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The Role of Negative Emotions in Videogames

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ABSTRACT

This work will explore the literature on the different ways in which videogames can elicit negative emotions and which game's elements can provoke such reactions in players. Videogame development and research have, in their early years, mostly focused on their fun and pleasant side. In the last two decades, however, research on different emotions evoked by certain videogame titles and essays on how failure is an indivisible part of the playing experience have been successfully illuminating the nuances of what we feel when we play. The tools used to bring out such reactions are many, such as story aspects, visual and audio cues and mechanical elements. Most of these not completely fun games are also pleasant, even though this is not their main characteristic, which implies a certain type of balance between positive and negative meanings, a composition that is similar to the eudaimonia concept of media studies. This research hypothesis is that, although the majority of videogames aim mainly to stimulate pleasure and fun in their players, there is a growing number of games that aim to engender negative emotions. These games, however, do not stimulate only these emotions, but rather, weaving them together with the most commonly used emotions, such as pleasure and fun. This will be done firstly by examining released games that already evoke these emotions, secondly by isolating the elements in the game that could be responsible. This research will be convenient for researchers by providing a snapshot of what is currently known about the relationship between negative emotions and game design elements and also for the game design field by providing designers with extra knowledge and even tools to approach their *métier* in a different light and crafting richer experiences.

Keywords: Videogames, Game design, Emotions

INTRODUCTION

Videogame development and research have in their early years mostly focused on their fun and pleasant side (Huizinga, 2010; Koster, 2005; Sallen and Zimmerman, 2010). In the last two decades, however, both videogames and research have explored new and uncommon facets in the most prominent of interactive medias. Titles such as Papers, Please (Pope, 2013), This War of Mine (11 Bit Studio, 2013) and Dys4ia (Anthropy, 2012) question by their own classification as games if fun was ever an immutable portion of game design. In academia, research on different emotions evoked by videogames and essays on how negative feelings, such as failure, are an indivisible part

of the playing experience have been illuminating the nuances of what we feel when we play.

This article presents a short retelling of what is currently known about the complex relationship between negative emotions and games. The field is not as ample, but still it would be impossible to present in depth everything that was published in the last decades about it. That is why a short retelling of some of the most prominent research is used as a for of presenting the area, so that the read, if it so wishes, can go deeper in each area. To present a cleared picture, it is useful to also have in mind what is known about motivation for playing in general and about negative feelings in regards other media studies, which will also be presented in the same manner. This study should not be understood as an extensive research of the field, but instead as catalogue of its many different methodologies and approaches.

There are many different ways to analyse the relationship between games and players, even when focusing only in the subset of negative emotions. As the objective of this article is to be an introduction to the current lay of the land in this theme, different approaches and some of their notable work will be discussed. Firstly, before delimiting what else besides funs there is, it is useful to understand what constitute as *fun* for different types of players. Thus, an examination on the current traditional understanding of motivations of play is needed.

After that, we can begin a closer examination on research about negative feelings in other media and how it evolved in the last decades. Currently, most research in games and negative feelings either directly uses frameworks from media studies, or analyses narrative or contextual elements from games, which is also conductive for the already stablished media studies frameworks, and thus those studies will be discussed together in the subsequent section. Later, another section will discuss different approaches focusing on the research about negative feelings in relationship to video game mechanics. This last type of study is the least researched one, which may be a result of mechanics being a component that is exclusive to games and, thus, with little previous literature to base their frameworks on.

FUN AND MOTIVATION

Despite humanity's long love affair with games, the academic study of games only began in the 20th century, first using historical perspective and the cultural and social connection of humans with games (Huizinga, 2010; Caillois, 1990). Most early studies on games either sought to prove or assume as a fact that the main or only motivation of humans to play is the search for pleasure and fun (Huizinga, 2010; Caillois, 1990). There were attempts to categorize different types of games that though cannot be fully considered as a system for understanding different *types* of player experience, it already highlights there might be differentiations. Notable in this effort is Caillois (1990), who separated all play activities in four different categories that accommodate two main play styles.

With the popularisation and dispersion of digital games (thereafter referred as videogames) between the 1980s and 1990s, research on the area

congregated and evolved much rapidly. The emphasis on the "fun" aspect of it persisted (Adams and Rollings, 2003; Koster, 2005; Salen and Zimmerman, 2010), but there were frameworks that proposed different types of players, who would draw different types of fun from games. The early proposed frameworks were based on the author's own experiences and had no scientific methodology besides that, but they still represented the development of the understanding that the *fun* phenomena might be a little more complex than previously assumed. The often cited first author to propose this was Bartle (1996) and his taxonomy of player types, which was composed by: socializers (players who have fun interacting with other players), explorers (players that prefer discovering things about the game world), achievers (players who enjoy succeeding in the game's rules) and killers (players that devise fun by breaking the game and antagonising other players).

Later, frameworks were proposed that were based on extensive players derived data, such as Yee's motivation model that is a result of a questionnaire with more than 3000 respondents (2006). Yee's research is based in Bartle's model, but has some fundamental differences. He found 10 types of motivation, which are organized in three main areas of achievement (players that enjoy performing tasks and challenges given by the game), immersion (players that prefer to experience the game independently from achievements) and social (players who like interacting with other players). However, he also found that players who report finding motivation in one area commonly also fun motivation in other areas, thus making alignment with a type of motivation non-exclusive. This suggests that the differentiation is not one of the player, instead, one single player can find different types of motivation appealing depending on other variables.

These researches paint a more diverse picture of why humans play, and do so for an uncountable number of years, but even them have their limitations. So far, most motivation research focus on multiplayer games (Bartle on MUD and Yee on MMO), which explains why they present a social aspect, which is why they might not express all the reason players immerse themselves in single player experiences.

NEGATIVE FEELINGS IN ENTERTAINMENT

Videogames were not the first media to be academically researched regarding the complex feelings they might arouse. Media studies at first accepted the paradox of tragedy, which determines how humans appreciate good feelings, tragedies elicit bad feelings while paradoxically humans continue to consume them (Cova et al., 2017). In the 1990s, this paradigm started to shift towards a deeper understanding of tragedies and other dramas, and it was theorised that instead of negative feelings per se, these works might invite the viewer or reader to reinterpret or relive negative moments of their lives or moral dilemmas and thus elicit a positive experience amidst the negative. Oliver (Cova et al., 2017; Oliver et al., 2015) names these complex media eudaimonia experiences, in contrast to hedonic experiences which are guided only by fun and pleasure seeking. Oliver's nomenclature is the most used

terminology in the field, but other denominations are discussed in Cova et al. (2017).

The research in meaningful or eudaimonia media have been applied to games, but so far it focuses mostly on their narrative aspect (Ferchaud and Oliver, 2019; Oliver et al., 2015). This approach, although very enlightening, only covers one of the ways in which discomfort (or meaning or eudaimonia) can be presented to and explored by the players.

GAMES AND NEGATIVE FEELINGS

In the last decade, a broader palette of human emotions evoked by videogames have been studied by various methods. There is a more personal approach in which the researcher or researchers reminisce on their own experiences though the lens of theory or philosophy, such as the collection of essays on Failure and its importance to the playing experience by Juul (2013) or thematic analysis of the a particular felling or experience while playing different games (Harrer, 2018; Younisv & Fedtke, 2024).

There are also qualitative studies, questioning players about their experiences with games in general (Cesário et al., 2023a; 2023b) and with the one which evoked negative emotions. One study found that *emotional* challenging experiences were significantly more appreciated than mere challenging ones (Bopp, Opwis, and Mekler, 2018). Another notable study on uncomfortable experiences in specific titles suggests that, though discomfort can enhance overall player experience, it must be well balanced otherwise it can spoil their experience (Gowler and Iacovides, 2019).

The studies so far have relied on the researchers' or players' recounting of their previous experiences with games and negative emotions, that happened on an uncontrolled setting. There are some researches that require participants to experience the game (or part of it) as part of the study, which enables a much more controlled experience, for instance by playing different modded versions of Fallout New Vegas (Obsidian Entertainment, 2010) with different moral choices (Ferchaud and Oliver, 2019).

The research into the relationship between videogames and feelings is particularly imperative when considering that they can tackle emotions, such as guilt or shame, due interactive nature which are not reachable by traditional media (Anable, 2018; Isbister, 2017).

The research on these different emotions has been very fruitful in illuminating the nuances of contemporary videogames. Up to this point, however, it has been mostly restricted by the corpus of commercially released games or games created by third parties. Some have ventured in game development (Harrer, 2019; Rusch, 2012) but mostly from a researcher on an individual journey standpoint, with no direct contact with professional or independent game developers and their own intentions or struggles in creating their experiences.

INTERACTIVITY AND MECHANICS

The most common way in which discomfort or negative feelings can be brought up in videogames is reflective of how these themes were approached

in other media, such as literature or movies. During a certain moment in the flow of the story, a predetermined event will happen that will either recontextualize the past events (such as in Spec Ops: The Line, Yager Development 2012) or irreparably change the status quo so far (most of the games dealt in Harrer 2019, such as Ico and Final Fantasy VII). Since this method is analogous to what has been used for centuries in other story-based media, it is also the most commonly used and is capable of creating deep meaning for players (Bopp et al., 2018; Cova et al., 2017).

Another way to present negative feelings to players is using video games' own interactive nature. By controlling and changing the way mechanics work, it is possible to elicit discomfort from the playing itself instead of from the context attributed to it. The first to notice the difference between both methods in academia was Rusch (2009), who called the contextual way to elicit emotions *fictional alignment*, while naming the mechanic one *procedural*.

Although there is vast literature on game mechanics and how they are supposed to evoke fun, there is very little in relation of other emotions. Montola (2010) interviewed players about their experiences playing RPG which aimed to create "intense experiences of tragedy, horror, disgust, powerlessness and self-loathing," and many of the recourses he describes are mechanic, such as required manner of recounting actions and where to look while doing so. Such requirements, partnered with the contextual themes of the RPG played, elicited profound emotions in players.

CONCLUSION

Although the majority of videogames aim mainly to stimulate pleasure and fun in their players, there is a growing number of games that aim to engender the opposite, negative emotions such as, but not limited to, to discomfort, sadness, desolation. There many different approaches the quest for better understanding human emotions in relationship to games, and each of them illuminate a different range of the player's experiences and expectations. This article is but a small light illuming some of the contours in this endeavour.

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REFERENCES

Anable, Aubrey. (2018) Playing with Feelings: Video Games and Affect. Minneapolis: University of Minnesota Press.

Richard A. Bartle (1996) Players Who Suit MUDs. Available at: https://mud.co.uk/richard/hcds.htm (Accessed: 7 June 2024).

Bopp, Julia Ayumi, Klaus Opwis, and Elisa D. Mekler. (2018) "An Odd Kind of Pleasure." Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems.

Caillois, Roger. (1990) Os homens e os jogos. Lisboa: Cotovia.

Cesário, V., Ribeiro, M., Coelho, A. (2023a). Exploring the Intersection of Storytelling, Localisation, and Immersion in Video Games – A Case Study of the Witcher III: Wild Hunt. In: Stephanidis, C., Antona, M., Ntoa, S., Salvendy, G. (eds.) HCI International 2023 Posters. HCII 2023. Communications in Computer and Information Science, vol. 1832. Springer, Cham. https://doi.org/10.1007/978-3-031-35989-7_69

Cesário, V., Ribeiro, M., Coelho, A. (2023b). "Design Recommendations for Improving Immersion in Role-Playing Video Games: A Focus on Storytelling and Localisation". Interaction Design and Architecture (s) Journal - IxD&A, No. 58, 2023, pp. 207–225.

Cova, Florian, Julien Deonna, and David Sander. (2017) "'That's Deep!': The Role of Being Moved and Feelings of Profundity in the Appreciation of Serious Narratives." The Palgrave Handbook of Affect Studies and Textual Criticism. pp. 347–369.

Ferchaud, Arienne, and Mary Beth Oliver. (2019) "It's My Choice: The Effects of Moral Decision-Making on Narrative Game Engagement." Journal of Gaming & Virtual Worlds 11, no. 2. pp. 101–118.

Gowler, Chad Phoenix Rose and Iacovides, Ioanna. (2019) "Horror, guilt and shame – Uncomfortable Experiences in Digital Games." Proceedings of the Annual Symposium on Computer-Human Interaction in Play. pp. 325-337.

Harrer, Sabine. Games and bereavement: how video games represent attachment, loss, and grief. (2019). Bielefeld: transcript Verlag.

Huizinga, Johan. (2010) Homo Ludens: O Jogo Como Elemento Da Cultura. São Paulo, SP: Perspectiva.

Isbister, Katherine. How Games Move Us - Emotion by Design. Mit Press Ltd., 2017.

Juul, Jesper. (2003) "The Game, the Player, the World: Looking for a Heart of Gameness". Level Up: Digital Games Research Conference Proceedings. 30–45.

Juul, Jesper. (2016) The Art of Failure: An Essay on the Pain of Playing Video Games. Cambridge, MA: MIT Press.

Koster, Raph. (2005) A Theory of Fun for Game Design. Scottsdale, AZ: Paraglyph Press.

Montola, M. (2010) 'The Positive Negative Experience in Extreme Role-Playing', Nordic DiGRA.

Oliver, M. B., Bowman, N. D., Woolley, J. K., Rogers, R., Sherrick, B. I., & Chung, M.-Y. (2015) "Video Games as Meaningful Entertainment Experiences." Psychology of Popular Media Culture.

Rollings, Andrew, and Ernest Adams. (2003) Andrew Rollings and Ernest Adams on Game Design. Indianapolis, Ind, Indiana: Pearson Education.

Rusch, D. C. (2009) 'Mechanisms of the Soul – Tackling the Human Condition in Videogames', Proceedings of the 2009 DiGRA International Conference: Breaking New Ground: Innovation in Games, Play, Practice and Theory [Preprint]. Available at: https://hdl.handle.net/1721.1/100392.

Rusch, D. C. (2012) '"Elude": designing depression', in Proceedings of the International Conference on the Foundations of Digital Games. FDG'12: International Conference on the Foundations of Digital Games, Raleigh North Carolina: ACM, pp. 254–257.

Salen, Katie, and Eric Zimmerman. (2010) Rules of Play: Game Design Fundamentals. Cambridge, Mass: The MIT Press.

Weiller, Thais. (2021) "Teaching People What They Already Know. Designing Game Design Courses." Gamevironments, no. 15. pp. 380–392.

Yee, N. (2006) 'Motivations for Play in Online Games', CyberPsychology & Behaviour, 9(6), pp. 772–775.

Younis, A., & Fedtke, J. (2024). "You've Been Living Here For as Long as You Can Remember": Trauma in OMORI's Environmental Design. Games and Culture, 19(3), 309–336.

GAMES

11 Bit Studios. This war of mine. 11 Bit Studios. PC. 2014.

Anthropy, Anna. Dys4ia. Anna Anthropy. Web Browser. 2012.

Pope, Lucas. Papers, Please. 3909. PC. 2013.

Obsidian Entertainment. Fallout: New Vegas. Bethesda Softworks. PC. 2010.

Yager Development. Spec Ops: The Line. 2k Games. PC. 2012