

The Influence of Moral Choices in Video Games on Real-World Decision-Making and Empathy

Bangqiao Wang ¹, Youyou Wu ² and Zirui Xu ^{3,*}

¹ School of Information Science and Engineering, Chongqing Jiaotong University, Chongqing, China

² Shanghai New Epoch Bilingual School, Shanghai, China

³ School of Mechanical and Electrical Engineering, Anhui University of Science & Technology, Anhui, China

* Corresponding Author Email: humc@ldy.edu.rs

Abstract. This paper explores the impact of moral choices in video games on players' real-world decision-making and ethical behavior. This study highlights the psychological benefits of engaging with morally complex decisions, while video games are often criticized for promoting violence and addiction. By analyzing some typical video game instances such as *Detroit: Become Human*, *Red Dead Redemption 2*, and *The Last of Us Part II*, the research shows how game decisions can enhance substitution, empathy, and moral reasoning. This study is conducted on data gathered from surveys and interviews with players of this kind of video game. In addition, thematic analysis and literature review better analysis of this data. This study demonstrates that moral choice mechanics in video games, such as Non-Player Character (NPC) feedback and morality meters, can influence players' emotional engagement and ethical reasoning, potentially affecting real-world decision-making. However, this influence is complex and shaped by individual psychology, social context, and personal values, and there is a need for further research into long-term behavioral impacts. This research provides valuable implications for game developers, educators, and psychologists in designing interactive systems that promote ethical thinking.

Keywords: Moral Choices; Real-World Decision-Making; Empathy; Video Games.

1. Introduction

Nowadays, most people believe that video games always negatively influence individuals, especially teenagers. Many critics argue that video games instigate violence and crimes, cause addictions, and bring health problems. However, these opinions overlook the videogame's inner complexity and advantages. Instead of the traditional thoughts of video games, new ideas focus on people's decisions or even moral options in video games, which strongly relate to the game process and denouement. This relationship is revealed in many video games. For instance, *Detroit: Become Human* (DBH) or *Baldur's Gate 3* (BD3) has lots of decisions for players to make via their understanding of the game's story, social background, and their morality and perspectives [1]. And their options directly impact the characters' fates and the end of the game. Having an investigation of the relationship is promising because it can help scientists to have a better understanding of the decision-making of human behaviors. On the other hand, the research can show approaches and considerations of game designers to plan game content, providing new ideas for other game developers to create amazing and positive games that deeply attract players.

The study of moral choice systems in video games has gained much attention from society, especially in behavior. Early studies focused on the impact of moral choices on player experience. For instance, Sicart explored the ethical aspects of video games, arguing that player agency in moral dilemmas enhances immersion and emotional involvement; he proposes a framework for analyzing the ethics of computer games as both designed objects and player experiences. In addition to this, Weaver and Lewis examined how moral decision-making in games influences real-world ethical reasoning and choices. It is worth noting that *Grand Theft Auto* is one of the most controversial games. DeCamp



has analyzed how the sandbox design of Grand Theft Auto (GTA) affects player decision-making, showing that while the game allows immoral actions, players often engage in role-playing and commit some violence. Anderson has explored whether violent choices in GTA influence real-world aggression, while Ferguson argues that such games provide a safe outlet for aggressive tendencies. As games evolve, improving Artificial Intelligence (AI) and machine learning in moral choice systems may further enhance the research in this field.

The main objective of this study is to analyze the positive effects on players when encountering moral judgments in games. Furthermore, the researchers conclude that the choices players make within the game can influence their real-world decision-making. Thus, this research will demonstrate that analyzing players' choices exerts mixed effects on real-world decision-making, which may benefit or endanger physical behaviors. The paper is structured as follows: overview, methodology exploration, and case study analysis.

2. Methodology

2.1. Overview

In our literature, we will first explain how moral choices influence people's behavior in real life. And we are going to give some typical examples. We will make a comparison with them. In this case, we will find out how the game designer makes an excellent plot to draw the player's attention and discuss both advantages and withdraw. Then, we will discuss how to use them in the research to solve these problems. In the end, we will give examples of the application of this field in many aspects of real life, such as public health, psychology, education, and policymaking. Our study pipeline is shown in Fig. 1.

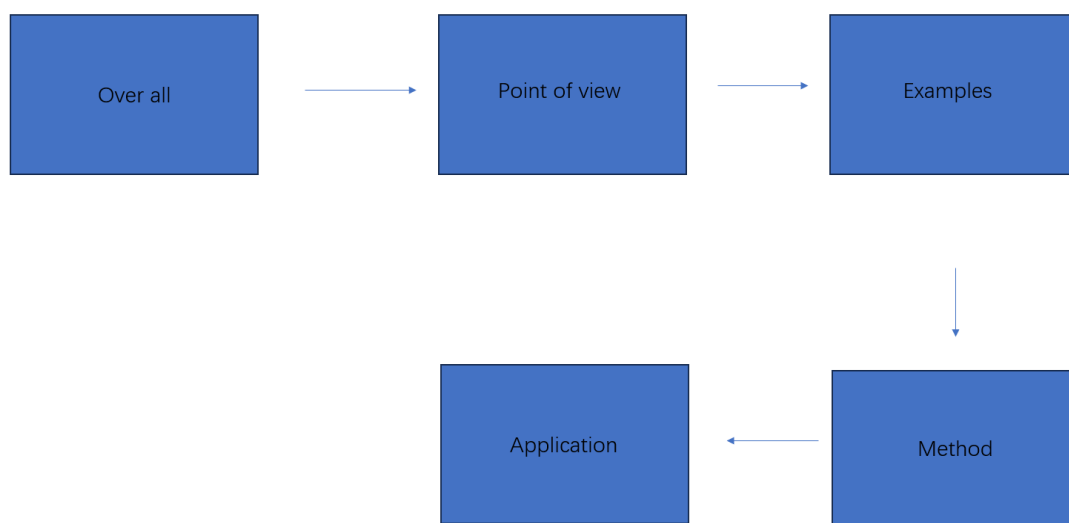


Figure 1. The pipeline of this study (Photo credit: Original)

Many scientists have researched relationships between players' choices in video games and real-life experiences [1]. Sophie Wright and Alena Denisova researched this relationship. They asked two questions: how do video games facilitate moral decision-making, and what do players' experiences and perceptions of game mechanics enable ethical decision-making [1]. They first did lots of related work about players' morality and elements in video games, which involve moral choices like timers, quick time events (QTE), dialogue choices, NPC feedback, meta choices, and so on, to have a well-known understanding of their research topic [1]. Then, they use surveys and semi-structured interviews to gather data and thematic analysis to analyze their data. It covers many video games such as Red Dead Redemption, Detroit: Become Human, The Walking Dead, and so on, as well as players' experiences and decisions [2-4]. They found that moral choices in video games stimulate or discourage, depending on players' morality, and players enjoy games. Moreover, players are more enthusiastic about counting and interaction with NPCs and prefer moral dialogue.

Another group of researchers from Bina Nusantara University did research by literature review to determine whether video games could improve cognitive skills and decision-making, and which video game genre affects which cognitive skills [5]. They collected about 27 related papers, analyzed them, and found that players are forced to learn some cognitive skills in video games, which can improve their skills, including time management, problem-solving, and decision-making, showing that players' actions in video games can affect their actions in real life.

2.2. Analysis of the Relationships Between Players' Choices in Video Games and Reality

2.2.1. Analysis Methods.

To find out the relationships between players' choices in video games and reality, researchers require lots of data from players to know which games are appropriate to do the research, what kind of moral choices players should consider more, and what their options in real life are when the same situation happens. After getting the information, researchers need to analyze it to find out whether players' moral decisions in video games can reflect on their real lives. The research process can be divided into gathering and analyzing data. Recently, many researchers have used surveys and interviews to collect and analyze information through thematic analysis. However, some researchers don't research; they use literature reviews to present ideas and conclusions.

Additionally, others design moral dilemma game scenarios and employ the Moral Dilemma Questionnaire to measure players' decision-making tendencies. Schulzke found that the proportion of players choosing utilitarian options in virtual scenarios is significantly higher than real-world predictions. All of the methods mentioned have been common in recent research.

A dedicated research project investigates players' engagement with ethical choice mechanics across gaming platforms. The methodology employed two integrated approaches: a digital survey capturing extensive quantitative metrics and comprehensive interviews, enabling a nuanced qualitative examination of decision-making patterns. They first use thematic analysis to identify and analyze patterns or themes in data. And 143 participants who had played a game involving moral decision-making were recruited [6].

The research employed a two-part methodological approach to investigate players' experiences with moral decision-making in video games. First, an online survey was distributed to participants to gather broad, quantitative data. The study aimed to examine the specific game mechanics that facilitate moral decision-making and explore players' experiences with these mechanics. Participants were asked to identify video games featuring prominent moral dilemmas and describe the influence of these mechanics on their decision-making processes. This method provided an initial understanding of how players interact with ethical decisions in video games. Following the survey, semi-structured interviews were conducted with participants to obtain more in-depth qualitative insights. These video-elicitation interviews focused on popular video games such as Red Dead Redemption 2, The Walking Dead, Detroit: Become Human, and Spec Ops: The Line. Participants were shown video clips from these games and asked to reflect on how the in-game mechanics impacted their moral choices in real-time gameplay.

The findings from both the survey and the interviews indicated that specific game mechanics effectively facilitated moral decision-making by providing players with immediate feedback on their choices. Participants particularly favored mechanics such as NPC feedback, morality meters, and timers, which added urgency to their decisions. These mechanics influenced players' moral choices and enhanced their engagement with the narrative and overall emotional experience. The primary objective of this study was to investigate how various game mechanics facilitate moral decision-making and influence player experiences in video games. The study aimed to provide theoretical and practical contributions to game ethical dilemmas by identifying key mechanics supporting or hindering moral decisions. The ultimate goal was to develop design guidelines to help game developers create more emotionally resonant and morally challenging experiences for players.

2.2.2. Analysis Process.

To begin with, researchers publish their surveys online to find players' information and data they need, including some games that contain moral choices during their plots and players' choices and actions. Most survey questions are closed-ended (single or multiple-choice); others are open-ended. Researchers can quickly get a lot of structured, standardized data via surveys. They use it mainly to locate their participants because open-ended questions, in which participants can share their ideas, are limited in surveys. In considering getting more detailed information, researchers need to conduct interviews to discover players' thoughts and experiences, which cannot be easily revealed in surveys. Interviews can be divided into three types: structured, semi-structured, and unstructured. They differ in whether questions are confined, but they all emphasize participants' experiences, opinions, and emotions. Choosing which structure depends on data from previous surveys. Compared with surveys, interviews have no closed-ended questions, which are more flexible, and participants would like to share their genuine opinions because of the face-to-face environment.

After getting data, it is essential to analyze it to find some consequences related to the research topic—relationships between players' choices in video games and real life. In this analysis part, one of the methods researchers uses is thematic analysis. This type of analysis is proposed by Braun and Clarke and is used to recognize and analyze themes in data [7]. These themes summarize phenomena and problems related to the research topic and represent some essential features from the data. There are six steps in the process of thematic analysis: familiarization, coding, generating themes, reviewing themes, defining and naming themes, and writing reports. Researchers first need to get familiar with the data they gathered, and record some of their observations and thoughts. This step helps researchers have a general understanding of their data and capture some key aspects that are relevant to their research topic.

Next, researchers find and code critical and representative information with short keywords. For example, in the topic of relations between players' decisions in video games and real life, more specifically, in game called Far Cry 4, these key words could be “Agree Sabal's opinion that destroy the opium crops at the Kyra Tea Factory” and “Agree Amita's opinion that keep the factory”, “choices to kill Amita”, “choices to save Amita” and so on [1]. Researchers should have an objective and open attitude when coding to avoid classifying data too early. Researchers collect their codes and combine them into a more general theme. According to example codes in coding parts, “choices to save Amita” and “Agree with Sabal's opinion” can be combined into a theme called “Positive decision”. “Choices to kill characters” and “Agree with Amita's opinion that keep the factory” can be combined into a theme called “Negative decision”. This process ensures data consistency within the same theme, making it more lucid among themes.

2.3. Application Analysis

Holl found that moral choices increase empathy and influence ethical decision-making in the real world [6]. There is a pretty controversial game instance, The Last of Us Part 2; to most players and the whole game development industry, it's one of the games with the best technical capabilities, like the enemies' AI. In addition to this, it has the best level of design. But what makes it controversial is its plot. The game forces players to take control of Ellie and Abby, causing them to experience the consequences of revenge and violence from multiple perspectives. The plot indeed satisfied a lot of players. Those who support it agree that it increases empathy and moral reasoning and encourages self-reflection on revenge and violence. However, the opponents have expressed the lack of player agency in this game, particularly regarding the narrative decisions of the game. A notable critique is that the match mandates players to perform specific violent actions, which leads to frustration among many players, as they are compelled to engage in actions they oppose. The reason is that The Last of Us Part 2 did not give players a choice but to do what they think they should do.

And there is also an example, Red Dead Redemption 2. The game has a dynamic honor system, where Arthur Morgan's (the character players can control) actions, such as helping or harming NPCs, shape

the world's response to him. Not only this, Fleischer noted that players who intentionally engage in moral choices might translate their ethical awareness into real life. It can increase generosity in real life, as players who role in a “good” Arthur may feel morally rewarded.

3. Discussion

This study examines the strengths and limitations of several research methodologies—surveys, interviews, thematic analysis, and literature reviews—in exploring moral decision-making in video games and its influence on real-life behavior. Surveys are efficient and low-cost, suitable for gathering large-scale data, but may suffer from superficial responses. Interviews provide deeper insights through face-to-face interaction, but are time-consuming to conduct and analyze. Thematic analysis helps identify patterns in qualitative data, but it is highly subjective.

Literature reviews offer theoretical grounding but are limited by the scope and quality of available sources. To address these limitations, a mixed-methods approach is recommended. Combining surveys with interviews balances breadth and depth, while triangulation enhances the validity of findings. The study suggests leveraging online tools to streamline qualitative research processes and advocates for longitudinal research to track players' ethical development over time. It also proposes using experimental games embedded with monitoring tools and biometric sensors to collect real-time data on players' moral engagement. Importantly, findings reveal a complex relationship between in-game and real-life moral choices. While some players exhibit consistency in both domains, others act oppositely, often due to psychological factors, social environments, and individual values. For instance, most players of violent games like GTA V do not translate in-game aggression into real life. Thus, researchers must investigate the motivations behind players' decisions through extensive, diverse surveys and in-depth psychological and sociological analysis [8].

Future research should ensure data inclusivity and objectivity by involving varied demographics and applying rigorous coding and theme validation. Understanding the consistency and divergence in moral decision-making across contexts may inform game design, education, and psychological research, contributing to ethical awareness through interactive media.

4. Conclusion

This study investigates how moral choices in video games influence players' real-world ethical thinking and decisions. Using surveys and interviews, it explores how in-game mechanics—such as morality meters, NPC reactions, and timed decisions—affect emotional engagement and ethical reflection. The mixed-methods approach revealed that such mechanics shape how players respond in virtual settings and influence real-life behavior, depending on personal values, social context, and cognitive factors. The findings provide insights for developers, educators, and psychologists interested in designing games that foster moral reasoning. The study also reviewed literature to establish theoretical grounding and highlight research gaps. Future research will focus on the long-term impact of moral decision-making in games through longitudinal studies and biometric tracking. The ultimate aim is to develop design strategies encouraging meaningful ethical engagement and contributing to a deeper understanding of moral behavior in interactive digital environments.

Authors Contribution

All the authors contributed equally, and their names were listed in alphabetical order.

References

- [1] CONNOLLY Bernard. A Terrible Choice. *The International Economy*, 2024, 38 (2): 32 - 58.
- [2] DIEN Alex. From Pixels to Proposals: Exploring the Effects of Empathy and Immersion on Economic and Moral Decision-Making in Video Games. 2025.

- [3] ARRAMBIDE Karina, et al. I don't want to shoot the android: Players translate real-life moral intuitions to in-game decisions in detroit: Become human. Proceedings of the CHI conference on human factors in computing systems, 2022: 1 - 15.
- [4] GRASSE Katelyn, et al. Using self-determination theory to explore enjoyment of educational interactive narrative games: A case study of academical. Frontiers in Virtual Reality, 2022, 3: 847120.
- [5] REYNALDO Charles, et al. Using video games to improve capabilities in decision making and cognitive skill: A literature review. Procedia Computer Science, 2021, 179: 211 - 221.
- [6] RYAN Malcolm, et al. The effect of morality meters on ethical decision making in video games: A quantitative study. Computers in Human Behavior, 2023, 142: 107623.
- [7] BRAUN Virginia, and VICTORIA Clarke. Is thematic analysis used well in health psychology? A critical review of published research, with recommendations for quality practice and reporting. Health Psychology Review, 2023, 17 (4): 695 - 718.
- [8] COYNE Sarah, and LAURA Stockdale. Growing up with grand theft auto: A 10-year study of longitudinal growth of violent video game play in adolescents. Cyberpsychology, Behavior, and Social Networking, 2021, 24 (1): 11 - 16.