by relatively innocent plotlines

(Lichter et al. 1994), nearly one fifth of the protagonists in American prime-time programmes were criminals or law enforcers (Head 1954; Smythe 1954). These numbers, which are several times higher than comparable population figures, have persisted for decades (Dominick 1973; Maguire 1988; Hetsroni 2009).

Between one fifth to one third of the dramatic programming aired each season by the major US networks is devoted to crime (Hetsroni 2009). Rating wise, crime dramas have never been among the industry's most notable blockbusters. In the last two decades, only one show that emphasizes crime, *Rescue 911*, was in the top ten of the ratings chart. Most of the viewers of crime programmes are men above the age of 50 or in the age bracket of 18-24, often high school or college dropouts (Comstock et al. 1978). Economically speaking, this cluster does not constitute the most sought for population. Programmes that attract these viewers are nonetheless desired by some advertisers but they constitute a small niche (Comstock – Scharrer 1999). The niche status of the genre has even been strengthened recently with the proliferation of cable channels such as *Spike* that target less-educated males and concentrate on crime programming. Worldwide, however, crime dramas are exported more successfully than other dramatic formats (Comstock et al. 1978) perhaps because their plots are less culturally bounded. Recently, some shows that were never aired in America by a major broadcaster are actually successfully broadcast overseas (e.g. *The Mentalist*).

Two types of criminals are introduced in dramatic programming: The professional deviant who lives a life of crime and the established denizen who turns to crime to maintain or improve his standard of living (Lichter – Lichter 1983). The first type enjoys non-recurring roles and his personality is rarely analyzed in depth. The second type of criminal has leading roles and a multifaceted personality. This is in sharp contrast with reality – where people under the age of 25 are over-represented among convicted criminals, and in particular minorities – on television the vast majority of criminals are white males aged 30 to 40 years old (Lichter – Lichter 1983; Brown 2001). Women are under-represented among TV felons even more they are under-represented in the criminal population in the real world (a male to female ratio of 1:8 on TV compared to 1:3 in the real world). Thus, the programming conveys a message according to which criminal behaviour is not a viable option for women as it is for men (Greenberg – Collette 1997).

In terms of occupation, television criminals are seldom identified in any way other than as criminals or law enforcers who crossed the line (Dominick 1973). More than one third of the criminal characters are gangsters, thieves or criminals who run an organized crime network. The second group are law enforcers (policemen, lawyers etc.) who switched sides. Businessmen and free occupations e.g. doctors, architects make up the third major source of criminal characters (Lichter - Lichter 1983). Blue collar occupants are rarely depicted as criminals, even though in the real world this group contributes abundantly to the population of thieves and unarmed robbers (Maguire 1988). Economically speaking, TV criminals tend to be rich people – from boss Hogg in Dukes of Hazard in the 1970s to Toni Soprano in The Sopranos in the 2000s not much has changed in television content (Roman 2005) which continues to contradict real world statistics - i.e. most of the criminals are in the lowest economic tier (Lichter - Lichter 1983; Maguire 1988). The twisted racial-economic TV portrayal of criminals extends to convicts: Prison cells in TV drama are full of older rich white males, while in the real world inmates are more likely to be poor and young and to be identified as ethnic minority members (Lichter - Lichter 1983).

Crime on television is carefully contemplated in 60 % of the cases. Greed, revenge and mental illness serve as primary motives (Lichter et al. 1994). It is difficult to compare this finding with real world statistics, since there is no official record of criminal motivations for all crimes. However, the FBI does publish statistics regarding motives and circumstances surrounding homicides. On television, murders are meticulously planned, whereas in real life murder is most often a crime of passion, a result of momentary annoyance such as a reaction to a hostile argument (Surrete 1998). As for the victims of TV criminals – they are portrayed as passive and helpless with an over-representation of white people. This demography resembles the viewers' fear of being subject to crime more than it represents actual victimization risk (Scheingold 1984).

Which sorts of crime are most often depicted in TV drama? Table 1 summarizes the most frequent crimes compiled from four studies conducted in different decades.

| Crime | Dominick (1973) | Lichter & Lichter (1983) | Maguire (1988) | Brown (2001) |
|--------------------------------------|--------------------|-----------------------------|-------------------|-----------------|
| Homicide | 22 % | 24 % | 48 % | 79 % |
| Armed Robbery | 6 % | 18 % | 2 % | 3 % |
| Aggravated Assault | 29 % | 8 % | 12 % | 6 % |
| Rape | 0 % | 2 % | 1 % | 1 % |
| Fraud/White collar crime | 6 % | 3 % | 1 % | 0 % |
| Theft and non-violent property crime | 0 % | 5 % | 1 % | 2 % |

Table 1: The Most Frequent Crimes in TV Drama

While the numbers have fluctuated over the years, murder is a highly frequent crime across the board and property crime is a rare occurrence. This contradicts official statistics, which point at property crime, particularly theft and larceny, as the most frequently reported crime, subject to over 80 % of the cases known to the police (Maguire 1988). The implied message to viewers is that violent crime (murder, armed robbery, aggravated assault) and not property crime is what people face more often in daily life. However, not even all sorts of violent crime are equally over-represented on the screen. Using figures issued by the U.S. Department of Justice as benchmarks, Diefenbach and West (2001) found that murder is one thousand times more present on the small screen, while rape is three times less present, and robbery and aggravated assault are more or less similarly represented compared to what actually goes on in the US. To sum up, the representation of crime in TV drama deviates from the real world in several important areas.

News programmes present a picture of crime that bears a lot of similarities to what is shown in fictional programming, but news have few unique nuances. Just as in drama, news, too, represent homicide as the most frequent crime, but in contrast with drama news have a somewhat larger share of white collar crime (often in relation to political scandals) and sensational sex-related crime (Sheley – Ashkins 1981). A distinctive example of sensational coverage of crime, which packs together politics and sex, is the former New York State governor Elliot Spitzer's use of an escort service and his alleged use of campaign money to pay for the service. In 2008, this affair took an unprecedented share of local and national news airtime, although the crime itself was classified as no more than misdemeanour in the eyes of the law. The extensive coverage of sensational crime has to do with its rarity, as the media prefer to report on the unusual and avoid the expected. In the USA, homicide makes up only 0.2 % of crime known to the police but it is the subject of more than a quarter of crime news stories because it is dramatic and infrequent (Graber 1980; Surette 1998).

Naturally, the police and the justice system aim to get "success stories" on TV news. This increases the chances of resolved crime stories to get air-time (Surette 1998). However, most crime, and in particular felonies that are not dramatic and do not involve public figures and celebrities as offenders or victims ("OJ felonies" in the name of O.J. Simpson), remains unreported. In a study of local news, only 15 of 1,741 felonies investigated by the police over a three month period were mentioned in the news (Fedler – Jordan 1982). Nonetheless, crime and justice items still make up a prominent share of the news – ten to fifteen per cent in local news programmes and around 20 % in national news (Graber 1980).

Who are the criminals according to TV crime news? Like in entertainment programming, crime news bring to fore greedy businessmen as perpetrators of white collar crime, and present professional predators and organized crime moguls as responsible for violent transgressions of the law but, in contrast with TV drama, the news frequently present bureaucrats and civil servants as criminals who breech public trust (Terry 1984). The most ignored group of criminals in TV news – like in TV drama – are poor young men, who do not belong to any criminal organization but commit non-violent property crime (Surette 1998). The victims, according to television crime news, tend to be females, who are considerably young or exceptionally old, and/or of high social status. This mode of portrayal, which contradicts real life circumstances, where most of the victims of violent crime are males, assists the construction of a narrative of crime as an intended action of strong men who exert power over physically weak women (Meyers 1994).

Finally, a newer television format, reality or infotainment, which emerged in the 1990s, blurs the line between news and entertainment programming. Shows such as *Cops* and *Rescue 911* present actual crimes in a realistic light – sometimes in re-enactments, sometimes as dramatized stories, and sometimes in documentary-style stories. These programmes tend to concentrate on bizarre violent crime and stereotypically portray predatory evil criminals and helpless victims. The gruesome is shown as the mainstay of modern life (Jermyn 2006). The content of these shows is often an over-exaggeration of crime drama, but the apparent realism makes it more credible. Yes, here, too, compared to reality, crime tends to be more often violent and performed by white men against women.

3. Does TV crime pay off?

Does crime pay off? Statistically speaking, the answer in the real world is normally yes, since around two thirds of the cases reported to the police remain unsolved. Television is a totally different sphere. On the screen, nearly 60 % of the crimes are solved (Lichter – Lichter 1983). The juridical procedure in the real world is a multi-step saga, where many of the phases are less than dramatic, and where most of the cases end in a non-ceremonial deal between the prosecution and the defence. Television concentrates

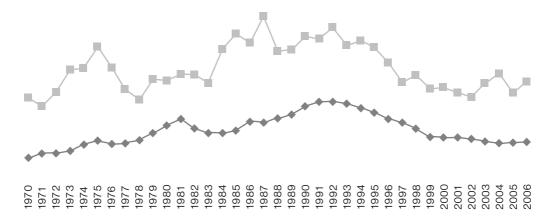
on cases that reach a verdict and highlights the more dramatic phases of the juridical procedure. In past decades, episodes of police or courtroom drama nearly always ended in a criminal conviction. Recently, programmes such as *Law and Order* and *Boston Legal* present an open-end narrative from time to time, or let the criminal avoid punishment (Roman 2005) but the conviction rate of TV criminals remains impressively high. This sends a clear message to the audience: crime does not pay off since law enforcers put things in order (Stark 1987). This tone brought some scholars to express concerns about unrealistic expectations that viewers may develop regarding the ability of the police to combat crime and the "lesson" taught by the programming's dismissal of negative police behaviours such as the overuse of guns and a lack of consideration of detainees' rights with regards to human rights (Surette 1998). Of course, the validity of such concerns depends on the actual size of the effect of exposure to crime programming.

4. TV crime and violent crime: Is there a causal relationship?

The accuracy of the claim about the negative effects of TV crime will be examined here in two different ways using US data: first, we explore whether an increase in the presence of the "most criminal genres", namely crime drama and action-adventure programming, in the prime-time programming of major networks over the years – led to an increase in the level of violent crime and vice versa, when it comes to a decrease in the share of such shows in the primetime schedule. Second, we will analyse figures published for more than three decades in meta-analyses to see whether there are lasting trends in the accumulated impact of exposure to violent TV programming on overt aggressive criminal behaviour.

Figure 1 shows the trend in the percentage of crime drama and action-adventure shows in the primetime lineup of ABC, CBS, NBC and FOX (the major American networks) between 1970 and 2006 (the last year before viewing shows via internet was legally offered and became prevalent). The classification of the programmes is based on descriptions obtained from the TV Guide directory (TV Guide 2006). Figure 1 also shows – for the same time period – the trend in the level of the number of violent crime incidents known to the American police per 100,000 citizens. These numbers were obtained from the U.S. Department of Justice (FBI, 2010).

Figure 1: The Share of Violent Crime Shows on Network Primetime Programming (light grey) and the Number of Violent Crime Occurences per 100 000 People in the USA between 170 and 2006 (dark grey)

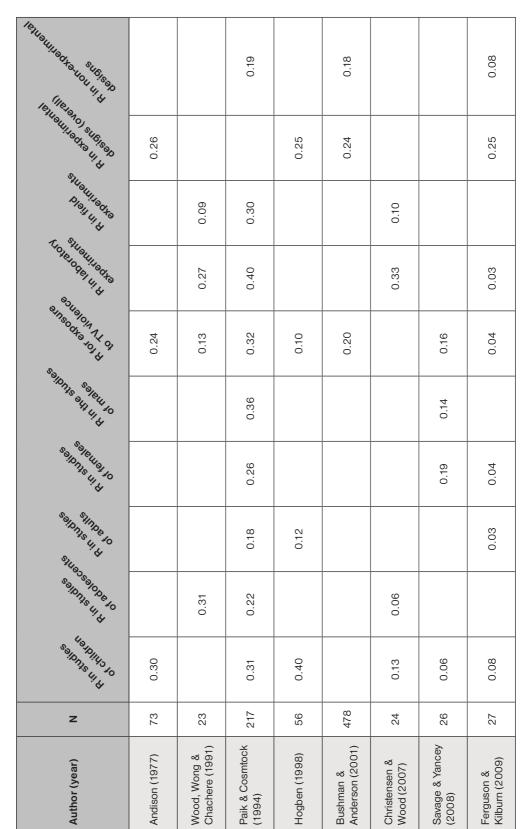


Both the share of violent crime shows and the level of violent crime have seen a number of ebbs and flows. There were two golden eras for crime programming – the mid- 1970s when police drama such as *Starskey & Hutch* and *Kojak* and action-adventure series like *Charlie's Angels* and *Dukes of Hazard* were major primetime staples and the late 1980s and early 1990s when *Matlock's* interrogations and *Law and Order's* investigations dominated the airwaves. In the following decades the share of crime shows in primetime programming decreased gradually. Given the non-linear trend in the percentage of crime programming, it is not surprising that a quadratic regression model accounts for the relationship between the year and the share of such shows much better than an ordinary least squares model does (adjusted R2=.051 p<.01 vs. adjusted R2=.030 p<.05). A cubic model has a lower prediction power (adjusted R2=.028 p<.05). Thus, the conclusion is that the relationship between the year and the share of crime in American TV programming is best explained by a second power function, which describes a gradual (although not entirely linear) increase between the 1970s and early 1990s and a decrease later on.

Nearly the same can be said about the trend in levels of violent crime throughout the years. Violent crime reached its first peak in 1981 and reached a second record level one decade later. Afterwards, the level of crime decreased considerably. A quadratic curve accounts for the relationship between the year and the level of violent crime much better than a linear model does (adjusted R2=.755 p<.001 vs. adjusted R2=.070 p<.05). A cubic model does not perform considerably better than the quadratic model (adjusted R2=.776 p<.001). Therefore, the relationship between the year and the level of violent crime in the USA is adequately explained by a second power function which describes an increase until the early 1990s and a decrease afterwards.

The longitudinal trends we detected in TV crime appearance and violent crime level would probably not surprise TV historians and criminologists. More unexpected is the fact that an increase in the share of violent crime on the screen does not precede an increase in the level of violent crime on the street. The two curves seem to run in parallel to one another and to be modestly linearly related (r=.20 p<.05). This means that changes in the presentation of crime on TV mirror changes in the level of violent crime (both tend to increase together and decrease together) rather than predict them.

Another indicator of the impact of TV crime generates a reanalysis of aggregate data of studies which tried to quantify this effect. Estimates as to the number of relevant studies passed the 500 threshold a decade ago (Bushman - Anderson 2001). While this scientific proliferation precludes attempts to review each study separately, the fact that no less than eight meta-analyses on this topic have been published - starting with Andison (1977) and culminating with Savage and Yancey (2008) and Ferguson and Kilburn (2009) - makes it possible to observe long term trends. The results of the eight meta-analyses, which summarize findings from a large number of studies on the same variable and convert them to a common metric (Pearson's r coefficient), can be treated as new data. Generally speaking, the advantage of meta-analytic claims is that they are based on a much larger sample than any of the single studies that comprise it. Therefore, meta-analysis is less susceptible to confounding by sampling and measurement errors (Lipsey - Wilson 2001). The advantage of our examination, which can be termed meta meta-analysis is that it is not only less susceptible to errors performed in a single study but also less susceptible to errors committed by a certain meta-analysis because several meta-analyses are concurrently evaluated. Of course, even the meta meta-analysis is confined to parameters that have been examined previously, but as can be seen in Table 2 – there have been quite a few of them.



There is a general trend of a decrease in the size of the effect in the more recent meta-analyses. The effect of exposure to TV violence on violent behaviour went down from r=.32 in Paik and Comstock's (1994) meta-analysis to r=.16 in the meta-analysis performed by Savage and Yancey (2008) and r=.04 in the data analyzed by Ferguson and Kilburn (2009).² Most of the meta-analyses comprise dozens of studies that were carried out after the preceding meta-analysis had been published. Exceptions to this rule is the work of Paik and Comstock (1994) and Bushman and Anderson (2001) that aimed to cover all the studies that had been available by the time of their publication and therefore analyzed hundreds of studies (compared to dozens of studies in the other meta-analyses). An examination of the effect of exposure to TV violence in these two most comprehensive metaanalyses shows a decrease in the aggregate size of the correlation over the years - from r=.32 (Paik – Comstock 1994) to r=.20 (Bushman – Anderson 2001). Other indicators also demonstrate this longitudinal trend: for example, the effect measured in studies where children were the subjects decreased from r=.30 in the 1970s (Andison 1977) to r=.06 (Savage - Yancey 2008) and r=.08 (Ferguson - Kilburn 2009) in the late 2000s. The effect detected in studies where males were the subjects decreased from r=.36 (Paik -Comstock 1994) to r=.14 (Savage - Yancey 2008). The respective effect in studies where females were the subjects decreased from r=.26 (Paik - Comstock 1994) to r=.19 (Savage - Yancey 2008). Laboratory experiments always yielded greater effects than non-experimental designs, but even the effects of laboratory experiments were never overwhelming – only around 5 % of the explained variance – despite the artificial design and the frequent use of overly-aggressive films clips that do not reflect typical programming as stimuli (Tedeschi - Quigley 1996).

The overall picture consistently depicts a decrease in the size of the effect of TV violence on violent criminal behaviour over the years and shows no sign that a proliferation of crime programming on the small screen initiated an increase in violent crime on the street.

5. Conclusions

The surreptitious and unexpected nature of crime in the real world makes isolating and assessing the direct impact of single factors, such as television very difficult. Nonetheless, a meta meta-analysis that summarizes the results of hundreds of studies suggests that the influence of television on crime levels has been decreasing over the years and that it has already reached the level that social scientists commonly regard as "smaller than small" (less than one percent of the explained variance in some indicators in the most recent meta-analyses), and that even in the past the effect could never be defined as more than moderate (accounting for barely 10 % of the explained variance in a few indicators in some of the meta-analyses that had been published before the mid-1990s). Furthermore, even though crime is quite often present in television broadcasts, we found no evidence that an increase in the share of crime programming precedes (and therefore is able to predict) a similar increase in violent crime levels.

These findings do not comply with the popular approach among scientists (Centewall 1989; Lichter et al. 1994; Strasburger 2007), politicians and the public at large (Gunter et al. 2003) who believe that intensive televised depictions of violence incite viewers and increase the chances of committing a violent crime (Sparks – Sparks 2002).

² The difference in effect size between the last two meta-analyses may express a difference in the scope of the covered literature: Savage and Yancey (2008) analyzed mainly reports published in criminology journals, whereas Ferguson and Kilburn (2009) concentrated on research that was published in psychology publications.

Why is the massive representation of crime on TV not as influential as might have been expected? One reason can be that the depiction of crime on television is not exceptionally realistic. While over 90 % of crime on the street is not violent, more than 95 % of crime shown on TV drama and the vast majority of crime reported on the news is violent (see Table 1 and Surette 1998). TV criminals tend to be older than 30, rich and Caucasians, while street criminals are usually in their twenties, poorer than the average and of a minority origin (Lichter – Lichter 1983; Brown 2001). Because of these discrepancies, the representation of crime on TV may lack the make belief quality that is needed for media content to be influential (Perse 2001).

Another explanation of the minor effects of televised crime has to do with the limited rating of most of the relevant shows and the fact that – compared to other genres – they are not the most watched programmes (Diener – DuFour 1978). The niche status of crime programming may limit its behavioural effect on people who are not routinely exposed to the programs.

A third explanation is that the effect, which studies commonly measure as a difference in the amount of aggression between heavy TV viewers and light viewers, has been gradually diluted since even light viewers accumulate a considerable amount of television viewing over the years (Morgan 1986). Another way of looking at this reasoning is to note the methodological pitfall in predicting that high base rate phenomenon (TV viewing) is responsible for a small rate occurrence (criminal activity). While most criminals have watched TV (including violent programmes) during their lifetime, the vast majority of people who watch violent shows do not commit any crime (Ferguson 2010) and – at least when it comes to primary school pupils – there is no considerable difference in the tendency to watch violent programming between ordinary kids and young offenders (Hagell and Newburn 1994).

Fourth, since television viewing is – for most of the viewers on most of the occasions – a low involvement task (Comstock – Scharrer 1999), its effect is unlikely to be particularly profound because the effect is, to an extent, proportional in size to the audience involvement.

A fifth reasoning for the small effect suggests that watching shows that feature crime might be an outcome and not a cause of violent behaviour. The *justification* approach argues that aggressive people expose themselves to violent media content to justify their own actions and feelings and that the exposure occurs only after the violent character has been established (Perse 2001). This approach received partial support from a longitudinal observation of school kids which found that aggressive behaviour predicted watching violent programming on television a year later (Huesmann 1982).

Finally, it is possible that the most substantial effect of seeing crime on TV is not acting criminally but becoming afraid of crime. Several studies were able to establish a small but significant correlation between the amount of time devoted to television viewing and overestimating the number of criminals (Gerbner et al. 1977; Hetsroni – Tukachinsky 2006), perceiving violent crime as a serious problem (Doppelt – Manikas 1990), and seeing the world as a dangerous surroundings e.g. a *mean world view*. Gerbner and his colleagues use the term *cultivation* to describe the ability of television to enculturate suspicion and mistrust among the viewers in correspondence with the typical view of the world in popular broadcasts (Gerbner et al. 2002). Cultivation theory suggests another type of effect of the exposure to TV crime, but it is also not immune to criticism. First, a *selective exposure* interpretation could be used to make the claim that people who are afraid of crime and believe that crime is highly prevalent in their surroundings, prefer to watch TV

shows about crime that guide them, even if indirectly, in how to deal with criminals (Minnebo 2000). Second, although a mean world view is associated with general viewing, watching fictional programming (of which crime drama is part) statistically relates to holding *just world beliefs*, according to which justice and not injustice is the norm in the society, probably because the moral message carried by crime drama is that justice almost always prevails (Apple 2008).

Regardless of the reason for the modest behavioural effect of watching TV on violent criminal behaviour, its actual size is out of proportion with the public and political concern over the matter. Since the mid-1950s, several rounds of congressional and senate hearings discussed this topic and a number of committees were appointed by the US Surgeon General to investigate the relationship between TV violence and violence in US society. The broadcasters referred consistently to the *First Amendment* in order to prevent governmental interference in the content of their programming (Signorielli 2005). Eventually, the "advisories compromise", in which broadcasters agreed to add marking advisories to violent programmes that viewers can use as a guideline to avoid exposure to violent shows (Potter 2003), became part of the 1996 Telecommunication Act that led to a considerable decrease of public interest in the longstanding discussion concerning the hypothesized connection between presenting crime on television and the level of crime in society (Grimes et al. 2008). Similar arrangements, including the availability of electronic devices such as the V-chip that can be added to TV sets to block objectionable programming, were adopted in many European countries. There, too, to a significant extent, the discourse concerning the criminal effect of TV violence had beenswept off the agenda (Gunter et al. 2003), which was quickly filled by two other debates: the ostensibly detrimental effects of internet and video games addiction (a burgeoning content sphere where gruesome material is readily available) and the sexist messages effects embedded in popular media (a content sphere that feminist activists routinely bash).

What lesson should be learned from our analysis? While a minor relationship between exposure to violence on television and a disposition towards violence, which may translate to some increase in the level of violent crime, probably does exist, the attention given to this connection by the scientific community, politicians and the public at large is all but proportional to its size. Compared to the effect of TV viewing observed in the most recent meta-analyses – the effect of genetics on criminal behaviour is approximately 55 times greater; the effect of personal self-control is more than 30 times greater; and the effect of exposure to childhood physical abuse is at least five times greater (Ferguson – Kilburn 2009).

This article does not aim to uncover all the motivations behind ascribing so much power to a rather small effect but it is obvious that in contrast with other factors that encourage acts of violence like family, friends, schools and the welfare system – the media system is probably the most eagerly willing to serve as a scapegoat. To an extent, the condemnation of shows for being responsible for crime may even increase their popularity because some viewers are interested in watching controversial programming (as happened, for instance, in the early 2000s with *Buffy the Vampire Slayer* after it had been blamed for encouraging school shootings – see Hetsroni 2007). Thus, the TV content industry (and for certain the media hardware industry that has been making profits on selling devices such as the V-Chip) did not seriously attempt to refute the "allegations". Ferguson and Kilburn (2009) further suggest that, politically speaking, resistance to media violence is a common denominator to both sides of the political spectrum: far-right politicians understand the abundance of crime in fictional programming as an atrocious symbol of an overly permissive culture, whereas far-left politicians see it as a destructive mechanism that blocks social change by keeping the public frightened and yearning for "law and order". For some members of the legal community, mainly the defence teams of violent criminals, the myth of the strong effects of TV viewing on criminal activity serves as a convenient excuse to pardon their customers. For example, the attorney of fifteen-year-old Ronny Zamora, who in 1977 murdered his eighty-three-year-old neighbour, claimed that the assassin was intoxicated by violence on television because of his obsession with popular crime drama. While the defendant had been found guilty, he was released from prison before his sentence was completed, thereby making TV intoxication a successful legal strategy (Trend 2007). Of course, scientists who receive public grants to probe and document the impact of media violence are also, in a way, motivated to emphasize the link between watching TV and acting criminally (Ferguson 2010).

Finally, a few words of caution are due about the scope of the conclusions. The studies we have reviewed took place mostly in the United States. Even though US TV shows are broadcast worldwide, we cannot automatically generalize the findings to other cultures. The same applies to crime figures, as the USA is known for being one of the most violent cultures in western civilization (Zimring - Hawkins 1997), and for having one of the most violent TV programming in this class (Gunter et al. 2003). This point was used by Gauntlett (1998) in claiming that conservative voices in America refer to TV violence (and media violence in general) as a scapegoat to avoid dealing with deeply rooted political reasons for social aggression. Media researchers too often take what Gauntlett terms a "backwards" approach" i.e. they first document the prevalence of violence on TV and then they connect it to individuals' behaviour, instead of carefully examining the motivations and background of violent persons and verifying whether exposure to violent programming is indeed a leitmotif in their life. Media effects studies hinge, to some extent, on reductive assumptions about the viewers, who supposedly perceive the content of broadcasts as it is interpreted by researchers (Gauntlett 2005), even though academics' definitions of on-screen violence tend to be more inclusive and less political than those of the target audience (Potter 2003). The common wisdom according to which a good story has more than one meaning is hardly reflected in the positivist TV violence literature that seems to be keen on documenting the detrimental outcome of exposure to the media, disregarding that at least in some cases violence is not an anti-social activity but a justified reaction. The critical challenges to TV violence scholarship based on alternative interpretations of the term violence demand a separate article, however, even though this criticism is methodologically different from our approach, the bottom line regarding the actual influence of TV exposure on violent conduct can be quite similar.

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