How does violence and death in video games affect adolescents' perception of death and violence in real life?

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Abstract

This is the abstract.

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1 Introduction

Video games have become one of the most prevalent forms of entertainment among adolescents across the globe, with violent and death-related content present in many popular titles (*e.g. Call of Duty, Fortnite, Grand Theft Auto*). Existing rating systems such as PEGI (EU) and ESRB (US) already flag the degree of violent realism in these games, reflecting widespread public concern about the effects of such content on young people's development and moral reasoning.

1.1 Background and significance

Discussions over whether violent video games influence aggressive attitudes or behavior have continued since these games first appeared. Meta-analyses and longitudinal studies have produced mixed results, with some suggesting that frequent exposure to violent or dark-themed games may increase tolerance toward aggression and reduce empathic concern for others (Anderson and Bushman 2018; Bushman et al. 2025). Other large-scale and well controlled studies, however, found little to no direct causal link between exposure to violent game content and real-world aggression once individual traits and prior aggression are accounted for (Przybylski and Warstein 2019; Lacko, Machackova, and Smahel 2024).

Although large-scale violent events such as school shootings and public attacks reopens public debates about the role of violent media, including video games, in fostering aggressive tendencies, empirical evidence connecting real-world violent incidents and video game consumption remains correlational and far from conclusive (Ramasubramanian and Banjo 2020). Still, the perception that violent video games might normalize aggression or death sustains an important social as well as scientific question: **how does repeated exposure to virtual violence shape adolescents' moral reasoning, emotional responses to and perception of real-world violence and harm?**

1.2 Psychological mechanisms

From a psychological perspective, video games can engage several mechanisms, such as reward-processing systems, that reinforce and justify aggressive acts. In many games players are rewarded with (Experience-) points, level-ups, in-game items or currency after committing violent or unjustful acts, such as slaying enemies or stealing from non-player characters (NPCs). This rewarding may strengthen the player's association of a positive outcome with aggressive behavior, potentially leading to desensitization toward violence over time (Carnagey, Anderson, and Bushman 2007). Additionally, the immersive and interactive nature of video games allows players to actively participate in violent scenarios, which may enhance the emotional impact and identification with aggressive characters. Furthermore, these games often lack realistic consequences for violent actions, which could distort players' understanding of the severity and impact of violence in real life. And finally, in these games death is often portrayed in a trivialized or gamified manner, where characters can respawn or continue playing after being killed, potentially diminishing the perceived gravity of death

and harm (Hartmann, Krakowiak, and Tsay-Vogel 2014).

1.3 Gender differences

Gender differences may also play a role in how violent video games affect adolescents. Research indicates that boys, statistically play more violence and competitive-/combat-driven games than girls, who tend to prefer narrative-driven and cooperative experiences (Walkerdine 2007; Hartmann and Klimmt 2017). This differential exposure could lead to differences in moral reasoning and emotional responses to violence if viewed as normative behavior within their gaming communities. Furthermore, societal norms and expectations around masculinity and aggression may further shape these experiences and responses.

1.4 Societal and developmental relevance

Investigating the impact of adolescents' perception of violence and death in video games is especially relevant given that adolescents are in a critical developmental stage where moral reasoning and empathy are still maturing (Blakemore and Robbins 2012), and they are particularly susceptible to peer influence and media effects (Steinberg 2008; Fikkers et al. 2016). Adolescents are also in the process of forming their identity and understanding social norms, making them especially vulnerable and receptive to media messages, including those related to violence and death (Avci, Baams, and Kretschmer 2024). Furthermore, adolescents' digital lives often blur the boundaries between fantasy and reality, especially in immersive or multiplayer environments.

The issue is not only theoretical but also practical. Given the rise of interest in game and app development, understanding how reward systems and death depictions shape users' psychological responses can lead the creation of games that are engaging, yet ethically and emotionally responsible. Integrating psychological insights into game design could help developers build interactive experiences that foster empathy, prosocial behavior, and critical thinking about violence rather than desensitization or normalization of harm.

1.5 Research question and hypotheses

This study aims to investigate how exposure to violent and death-related content in video games influences adolescents' moral reasoning, emotional responses, and behavioral tendencies. Specifically, the research will explore whether frequent exposure to violent/death content is associated with increased tolerance for aggression, reduced empathy, and altered moral judgments concerning harm to others.

Based on desensitization and aggression models, we hypothesize that:

1. Greater exposure to violent/death-related game content correlates with higher acceptrance of aggression and reduce empathy for pain and suffering in real life.

2. Games that reward aggressive actions will amplify these associations compared to games without such reward systems.

3. These relationships will differ by gender, with stronger effects expected among boys.

Addressing these questions can clarify whether interactive violent content merely reflects existing preferences or actively shapes and contributes to perceptual, moral and emotional desensitization. Understanding these dynamics is crucial for informing parents, educators, policymakers and game developers about potential risks and ethical considerations in adolescent media consumption.

2 Methods

Video games are a central leisure activity for many teenagers. Modern titles frequently include violence and death, often very close and in a rewarding systems. This study will specifically focus on how violence and death in video games affect adolescents' behavioral and emotional responses.

Although video games containing violence and mortality are widely played by adolescents, there is ongoing debate about whether those lead to changes in teenagers. This study aims to clarify these relationships by examining how frequency and intensity of exposure to in-game violence and death affect teenagers.

2.1 What type of research is the objective?

1. To describe patterns of exposure to violent and death-related content in video games among teenagers.

2. To examine the relationship between exposure to violent/death content and aggressive behaviour and anger.

3. To investigate whether frequent exposure to violent/death content is associated with changes in empathy and moral reasoning.

4. To explore moderating factors (e.g., gender, parental mediation, prior aggression, and game context such as competitive vs. narrative-driven violence).

The following questions will be answered.

1. What are the typical frequency and intensity levels of exposure to violent and death-related content in video games among teenagers in the sample?

2. Is greater exposure to violent/death content associated with higher levels of aggression and anger?

3. Is greater exposure associated with lower scores on measures of empathy or altered moral judgments concerning harm?

4. Do factors such as parental mediation, type of game, or baseline temperament moderate these associations?

2.2 What are the important elements/ objects?

- **Violent content:** Interactive game events that depict or require aggressive acts intended to harm characters (physical fighting, shooting, severe injury), coded by intensity and realism.

- **Depictions of death:** In-game events where characters die, are killed, or dying is depicted, including contextual cues (graphic vs. non-graphic; narrative-driven vs. incidental).

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- **Exposure:** Self-reported weekly hours spent playing games containing violent/death content, supplemented by a brief content checklist to gauge intensity and realism.

2.3   How do we evaluate our research?

In order to evaluate this research, it is important to establish a clear set of criteria, which measures how violence in video games influences adolescents' perception of death and violence in real life. Firstly the study will look into whether there are measurable changes in attitude and tolerance towards violence after exposure to violent video games. For example, if adolescents' that grew up with violent video games show reduced emotional sensitivity to violent content or higher acceptance towards acts of aggression in everyday situations, this can be taken as an indicator of desensitization.

Furthermore the study will focus on investigation patterns of behavioral changes. This might include identifying if exposure to aggressive game content might increase aggressive and violent thoughts, language and actions in comparison to non-violent video games. Surveys, psychological questionnaires, as well as controlled experiments from existing literature will serve as the main tools for gathering useful information.

Thirdly, criteria such as the ability of young individuals to distinguish between fiction and reality will be examined. This includes assessing the grafical depiction of violence in videogames and the realism of graphics and violent scenarios, aswell as reactions of NPCs to player driven violence. This also includes if the normalization of violence makes it appear as an acceptable problem-solving strategy. If adolescents struggle to differentiate between in-game violence and real-world consequences, this could indicate a blurring of boundaries. Finally the study will evaluate against existing standards of psychological and sociological analysis. The reliability of finding consistency across existing studies and the amount to which the findings can be generalized to a broader population will be considered as essential criteria for the validity of the research.

2.4   Which (types of) sources are to be used for the research?

This research will rely on various types of academic and empirical sources in order to provide a well-rounded and evidence-based perspective on the topic. Peer-reviewed journal articles and empirical studies in the field of psychology, media studies, as well as sociology will serve as the primary sources. These sources will provide scientific evidential data and insights into the psychological impact of violent video games on adolescents.

Secondly, official reports and publications from reputable organisations, such as for example the American Psychological Association (APA) and the World Health Organization (WHO) will be consulted, as they provide standardized guidelines as well as comprehensive and professional assessments, regarding youth, media and mental health.

Furthermore, books, as well as theoretical works by experts on media effects, aggression and adolescent development will be consulted to provide a deeper understanding of the underlying theories, concepts and frameworks that inform the research.

Additionally, surveys, case studies and pilot studies that are conducted by universities or

youth organizations will be used to offer a valuable insight into current trends and real-life observations.

Also taken into account will be Laws and age restrictions (eg. PEGI ESRB ratings, etc.) as well as parental and ethical guidelines regarding video games, since they show how society attempts to regulate exposure to violent content among adolescents.

Finally, statistical data from governmental and educational institutions will be used to provide support to the claims about the prevalence of gaming amongst adolescents and potential correlations with violent behavior. Through combining theoretical, statistical, empirical, and practical sources, the research aims to build a comprehensive understanding of the influence of violent video games on adolescents' perception of death and violence in real life.

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