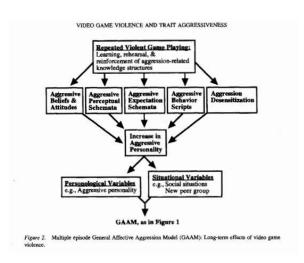
## Abstract

Video games have hypothesized about the effects their violent and graphic games have on people's behaviour. Many sources to these links were explored with several of them referenced. Anderson and Dill's [Anderson and Dill,2000] experiment is the main contributing factor. Its experiment shows that most people's favourite games have a high level of violence and their monitoring showed that the aggression of the player, increases with more violent material shown. Another source was from a longitudinal test [Adachi, P. Willoughby, T. (2016)] where a longer and more populated test looked at aggression levels with young people and competitive video games. This experiment showed a correlation similar to Anderson and Dill's research. Other sources like criminal actions and theft were recorded because of this [Collinson, F. Huff, G. (1987)]. The research done was in-depth but only covered a narrow scope of people which excluded factors like age, gender and local sources like newspapers and magazines. In conclusion, there was enough evidence from various sources to prove that an increase in violence in video games, also increases the aggressive behaviour of the player.

## The links between video games and behaviour?

Video games have been popularised as a mainstream form of entertainment and stress relief. They allow us to express ourselves in the form of characters and allow us to have the freedom to do whatever we want. They also allow our feelings to show through and allow us to experience the ups and downs of our characters' lives. Because of the immersive and realistic form of entertainment, players tend to form emotional attachments to their characters and the game in general. Due to this, players experience more intense emotions when progressing through the game. These emotions can either be happy and excited or they can be negative emotions like depression, frustration, and anger. For instance, if the game is a first-person shooter (e.g., Rainbow 6 Siege), the player experiences very graphic and violent situations which – if it is affecting the player's character- allows them to experience a more emotional reaction. Regardless of the kind of situation, if someone is exposed to a violent source, they may act differently. Because mainstream games have a high player base, there is also the potential risk of online grieving and trolling. This can make the player infuriated and prone to aggressive behaviour for a different reason as, instead of the game's coding making them feel their emotions, a person is affecting their game. However, these negative emotions could all be due to the person's life and gaming allows them to vent those problems and their bottled-up emotions. Alternatively, it could also be because video games in general make us more violent and angry regardless of our own lives. Can video games negatively change our behaviour? Do video games have a negative impact on your behaviour or do this form of media help destress and relax you? Do video games cause aggression in players?

When looking at published articles there is a lot of evidence to suggest that video games increase your aggression and behaviour. In a study on the effects of aggression-related variables with violent video games [Anderson and Dill,2000] the scientists proposed 2 experiments. One would look at the correlation between video games and violence. There test involved Two hundred twenty-seven (78 male and 149 female) volunteers and they monitored their behaviour throughout the experiment. The experimental method was described as "Participants were asked to name their five favourite video games. After naming each game, participants responded on scales



aggression level of the game increases, so does the aggression level of the player. With many participants, this dataset is reliable. Within the published research, all the major variables were considered like gender, age and whether the participants were frequent gamers. From this set of people, they also asked what their favourite games were, that being Super Mario Bros, Tetris and Mortal Combat, Mortal Combat being an aggressive video game.

Further evidence to support the idea that video games make players violent was proven when a longitudinal test was sive behavior as a function of aggressive personality (AP). carried out [Adachi, P. Willoughby, T.

anchored at 1 and 7, rating how often they played the game and how violent the content and graphics of the game were." When looking at their results they found that exposure to video game violence in aggressive correlation to behaviour increases with more violence in video games. Anderson and Dill stated that "Violent video gameplay and aggressive personality separately and accounted for major portions of both aggressive behaviour and nonaggressive delinquency." These results that have been published show that

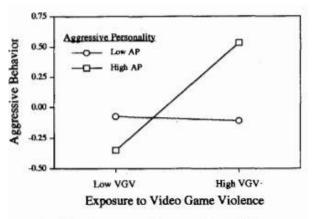


Figure 3. Effect of exposure to video game violence (VGV) on aggres-

(2016)] to see whether the aggression levels of young adults and adolescents increased as they played competitive video games. This occurred over 4 years of testing. Retrying and researching the material for the results to be published. They found that over 4 years and 2 tests, with 1,132 participants and a mean average of 19-Year-olds for a test and 1,492 participants at a mean average age of 13, both tests proved to have higher levels of aggressive behaviour over time. The article then alludes to the continuation of aggression over their lifetime. This is quite strong evidence for the idea that video games cause higher levels of aggression. However, these results have only been with participants of age 19. This might be because the main player base of these games is this age demographic. Therefore, the limited range in age is not meant to be a disadvantage. We can use the data that we have collected to predict the aggressive behaviour of the players in later life.

In a journal article, [Collinson, F. Huff, G. (1987)] the researchers go into depth on the effects of video game violence. It depicts how violent crime increases with more sales of highly violent games. The researchers state that the possibility that people who are exposed to more violent games have increased aggression. However, more testing should be done and that social scientists haven't moved past laboratory experiments to research this more. This is because they had only published the article in 1987 and therefore didn't have that many sources of information. They use 100 participants that had been arrested from the youth custody centre. Out of the 100 participants, 60 gambled and out of those 60, "13 said that at some time they had stolen specifically to obtain money for video games" this data shows that twenty-five per cent of young people whom gamble stole money for video games. This could be evidence of the effect video games have on young people. The addictive nature of these games pushed young people to commit a crime and become violent. Overall, the correlation between crime and violent video games is that as violent game sales increase so do the violent crimes in the high youth countries.

Most of these articles were created because of the tragic school shooting that happened in 1999 in Paducah, Kentucky; Springfield, Oregon; and Littleton, Colorado. This is because the reporters at the time emphasized that the shooters had a passion for the game Doom, released in 1993. They stated, "when reporters mention research to explain the shooters' behaviour, the vast majority of studies cited concern media effects, suggesting that video games are a central cause" [Sternheimer, K. (2007)]. Although the shooters played Doom and all enjoyed the game, this is not a reflection on Doom or video games in general. As pointed out in Sternheimer's article "By focusing so heavily on video games, news reports downplay the broader social contexts" it showed that the reporters were highlighting the video game to show the persona that video games cause violence without considering other factors like American gun laws, family poverty and bullying. These factors are important seeing as an insignificant amount of people reacted to the aggressive behaviour that these shooters had. if it were only the game's fault then the whole world would have seen many reports and crimes due to Doom, as it was and still is a very popular game to date

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This evidence from the articles and blog posts highly suggests that video games cause violent emotions and actions. However, my limited research restricted me to this viewpoint on the effects of video games on behaviour and violence. I could have researched a more specific population of people. For instance, the effects video games have on old people or pensioners. This essay has focused on mainly the effects it has on young people between the ages of 16-and 25. However, this has limited research on the topic. It might be that younger people are more prone to violent behaviour and that testing on older people might be irrelevant as older people are not affected by violence in video games that much. Also, I could have researched the effects It has on different genders. For instance, do men have a greater reaction to video game violence than women? In Anderson and Dill's experiment [Anderson, C. Dill, K. (2000)] they do split the genders up and research suggests that men have a larger reaction to video game violence. However, this is only 1 article and is inconclusive evidence to make a point on. I could have also looked at how video games positively affect you. In [Carras, M. Johnson, D. Jones, C. Scholes, L. (2017).] the researchers state from their comprehensive tests that "While traditionally research has suggested that videogames contribute to negative outcomes, increasingly empirical research highlights positive outcomes associated with the gameplay". This is evidence that video games give emotional support and help other parts of us like hand-eye coordination in third-person games. I could have also researched different sources like the library and other forms of media (newspapers and magazines). This fact also limited my research to websites online.

To conclude, video games are a very popular form of entertainment and allow people to connect around the world and play with each other. However, these forms of entertainment are a trigger for bad behaviour and violence. As shown in Anderson and Dill's report, aggressive behaviour increases with exposure to violence in video games. With this evidence and the evidence provided by Adachi and Willoughby, we can safely assume that people's aggression level increases as their exposure to violence in video games increases. So, the effects that video games have on behaviour is a very radical change to our emotional state based on the level of violence in the game. Also, when considering the popular and mainstream games to date, they all have a form of death, killing and violence in them. This is substantial evidence that video games cause aggression in people and make them more likely to do violent acts like steal. This evidence is shown by the research made by Collinson and Huff. However, the limited research that has taken place may have left a knowledge gap and we can only assume that these actions take place under the circumstances that have been presented within the experiments. Therefore, with the research that has been collated, we can assume that video games not only cause violent and aggressive behaviour but also can lead to illegal actions and behaviour.

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