

Violence in Computer Games: A real link to aggressive youth or just a scapegoat?

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On the 27th February 2004, 14-year old Stefan Pakeerah from Leicester was brutally murdered by 17-year old Warren Leblanc. According to Stefan's mother, Leblanc was obsessed with the game "Manhunt" [1], where the main theme is to execute your enemies as gruesomely as possible [2]. This has been one of many opportunities for the mainstream media to be critical about violent games, especially those which encourage the user to commit immoral acts [3]. Politicians have also intervened, most notably British MP Keith Vaz, who is well known for his stance against violent video games, especially Manhunt. In November 2009, he said that he was "absolutely shocked" by the level of violence in the recent hit release "Call of Duty: Modern Warfare 2" [4]. In Germany, ministers have agreed to prohibit the production and distribution of all video games which depict killing or cruel acts towards humans [5].

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However, has a causal link yet been proven between playing violent games and an increase in violent attitudes in children? Can behavioural psychology measure such aggression and explain how violent video games influence such behaviour?

There have been many studies on the effects of playing violent games, some which show minimal effects and others that show increased aggression and feelings of hostility [6]. The methods used to measure these effects have involved either monitoring aggressive behaviour during or after short-term violent gameplay, or conducting mass surveys in schools and correlating long term violent game exposure with antisocial attitudes. Studies vary in how they carry out their experiments, surveys or statistical analyses, producing many different conclusions.

One psychologist, Dr. Craig A. Anderson, from Iowa State University, has undertaken many studies into the effect of violent video games on aggressive behaviour and cognition in children and adolescents. An example of the psychological tests that Anderson and his colleagues use to measure the short-term effects of violent game exposure is to have subjects play their assigned game for the same length of time, allowing the subjects to play another computer game where they send noxious noise blasts to other people playing in the same game. The louder the noise blast the subject sent, the more aggressive their behaviour is considered to be. Anderson claims that the results of his studies since 2001 all support, beyond reasonable doubt, a

causal link between exposure to violence and increases in aggression and feelings of violence and hostility in children and adolescents [7]. Another psychologist, Dr. Jeanne B. Funk from the University of Toledo, makes a similar conclusion that "support continues to grow for the contention that exposure to violent video games is associated with increased aggression and lower empathy" [6]. In 2005, the American Psychological Association (APA) suggested that a link between violent computer games and aggression may surpass that between aggression and televised violence [8].

On the other hand, not all studies have shown such clear links. Cheryl Olsen and Lawrence Kutner, directors of the Harvard Medical School Centre for Mental Health and Media, have published their findings in their latest book. They carried out their research by distributing surveys in schools and holding focus groups with school children who played violent video games regularly. Their study refuted any link between violent video games and violent behaviour. They did, however, find that boys who played M-rated games were twice as likely to be in trouble at school (such as being in physical fights or damaging property), and girls were four times as likely to do so. Even so they insist that "violent video game play is normal for young teen boys" and "most young teens who play M-rated games (restricted to ages 17 or older) do not have problems" [9].

John L. Sherry, of Michigan State University, found that the effect of violent video games was greater for older subjects and decreased as playing time increased [10]. In 2007, the American Sociological Association published a report claiming that there is no link whatsoever between violent video games and aggressive behaviour, stating that "excluding a host of other factors may make it seem that a



Citizens in Battle - Call of Duty: Modern Warfare 2. Reproduced from [17]

direct link exists between the introduction of [media violence] and homicides. In all likelihood any connection is incidental." [11] Even the US secret service have refuted a link after a study which found only 12% of those who carried out school shootings were attracted to violent video games [12].

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Once studies have been carried out, behavioural scientists try to figure out a psychological mechanism – that is, a way of explaining how something affects the way we behave or think - for the effect of exposure to violent games. This way, there can be an explanation into how and why violent media affects consumers.

Anderson claims that his findings support his mechanism known as the “General Aggression Model” (GAM). The model claims that violent games make players develop behavioural scripts - a sequence of events of how people should behave in various circumstances (e.g. in a restaurant) - that are related with aggressive and antisocial connotations, such as fighting with school friends. Then short-term exposure to violent games would cause physiological arousal and impulsive action causes the player to “run” the script – this is known as “priming” [13].

However, Sherry states that his meta-analysis (2001) is inconsistent with GAM, since such theories would predict a larger effect size with children, as they are at the stage when they are actively learning new scripts, whereas adults will require “re-programming” over previous scripts [10]. Naturally GAM does not fit in with those studies which find no link between violent gaming and violent activity in the real world.

An alternative theory, known as catharsis, suggests that people will release aggression through a forceful activity, like playing violent computer games. This would imply that aggression would decrease during violent video gameplay [14]. Anderson and Funk have both concluded that their research evidence disproved this hypothesis [6,7]. However, Sherry (2007) found in his meta-analysis that catharsis could not be ruled out completely and that more work was needed

[10]. In Kutner and Warner’s study (2008), two thirds of boys and almost half of the girls said that they played games to “help them relax”, and around half of the boys played them to get their anger out [9], which shows some support for the catharsis hypothesis. According to another psychologist, Christopher J. Ferguson (2009), few studies have assessed catharsis properly, since they have not controlled for prior emotional states [14].

Clearly there is no consensus concerning the mechanism or even existence of a causal link. Most recent studies show that any link is minimal. Only Anderson and Funk remain adamant that there is some link, but Anderson has been criticized for not citing other studies which oppose his theory [14], and by researchers Block and Crain (2007) for improperly calculating data [15]. Even after all of this research, there are many questions that remain unanswered. For example, do experiments which test for aggression, like those Dr. Anderson carries out, relate to the violence we see portrayed in the media? It also seems that the question of whether games cause violent behaviour, or whether those who are more aggressive are inclined to play such games, has not been fully addressed. There needs to be more effective research before anyone can explicitly say that a link exists or not. For example, J. B. Funk suggests that using functional MRI (fMRI) in the laboratory could measure effects from specific experiences by examining how violent video games affect certain parts of the brain [6].

Until then, what can parents and politicians do? They should note that there has been research into the benefits of playing such video games. Playing first person shooter games has been shown to improve eyesight [16]. Kutner and Olsen discuss many advantages, like providing a source of self-esteem and opportunities to practise planning and decrease reaction times [9,11]. Many adolescents play violent video games, regardless of the age restrictions, and parents should be less worried by the media sensationalism.

The lack of conclusive research may leave this problem unresolved, but an open verdict is not a justification for overly restricting game content, which is seen as the only solution for some such as the German Government. Only after gaining hard evidence should governments and campaigners be confident enough to act. This is a difficult goal to achieve, but with persistence from behavioural scientists, it can be done. ■

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