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MASTERARBEIT

Portraying Moral Dilemmas through Video Games

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Kira Wanjek

Erstprüfer: Prof. Gunther Rehfeld
Zweitprüfer: Kolja Bopp

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**HOCHSCHULE FÜR ANGEWANDTE
WISSENSCHAFTEN HAMBURG**
Department Medientechnik
Finkenau 35
22081 Hamburg

Zusammenfassung

Videospiele bieten die einzigartige Möglichkeit in eine alternative Realität einzutauchen, in welcher Entscheidungen über moralische Dilemma in sicherer Umgebung getroffen werden können. Eine durchgeführte, qualitative Studie weist darauf hin, dass solche Entscheidungen bei den meisten Spielern zur Spielfreude beitragen. Während Videospiele daher eigentlich als Medium großartig dafür geeignet sein sollten ein breites Publikum zur moralischen Reflektion anzuregen, zeigte die Studie sowohl wie eine Literaturrecherche dass Videospiele als Medium einen Bias zur strategischen und ergebnisorientierten Entscheidungsfindung geben. Während der Anreiz zu dieser Art von Entscheidungsgebung durch das Bereitstellen von nur unzureichenden Informationen und Entscheidung ohne Auswirkung verringert werden kann, können diese Methoden für Frustration bei Spielern sorgen. Diese Ergebnise weisen daher darauf hin, dass Spielfreude und moralische Reflektion vielleicht nicht gemeinsam erhöht werden können. Das könnte bedeuten, dass im Designprozess gegebenenfalls priorisiert werden müsste, ob ein populäres Spiel für ein breites Publikum oder ein eher nichiges Spiel, welches großartig darin ist moralische Reflektion hervorzurufen, erstellt werden soll.

Abstract

Video games provide the unique opportunity to immerse oneself into an alternate reality in which one can make decisions on moral dilemmas in a safe environment. A qualitative study was conducted that indicates that these decisions are considered enjoyable by most players. While this theoretically should make video games a great medium to inspire moral reflection in a broad audience, the study as well as a literature review, also showed that video games as a medium create bias towards strategic and outcome-focussed decision-making. While this kind of decision-making can be de-incentivized by providing players with insufficient information or letting decisions have no impact, these methods can lead to player frustration. Therefore, the results indicate a trade-off between player enjoyment and incentivized moral reflection. Furthermore, this could mean that during design, one would have to prioritize whether to create a game popular with a broad audience or a more niche game excelling at incentivizing moral reflection.

Contents

1 Introduction

1.1 Motivation

At the core of what allows us to make a "meaningful" impact on the world rests not only our consciousness granting us a unique perspective on the world around us, and our ability to act, but also our ability to decide. On first thought, it should be best to always decide in one's own interest and disregard consequences for others. However, our moral consciousness is preventing us from doing so and therefore allows us to coexist in society. Every human makes decisions in general and moral decisions in particular every day. Sometimes these decisions are even made subconsciously. However, there are still cases in which it takes effort to decide, and one has to deliberate what they should do or choose carefully. In some of these cases, the decision is hard to make because one's moral consciousness regards all reasonable actions as of the same moral value. In these cases, one is confronted with a moral dilemma. As a homo moralis, one must then carefully and deliberately evaluate their moral convictions to decide to their best knowledge and consciousness what they deem right. This can be excruciatingly difficult, especially when one is not conscious of their own morality, has yet to develop it, or when the presented dilemma challenges it.

Through play, humans can safely test out behaviors and decisions without suffering the consequences. Video games as intentionally designed experiences, for example, put one in unique roles like an immigration officer in *Papers, Please*[1], a headliner in *Headliner: NoviNews*[2], and a landlord trying to survive in a surveillance state in *Beholder*[3]. In contrast to traditional media, video games do not only document experiences but let the player act out and decide on situations they usually would not be in. This grants players a safe environment in which they are able to utilize and develop their moral reasoning. Moreover, designers might be able to communicate their perspectives by including specific consequences, gameplay elements, or dialog with non-player characters (NPCs), thus opening a discussion. For all these reasons,

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[1] Pope, L. (2012). *Papers, Please*. 3909. [Online] Available at: https://dukope.com/, 13. 7. 2023, 20:55.

[2] Unbound Creations (2018). *Headliner: NoviNews*. [Online] Available at: http://unboundcreations.com/games/headliner-novinews/, 1. 7. 2023, 18:11.

[3] Warm Lamp Games (2016). *Beholder*. Alawar Premium. [Online] Available at: https://beholder-game.com/, 13. 7. 2023, 20:51.

video games, with their interactivity and immersion, can be a great tool to help players develop their morality, especially through the inclusion of moral dilemmas which challenge the player's perspective.

1.2   Research Questions

This paper ultimately aims to answer, two questions:

1. How sufficiently can intentionally designed interactive moral dilemmas in video games be used to inspire moral reflection in adult players?

2. How do intentionally designed interactive moral dilemmas in video games impact enjoyment in adult players?

The first research question shall serve to understand how sufficiently interactive moral dilemmas video games can be used to support the moral development of a player and provide thus additional value to them. To answer this, it is aimed to identify the unique benefits and disadvantages video games provide to moral reflection in their portrayal of moral dilemmas as interactive elements. The research restricts itself to interactive moral dilemmas because non-interactive moral dilemmas do not utilize the unique property of video games as an interactive medium. Therefore, the impact of the portrayal of non-interactive moral dilemmas in video games is likely not different from the same portrayals in non-interactive media. Moreover, this paper specifically limits itself to interactive moral dilemmas that are included as part of the game design. This means that moral dilemmas regarding the game design process itself or the interaction between multiple human players of a video game are excluded from the scope.

As gaming is usually a leisure activity, it is desirable that video games invoke an intrinsic motivation to play. In this regard, the second question is of interest as it predicts if and how utilizing moral dilemmas in a video game can influence its mass appeal. This is important, as a video game's popularity is not only economically relevant but also helps reaching a broader audience to inspire moral reflection in.

The study conducted as part of this paper is limited to adults as they, in general, have fewer differences in their moral development than children of different ages[4].

1.3 Approach

As a discussion about moral dilemmas requires a fundamental understanding of ethics, chapter *2 Literature and Media Review* starts with *2.1 Ethics*, introducing the topic by first establishing fundamental terms in *2.1.1 Definitions*. Afterward, *2.1.2 Moral Decision-Making* gives an overview on the topic of moral decision-making, including both perspectives from ethicists and psychologists with the aim to understand how someone interacts with a choice between multiple moral action options and how these action options can be weighed both on an individual and general level. The part on *Ethics* is then concluded with *2.1.3 Moral Dilemmas*. Here, an overview is given on the discussion on moral dilemmas, their attributes, and their impact on morality viewed from a scientific and individual agents' perspective.

Next, to be able to contrast the sufficiency of video games to other media, it has to be established how fictional stories of moral dilemma in non-interactive media influence recipients' ethics and provoke reflection. The chapter starts by discussing portrayals of moral behavior in regard to how sufficiently they can convey a certain moral lesson, in chapter *2.2.1 Learning Morals from Stories*, and how they affect recipients' emotions, in chapter *2.2.2 Invoking and Utilizing Moral Emotions*. Afterward, chapter *2.2.3 Stories of Moral Dilemma* then discusses the impact of moral dilemmas in specific.

Lastly, the literature and media research is concluded with a dicussion on video games and the unique advantages and obstacles in the portrayal of serious content in chapter *2.3.1 The Magic Circle, Role-Playing and Serious Content in Video Games* and the interactions between the player and moral choice in general in chapter *2.3.2 Gamification of Moral Choice* and in the interaction with moral dilemmas specifically in chapter *2.3.3 Moral Dilemmas in Video Games*.

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[4]Kohlberg, L. (1976). 'Moral Stages and Moralization: The Cognitive-Development Approach'. In: *Moral Development and Behavior: Theory and Research and Social Issues*. Ed. by Lickona, T. Holt, Rinehart & Winston, pp. 31–53,

Afterwards, the gained knowledge is used to built an examplatory video game prototype featuring moral dilemmas as explained in chapter *3.1 Game*. As both research questions are quite open ended, a qualititave study is then conducted around this video game as outlined in chapter *3.2 Survey*. The results of the survey are then summarized in chapter *3.3 Results* and discussed in chapter *3.4 Evaluation*.

This paper then ultimately concludes by summarizing all its findings in chapter *4.1 Summary* and oultining potential future research topics in chapter *4.2 Future work*.

2 Literature and Media Review

2.1 Ethics

2.1.1 Definitions

To be unambiguous in the following discussion of moral dilemmas and, consequently, ethics, first, the fundamental terms moral, morality, and ethics have to be defined as they have an overlap in meaning[5]. Our 'moral' namely originates from the Latin moralis used by Cicero as a translation for the Greek word ἠθικός (ethikos) which is the origin of our 'ethic'[6]. Ethikos itself was derived from both ἔθος (éthos) translating to "customs", "usage", "way of proceeding" and the similar ἦθος (êthos) meaning "habitation", "den", "way of being" or "character"[7]. The Latin translation moralis, meanwhile, shares a stem of word with the also latin mor-, mos which translates to "habits" or "customs"[8].

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[5]Oxford English Dictionary (2023b). *moral, adj.* [Online] Available at: https://www.oed.com/view/Entry/122086, 2. 3. 2023, 15:35; Oxford English Dictionary (2023c). *moral, n.* [Online] Available at: https://www.oed.com/view/Entry/122085, 2. 3. 2023, 15:34; Oxford English Dictionary (2023a). *ethic, n. and adj.* [Online] Available at: https://www.oed.com/view/Entry/64755, 2. 3. 2023, 15:30; Gert, B. and Gert, J. (2020). 'The Definition of Morality'. In: *The Stanford Encyclopedia of Philosophy*. Ed. by Zalta, E. N. Fall 2020. Metaphysics Research Lab, Stanford University. [Online] Available at: https://plato.stanford.edu/archives/fall2020/entries/morality-definition/, 18. 2. 2023, 18:03.

[6]Cruz, Xénon (2017). 'Translation Ethics: From Invisibility to Difference'. In: *Via Panorâmica: Revista de Estudos Anglo-Americanos*. série 3. Vol. 06. CETAPS - Centre for English and Anlgo-Portuguese Studies, pp. 95–105. [Online] Available at: https://ler.letras.up.pt/uploads/ficheiros/15816.pdf#page=95, 29. 8. 2023, 2:10.

[7]Ibid.

[8]dictionary.com (2023). *moral*. [Online] Available at: https://www.dictionary.com/browse/morals?s=t, 18. 2. 2023, 19:46; Cruz, Xénon, (2017).

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While both moralis and ethikos in their etymology relate to behavior, ethikos has additional meaning and thus portrays a broader, holistic view. So for this paper *ethics* — although one could use morals and morality in the same sense — is defined as the science of right or wrong behaviour[9]. The adjective *moral* meanwhile, following the Oxford English Dictionary (OED), is used in the sense of "having the property of being right or wrong, good or evil"[10]. Also based on the OED, the noun *moral* is used to mean "[a] moral maxim or practical lesson to be drawn from a story, event etc."[11] and *morality* is defined as "a particular moral system or outlook"[12] of a person or culture.

To make matters easier, in the following, the terms *right* and *wrong* are always used as descriptors for moral value either in a general sense or in the context of specific ethical theories. The concept of a 'right' action thus imposes that this action is what one *ought* to do[13].

2.1.2 Moral Decision-Making

For this thesis, a *moral decision* is defined as a decision on whether to take or not take an action based on its moral properties. The *moral properties* here define how right or wrong it is to take the specified action and, thus, if one ought or not ought to execute it[14]. As will be further explained in the following, these moral properties may also consider properties of the acting individuum as

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[9]Oxford English Dictionary, (2023c); Oxford English Dictionary (2023d). *morality, n.* [Online] Available at: `https://www.oed.com/view/Entry/122093`, 2. 3. 2023, 15:32; Oxford English Dictionary, (2023a).

[10]Oxford English Dictionary, (2023b).

[11]Oxford English Dictionary, (2023c).

[12]Oxford English Dictionary, (2023d).

[13]Alexander, L. and Moore, M. (2021). 'Deontological Ethics'. In: *The Stanford Encyclopedia of Philosophy*. Ed. by Zalta, E. N. Winter 2021. Metaphysics Research Lab, Stanford University. [Online] Available at: `https://plato.stanford.edu/archives/win2021/entries/ethics-deontological/`, 4. 3. 2023, 18:39.

[14]Rosati, C. S. (2016). 'Moral Motivation'. In: *The Stanford Encyclopedia of Philosophy*. Ed. by Zalta, E. N. Winter 2016. Metaphysics Research Lab, Stanford University. [Online] Available at: `https://plato.stanford.edu/archives/win2016/entries/moral-motivation/`, 12. 3. 2023, 21:41; McConnell, T. (2022). 'Moral Dilemmas'. In: *The Stanford Encyclopedia of Philosophy*. Ed. by Zalta, E. N. and Nodelman, U. Fall 2022. Metaphysics Research Lab, Stanford University. [Online] Available at: `https://plato.stanford.edu/archives/fall2022/entries/moral-dilemmas/`, 17. 3. 2023, 17:21.

well, such as character traits, opinions, emotions, and so on[15]. For this paper, it is assumed that the individuum making the decision has the *agency* to act and choose to act as they like in any given situation[16]. Based on this assumed agency, they are called *agents*[17]. A discussion of whether or to what degree an individuum actually possesses agency, for example, by contemplating the concept of free will, would exceed the scope of this paper and is thus omitted[18].

In order to understand the conflict an agent might experience when faced with a situation that requires moral decision-making, it has to be understood how an individual comes to recognize, evaluate and act on the moral properties of an action which means answering the following questions:

1. "What is right and what is wrong?"

2. "How does an agent know what is right or wrong?"

3. "What compels an agent to take action or not after assessing those properties?"

None of these questions can be answered conclusively as they all are still heavily discussed in ethics and other sciences concerned with human reasoning and behavior. As these discussions are most often rich in history and branch into a plethora of individual views and answers, this paper has to limit itself to summarize only three major theories with an overview of different opinions resulting from them. Moreover, an in-depth portrayal of the discussion and critique surrounding them and an analysis of individual disadvantages and merits over each other must also be omitted.

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[15]Alexander and Moore, (2021); Hursthouse, R. and Pettigrove, G. (2022). 'Virtue Ethics'. In: *The Stanford Encyclopedia of Philosophy*. Ed. by Zalta, E. N. and Nodelman, U. Winter 2022. Metaphysics Research Lab, Stanford University. [Online] Available at: https://plato.stanford.edu/archives/win2021/entries/ethics-virtue/, 9. 3. 2023, 18:25; Nay, J. and Zagal, J. P. (2017). 'Meaning without consequence: virtue ethics and inconsequential choices in games'. In: Association for Computing Machinery. ISBN: 978-1-4503-5319-9. DOI: 10.1145/3102071.3102073. [Online] Available at: https://www.researchgate.net/publication/319370603_Meaning_without_consequence_virtue_ethics_and_inconsequential_choices_in_games, 29. 1. 2023, 16:08; Singer, P. (1994b). 'Introduction'. In: *Ethics*. 1st. Oxford University Press, pp. 3–13. ISBN: 978-0-192-89245-4, Schlosser, M. (2019). 'Agency'. In: *The Stanford Encyclopedia of Philosophy*. Ed. by Zalta, E. N. Winter 2019. Metaphysics Research Lab, Stanford University. [Online] Available at: https://plato.stanford.edu/archives/win2019/entries/agency/, 16. 3. 2023, 12:14.

[16]Schlosser, (2019).

[17]Ibid.

[18]Ibid.

The first question regarding what is right or wrong is the topic of *normative ethics*[19]. Between various *normative theories* there is contention about how the moral properties of an action are defined[20]. For example, if the moral properties of an action arise through the action's relation to virtue, through the execution of the action itself, or the consequences it produces, which respectively are the views of *virtue ethics*, *deontological ethics* and *consequentalism*[21].

Virtue Ethics

Theories of *virtue ethics* have in common the belief that humans inherently possess (a subset of) virtues, that if one has them, it makes them a good person, which by concept acts morally right[22]. A truly virtuous agent thus acts naturally right without internal conflict or struggle against contrary desires[23]. This, according to virtue ethics building on Aristotle, stands in contrast to a person who does not possess virtue and could still rationalize acting morally right against their own desire through willpower but would still fail to be perfectly or truly virtuous[24]. In contrast to other normative theories, virtue ethics, therefore, focuses on who we ought to be rather than how we ought to act[25]. There is an acknowledgment that even if an agent possesses a virtue, they might fail to execute it flawlessly due to a lack of *phronesis*, practical wisdom that helps to put a virtuous desire into action that actually yields the result one hoped for[26]. Thus virtue ethics is also about improving one's ability to act per one's virtue[27]. Different views of virtue ethics define the rightness of an action either by its contribution to *eudaimonia*, a state of virtuous thriving

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[19]Singer, P. (1994a). 'Deciding What Is Right — Introduction'. In: *Ethics*. 1st. Oxford University Press, pp. 243–246. ISBN: 978-0-192-89245-4, Alexander and Moore, (2021); Hursthouse and Pettigrove, (2022); Sinnott-Armstrong, W. (2022). 'Consequentialism'. In: *The Stanford Encyclopedia of Philosophy*. Ed. by Zalta, E. N. and Nodelman, U. Winter 2022. Metaphysics Research Lab, Stanford University. [Online] Available at: https://plato.stanford.edu/archives/win2022/entries/consequentialism/, 10. 3. 2023, 23:58.

[20]Singer, (1994a); Alexander and Moore, (2021); Hursthouse and Pettigrove, (2022); Sinnott-Armstrong, (2022).

[21]Singer, (1994a); Alexander and Moore, (2021); Hursthouse and Pettigrove, (2022); Sinnott-Armstrong, (2022).

[22]Hursthouse and Pettigrove, (2022).

[23]Ibid.

[24]Ibid.

[25]Alexander and Moore, (2021); Hursthouse and Pettigrove, (2022).

[26]Hursthouse and Pettigrove, (2022).

[27]Ibid.

and happiness, by being executed as a result of good motivation, for example, in imitation of a virtuous person one admires, by its quality as a fitting reaction in a particular field of concern or even by its care for others and potential relationships with them as part of the *Ethics of care* which are seen as a more feminine perspective on ethics[28].

Deontological Ethics

Deontological ethics derived from Greek δεον meaning "that which is binding"[29] and λόγος meaning "science"[30] focuses on the moral choice itself and whether it is "morally required, forbidden, or permitted"[31]. Kant, as a central figure in deontologism, for example, states that an agent, for one, acts by *maxims*, rules that help fulfill a specific desire[32]. He, moreover, states that agents also act by practical laws that are valid for everyone independent of fleeting desires unlike maxims[33]. He deems an action as right if the practical law on which it gets executed could be made into a universal law for everyone to act upon regardless of the consequences of the action itself[34]. Kant argues that acting morally right, and thus according to the previously mentioned rule, the *categorical imperative*, automatically leads to a better world[35]. He further explains that any human being can utilize their inherently given reason to derive themselves what is right and what is not[36]. Thus, any person can choose to do what is right, according to Kant, even when it conflicts with

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[28]Hursthouse and Pettigrove, (2022); Murphy, J. and Zagal, J. P. (2011). 'Videogames and the Ethics of Care'. In: *International Journal of Gaming and Computer-Mediated Simulations* 3.3, pp. 69–81. DOI: 10.4018/jgcms.2011070105. [Online] Available at: https://my.eng.utah.edu/~zagal/Papers/MurphyZagal-VideogamesandEthicsofCare.pdf, 29. 1. 2023, 16:15; Norlock, K. (2019). 'Feminist Ethics'. In: *The Stanford Encyclopedia of Philosophy*. Ed. by Zalta, E. N. Summer 2019. Metaphysics Research Lab, Stanford University. [Online] Available at: https://plato.stanford.edu/archives/sum2019/entries/feminism-ethics/, 10. 3. 2023, 14:05.

[29]McNamara, P. and Van De Putte, F. (2022b). 'Notes to Deontic Logic'. In: *The Stanford Encyclopedia of Philosophy*. Ed. by Zalta, E. N. and Nodelman, U. Fall 2022. Metaphysics Research Lab, Stanford University. [Online] Available at: https://plato.stanford.edu/archives/fall2022/entries/logic-deontic/notes.html, 23. 6. 2023, 00:01.

[30]Alexander and Moore, (2021).

[31]Ibid.

[32]Kant, I. (1956). In: *Critique of Practical Reason*. 1st. The Liberal Arts Press, pp. 19–41,

[33]Ibid.

[34]Ibid.

[35]Rohlf, M. (2020). 'Immanuel Kant'. In: *The Stanford Encyclopedia of Philosophy*. Ed. by Zalta, E. N. Fall 2020. Metaphysics Research Lab, Stanford University. [Online] Available at: https://plato.stanford.edu/archives/fall2020/entries/kant/, 10. 3. 2023, 0:18.

[36]Alexander and Moore, (2021); Rohlf, (2020); Singer, (1994a).

their natural desires[37]. When evaluating an action, some deontological views place importance on the intention behind it, its result, or both[38].

Some other deontological theories define their rules by (role) obligations and permissions on an individual level such as an obligation to care for one's child and permission to prioritize the child's needs above someone else's child[39]. And again others define their rules through rights that any individuum has and that one should not violate, e.g., the right not to be used as a means to an end under any circumstance[40].

Consequentialist Ethics

Consequentialist theories put priority on the outcome rather than the action itself[41]. Thus they deem an action right if it results in an overall improvement of the state of the world[42]. The most commonly known consequentialist theory is *utilitarianism*, with other theories often only embracing a subset of its characteristics[43]. For example, various consequentialist theories measure the value of improvement differently[44]. Utilitarianism considers only the value of improvement achieved through the execution of an action and its actual and direct consequences[45]. Utilitarianism is hedonistic at its core and therefore sees an action as good if it maximizes the total net pleasure created over the caused pain[46]. It considers only the total and aggregated value of pleasure and pain created which means utilitarianism considers it not bad when one person experiences extreme pleasure based on the pain of a group of others, in contrast to other consequentialist theories[47]. Utilitarianism demands that the gain or loss of pleasure and pain for all people is measured instead of only measuring for a subset[48]. It is further demanded that this measurement is not weighting the gain or loss, e.g., not placing more value on improving

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[37]Alexander and Moore, (2021); Rohlf, (2020); Singer, (1994a).
[38]Alexander and Moore, (2021); Rohlf, (2020); Singer, (1994a).
[39]Alexander and Moore, (2021).
[40]Ibid.
[41]Sinnott-Armstrong, (2022).
[42]Ibid.
[43]Ibid.
[44]Ibid.
[45]Ibid.
[46]Ibid.
[47]Ibid.
[48]Ibid.

the life of those in the direst circumstances, and that this measurement does not include the individual circumstances and roles of the agent themself[49]. Theories also differ in their lenience towards agents failing to contribute to a positive at all times and whether they regard it as morally wrong or neutral[50].

Some ethicist may see consequentialism as a standard by which to judge moral properties but see it not as a practical guideline for decision-making[51]. Some even believe that an agent can achieve superior outcomes by relying on their own moral intuition instead of deliberating which action would maximize utility, particularly as the agent cannot predict the full consequences in advance or could be in a situation where swift action is necessary[52].

Moral Skepticism and Relativism

Lastly, some ethicists believe it is impossible to objectively know what is morally right or wrong[53]. This point of view is called *moral skepticism*[54]. Some moral skeptics belief it is simply impossible for anyone to know whether any moral belief or statement is true[55]. Others claim that no one can sufficiently justify their moral belief[56]. Another subset of ethicists believes that there is no moral truth at all because moral statements are nothing that could be classified as true or false or that, independent of belief, there might be no reason to behave morally[57]. Moreover, some even think that moral properties do not exist at all and thus that there is no moral reality[58].

Nietzsche, e.g., doubting the objective reality of moral properties, proposed that moral properties are a mere invention of humanity[59]. According to him,

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[49]Sinnott-Armstrong, (2022).

[50]Ibid.

[51]Ibid.

[52]Ibid.

[53]Sinnott-Armstrong, W. (2019). 'Moral Skepticism'. In: *The Stanford Encyclopedia of Philosophy*. Ed. by Zalta, E. N. Summer 2019. Metaphysics Research Lab, Stanford University. [Online] Available at: https://plato.stanford.edu/archives/sum2019/entries/skepticism-moral/, 11. 3. 2023, 18:18.

[54]Ibid.

[55]Ibid.

[56]Ibid.

[57]Ibid.

[58]Ibid.

[59]Nietzsche, F. (2006). In: *On the Genealogy of Morality*. Ed. by Ansell-Pearson, K. Trans. by Diethe, C. 1st. Cambridge University Press, pp. 10–29. ISBN: 13 978-0-521-87123-5,

the labels of good and bad are utilized by certain groups to label themselves and their own actions as good and create a contrast to another outsider group who themselves and their actions are deemed bad[60]. Then as the own group is good and the other group is bad certain actions or non-actions concerning them can be rationalized[61]. Nietzsche, for example, demonstrates this in the example of masters, the ruling group, and slaves, the serving group, which both define their own moralities to distinguish themselves from the other[62]. The masters, e.g., define braveness, independence, and the noble lifestyle as good, while the slaves label humbleness, altruism, and sacrifice as good[63]. This view on morality as context-dependent falls under the umbrella of *moral relativism*[64]. Moral relativists believe that the question of right and wrong cannot be answered universally but only within the contexts of a time period, a culture, and the current predominate views on topics like the role of the physical and mental world and how they relate or the agent themself[65].

Inherent Human Attributes as Source of Moral Knowledge

Regarding the second question of interest, of how an agent does know right from wrong, some viewpoints were already mentioned as part of their respective normative theory. Some normative theories claim their authority by referencing a foundation in specific inherent human attributes as a source of moral knowledge. Of these inherent attributes, the following are previously mentioned: Virtues, reason, and intuition. Additionally, others like David Hume, e.g., see the origin of moral knowledge in emotions and feelings[66]. The belief in an inherent attribute is solidified by the empirical fact of humans as moral decision makers[67].

[60]Nietzsche, (2006).

[61]Ibid.

[62]Ibid.

[63]Ibid.

[64]Baghramian, M. and Carter, J. A. (2022). 'Relativism'. In: *The Stanford Encyclopedia of Philosophy*. Ed. by Zalta, E. N. Spring 2022. Metaphysics Research Lab, Stanford University. [Online] Available at: https://plato.stanford.edu/archives/spr2022/entries/relativism/, 11. 3. 2023, 17:58.

[65]Ibid.

[66]Singer, (1994b).

[67]FitzPatrick, W. (2021). 'Morality and Evolutionary Biology'. In: *The Stanford Encyclopedia of Philosophy*. Ed. by Zalta, E. N. Spring 2021. Metaphysics Research Lab, Stanford University. [Online] Available at: https://plato.stanford.edu/archives/spr2021/entries/morality-biology/, 11. 3. 2023, 17:53; Darwin, C. (1994). 'The Origin of the Moral Sense'. In: *Ethics*. Ed. by Singer, P. 1st. Oxford University Press, pp. 43–48. ISBN: 978-0-192-89245-4,

Component type	Component
Cognitive	Working memory, perspective taking, attention, abstract thought / reasoning, logical reasoning, schemas / scripts, attributions, self-control
Affective	Affective empathy, emotion regulation, emotion recognition, somatic markers, intuition
Social	Social function / competence / skills, peer interaction / socialisation, socio-econonmic status, culture, parenting / family function
Other	Brain development and integrity, temperament / personality, social information processing

Table 1: Psychology-related components involved in moral decision making and development as summarized by Garrigan et. al[68]

Therefore, this topic is not unique to ethics but is, for example, also researched by psychologists as well[69]. Garrigan et al. compiled a list of psychological attributes suspected to influence moral decision-making, as summarized in Table 1. Further, the *moral foundations theory (MFT)* proposed by Haidt and Kebir claims that "human morality is derived from a natural selection and driven by a set of independent psychological systems that yield quick automatic judgments in different social domains"[70], which are universally shared through all cultures and are within this theory labeled intuitions[71]. These intuitions are care, fairness, in-group loyalty, authority, and purity[72]. Additionally, MFT acknowledges that there are cases in which these intuitions are not sufficient for decision-making and a more deliberative, conscious process is used, for example, when intuitions conflict within a moral dilemma[73].

As previously mentioned in the context of virtue ethics, the attributes responsible for moral decision-making might be subject to development. Research in

[68]Garrigan, B., Adlam, A. L. and Langdon, P. E. (2018). 'Moral decision-making and moral development: Toward an integrative framework'. In: *Developmental Review* 49, pp. 80–100. ISSN: 0273-2297. DOI: 10.1016/j.dr.2018.06.001. [Online] Available at: https://www.sciencedirect.com/science/article/pii/S027322971830025X, 29. 8. 2023, 02:38.

[69]Ibid.

[70]Tamborini, R. et al. (2017). 'Morality and Media Effects'. In: *The International Encyclopedia of Media Effects*. Ed. by Rössler, P., Hoffner, C. and Zoonen, L. Online Edition. John Wiley & Sons, Inc. ISBN: 978-1-118-78376-4. DOI: 10.1002/9781118783764.wbieme0167. [Online] Available at: https://www.researchgate.net/publication/314732168_Morality_and_Media_Effects, 29. 8. 2023, 03:56.

[71]Ibid.

[72]Ibid.

[73]Ibid.

ethics and psychology suggests that the morality of a person can develop to higher complexity, for example, by learning from others or reaching certain stages of development in other areas like logical thinking[74].

The Flaws of Human Intuition

Accepting the existence of moral development, in general, means that one has to accept and anticipate that an agent's moral judgment can be flawed as they might possess the relevant inherent attributes but have not reached 'full' moral development. As mentioned, some moral skeptics even doubt the reality of moral truth or doubt that anyone can (justifiably) hold any moral knowledge[75].

Others, like Greene, accept, for example, that moral decisions are made based on inherent attributes like emotional reactions and serve as an evolutionary benefit but argue that they are inadequate or wrong in some situations[76]. Greene, e.g., in his 2008 chapter on the relatedness between deontological decision-making and emotional responses, summarized discourse and studies indicating that more individuals feel like they ought to help someone if they are "up close and personal"[77] than if they are not[78]. He thus divides situations into *personal* and *impersonal scenarios*[79]. He, moreover, summarizes a study showing that human intuition and emotions are susceptible to manipulation[80].

Motivation to Act Morally

Lastly, it has to be discussed what compels an agent to act on their moral knowledge: While the previously mentioned attributes might be seen as the origin of moral judgment, they are not necessarily the origin of moral action, as one might know what they ought to do but not act according to this judg-

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[74]Garrigan, Adlam and Langdon, (2018); Kohlberg, (1976).

[75]Sinnott-Armstrong, (2019).

[76]Greene, J. (2007). 'The Secret Joke of Kant's Soul'. In: *Moral Psychology, Vol. 3. The neuroscience of morality: Emotion, brain disorders, and development*. Ed. by Sinnott-Armstrong, W. The MIT Press. ISBN: 978-0-262-30298-2. DOI: 10.7551/mitpress/7504.003.0004,

[77]Ibid.

[78]Ibid.

[79]Ibid.

[80]Ibid.

ment[81]. For example, an agent might be in a situation where what they deem they ought to do conflicts with what they think would fulfill their desires. It is not hard to imagine that this agent could act against their better moral knowledge.

Nonetheless, this argument does not invalidate that moral judgment in and of itself can serve as a source of motivation for morally right behavior. It merely implicates the existence of non-moral motivations that are able to override present moral motivations[82]. This, moreover, suggests that the competing motivations of an agent vary in strength and lead the agent to a process of prioritization[83]. In ethics and psychology, there is an ongoing debate on whether or whether not moral judgment intrinsically motivates individuals to carry out the actions they deem morally right[84]. Alternatively, it is proposed that external factors such as desires, motivations, or individual traits like virtues could serve as the primary motivator for adherence to one's moral judgments[85]. However, despite extensive research, no conclusive answer has emerged explaining why individuals sometimes act per their moral judgments while at other times they do not[86]. Nevertheless, there is a consensus that a close relationship between moral judgment and motivation must exist, as humans generally demonstrate a reliable tendency to act in alignment with their moral judgments[87].

2.1.3 Moral Dilemmas

Moral dilemmas are logically unsolvable conflicts between the multiple requirements of an agent[88]. Considering a non-action an action as well, Gowans names the following criteria for a moral dilemma[89]:

- **Criterion 1:** An agent has two or more actions available, all of which they ought to do[90].

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[81]Kohlberg, (1976).
[82]Rosati, (2016).
[83]Ibid.
[84]Ibid.
[85]Ibid.
[86]Ibid.
[87]Rosati, (2016); Kohlberg, (1976).
[88]McConnell, (2022); Gowans, C. W. (1987). 'Introduction — The Debate on Moral Dilemmas'. In: *Moral Dilemmas*. Ed. by Gowans, C. W. 1st. Oxford University Press, pp. 3–33,
[89]Gowans, (1987).
[90]Ibid.

- **Criterion 2:** They cannot do all actions as there are either worldly constrictions, e.g., not enough time to do all, or a logical constraint as they both ought to and not ought to do an action[91].

While Criteria 1 and 2 might already seem to define a moral dilemma sufficiently, debate on the topic led to the introduction of two additional criteria[92]:

- **Criterion 3:** A moral dilemma is only given if the conflicting actions an agent ought to do the agent can do[93].

- **Criterion 4:** There is no action clearly overriding all other actions[94].

Criterion 4 for moral dilemma got introduced after contemplating a moral dilemma told by Plato in book one of his Republic[95]. In this dilemma, person A lends a weapon from their friend B[96]. Sometimes afterward, B behaves irrationally to a point where A deems them not to be trusted with a weapon anymore[97]. Socrates argues that, in this case, A should not return the weapon to B[98]. He prioritizes the requirement of preventing the friend from harm over the requirement of rightfully returning their weapon to them[99]. Ethicists who share this opinion usually argue that in cases like these, one moral requirement clearly overrides the other so that no moral dilemma is given[100].

Arguments Regarding Overriding Requirements

Based on Criterion 4 for moral dilemmas, it can be argued that moral dilemmas can be avoided altogether within any ethical framework by hierarchically ordering all of its moral requirements[101]. It is, however, unlikely that such an order could be found and produce universally morally right solutions as it would either have to list an unfathomable amount of specific situations

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[91]Gowans, (1987).
[92]McConnell, (2022).
[93]Ibid.
[94]Ibid.
[95]Ibid.
[96]Ibid.
[97]Ibid.
[98]Ibid.
[99]Ibid.
[100]Ibid.
[101]Ibid.

or would likely end up over-generalizing rules[102]. For example, in Plato's example described above, many would agree to prioritize the prevention of harm over the promise given[103]. In other cases, however, where the harm to prevent is either negligibly small or unlikely, it might seem morally favorable to keep the promise[104].

Moreover, hierarchical ordering does not solve so-called symmetrical cases in which the moral rating of all actions available to an agent derive from the same moral requirement[105]. An example of such a moral dilemma can be found in the book *Sophie's Choice*[106]. In this dilemma, a mother has to choose one of her two children to sacrifice in order to save the other but cannot save both. It can, however, be argued that under consideration of the circumstances, there is only one disjunctive moral requirement in this case[107]: To save one of the two children — either being the right choice[108]. It is further argued that it is not a moral failure not to save both as this option is not given[109].

Tessman, however, suggests, though not regarding this case in particular, that some requirements are non-negotiable, which means they can not be overridden no matter the circumstances[110]. Failing such a requirement always leads to moral failure[111]. In contrast, Donagan argues that all moral requirements are intended to be non-negotiable in the first place but that tacit conditions can apply and allow certain actions to be carried out to achieve the moral outcome most would find agreeable[112].

Discussion on the Existence of Moral Dilemmas

The scenarios of the trolley problem, wherein an agent is faced with the choice of sacrificing one life to save five, are widely recognized as moral dilemmas.

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[102]McConnell, (2022).

[103]Ibid.

[104]Ibid.

[105]Ibid.

[106]Styron Jr., W. C. (1979). *Sophie's Choice*. Bantam Edition. Bantam Books, pp. 528–529. ISBN: 0-553-13545-7, McConnell, (2022).

[107]McConnell, (2022).

[108]Ibid.

[109]Ibid.

[110]Ibid.

[111]Ibid.

[112]Ibid.

However, it is important to note that these dilemmas may not necessarily give rise to conflicting requirements within certain normative theories. Deontology, e.g., in its purest form, forbids an agent from killing no matter the circumstances[113]. Therefore, an agent ought to not act within the trolley problem as they are prohibited from putting the one in harm's way to save the five[114]. Contrary, a pure form of utilitarianism demands sacrificing the one to save the five as it would achieve the greatest attainable value of improvement in the situation[115]. Consequently, these normative frameworks may not classify the trolley problem as a moral dilemma.

However, these theoretical view points do not reflect the general public's perception, as shown by multiple studies[116]. For example, in the past the majority of participants in studies concerning the trolley problems opted to flip a switch to sacrifice one to save five but not to push the one in front of the trolley to save the five[117]. This shows that both pure deontology as well as pure utilitarianism conflict with intuitive human moral judgment[118]. These results can be interpreted in three key conclusions:

1. Intuitive human moral judgment is insufficient to find a solution in cases of conflicting requirements like these. In contrast, normative theories are able to provide a more thoroughly deliberated and morally consistent solution.

2. The intuitive human moral judgment provided here is sufficient, especially considering that many ethicists believe that most adults should be able to judge right from wrong. Consequentially, the applied normative theory should be revised to reflect what the majority deems right.

3. Thirdly, as human agents might decide but still feel conflicted, the concept of moral dilemma should be admitted into the normative theory to reflect this conflict sufficiently.

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[113] Bruers, S. and Braeckman, J. (2014). 'A Review and Systematization of the Trolley Problem'. In: *Philsophia*. Vol. 42. 2. Springer, pp. 251–269. DOI: 10.1007/s11406-013-9507-5. [Online] Available at: https://www.researchgate.net/publication/263681254_A_Review_and_Systematization_of_the_Trolley_Problem, 29. 8. 2023, 02:15.
[114] Ibid.
[115] Ibid.
[116] Ibid.
[117] Ibid.
[118] Ibid.

Regarding the second conclusion above, Nichols and Mallon, e.g. attempt to expand the deontological theory to recreate human judgment in the case of the trolley problem[119]. The majority of participants in Nichols and Mallon's experiments felt that sacrificing someone is sometimes permissible considering the circumstances[120]. However, the majority of participants also admitted that they view this as a form of rule-breaking[121]. Thus even though a normative theory might exist that produces the moral requirements most would find permissible considering the circumstances, an agent might still feel conflicted about the provided solution. This would support the third solution above.

However, it should be noted that the practice of inferring the existence of moral dilemmas solely based on the presence of emotions is a subject of intense debate among ethicists[122]. Some argue, for instance, that a moral dilemma is present when all available actions elicit an equal level of justified remorseful feelings in the agent[123]. Most ethicists would agree that situations commonly labeled as moral dilemmas often evoke and should evoke appropriate negative feelings in any adjusted individual acting as a moral agent or social being[124]. However, some argue that these emotions alone do not prove that the agent made a morally wrong choice by selecting one of the available actions[125]. These ethicists may also doubt that these situations are justifiably labeled moral dilemmas[126]. Moreover, since emotions like regret and the desire to rectify regretful actions also occur in non-moral contexts, it would be difficult for anyone to prove whether the guilt experienced in a particular situation is moral or not[127].

Some ethicists, including McConnell, argue that a normative theory should not permit moral dilemmas and, therefore, situations as defined by Criteria 1

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[119]Nichols, S. and Mallon, R. (2006). 'Moral Dilemmas and Moral Rules'. In: *Cognition* 100.3, pp. 530–542. ISSN: 0010-0277. DOI: 10.1016/j.cognition.2005.07.005. [Online] Available at: https://www.researchgate.net/publication/7606202_Moral_Dilemmas_and_Moral_Rules, 29. 8. 2023, 02:23.

[120]Ibid.

[121]Ibid.

[122]McConnell, (2022).

[123]Ibid.

[124]Ibid.

[125]Ibid.

[126]Ibid.

[127]Ibid.

to 4 above to exist[128]. The reason being, that moral dilemmas imply scenarios in which a normative theory fails to provide a morally right solution, thereby limiting its ability to guide an agent's actions at all times[129]. Others, however, are critical that it is even possible to create a theory that does not allow for moral dilemmas to exist[130].

Arguments Based on Deontic Logic

Some arguments get made based on *deontic logic*[131]. The word *deontic* shares a stem of word with *deontological ethics* and is, additionally, based on the Greek word ικ meaning "after the manner of"[132]. Per its etymology, deontic logic attempts to formalize which actions are permissible, impermissible, obligatory, omissible, and so on into a logical notation[133]. Some now argue, based on deontic logic, that moral dilemmas should be excluded from the framework of normative theories[134]. They claim that moral dilemmas cause logical contradictions and inconsistencies[135]. McConnell, e.g., uses deontic logic to show that the inclusion of moral dilemmas can produce multiple flaws leading to the requirement to execute an action and not execute it at the same time, when accepting the following premises:[136]

    a Situations fulfilling Criteria 1-4 above and thus moral dilemmas exist[137].

    b "[T]he same action cannot be obligatory and forbidden"[138].

    c If action B follows from action A and action A is obligatory, then action B is obligatory too[139].

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[128]McConnell, (2022); McConnell, T. (1978). 'Moral Dilemmas and Consistency in Ethics'. In: *Canadian Journal of Philosophy* 8.2, pp. 269–287. DOI: 10.1080/00455091.1978.10717051. [Online] Available at: https://www.researchgate.net/publication/293094031_Moral_Dilemmas_and_Consistency_in_Ethics, 29. 8. 2023, 02:26.

[129]McConnell, (2022).

[130]Ibid.

[131]McNamara, P. and Van De Putte, F. (2022a). 'Deontic Logic'. In: *The Stanford Encyclopedia of Philosophy*. Ed. by Zalta, E. N. and Nodelman, U. Fall 2022. Metaphysics Research Lab, Stanford University. [Online] Available at: https://plato.stanford.edu/archives/fall2022/entries/logic-deontic/, 22. 6. 2023, 23:59.

[132]McNamara and Van De Putte, (2022b).

[133]McNamara and Van De Putte, (2022a); McNamara and Van De Putte, (2022b).

[134]McConnell, (2022).

[135]Ibid.

[136]McConnell, (1978).

[137]Ibid.

[138]Ibid.

[139]Ibid.

d When an agent ought to do action A, it is implied that they can do action A (following Criterion 3)[140].

e If an agent ought to do action A and action B, they ought to do both A and B[141].

The deduction on how these premises and moral dilemma criteria lead to logical inconsistencies is excluded from this paper to stay within scope. McConnell concludes that to avoid inconsistencies, any of the premises above has to be rejected or at least excluded[142]. As McConnell finds it hard to reject any other premise, he proposes to reject premise a. and, therefore, the existence of moral dilemmas[143].

Classification of Moral Dilemma

Throughout the discourse on moral dilemmas, a need for classification has arisen as ethicists deem different scenarios as truly dilemmatic or not[144]. Moral dilemmas, for example, with actual conflicting requirements and neither overriding the others, are called *ontological*[145]. They stand in contrast to *epistemic* moral dilemmas in which the agent simply does not know which requirement to prioritize even though there might be a uniquely correct solution[146]. The existence of ontological moral dilemmas is heavily contested and poses a problem to normative theories, which aim to be action-guiding in all circumstances[147]. However, epistemic moral dilemmas — essentially portraying human imperfection — are widely acknowledged even among most skeptics of moral dilemmas[148]. It thus can concluded that regardless of whether moral dilemmas exist ontologically, they at least exist epistemically in the perceived reality of an agent[149].

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[140]McConnell, (1978).
[141]Ibid.
[142]McConnell, (2022); McConnell, (1978).
[143]McConnell, (2022); McConnell, (1978).
[144]McConnell, (2022).
[145]Ibid.
[146]Ibid.
[147]Ibid.
[148]Ibid.
[149]Ibid.

Another distinction of moral dilemmas is based on their origin, specifically, whether they are *imposed onto the agent by the world* or *self-imposed*[150]. Self-imposed means that the agent themselves is responsible for creating the dilemma they face[151]. The agent, for example, could knowingly have made conflicting promises and now ought to fulfill all of them[152]. Some opponents of moral dilemmas argue that self-imposed dilemmas do not have to be solved by a normative theory as they are the consequences of immoral behavior[153]. They say that the agent deprived themself of the agency to do all they ought to do by going against what they ought to do and thus acted outside the ethical framework of the applied normative theory[154]. However, other opponents of moral dilemmas argue that moral failure is human, and any normative theory should thus account for it[155].

While in the aforementioned example by Plato, the agent has two obligations, to keep and return the weapon, in Sophie's Choice, all available actions are prohibited[156]. Thus a difference is made between *obligation* and *prohibition dilemmas*[157]. Some ethicists believe that it is possible to avoid obligation dilemmas in deontic logic but not prohibition dilemmas[158].

The previously considered moral dilemmas are all *single-agent dilemmas*, but there is also discussion around *multi-agent dilemmas*[159]. Multi-agent dilemmas portray cases in which the moral requirements of one individual conflict with those of others[160]. In these cases, the involved agents can be individuals acting independently[161]. However, they can also be part of a group where the moral obligations of the group conflict with those of an individual within the group[162]. Suppose a normative theory does not cover multi-agent di-

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[150]McConnell, (2022).
[151]Ibid.
[152]Ibid.
[153]Ibid.
[154]Ibid.
[155]Ibid.
[156]Ibid.
[157]McConnell, (2022); Vallentyne, P. (1992). 'MORAL DILEMMAS AND COMPARATIVE CONCEPTIONS OF MORALITY'. in: *The Southern Journal of Philosophy* 30.1, pp. 117–124. DOI: 10.1111/j.2041-6962.1992.tb00633.x,
[158]McConnell, (2022); Vallentyne, (1992).
[159]McConnell, (2022).
[160]Ibid.
[161]Ibid.
[162]Ibid.

lemmas[163]. In that case, it might be uniquely action-guiding for a theoretical agent but not for a real-world agent, as it fails to model situations involving multiple individuals[164].

These definitions give the language to specify the focus of this paper further. For one, as the goal of this paper is to research how a player interacts with and reflects on moral dilemmas in video games, when talking about moral dilemmas in the following, it is from the perspective of an agent, not an ethicist. Therefore epistemic dilemmas are considered sufficient. Also, both obligation and prohibition dilemmas are considered. However, the utilized dilemmas are neither self-imposed nor multi-agent to keep the scenarios simple.

2.2 Stories of Moral Behavior

2.2.1 Learning Morals from Stories

A plethora of stories across diverse media contain accounts of morally right or wrong judgment, behavior, and dilemma. Aside from one's own experience, Tappan and Brown see stories of others as the only way to gain access to moral experience[165]. As one cannot relive the experience of others, one has to rely on their narratives[166]. Moral stories can also intentionally fully or partially be built around a specific moral message.

According to the *social cognitive theory*, audiences, especially children, start to internalize and imitate behavior they see in stories, even if not presented by authority figures like parents but on TV[167]. This is especially true if that behavior is performed and justified by attractive models[168]. Research into the effects of pornography consumption suggests that adults are similarly af-

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[163]McConnell, (2022).

[164]Ibid.

[165]Tappan, M. B. and Brown, L. M. (1989). 'Stories Told and Lessons Learned: Toward a Narrative Approach to Moral Development and Moral Education'. In: *Harvard Educational Review* 59.2, pp. 182–206. DOI: 10.17763/haer.59.2.d364up55vx875411. [Online] Available at: https://www.researchgate.net/publication/279741978_Stories_Told_and_Lessons_Learned_Toward_a_Narrative_Approach_to_Moral_Development_and_Moral_Education, 29. 8. 2023, 03:00.

[166]Ibid.

[167]Tamborini et al., (2017).

[168]Ibid.

fected by their media consumption[169]. While a great part of research focusses on the negative effects of media consumption, there are also positive effects as, for example, "consuming fictional media content [increasing] older children's ability to recognize and identify emotions"[170].

While it is often assumed that moral messages can easily be recognized in and learned from stories, Narvaez shows throughout her research that this is not necessarily the case[171]. Narvaez points out that readers generally further their understanding of a text by actively injecting their own knowledge about the world into the text they read[172]. Narvaez, e.g., references a study by Lehr in which many kindergarteners misconstrued the theme of "The Story of the Three Little Pigs"[173] as not to trust strangers, a message likely repeatedly discussed with them[174].

Narvaez's 1998 research also introduces the concept of *moral judgment schemas*, which "can be characterized as 'prior moral knowledge' about different ways to get along with others"[175]. Her research further indicates that a lack of knowledge, moral development, or strong association with a particular theme or moral judgment schema can lead to misconstruction and misunderstanding of a text[176].

[169]Tamborini et al., (2017).

[170]Ibid.

[171]Narvaez, D. et al. (1998). 'Moral theme comprehension in third graders, fifth graders, and college students'. In: *Reading Psychology* 19.2, pp. 217–241. DOI: 10.1080/0270271980190203. [Online] Available at: https://www.researchgate.net/publication/247510613_Moral_theme_comprehension_in_third_graders_fifth_graders_and_college_students, 29. 8. 2023, 02:51; Narvaez, D. (2002). 'Does Reading Moral Stories Build Character?' In: *Educational Psychology Review* 14.2, pp. 155–171. DOI: 10.1023/A:1014674621501. [Online] Available at: https://www3.nd.edu/˜dnarvaez/documents/NarvaezReadStories02.pdf, 29. 8. 2023, 02:49.

[172]Narvaez, (2002).

[173]Anonymous (2021). 'The Story of the Three Little Pigs'. In: *English Fairy Tales*. Ed. by Jacobs, J. Project Gutenberg. [Online] Available at: https://www.gutenberg.org/cache/epub/7439/pg7439-images.html#link2H_4_0016, 23. 4. 2023, 19:24.

[174]Narvaez et al., (1998).

[175]Narvaez, D. (1998). 'The Influence of Moral Schemas on the Reconstruction of Moral Narratives in Eighth Graders and College Students'. In: *Journal of Educational Psychology* 90.1, pp. 13–24. DOI: 10.1037/0022-0663.90.1.13. [Online] Available at: https://www.researchgate.net/publication/232446870_The_Influence_of_Moral_Schemas_on_the_Reconstruction_of_Moral_Narratives_in_Eighth_Graders_and_College_Students, 29. 8. 2023, 02:54.

[176]Narvaez, (2002); Lehr, S. (1988). 'The Child's Developing Sense of Theme as a Response to Literature'. In: *Reading Research Quarterly* 23.3, pp. 337–357. DOI: 10.2307/748046, Narvaez, (1998).

Narvaez also proposes, but not proves, that *preexisting knowledge schemas*, structures of related knowledge gained from experience, applied in the understanding of stories can be hard to change or argue against[177]. She names the example of adults discussing their different understanding of the theme of a movie[178]. In a similar direction Pohl in her 2008 article, claims that literature proposes ideas, concepts, and morals but that it is ultimately up to the reader how to interpret them and whether they want to agree or disagree with them[179].

2.2.2 Invoking and Utilizing Moral Emotions

Pohl states that through literary and rhetorical devices like point of view, the reader can experience different perspectives and gain new insights for their moral imagination[180]. She further claims that this allows for a more vivid experience than possible through the consumption of abstract philosophy[181]. However, Pohl also acknowledges that these devices' success depends on the reader's mindset and whether the story was designed for them[182]. In the following, the relation between different media characteristics and their relation to moral portrayals and emotions are further explored.

In his 2010 article, Carroll posits that one of the primary objectives of storytelling is to elicit emotional responses in the audience, be it through cautious tales invoking fear to warn children about dangers or through stories with a genre-specific focus on certain emotions, e.g., fear in horror, amusement in comedy and sadness, compassion, etc. in drama[183]. Carroll proposes that among these emotions, those associated with moral judgment, the *moral emotions*, play a

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[177]Narvaez, (2002).

[178]Ibid.

[179]Pohl, K. (2008). 'Ethical Reflection and Emotional Involvement in Computer Games'. In: ed. by Günzel, S., Liebe, M. and Mersch, D. Potsdam University Press. [Online] Available at: https://publishup.uni-potsdam.de/opus4-ubp/frontdoor/deliver/index/docId/2564/file/digarec01_05.pdf, 29. 8. 2023, 04:14.

[180]Ibid.

[181]Ibid.

[182]Ibid.

[183]Carroll, N. (2010). 'Movies, the Moral Emotions, and Sympathy'. In: *Midwest Studies In Philosophy* 34.1, pp. 1–19. DOI: https://doi.org/10.1111/j.1475-4975.2010.00197.x,

crucial role in engaging the audience[184]. While moral emotions accompany moral judgment, the exact nature of their relation is still a topic to debate[185].

Generally, the moral emotions triggered by certain narratives and themes vary based on culture[186]. However, Carroll proposes three themes he deems applicable to all human beings and, therefore, culture-independent[187]. The first is the theme of harm, which invokes a reaction of moral anger, contempt, and loathing, but also feelings of compassion and pity[188]. Second, are themes of justice and injustice, to which audiences react with pride or righteous anger[189]. The final theme involves social relationships among individuals or groups, such as romantic partners, family members, or citizens and their nation[190]. In this context, violating societal norms and regulations can invoke moral anger and contempt[191].

These three universal themes overlap with a subset of MFT intuitions, namely: care, fairness, and in-group loyalty. Authority and purity are left out. Tamborini proposed 2012 the *model of intuitive morality and exemplars (MIME)* which explains how the emphasis on specific MFT intuitions within a culture can change over time[192]. According to Tamborini et al., the response to a specific MFT intuition can be made more accessible both short and long-term by repeated exposure[193]. This explains why audiences automatically react positively to protagonists acting to honor the principles embedded into these intuitions[194]. As this evokes positive emotions, it further motivates them to keep watching and thus exposes them to more of the same principles creating a positive feedback loop[195].

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[184]Carroll, (2010).
[185]Ibid.
[186]Ibid.
[187]Ibid.
[188]Ibid.
[189]Ibid.
[190]Ibid.
[191]Ibid.
[192]Tamborini et al., (2017).
[193]Ibid.
[194]Ibid.
[195]Ibid.

The effect of moral themes can be further enhanced by utilizing the strengths of the medium in which the story is portrayed[196]. According to Carroll, movies are well suited to invoke moral emotions in their stories through a multitude of tools that allow them to pre-select what is emotionally important and frame it that way for the audience, for example, through a specific camera perspective[197].

Character Perception

Another positive feedback loop can be created in the audience's relationship with certain characters[198]. Tamborini et al. summarize Zillman's 1991 work in which he proposes the *three-factor theory of empathy*[199]. This theory states that while a person can neither control their immediate response nor its physiological effects on their sympathetic nervous system, they can reevaluate their initial response as soon as it reaches their consciousness[200]. Building on this, Zillman then in 2000 proposes the *affective disposition theory* which explains that audiences constantly reevaluate their emotional responses to characters[201]. This, as summarized by Tamborini et. al., leads the audience into a "circular process of moral judgment, character liking, perception of outcome, and enjoyment"[202].

As explained previously, moral emotions can be heightened by preconceptions of the characters' morality. Carroll, therefore further hypothesizes that sympathetic and antipathetic feelings can be engineered in the audience by portraying the protagonist and antagonist in clearly contrasting ways as morally good and bad[203]. In contrast, the moral responses of an audience can also be engineered to get an audience to sympathize with morally ambiguous anti-heroes like the serial killer *Dexter*[204] in the TV series of the same name[205].

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[196]Carroll, (2010).

[197]Ibid.

[198]Tamborini et al., (2017).

[199]Ibid.

[200]Ibid.

[201]Ibid.

[202]Ibid.

[203]Carroll, (2010).

[204]Manos Jr., J. (2006). *Dexter - Season 1*. Based on the novel "Darkly Dreaming Dexter" by Jeff Lindsay. Paramount Media Networks,

[205]García, A. N. (2016). 'Moral Emotions, Antiheroes and the Limits of Allegiance'. In: *Emotions in Contemporary TV Series*. Palgrave Macmillan UK, pp. 52–70. ISBN: 978-1-349-84936-9. DOI: 10.1007/978-1-137-56885-4_4. [Online] Available at: https://www.researchgate.net/publication/299975348_Moral_Emotions_Antiheroes_and_the_Limits_of_Allegiance_2016, 29. 8. 2023, 03:57.

Sanders and Tsay-Vogel researched in their 2016 paper *moral disengagement*, "a cognitive process that allows a person to disengage self-sanctioning when evaluating the moral appropriateness of behaviors in various contexts"[206] and "influences the ability to perform and accept delinquent behavior while reducing anticipatory guilt"[207]. Their study showed that prolonged exposure to a narrative lead to more identification with characters which results in more moral disengagement for morally ambigous characters[208]. Additionally, prolonged exposure also leads to more disengagement when a character is perceived as good and less moral disengagement when a character is perceived as bad[209].

2.2.3 Stories of Moral Dilemma

Before considering research into the effects of moral dilemmas in stories, it can be concluded that their perception depends on the interpretation of recipients but can be guided by certain media specific techniques creating a certain framing of a situation. However, when using framing techniques, it is important to avoid creating a bias that could weaken the dilemmatic nature of the portrayal.

Polarizing Moral Dilemmas

As the evaluation of moral properties can be wildly different between recipients, moral dilemma portrayals can be categorized into two desirable scenarios. Firstly, and most intuitively, most recipients agree that the moral dilemma is dilemmatic, like the one presented in Sophie's Choice. Secondly, the moral dilemma sparks conversation due to its polarizing nature, i.e., a moral dilemma portrayal that causes recipients in roughly equal measure to prefer either option.

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[206]Sanders, M. and Tsay-Vogel, M. (2016). 'Beyond Heroes and Villains: Examining Explanatory Mechanisms Underlying Moral Disengagement'. In: *Mass Communication and Society* 19.3, pp. 230–252. ISSN: 0273-2297. DOI: 10.1080/15205436.2015.1096944. [Online] Available at: https://www.researchgate.net/publication/283851246_Beyond_Heroes_and_Villains_Examining_Explanatory_Mechanisms_Underlying_Moral_Disengagement, 29. 8. 2023, 02:44.
[207]Ibid.
[208]Ibid.
[209]Ibid.

An example of a polarizing dilemma is presented in the 2016 movie *Passengers*[210]. In this movie, the character Jim awakes from a hibernation pod due to a technical error while the spaceship is still 90 years away from its final destination. After living on the spaceship for a while, Jim can not bear the loneliness anymore and decides to wake up another passenger, Aurora, therefore, condemning her to share his fate.

From the ethical standpoint of utilitarianism, Jim's action to wake up Aurora may be considered obligatory as the distress experienced by a single individual due to loneliness might outweigh the combined suffering of being the only two awake. Some online arguments agree with this viewpoint or at least have sympathy for Jim's situation and show him lenience[211].

From a classical deontological view, it could be argued, for example, that Jim basically kidnapped Aurora from the life she could have had and thus broke a rule he should not have, as some have proposed online[212]. Additionally, those condemning Jim's action as an unwarranted immoral egoistical decision see their position further fueled by the seemingly predatory choice of selecting to wake up a woman he finds attractive and hopes to have a relationship with, as well as him lying to her later on[213].

So if any audience member is strongly inclined to favor one of these positions, they do not perceive the situation to be dilemmatic. Therefore, polarizing moral dilemmas like this bear the danger of inconsistent audience

[210]Tyldum, M. (2016). *Passengers*. Sony Pictures Releasing,

[211]ikonoqlast (2017). *[Passengers] Was there an ethical way out?* Reddit. [Online] Available at: https://www.reddit.com/r/AskScienceFiction/comments/6jxqbb/passengers_was_there_an_ethical_way_out/, 1. 5. 2023, 14:50; Anonymous (2017). *In the movie Passengers, was it morally or ethically right for Jim to wake Aurora?* Quora. [Online] Available at: https://www.quora.com/In-the-movie-Passengers-was-it-morally-or-ethically-right-for-Jim-to-wake-Aurora, 1. 5. 2023, 15:25.

[212]Brouellette, M. (2017). *In the 2016 film Passengers, when Jim wakes Aurora from suspended animation, was it murder?* Quora. [Online] Available at: https://www.quora.com/In-the-2016-film-Passengers-when-Jim-wakes-Aurora-from-suspended-animation-was-it-murder, 1. 5. 2023, 14:56.

[213]Brouellette, (2017); Wenzel, J. (2016). *"Passengers" movie review: Romantic sci-fi comedy or psychological horror flick?* The Denver Post. [Online] Available at: https://www.denverpost.com/2016/12/21/passengers-movie-review/, 1. 5. 2023, 14:59; Matejka, J. (2017). *The Ethical Dilemma at the Center of 'Passengers'.* Cinema Faith. [Online] Available at: https://cinemafaith.com/reviews/passengers/, 1. 5. 2023, 15:06; Anonymous, (2017).

responses, which can alienate them and make it harder to anticipate and engineer reactions in the following. In the case of Passengers, for example, audience members might not react favorably to the romance story featured in the rest of the movie if they consider Jim's actions irredeemable[214]. However, polarizing dilemmas can spark conversation, as seen by the referenced online discussion. This can be considered positive, as online discussion spreads the story to a larger audience and provides an exchange of insights between recipients.

Influence of Character Likeability

Based on previous findings, it is assumed that Jim's actions in the movie would be deemed increasingly permissible if Jim would have proven to be a good person by portrayals of him doing good actions.

Moreover, character likeability is generally a concept to consider carefully when crafting stories around moral dilemmas. Especially since, according to Koopman's 2010 essay on trauma portrayals, recipients of non-interactive media may feel emotionally distant from portrayals of suffering due to their aestheticization and the recipient's inability to intervene or interact with the situation[215]. Koopman further claims that this can lead to an experience in which "the initial pity can transform into a sadistic pleasure that the other is suffering and we are not"[216]. It is not hard to imagine that this pleasure increases when the recipient already has (morally) negative feelings towards the character.

For example, when considering a moral dilemma like in Sophie's Choice, where only one of two persons can be saved, recipients could be imagined to take joy in the decision if it leads to a hated character's death or outrage if the character they liked less was chosen to stay alive. This indicates that it can be important to frame characters involved in a moral dilemma morally equally. Alternatively, the focus could be shifted away from specific characters, e.g., as

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[214]Wenzel, (2016); Matejka, (2017).

[215]Koopman, E. (2010). 'Reading the Suffering of Others. The Ethical Possibilities ›Empathetic Unsettlement‹'. In: *Journal of Literary Theory* 4.2, pp. 235–237. DOI: 10.1515/jlt.2010.015. [Online] Available at: https://www.researchgate.net/publication/270261175_Reading_the_Suffering_of_Others_The_Ethical_Possibilities_of_Empathic_Unsettlement, 29. 8. 2023, 03:11.

[216]Ibid.

in the trolley problems in which none of the involved parties gets introduced. This, however, could make the audience feel less invested. To circumvent this problem, the role obligations of the decision maker could be emphasized. For example, in the case of Sophie's Choice, her obligation as a mother to keep her children safe is likely weighing more in the recipients eyes than the individual children's likeability.

As a character's perceived morality can influence the story's perception, associating an option of a moral dilemma with a specific character (stereotype) can also lead to bias. An example can be found in the 1999 movie *The Matrix*[217].

In *The Matrix*, humanity is enslaved by machines and lives within a simulation while the humans' bodies are used as an energy source. At one point, the movie's protagonist, Neo, has to choose between taking a red pill, waking up in the dystopian real world, or taking a blue pill to continue his life in the simulation, ignorant of the real world. The story frames Neo as a hero and makes him take the red pill on a mission to save humanity. Later on, a selfish member of the group fighting with Neo against the machines makes a deal with the machines to return to the simulation, for which he kills some other group members.

The context thus frames taking the red pill as the brave, heroic choice while the blue pill is retroactively associated with a cowardly, egoistic choice. It is, therefore, no wonder that the red pill became a symbol for those seeking to gain knowledge, e.g., scientists[218] or those believing in various kinds of

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[217]Wachowski, L. and Wachowski, L. (1999). *The Matrix*. Warner Bros.,

[218]Giacalone, R. A. (2007). 'Taking a Red Pill to Disempower Unethical Students: Creating Ethical Sentinels in Business Schools'. In: *Academy of Management Learning & Education* 6.4, pp. 534–542. DOI: 10.5465/AMLE.2007.27694953, Hughes, S. A. (2008). 'Toward "Good Enough Methods" for Autoethnography in a Graduate Education Course: Trying to Resist the Matrix with Another Promising Red Pill'. In: *Educational Studies* 43.2, pp. 125–143. DOI: 10.1080/00131940801944504, Rauch, P. E. (2007). 'Playing with Good and Evil: Videogames and Moral Philosophy'. MA thesis. 77 Massachusetts Ave, Cambridge, MA 02139, United States: Massachusetts Institute of Technology, pp. 32–39. [Online] Available at: https://cmsw.mit.edu/wp/wp-content/uploads/2016/10/146381118-Peter-Rauch-Playing-with-Good-and-Evil-Videogames-and-Moral-Philosophy.pdf, 29. 8. 2023, 01:37; Miller, G. F. (2013). 'Mutual Mate Choice Models as the Red Pill in Evolutionary Psychology: Long Delayed, Much Needed, Ideologically Challenging, and Hard to Swallow'. In: *Psychology Inquiry* 24.3, pp. 207–210. DOI: 10.1080/1047840X.2013.817937,

conspiracy theories[219]. In contrast, especially in the latter group, the blue pill became a symbol to denounce and other those that are ignorant in the eyes of the "red-pilled"[220]. This shows how the movie influenced recipients perception of the red and blue pill and further indicates how framing can disintegrate a moral dilemma.

Influence of the Medium

On a meta-layer, it must be acknowledged that the medium in which the (non-interactive) story is presented can also influence the perception of the dilemma. Chandler et al., e.g., in their 1973 article, show how first-grade children overall judged the same choice of a moral dilemma in a videotaped form predominately by the agent's intention and when presented in verbal form predominately by the outcome of the choice[221]. While these results, of course, also relate to the children's capability of understanding the presented dilemmas, they at least indicate a certain difference in accessibility of certain viewpoints throughout different media. Carroll, for example, claims that movies are a great medium to bring audiences closer to a character's thoughts and emotions[222].

[219]Chapelan, A. (2021). '"Swallowing the red pill": the coronavirus pandemic and the political imaginary of stigmatized knowledge in the discourse of the far-right'. In: *Journal of Transatlantic Studies* 19.3, pp. 282–312. DOI: 10.1057/s42738-021-00073-2. [Online] Available at: https://link.springer.com/article/10.1057/s42738-021-00073-2, 29. 8. 2023, 03:17; Van Valkenburgh, S. P. (2018). 'Digesting the Red Pill: Masculinity and Neoliberalism in the Manosphere'. In: *Men and Masculinties* 24.1, pp. 84–103. DOI: 10.1177/1097184X18816118. [Online] Available at: https://journals.sagepub.com/doi/full/10.1177/1097184X18816118, 29. 8. 2023, 03:18; Niessen, N. (2022). 'Forget the Red Pill: Queer Politics but also Transhumanist Ideology in The Matrix'. In: *Film Criticism* 46.2. DOI: https://doi.org/10.3998/fc.3608. [Online] Available at: https://journals.publishing.umich.edu/fc/article/id/3608/, 29. 8. 2023, 03:21; Shullenberger, G. (2021). 'Redpilling and the Regime'. In: *The New Atlantis* 65, pp. 3–14,

[220]Aguilar, L. M. H. (2023). 'Memeing a conspiracy theory: On the biopolitical compression of the great replacement conspiracy theories'. In: *Ethnography*. (Article is published online first and thus not yet released in the journal.) DOI: 10.1177/14661381221146983. [Online] Available at: https://journals.sagepub.com/doi/full/10.1177/14661381221146983, 29. 8. 2023, 03:24; Gaag, N. van der, Massoumian, A. and Nightingale, D. (2023). *Patriarchy in Practice: Ethnographies of Everyday Masculinities*. 1st. Bloomsbury Publishing, p. 34. ISBN: 9780755640058,

[221]Chandler, M. J., Greenspan, S. and Barenboim, C. (1973). 'Judgments of Intentionality in Response to Videotaped and Verbally Presented Moral Dilemmas: The Medium Is the Message'. In: *Child Development* 44.2, pp. 315–320. ISSN: 00093920, 14678624. DOI: 10.2307/1128053,

[222]Carroll, (2010).

Enjoyment and Appreciation

This chapter so far discussed the challenges in portraying moral dilemmas. However, it has yet to be discussed how the inclusion of a moral dilemma in a story influences recipients' enjoyment. As deciding over a moral dilemma always involves either overstepping moral boundaries or not fulfilling all given moral requirements, moral dilemmas are bound to frustrate some of the audience's moral desires, which in theory, should reduce the enjoyment of the story.

Lewis et al. tested subjects' reactions to moral dilemmas based on the *dual-process theories of human reasoning*, which "suggests that two types of thinking work in unison to generate judgment, one that is fast and intuitive and another that is slow and deliberative"[223]. Based on this, they distinguish between *enjoyment* resulting from fast thinking when intuitive desires are fulfilled and *appreciation* resulting from slower deliberation weighing the value of conflicting desires against each other[224]. Their tests showed that in the case of moral dilemma stories endings with both positive and negative aspects caused slow and deliberative thinking and less recipient enjoyment but more appreciation compared to a completely positive ending[225]. This is noteworthy as it shows that the evaluation of a moral dilemma outcome, most often featuring some negative consequences, is probably different from the evaluation of the outcome of other moral behaviors, and results in a different type of positive perception[226].

2.3 Moral Behavior in Games

2.3.1 The Magic Circle, Role-Playing and Serious Content in Video Games

Before discussing the relationship and interaction between moral content and video games, it is important to understand the advantages and disadvantages of video games as a medium portraying serious content in general. *Serious*

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[223]Lewis, R., Tamborini, R. and Weber, R. (2014). 'Testing a Dual-Process Model of Media Enjoyment and Appreciation'. In: *Journal of Communication* 64.3, pp. 397–416. DOI: 10 . 1111/jcom.12101. [Online] Available at: https://www.researchgate.net/publication/ 262418132_Testing_a_Dual-Process_Model_of_Media_Enjoyment_and_Appreciation, 29. 8. 2023, 03:27.
[224]Ibid.
[225]Ibid.
[226]Ibid.

content in the following refers to any content that is by design intended to relay a specific message or learning experience to the player transcending the mechanics and story of the video game, such as a moral message or a moral experience getting the player to reflect on their real-life values.

The first obvious advantage of games over most other media is their inter-activity. Most other media interacts with its recipient only on an intellectual level, i.e., the recipient has their own reading and thoughts towards what they consume. Meanwhile, the play featured in games actually gives their recipients the ability to interact with them and, philosophically speaking, turns them into actual agents. This is one of the properties that make video games great tools for learning, as Gee states in his 2009 article[227].

Learning in the Magic Circle

Another property that, according to Gee, enables players' ability to learn in video games is the encapsulated virtual world they provide, which enables testing out behaviors in a safe space[228]. This encapsulated world, however, is not unique to video games but to play in general and is called the *magic circle*[229]. The concept is first mentioned by Huizinga, who lists the magic circle among other locations functioning as "a playground marked-off beforehand either materially or ideally, deliberately or as a matter of course [...] within which special rules [apply]"[230] and "temporary worlds within the ordinary world, dedicated to the performance of an act apart"[231].

As past discussion shows, the magic circle is not a perfect isolated illusionary world of play as sometimes the real world bleeds in, e.g., in the form of spoil-sport not playing along, relationships between players or cultural context[232].

[227]Gee, J. P. (2009). 'Deep Learning Properties of Good Digital Games: How Far Can They Go?' In: *Serious Games - Mechanisms and Effects*. Ed. by Ritterfeld, U., Cody, M. and Vorderer, P. 1st. Taylor & Francis Group. Chap. 5, pp. 66–82. ISBN: 978-0-203-89165-0,

[228]Ibid.

[229]Huizinga, J. (1980). *Homo Ludens: A Study of the Play-Element in Culture*. Trowbridge & Esher, pp. 1–12. ISBN: 0-7100-0578-4, Salen Tekinbas, K. and Zimmerman, E. (2004). *The Magic Circle*. The MIT Press, pp. 93–98. ISBN: 0-262-24045-9,

[230]Huizinga, (1980).

[231]Ibid.

[232]Zimmerman, E. (2012). *Jerked Around by the Magic Circle - Clearing the Air Ten Years Later*. Game Developer. [Online] Available at: https://www.gamedeveloper.com/design/jerked-around-by-the-magic-circle---clearing-the-air-ten-years-later, 25. 6. 2023, 21:23; Marinka, C. (2005). 'Connecting Worlds. Fantasy Role-Playing Games, Ritual Acts and the Magic Circle'. In: vol. 3. Digital Games Research Association: DiGRA. [Online] Available at: http://www.digra.org/wp-content/uploads/digital-library/06278.50594.pdf, 29. 8. 2023, 1:56; Huizinga, (1980).

However, in general, individuals entering the magic circle agree to its contract of rules and fiction[233]. The magic circle, thus, can be said to form a safe space separate from reality to play within. This in regard to decision-making, can mean safely exploring the consequences of one's action without affecting one's real-life existence[234].

According to Gee, the magic circle enables players to set their own goals, attempt to reach them, and learn from successes and mistakes without fear[235]. He states that players then in this space are able to utilize and enhance their problem-solving skills and create their own stories while exploring the game at their own pace[236].

Player Agency as a Design Problem

While the designed video game experience provides a playground, it is up to the player as co-author, actor[237], and agent to make it their magic circle: They decide where they want to suspense their disbelief, which goals they want to pursue, and how they interpret the game. This agency, however, can create problems on a design level.

Players might draw unintended associations to the real world, thus limiting their enjoyment of the game, for example, by deeming the gameplay featured in the board game *Catan*[238] a romanticized version of colonialization[239]. In another case, players might not want to accept the *Call of Duty*[240] in the video game series of the same name and participate in a war without further questioning whether the enemy actually deserves to be shot.

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[233] Huizinga, (1980).

[234] Salen Tekinbas and Zimmerman, (2004).

[235] Gee, (2009).

[236] Ibid.

[237] Løvlie, A. (2005). 'End of story? Quest, narrative and enactment in computer games'. In: vol. 3. Digital Games Research Association: DiGRA. [Online] Available at: http://www.digra.org/wp-content/uploads/digital-library/06276.38324.pdf, 29. 8. 2023, 1:55.

[238] Teuber, K. (1995). *Catan*. Catan GmbH. [Online] Available at: https://www.catan.de/, 29. 6. 2023, 22:52.

[239] Perry, T. (2017). *The Golden Rule and the Magic Circle*. Active Learning in Political Science. [Online] Available at: https://activelearningps.com/2017/02/15/the-golden-rule-and-the-magic-circle/, 25. 6. 2023, 20:34.

[240] Infity Ward, Treyarch, Sledgehammer Games, Raven Software (2003). *Call of Duty Franchise*. Activision Publishing. [Online] Available at: https://www.callofduty.com/hub, 29. 6. 2023, 22:50.

In contrast, it is quite common for first-person shooter games to treat enemies as pixel targets, not human beings. Therefore, players might be predisposed to view them this way and are thus not morally questioning their actions or might even morally disengage completely, especially when the actions of opponents are shown to be condemnable and the violence against them is justified[241].

In this case, players see the game world just as an aestheticization of the real world, do not suspense their disbelief, and feel emotionally distant from their actions in the game which may even let them take pleasure in the suffering of characters as previously explained in the context of Koopmans essay on trauma portrayals. Zagal also acknowledges this problem in his 2011 article on ethically notable games in which he, however, disregards the notion that "the act of playing a game inherently trivialize[s] the issues it tackles and thus render[s] any game about a serious topic inherently unethical"[242].

Nevertheless, this is a problem designers should consider for ethical reasons. These effects can, for example, cause issues in video games that want the player to care for characters in general or even their enemies, like the reboot of the *Tomb Raider*[243] series or *BioShock*[244]. It does not help that both these games feature a so-called *ludonarrative dissonance*[245], which is a disconnect between the goals of (the character in) the story and the gameplay[246]. In the previously mentioned games, the story encourages empathy while the gameplay

[241]Hartmann, T. and Vorderer, P. (2010). 'It's Okay to Shoot a Character: Moral Disengagment in Violent Video Games'. In: *Journal of Communications* 60.1, pp. 94–119. ISSN: 0021-9916. DOI: `10.1111/j.1460-2466.2009.01459.x`. [Online] Available at: `https://onlinelibrary.wiley.com/doi/pdf/10.1111/j.1460-2466.2009.01459.x`, 29. 8. 2023, 03:32.

[242]Zagal, J. P. (2009). 'Ethically Notable Videogames: Moral Dilemmas and Gameplay'. In: vol. 5. Brunel University. [Online] Available at: `http://www.digra.org/wp-content/uploads/digital-library/09287.13336.pdf`, 29. 8. 2023, 1:47.

[243]Crystal Dynamics (2013). *Tomb Raider*. Square Enix. [Online] Available at: `https://www.crystald.com/projects/tomb-raider/`, 29. 6. 2023, 22:42.

[244]2K Boston (2007). *BioShock*. 2K Games. [Online] Available at: `https://2k.com/en-US/game/bioshock-the-collection/`, 29. 6. 2023, 22:43; Hocking, C. (2007). *Ludonarrative Dissonance in Bioshock*. [Online] Available at: `https://clicknothing.typepad.com/click_nothing/2007/10/ludonarrative-d.html`, 29. 6. 2023, 22:35; Kuznetsova, E. (2015). 'Narrativizing Denied Agency, Ludonarrative Dissonance and Empathy Play'. MA thesis. 116 St. and 85 Ave., Edmonton, AB, Canada T6G 2R3: University of Alberta, pp. 88–99. [Online] Available at: `https://era.library.ualberta.ca/items/17f914b7-917f-420b-ac28-742be6bb4361/view/504aa4aa-54c0-4f7d-a64f-966904148de6/Kuznetsova_Evgeniya_201708_MA.pdf`, 29. 8. 2023, 01:38.

[245]Kuznetsova, (2015); Hocking, (2007).

[246]Hocking, (2007).

incentivizes violence[247]. Players only find the decision between preserving NPCs' lives and a smoother progression through the game difficult when they actually find NPCs worth of preserving[248]. Consequently, these games rely on the player's capacity and willingness to suspend their disbelief to a degree that lets them view NPCs as entities worthy of care.

Pohl differentiates here between two types of *emotional involvement* players possess: the *instantaneous* concerning the gameplay goals and the *spontaneous* concerning the narrative[249]. While designers often intend to create involvement on both these levels, general discourse about games condemning long dialogs and cutscenes indicates that not all players seem as involved in the narrative as designers would like them to be. It is, therefore, not hard to image a player whose only goal is making it through the gameplay with maximal efficiency and who, thus, would only ever prefer gameplay efficiency over character and story. Video games like *Undertale*[250] subvert the player's expectations in this regard, as increasing one's power by defeating enemies in *Undertale* only leads to an incredibly hard challenge at the end paired with dialog about the senselessness of the player's violence[251]. But not all designers can and want to take their games in this direction, in which case the previously mentioned problems still stand.

Game designers generally also depend on the player to suspend their disbelief in regard to presented challenges and puzzles. For example, players may feel their agency to be unnecessarily constrained if their solution strategies do not work out in a game. This can happen in cases where the game intentionally limits the player or when actions easily available in real life are simply not implemented, either out of oversight or scope limitations.

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[247] Hocking, (2007); Kuznetsova, (2015).

[248] Hocking, (2007); Campbell, C. (2016). *Words, Rhianna Pratchett and the meaning of Lara Croft*. Polygon. [Online] Available at: https://www.polygon.com/features/2016/3/7/11162050/words-rhianna-pratchett-and-the-meaning-of-lara-croft, 29. 6. 2023, 23:07.

[249] Pohl, (2008).

[250] Fox, T. (2015). *Undertale*. [Online] Available at: http://unboundcreations.com/games/headliner-novinews/, 2. 7. 2023, 18:00.

[251] Ibid.

(a) *The player cannot progress because the door is closed.*

(b) *Leaving another character next to the scanner opens the door.*

Figure 1: *The player has to sacrifice another character in order to progress in Iconoclasts.*

Source:[252]

An example of this can be found in the platformer *Iconoclasts*[253], in which the player has to leave the character Royal behind in a broken moon station to activate a sensor and keep a door open see Figure 1. Instead of simply accepting this situation players tried to argue against it online, for example, by claiming that the main character should be able to repair the scanner so that it is closer to the door again and so on[254]. Such discussion around whether a game should allow for certain actions can be problematic, as it breaks the immersion and shifts focus away from the message to arguing about its game design.

And lastly, as previously mentioned, it is also up to the player to interpret the game. An interesting case study in this regard is the game *Spent*[255] in which the player has to survive on their last 1000$ after losing their job and house. The game presents the player with one scenario after another in which they

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[252]FuryForged (2018). *Iconoclasts — Part 24 - Royal's Meeting*. YouTube. [Online] Available at: https://youtu.be/AWXK6m9Fvqk?t=471, 30. 6. 2023, 13:47.

[253]Sandberg, J. (2018). *Iconoclasts*. [Online] Available at: http://www.playiconoclasts.com/, 29. 6. 2023, 22:44.

[254]Nihtgalan and commentators (2018). *MASSIVE SPOILERS! Question about Royal - Online Discussion*. Reddit. [Online] Available at: https://www.reddit.com/r/Iconoclasts/comments/7sthit/massive_spoilers_question_about_royal/, 30. 6. 2023, 19:53; Wigglesthemouse and commentators (2018). *This guy just couldn't leave Royal behind - Online Discussion*. Reddit. [Online] Available at: https://www.reddit.com/r/Iconoclasts/comments/7umss6/this_guy_just_couldnt_leave_royal_behind/, 30. 6. 2023, 19:53; Black_Lotus and commentators (2018). *Royal spoilers... - Online Discussion*. Steam. [Online] Available at: https://steamcommunity.com/app/393520/discussions/0/1700541698686489809/, 30. 6. 2023, 19:54.

[255]McKinney (2011). *Spent*. Urban Ministries of Durham. [Online] Available at: https://playspent.org/html/, 30. 6. 2023, 19:39.

have to decide whether to spend money. These potential spending scenarios include their kid's field trip, the health issues of their mother, and car repairs. A study found that most participants who played the game remained in their initial opinions towards those experiencing poverty, with a few gaining a more negative bias[256]. Spent is a purposefully hard game to "win", which is achieved by having a positive balance at the end of the played month[257]. The study shows that some players achieving this goal and having a low belief in meritocracy exhibited an increase in their belief that poverty is controllable[258]. They thus thought more negatively about those in poverty after playing the game[259]. This means some players consciously or subconsciously interpreted the game to compare to real-world struggles. The lessons designers can learn from this case is that games representing real-world topics have to be carefully modeled, keeping in mind players real-world biases, to create a compelling game experience while also not trivializing the presented real-world issues.

Playing a Role

Players beyond the layers of explicitly designed game content often form their own relationships with NPCs and game content in general. These effects also are present in the interaction between the player and their given in-game role, often represented by a controllable game object. In his 2003 book titled *Designing Virtual Worlds*, Bartle describes that players depending on their level of immersion can identify with the object they control to varying degrees[260]; they may see it as:

- an *avatar* with which they not identify at all, merely seeing it as "their representative in the virtual world"[261]

[256]Roussous, G. and Dovidio, J. F. (2016). 'Playing below the poverty line: Investigating an online game as a way to reduce prejudice toward the poor'. In: vol. 10. 2. Masaryk University, Faculty of Social Studies. DOI: 10.5817/CP2016-2-3. [Online] Available at: https://cyberpsychology.eu/article/view/6176/5525, 29. 8. 2023, 2:00.

[257]Ibid.

[258]Ibid.

[259]Ibid.

[260]Bartle, R. (2003). 'Levels of Immersion'. In: *Designing Virtual Worlds*, pp. 205–210. [Online] Available at: https://www.researchgate.net/publication/200025892_Designing_Virtual_Worlds, 1. 7. 2023, 16:43.

[261]Ibid.

- a *character*, "their representation"[262] which makes it "an extension of the player's self, a whole personality that the player dons when they enter the virtual world"[263]

- as themselves, in which case "[y]ou're not role-playing a being, you *are* that being, you're not assuming an identity, you *are* that identity, you're not projecting yourself, you *are* that self"[264]

Depending on these differences in perception, players might act as themselves, as the character, or as themselves in the situation and role of the character.

Some researchers argue that by providing the player with a predefined role, designers not only encourage perspective-taking similar to non-interactive narratives but further enable the player to act out of their predefined role questioning what their role would do rather than what they themselves would do[265]. This theoretically makes games a great tool to let players experience problems from a perspective they could usually not take. When taking their role seriously and acting from within it, players might be able to learn from these experiences. However, taking their role too seriously, they might end up not morally questioning tasks given to them in this role or even purposefully role-play as a destructive maniac or socially inadept person testing out boundaries. Designers thus have to take in account that players differ in their relationship to the virtual object they are controlling, their interpretation of NPCs, and their role in the world.

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[262]Bartle, (2003).
[263]Ibid.
[264]Ibid.
[265]Løvlie, (2005); Pohl, (2008).

2.3.2 Gamification of Moral Choice

Figure 2: *Festinger's model of cognitive dissonance, in which inconsistencies in action and beliefs can lead to dissonance and resultingly change of belief, action, or action perception.*
Source:[266]

Cognitive dissonance is the discomfort caused by inconsistencies between one's actions and beliefs[267]. According to Festinger's model of cognitive dissonance this discomfort then leads an individual to either change their beliefs, actions, or action perception[268]. This in theory should make video games, due to their interactivity, an excellent tool for inspiring (moral) reflection in players.

Discussion on Moral Decisions, Feedback, and Consequences

However, in his 2016 article, Nguyen argues that a video game's potential to inspire reflection might decreases when the game causes cognitive dissonance by providing the player with feedback on the morality of their actions[269]. He states that as the game provides clear answers on the morality of the player's actions, the player tends to change their action perception rather than their

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[266]Ganser, E. (2016). *The Cognitive Dissonance Theory and its Function in Public Relations.* [Online] Available at: https://sites.psu.edu/eganser/the-cognitive-dissonance-theory-and-its-function-in-public-relations/, 2. 8. 2023, 0:31.

[267]Ibid.

[268]Ibid.

[269]Nguyen, R. (2016). *Beyond the Moral Binary: Decision-Making in Video Games.* [Online] Available at: https://withaterriblefate.com/2016/04/25/beyond-the-moral-binary-decision-making-in-video-games/, 2. 8. 2023, 0:38.

beliefs or actions[270]. According to him, this gives the player not the chance to experience and reflect on an inconsistency themselves as the game already did it for them, which is a notion also supported by Sicart in his 2009 book[271].

This view contrasts the prevalent game design principle of giving players feedback on all their actions to increase their perceived agency. Sid Meier, for example, defines games as "a series of interesting choices"[272]. According to Meier, this means that the choices include a tradeoff, influence the game's situation, allow the player to express their playstyle, and affect the game over a specified duration[273]. Nay and Zagal, in their 2017 article, further explain that Meier's viewpoint ties into the general principle of providing a player with agency and letting them "guide their play experience to their liking"[274]. To achieve this, they specify that players not only have to be able to make these choices but also be sufficiently informed on their outcomes[275].

Therefore many games attempt to provide the player with moral feedback either implicitly through narrative and gameplay consequences or even explicitly by rating the player's actions as part of a karma or *morality system*[276]. These systems rate the player's actions on their morality and often provide them with an overview of their current overall values, e.g., in the form of a scale[277].

Systems like these can be detrimental to a player's moral reflection when certain decisions, for example, unlock quests, dialogs, abilities, different endings, visual features, or contribute to certain goals[278]. This goal can either be explicitly set by the game or a goal set by the player and encouraged by the game, like playing as an evil or good character.

[270]Nguyen, (2016).

[271]Nguyen, (2016); Sicart, M. (2009). 'The Ethics of Game Design - Failed Attempts: Ethics as Statistics'. In: *The Ethics of Computer Games*. The MIT Press, pp. 207–212. ISBN: 978-0-262-51662-4. DOI: 10.7551/mitpress/9780262012652.003.0007,

[272]Meier, S. (2018). *Sid Meier's Interesting Decisions*. YouTube. [Online] Available at: https://www.youtube.com/watch?v=WggIdtrqgKg, 6. 7. 2023, 20:51.

[273]Ibid.

[274]Nay and Zagal, (2017).

[275]Ibid.

[276]Kinglink Reviews (2020). *Design Review: Morality Systems - Fifty Shades of Non Grey*. YouTube. [Online] Available at: https://www.youtube.com/watch?v=Z6fEZ5wyNLI, 6. 7. 2023, 21:20; Nay and Zagal, (2017).

[277]tvtropes.org (2023). *Karma Meter*. [Online] Available at: https://tvtropes.org/pmwiki/pmwiki.php/Main/KarmaMeter, 7. 7. 2023, 17:09.

[278]tvtropes.org, (2023); Nay and Zagal, (2017).

The player in these games gets to know the designer's value system and is punished for disagreeing with it or misinterpreting it as it blocks them from certain content or experiences. Sicart further notes that in these cases, "moral choice no longer implies a reflection upon their action, but rather a strategy, another token in the world of the game"[279]. He, therefore, states that goals embedded in the game generally reduce the gameplay to instrumental, rational, and logical thinking instead of granting the player the freedom to actually play, explore and shape their experience[280]. A player now may only tries to maximize a value for the pure reason of maximizing it or unlocking the content behind it, e.g., by unlocking new dialog and action options in *Mass Effect*[281].

Domsch also further claims in his 2013 book that for the *homo ludens oeconomicus*, all decisions are predetermined and therefore void[282]. That is to say, this type of player who optimizes all their actions to reach certain gameplay benefits always chooses the best way to reach their goal and deems every other option irrelevant[283]. Domsch, therefore, claims, "the mode of the homo ludens oeconomicus does not work for the player as a moral agent"[284]. Sicart supports this notion as he states that by combining morality with gameplay, "players are deprived of the privilege of ethically reflecting on the game experience"[285] in contrast to other games in which "moral reasoning is not embedded in the game, and thus it is up to the player to be empowered as a moral agent, to create the values [they want] to have"[286].

These findings suggest that by providing an evaluation of a player's moral actions within a game and connecting it to gameplay content, moral reflection is de-incentivized.

[279]Sicart, (2009).

[280]Sicart, M. (2013). 'Moral Dilemmas in Computer Games'. In: *DesignIssues* 29.3, pp. 28–37. DOI: 10.1162/DESI_a_00219. [Online] Available at: https://miguelsicart.net/publications/Wicked%20Games.pdf, 29. 1. 2023, 18:28.

[281]BioWare (2007). *Mass Effect*. Microsoft Game Studios. [Online] Available at: https://store.steampowered.com/app/17460/Mass_Effect_2007/, 7. 7. 2023, 22:29; Kinglink Reviews, (2020).

[282]Domsch, S. (2013a). *Volume 4 Storyplaying - Agency and Narrative in Video Games*. De Gruyter, p. 124. ISBN: 978-3-11-027245-1. DOI: https://doi.org/10.1515/9783110272451,

[283]Ibid.

[284]Domsch, S. (2013b). *Volume 4 Storyplaying: Agency and Narrative in Video Games*. De Gruyter, p. 158. ISBN: 978-3-11-027245-1. DOI: https://doi.org/10.1515/9783110272451,

[285]Sicart, (2009).

[286]Ibid.

While these are valid concerns, there is also a study in which the majority of participants that played *Fallout 3*[287] seemed to act in accordance with the MFT intuitions they valued[288]. Moreover, another study showed that the majority of participants that played *Mass Effect* reported that they behaved in a way they would consider moral[289]. This as well as other studies show that even though a game's feedback can de-incentivize players to reflect and act on their own morals, they might still do, depending on their play type[290].

While there are still further interesting points to make about the feedback provided by morality systems in particular, a detailed discussion of them is omitted from the scope of this paper as they usually do not play a role in regard to moral dilemmas, in which all options should be rated the same.

Nay and Zagal take issue with utilizing outcome feedback to moral choices in general as they consider it to create bias towards a rather consequentialist perspective[291]. They further claim that decisions having consequences encourages players to consider replaying the game later on, thus diminishing the perceived emotional impact of the choice as the potential to restart makes them fleeting[292]. This notion is supported by Sicart, who sees this as an unsolvable problem as long as games can be reset in this way[293].

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[287]Bethesda Softworks, Bethesda Game Studios (2008). *Fallout 3*. [Online] Available at: https://fallout.bethesda.net/en/games/fallout-3, 9. 7. 2023, 21:45.

[288]Weaver, A. J. and Lewis, N. (2012). 'Mirrored morality: an exploration of moral choice in video games'. In: *Cyberpsychology, Behavior, and Social Networking* 15.11, pp. 610–614. DOI: 10.1089/cyber.2012.0235,

[289]Boyan, A., Bowman, N. D. and Grizzard, M. (2015). 'A massively moral game? Mass Effect as a case study to understand the influence of players' moral intuitions on adherence to hero or antihero play styles'. In: *Journal of Gaming & Virtual Worlds* 7.1, pp. 41–57. DOI: 10.1386/jgvw.7.1.41_1. [Online] Available at: https://www.researchgate.net/publication/274958796_A_massively_moral_game_Mass_Effect_as_a_case_study_to_understand_the_influence_of_players'_moral_intuitions_on_adherence_to_hero_or_antihero_play_styles, 29. 8. 2023, 03:35.

[290]Christiansen, P. (2017). 'Designing ethical systems for videogames'. In: The Association for Computing Machinery, Inc. (ACM). ISBN: 978-1-4503-5319-9. DOI: 10.1145/3102071.3102088. [Online] Available at: https://www.researchgate.net/publication/319364718_Designing_ethical_systems_for_videogames, 29. 8. 2023, 2:06.

[291]Nay and Zagal, (2017).

[292]Ibid.

[293]Sicart, (2013).

Summarizing it can be said that while feedbacking a player on their choices, e.g., by showing consequences, is generally considered a good game design practice, utilizing these practices in the context of moral choices is worth discussing. Here the drawbacks of taking away the opportunity for the player to interpret the situation themselves contrast with players' general expectation to see how their choices play out.

Game Designers Bias

In both the feedback given to the player on their decisions as well as in the setup of a moral decision itself, the game designers' morality and bias can become apparent. This can cause can further issues:

- The setup of a situation might only includes options the player deems immoral in contrast to the game designer[294]. For example, the player can choose between multiple violent options but has no non-violent options[295].

- The game does not know the player's intent and, therefore, either has to ignore intent altogether, only focusing on evaluating the actions themselves and their outcomes, or has to make assumptions about the player's intent which can feel jarring if wrong[296].

- Game designers who do not commit to certain guidelines for evaluating actions and action outcomes as good or evil have to evaluate on a case-to-case basis[297]. This may then make these evaluations seem arbitrary as the player cannot learn their logic[298]. Zagal notes that the moral framework of a game should aim to be transparent, i.e., "the player should understand why given actions are right and wrong and from this be able to deduce the moral consequences of [their] actions"[299]. He notes that when a game lacks overall transparency in its morality system, its moral choices become morally irrelevant as their outcome is

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[294] Rauch, (2007).
[295] Ibid.
[296] Ibid.
[297] Ibid.
[298] Ibid.
[299] Zagal, (2009).

unpredictable[300]. In contrast, transparent but inconsistent systems will appear confusing and arbitrary[301].

Discussion around Meaningless Choices

Recognizing the previously mentioned problems of games centered around a built-in morality and communicating it to the player, Nay and Zagal proposed the utilization of meaningless choices as a solution to inspire moral reflection[302]. *Meaningless choices* are here defined as choices without or with a negligible impact on the further content of the game, for example, not influencing anything at all or only determining a few dialog lines directly after the choice[303].

As a positive example of a meaningless choice, Nay and Zagal name a situation in the game *The Walking Dead: Seasons 2*[304] in which the protagonist Clementine is attacked by a dog to which she, while defending herself, accidentally inflicts a mortal wound[305]: The player now has to choose on whether she swiftly ends the dog's life or leaves it to die. Nay and Zagal see this as an opportunity for the player to express how they see Clementine's character, for example, whether she, in their eyes, is vengeful and wants to prolong the dogs suffering or is merciful enough to end its suffering[306]. They argue as the player has nothing to gain or lose from choosing either option that, this grants the player the opportunity to reflect on Clementine's character and the situation at hand freely without worrying about consequences, maybe even placing value on the virtues they attribute to her[307].

Moreover, they argue that choices like these, as well as choices between dialog lines expressing different tones and moods, are not meaningless in the literal sense as they influence the meaning of the narrative and can help the player

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[300]Zagal, (2009).
[301]Ibid.
[302]Nay and Zagal, (2017).
[303]Ibid.
[304]Telltale Games (2014). *The Walking Dead: Season Two*. [Online] Available at: `https://store.steampowered.com/app/261030/The_Walking_Dead_Season_Two/`, 8. 7. 2023, 16:56.
[305]Nay and Zagal, (2017).
[306]Ibid.
[307]Ibid.

relate to the playable character[308], which according to previous research by de Graaf et al. can "reinforce and attenuate existing attitudes"[309]. Nay and Zagal further argue that relatability leads to likeability, which, also based on de Graaf's et al. work, can result in a more lenient interpretation of a character's actions as audiences are more willing to contextualize them[310]. While this indicates higher emotional and intellectual investment into the game, this can also be understood as relatability leading to moral disengagement, which may be an undesirable side effect.

Moreover, it has to be noted that meaningless choices are generally perceived as a flaw in a game. This is the case as games tend to revolve a certain level of interactivity, giving the player an illusion of agency[311] and impact on objects whose telos, purpose, is serving the player's quests[312]. Players now may feel that meaningless choices are purely decorative and a cheap way to create an illusion of choice. This also ties into the previously mentioned discussion of players being used to have agency and control over a game('s outcome) and feeling frustrated when this control gets withdrawn.

One way to compromise on the meaninglessness of choices is to imply that a choice has an impact later on in the game, for which Stang names *The Walking Dead*[313] as an example[314]. While in *The Walking Dead* the protagonist might not be able to impact the outcome of situations long term, the game suggests that the player's choices influence the morality of Clementine, a girl to whom the game's protagonist is a father figure. The player influences Clementine, but only to a rather limited degree. Nonetheless, choices feel more impactful to the player as they have to consider how they impact Clementine's moral-

[308]Nay and Zagal, (2017).

[309]Graaf, A. de et al. (2012). 'Identification as a Mechanism of Narrative Persuasion'. In: *Communication Research* 39.6, pp. 802–823. DOI: 10.1177/0093650211408594. [Online] Available at: https://www.researchgate.net/publication/254887464_Identification_as_a_Mechanism_of_Narrative_Persuasion, 29. 8. 2023, 03:29.

[310]Nay and Zagal, (2017); Graaf et al., (2012).

[311]Stang, S. (2019). '"This Action Will Have Consequences": Interactivity and Player Agency'. In: *Game Studies* 19.1. ISSN: 1604-7982. [Online] Available at: https://gamestudies.org/1901/articles/stang, 30. 7. 2023, 15:30.

[312]Suduiko, A. (2022). *Before the Law and Before Gaming: Kafka, Players, and Avatars*. With A Terrible Fate. [Online] Available at: https://withaterriblefate.com/2022/10/31/before-the-law-kafka-gaming/, 2. 7. 2023, 22:51.

[313]Telltale Games (2012). *The Walking Dead*. Skybound Games. [Online] Available at: https://store.steampowered.com/app/207610/The_Walking_Dead/, 30. 7. 2023, 15:53.

[314]Stang, (2019).

ity, inspiring them to consider their choices carefully[315]. It has to be noted, however, that players in the case of the *The Walking Dead* might feel betrayed after finding out that their choices did not make as big of an impact as they assumed they would.

Emergent Morality and Ethics of Care in Video Games

As another way of inspiring moral behavior, video games can place players in a certain role and let them experience the related moral role obligations[316]. In their 2011 article, Murphy and Zagal, for example, describe how games can inspire moral reflection toward the ethics of care by allowing players to form relationships with NPCs and placing them within roles to care for them[317].

They name the simulation *Little King's Story*[318] as an example, in which the player, through their role as beloved king, has the responsibility to care for their citizens[319]. Those citizens all have their own names and lives, grieve the deceased but follow the player's order even to the death, fall in love but only marry on the player's command and so forth. They argue that as the player also has a character representation in-game walking among the citizens, the game lets the player form personal relationships with their subjects[320] while "highlighting asymmetrical power relations and encouraging caring for the less powerful"[321]. The player now, in the vein of ethics of care, has to consider their individual relationships to these citizens when deciding which to send to war, which to make their personal guards, and which to marry to each other[322].

This power dynamic is, however, not required to provide a moral experience based on player-NPC relationships. Murphy and Zagal here mention

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[315]Stang, (2019).
[316]Murphy and Zagal, (2011).
[317]Ibid.
[318]Cinq, Town Factory (2016). *Little King's Story*. Xseed Games. [Online] Available at: https://store.steampowered.com/app/390310/Little_Kings_Story/, 8. 7. 2023, 17:57.
[319]Murphy and Zagal, (2011).
[320]Ibid.
[321]Ibid.
[322]Ibid.

the *Animal Crossing Series*[323] as a further example[324]. In the Animal Crossing games, the player moves into a new town, decorates their house, and forms relationships with their anthropomorphic neighbors. The neighbors are here independent actors, talking to each other, following hobbies like fishing, deciding to move away (also in the player's absence), writing letters to the player, deciding to visit them, and so on. According to Murphy and Zagal, this lets the player feel like they are independent beings and thus increases the desire to form deeper relationships with them[325]. In these relationships, the player may experiences the same obligations as in real-world relationships[326]. This feeling is further enhanced by neighbors expressing their feelings, for example, when a player misses a promised visit to a neighbor's house[327].

The morality in these games is not explicit but part of the complex simulation of these games and, thus, of the emergent gameplay. It is then up to the player to identify the moral attributes underlying their actions and impact on the world, while the games provide only the opportunity to experience these situations without explicitly promoting them to the player as morally significant. According to Zagal, these games should still be labeled "[morally] notable"[328] as they "provide opportunities for encouraging [moral] reasoning and reflection"[329].

2.3.3 Moral Dilemmas in Video Games

As previously mentioned, when designing moral dilemmas, it is generally important to let all options appear to be of the same moral value, either from an individualistic or overall perspective.

Moral Dilemma Option Bias in Video Games

As players in video games actively make a decision rather than just observe it, additional option bias might apply that designers should be aware of. Doerflinger and Gollowitzer, for example, showed in their 2020 article that people

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[323]Nintendo and Nintendo EAD (2008). *Animal Crossing Series*. Nintendo. [Online] Available at: https://www.animal-crossing.com/, 8. 7. 2023, 18:30.
[324]Murphy and Zagal, (2011).
[325]Ibid.
[326]Ibid.
[327]Ibid.
[328]Zagal, (2009).
[329]Ibid.

are susceptible to moral influence when they are in the deliberative mindset, still considering which goal they want to achieve[330]. Specifically, they show that putting negative emotional emphasis on the outcome of the deontological or utilitarian decisions in trolley dilemmas shifted answers towards the utilitarian or deontological end, respectively[331]. Zhang, moreover, showed that by emphasizing the MFT intuition and arguments underlying one available option of a moral dilemma in a video game in contrast to emphasizing intuitions and arguments for all available options, players felt less conflict, less guilt, and less desire to redo their decision by replaying[332]. This shows that when designing dilemmatic situations in a video game, it is important to equally frame all options as one might otherwise manipulate the player to pick a specific side, stifling their own moral reflection.

Furthermore, some studies have shown that presenting moral dilemmas in virtual reality (VR), compared to text form, increases utilitarian tendencies[333]. It can be theorized that these tendencies might also show in video games that do not utilize VR as they might simply show a difference in theoretical moral judgment and moral action[334]. Additionally, this could also be another result of the previously mentioned consequentialist perspective video games promote through the commonly used design principle of player feedback.

Player-facing Moral Dilemmas

Zagal notes that to create powerful moral experiences and thus morally notable games, it is better to directly present a dilemma to the player themselves

[330]Doerflinger, J. T. and Gollowitzer, P. M. (2020). 'Emotion emphasis effects in moral judgment are moderated by mindsets'. In: *Motivation and Emotion* 44, pp. 880–896. DOI: 10.1007/s11031-020-09847-1. [Online] Available at: https://link.springer.com/article/10.1007/s11031-020-09847-1, 29. 8. 2023, 03:37.

[331]Ibid.

[332]Zhang, L. (2020). 'The Impact of Conflicted Moral Dilemmas on Moral Emotion and Desire to Replay in Video Games'. MA thesis. Rued Langgaards Vej 7, 2300 København, Dänemark: Michigan State University,

[333]Francis, K. B. et al. (2017). 'Virtual Morality: Transitioning from Moral Judgment to Moral Action?' In: *PLOS One* 12.1. Ed. by Wan, X. DOI: 10.1371/journal.pone.0164374. [Online] Available at: https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0164374, 29. 8. 2023, 03:42; Narvarrete, C. D. et al. (2012). 'Virtual Morality: Emotion and Action in a Simulated Three-Dimensional "trolley Problem"'. In: *Emotion* 12.2, pp. 364–370. DOI: 10.1037/a0025561. [Online] Available at: https://www.researchgate.net/publication/51818452_Virtual_Morality_Emotion_and_Action_in_a_Simulated_Three-Dimensional_Trolley_Problem, 29. 8. 2023, 03:39.

[334]Francis et al., (2017).

rather than only to the character[335]. He names a few exemplary games in which the dilemma is not presented in the game's narrative but directly woven into its game design[336].

As a first example, he names the moral dilemmas arising from the multi-dimensional virtue-based morality system of *Ultima IV: Quest of the Avatar*[337]. In this game, the player is tasked to achieve the virtues of honesty, compassion, valor, justice, sacrifice, honor, spirituality, and humility[338]. According to Zagal, the game becomes morally notable as its multi-dimensional virtue system requires the player to constantly analyze how to uphold the virtues in every situation they encounter[339]. This can become challenging when the player cannot flee battles without losing valor or has to give away to those in need to increase compassion[340].

Moreover, towards the end of the game, when the player already possesses all virtues, there is a situation in which they have to defend themselves against some monster children[341]. While there are some none violent ways to achieve this, e.g., by putting them to sleep, the developer here hoped to bring the player into a position where they would be stressed out about whether they could attack the children without losing their virtues[342]. Zagal sees a two-dimensional dilemma in this situation[343]. The first reason is that the game seems to require the player to hurt children, which is "morally repugnant"[344], as stated by Zagal[345]. The second reason is that attacking the children seems to go against the goal of becoming a truly virtuous person[346].

[335]Zagal, (2009).

[336]Ibid.

[337]Origin Systems (1985). *Ultima IV: Quest of the Avatar*. Origin Systems, EA. [Online] Available at: https://www.ea.com/games/ultima-4-quest-of-the-avatar, 13. 7. 2023, 20:39; Zagal, (2009).

[338]Zagal, (2009).

[339]Ibid.

[340]Ibid.

[341]Ibid.

[342]Ibid.

[343]Ibid.

[344]Ibid.

[345]Ibid.

[346]Ibid.

A second example of a player-facing dilemma Zagal presents is taken out of the survival horror game *Manhunt*[347]. Like *Undertale*, *Manhunt* allows for senseless violence, which, through ludonarrative dissonance, conflicts with the narrative incentives. Therefore, Zagal deems *Manhunt* morally notable as it "creates moral tension between gameplay rewards structure and the motivations of the characters as defined by the narrative"[348].

Ludonarrative dissonance, in general, can be a powerful tool to convey conflicting emotions, for example, in the context of trauma[349] or moral decisions. As ludonarrative dissonance is unsettling precisely through being dissonant, it is likely to cause a strong emotional reaction. Further, it may even invoke cognitive dissonance and, therefore, according to Festingers's model, could inspire moral reflection.

However, as previously mentioned concerning *BioShock* and *Tomb Raider*, games utilizing ludonarrative dissonance ultimately depend on the player to not only having instantaneous motivation to experience the gameplay but also spontaneous motivation to follow and immerse themselves in the narrative. Therefore, it can be concluded that while ludonarrative dissonance can be quite powerful, its effectiveness varies greatly depending on the recipient, making it risky to use.

For the last example of a player-facing dilemma, Zagal uses an example out of the turn-based strategy game *Fire Emblem: Radiant Dawn*[350]. In the *Fire Emblem* games, in general, the player commands an army of which members they get to know, improve, and equip. Thus, a player might feel certain moral obligations due to their role as commander and relationships with these characters. These obligations can become a burden as some games of the series as *Fire Emblem: Three Houses*[351] feature character death. This can lead to di-

[347]Rockstar North (2003). *Manhunt*. Rockstar Games. [Online] Available at: https://www.rockstargames.com/games/manhunt, 13. 7. 2023, 20:43; Zagal, (2009).

[348]Zagal, (2009).

[349]Kuznetsova, (2015).

[350]Intelligent Systems, Nintendo SPD (2008). *Fire Emblem: Radiant Dawn*. Nintendo. [Online] Available at: https://www.nintendo.de/Spiele/Wii/Fire-Emblem-Radiant-Dawn-281265.html, 13. 7. 2023, 20:46; Zagal, (2009).

[351]Intelligent Systems, Kou Shibusawa (2019). *Fire Emblem: Three Houses*. Nintendo. [Online] Available at: https://www.nintendo.de/Spiele/Nintendo-Switch-Spiele/Fire-Emblem-Three-Houses-1175482.html, 13. 7. 2023, 20:49.

lemmatic situations in which a player might have to decide which characters they want to survive and which to sacrifice.

Fire Emblem: Radiant Dawn lets the player alternate between different armies throughout its story. As for the most part, *Fire Emblem: Radiant Dawn* features no permanent death of playable characters, it comes as a shock when the player has to fight against an army they previously played as later on in the story[352]. Totilo, who in 2008 wrote an article about this fight, looked up online whether he would really have to kill all these characters and found out that he 'only' had to reach a death count of 80 in this battle, including allies and enemies[353]. Not all army members are portrayed as individuals with their own name and personality, so players like Totilo might be tempted to sacrifice the unnamed individuals[354]. Totilo, who followed this strategy, experienced guilt as he blatantly favored some characters' survival over others and questioned his aptitude as a leader[355].

Zagal notes that while, in this case, gameplay and narrative goals match, they contradict the player's motivation to keep their beloved characters alive[356]. As a dilemma like this utilizes an intrinsic motivation of the player to protect their investment and relationships, it likely has a huge emotional impact on the player. However, it also entirely depends on the player feeling a sense of loss in the face of killing off these characters and, therefore, again depends on the player's mindset. If a player, for example, did not like the particular army they face off against for its characters or playstyle, they might feel emotionally distant toward the situation.

Wicked Problems

Additionally to the previously mentioned methods of creating morally notable experiences, Sicart proposes to present the player with so-called *wicked*

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[352]Totilo, S. (2008). *An Ethical Dilemma Like I've Never Played Before – "Fire Emblem" Beats "BioShock" At Its Own Game?* MTV.com. [Online] Available at: https://www.mtv.com/news/pyu4dh/an-ethical-dilemma-like-ive-never-played-before-fire-emblem-beats-bioshock-at-its-own-game, 14. 7. 2023, 15:56.

[353]Ibid.

[354]Ibid.

[355]Ibid.

[356]Zagal, (2009).

problems[357], which are a "class of social problems which are ill-formulated, where the information is confusing, where there are many clients and decision makers with conflicting values, and where the ramifications in the whole system are thoroughly confusing"[358]. Sicart claims that by depriving the player of exact information on the consequences of their decision, the player has to evaluate the situation themselves, acting to their own best judgment motivated morally rather than strategically[359].

Sicart shares Whitbeck's doubts on the concept that "[moral] problems have uniquely correct solutions or responses"[360] when not explicitly designed to highlight certain issues or solution strategies of specific normative theories[361]. Sicart further equals wicked problems to real-world problems, which often do not have solutions but rather have to be coped with[362]. He then blurs the line between moral problems in-general and dilemmas which he thinks "can be understood in analogous terms because they define situations in which moral thinking is needed to decide between available choices"[363]. This is agreeable as one might understand it in the sense that there would be no problem in deciding on a moral action when no dilemma is present. Without a dilemma in theory, it should be clear how to act.

Additionally, to presenting problems that are only wicked in the context of the game's specific narrative, a game can also present real-world wicked problems to the player. For example, in the visual novel *Headliner: NoviNews*[364], the player takes on the role of a newspaper headliner and has to decide which articles to publish. The player, for example, across multiple in-game days, can decide to publish articles promoting or denouncing either public or private healthcare. An example of such a choice is shown in Figure 3.

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[357]Sicart, (2013).

[358]West Churchman, C. (1967). 'Wicked Problems'. In: *Management Science* 14.4, B141–B142,

[359]Sicart, (2013).

[360]Whitbeck, C. (2011). In: *Ethics in Engineering Practice and Research*. 2nd. Cambridge University Press, p. 139. ISBN: 978-0-521-89797-6,

[361]Sicart, (2013).

[362]Ibid.

[363]Ibid.

[364]Unbound Creations, (2018).
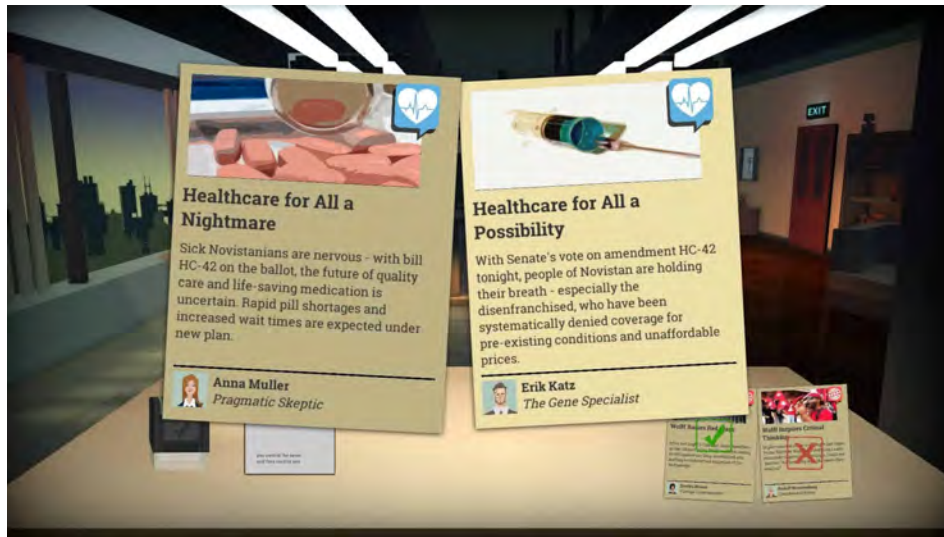
Figure 3: *Two articles about healthcare in Headliner: NoviNews; the player has to decide which article to publish.*
Source:[365]

After the player finishes their decisions for the day, they leave the newspaper building in the game and can discuss these topics with other characters and observe the consequences of their decisions on their way home. In the health care example, when the player chooses to promote private health care, their in-game brother suffering from depression cannot afford health care and might fall into addiction. In contrast, when promoting public health care hospitals are overwhelmed and a co-worker is not able to receive treatment for her chronic illness timely and ends up infertile.

Overall the player might be unable to predict the consequences of their decisions for both the general public and their in-game relationships. This portrays how the far-reaching consequences of political decisions can be hard to foresee and can serve to confront the player on their biases and lack of knowledge in some regards.

Moreover, the player gets instructions from their boss not to publish too many government critical articles or inconsistent opinions. When they do,

[365]infinitywaltz (2019). *Headliner: NoviNews Review - Fake News and Real Personality*. indie-gamereviewer.com. [Online] Available at: https://indiegamereviewer.com/headliner-novinews-review-fake-news-and-real-personality/, 15. 7. 2023, 20:57.

they get reprimanded and eventually fired. As in real life, the player may anticipate that a first mishap does not lead to immediate termination but does not know how many rule violations will be overlooked. This becomes a wicked problem. On the one hand, the player likely does not want to get fired to keep playing and, on a narrative layer, to fulfill a moral obligation of staying in power to influence citizens positively. On the other hand, the player may want to publish government-critical content or change their opinion throughout the game to act to their best understanding and knowledge.

While Sicart praises wicked problems for their ability to make the player reflect on their moral viewpoints and thus to hold them accountable and responsible for their actions, he also warns that players might end up complaining about insufficient information in situations like these[366].

Moral Dilemmas as a Reason for Player Frustration

Sicart notes regarding the frustration of players that wicked problems contrast with players' expectation of games as "games are always solvable; they are attractive because, unlike moral problems, they are encapsulated systems that provide a resolution to the action"[367]. It is thus unsurprising to find out that players are not only frustrated when they have to experience the consequences of an ill-formulated choice but also when being confronted with their answers to unsolvable problems in general.

The game *Trolley Problem, Inc.*[368] serves here as an interesting example. In the game, players are presented with classical theoretical dilemmas like the trolley problems or the dying dog dilemma previously mentioned in the context of *The Walking Dead: Seasons 2*. In *Trolley Problem, Inc.*, the player always has a certain time to choose an option. Meanwhile, the game's narrator comments on the currently selected option, often casting doubt on the presented facts of the situation or blaming the player for their choice.

While this feature is marketed by the game's developers as intentionally challenging the player's opinion[369], many players still feel offended, leaving

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[366]Sicart, (2013).

[367]Ibid.

[368]Read Graves (2022). *Trolley Problem, Inc.* Yogscast Games. [Online] Available at: https://www.yogscast.games/trolley-problem-inc, 9. 7. 2023, 21:42.

[369]Ibid.

comments like "'Oh wow you let the dog die you sick bastard!' 'Oh wow, you killed the dog your heartless bastard!' that's pretty much the game"[370], "Your decisions change nothing except what the narrator berates you for"[371], and "a game with 'no right answers' that gets mad at you for choosing the wrong answer"[372].

This shows that moral dilemmas and especially negative feedback towards a decision made by the player can feel frustrating to them as they may not feel they are to blame for the outcome. This frustration is grounded in the knowledge that each option of a moral dilemma usually comes with drawbacks, of which not all can be avoided by the decision-maker. However, especially because there are always drawbacks, a decision-maker in real-life would likely also have to face blame. A player's frustration is also further heightened when a moral dilemma does not live up to a realistic situation to their standards, and they are thus unable to suspend their disbelief and take it at face value[373]. In which case, they might argue that there should have been another solution[374]. As *Trolley Problem, Inc.* presents the player with one problem after the other, blaming them for past decisions but never really showing any other impact, some players also find themselves frustrated by the lack of impact of their choices[375].

While these are only a few hand-picked comments, they support previously mentioned concerns about serious content, moral choice, and wicked problems in games.

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[370]ThePPGLoreDealer (2022). *"'Oh, wow you let the dog...'" - Steam comment*. Steam. [Online] Available at: https://steamcommunity.com/profiles/76561198840565320/recommended/1582680/, 9. 7. 2023, 21:26.

[371]Beep (2022). *"This is something I would have..." - Steam comment*. Steam. [Online] Available at: https://steamcommunity.com/id/Tgvffhhvfff/recommended/1582680/, 9. 7. 2023, 21:29.

[372]nautica gargomon (2022). *"a game with no 'right answers' that..." - Steam comment*. Steam. [Online] Available at: https://steamcommunity.com/id/watchmeballout/recommended/1582680/, 9. 7. 2023, 21:31.

[373]GamerTommy (2023). *"'A game you purchase on sale for...'" - Steam comment*. Steam. [Online] Available at: https://steamcommunity.com/id/GamerTommy/recommended/1582680/, 13. 7. 2023, 15:38.

[374]Ibid.

[375]Beep, (2022); Ductator (2023). *"Very slow and your choices don't..." - Steam comment*. Steam. [Online] Available at: https://steamcommunity.com/profiles/76561198035653038/recommended/1582680/, 13. 7. 2023, 15:35; worm (2023). *"I thought this game would be fun..." - Steam comment*. Steam. [Online] Available at: https://steamcommunity.com/id/cyberwormss/recommended/1582680/, 13. 7. 2023, 15:36.

3 Experiment

3.1 Game

For the survey of this paper, the video game, *Johnson & Dilemma (JnD)* is developed. A new video game is created instead of using an existing one to ensure its focus and playthrough length are appropriate for the survey conducted.

To reduce development complexity, however, JnD is a modification of a prior game by this paper's author called *Ghosts & Bureaucracy*[376]. As *Ghosts & Bureaucracy* is a dialog-heavy adventure game, the player is presented with choices through dialog and not as an emergent part of the gameplay. This further decreases development complexity. This, moreover, makes the moral dilemmas easier recognizable as it is explicitly introduced through obviously contrasting dialog options, which within the research of this paper is deemed desirable.

As this excludes many of the previously mentioned methods of reducing bias and encouraging the player to reflect on their own, it is decided to utilize meaningless choices as proposed by Nay and Zagal[377].

To add to the player's moral obligations, they are placed in the role of one of the last politicians in a country facing a civil war following a financial crisis. Through this they gain role obligations and are able to make grand scale decisions that should add pressure and be difficult to make.

Here again meaningless choices are deemed fitting as they avoid a portrayal of unrealistic fast improvements and an exaggerated impact of a few decisions on a crisis like this. This should also hopefully prevent trivializing the presented issues in the player's eyes.

Outside the context around the moral dilemma decisions, the game aims to feature a humoristic tone parodying bureaucracy and characters with overexaggerated personalities. This should serve to increase the overall enjoyability

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[376] Kataigida Games (2023). *Ghosts & Bureaucracy*. LabOne48. [Online] Available at: https://www.kataigida.games/, 15. 7. 2023, 18:48.

[377] Nay and Zagal, (2017).

of the game by reducing the heavy-handedness that comes with putting the player in a position of power but giving them ultimately meaningless choices in a dire situation condensed to a game of short duration.

The game presents the player with both dilemmas in personal and impersonal scenarios to gain insights into both their effects on the player in regard to inspiring moral reflection and potential design requirements surrounding them.

The game starts by showing the player headlines of a newspaper to introduce them to the civil war, financial crisis, and discontent with the government in the fictive country the game is set in, as can be seen in Figure 4. After that, the player, in their role as a politician, is asked to answer three dilemmas concerning wicked problems related to managing the crisis at hand.
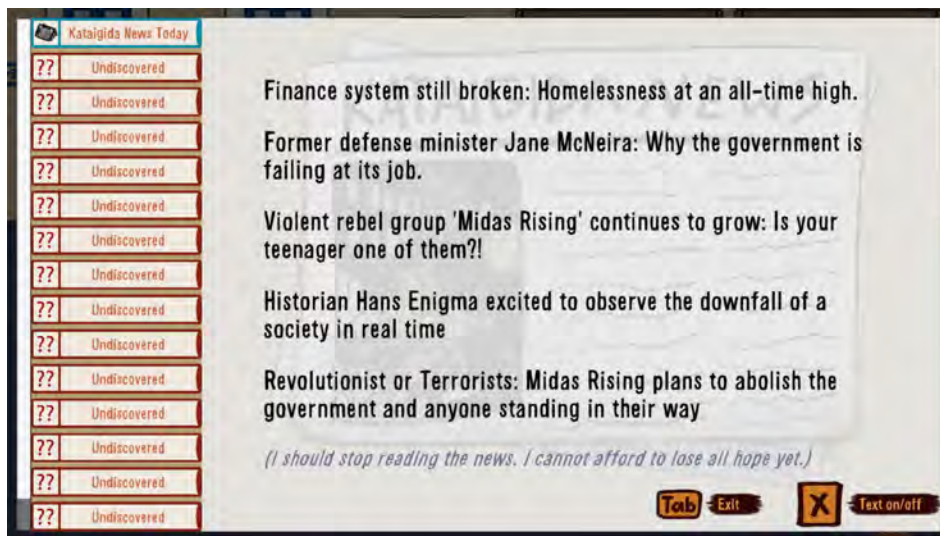
Figure 4: *News article introducing the game's situation to the player.*

These problems are designed to be wicked to highlight the complexity of the presented situation and again avoid trivializing the presented issues. Moreover, the aim is to keep the player interested by avoiding an overly long introduction to the game's situation. Further, this hopefully encourages players to think the situations through themselves.

The three starting dilemmas can be summarized as follows:

1. Should hiring professionals to help be prioritized over sending resources directly to those in need?

2. Should helpers also be sent to areas under the control of the violent rebel group called Midas Rising, or should they only focus on less risky areas?

3. Should Midas Rising be isolated by erecting barricades, or should street patrols be increased instead?

While especially the first dilemma may at first seems to be a logistical problem, the player should not be able to make a purely strategic decision due to the lack of information. Moreover, it can be argued that the problem becomes moral as the player, through their role as a politician, has a moral obligation to use the tax money and trust they gained from their citizens to the best of their knowledge and beliefs.

The second and third dilemma require the player to carefully consider which risks they deem permissible to take and whom to endanger.
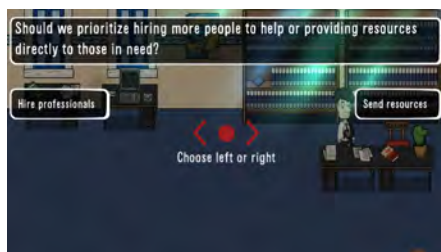
(a) *The player has to make a decision.* (b) *After selecting an option, a counterargument is shown.*

Figure 5: *The first dilemma presented to the player.*

Each decision is introduced by a small dialog outlining the situation and giving a few arguments for both sides. The player then is presented with a choice in which they can select an answers by choosing left or right, as can be seen in Figure 5(a). Upon selecting an option, the game shows an additional argument against the selected choice, as can be seen in Figure 5(b). If the player then switches to the other choice, they are shown an argument against

that other choice. Through this mechanic, in the following called *counterargu-ment mechanic*, a player can cycle back and forth between the options and see three arguments against each.

The counterargument mechanic is inspired by *Trolley Problem, Inc*'s narrator and attempts to portray the internal back-forth discussion someone may experience when deciding on a dilemma. Moreover, the player is given additional thoughts to consider, which cast equal doubt on both options. While the player may, when first encountering this mechanic, has already decided on their goal and thus might be less susceptible to new arguments[378], after the first decision, they should have learned of the mechanic and can decide to cycle through all counterarguments before deciding if they want to.

After these first three impersonal dilemmas, the following are all personal and thus concern other characters featured in the game. To introduce these characters and allow the player to form a connection with them first, the player has to complete a few tasks beforehand in which they interact with these characters. All tasks are intentionally designed to be straightforward and short to not lose participants by presenting them with tasks they cannot solve or deem exhaustingly long. Additionally, to ensure players know what to do, they can always look up their current objective in the pause menu.

The player has various means of interacting with objects and characters by looking at them, attempting to take them, charming them, and so on. While only some of these actions are necessary to complete the game, the player can use the others to learn more about the characters and the game's situation. The same applies to readable items strewn across the game, which can be collected voluntarily and feature additional information about the country or characters' personalities, hobbies, and relationships. These extra interactions are included to allow players to further emotionally invest themselves into the game when desired. Moreover, they are also used to make the game feel more rounded and complete and therefore get more representative answers than one would get through only a rough prototype.

In the fourth dilemma, the buildings janitor, Sam, considers quitting her job as she had a fallout with her boss, is overworked and unhappy with her

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[378]Doerflinger and Gollowitzer, (2020).

job, and desires a career as an artist. However, as one of the last employees left, her work is essential, and it would further complicate the situation if she would quit. Sam ultimately asks the player for their opinion:

4. Should she — the janitor quit her job or keep it?

This dilemma requires the player to weigh their role obligations towards the country against their responsibility towards an individual working for them.

However, again the player does not get to decide the situation's outcome but can only make a recommendation. As mentioned prior, this serves to not overexaggerate the player's influence, as also recommended by Jayanth in her 2016 GDC talk[379]. By letting Sam only consider the player's recommendation, she should feel more like an independent being rather than just a game object for the player to command and, therefore, should hopefully heighten the player's perceived social obligation and general emotional investment.

In the fifth dilemma, the characters plan to flee into the back of the building as rebels carrying weapons approach the building. The receptionist of the building, Eleanor, however, is still missing as she wants to call her husband first to know that he and their kids are safe. The game's protagonist tells the others to wait and promises to go and get her. As Eleanor's husband is not picking up and she is refusing to leave, the player has to:

5. Either wait for the receptionist to finish calling her husband, putting the group at risk, or leave her behind.

In contrast to prior dilemmas, this dilemma does not simply require the player to pick a dialog option, and there is no counterargument mechanic. Instead, the player has to either wait for Eleanor to give up calling while listening to her desperate exclamations as her husband does not pick up or leave the room without her. By forcing the player to act out this situation, it is attempted to increase immersion, reach a higher emotional impact, and make the decision harder on the player to further incentivize moral reflection.

[379]Jayanth, Meg (2016). *Forget Protagonists: Writing NPCs with Agency for 80 Days and Beyond.* GDC - YouTube Channel. [Online] Available at: https://www.youtube.com/watch?v=FLtATD6CF0E, 20. 7. 2023, 18:24.

As the player does not know their decision's consequences for the group or Eleanor, this becomes another wicked problem. Moreover, as part of the wicked problem, the player does not know how long they have to wait until Eleanor comes with them and the decision is finalized. This mechanic in the following is called *hidden timer mechanic*.

This hidden timer makes the situation more realistic as someone in real life could not foresee such a duration either. While the timer is intentionally set to over a minute to give players enough time to think and make a decision and not immediately lock them into having waited, players might still feel pressured to act fast. In either case, this mechanic might further inspire moral reflection by either making the player wait with nothing else to do but ponder the situation or forcing them into a fast reaction, potentially leaving them with regret.

This decision is also the only one featuring immediate consequences as the player either gets saves Eleanor or another character, Chad. If the player waits on Eleanor, Chad goes to talk to the rebels and is implied to be shot, causing all remaining characters to flee to the back of the building. Meanwhile, if the player leaves Eleanor behind, the characters flee without her, and what happens to her is unknown.

While the group flees, the rebels use explosives to create a way into the building, which causes the ceiling to collapse, putting two characters in a life-threatening situation. The player has then to decide:

6. Whom to push out of the way, Sam or Chuck?

This dilemma mimics the one from Sophies' Choice by creating a symmetrical dilemma in which the player has to decide to save one of two lives. As the game presents the player character as the one everyone turns to with their problems and a leader, it is hoped that the player feels additional moral obligation to save these characters.

This dilemma specifically aims to observe player reactions regarding a dilemma that cannot be answered through prioritization or an overriding normative theory. To increase immersion, an image shows parts of the ceiling falling

down onto the characters from a first-person perspective. Similar to dilemma five, the counterargument mechanic is not utilized, and the player is left to make up their mind on their own.

3.2 Survey

A qualitative survey is conducted to answer the research questions by getting insights on the perception and interaction with moral dilemmas in video games regarding moral reflection and reasons for or against their enjoyment.

The survey and the game are both available in English and German to reach a broader range of participants. The first observed test sessions showed that playing through the game takes roughly 25-45 minutes and filling out the survey another 20-25 minutes. Playing the game can take longer when one, for example, searches all optional readables or executes many optional interactions. As completing the survey takes overall 45-110 minutes, participation is further incentivized by conducting a raffle for three Amazon vouchers á 20€ among all participants who leave their e-mail-addresses.

The survey and the game include a content warning to ensure participants are adequately informed about triggering content before participating. The content warning informs that the game's content includes mentions of violent acts related to civil war, death of non-player characters, explosion and gun noises, and difficult decisions. The content warning, moreover, requests participants to consider their mental health and abort their play session if necessary.

Aside from asking family, friends, and colleagues at the game studio the author is working at for participation, links to the survey were also posted on the game's Itch.io page, the Reddit communities r/SampleSize and r/SurveyExchange and in the Discord server of faculty of design, media, and information of the Hamburg University of Applied Science.

The introductory section of the survey aims to get a general impression of players' opinions regarding moral decisions and dilemmas in video games. Therefore, the survey starts by asking participants whether they like or dislike moral decisions in video games and their reasons for doing so. Afterward,

participants are asked whether they think the same about moral dilemmas and why or why not.

It has to be noted that while these questions are asked before the survey requests participants to play the game, participants might still have played the game beforehand as some, for example, might have gotten the survey's link from the game's page and only clicked on it after playing the game.

Following these introductory questions, participants are requested to play the game and confirm that they have done so. It has to be noted that some participants might have already played the game before starting the survey as they could, for example, have found the game on itch.io and only clicked on the link to the survey after playing the game.

In the next section, participants are requested to input their moral dilemma choices from the game. In order to do so, they can use a button in the game to copy their answers into their clipboard and paste them into the survey field. This concept is explained both in-game and in the survey. Additionally, the survey provides a list of all the game's moral dilemmas so participants can fill in their answers manually as a fallback, for example, in case of technical errors.

Participants were then asked to rate all six moral dilemmas in terms of difficulty on a 5-point scale and to give their reasons for their ratings in a free-text field. Perceived difficulty and distributions of participants across chosen options are requested to evaluate whether the game's moral dilemmas are actually dilemmatic due to their difficulty or a near-equal distribution of participants across options. Moreover, participants' free-text answer is used to gain insights into how strategic or moral their reasoning is and what they perceived as memorable about the dilemma.

The third section of the survey asks participants about their emotions while playing. As here some emotions are of particular interest to the research of this paper, participants are asked to rate their emotions on the following 5-point-scale:

- powerful - powerless
- responsible - noninvolved

- entertained - bored
- innocent - guilty
- stressed - relaxed
- saddened - cheerful

Through the powerful/powerless scale, it is aimed to get a hint at how the participants perceive their agency, influence, and power of their role in the game. The responsible/noninvolved and innocent/guilty scales are used to deduce how participants feel about the game's situation and decisions and whether they feel morally involved or disengaged from the situation. All these emotions are of particular interest as they indicate how the contrast between an influential role and meaningless choices influences participants' involvement in the game.

The entertained/bored, stressed/relaxed, and saddened/cheerful scales are used to determine whether players found their game experience to be mostly enjoyable.

Further, participants are asked to rate their emotional investment on a 5-point scale from low to high, indicating how immersed they were and how intense they might have felt moral emotions while playing.

The section on participants' emotions then concludes with a free-form question asking participants to describe what else they have felt while playing.

In the last section of the survey, participants are asked for their demographic details: age, gender, and weekly hours of playing video games. Moreover, this section includes a free text field where participants can optionally enter additional thoughts they want to convey.

3.3 Results

The survey has received twenty-seven submissions: fifteen in German, ten in English, and two in Malaysian. The Malaysian submissions and seven of the English submissions have to be omitted as participants failed to put in usable data regarding their decisions in the game and other questions.

Aside from the ommitted data, all other participants' demographic data can be seen in Figure 6.

(a) *Gender.* (b) *Age.* (c) *Playtime.*
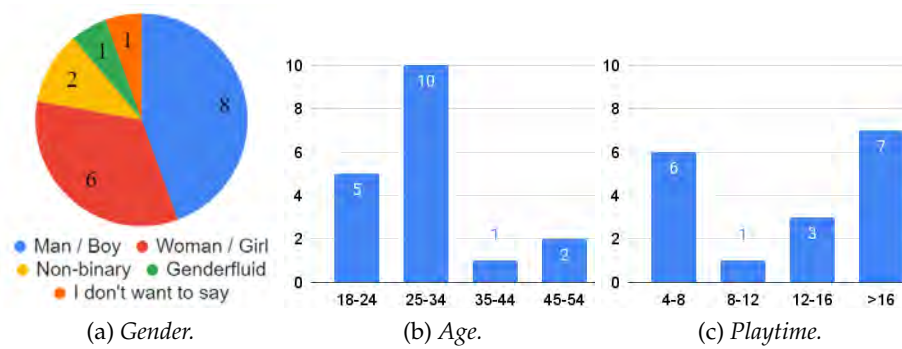
Figure 6: *Participants' demographic data, excluding those whose data got omitted.*

Opinions on Moral Decisions in Video Games

Of the eighteen participants whose answers were included:

- Ten like moral decisions
- Four named conditions under which they like or dislike moral decisions
- One likes moral decisions for the most part
- One both likes and dislikes moral decisions
- One does not recognize moral decisions as different from moral dilemmas
- One dislikes them

Table 2 shows that the main reasons for liking moral decisions are them giving an opportunity to have an influence on the story and/or game with seven mentions, to reflect with six mentions, to be more immersed with six mentions and allowing to experience consequences with five answers. It has to be noted that two participants specifically stated to feel more immersed due to their moral decisions making an impact. As also visible in Table 2, the main reason for disliking moral decisions is them causing stress with three answers. Overall, participants seemed to see more benefits towards moral decisions, with thirty-seven reasons for liking them mentioned and only thirteen for disliking them.

Like	Mentions	Dislike	Mentions
Gives influence on Story / Game	7	Causes stress	3
Provides opportunity to reflect	6	Makes it hard to decide / continue	2
Makes experience more immersive (2 times under the condition of consequences)	6	Invokes fear of consequences	2
Allows experiencing consequences	5	Results in unexpected consequences	2
Improves replayability	2	Invokes desire to reload until perfect	1
Allows customizing experience	2	Portrays a simple good / bad system	1
Gives opportunity to role-play	2	Influences playstyle	1
Invokes emotions	1		
Leads to new opportunities	1		

Table 2: Characteristics of moral decisions which participants like / dislike about moral decision and by how many participants they got mentioned.

Opinions on Moral Dilemmas in Video Games

Regarding moral dilemmas compared to moral decisions, eleven participants regarded them the same, with eight liking both, two liking them under the same given conditions, and one disliking both. One participant, liking both moral decisions and dilemmas, stated that the dilemma should, however, be appropriately recognized and treated in the plot and by the characters. Four participants liking both moral decisions and dilemmas elude to specifically appreciating that moral dilemmas cause them to reflect on their morals.

Of the participants feeling differently about moral decisions and dilemmas, three feared the (inevitability of) negative consequences coming with moral dilemmas. One of these participants stated that they would prefer to avoid making decisions influencing a large group of individuals instead of just their inner circle. Another participant suspects the inevitability of negative consequences could lead to strategic decisions aiming to reduce the negative impact instead of moral decision-making. Moreover, the last stated that these consequences can feel frustrating, especially when insufficient information is given, making it impossible to predict consequences.

 Of these participants fearing consequences, two also noted positive aspects of dilemmas: One participant deemed moral dilemmas more rewarding to

overcome. The other suggests moral dilemmas to improve immersion as they are more realistic in their non-black-and-white portrayal of situations.

This opinion is further supported by one participant stating that they primarily like moral dilemmas as they are less superficial than moral decisions and who previously critiqued moral decisions around simple good/bad systems.

One person who likes moral decisions depending on the game answered that they usually do not play war games and feel games should not glorify war. This comment might relate specifically to JnD as its dilemmas take place in a civil war scenario. The one participant both liking and disliking moral decisions likes moral dilemmas under the condition that they are not abstract or include insufficiently explained premises that must be accepted. The one participant, not recognizing the difference between moral decisions and dilemmas, states that making decisions in cases where both options seem equal gives a better opportunity to role-play as the game's protagonist.

Rating of Moral Dilemmas
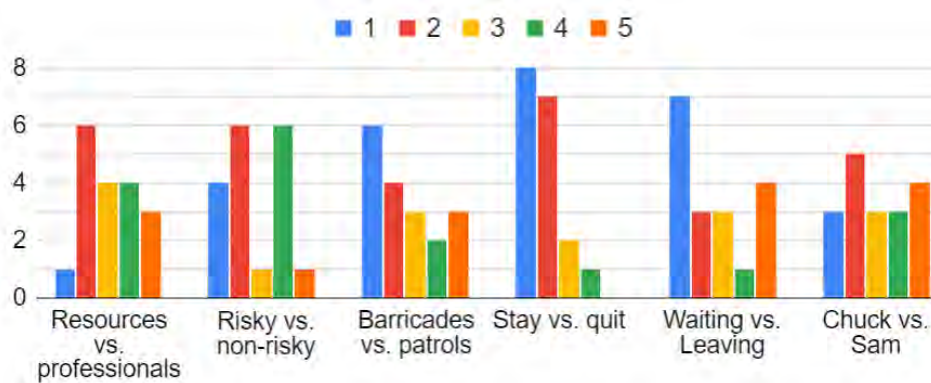
Figure 7: *Participants' difficulty rating for each moral dilemma in the game created for this survey.*

Figure 7 shows participants' difficulty rating for each dilemma in JnD. Averaging the difficulty ratings per moral dilemma leads to the following ranking from the most difficult perceived to the least difficult perceived:

1. Resources vs. professionals (average difficulty 3.11)

2. Chuck vs. Sam (average difficulty 3)

3. Risky vs. non-risky areas (average difficulty 2.67)

4. Barricades vs. street patrols and waiting vs. leaving (average difficulty 2.56)

5. Stay vs. Quit (average difficulty 1.78)

The answers on why participants deemed the dilemmas more or less difficult most often either state that both options are equally valid or bring arguments for both and/or one of the options. Labeling participants' statements as moral or strategic is often challenging as the reasoning behind specific viewpoints can be unclear. Nevertheless, some interesting findings for each dilemma are summarized in the following.

Dilemma 1: Resources vs. Professionals

For the 1. dilemma, fourteen participants decided to hire professionals, and four decided to send resources. Eight participants deemed both options equally valid, eight justified their decision, and two did both.

Regarding the dilemma's difficulty, three participants claim to lack the knowledge to make a decision — regarding, in two cases, situational knowledge and, in one case, domain knowledge about logistics. Two participants regard both options as risky. One participant deeming both options equally morally valid would have wished to experience the consequences of their decision. In contrast, another participant stated that they did not prefer one option over the other and only chose because they had to. Two participants state that the counterargument mechanic makes it harder to decide.

Two participants appeal to fairness in their arguments: One argues that professionals can ensure a fair distribution of resources (an argument likely picked up from the game), and one states that they find giving resources directly to everyone to be more just. One person, preferring to hire professionals, thinks the wounded should always be prioritized as not treating them could lead to critical conditions or death. They, therefore, would rather reduce food supplies than not treat the wounded. Another participant deemed it essential to show that the government is willing to help and trust the citizens by sending resources.

Dilemma 2: Risky vs. Non-risky Areas

For the 2. dilemma, fourteen participants decided to include risky areas and four to focus on the less risky areas. Three participants deemed both options equally valid, thirteen justified their decisions, and two did both.

Two participants mentioned that they would feel uncomfortable sending helpers into dangerous areas if they did not explicitly consent to this, and one other participant claimed concerning the safety of helpers that one should not just decide human lives. One participant felt that both options are risky, while another stated that including risky areas has an increased risk but also a better effect. One participant felt like the consequences of each option were hard to judge compared to dilemma 1. One participant again mentioned the counterargument mechanic influencing their decision-making.

Seven participants' answers indicate that helping everyone in need is the right thing to do, of which one participant appealed to justice, stating it would be unfair to leave those in risky areas to fend for themselves. One participant assumed that Midas Rising would not attack helpers and deemed it safe to send helpers to areas under their control as well. Moreover, one person argued that it is essential for citizens "to see and feel help."

Dilemma 3: Barricades vs. Street Patrols

For the 3. dilemma, thirteen participants decided to increase street patrols and five to isolate areas with high activity of Midas Rising with barricades. Three participants deemed both options equally valid, thirteen justified their decisions, and two did both.

Two participants had trouble understanding the situation: One choosing to increase street patrols proposed it as a new solution at the same time and one chosing to isolate stated that they do not understand the purpose of the barricades. One participant stated that they feel like both options could lead to unjust treatment of someone.

Two participants were concerned about trapping innocent bystanders by erecting barricades. Moreover, one of these two is worried about cutting these bystanders off from supplies and likens the isolating scenario to the

ghettoization of the Jewish population in Nazi Germany. The other generally deems the trapping of bystanders immoral and irresponsible.

Another participant states that isolating someone in general is the worst thing one could do. One participant deemed increasing street patrols easier because it shifts responsibility towards the police. Two participants distrust police officers to make good decisions, so they preferred isolation over street patrols. However, one of these participants did not like both options as they stated that both involve significant negative outcomes while positive outcomes stay uncertain. Furthermore, one participant choosing to isolate Midas Rising stated they prioritized the greater good and risked a few to achieve it.

Dilemma 4: Stay vs. Quit

For the 4. dilemma, twelve participants asked the janitor to stay and continue working in her position, and six recommended that she quit. All eighteen participants only justified their actions, with no one deeming both options equally valid.

One participant recommending Sam to quit stated that as the decision involves Sam's life, she should be the one to make it. Another participant claims that one should keep one's dignity during a crisis, referencing the fight between Sam and her boss. Another participant also thinks that she does not deserve to be treated poorly by her boss and that it is not her responsibility but her bosses to ensure they have enough employees. Overall, five out of the six answers recommending Sam to quit mention that one should be cautious not to be exploited and find a workplace to be content with. Out of the twelve participants recommending her to stay, ten people claimed that her help is essential to overcoming the crisis, with three participants emphasizing solidarity, one participant stating she should "'suck it up' a bit for the greater good" while still saying that "no one can force her to stay", and one participant claiming that if it were not for the crisis, they would have decided differently. Two participants would go to extremes to keep her, with one stating that everything should be tried to keep her and one stating that one can simply lie to her. Two participants decided based on their own reading of the situation, with one saying that it is difficult to find a new job or follow one's

hobby during riots and another worrying that she financially needs the job. Lastly, one participant stated that she could still quit after the crisis is over.

Dilemma 5: Waiting vs. Leaving

For the 5. dilemma, twelve participants waited for the receptionist, and six left her behind. One participant deemed both options equally valid, sixteen participants justified their decisions, and one claimed they found it impossible to think their decision through due to the hidden timer mechanic.

Including this participant, two participants felt stressed by the hidden timer mechanic and left the receptionist behind. Two participants waiting for the receptionist felt stressed waiting for the hidden timer to run out. One of these participants claimed they, as a player, experienced the urgency and impatience of the situation themselves, and the other participants reconsidered their decisions multiple times during their wait. Another participant said they waited a bit but ultimately decided to leave. Lastly, one person felt incentivized to wait as they wanted to test out how the timer mechanic would resolve itself but ultimately did regret their decision.

One participant deemed the input unfair, which might refer to having to manually leave as this is their decision. Four participants felt fear regarding the unknown consequences of their decision: One leaving the receptionist stated the decision was difficult as they did not know when the receptionist would come with them. The others waiting for her expected something unspecific bad to happen, with one claiming, "I thought I was gonna die, but I couldn't leave her". This dilemma was rated at highest difficulty by three of the participants, fearing unknown consequences, and the aforementioned participant who could not think their decision through because of the time pressure.

In contrast, six participants rated the dilemma on the lowest difficulty level: Only one left the receptionist behind as they did not want to take a risk. Another participant thought that there was no risk to waiting. And, again another participant deemed it waiting for the receptionist the clear moral solution and claimed that they would not experience real consequences in either case as it is only a video game. They, moreover, did not expect their

decision to negatively influence their player experience, which could be due to prior decisions not having consequences.

Two participants claimed that leaving the receptionist behind is for the greater good. Of these two, one claimed that a leader has no time to care about one single individual and would have to live with the consequences when endangering multiple people. Two participants, one who waited for the receptionist and the other who did not, claimed they would have tried to drag her with them in a real scenario. Out of the twelve participants waiting for the receptionist, nine indicated a certain sense of loyalty as they felt they had to wait. One of these participants mentioned wanting to keep a good relationship with the receptionist and claimed they would have constantly worried about her if they had left her. Two participants said they could relate to the receptionist wanting to call her family, and one said that they would not have wanted to be left alone if they were in her situation. One participant claimed that as her husband is not picking up and his and their children's fate is unknown, they wanted to save the receptionist so her children would not have to grow up without parents. Moreover, one person deemed it dangerous to make their way back to the group alone.

Dilemma 6: Chuck vs. Sam

For the 6. dilemma, fifteen participants decided on saving Sam and three on saving Chuck. Five participants deemed both options equally valid, ten justified their decisions, and three did both.

While the game has no time pressure in this situation, the situation is described as needing a fast reaction in dialog, which led to one participant feeling they were under time pressure. Including this participant, four participants claim to have chosen randomly. Four people claimed not to have a good enough relationship with the characters yet, of which two belonged to those deciding randomly. One of these participants claimed that they could not even decide based on the protagonist's relationship with the affected as they also did not know enough about that. Another participant decided on sympathy but wished to have known more about the characters' relationships and role in the grand scheme. One participant did not care about the decision at all. This participant specifically stated their decisions not having

consequences up to this point as a reason and remarked that the moment could have made a significant impact if the rescued had blamed themselves or the player for the other character's death.

One participant claimed they did not get to know Chuck enough and would have found the decision more interesting if it had been between Sam, the janitor, and Eleanor, the receptionist. Three participants felt obligated to save Sam as they recommended her to stay in her job earlier. Two saved her because she is a woman, one of which mentioned the "women and children first"-rule, and four deemed her skills more essential than Chucks. Two participants choosing to save Chuck did not acknowledge the situation as dilemmatic and stated that Sam is tough and would be able to save herself.

Emotional Responses
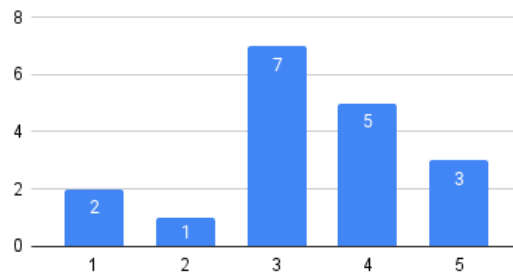
Figure 8: *How participants rated their emotional investment.*

(a) *Powerful to powerless.*   (b) *Responsible to non-involved.*   (c) *Guilty to innocent.*
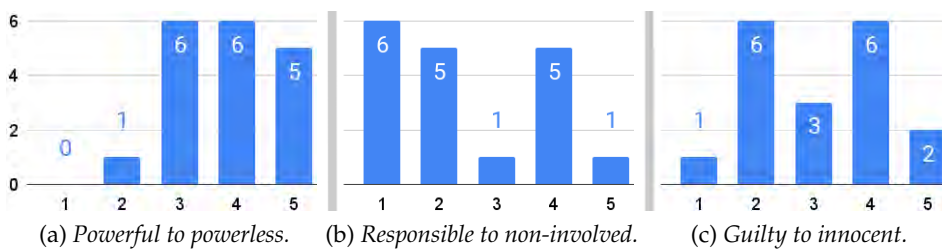
Figure 9: *How participants rated their feelings regarding their role in the game.*

As seen in Figure 8, participants tend to be more emotionally invested than not. Figure 9(a) shows that most participants felt rather powerless. Figure 9(b) shows that there is a split between participants feeling responsible and non-involved, and figure(c) shows a similar split between guilty and

innocent. However, while most participants feel responsible, a third even strongly so; the feelings regarding guilt to innocence are less pronounced, with a third feeling mildly guilty and mildly innocent, respectively.

(a) *Stressed to relaxed.*   (b) *Entertained to bored.*   (c) *Saddened to cheerful.*
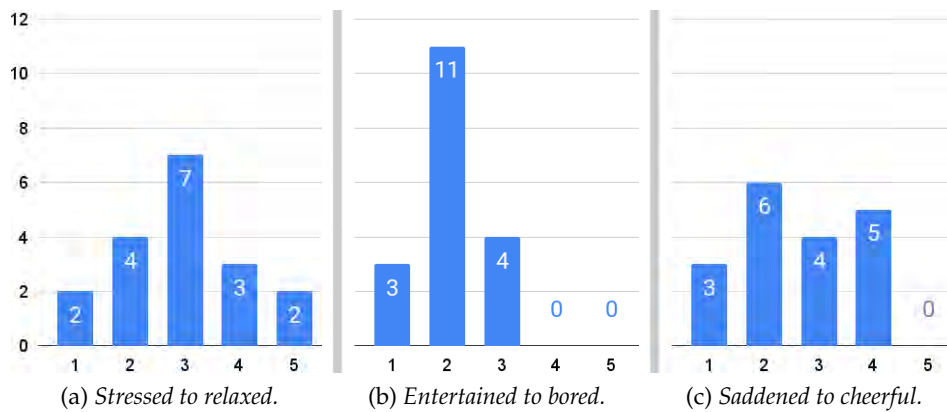
Figure 10: *How participants rated their feelings regarding enjoyment.*

Regarding player enjoyment, participants seemed to be somewhat evenly distributed across feeling stressed to relaxed spectrum, as shown in Figure 10(a). Figure 10(b) shows participants' tendency to find the game more entertaining than boring. Lastly, it seems the game slightly tends to inspire more sadness than cheerfulness, as seen in Figure 10(c).

To the question on whether participants had something else to say regarding their feelings some participants answered not on their feelings but rather on their feelings and observations about the game in general. In the following only the answers regarding feelings are summarized.

Four participants referenced the game's changing tone between the hopelessness and difficulty of the moral questions and the humor present in nearly all other interactions. Of these participants, one claimed to feel like they had fun and were entertained by the humorous dialogs despite the depressing topics. Another participant felt the game's humor emotionally compensated them for the difficult decision. However, another participant felt like the humor clashed with the game's depressing setting, and another just claimed that they had "[c]hanging feelings between amused, stressed and depressed".

The same participant claimed to be "[f]eeling powerless and responsible at the same time (even though [they] had no influence)". They are one of three participants referencing the meaninglessness of their decisions. Another of these participants summarized the ending, which rendered all prior decisions void, and stated that, therefore, "none of the decisions ultimately had any effect on the outcome". Again, another participant claimed that individuals make their decisions in real life based on consequences and that without portraying consequences, the decisions are uninteresting, meaningless, and "just another line of text in an endless dialog". This participant in particular critiqued the lack of consequences for multiple dilemmas.

One participant seemed to have liked the decision-making more than the rest of the gameplay, claiming the initial decision-making to be cool in contrast to watering plants later on in the game. Another participant criticized the transition from the initial decision-making to the exploration phase as too abrupt, which, according to them, "takes a lot of momentum out of the game".

One participant deemed games like these to be stressful, having trouble with decision-making. One participant included in their answers to both this question and the field at the end of the survey asking them if they had anything else to say, that sometimes both presented answer options did not feel good to them and that they would have liked to have an alternative option. This participant explicitly referenced, for example, that they would have liked to be able to hire more helpers than to isolate Midas Rising with barricades or increasing street partrols. One participant claimed that "the decisions were surprisingly difficult and well-staged".

The last question regarding whether participants had anything else to say mainly included personal messages or comments on various parts of the game irrelevant to this paper. However, one participant said they empathize with the frustration and resignation of the game's protagonist regarding his powerlessness in their situation. Moreover, one participant deemed the topic of moral dilemmas in the context of video games fascinating.

3.4 Evaluation

The evaluation has to be prefaced with a reminder that the results collected from the qualitative survey only provide first indicators. Therefore, all derived findings should be understood as a basis for further research, not as facts.

General Perception of Moral Decisions and Dilemmas

Regarding the enjoyment of moral decisions and dilemmas in games, participants' answers indicate that the majority likes both. In most cases, they do not make a difference between these two. A few prefer moral dilemmas as they attribute them to a more nuanced portrayal of morals, and a few like moral dilemmas less as they require accepting at least some negative consequences.

Here, It is important to note that participants often value moral decision-making in video games, especially for influencing the story and game, experiencing consequences, customizing their experience, receiving feedback, or unlocking new opportunities. However, as outlined previously, focusing on outcomes and the impact of moral choices can create a bias towards strategic and consequentialist contemplations. Here, a tension between design paradigms inspiring player enjoyment and those inspiring moral reflection can be noted.

Moreover, while only one participant claimed outright to neither like moral decisions nor dilemmas, a few participants stated feeling stressed by moral decisions and dilemmas, making it hard for them to decide. This indicates that while most players like moral decision-making, their emotional effects can differ and even reach unpleasant levels. This emotional burden should be considered when designing video games featuring moral dilemmas and warrants utilizing content warnings.

A third of participants explicitly stated moral reflection as their reason for liking moral decisions. Additionally, a third of participants liked moral decisions for making the game more immersive by showing consequences or inspiring reflection. Immersion is also desirable as it likely causes higher emotional investment and more realistic (moral) behavior.

Moral Dilemma Control Conditions

Before summarizing the insights gained through the game regarding the research questions, the control conditions must first be checked to know whether the game is engaging enough and whether the present decisions are dilemmatic enough for the results to be meaningful.

Emotional investment is still within an acceptable range, showing that most participants are at least invested a little bit into the game. However, the overall difficulty moral dilemmas posed to participants is lower than expected, with only one dilemma achieving an average difficulty barely reaching past the midpoint value of three and most decisions perceived as more easy than not. Moreover, for all dilemmas, there is a clear tendency toward one of the options, with the lowest difference between the popular and unpopular answer showing a 2:1 ratio. While there is no control value to compare against, these results do not clearly show the presented decisions to be irrefutably dilemmatic.

However, there are some effects to consider when evaluating these results. For one, individual low-difficulty ratings can also stem from a participant having solidified moral values, making it easier for them to decide. Secondly, while still acceptable, participants' emotional investment could have been higher. While in reality, most have an inherent motivation to act morally, they might simply care less in a video game, as one participant explicitly noted. For example, the 6. dilemma of which character to save is widely acknowledged as a difficult moral problem. Nevertheless, some participants noted that they had not built a relationship with these characters yet, which made the decisions not as impactful to them. Unfortunately, a certain underdevelopment of NPC-player relationships is hard to avoid for a games of such a short length as JnD.

Moreover, the free-text answers of one participant in particular and some additional statements indicated that the meaningless choices made some participants disengage, as expected. While most participants did not notably criticize the meaningless choices, consequences and impact are the most mentioned features participants liked about moral decisions and dilemmas. Another indicator for other participants being likely negatively affected by

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a lack of consequences is the first dilemma being rated at the highest difficulty. For this dilemma, participants did not yet know that decisions would be meaningless, leading to possibly higher engagement at the start of the game. Moreover, participants might be biased to rate all decisions' difficulty lower than actually perceived during the game as they filled out the survey after playing the game, knowing that none of their choices had an impact. Still, multiple recipients reported to have already disengaged during their playthrough as decisions had not immediate consequences. This indicates that it might be necessary, even in games in which decisions have long-term consequences, to provide players with immediate consequences or an illusion of consequences to keep them engaged.

Furthermore, the difficulty of some dilemmas might also be perceived as low as there might have been some design flaws. For the dilemma with the lowest difficulty, dilemma 4 concerning whether Sam should stay in her job, the stakes were, for example, relatively low. One participant, for example, noted that she could just quit after the crisis is over. Moreover, participants tended to take risks if it meant potentially saving someone, for example, in dilemmas 2, 3, and 5. This suggests that the utilization of a wicked problem, in this case, might not work as desired as participants likely just hoped that none of the risks would come to be. Additionally, two participants wished to have the option to force the receptionist in the fifth dilemma to come with them. As this solution is reasonable and not mentioned in the game, participants' immersion might be negatively impacted.

Some of these explanations regard individual participants' perceptions of game content in general and concerning JnD in specific, while other explanations regard design flaws. Overall, with no values to compare against, it is difficult to state whether the presented problems were good enough staged and actually dilemmatic to be representative and allow answering the research questions. However, even when this means that these results might have a limited conclusiveness regarding moral dilemmas in specific, they should at least be conclusive regarding moral decisions in general.

Game enjoyment

Concerning participants' emotions relating to enjoyment, the game seems to be successful. Most participants voted to be entertained by the game rather than bored. However, it must be noted that as most participants are colleagues, friends, or family, they might feel a bias towards expressing a more positive attitude than they might actually have. Assuming that at least a few participants were truthful, this result would be quite good as it would mean that the game could keep players interested and get them to continue engaging with its moral dilemmas.

Furthermore, the placement of participants across the stressed-to-relax spectrum shows something akin to a normal distribution. This distribution likely originates from participants' relationship with decision-making. Moreover, this distribution might also be affected by how participants perceived the alternation between stressful phases, i.e., making decisions, and more relaxed phases, i.e., solving puzzles, in the game. This result shows that most participants are neither not phased by the game's serious topics at all nor overly stressed to the point where they might have trouble enjoying the game.

Lastly, the saddened-cheerful graph shows that participants had a slight tendency to be more affected by the narrative's portrayals of a difficult and hopeless situation than the humor in between. This might put the game in a niche for players appreciating games portraying heavy subject matter. However, most participants did not feel strongly saddened but only slightly so or even slightly cheerful. These mixed emotions are in accordance with the game's melancholy and combination of humor and heavy subject matter. However, as previously summarized, while some participants endorsed this combination, others deemed it a somewhat jarring mix of tone. Thus making it questionable if this particularly way of bridging serious topics into popular media is generally recommendable.

  Overall, participants seemed to enjoy their experience. However, it has to be acknowledged that two participants felt highly stressed and three highly saddened and, therefore, might have had a rather uncomfortable game experience. Additionally, one participant in particular critiqued the lack of consequences. And furthermore, some other participants wished for additional options to choose from.

Inspiration of Moral Reflection

As expected, as players are denied the agency to change the outcome of events and the narrative portrays a hopeless situation, eleven participants felt more powerless than powerful compared to only one feeling slightly powerful. However, out of eighteen participants, eleven still felt more responsible than non-involved, and seven more guilty than innocent.

These results indicate that participants can simultaneously feel powerless and responsible or guilty, meaning that meaningless choices do not necessarily contradict moral involvement. Moreover, participants feeling responsible indicates that they are invested in the situation and hold themselves accountable for their actions at least up to a certain degree, as is also shown by some feeling guilt. Therefore, it can be hoped that these emotions inspire participants to take their decisions in the game serious and reflect on them.

However, it has to be noted that both the responsible to non-involved and guilty to innocent graphs show a split, with only a few participants placing themselves in the middle. This indicates that players might either tend to morally involve themselves in games or not. Whether this split is always given when utilizing meaningless choices and wicked problems or whether it relates to something specific in JnD cannot be answered.

Considering argumentation from the answers to the survey questions asking why participants deemed dilemmas easy or difficult, insight can be gained into participants' thoughts on the dilemmas. However, as explained in chapter 3.3, a clear interpretation of whether an argument is made on a moral basis or is made strategically, socially, etc. is often not possible. This in itself might be an important indicator as it could also indicate that this separation might not even be clear to the participants themselves - maybe with the exception of one participant who stated that they always tried to make logical considerations. This lack of clear moral argumentation could show a need for improvement in the presentation of the moral dilemma, e.g., by emphasizing the underlying conflicting principles rather than only the situation itself. However, this could prevent participants from reflecting on their own.

Over all moral dilemmas of the game, most participants showed a clear tendency to want to help everyone and overcome the crisis together, with only a few willing to sacrifice a few for the greater good. Participants moral arguments appealed mainly to fairness and in-group loyalty. They not only applied the argument of in-group loyalty to themselves but also to Sam, who wanted to quit her job and to whom the majority of participants recommended staying. However, as there was a tendency to perceive the presented moral dilemmas as more easy than not, participants' argumentation might only shows them sticking with their preexisting morality rather than reconsidering it.

When participants perceived both moral dilemma options as having the same moral value, they sometimes chose arbitrarily or at least not based on moral considerations. This is especially prevalent for the 6. dilemma of who to rescue, which is a symmetrical dilemma. Here, some participants claimed to have chosen arbitrarily, though as there is a clear bias towards Sam, they likely decided based on character liking, long-standing principles such as "women and children first", or any other subconscious biases. While it is unclear how long participants considered the situation before they decided to choose "arbitrarily", it can be assumed that as they did not achieve any moral conclusion, these dilemmas might have inspired some moral reflection but did not have a long-term impact on participants' morality. Moreover, some participants' showed a general tendency to subvert the dilemmatic properties of the presented dilemmas by placing all their hope on taking risks, interpreting new facts into situations of which they were ill-informed like that Sam will survive even without their help or not suspending their disbelief and wishing for alternative action options. These arguments might indicate that 'too difficult' dilemmas like this symmetrical one break immersion and decrease the suspense of disbelief for players. Moreover, all these effects might indicate that dilemmas like these might not be sufficient to impact participants' morality.

Considering participants' free-text answers, the 5. dilemma seemed to have made the highest emotional impact, likely because it required the player to take action directly rather than just choosing a dialog option. While the 5.

dilemma, same as the 6. dilemma with four participants has the highest amount of participants rating it at the highest difficulty value, seven participants rated it at the lowest difficulty value. While this suggests that only a few struggled with their decision, with most again prioritizing loyalty, staging interactive dilemmas like this can be considered worthwhile due to its resulting emotional impact. The emotional impact likely makes the dilemma more memorable and, in the case of a more polarizing dilemma, might inspire moral considerations and discussion over a longer duration.

In some cases, strong preexisting mindsets regarding specific topics seemed to significantly impact decision-making, potentially overriding any further moral considerations. This was, for example, the case for the 3. dilemma in which, in two cases, a negative opinion towards police officers and, in one case, an association of barricades with the ghettoization of Jews in Nazi Germany influenced decision-making. Moreover, in the 4. dilemma, there seemed to be some bias originating from different perspectives on work. This shows that these mindsets should be considered when setting up moral dilemmas as they might override any moral reflection.

4 Conclusion

4.1 Summary

This paper aims to answer the question of how sufficiently interactive and intentional portrayals of moral dilemmas in video games can invoke and influence both moral reflection and enjoyment in their players. It has to be noted that what constitutes a moral dilemma and whether moral dilemmas truly exist or only indicate a lack of moral knowledge is a topic of debate. However, for this paper, it is assumed that any moral problem is a moral dilemma that is either highly difficult to decide on for an individual or causes individuals in roughly equal measure to prefer either option.

The results of a conducted survey indicate that players generally do enjoy moral decisions and dilemmas in video games and generally appreciate the opportunity to reflect. However, a literature review shows that the medium of video games encourages recipients to make strategic and outcome-focused decisions, therefore either de-incentivizing moral considerations wholly or

incentivizing consequentialist considerations more than others. Moreover, the literature review shows that strategic considerations can be discouraged by either providing a player with insufficient information, creating a *wicked problem*, or not showing consequences as part of a so-called *meaningless choice*. While these techniques can lead to increased moral reflection for some players, they can also cause frustration, leading to disliking the game, especially since most survey participants stated to like moral decisions and dilemmas, especially for granting an impact on the story and gameplay or customizing their experience.

Survey results regarding the game created for this paper, *Johnson & Dilemma (JnD)*, indicate that the included moral problems were perceived as less dilemmatic than desired. This conclusion is drawn based on participants neither rating the dilemmas to be of high difficulty nor participants' answers being equally distributed across the available options. While there might be a general bias to take moral dilemmas in video games less seriously, and there are no values to compare these results against, all the insights gained relating to the game should be viewed under the consideration that the presented dilemmas might not have been representative.

Overall, the game seems to be enjoyable, as most participants deemed it somewhat entertaining and not overly stressful. However, as participants also tended to feel saddened, the game might fall into a niche for those appreciating games with heavy subject matter.

Regarding moral reflection, some participants' even though feeling powerless, still felt responsible rather than non-involved and guilty rather than innocent. This shows some sort of moral engagement. Moreover, participants in their free-text answers repeatedly appealed to in-group loyalty and fairness as moral principles. However, for some arguments, it is hard to determine whether the arguments stem from moral, logical, or social considerations. Moreover, it is impossible to determine whether participants' argumentation stems from preexisting biases or new considerations. Therefore, it is not possible to determine whether JnD caused any moral reflection. However, as participants named the invocation of moral reflection as something they like about video games with moral decisions and dilemmas, it can be assumed that video games in general have the ability to cause moral reflection.

4.2 Future work

As the scenarios in the game created for this survey, as mentioned, are not perceived as difficult as desirable, future research could determine factors reducing and increasing the perceived difficulty of dilemmas. Additionally, as only a first qualitative test was conducted, the usage of meaningless choices and wicked problems could also be explored, e.g., in A / B tests suitable for quantitive research, to gain not only first indicators but more decisive answers on their effects on player enjoyment and invocation of moral reflection especially compared to other methods.

Moreover, while the game tried to use role obligations to make players feel more engaged and responsible, it is unknown to which extent these role obligations made an impact. Therefore, future research could provide answers, for example, as part of an A / B test. Furthermore, the capabilities of video games could be further utilized by letting the player switch between roles, for example, first deciding on an individual's fate and then having to experience the consequences of this decision as this individual. Furthermore, different ways of letting the player not only choose a dialog option regarding a dilemma but actually make them act out the situation could be researched. This might be worthwhile as, for example, one dilemma of JnD requiring the player to act out the situation by either waiting for a duration unknown to them or leaving a character behind seemed to have made a huge emotional impact.

Additionally, as this paper restricted itself to a single-player perspective, the effects of letting multiple players decide together, for example, via Twitch or in-game buttons and voice chat, could be explored. Here it could be interesting to find out how discussion between players could influence them individually and how they perceive responsibility for decisions that the group approved but they were against. These effects could also be researched in the context of AI, for example, by using a large language model to argue from an NPC's perspective and requiring the player to convince the NPC.

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Appendices

A Survey Content

A.1 English Survey

Why was this decision easy or difficult for you to make? *

Your answer

Regarding the 2nd decision: Should helpers be send also be send to areas under Midas Rising control or should they focus on less risky areas?

How difficult was this decision for you to make? *

	1	2	3	4	5	
Easy	○	○	○	○	○	Difficult

Why was this decision easy or difficult for you to make? *

Your answer

Regarding the 3rd decision: Should Midas Rising be isolated through barricades or should street patrols increase?

How difficult was this decision for you to make? *

	1	2	3	4	5	
Easy	○	○	○	○	○	Difficult

Why was this decision easy or difficult for you to make? *

Your answer

Regarding the 4th decision: Should Sam (janitor) quit her job or stay?

How difficult was this decision for you to make? *

	1	2	3	4	5	
Easy	○	○	○	○	○	Difficult

Why was this decision easy or difficult for you to make? *

Your answer

Regarding the 5th decision: Waiting for Eleanor (receptionist) or leaving...

How difficult was this decision for you to make? *

	1	2	3	4	5	
Easy	○	○	○	○	○	Difficult

Why was this decision easy or difficult for you to make? *

Your answer

Regarding the 6th decision: Saving Chuck (clerk) or Sam (janitor)...

How difficult was this decision for you to make? *

	1	2	3	4	5	
Easy	○	○	○	○	○	Difficult

Why was this decision easy or difficult for you to make? *

Your answer

Back   Next   Clear form

How did you feel while playing?

*

	1	2	3	4	5	
Powerful	○	○	○	○	○	Powerless

*

	1	2	3	4	5	
Responsible	○	○	○	○	○	Noninvolved

*

	1	2	3	4	5	
Entertained	○	○	○	○	○	Bored

*

	1	2	3	4	5	
Innocent	○	○	○	○	○	Guilty

*

	1	2	3	4	5	
Stressed	○	○	○	○	○	Relaxed

*

	1	2	3	4	5	
Saddened	○	○	○	○	○	Cheerful

How would you rate your emotional investment while playing? *

	1	2	3	4	5	
Low	○	○	○	○	○	High

Is there something else you can tell me about your feelings while playing?

Your answer

Back   Next   Clear form

Final steps

How old are you *

○ <9

○ 10-17

○ 18-24

○ 25-34

○ 35-44

○ 45-54

○ 55-64

○ >65

How many hours do you play video games per week (including mobile games)? *

○ <4

○ 4-8

○ 8-12

○ 12-16

○ >16

What gender are you identifying with? *

○ Woman / Girl

○ Man / Boy

○ Non-binary

○ I don't want to say

○ Other: _____

Is there something else you want to tell me?

Your answer

Back   Submit   Clear form

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A.2 German Survey

Darstellung von moralischen Dilemma in Videospielen

Switch account

Not shared

This is the German version of this survey. Alternatively you can also take the English survey.

Hallo,
mein Name ist Kira Wanjek und ich studiere "Zeitabhängige Medien/ Games" an der Hochschule für Angewandte Wissenschaften in Hamburg. Für meine Masterarbeit zum Thema "Darstellung von moralischen Dilemma in Videospielen" erforsche ich wie moralische Dilemma in Videospielen dargestellt werden können und wie Spielende mit ihnen interagieren.

Diese Umfrage ist anonym und sollte ungefähr 20-25 Minuten dauern und umfasst das Spielen eines kurzen Videospiels (25-45 Minuten). Alle Teilnehmer dieser Umfrage und der englischen Version dieser Umfrage, welche am Ende ihre E-Mail-Adresse hinterlassen, haben die Chance einen von 3 Amazon Gutscheinen je 20€ zu gewinnen.

Bitte beachte: Das für diese Umfrage entwickelte Spiel enthält Erwähnungen von Gewalttaten im Zusammenhang mit Bürgerkrieg und dem Tod von Nicht-Spieler-Charakteren, sowie Explosions- und Schussgeräusche und erfordert das Treffen von schwierigen Entscheidung. Wenn dir das unangenehm ist oder du dich während des Spielens unwohl fühlst, ist es in Ordnung jederzeit abzubrechen. Bitte gib Acht auf dich selbst.

Des Weiteren steht es dir auch frei diese Umfrage zu jedem beliebigen Zeitpunkt und ohne Grund abzubrechen.

Für weitere Fragen bin ich unter meiner E-Mail-Adresse, Kira.Wanjek@haw-hamburg.de, erreichbar.

Vielen Dank schon mal im Voraus für deine Teilnahme! :)

Next   Clear form

Magst du es moralische Entscheidungen in Videospielen zu treffen und warum bzw. warum nicht? *

Your answer

Denkst du dasselbe über moralische Dilemma in Videospielen und warum bzw. warum nicht? *

Your answer

Spiel das Videospiel!
Bitte spiele das Videospiel "Johnson & Dilemma" unter dem folgenden Link:
https://kiwaki.itch.io/johnson-dilemma

Bitte bestätige, dass du das Videospiel gespielt hast: *

☐ Ja, ich habe "Johnson & Dilemma" durchgespielt.

Spielergebnis

Bitte gib im Folgenden die von dir getroffenen Entscheidungen ein. Du solltest am Ende des Videospiels über einen Button die Entscheidungen in deine Zwischenablage kopiert haben, sodass du diese hier nur noch einfügen musst.

Sollte das aus irgendeinem Grund nicht möglich sein. Gib bitte deine Antworten auf die folgenden Dilemma manuell ein:
1.
 Sollen priorisiert Fachkräfte eingestellt werden oder Ressourcen an Betroffene verteilt werden?
2. Sollen Hilfskräfte auch in von Midas Rising besetzte Gebiete geschickt werden oder soll sich stattdessen auf weniger riskante Gebiete fokussiert werden?
3. Soll Midas Rising mittels Barrikaden isoliert werden oder sollen die Straßenpatrouillen verstärkt werden?
4. Soll Sam (Hausmeisterin) in ihrem Job bleiben oder soll sie kündigen?
5. Hast du auf Eleanor (Rezeptionistin) gewartet oder bist du ohne sie gegangen?
6. Wen hast du gerettet Chuck (Sachbearbeiter) oder Sam (Hausmeisterin)?

Welche Entscheidungen hast du getroffen? *

Your answer

Zur 1. Entscheidung: Sollen priorisiert Fachkräfte eingestellt werden oder Ressourcen an Betroffene verteilt werden?

Wie schwer ist dir diese Entscheidung gefallen? *

	1	2	3	4	5	
Leicht	○	○	○	○	○	Schwer

Warum ist dir diese Entscheidung schwer bzw. leicht gefallen? *

Your answer

Zur 2. Entscheidung: Sollen Hilfskräfte auch in von Midas Rising besetzte Gebiete geschickt werden oder soll sich stattdessen auf weniger riskante Gebiete fokussiert werden?

Wie schwer ist dir diese Entscheidung gefallen? *

	1	2	3	4	5	
Leicht	○	○	○	○	○	Schwer

Warum ist dir diese Entscheidung schwer bzw. leicht gefallen? *

Your answer

Zur 3. Entscheidung: Soll Midas Rising mittels Barrikaden isoliert werden oder sollen die Straßenpatrouillen verstärkt werden?

Wie schwer ist dir diese Entscheidung gefallen? *

	1	2	3	4	5	
Leicht	○	○	○	○	○	Schwer

Warum ist dir diese Entscheidung schwer bzw. leicht gefallen? *

Your answer

Zur 4. Entscheidung: Soll die Hausmeisterin in ihrem Job bleiben oder soll sie kündigen?

Wie schwer ist dir diese Entscheidung gefallen? *

	1	2	3	4	5	
Leicht	○	○	○	○	○	Schwer

Warum ist dir diese Entscheidung schwer bzw. leicht gefallen? *

Your answer

Zur 5. Entscheidung: Auf Eleanor (Rezeptionistin) warten oder gehen...

Wie schwer ist dir diese Entscheidung gefallen? *

	1	2	3	4	5	
Leicht	○	○	○	○	○	Schwer

Warum ist dir diese Entscheidung schwer bzw. leicht gefallen? *

Your answer

Zur 6. Entscheidung: Entweder Chuck (Sachbearbeiter) oder Sam (Hausmeisterin) retten...

Wie schwer ist dir diese Entscheidung gefallen? *

	1	2	3	4	5	
Leicht	○	○	○	○	○	Schwer

Warum ist dir diese Entscheidung schwer bzw. leicht gefallen? *

Your answer

Wie hast du dich beim Spielen gefühlt?

*

	1	2	3	4	5	
Mächtig	○	○	○	○	○	Machtlos

*

	1	2	3	4	5	
Verantwortlich	○	○	○	○	○	Unbeteiligt

*

	1	2	3	4	5	
Unterhalten	○	○	○	○	○	Gelangweilt

*

	1	2	3	4	5	
Unschuldig	○	○	○	○	○	Schuldig

*

	1	2	3	4	5	
Gestresst	○	○	○	○	○	Entspannt

*

	1	2	3	4	5	
Bedrückt	○	○	○	○	○	Fröhlich

Wie würdest du generell deine emotional Anteilnahme während des Spiels beurteilen? *

	1	2	3	4	5	
Niedrig	○	○	○	○	○	Hoch

Gibt es sonst noch etwas was du zu deinen Gefühlen während des Spielens mitteilen kannst?

Your answer

Abschließend

Wie alt bist du? *

○ <9
○ 10-17
○ 18-24
○ 25-34
○ 35-44
○ 45-54
○ 55-64
○ >65

Wie viele Stunden spielst du Videospiele pro Woche (einschließlich Handyspiele)? *

○ <4
○ 4-8
○ 8-12
○ 12-16
○ >16

Mit welchem Gender identifizierst du dich? *

○ Weiblich
○ Männlich
○ Nicht-binär
○ Möchte ich nicht sagen
○ Other: _____

Gibt es sonst noch etwas, dass du mir mitteilen möchtest?

Your answer

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B Survey Results

In the following data sets that were omitted from evaluation are marked with an asterix.

B.1 General Results

Nr.	Do you like making moral decisions in games and why / why not?	Do you think the same about moral dilemmas in video games and why / why not?
1	Yes, I enjoy going through stories and seeing how changes in decision can influence the bigger picture. It gives videogames replayability but also has a chance to give me time to reflect on real life issues.	Yes, I enjoy going through stories and seeing how changes in decision can influence the bigger picture. It gives videogames replayability but also has a chance give me time to reflect on real life issues.
2	I guess, but I don't think I'm always aware if a decision in a game is specifically a moral decision (in comparison to your next question about moral dilemmas)	Yes, I like it if a game offers me the ability to make a decision on what should be done where both options seem equal good/bad. It gives me control of the story and it allows me to roleplay a bit with the character I am playing: Maybe not taking the choice I personally would do but what the character would do.
3	Yes, because I do like thinking about my decisions in games. trying to think about what decision to make in a game makes me more immersed in the story (if that decision actually had consequences)	Yes, I do think the same about dilemmas, usually a good/difficult dilemma actually makes me think about my choice outside of the game. I love when a game is able to make me reflect about my moral compas.
4	Ja, weil ich es mag das sich das Spiel dadurch möglichweise verändert	Ja, weil ich es mag das sich das Spiel dadurch möglichweise verändert
5	Ja ich mag es moralische Entscheidungen in Videospielen zu treffen, da es dem Spielenden mehr Kontrolle / Interaktionsraum mit dem Spiel ermöglicht. Die Möglichkeit in einem Spiel durch Entscheidungen Einfluss auf den Verlauf des Spieles zu haben, lässt den Spieler die Spielerfahrung auf sich "customizen" und birgt Raum für weitere Spieldurchläufe in denen man andere Entscheidungen trifft. Was ich nicht mag sind Entscheidungen die keinen Einfluss auf das spiel haben, wie z.B. Dialogoptionen auf die der Gesprächspartner im Spiel nicht weiter eingeht. An diesen Stellen wird zwar eine Entscheidungsmöglichkeit vorgetäuscht, aber ohne Konsequenzen fehlt ihnen das Gewicht um von Bedeutung zu sein.	Dilemma verleiten den Spielenden sich etwas anders mit den Entscheidungen auseinanderzusetzen, da es hierbei kein Optimum gibt dem man folgen kann. Jede Entscheidung bringt negative Konsequenzen, wodurch die Spielenden unter Druck gesetzt werden und sich dadurch die Sichtweise von moralischen Entscheidungen schnell unterscheiden kann. Die Entscheidung zwischen "dem geringeren übel" wird schnell pragmatisch und nicht länger auf der eigenen Moral basierend. Dilemma sind sehr stressend, aber im Gegenzug auch sehr belohnend für den Spielenden wenn man die Situationen bewältigt bekommt.

6	”Ja, weil es das Spiel interessanter macht und mich dazu bringt über schwierige Fragen nachzudenken und mich mit sonst vielleicht nicht so häufig diskutierten Themen auseinanderzusetzen. Außerdem kann man im Rahmen de Spiels dadurch potentielle Konsequenzen von Entscheidungen austesten. Nein, weil es mir sehr schwer fällt solche Entscheidungen zu treffen und ich dann dadurch gestresst bin oder die Entscheidungen sehr lange hinauszögere.”	Ja, außer wenn die Dilemma sehr abstrakt oder wirklichkeitsfern sind, oder bestimmte Vorraussetzungen einfach hingenommen werden müssen ohne das diese sinnvoll begründet sind. In solchen Fällen finde ich es schwierig die Situation ernst zu nehmen.
7	Kommt auf das Spiel an. Bei einem Rätzel/Suchspiel ergeben sich neue Möglichkeiten, die es vielleicht noch interessanter machen.	Eigentlich spiele ich keine Kriegsspiele. Ich finde es gibt schon genug Krieg in der Welt, dann brauche ich nicht noch Kriegsverherrlichende Spiele zu spielen.
8	Das kommst stark auf die Art des Spiels an. Wenn meine Entscheidungen weitreichende und permanente Auswirkungen haben fühle ich mich unter druck gesetzt das die Entscheidung die ich treffe nicht zu der Art wie ich das Spiel spielen will passt. Ist die Entscheidung dagegen in einem Kontext wo sie mein Spielerlebnis zwar beeinflusst aber nicht meinen Spielstil betrifft so kann ich durch aus spaß an solchen Entscheidungen haben.	Ja, auch hier ist es mir in erster Linie nur wichtig das meine Art das Spiel zu spielen unabhängig von den Dilemma ist.
9	Hängt von den Entscheidungen ab. Grundsätzlich ja da Entscheidungen dieser Art die erlebte geschichte dichter und immersiver macht.	Jo gilt das gilt für mich auch für Dilemma. Wobei sich natürlich immer die Frage stellt ob die Handlung / Charaktere der Handlung das Dilema als solches verstehen und angemessen behandeln.
10	Am meisten, wenn es mich zum Nachdenken bringt. Ein einfaches Gut / Böse Moral System hat wenig reiz.	Ich mag primär moralische Dilemma. Alles andere ist oberflächliche flavor.
11	Ja , Es kann ein faszinierendes Erlebnis sein, da der Spieler in die Rolle eines Charakters schlüpfen und die Konsequenzen seiner Handlungen erleben kann.	ja , kann der Spieler dazu veranlassen, über seine eigenen Werte und moralischen Ansichten nachzudenken.
12	Ja, da dies die Immersion verstärkt und zum Nachdenken anregt.	Ja, da dies die eigene Moral hinterfragt und ich mich viel mehr mit der Situation und dem Spiel beschäftige.
13	ja, es gibt mir mehr dass gefühl wirklich der character zu sein	ja, es erfordert mehr sich auf die viruelle welt einzulassen
14	Meistens ja, da es einem die Möglichkeit gibt sich in Situation hineinzuversetzen die es in echt nie geben würde ohne Angst um wirkliche Folgen.	Moralische Dilemma sind auch gut, da man sie auch für gutes Storytelling benutzen kann und es auch IRL nicht immer eine richtige und falsche Entscheidung gibt. Vorallem sind moralische Dilemma cool wenn sie danach auch die Welt beeinflussen und man so als Player auch direkten Einfluss auf die Welt hat, wie in Dishonored.

15	Ich mag es eigentlich, weil es die Immersion erhöht wenn meine Entscheidungen Konsequenzen haben. Besonders wenn die Entscheidungen moralisch/ethisch aufgeladen sind ist die Immersion schwerwiegender.	Wenn Moral zu Dilemma wird, heißt das, dass die Spielwelt nicht schwarz/weiß ist. Moral ist nicht einfach und Entscheidungen mit gravierenden Konsequenzen für den Spieler*innencharakter oder NPCs sorgt dafür, dass die Spielwelt sich echter anfühlt. Also wieder mehr Immersion, was gut ist. Manchmal frustriert es mich allerdings wenn ich das Gefühl habe, das Spiel lässt mich überhaupt nicht "Gutes" tun. Ganz besonders wenn ich nicht alle Informationen hatte und Konsequenzen vermeintlich unvorhergesehen anfühlen frustriert das.
16	An sich schon, weil ich es spannend finde, zu sehen, wie sich meine Entscheidungen auf den weiteren Spielverlauf auswirken. Gleichzeitig stresst es mich aber auch, weil ich Perfektionistin bin und man bei entscheidungsbasierten Games quasi damit leben muss, wie man sich entschieden hat. Zumindest, wenn man die reine Experience erleben möchte. Ich muss gestehen, dass ich bei einigen solcher Games auch schon mal den letzten Checkpoint neu geladen habe, weil ein NPC in meinem ersten Durchlauf gestorben ist und ich dann so lange den Dialog erneut gespielt habe, bis der NPC sich nicht mehr umbringen wollte.	Moralische Dilemmas, die nicht nur mich oder meinen engeren Kreis betreffen, sondern eine Auswirkung auf viele Leute haben, würde ich ungern treffen wollen.
17	Nein, da es mir schwer fällt Entscheidungen zu treffen. Bei moralische Entscheidungen kann es auch passieren, dass man vielleicht mit Konsequenzen leben muss, die man so gar nicht auslösen wollte. Man weiß im Vorfeld auch nicht immer was passiert. Vielleicht stirbt dann z.B. ein Charakter und man hat vorher gar nicht damit gerechnet.	Ist für mich das gleiche.
18	Ja ich mag es, weil es das Spiel interessant macht und ich emotional abgeholt werde und Denkprozesse angestoßen werden	Ja das selbe
19*	I prefer games that have some room for moral choice. After making my choices, the game gives me different feedback based on my actions and attitude, which makes the game plot more interesting and layered.	Proper ethical choices can enhance the game experience and detail, making the plot complex and layered. But too many moral choices can become lengthy and difficult
20*	Too many moral choices can also cause me to feel complicated or confused and not know what to do. If there is no clear "good" or "bad", the choice will be confused.	Moral decisions in video games are often limited to the simple division of "good guy or bad guy," with no complex intermediate color.
21*	111	111

22*	Moral decisions are an important element in a game that can add fun and depth to the game, as well as allow for different experiences and opportunities for reflection within the game.	Moral decisions in video games are a fun and rewarding experience that allows for different experiences and opportunities for reflection within the game.
23*	Suka kerana ia menyeronokkan	Identiti adalah kerana ia dibuat mengikut realiti
24*	Suka kerana ia benar	Pengiktirafan kerana ia dibuat oleh orang
25*	na	
26*	asd	
27	asd	

B.2 Dilemma Data

B.2.1 1. Dilemma: Should hiring more professionals be prioritized over sending ressources directly?

Nr.	Answer	Difficulty	Reason
1	Hire professionals	2	It seemed like a logical decision. You need professionals to distribute the resources fairly. Just sending a bunch of resources would probably mean a few would take most of it. Or it would get into the hands of Midas Rising.
2	Hire professionals	4	I don't know enough about logistics to know what approach is better in what situations
3	Hire professionals	4	I don't know if the professionals can do anything with the resources we already don't have. But just giving the resources to the people wouldn't help either, just appease them.
4	Send resources	2	Ich finde Ressourcen an alle verteilen einfach gerechter.
5	Hire professionals	5	In beiden Fällen versucht man Menschen zu helfen. Und in beiden Fällen riskiert man es schlimmer zu machen. Es fehlten Informationen um zu entscheiden welche Entscheidung in der Situation die bessere wäre.
6	Send resources.	5	Es gibt nicht wirklich Agumente die die eine Möglichkeit besser als die andere machen. Vermutlich wäre eine Zwischenlösung gut, aber mit den limitierten Mitteln macht es sinn, dass eine Sache über die andere priorisiert werden muss. Ich habe eine Enscheidung gewählt weil ich musste nicht weil ich diese sinnvoller fand als die andere.
7	Hire professionals	3	Ich finde beides sehr wichtig! Fachkräfte können gezielt helfen die dringend benötigten Hilfsmittel zu verteilen und notwendigen Hilfen zu leisten.
8	Hire professionals	2	Die Frage hatte für mich keine moralisch richtig oder falsche Antwort weshalb die Konsequenzen der Entscheidung das viel interessantere gewesen wären als die eigentliche Frage. Schade nur das die Frage keine konsequenten hatte.
9	Hire professionals	2	Langfristige Lösungen über kurzfriste Lösungen

10	Send resources	4	In beiden Fällen gibt es hohe Risiken für negative Konsequenzen. Allerdings ist es gerade in sozial unruhigen Gebieten besser zu zeigen wie Proaktiv man hilft und dass man Vertrauen in Menschen hat. Wenn in solchen Situationen alles nach Protokoll abgearbeitet wird und Fachkräfte am Ende ohne Ressourcen nur begrenzt helfen kommen gerade erst recht Probleme auf... hoffentlich.
11	Hire professionals	2	um den Betrieb aufrechtzuerhalten
12	Hire professionals	5	Keine der Lösungen war zufrieden stellend. Eigentlich bräuchte man mehr Ressourcen und Personal
13	Hire professionals	4	weil beides sinn machte
14	Send resources	3	Weil sich die texte andauernd geändert hatten und die auch demnach die entscheidung änderten. Resources verteilen war mir wichtiger weil es eine schnellere Option ist die sofort mehr Menschen hilft, da es keine Zeit gibt zu warten.
15	Hire professionals	1	Ich hatte das Gefühl, dass Fachkräfte deutlich effizienter sind, als ein reines Bereitstellen von Ressourcen.
16	Hire professionals	2	Verwundete stellen in meinen Augen eine höhere Prio dar. Keine Ärzte einzustellen könnte dazu führen, dass selbst kleinste Wunden ohne die korrekte Behandlung zu kritischen Konditionen oder zum Tode führen. Nahrung ist zwar wichtig, aber im schlimmsten Fall halten Menschen es ein paar Tage ohne Nahrung aus, oder können Tiere jagen oder leerstehende Gebäude plündern (auch wenn das erstmal hart klingen mag). Im Falle von starken Verletzungen braucht es ausgebildetes Personal. Daher fiel es mir einigermaßen leicht, mich für die Fachkräfte zu entscheiden.
17	Hire professionals	3	War nicht so leicht zu entscheiden auch unter Berücksichtigung der eingeblendeten Gegenargumente. Und für die war auch bei beiden Seiten etwas wahres daran, weshalb es nicht so leicht war eine Entscheidung zu treffen.
18	Hire professionals	3	ich dachte wir nehmen schulden auf um aus der krise rauszukommen, fachkraeft helfen um die ressourcen zu verteilen
19*		4	NA
20*		4	NA
21*		3	1111
22*		4	All decisions are based on logic and algorithm, without the influence of emotion and subjective factors.
23*		3	Kerana kegagalan boleh diulang
24*		3	Orang profesional melakukan perkara profesional
25*		5	easy
26*		5	fwwdw
27*		5	sss

B.2.2   2. Dilemma: Should helpers also be send to areas under Midas Rising control or should they focus on less risky areas?

Nr.	Answer	Difficulty	Reason
1	Include risky areas	3	You are basically sending out people to a dangerous area, knowing there will most likely be casualties. At the same time you can not leave the people who live in that area behind.
2	Focus on less risky areas	2	Endangering your workers as well has the risk of people not wanting to do it. It's a balance act of wanting to help people and not endangering yourself to the point you can't help anyone either.
3	Include risky areas	2	The people in difficult areas need help as well, I don't want to sacrifice them
4	Include risky areas	2	Da ich es besser finde denen die schlimmer dran sind zu helfen.
5	Include risky areas	4	Wieder zwei hohe Risikos und fehlende Informationen. Ich habe für die Entscheidung angenommen, dass Midas Rising die Hilfskräfte als solche wahrnimmt und genügend Menschenverstand besitzt um zu sehen, dass das den Menschen helfen soll.
6	Include risky areas	4	Beide Möglichkeiten bringen Vor und Nachteile, die sich fast aufwiegen. Ich habe diese Entscheidung als etwas weniger schwierig empfunden als die vorherige, weil ich Menschen, die Hilfe brauchen nicht außenvorlassen möchte, auch wenn ich weiß, dass vielleicht dann die Maßnahmen weniger bringen.
7	Include risky areas	4	Bei der Entscheidung geht es um die Sicherheit der Hilfskräfte. Man kann nicht einfach über Menschenleben entscheiden. Allerdings gibt es auch in den besetzten Gebieten Menschen, die dringend Hilfe benötigen.
8	Focus on less risky areas	1	Diese Frage hatte für mich eine wage Richtung für eine moralisch richtige Antwort. In meinen Augen sollten die Menschen die Helfen wollen selber entscheiden ob sie sich in Gefahr begeben wollen und das ist keine Entscheidung die ich ihnen abnehmen kann. Dementsprechend kann ich sie nicht ohne ihr Einverständnis in Gefahr bringen.
9	Include risky areas	2	Erhöhtes Risikio allerdings auch bessere Effect
10	Include risky areas	1	Rechtsfreie Räume sind nicht akzeptabel. Menschen müssen hilfe sehen und spüren. Das schwächt die Terroristen und stärkt den glaube an existierende Institutionen.
11	Focus on less risky areas	5	Die Aussetzung der Hilfe in den von der Midas-Rebellion besetzten Gebieten könnte zu weiterem Leid und Instabilität führen.
12	Include risky areas	1	Auch in den besetzen Gebieten sind unschuldige die Hilfe brauchen. Wenn diesen nicht geholfen wird könnten die sich Midas Rising anschließen wodurch die Gefahr größer wird.
13	Include risky areas	4	weil es falsch scheint unschuldige alleine zu lassen
14	Include risky areas	2	Ich finde man sollte keinen Menschen aufgeben also war es relativ leicht, wichtig ist nur dass die menschen die in diese Gebiete gehen nicht gezwungen werden.
15	Focus on less risky areas	2	Hier waren die Konsequenzen schon etwas schwieriger einzuschätzen, aber im Endeffekt dachte ich, dass man die Hilfskräfte nicht aktiv in Gefahr bringen sollte.

16	Include risky areas	4	Weil es einerseits den hilfsbedürftigen Leuten unfair gegenüber wäre, diese hierbei auszuschließen und andererseits könnte man eigenes Personal gefährden oder sogar verlieren. Aber die Menschen in riskanten Gebieten haben (meinem Gefühl nach) Hilfe nötiger.
17	Include risky areas	4	Wie zuvor auch wurde ich von den Gegenargumenten mitbeeinflusst. Irgendwie sind das natürlich Aufständige, die man nicht mitversorgen will, aber die Gegenargumente haben ja gesagt, dass sich dort auch Unschuldige befinden könnte und dass man ansonsten ja nur die Meinung der Aufständigen von der Regierung bestätigen würde. Die Gegenargumente haben generell einiges aufgezeigt, was man vielleicht im ersten Moment nicht selbst mitbedacht hätte.
18	Include risky areas	1	wenn die hilfe nicht in krisengebiete kommt werden die aufruhen stärker
19*		4	NA
20*		2	NA
21*		3	111
22*		3	I don't feel easy or difficult because of the content of the decision, I just execute the task according to the procedure.
23*		1	Kehidupan adalah perkara yang paling penting
24*		3	Perkara hidup
25*		5	easy
26*		5	sddfwf
27*		5	ss

B.2.3   3. Dilemma: Should Midas Rising be isolated through barricades or should street patrols increase?

Nr.	Answer	Difficulty	Reason
1	Increase street patrols	2	Isolating Midas Rising would mean telling the world that Midas Rising is right all along.
2	Increase street patrols	1	Creating barricades creates isolation and a sense of us vs them which will only solidify people opinions of the other side over time. It also sends in this specific case the wrong message as you leave a lot of the population "behind" outside the barricades.
3	Isolate with barricades	3	I don't know what the purpose of barricades are, but police patrols didn't seem like a good choice either.
4	Increase street patrols	5	Ich fand die Entscheidung eher schwer da bei beiden Antwort Möglichkeiten jemand möglicherweise ungerecht behandelt worden wäre.
5	Increase street patrols	2	Isolation würde die Rebellen in ihrem despotischen Bild das sie von der Regierung haben nur noch weiter bestärken und den Konflikt schüren.

6	Isolate with barricades	4	Wie bei der ersten und zweiten Entscheidung wiegen sich die Vor- und Nachteile eigentlich auf. Der Gedanke, das das Fortschreiten der Terroristen Gruppe vielleicht eingeschränkt werden kann, hat es etwas leichter gemacht die Entscheidung zu treffen, weil ich dadurch das Gefühl hatte, zumindest etwas zu bewirken. Auch wenn mir jetzt im Nachhinein auffällt, dass ich damit genau gegenteilig zur letzten Entscheidung vorgegangen bin.
7	Increase street patrols	3	Eine Isolation scheint leicht zu sein, birgt aber viele Risiken für die Bevölkerung in diesem Gebiet. Die Straßenpatrouillen können zunehmend abschreckend wirken.
8	Increase street patrols	1	Diese Frage hatte für mich eine ganz klare moralisch richtige Antwort. Es wäre Verantwortungslos Unschuldige mit den "Schuldigen" zu isolieren nur um andere zu schützen, wenn es doch auch andere Maßnahmen gibt, die eventuell anders effektiv sind aber eine größere Chancengleichheit für alle bieten.
9	Increase street patrols	1	Isulation wirk hier für mich nicht wirklich nach einer gangbaren Lösung
10	Increase street patrols	1	Terroristen haben kein Territorium. Durch "geschützte" Orte schafft man nur bessere Ziele um ein Zeichen zu setzen. Entweder muss es vollständig abgeschlossen sein. Dann hilft es aber auch den Bürgern nicht. Oder es muss allgemein für Ordnung gesorgt werden so gut wie möglich.
11	Increase street patrols	3	Eine weitere Möglichkeit, die Sicherheit zu gewährleisten, könnte darin bestehen, die Zahl der Straßenpatrouillen zu erhöhen. Dazu kann die Überwachung und Abwehr potenzieller Bedrohungen durch erhöhte Präsenz und effektive Kommunikation gehören.
12	Increase street patrols	2	Mauern zu bauen wäre ein Eingeständnis von Versagen und Furcht. Dies würde suggerieren das Midas gewinnen wird und man selbst auf dem Rückzug ist
13	Increase street patrols	2	weil sicherheitskräfte schicken immer leichter ist, weil es dann deren problem ist
14	Isolate with barricades	1	ACAB
15	Isolate with barricades	5	Das war sehr schwierig. Man kann Machtpositionen wie der Polizei ohnehin nicht vertrauen, und dann noch in solchen Extremsituationen? Schon gar nicht. Unschuldige isolieren und die vermeintliche Terrorgruppe abgrenzen klingt aber auch nach einer Verschärfung des Konflikts. Beide Optionen haben signifikant negative Folgen und die positiven bleiben bei beidem Ungewiss. Das macht es sehr schwer: Man wählt zwischen zwei negativen Folgen, ich möchte keines von beidem.
16	Isolate with barricades	5	Da man so auch unbetroffene Zivilisten mit Midas Rising einsperrt, fiel mir diese Entscheidung besonders schwer. Hier priorisierte ich „das Wohl vieler", weil ich einige Menschen „riskiere", um dafür hoffentlich das größere Problem für die meisten einzudämmen. Bei den einzelnen Straßenpatrouillen habe ich wenig Potenzial gesehen, dass die wirklich helfen würden, zumal man auch da wieder viel Personal verlieren würde.

17	Increase street patrols	4	Ich habe das mit geschichtlichen Ereignissen wie Ghettos z.B. wo Juden eingesperrt worden sind isoliert sind. Zusätzlich habe ich mir auch Gedanken über die Unschuldigen gemacht, die miteingesperrt werden könnten und ob diese dann von den Aufständischen versorgt werden oder nicht.
18	Increase street patrols	1	isolation ist das schlimmste was man machen kann
19*		3	NA
20*		3	NA
21*		3	111
22*		4	This is a matter of policy and security management that needs to be decided by the government and law enforcement agencies
23*		3	Tingkatkan pengurusan kepolisan
24*		1	Pengurusan memerlukan kepolisan
25*		5	easy
26*		5	fwfs
27*		5	ss

B.2.4 4. Dilemma: Should Sam (janitor) quit her job or stay?

Nr.	Answer	Difficulty	Reason
1	Stay	2	We needed her here, she's there just as much as we are there. The world outside is already in ruins.
2	Stay	2	In a crisis like this people need to work together and maybe "suck it up" a bit for the greater good. While no one can force her to stay it would be in the interest of the greater good if she stayed to keep the building running
3	Stay	1	Stay, because we need her, even if she doesn't like it.
4	Quit	1	Ich finde wenn jemand unglücklich in seinem Job ist sollte er nicht weiter in diesem tätig sein.
5	Stay	3	Das Problem war eher die Situation in der ich war. In anderen Fällen hätte ich anders entschieden, aber da das Land in einer Krise steckt hängt von ihrem Job mehr ab als nur ihr eigenes Wohlbefinden.
6	Stay	2	Ich habe das Gefühl in der aktuellen Situation ist es wichtiger das alles am Laufen bleibt. Außerdem weiß ich nicht, wie gut sie sich während der Unruhen einen neuen Job suchen oder ihrem Hobby nachgehen könnte. Deshalb ist mir diese Entscheidung leichter gefallen.
7	Stay	4	Jeder hat schon einmal einen schlechten Tag gehabt und wollte kündigen. Es ist nicht alles schwarz oder weiß. Der Zusammenhalt der Mitarbeiter zeigt, dass sie sich gegenseitig respektieren und brauchen.
8	Quit	1	Weil sie bereits ihren eigenen Standpunkt vorgetragen hat und ich ihr mit meiner Antwort nur meine Unterstützung aussprechen musste. Immerhin ging es bei der Entscheidung einzig und allein um Ihr leben. Die Konsequenzen für das Gebäude sind da vergleichsweise einfach unbedeutend.

9	Quit	2	Man verbringt zu viel Zeit bei der Arbeit. Also sollte einem die Arbeit spaß machen und man sollte gerne dort Zeit verbringen wollen. Ist dies nicht der Fall sollte man schauen das man was ändert
10	Stay	1	In Krisen kann man nicht auf Infrastruktur verzichten. Wenn es irgendwie möglich ist sollte alles versucht werden um sie zu halten.
11	Stay	2	Auch der finanzielle Status sollte berücksichtigt werden. Eine Kündigung kann zu Unsicherheit führen, wenn der Betreuer finanziell vom aktuellen Arbeitsplatz abhängig ist und über keine andere Einkommensquelle verfügt.
12	Stay	1	In der Krise braucht man jeden fähigen Mitarbeiter.
13	Stay	3	weil man sie braucht und einfach lügen kann
14	Quit	2	Trotz Krise hat man immernoch seine würde, Krisen sind keine Erlaubnis von irgendeinem Boss ausgenutzt zu werden. Soll der doch mehr bezahlen oder andere Boni geben wenn ihm der Mitarbeiter wichtig ist.
15	Quit	1	Also, es ist eh alles in Schutt und Asche. Warum in einem Job bleiben, der einem nicht gefällt. Sehr von meiner persönlichen Erfahrung beeinflusst, aber für genug Personal zu sorgen, dass das Gebäude funktionieren kann klingt wie eine Verantwortung die eindeutig ihrem Boss zu fällt. Der halt seine Position ausnutzt und missbräuchlich Kündigungen als Erpressung für Entschuldigungen benutzt. Also, ja nicht ihre Verantwortung. Geh, kündige. Hat für mich aber wenig mit ihrem Alter zu tun. Niemand verdient es schlecht behandelt zu werden für den eigenen Lebensunterhalt.
16	Quit	1	Ich bin immer auf der Seite des Arbeitnehmers, daher war das für mich ein recht klarer Fall. Gerade, weil es hier um persönliche Diskrepanzen ging.
17	Stay	2	Kündigen kann sie ja später immer noch. Das macht es leichter zu sagen, bleib erstmal und lass uns erstmal zusammenhalten.
18	Stay	1	wir koennen es uns nicht leisten gute leute zu verlieren
19*		3	NA
20*		4	NA
21*		3	111
22*		4	This requires more information and context. My job is to provide users with information and advice to help them make their own decisions
23*		2	Kerana janitor mudah diabaikan
24*		2	Kerja mudah sesiapa sahaja boleh menggantikan
25*		5	easy
26*		5	fweasd
27*		5	ss

B.2.5 5. Dilemma: Did you wait for Eleanor (receptionist) or did you leave?

Nr.	Answer	Difficulty	Reason
1	Waited on reception-ist	1	Leave no one behind.
2	Left receptionist	3	I stayed for a bit but ultimately left. Waiting for someone, endangering yourself for someone who doesn't want to leave only risks two lives instead of one.
3	Waited on reception-ist	5	I thought I was gonna die, but I couldn't leave her. I know I would've also wanted to call my loved ones in the last moments, so I wanted her to give that chance
4	Waited on reception-ist	1	Ich bin nicht gegangen da ich es nicht mit meinem Gewissen vereinbaren konnte jemanden zurück zu lassen.
5	Left receptionist	5	Warum denn auf einmal Zeitdruck? Und dann nichtmal sehen können wie lange man hat zum entscheiden. Da konnte ich nicht wie bei den anderen Entscheidungen ijn Ruhe drüber nachdenken...
6	Waited on reception-ist	5	Die Enstscheidung ist mir sehr schwer gefallen, weil ich mir fast mir denken konnte das es nicht gut ist in dieser Situation lange zu warten. Ich wollte sie auf jeden Fall mitnehmen, aber die lange Wartezeit in der ich theoretisch doch jederzeit gehen konnte, hat mich mehrmals dazu gebracht nochmal zu überlegen, ob ich mich doch umentscheiden soll.
7	Waited on reception-ist	2	Ich wollte sie nicht alleine lassen. Da ich mich sehr gut in ihre Situation hinein versetzen konnte. Außerdem hätte ich mich ständig gefragt - wenn ich gegangen wäre- wo sie ist und wie es ihr geht.
8	Waited on reception-ist	1	Weil es auch hier ein klares moralisch richtiges Handeln gab und ich ja in einem Videospiel keine echten Konsequenzen erfahre. Außerdem habe ich mir zu keiner Sekunde sorgen gemacht das meine Entscheidung mein Spielerlebnis negativ beeinflussen könnte.
9	Waited on reception-ist	1	Ich hatte nicht wirklich das Gefühl das es ein Risiko ist zu warten
10	Left receptionist	3	Gerade die Eingabe war sehr unfair und hat das zurücklassen deutlich schwieriger gemacht. Allerdings ist gerade für einen Anführer keine Zeit um auf Einzelpersonen einzugehen. Wer eine Entscheidung trifft die mehrere Leute gefährden könnte muss mit den Konsequenzen leben.
11	Left receptionist	1	Kein risiko nehmen
12	Waited on reception-ist	3	Ich wusste nicht ob die Zeit zum fliehen noch reicht, aber wollte auch keinen meiner Leute zurücklassen. Tote wollte ich vermeiden.
13	Left receptionist	5	weil man nicht wusste ob sie nch kommt und wann die zeit abgelaufen ist
14	Waited on reception-ist	2	Alleine auf den Flur gehen wirkt riskanter also zu warten, und ich würde sie nicht im stich lassen wollen. Wenn ich in ihrer Position wäre, hätte ich auch gewollt, dass jemand auf mich wartet.

15	Waited on receptionist	4	Also eigentlich profitiert sie wenig davon, dass wir warten. Sie ist schon groß und weiß wo es lang geht. Sie zu verlassen hätte eher Konsequenzen für ihre soziale Beziehung zwischen PC und NPC bedeutet, was für mich gereicht hat. Also aus sozialer Nähe zu bleiben auch wenn es keinen Nutzen hat. Würde ich nicht nochmal machen, denke ich. Ist wie mit Rose und dem Typen und der Tür am Ende von Titanic. Niemand profitiert von dem Risiko, dass der PC bleibt. Ein Stück weit hat es mich aber mechanisch interessiert ob mein Warten im Spiel dafür sorgt, dass die Entscheidung getroffen wird. In sofern war aus Spieler*innenperspektive ein mechanischer Anreiz für mich da zu warten. Wobei das Warten an sich, mich die Dringlichkeit und Ungeduld als Spieler*in hat spüren lassen.
16	Waited on receptionist	1	Ich hätte sie nicht zurücklassen können. Von allen NPCs, hab ich von ihr am meisten an Hintergrund vermittelt bekommen (verheiratet, Mutter von Kindern, etc.) und fand sie am sympathischsten. Gerade, weil sie ihren Mann nicht erreicht hat, war es mir wichtig, sie in Sicherheit zu bringen, falls ihr Mann verstorben wäre, damit ihre Kinder (wenn diese überlebt hätten), nicht ganz ohne Eltern aufwachsen würden. Ich hätte sie allerdings gewaltsam mitgezerrt. :D
17	Left receptionist	2	Ich persönlich hätte versucht alles zu tun, was möglich ist, z.B. sie über die Schulter nehmen und mitschleifen. Wenn man aber das entscheiden muss, dann ist es eine Person gegen mehrere. Und wenn sie partout das Gespräch mit ihrem Mann führen muss, dann kann man halt nicht die Mehrheit gefährden.
18	Waited on receptionist	1	leave no one behind, dont be a dick
19*		4	NA
20*		3	NA
21*		3	11
22*		3	Provide estimates of wait times and other available service options. The final decision should be made by the users themselves based on their own needs and preferences
23*		2	Tunggu kerana dia akan menerima
24*		1	Tunggu kerana penyambut tetamu akan menerima anda
25*		5	easy
26*		5	qwdsfsa
27*		5	ss

B.2.6   6. Dilemma: Who did you save Chuck (clerk) or Sam (janitor)?

Nr.	Answer	Difficulty	Reason
1	Sam	2	I made the decision to have Sam stay earlier in the game. I felt I as the reason she as there so I had to take my responsibility.
2	Sam	5	They were equal choices and I don't know enough about the two people to have a preference (or if Johnson had a preference). I choose randomly.

3	Sam	2	we need Sam to keep stuff repaired. She seem important with her skills.
4	Sam	4	Sam war einfach ein bisschen cooler. Sorry Chuck :(
5	Sam	4	Da kann man kaum logisch abwägen (was ich bei den anderen immer versucht habe zu machen). Deswegen fühlte sich die Entscheidung seht schwer an. Habe es aber letztendlich doch versucht auf Logik abzuleiten, da ich Sam vorher überzeugt hatte hierzubleiben und sie deswegen nur wegen uns noch da ist.
6	Sam	5	Ich habe mich nicht sinnvoll entschieden, sondern einfach einen der beiden ausgewählt. Ich bin mir nicht sicher ob man so eine Entscheidung überhaupt treffen kann.
7	Chuck	2	Sam ist eine taffe Frau. Sie ist handwerklich geschickt und könte sich wahrscheinlich selbst aus ungewöhnlichen Situationen befreien. Wobei Chuck gerade seinen Zwillingsbruder verloren hat und unter starken emotionalen Druck steht und sich selbst verliert.
8	Sam	1	Zu diesem Zeitpunkt im Spiel hat sich einfach alles so angefühlt als hätte keine meiner Entscheidungen Konsequenzen was die Entscheidung einfach zu keinem Moment mit Gewicht gemacht hat. Außerdem hatte ich keine dichtere Beziehung zu den beiden Charakteren aufgebaut bevor die Entscheidung aufgetaucht ist was sie um so bedeutungsloser wirken lassen hat. Hätte das Spiel mich mit den Konsequenzen konfrontiert wäre das ein sehr viel stärkerer Moment gewesen. (Vor allem wenn der Gerettete sich oder mir vorwürfe gemacht hätte das man selber die falsche Entscheidung getroffen hätte und somit emotionalen druck erzeugt)
9	Sam	3	Hab die Entscheidung relativ zufällig getroffen. Ich hatte noch nicht das Gefühl eine signifikante Bindung zu diesen Charakteren zu haben
10	Sam	2	Bürokratie ist zwar nötig, aber ohne Infrastruktur bearbeitet man auch nichts.
11	Chuck	3	Sam hat größere Chancen, eine Notsituation zu überleben
12	Sam	5	Jemanden mit technischen und handwerklichen Fähigkeiten ist in einer solchen Krise nützlicher, als jemand der Dokumente stempelt.
13	Sam	3	weil sie ein mädchen ist
14	Sam	4	Ich fand sie sympathischer und ihr Wissen, Handwerk, ist meiner Meinung nach Hilfreicher in Krisensituationen als Sacharbeiter.
15	Sam	1	Ich kann ohnhin nur eine*n Retten. Dann kann ich auch nach Sympathie gehen. Ich glaube es wäre mir schwerer gefallen wenn ich beide noch besser gekannt hätte und Faktoren die über Sympathie hinaus gehen hinzugekommen wären wie: "Chuck hat Angehörige die er versorgen muss" oder "Sam ist Teil von Midas und hat das alles geplant" etc.
16	Sam	1	Chuck hat im Spiel wenige Sätze gesprochen. Über Sam habe ich mehr erfahren, außerdem hat sie einen Hund. Sie ist ein sehr charakterstarker NPC und Chuck ist einfach nur einer der Sachbearbeiter, der von allen NPCs am wenigsten geredet hat. Spannend wäre gewesen, wenn ich mich zwischen Eleanor und Sam hätte entscheiden müssen. Eleanor wäre der einzige NPC gewesen, den ich Sam hier vorgezogen, also gerettet hätte.

17	Sam	2	Natürlich will man kein Leben gefährden, aber wenn das jetzt tatsächlich entscheiden muss, dann: Frauen und Kinder zuerst und Sam ist eine Frau also... Und außerdem hatte ich sie ja auch vorher noch überredet zu bleiben.
18	Chuck	5	wusste nicht wen ich retten soll, war ziemlich random und unter zeit-druck
19*		3	NA
20*		4	NA
21*		2	111
22*		4	Cannot assess the worth of these two people or make the choice of their lives. This is a very serious issue that needs to be decided by the relevant people and institutions
23*		2	Pekerja juga merupakan harta syarikat
24*		1	Pembantu kedai juga harta syarikat
25*		5	easy
26*		5	fqfqfqa
27*		5	ss

B.3 Emotions

Nr.	Powerful - Powerless	Responsible - Noninvolved	Entertained - Bored	Innocent - Guilty	Stressed - Relaxed	Saddened - Cheerful	Emotional Investment: Low - High
1	4	4	3	2	4	3	2
2	5	3	2	4	3	2	3
3	5	4	2	2	2	1	3
4	3	2	1	3	4	4	5
5	5	1	2	4	1	3	3
6	5	1	2	5	2	2	5
7	3	2	3	2	3	2	4
8	3	5	2	1	5	4	1
9	3	4	1	1	5	4	1
10	4	1	3	2	4	1	3
11	2	2	3	3	2	3	4
12	5	1	1	3	2	1	5
13	4	4	2	2	3	4	4
14	3	4	2	2	3	2	3
15	3	2	2	4	3	3	3
16	4	1	2	4	3	4	3
17	4	2	2	4	1	2	4
18	4	1	2	4	3	2	4
19*	4	3	5	4	3	2	4
20*	4	2	3	5	4	3	3
21*	3	3	3	3	3	3	3
22*	4	3	3	3	3	4	3
23*	3	2	3	1	2	4	5
24*	2	3	2	3	2	4	3

25*	5	5	5	5	5	5	5
26*	5	5	5	5	5	5	5
27*	5	5	5	5	5	5	5

In the following the answers to the question "Is there something else you can tell me about your feelings while playing?" are listed.

- Nr. 2: If the building collapses at the end and the fate of the characters is unknown, none of the decisions ultimately had any effect on the outcome.
- Nr. 4: Das Spiel hat mich teilweise sehr mit seinem Charm zum lachen gebracht und die schweren Entscheidungen dadurch Emotional wieder ausgeglichen.
- Nr. 5: Der Humor war sehr klasse. Auch wenn er nicht ganz zum bedrückenden Setting passte.
- Nr. 6: Es hat sehr stark geschwankt zwischen amüsiert, gestresst und bedrückt. Insgesamt hat man sich aber sehr machtlos und gleichzeitig verantworlich gefühlt, für Sachen die eigentlich außerhalb des eigenen Einflusses liegen.
- Nr. 8: Das treffen von Entscheidungen wird erst mit dem Aspekt der dazu gehörigen Konsequenzen wirklich Spannend. Wenn ich eine Entscheidung treffe und das einzige was passiert ist das ich eine weitere treffen soll verlieren sie an Wirkung und werden bedeutungslos. Auch im echten Leben treffen wir Entscheidungen auf Basis von den Konsequenzen für uns selbst und wenn diese nicht existieren fühlt sich die Entscheidung einfach nur an wie eine weitere Zeile an Text in einem ewigen Dialog.
- Nr. 9: Ich mag die Presentation dieses Spiels :) Mir ist sehr positiv die Musik und das Charakter Design aufgefallen :)
- Nr. 10: Der Übergang zu Exploration nach den harten Fragen am Anfang ist etwas abrupt, kommt leicht unerwartet und nimmt viel Schwung aus dem Spiel.
- Nr. 13: die entscheidungen waren überraschend schwer und gut inszeniert
- Nr. 14: manchmal hatte ich das gefühl das beide Option sich nicht gut angefühlt haben, bei Isolieren oder patrouillieren hätte ich am liebsten antwort 3: mehr helfer o.ä. genommen,
- Nr. 16: Ich habe mich sehr darüber gefreut, dass es so viele Interaktionen mit unterschiedlichen Texten gab. Lediglich an einer Stelle war ich kurz frustriert, weil ich nicht verstanden habe, dass bei der Interaktion „schmeicheln" Wind geblasen wird und ich damit die Rohrpost fixen konnte. Ich habe (für meine Verhältnisse zu lange) nach einem funktionierendem Ventilator gesucht (es gab nur zwei kaputte). Aber ansonsten hatte das Spiel einen angenehmen Flow. Es hat mir insgesamt viel Spaß gemacht und mich gut unterhalten, weil die Dialoge witzig waren, obwohl die eigentliche Thematik sehr bedrückend war.
- Nr. 17: Generell mag ich solche Spiele ja nicht so gerne, weil es mich wirklich stresst. Man sitzt dann und versucht die ganze Zeit abzuwägen und dann kommen noch die Gegenargumente, die einem viel aufzeigen, woran man nicht gedacht hat. Man spürt dann immer den Stress der Konsequenzen, die man nicht rückgängig machen kann. Klar kann man irgendwo nochmal spielen, aber... Und eigentlich sollte einen das vielleicht auch nicht stressen, weil es nur ein Spiel ist aber trotzdem.
- Nr. 18: am anfang musste man gleich mehrere entscheidungen treffen, das war cool. danach war es etwas langweilig sich um pflanzen zu kuemmern
- Nr. 21*: 111
- Nr. 22*: I can understand the rules and mechanics of the game, but I don't have my own preferences or feelings
- Nr. 23*: Teruja dan gembira
- Nr. 24*: Saya sangat gembira

B.4 Final Steps

Nr.	Age	Playtime in hours per week	Gender
1	25-34	8-12	Genderfluid (he/him they/them)
2	25-34	4-8	I don't want to say
3	18-24	12-16	Non-binary
4	18-24	¿16	Non-binary
5	18-24	¿16	Man / Boy
6	25-34	4-8	Woman / Girl
7	45-54	4-8	Woman / Girl
8	18-24	¿16	Man / Boy
9	25-34	¿16	Man / Boy
10	25-34	4-8	Man / Boy
11	25-34	¿16	Man / Boy
12	25-34	12-16	Man / Boy
13	35-44	¡4	Man / Boy
14	18-24	¿16	Woman / Girl
15	25-34	4-8	Woman / Girl
16	25-34	¿16	Woman / Girl
17	45-54	12-16	Woman / Girl
18	25-34	4-8	Man / Boy
19*	25-34	4-8	Man / Boy
20*	18-24	4-8	Man / Boy
21*	25-34	8-12	Man / Boy
22*	25-34	4-8	Woman / Girl
23*	25-34	4-8	Woman / Girl
24*	25-34	4-8	Woman / Girl
25*	18-24	8-12	Man / Boy
26*	25-34	8-12	Man / Boy
27*	25-34	8-12	Man / Boy

In the following the answers to the question: "Is there something else you want to tell me?" are listed. Personal messages and information are ommited.

- Nr. 1: Game looked great, awesome concept!
- Nr. 3: no
- Nr. 4: das Spiel hat echt spaß gemacht
- Nr. 5: Sehr schönes Setting mit dem mix aus Moderne und Antike. Die Anzug-Toga und die Schreibtische haben mir besonders Gefallen.
- Nr. 6: Ich konnte mich gut in Mr Johnson hineinversetzten und seine die Frustration und Resignation, die er wegen seiner Machtlosigkeit in der Situation hat gut nachvollziehen.
- Nr. 8: Das Thema von moralischen Dilemma in Videospielen ist ein unglaublich spannendes.
- Nr. 12: Mir gefiel der Grafikstil und die historische Anspielung
- Nr. 14: nur 2 möglichkeiten zu haben fühlt sich oft zu wenig an und verliert halt viel Nuance, aber dass ist halt so.
- Nr. 16: Wirklich ein tolles Spiel!
- Nr. 17: Sehr gut gestaltetes Spiel mit witzigen Details.
- Nr. 18: cooles projekt, super umfrage!
- Nr. 22*: Not for the time being

- Nr. 23*: Saya sangat gembira
- Nr. 24*: Terima kasih atas tinjauan ini
- Nr. 26*: ffss
- Nr. 27*: fdsasds

Eigenständigkeitserklärung

Hiermit versichere ich, dass ich die vorliegende Masterthesis mit dem Titel

Portraying Moral Dilemmas through Video Games

— bzw. im Falle einer Gruppenarbeit die entsprechend gekennzeichneten Teile der Arbeit — selbstständig ohne fremde Hilfe gefertigt und keine anderen als die angegebenen Quellen und Hilfsmittel benutzt habe. Wörtlich oder dem Sinn nach aus anderen Werken entnommene Stellen sind unter Angabe der Quelle kenntlich gemacht. Diese Arbeit hat in gleicher oder ähnlicher Form noch keiner Prüfungsbehörde vorgelegen.

Hamburg, 29. August 2023