Is Death Only the Beginning? How People Mourn Artificial Characters in Social Media

Abstract

We analyze the audience response to the death of narrative-driven fictitious characters with pre-determined fates, whether part of a virtual or cinematic story, and specifically from video games and TV series. Our aim is to contribute to the studies of identification and empathy with fictitious characters in media, as well as to close the research gap around these studies by specifically focusing on the death of the characters. We collected 3000 online comments on the deaths of 16 characters from video games and TV series. We coded each comment according to the five stages of grief by Kübler-Ross and Kessler, and performed quantitative (using LIWC2015 psycholinguistic analysis software) and qualitative analysis (using thematic analysis). Overall, we found a strong resemblance between the processes of grief for real and fictitious characters, and uncovered differences of language when discussing the death of a character based on (a) their gender; (b) their role in the story; (c) their interactivity mode; and (d) the form of media. Finally, qualitative analysis revealed unique and novel themes for on-screen deaths, such as (a) the effects of aural cues; (b) nostalgia and beauty; (c) resurrection and transmedia; (d) spoilers; (e) comparisons and real-life connotations; (f) the effects on the franchise; and (g) the effects of the gender of the viewer on these discussions. We discuss our findings in detail, along with implications for future character development.

Keywords: death, fictitious characters, video games, television, five stages of grief

1 Introduction

Along with television (TV) series, digital games are among the fastest growing forms of entertainment. Accordingly, the characters depicted within the stories told in these media operate similar to characters in traditional stories (printed, oral, etc.) in the ways that we are "charmed by [their] personalities, inspired by their acts of courage, moved by their experiences," and how they help us to "broaden [our] perspectives about others [and] become more tolerant and empathetic" (Emery, 1996). In this study, we refer to these characters interchangeably as either virtual, fictitious, or artificial characters; i.e., people or beings that do not exist beyond the realm of media such as a game, movie, or television series. However, we do acknowledge the nuance that these concepts might carry for various fields such as media, game, and literary studies. We define their unifying point as being narrative-driven and having pre-determined fates in their stories, as opposed to having fates that are determined by audience choices, such as can be found in certain types of video games. In this aspect, they reflect an authorial intention (Farrell, 2017) as to when and how they will succeed, fail, or die as a part of the story. The relationships that people forge with fictitious characters could be likened to relationships with real human beings, up to a degree where the events that the character faces evoke deep emotional responses from the individual playing or otherwise empathizing with the character in question (Gillespie, 2006). Previous research (Hills, 2015) characterizes these relations between audiences and fictional characters as 'para-social'—"a type of imagined rather than co-present social relationship" (p. 463). Yet, research around this emotional connection or rapport between fictitious characters and the humans following their fate is

scarce. Specifically, for video games, while it is generally known that gaming behaviors strongly relate to experiences, emotions, and empathy (Happ et al., 2013), the full depth of immersion, empathy, and perspective taken among players or an audience towards fictitious characters still requires further inquiry.

The emotional responses of an audience to playing video games are critical indicators of gamer engagement and human-game interaction (HGI) models (Molinillo et al., 2018). Immersive games and TV series make us care about their characters and what happens to them, up to the point that we feel stress on their behalf (Klimmt et al., 2009). Generally, emotional reactions to games entail three elements (Wright et al., 2009): a physiological component, a subjective feeling, and an expressive behavior. Although each of these areas has been empirically examined, there is a general lack of understanding of the extent that players (and other consumers of digital entertainment) identify and empathize with fictitious characters. Particularly lacking is research concerning a character's end of life–death. *How do people react when artificial characters die? How are these characters mourned? Is the mourning process similar to mourning a person one finds precious in real life?* These are some of the guiding questions for this research. We propose that addressing these questions can also contribute to the discourse of *death positivity* (while some work propose death positivity as a contemporary concept through the work of Caitlin Doughty—see Del Real, 2020—others trace it further back—see Incorvaia, 2022) since although the characters in question are virtual, the lived experiences of consumers while interacting with their death is real. Talking about and contemplating the death of fictional characters can help break the personal, social, and cultural cencorship of death, dying, and mortality, and can map onto real-life experiences.

Character deaths matter because they can break the "fourth wall" (i.e., the separation of audience and fiction; Brown, 2013). For example, when Rooster, a character in the TV series *The Ranch* was killed, this resulted in viewers researching the name of the actor and participating in discussions in order to understand why he was removed from the show and voicing their opinions about it. In this particular case, sexual harassment allegations against the actor resulted in Netflix firing the actor (Napoli, 2018). Some viewers found this death unjust and unfitting to the story, finding the fictitious character more important than events surrounding the actor in the real world. This example shows that people can become psychologically "bothered" by the fates of fictitious characters, up to the point of taking time to find more information about the surrounding circumstances (i.e., "asking why"; Kross et al., 2005) and trying to locate others online so as to process the passing of the character together. Sometimes, this processing involves creating memes and tributes to the character, such as music videos in the remembrance of the character that has passed (see Figure 1 for examples).

(a) **(b)**

Figure 1: Screenshots from two fictitious stories where one of the main characters dies. **(a)** A video created by a YouTube user after the death of Ty (on the left-hand side), mixing a sentimental song with key events of Ty's and Amy's (on the right-hand side) love story.[1] **(b)** A scene from a video created by a fan of Rurouni Kenshin depicting the story of Ken –who eventually dies in the follow-up series (on the left-hand side)– and his wife Kaoru (right-hand side).[2]

On one hand, it might be proposed that players and entertainment consumers feel strong empathy and compassion towards characters, and they therefore recall and contemplate the fates of fictitious characters long after the content consumption experience is over (e.g., once the game has been played through or the TV show has been watched). On the other hand, it might also be proposed that fictitious characters are "expendable" and experiencing the deaths of such characters takes place in a superficial manner and does not have any meaningful or long-lasting impact on the audience. Due to the tension between these two viewpoints, we pose the following research question (RQ):

- **RQ1:** How do people react to the deaths of fictitious characters?

We address RQ1 by investigating how psycholinguistic markers (i.e., social media commentators' use of language: Pennebaker et al., 2015) differ in various stages of the (presupposed) grieving process. For a conceptualization of the grieving process, we apply the theoretical framework of the five stages of grief (Kübler-Ross model), introduced by psychiatrist Elisabeth Kübler-Ross in 1969 (Kübler-Ross, 1973). Therefore, we assume individuals liken the death of characters to the death of real people, with the further assumption that when discussing the death of a character online, people are undergoing a specific stage of the grieving process. We apply this framework due to its global popularity and validity, and despite having drawn some criticism (Friedman & James, 2008), the 'five stages of grief' provides an intuitive method for understanding how individuals cope with loss and has stood the test of time. It should be noted that, the original creators of the 'five stages of grief' also built upon and clarified some portions of their model (Kübler-Ross and Kessler, 2005), specifically outlining that the stages did not necessarily represent a sequential journey and, based on individual differences, could be experienced in any order while some could be skipped and not experienced. We also apply Linguistic Inquiry and Word Count (LIWC) which is a

[1] https://www.youtube.com/watch?v=lBFXR3PO-TY
[2] https://www.youtube.com/watch?v=p0W2Z8UsrwY

lexicon-based software for (psycho)linguistic analysis (Tausczik & Pennebaker, 2010) to operationalize our analysis of language.

In addition to investigating how people mourn fictitious characters, it is worthwhile to attempt to understand what factors drive these reactions, and whether character attributes or other variables explain how people speak about the deaths of the characters. Our motivational question was *"How do character and media attributes drive people's grieving process?"* To this end, we pose our second RQ:

- **RQ2:** Are there significant differences among the LIWC scores of the character death responses related to character attributes of (a) gender, (b) playability, (c) entertainment form, or (d) character's role?

We address these RQs via a mixed-method study. First, we collect a sizeable dataset of social media comments dealing with character deaths, and then we conduct two forms of analysis. The quantitative analysis provides statistical support for how different psycholinguistic and character attributes are related to the process of mourning fictitious characters, while the qualitative analysis aims to provide an understanding of central themes of how people express their dispositions toward character deaths. Although our data cannot establish a timeline or progression of when the user was exposed to the death of the character and, accordingly, what stages of grief they have been to previously or after the comment is written, instead we base our analysis on the qualitative language use and quantitative psycholinguistic marker counts to establish correlations between the character features (such as media form, gender, playability, etc.) and the reactions that their deaths brought forward. To this end, our study sheds light on interesting and impactful themes in players' and consumers' engagement with fictitious characters, specifically how players and other consumers of entertainment express their reactions to character deaths. In so doing, we aim to inform game designers and entertainment creators (such as script writers) about the depth of the psychological connection between people and the characters that appear in the fictitious stories.

2 Literature Review

2.1 Psychological connections, identification, and coping with the death of TV characters

In a web article that catalogues TV character deaths in 2015-2016, James (2016) concludes that most TV deaths are underdeveloped and a good TV death "*has to feel somewhat inevitable in terms of where the character's journey has taken them*." The way that audiences interact with TV characters is through spectatorship, and identification with TV characters is described as "*a mechanism through which audience members experience reception and interpretation of the text from the inside as if the events were happening to them*" (Cohen, 2001).

A study by Bartsch (2012) assessed different kinds of gratification associated with emotions and TV experiences. The qualitative interviews used for the study revealed three main factors of empathic sadness, fun, and thrill. It proposed that emotional media experiences are associated with an individual's cognitive and social needs. Especially, consumers are emotionally engaged with the fictitious characters and share their emotions socially. This study also conducted a validity analysis to develop factors related to emotions.

Chory-Assad and Cicchirillo (2005) found that gender similarity affects identification with a TV character, and the genre of the TV show is also an indicator of stronger or weaker identification based on the audience preferences. The study also proposes that audiences with a high empathic tendency and affective orientation scores are more prone to show stronger identification with these characters. Hoffner (1996) presents further research that finds gender-based differences in TV character identification for children between the ages of 7 and 12. Specifically, the research finds that boys identify with characters with traits such as intelligence and strength, while girls identify with characters with traits such as humor and attractiveness. Feilitzen and Linné (1975) have proposed that when an "*actor is seen as functional to the story, identification occurs more often*", which leads to the conclusion that protagonists or antagonists (and playable characters for videos games) would have higher levels of identification.

McLaughlin et al. (2018) explore the effects of race and stereotypes in identifying with TV characters, and propose that cognitive and emotional identification with a fictional minority character can "*simultaneously increase acceptance of minorities while reinforcing stereotypes about how they look*." In this regard, even if the characters are stereotyped, they still contribute positively to the acceptance of the represented identity. A similar proposal was also made for games in Şengün et. al. (2022) that mentions "[for underrepresented gamers] even stereotypical representation is a welcome contrast to no representation at all," however, this is followed up by the conclusion: "narrow representation is bad representation, from which follows the principle that token representation is bad representation […] when the range of expression […] is constrained for a group of characters, that sends a message and helps construct or perpetuate a stereotype."

Exploring the death of fictitious character Lawrence Kutner in TV series *House, M.D.*, DeGroot and Leith (2018) conclude that the grief displayed by audiences can be branded as parasocial grief, yet, it was disfranchised by others since "the death of a television character is typically not recognized by others as a legitimate loss." The research also highlights social media comments as an outlet for grief. A similar result is reported in Foss (2019) that explores the parasocial grief in social media channels on the death of the character Jack in *This is Us*. This research also highlights social media engagement as a dominant outlet for parasocial grief.

In a study that explores the deaths of "narrative characters," Fitzgerald et. al. (2020) uncover two responses to them: meaningful deaths and pleasurable deaths. While meaningful deaths are reserved for liked and moral characters, pleasurable deaths are valid for disliked and immoral characters. They conclude that "when we recall death, even in the relatively consequence-free spaces of media entertainment, we experience it as a meaningful, reflective experience" (p. 14).

Kretz (2020) investigated the tweets about the death of the character Dr. Derek Shepherd from *Grey's Anatomy* and categorized them into themes such as "emotional expressions of grief, recovery and coping, advocating, not wanting to watch, and memorializing." Although, it is not a one-on-one conversion, these categories can match with some of the five stages of grief, specifically depression, bargaining, denial / shock, anger, and acceptance, respectively.

Finally, Abbott (2016, p. 171) outlines that TV death (specifically TV horror series) has the potential to "*re-infuse grief and bereavement into the experience of death, allowing for a space*

where these emotions can be confronted and experienced." In this light, TV deaths can also provide the audience with a chance to reconcile with experiences of death in real life.

2.2 Psychological connections, identification, and coping with the death of video game characters

While there is a gap of research addressing how players and viewers react to the deaths of fictitious characters, in the sphere of video game studies, a few studies discuss this issue. Eum et al. (2021) conduct in-depth interviews with players of a commercial game, *Spiritfarer*, to explore the ways in which the game can help its players cope with the death of loved ones. In this game, the players take the role of a character who accompany spirits as they pass into afterlife—marking an interesting case where each character that the player interacts has already died and dealing with the outcome of their death. The researchers conclude that the interactivity of the video games medium facilitate an experience where "players can actively cope with personal loss in a way not available in other mediums" (p. 5). Similarly, Boyd (2020) performs a close play on *Spiritfarer*, as well as *That Dragon, Cancer* and *A Mortician's Tale* to explore the ways that video games can provide meaningful reflections on death and mortality.

Nguyen (2022) mobilizes natural language processing (NLP) and natural language understanding (NLU) techniques to capture the aspects of fictional characters that players mourn and feel grief about. This research also highlights the cultural differences that affect how grief is processed.

Schneider (2004) investigated the game playing experience change relating to a shooter game. The study's dependent variables were presence, identification, motivation, and emotional experiences. The study questions whether death experience and death with a story affect the motivational, physiological and emotional responses to first-person shooter games.

Player death and game progress work with the user's attitude. Van den Hoogen et al. (2012) conducted a study about challenge and defeat, and how they impact on players' enjoyment. The experience of dying in a digital game is unwelcome for the player. However, the study extracted different findings indicating that a player's death can sometimes induce a positive effect. The study indicates that when the death of a player occurs, a perception of challenge appears. Indeed, while dying is not fun for the player, if it is enjoyed with a smile, it can develop a sense to confront challenges. Keogh (2013) discussed the 'permanent death' phenomena that alter the experience of a game player. Usually, death is a trivial event in the game, but permanent death is an in-game constraint rule. The study found that the death of a certain game character in a game can lead to voluntary acts by deleting a saved file. It was also observed that permanent death works in a different way, using supporting evidence from *Minecraft*.

Additionally, Harrer (2013; 2018) focuses on death-as-failure paradigm by decoupling death in games as an impediment to game progression from being purposefully designed as a new method to represent human experiences. In another study, Harrer (2015) mentions that this can be achieved by embracing "a paradigmatic shift from game design as the production of meaning and emotion towards game design as facilitation or mediation." Harrer's (2018) book, *Games and Bereavement*, looks at how death is represented and how grief is constructed in various games, one of which is Aeris in *Final Fantasy VII* who is also in the dataset of this work. Harrer

uncovers several factors that affect how death and grief are represented: (1) through whose perspective the grief narrative is told; (2) whether the character was a part of player's control scheme; (3) visual representation on the screen; (4) character design; and, finally, (5) auditory representation of the event.

McDonald and Kim (2001) conducted a study that answered this question in a different form. The study presents a situation that enhances a game player's experiences in the social self by using mediated characters as role models to develop the personality and self-concept of players. The evidence of the study suggests that children are closer to imaginary game-based characters, and that game character identification affects their emotional well-being.

Overall, the typical approach to video game deaths is that the dying process is fictitious, and the death of virtual characters in the game is not similar to mourning the death of real people. Yet, previous research (such as McDonald and Kim, 2001; Hoffner, 1996) does not fully debunk the notion of video game character deaths being experienced in a non-trivial manner, and for example, among many younger players who engage in games, game character identification is stronger and more emotional. Concerning death in video games, most studies focus on the experience of dying in video games, i.e., how the player feels about dying, but there is a lack of research addressing character deaths from the perspective of mourning or grieving. Our study addresses this gap, which is seen as central to understanding the depth of psychological reactions to extreme events taking place in video games and other forms of entertainment, as the death of a character is often a key turn of events in a storyline.

2.3 Additional information on video game engagement

In this section, we provide additional research on engagement, connections, and identification in video games as a form of interactive media as opposed to TV.

Engagement with video games, and specifically with the characters in these games, results in positive and negative behaviors in players. For example, a study by Morrison and Ziemke (2005) examined different brain mechanisms featuring visuo-affective mapping, vasomotor, and visuotactile in game players. Visuo-affective mapping lays the foundation of empathy, and offers subjective information about the emotional state of players. These frameworks are crucial to providing preconditions for identifying game character and empathy. The study involved three main cases when the first person controls the game character, when a third person controls a character, and when no one controls a character viewed from a third-person perspective. The investigation states that human cognition subserves issues of self-preservation, bioregulation, and social relationships.

Cohen (2018) measured game character identification in a study to examine audiences with media characters. The research study discussed previous research about media, and conceptualized a theoretical framework that presented that media character identification leads to identity development, and so works with a socialization process. Shaw (2013) examined game studies to explain gaming fans. The study indicated how video game play develops a sense of character identification among players. It described the scope of the popular solitary game divide to understand video gameplay, and used a qualitative approach to discuss the process of game character identification. Lewis et al. (2008) proposed a framework to measure

the attachment with game characters. The study employed a measuring character attachment test through construct validity, to indicate the associations between video games and addiction, self-esteem, and the time spent playing the games.

Multiple studies have explained video game character engagement and identification through general video game engagement methodologies such as analyzing gaming emotions. For example, research studies indicate that digital game playing behavior strongly manifests through both the characters' and the players' facial expressions. Gabbiadini et al. (2016) investigated the psychophysiology of digital game playing, considering it the fastest form of media entertainment. Their study predicts how emotional responses are a way of communication for media psychologists in the game industry.

De Byl (2015) worked on using emotions in computer game design to investigate how emotions influence gameplay, and identified that emotions are intrinsically associated with players' game-playing experiences and their interactions with gaming characters. These emotions are evoked across different components like the player's avatar, interface, and narrative. Thus, the role of emotions is critical for game designers. De Byl (2015) looked to understand emotions in computer games, and a practical design framework was presented as a guide for future digital game design, with a strong argument that players form a mental relationship with gaming characters through different traits.

Some other studies focus on the features of avatars (such as gender) to explain the connection, identification and self-perception between the players and their characters. Ravaja et al. (2008) studied violent game characters. The study characterized empathy for female violence victims, referred to as 'social glue'. The authors discussed how exposure to sexist video games decreases empathy in society for female victims who face violence. The findings of the study reported that playing sexist and violent video games increases masculine attitudes under game character, which are negative for females. The discussion presented that game-playing behavior varies with gaming characters. Gaming behavior indeed involves a psychological relationship with the game characters, and Christoph et al. (2009) proposed a framework of self-perception where gamers' identification as a game character is attributable to self-perception. In the study, the game players consider the gaming character as a role, in contrast to the user-character relationship. For instance, effective disposition theory states that when game players adopt valued properties of game characters, it brings about a temporal shift in players' self-perception. The study measured true identification under the outcome of media enjoyment, addressing a general notion that the identification between players and characters is a relationship that becomes stronger when players own their character values.

Game character identification under computer game enjoyment is discussed by Klimmt et al. (2010) who observed that when players play digital video games, they in fact alter their self-perception. For example, when a player adopts the role of a strong character, they perceive themselves as heroic, courageous and powerful, i.e., as identified with the persona of a soldier. These are temporary changes in self-concept, and the authors discussed that a computer game interaction links to strong identification.

Character engagement in games has the potential to change the gaming experience for the player. For example, an important aspect of cyberpsychology is online role-playing games.

Smahel et al. (2008) worked on a study that examined playing massively multiplayer online role-playing games (MMORPGs) which showed that young players consider their game characters to be superior and powerful, so they get inspired and wish to be more like them in real life.

Heron and Belford (2014) focused on game character identification under game morality systems. The authors proposed that games have not yet lived up to their ethical and moral reflection potential, and there should be a moral choice system among games because modern titles are insufficient to offer sophistication and meaningfulness. In turn, the effects of empathy and game character are identified by Happ et al. (2013) in the context of violent video games. Their research indicated that video game events alter the perception of players. It works at a level of the game players' identification and interpretation of the actions of the game characters as either moral or immoral. The current research tested empathy manipulation for famous game characters in violent games. For example, playing the comic book hero Superman develops prosocial behavior, while on the contrary, playing the villain Joker develops immoral attributes. The research also indicated an interaction between game characters and empathy, such as Superman leading to the development of less aggressive emotions, while playing Joker increases negative perceptions.

Scart (2021) also explores the ethical boundaries of the relationships between the player characters and the non-playable characters, and concludes that players, apart from being responsible for the creative steering of the game, should also be able to explore consequences and choices. Scart concludes that "the tension here is between the act of playing unethical actions privately and the act of doing so publicly" (p. 35). In relation, Stang's work suggest that some non-playable characters in games can act ac moral compasses to navigate hard decisions (2017) and, in most cases, the players will see their characters as a moral agent rather than an input provider (2019).

A study by Cuerdo and Melcer (2020) offering a taxonomy of death and rebirth in video games discussed the central aspects of video games, which are common and drive players' perceptions. A generalized taxonomy of players' experiences with death and rebirth was presented using 62 games. There were five key dimensions of the taxonomy: death conditions, obstacles, changes to progress of the player, aesthetics, and respawn locations. The study contributed to the meaning of game characters, and compared respawning and death mechanisms in video games in order to understand the design experience.

Finally, there are a few studies that explain how death and dying work in games, related to game characters. For example, Petralito et al. (2017) conducted a study about avatar death and high level challenges that yield positive experiences. The authors surveyed 95 participants about their experiences of the game *Dark Souls III*, using different measures of player experience. Players reported positive experiences and enjoyed challenging sessions and learning moments. The findings of the study suggested that negative events have the potential to develop meaningful experiences for players, and they also expand their knowledge and enable them to confront failure.

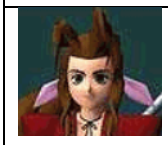
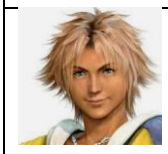
Overall, these studies provide valuable information about the degree of identification between characters and players using different examples and themes. It is clear from the discussion that

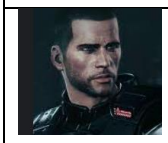
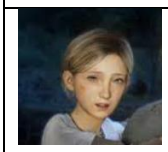
digital video game playing is different for different players, and commonly sets attitude factors that shape the player's personality during the playing experience. Notably, players develop a mental relationship with the game characters that affects their psychological reactions.

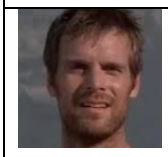
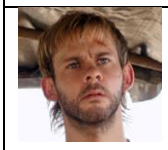
3 Methodology

To address our RQs, we wanted to investigate fictitious characters from two forms of entertainment: TV and video games. We selected these two media forms due to their proximity. They both present character deaths in an audio-visual way (say, as opposed to books). As opposed to cinema, that also presents character deaths in an audio-visual way, video games and TV series have comparable runtimes. The screen time of franchises like *Final Fantasy*, *Mass Effect*, *Red Death Redemption*, and *Halo* could sometimes be likened to the runtime of TV series (however, not in broadcasting frequency which, in the case of TV, is, typically, years). Both media spark lively online fandoms that discuss story events and characters over a longer period. However, we also acknowledge the apparent differences between how audiences interact and consume these media. On one hand, video game runtimes cannot compare with long-running TV series, while, on the other hand, the interactivity and engagement provided by video games might provide a shorter yet as dense experience. A sample of 16 characters was selected equally from games and TV (n=8 each) and they were also equally divided between male and female genders over each media (n=4 each). The characters were identified based on the authors' previous media consumption experience, i.e., we knew these characters because we had played the games or watched the TV series/movies in which the characters appeared. Thus, through internal discussions among the researchers, we selected a sample of characters we knew had died in their respective stories. After the selection, we ran a series of Google searches with "[Character name] [Media name] death" to find the top results and collect comments from multiple sources, including Kotaku, Quora, YouTube, and others (see Table 1).

Table 1: Characters and comment counts in the sample set.

Character	Franchise	Media	Gender	Playable	Protagonist	Year	Count	Source
 Aeris	*Final Fantasy 7*	Game	Female	Yes	No	1997	145	Kotaku
							4	Quora
							435	YouTube
 Tidus	*Final Fantasy X*	Game	Male	Yes	Yes	2001	193	YouTube
							4	Reddit
							6	Eyesonff
 Lee	*The Walking Dead*	Game	Male	No	Yes	2012	155	YouTube

Character	Franchise	Media	Gender	Playable	Protagonist	Year	Count	Source
 John	*Red Dead Redemption*	Game	Male	Yes	Yes	2010	209	YouTube
 Shepard	*Mass Effect 3*	Game	Male	Yes	Yes	2012	77	YouTube
							7	Kotaku
							5	EA
 Sarah	*The Last of Us*	Game	Female	No	No	2013	205	YouTube
 Cortana	*Halo*	Game	Female	No	No	2012	208	YouTube
 Maria	*Gears of War*	Game	Female	No	No	2008	83	YouTube
 Marissa	*The O.C.*	TV	Female	N/A	No	2006	214	YouTube
 Keshin	*Rurouni Kenshin*	TV	Male	N/A	Yes	2001	200	YouTube
 Daenerys	*Game of Thrones*	TV	Female	N/A	Yes (ensemble of main characters)	2019	174	YouTube
 Tara	*Buffy The Vampire Slayer*	TV	Female	N/A	No	2002	94	YouTube
							12	TheMarySue

Character	Franchise	Media	Gender	Playable	Protagonist	Year	Count	Source
 Rita	*Dexter*	TV	Female	N/A	No	2009	104	YouTube
 Nate	*Six Feet Under*	TV	Male	N/A	Yes	2005	150	YouTube
 Mark	*The E.R.*	TV	Male	N/A	Yes (ensemble of main characters)	2002	136	YouTube
 Charlie	*Lost*	TV	Male	N/A	Yes (ensemble of main characters)	2007	179	YouTube
* Cortana is an AI in the shape of a woman.								

To maintain relevancy to our work, we only recorded comments that referred to the death of the character. We set a target of collecting a total of 3,000 comments, as according to our previous experience of analyzing social media comments, this number would be adequate for a robust statistical analysis and finding rich qualitative insights and themes.

Figure 2 shows the distributions of the collected social media comments. The comments were saved in a spreadsheet, along with information about what character they dealt with, the source, URL, and the used search phrase. To create a dataset, we categorized each comment into one of the five stages of loss by Kübler-Ross and Kessler (2005). This was done by one researcher reading the set of comments in its entirety twice: first, to familiarize themselves with the general use of expressions that could point to one of the five stages, and, second, to go over them one by one again and decide their category based on their context. If there were statements in the comment that point to more than one stage, the dominant sentiment was selected. Excerpts provided in this work are typically parts of longer comments. The results of this coding are discussed in the next section.

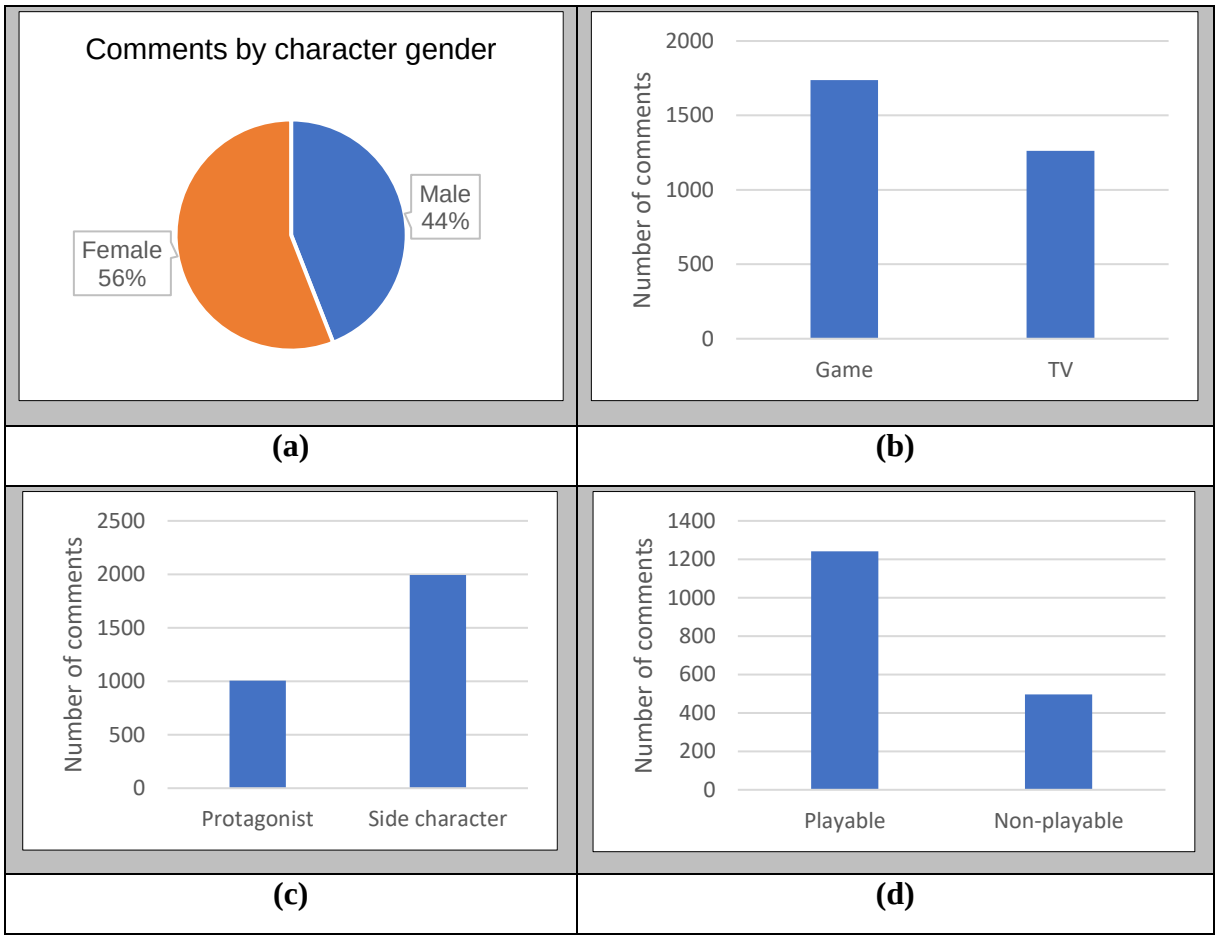


Figure 2: Dataset properties, i.e., frequencies of comments dealing with the deaths of characters by **(a)** character gender, **(b)** entertainment type, **(c)** whether the character was a main character in the story (protagonist) or not, and **(d)** whether the character was playable or not. The full dataset is available from the authors upon request.

4 Quantitative Analysis

4.1 Data coding and exploratory analysis

Our general observation at the stage of coding was that the vast majority of the commentators appeared to have taken the deaths seriously and in earnest. Overall, the comments ranged from raw reactions expressing sadness and dissatisfaction, to philosophical reasoning where the character was seen to complete their arch, finding peace in the end (see Table 2; all usernames from the example quotes have been omitted). Therefore, the exploration of the comments reconfirmed our beliefs that character deaths are not being treated lightly, at least by those discussing them on social media.

Table 2: Five stages of loss categorization of the qualitative data.

	Stage	**Definition**[1]	**Examples**	**Freq.**
1	Denial / Shock	The primary shock over the death, followed by refusal to accept it.	"[T]idus was never a real person he was a dream" (on Tidus' death in *Final Fantasy X*)	351

	Stage	Definition[1]	Examples	Freq.
			"Dont cry guys. He will just respawn from the last save. Won't he ??" (on Lee's death in *The Walking Dead* game) "[...] if you don't like the ending, just download the mod that allows Shepard to survive [...]" (on Shepard's death in *Mass Effect 3* game)	
2	Anger	Angry and hostile expressions concerning the death of the character.	"That scene never made me cry. Instead, I was pissed." (on Aeris' death in *Final Fantasy 7* game) "And of course the rage that ensued after the moment where Shepard died. Seriously, this ending was ridiculous. It still is just stupid even after the extended cut DLC." (on Shepard's death in *Mass Effect 3* game) "Hate to break it but he's the main fucking character he has to survive otherwise the gameplay would be for nothing." (on Shepard's death in *Mass Effect 3* game)	333
3	Bargaining	Trying to make sense of the death and reduce its psychological impact on the person grieving.	"Someone explain to me [...w]hy did [T]idus have to die. What is going on! He is alive in kingdom hearts so what gives!!!" (on Tidus' death in *Final Fantasy X* game) "He wanted to die..." (on John's death in *Red Dead Redemption* game) "I'm just saying it would be cool though if she survived the locust torture and she became a gear soldier like [A]nya and [S]am." (on Maria's death in *Gears of War* game)	777
4	Depression	Feelings of hopefulness, sorrow, meaninglessness.	"I couldn't play the game for a couple years after that..." (on Aeris' death in *Final Fantasy 7* game) "I hate how no matter how many time[s] I've seen him die, I cry every. Single. Time." (on Lee's death in *Walking Dead* game) "I'm a 20 year old man and no game, movie, or TV show has ever made me cry before this." (on Tidus' death in *Final Fantasy X* game)	1194
5	Acceptance	Seeing some positive "light at the end of the tunnel."	"[...]so Tomoe finally forgive Kenshin and now he can finally rest in peace" (on Keshin's death in *Ruroni Kenshin* anime series) "Dany had the best ending. She was too strong for everyone to be the queen. So she had to die. She won the Game." (on Daenerys' death in *Game of Thrones* TV show) "Despite how sad and depressing this scene is, man I can't wait to see it in the remake" (on Aeris' death in *Final Fantasy 7* game)	345
[1]Reference: https://www.psycom.net/depression.central.grief.html				N=3000

Table 3: Five stages of loss categorization statistics per character.

Character	Denial	Anger	Bargaining	Depression	Acceptance
Aeris	21.03%	17.44%	12.31%	**43.08%**	6.15%
Tidus	14.29%	3.17%	23.81%	**55.56%**	3.17%
Lee	3.53%	1.18%	4.71%	**88.24%**	2.35%
John	4.35%	4.35%	30.43%	**56.52%**	4.35%
Shepard	12.07%	17.24%	**34.48%**	32.76%	3.45%
Sarah	7.69%	19.23%	15.38%	**53.85%**	3.85%
Cortana	5.88%	11.76%	17.65%	**58.82%**	5.88%
Maria	5.26%	15.79%	29.82%	**43.86%**	5.26%
Marissa	4.00%	0	4.00%	**68.00%**	20.00%
Keshin	20.00%	15.00%	10.00%	**50.00%**	5.00%
Daenerys	9.09%	**36.36%**	31.82%	9.09%	13.64%
Tara	7.89%	**28.95%**	15.79%	**28.95%**	18.42%
Rita	**43.48%**	13.04%	4.35%	30.43%	8.70%
Nate	11.76%	5.88%	17.65%	**52.94%**	11.76%
Mark	0	0	4.76%	**80.95%**	14.29%
Charlie	5.88%	11.76%	23.53%	**58.82%**	0

The relative frequencies of five stages of loss categorization (see Table 3) have a few interesting implications, which we discuss below.

We calculated Kendall's Tau value for correlations between the character's gender, media form, and the percentages of the category distribution. The acceptance category had correlations with media form ($\tau = .64$; $p = .004$) with TV deaths creating more feelings of acceptance than video game deaths. This correlation makes sense as TV storytelling can provide more closure than video game narratives, since video game narratives are typically defined by "*temporary plot resolutions and resistance to closure*" (Ranker, 2006, p. 27). The character's gender was correlated with the anger category ($\tau = .60$; $p = .007$), leading us to believe that the death of female characters sparked significantly more anger than the death of male characters (with the surprising outlier of Marissa from *The O.C.*).

An interesting insight is that depression was a common dominant category for all the characters, except for Daenerys from *Game of Thrones* which was the most recent death that had happened on TV at the time the data was collected. Her discussions were mostly focused on anger and bargaining categories. This led us to speculate that time can have an effect on reactions, transitioning from anger and bargaining to depression and acceptance. However, Tufekci (2019) also provides an alternative explanation why the audience reaction to the events of the final season of the series were merged with anger—specifically, that the storytelling style of the show switched from sociological to psychological.

We also investigated whether being a playable (and protagonist) character for video games had any effect on the reactions. In our video game sample, half of the characters (n = 4) were playable: Tidus, Lee, John, and Shepard (not surprisingly, also all male—for more information on gender imbalance in video game protagonist representation see Williams et al., 2009). There was a negative correlation with the game character being the playable protagonist and the acceptance of their death (τ = .66; p = .06), which was a relatively unsurprising result since players would find it harder to accept the death of the characters they control throughout the game as opposed to side characters in the story.

We now turn to our research questions.

4.2 RQ1: How do psycholinguistic markers differ by the five stages of grief?

Given that out exploratory analysis indicated that people mourn fictitious characters, we employed an ANOVA test to compare the aggregated psycholinguistic markers (i.e., the LIWC scores obtained using the LIWC2015 software package) across the five different stages of grief.

In our analysis, we focus on the main categories available in the LIWC software (the explanations of these categories are provided in Appendix 1, Table 10). Their abbreviations in the tables are as follows: Word Count (WC), Analytical Thinking (Analytic), Clout, Authenticity (Authentic), Emotional Tone (Tone), Words Per Sentence (WPS), Words Longer Than Six Letters (Sixltr), Dictionary Words (Dic), Total Function Words (function), Other Grammar Words (othergram), Social Processes Words (social), Cognitive Processes Words (cogproc), Perceptual Processes Words (percept), Biological Processes Words (bio), Drives Words (drives), Time Orientation Words (timefocus), Relativity Words (relativ), Personal Concern Words (personal), Informal Language (informal), and All Punctuation (AllPunc).

The ANOVA analysis indicates significant differences for all markers between at least two stages, as shown in Table 4. Note that due to the great number of variables, as well as the existence of five groups, post-hoc tests were not conducted due to the layers of overwhelming analytical complexity they would add. Instead, the remainder of this analysis will follow a more descriptive approach, guided by visual aids.

Table 4: Psycholinguistic markers by stage of grief.

	Denial		**Anger**		**Bargaining**		**Depression**		**Acceptance**			
	M	**SD**	**M**	**SD**	**M**	**SD**	**M**	**SD**	**M**	**SD**	**F**	**P**
WC	33.32	57.12	26.91	36.65	38.73	52.10	27.13	36.59	20.42	29.69	24.276	0.000
Analytic	46.62	33.48	44.62	35.64	42.15	33.41	37.67	33.75	39.66	35.28	4.592	0.001
Clout	50.62	33.76	41.61	33.23	55.43	31.18	36.34	32.70	33.84	30.73	63.551	0.000
Authentic	39.49	37.17	31.71	35.84	29.09	34.21	38.92	40.48	58.79	39.44	88.219	0.000
Tone	48.63	38.90	23.68	33.62	31.36	33.58	32.96	34.32	19.34	29.68	60.197	0.000
WPS	12.32	9.94	11.41	9.78	15.91	12.61	10.34	8.71	11.37	11.19	25.800	0.000
Sixltr	13.38	12.08	13.77	11.19	13.02	8.63	13.41	16.86	9.86	11.11	16.366	0.000
Dic	79.90	18.94	83.65	13.32	83.58	11.48	81.51	22.35	85.25	15.85	9.360	0.000
function	46.72	15.78	47.22	16.03	52.92	11.48	48.56	19.31	47.69	16.22	17.669	0.000

	Denial		Anger		Bargaining		Depression		Acceptance			
	M	**SD**	**M**	**SD**	**M**	**SD**	**M**	**SD**	**M**	**SD**	**F**	**P**
othergram	28.75	15.85	32.23	16.11	32.44	13.26	30.58	15.66	34.93	16.63	13.454	0.000
affect	9.83	11.39	14.52	14.98	7.02	7.18	10.65	16.14	14.13	14.26	42.713	0.000
social	10.32	10.89	8.67	8.22	11.17	8.55	8.08	9.60	5.71	7.89	52.378	0.000
cogproc	9.46	9.03	9.50	8.32	13.51	8.44	11.62	11.47	9.24	9.07	29.835	0.000
percept	2.49	4.11	2.09	3.93	2.21	3.54	2.84	5.32	3.85	6.55	15.765	0.000
bio	2.15	4.80	3.79	8.85	1.89	3.54	2.86	7.98	2.49	6.61	5.872	0.000
drives	6.26	10.48	5.46	6.83	5.17	5.53	4.03	7.65	5.18	7.11	4.252	0.002
timefocus	15.40	10.75	17.45	11.18	18.67	9.23	17.28	11.58	16.27	11.06	8.337	0.000
relativ	11.36	9.75	10.20	9.05	11.39	8.87	9.70	9.30	13.16	10.92	12.211	0.000
personal	6.08	8.81	7.08	8.07	7.31	7.18	6.65	9.66	4.53	6.72	19.108	0.000
informal	3.04	6.79	7.14	13.04	1.97	3.94	6.84	15.90	4.01	8.52	27.827	0.000
AllPunc	20.55	21.63	23.04	35.87	17.42	16.87	37.50	99.33	23.83	55.64	9.464	0.000

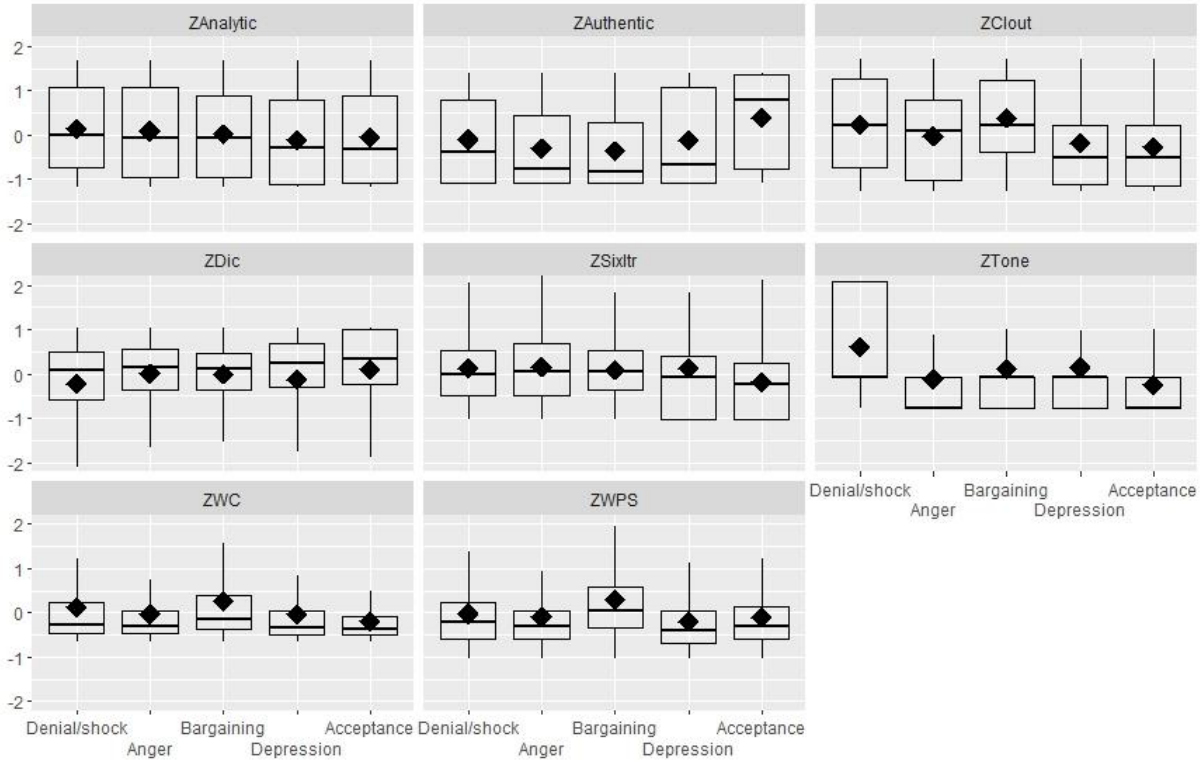


Figure 3: Boxplots of summary psycholinguistic markers by stages of grief. Means shown as diamonds. Note: marker scores are standardized to Z-scores for ease of comparison.

To facilitate interpretation, we standardized the scores for all makers and produced visualizations. Let us begin by observing the summary markers shown in Figure 3 to lay a baseline for further discussion. Most summary markers exhibit differing patterns across the stages of grief.

Decreasing:

- Analytical Thinking tends to steadily decrease as the stages progress
- Words Longer Than Six Letters tends to steadily decrease as the stages progress.
- Emotional Tone has a remarkably high score at the Denial stage, with a sharp drop and stabilization immediately afterwards.

  Osculating:
- Authenticity initially falls in the Anger and Bargaining stages but increases subsequently in the last two stages (Depression and Acceptance).
- Clout starts high, with a slight drop at the Anger stage, before increasing at the Bargaining stage and decreasing afterwards.

  Stable:
- Dictionary Words remains somewhat stable but tends to increase over stage progression.
- Word Count is somewhat stable with a not surprising peak at the Bargaining stage, which is a similar pattern to what is observed with Words Per Sentence.

Next, we proceed to the other aggregated psycholinguistic markers, shown in Figure 4.

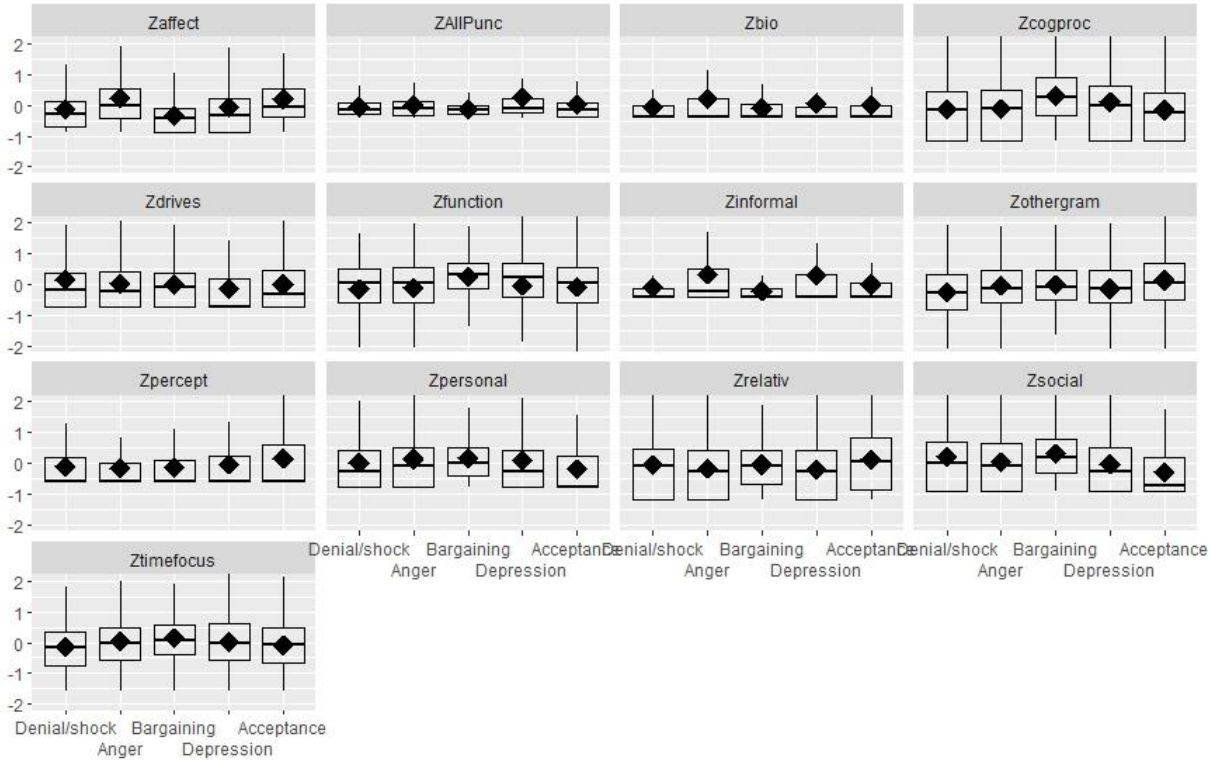


Figure 4: Boxplots of psycholinguistic markers by stages of grief. Means shown as diamonds. Note: marker scores are standardized to Z-scores for ease of comparison.

Osculating:

- Affective Processes Words peaks at the Anger stage, before receding and then peaking again at the Acceptance stage.
- All Punctuation usage remains somewhat steady with a peak at the Depression stage.
- Biological Processes Words references are higher at the Anger stage.

- Cognitive Processes Words are somewhat stable over time,[3] but peak at the Bargaining stage.
- Drives Words tend to decrease over stages, before increasing again at the Acceptance stage.
- Total Function Words usage increases up to the Bargaining stage, and then decreases in subsequent stages.
- Informal Language's usage peaks at the Anger stage, and then later at the Depression stage.
- Personal Concerns Words are high throughout the stages, with a decline beginning at the depression stage and reaching the lowest point at the acceptance stage.

Increasing:

- Other Grammar Words tend to increase over time, which is also the case for Perceptual Processes Words.
- Relativity Words fluctuates throughout the various stages, achieving its maximum at the Acceptance stage.
- Social Processes Words has some oscillations throughout, but eventually decreases at the Acceptance stage.
- Time Orientation Words increases up to the Bargaining stage, and afterwards it starts decreasing.

4.2 RQ2: Are there significant differences among the LIWC scores of the character death responses by character attributes of (a) gender, (b) playability, (c) entertainment form, or (d) character's role?

4.2.2 Gender of character

A T-test was used to compare the various psycholinguistic markers between male and female characters. The results of this comparison are shown in Table 5.

Table 5: Psycholinguistic markers by character gender.

	Female		Male			
	M	**SD**	**M**	**SD**	**t**	**P**
WC	30.91	46.47	24.64	36.01	4.166	0.000
Analytic	40.27	33.92	42.88	35.28	-2.043	0.041
Clout	43.20	33.41	41.65	32.51	1.274	0.203
Authentic	43.07	39.76	44.15	39.75	0.748	0.459
Tone	27.31	33.74	28.65	34.62	-1.074	0.283
WPS	12.83	10.30	12.17	12.29	0.578	0.113
Sixltr	11.85	10.50	12.05	12.90	-0.457	0.647
Dic	84.33	14.57	82.65	17.63	2.787	0.005
function	50.36	14.66	47.23	16.66	5.369	0.000

[3] When our work mentions "over time," it actually means through the stages as ordered by the first version of the 'five stages of grief' model, although, Kübler-Ross and Kessler (2005) updated their model later to de-emphasize the sequentiality of the stages.

	Female		Male			
	M	**SD**	**M**	**SD**	**t**	**P**
othergram	32.48	14.82	33.13	16.72	-1.141	0.254
affect	11.25	12.55	11.66	13.94	-0.846	0.397
social	8.95	9.03	7.39	8.86	4.723	0.000
cogproc	11.03	9.34	10.23	9.29	0.299	0.019
percept	2.93	4.70	2.99	5.93	-0.317	0.751
bio	2.33	5.86	2.68	6.82	-1.480	0.139
drives	5.38	6.70	4.96	7.94	1.551	0.121
timefocus	17.33	10.20	16.67	11.32	1.643	0.100
relativ	11.77	9.60	11.74	10.44	0.087	0.931
personal	5.77	6.90	6.20	8.67	-1.473	0.141
informal	4.12	9.64	3.96	9.27	0.468	0.640
AllPunc	21.91	32.66	25.07	68.84	-1.655	0.098

Note: t-tests in which the homogeneity of variances assumption was not met employed the Satterthwaite approximation for degrees of freedom.

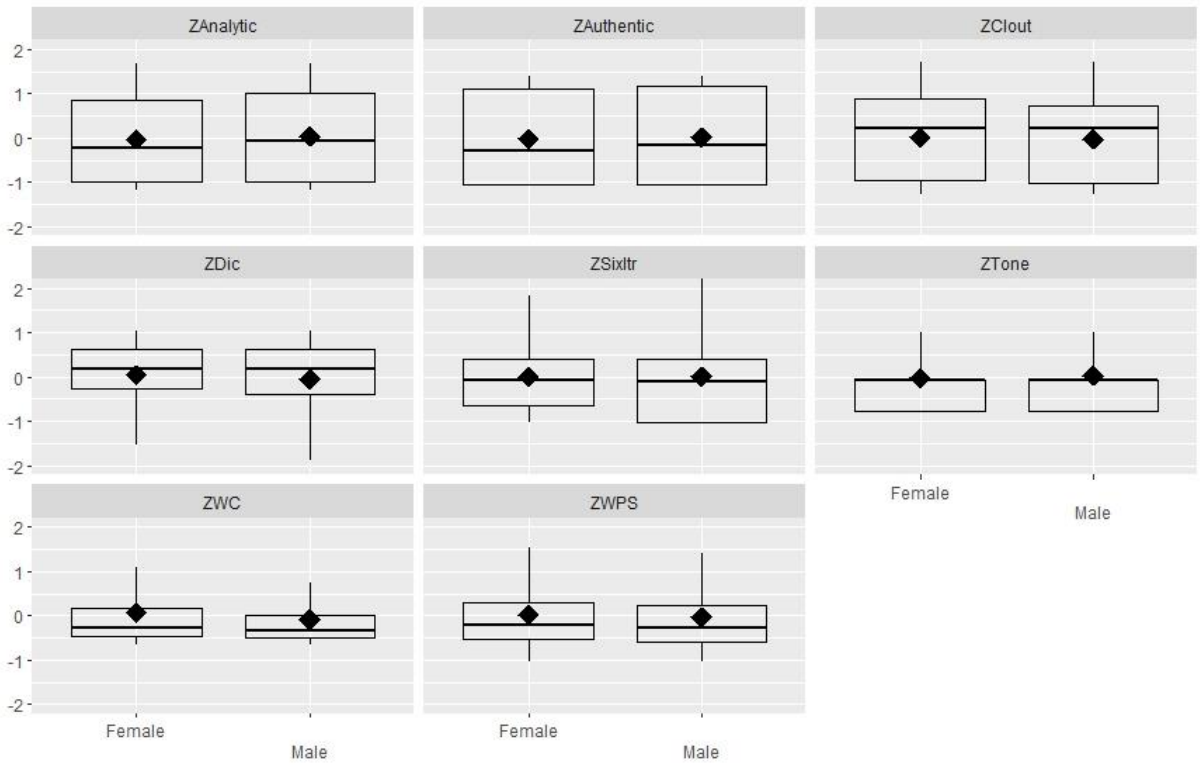


Figure 5: Boxplots of summary psycholinguistic markers by character gender. Means shown as diamonds. Note: marker scores are standardized to Z-scores for ease of comparison.

As before, boxplots with standardized scores are presented for ease of visualization, beginning with the summary indicators provided in Figure 5. Only three significant effects are found for the summary makers:

- First, Word Count is significantly higher for female characters, compared to male characters (t(2997.186) = 4.166, p < .001, Cohen's D = .149).
- In opposition, Analytical Thinking is significantly higher for male rather than female characters (t(2782.965) = -2.043, p < .05, Cohen's D = .075).
- Finally, Dictionary Words is also significantly higher for female characters (t(2543.792) = 2.787, p < .01, Cohen's D = .105).

We proceed with the analysis of the other markers (see Figure 6).

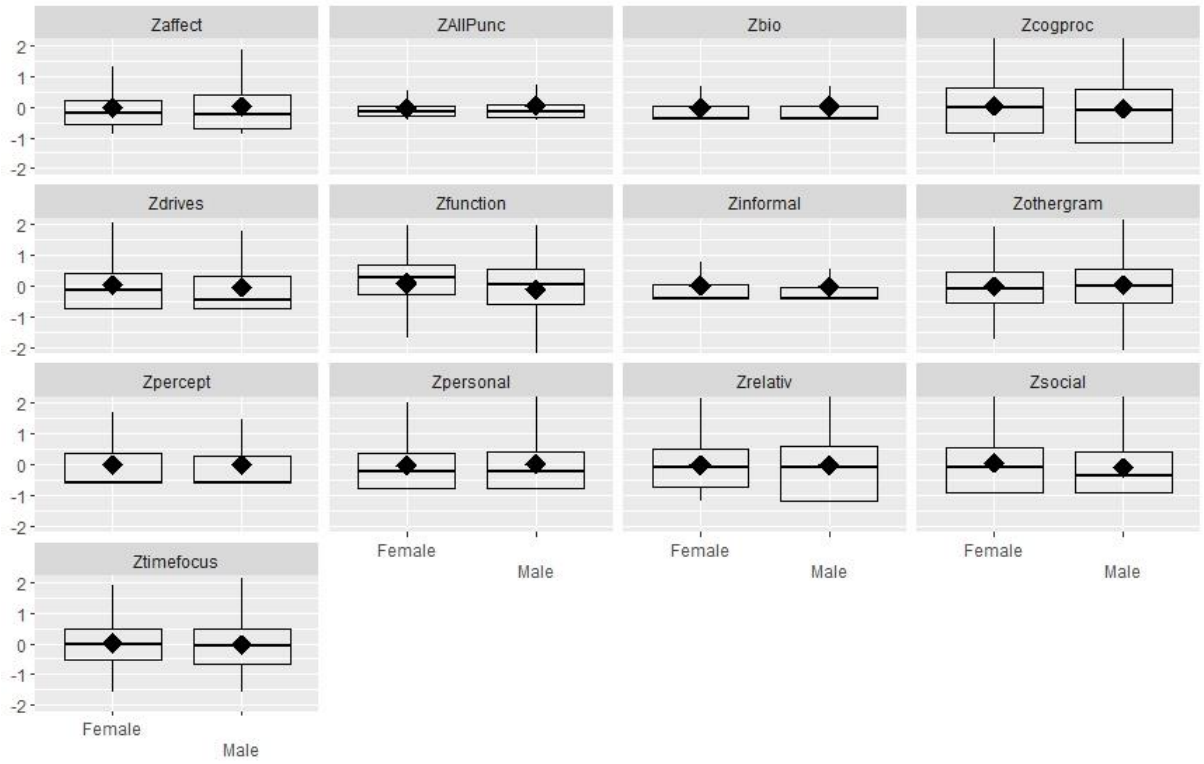


Figure 6: Boxplots of psycholinguistic markers by character gender. Means shown as diamonds. Note: marker scores are standardized to Z-scores for ease of comparison.

Three markers exhibit significant differences, all following the same pattern: Total Function Words exhibits significantly higher scores for female characters (t(2648.307) = 5.369, p < .001, Cohen's D = .200), which is also the case for Social Processes Words (t(2998) = 4.723, p < .001, Cohen's D = .174) and Cognitive Processes Words (t(2998) = 2.344, p < .05, Cohen's D = .086).

4.2.2. Playable characters

This analysis focused on the subset of video game characters. Again, a t-test was used for comparison, but this time regarding the status of whether the character was a playable character or not. The findings for this comparison are summarized in Table 6.

Table 6: Psycholinguistic markers by playable character status. PC = Playable character; NPC = non-playable character.

	NPC		PC			
	M	**SD**	**M**	**SD**	**t**	**P**
WC	22.08	32.72	32.06	49.38	-4.915	0.000
Analytic	37.50	34.91	44.06	33.90	-3.612	0.000
Clout	46.70	34.43	40.44	32.34	3.573	0.000
Authentic	39.28	40.26	49.66	39.30	-4.938	0.000
Tone	22.83	30.79	28.38	34.11	-3.287	0.001
WPS	11.64	8.85	13.33	12.97	-3.136	0.002
Sixltr	11.27	12.22	11.09	9.96	0.289	0.773
Dic	84.22	17.40	82.62	15.18	1.803	0.072
function	49.51	16.09	48.38	15.05	1.387	0.166
othergram	34.01	16.20	32.96	15.34	1.277	0.202
affect	11.92	13.51	10.97	12.15	1.355	0.176
social	9.71	9.50	7.77	8.32	3.995	0.000
cogproc	10.62	10.13	10.79	9.11	-0.326	0.745
percept	3.23	5.71	2.47	4.47	2.658	0.008
bio	2.41	5.48	2.15	4.96	0.940	0.347
drives	5.73	7.17	5.71	7.19	0.052	0.958
timefocus	17.40	11.36	17.03	10.50	0.619	0.536
relativ	10.48	9.96	12.86	9.93	-4.491	0.000
personal	5.73	7.33	6.09	7.28	-0.919	0.358
informal	4.31	9.46	3.72	8.87	1.199	0.231
AllPunc	20.60	29.94	22.93	56.69	-1.110	0.267

Note: t-tests in which the homogeneity of variances assumption was not met employed the Satterthwaite approximation for degrees of freedom.

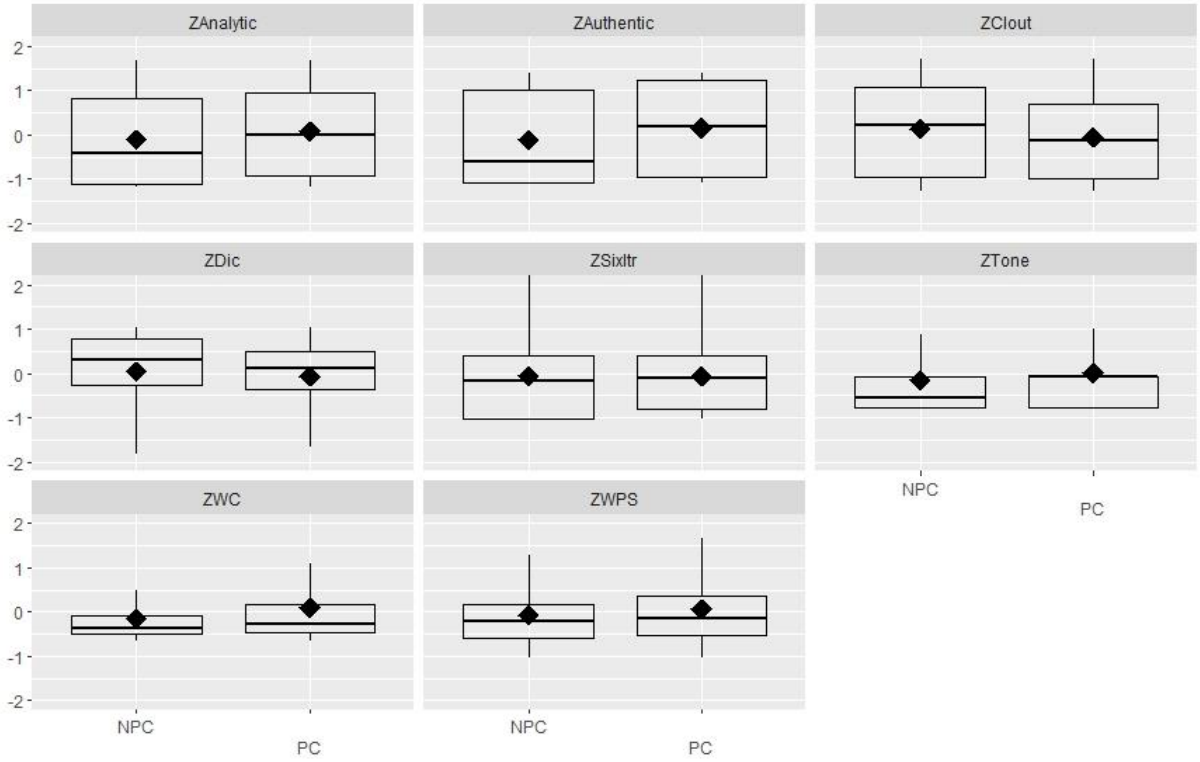


Figure 7: Boxplots of summary psycholinguistic markers by playable character status. Means shown as diamonds. Note: marker scores are standardized to Z-scores for ease of comparison.

We begin our interpretation with the summary scores, shown in Figure 7. Several relevant findings emerge in this analysis. First, word count is significantly higher when the character in question is playable ($t(1357.459) = -4.915$, $p < .001$, Cohen's $D = .221$). This is also true for Analytical Thinking ($t(1735) = -3.612$, $p < .001$, Cohen's $D = .192$), Authenticity ($t(1735) = -4.938$, $p < .001$, Cohen's $D = .262$), and WPS ($t(1320.711) = -2.679$, $p < .01$, Cohen's $D = .142$). In opposition, Clout exhibits significantly lower scores for non-playable characters ($t(1735) = 3.573$, $p < .01$, Cohen's $D = .190$).

We proceed with the analysis of the other markers (see Figure 8).

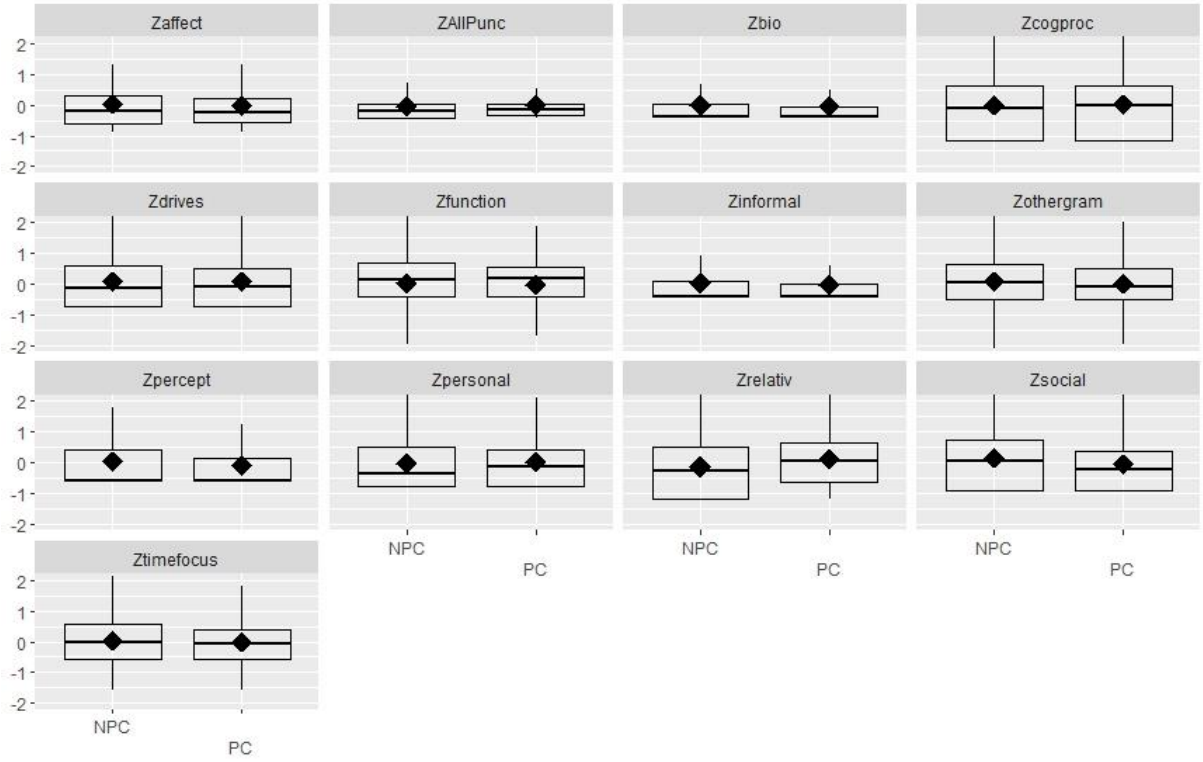


Figure 8: Boxplots of psycholinguistic markers by playable character status. Means shown as diamonds. Note: marker scores are standardized to Z-scores for ease of comparison.

The first significant effect of note is that Social Processes Words exhibits higher scores when the character is non-playable ($t(814.442) = 3.995$, $p < .001$, Cohen's $D = 0.225$), which is also the case for Perceptual Processes Words ($t(1735) = 2.948$, $p < .01$, Cohen's $D = 0.157$). In contrast, playable characters elicit significantly higher scores in terms of Relativity Words ($t(1735) = -4.491$, $p < .001$, Cohen's $D = .239$) .

4.2.3. Entertainment form

In the next exercise, we employed a t-test to compare psycholinguistic markers across the medium, i.e., whether the character belonged to a game or a TV show. The summarized results for this exercise are shown in Table 7.

Table 7: Psycholinguistic markers by entertainment type.

	TV		**Game**			
	M	**SD**	**M**	**SD**	**t**	**P**
WC	26.69	37.45	29.21	45.46	-1.658	0.097
Analytic	40.38	34.85	42.18	34.31	-1.415	0.157
Clout	42.92	32.97	42.23	33.06	0.566	0.571
Authentic	39.21	39.23	46.70	39.84	-5.130	0.000
Tone	29.42	35.23	26.79	33.28	2.065	0.039
WPS	12.11	10.11	12.85	11.96	-1.782	0.075
Sixltr	13.03	12.76	11.14	10.65	4.286	0.000
Dic	84.29	16.20	83.07	15.86	2.055	0.040

	TV		Game			
	M	**SD**	**M**	**SD**	**t**	**P**
function	49.36	16.03	48.70	15.36	1.147	0.251
othergram	32.09	15.79	33.26	15.59	-2.016	0.044
affect	11.69	13.99	11.24	12.56	0.897	0.370
social	8.17	9.35	8.32	8.72	-0.439	0.660
cogproc	10.60	9.20	10.74	9.41	-0.404	0.686
percept	3.33	5.77	2.68	4.87	3.252	0.001
bio	2.84	7.62	2.23	5.12	2.483	0.013
drives	4.49	7.34	5.71	7.19	-4.549	0.000
timefocus	16.91	10.65	17.13	10.75	-0.566	0.572
relativ	11.18	9.92	12.18	9.99	-2.703	0.007
personal	5.92	8.31	5.99	7.29	-0.254	0.800
informal	4.26	10.04	3.89	9.04	1.065	0.287
AllPunc	24.73	53.56	22.26	50.52	1.289	0.198

Note: t-tests in which the homogeneity of variances assumption was not met employed the Satterthwaite approximation for degrees of freedom.

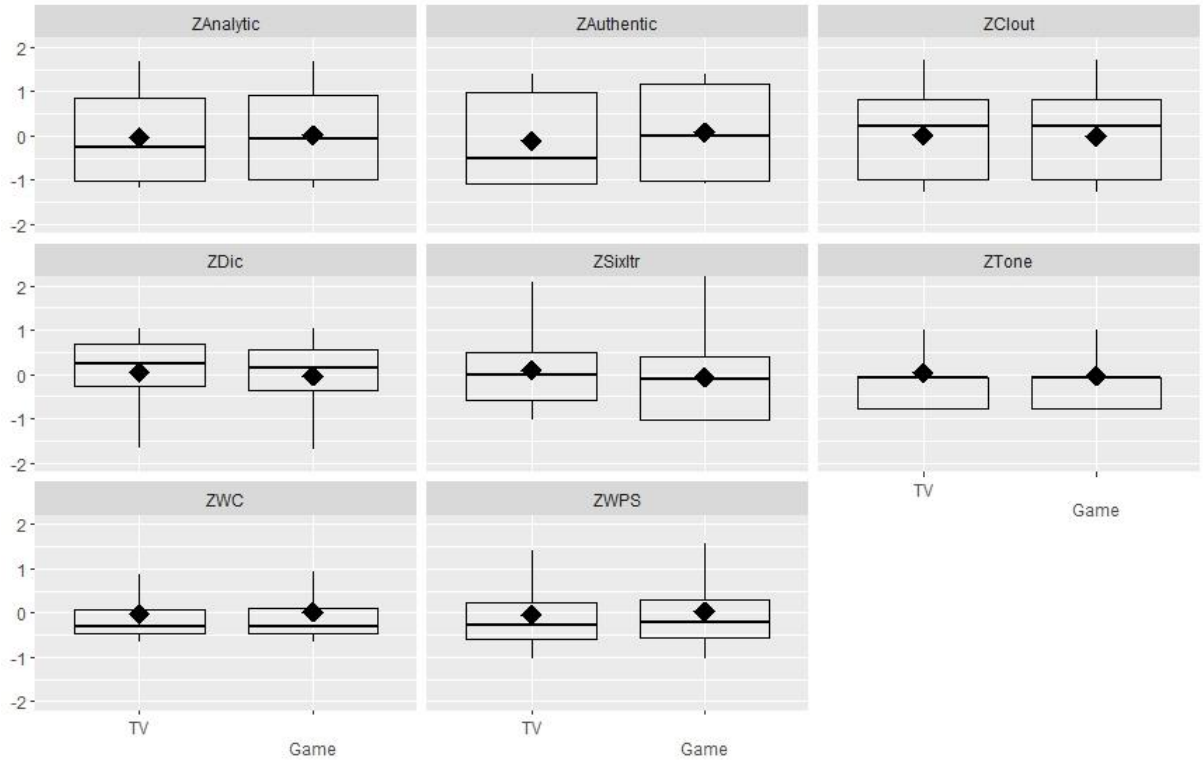


Figure 9: Boxplots of summary psycholinguistic markers by medium. Means shown as diamonds. Note: marker scores are standardized to Z-scores for ease of comparison.

Several findings of note emerge from the boxplots (see Figure 9). First, Authenticity exhibits significantly higher scores in games when compared to TV characters (t(2743.243) = -5.130, p

< .001, Cohen's D = .189). However, in contrast, marker scores are higher in TV characters for Emotional Tone (t(2626.943) = 2.065, p < .05, Cohen's D = .077), Words Longer Than Six Letters (t(2413.649) = 4.286, p < .001, Cohen's D = .163), and Dictionary Words (t(2685.349) = 2.048, p < .05, Cohen's D = .076).

We then proceeded with the analysis of the other aggregated markers (see Figure 10).

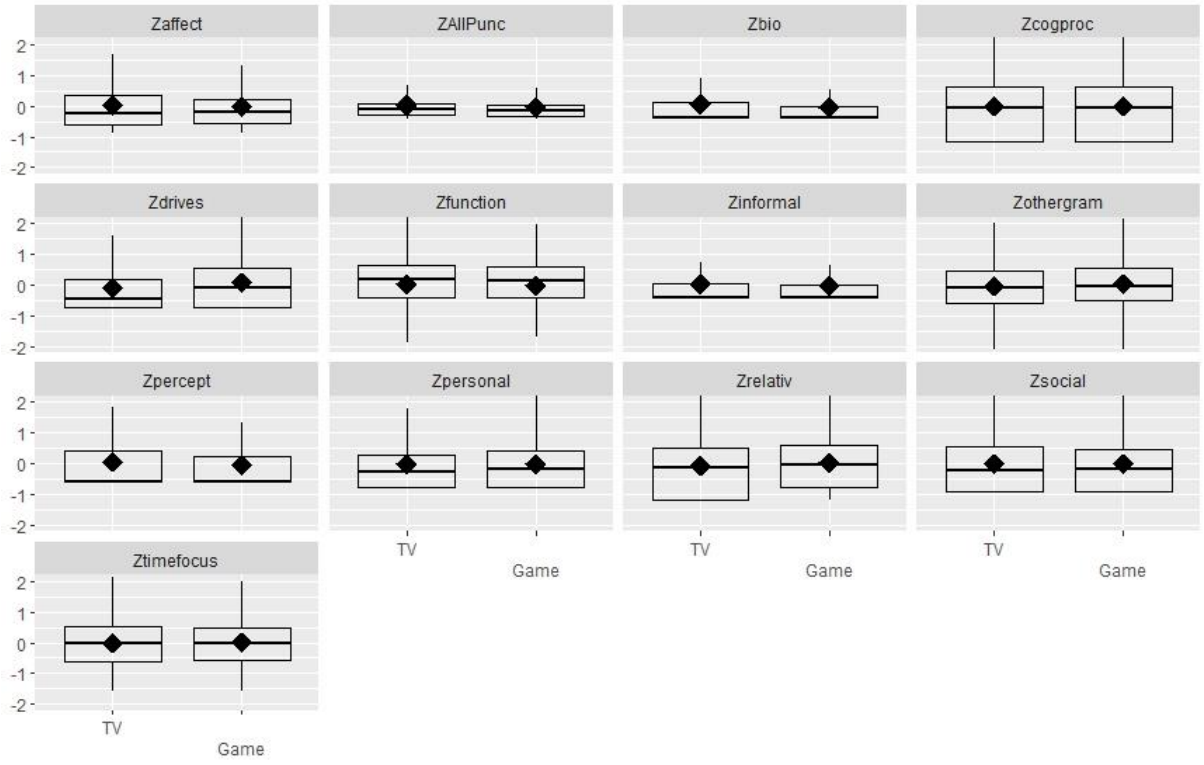


Figure 10: Boxplots of psycholinguistic markers by playable character status. Means shown as diamonds. Note: marker scores are standardized to Z-scores for ease of comparison.

In this comparison, it is possible to note that Perceptual Processes Words exhibits significantly higher scores in TV rather than game characters (t(2435.228) = 3.252, p < .01, Cohen's D = .123), which is also the case for Biological Processes Words (t(2062.633) = 2.483, p < .05, Cohen's D = .098). In contrast, game characters exhibit significantly higher scores of Drives Words (t(2686.081) = -4.549, p < .001, Cohen's D = .169) and Relativity Words (t(2998) = -2.703, p < .01, Cohen's D = .100).

4.2.4. Protagonist

The last analysis concerns the status of the character, i.e., whether the character is a protagonist or not. The summary of this analysis is shown in Table 8.

Table 8: Psycholinguistic markers by protagonist status.

	Non-protagonist		**Protagonist**			
	M	**SD**	**M**	**SD**	**t**	**P**
WC	29.60	43.79	25.28	39.01	2.746	0.006
Analytic	40.84	34.23	42.57	35.15	-1.291	0.197
Clout	42.49	33.00	42.56	33.07	-0.054	0.957

	Non-protagonist		Protagonist			
	M	**SD**	**M**	**SD**	**t**	**P**
Authentic	43.40	39.86	43.84	39.55	-0.285	0.775
Tone	27.26	33.81	29.17	34.74	-1.448	0.148
WPS	12.70	10.35	12.22	12.77	1.107	0.268
Sixltr	12.26	11.30	11.29	12.21	2.146	0.032
Dic	84.24	15.30	82.29	17.27	3.041	0.002
function	49.85	15.07	47.26	16.61	4.159	0.000
othergram	32.69	15.32	32.91	16.39	-0.352	0.725
affect	11.36	12.81	11.57	13.88	-0.402	0.688
social	8.50	8.89	7.78	9.17	2.089	0.037
cogproc	10.82	9.25	10.39	9.45	1.197	0.231
percept	3.02	4.86	2.83	6.02	0.948	0.343
bio	2.33	5.85	2.79	7.11	-1.781	0.075
drives	5.22	6.75	5.15	8.21	0.232	0.817
timefocus	17.05	10.39	17.02	11.33	0.080	0.936
relativ	11.86	9.93	11.56	10.06	0.768	0.443
personal	5.82	7.39	6.24	8.37	-1.346	0.178
informal	4.08	9.49	3.99	9.45	0.222	0.824
AllPunc	23.11	47.21	23.69	59.96	-0.290	0.772

Note: t-tests in which the homogeneity of variances assumption was not met employed the Satterthwaite approximation for degrees of freedom.

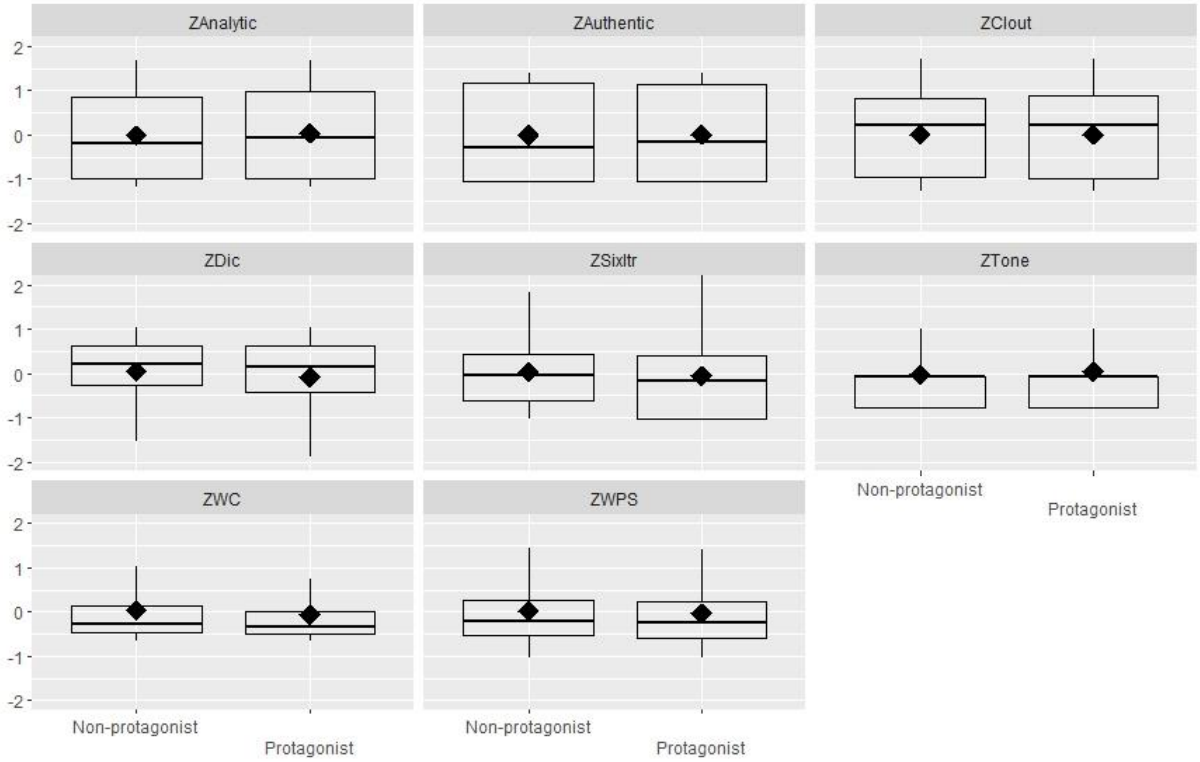


Figure 11: Boxplots of summary psycholinguistic markers by protagonist status. Means shown as diamonds. Note: marker scores are standardized to Z-scores for ease of comparison.

A few relevant findings can be noted the boxplot analysis (see Figure 11). There are several features which exhibit significantly higher scores when the character is not a protagonist – notably, Word Count ($t(2236.697) = 2.746$, $p < .01$, Cohen's $D = .102$), Words More Than Six Letter ($t(2998) = 2.146$, $p < .05$, Cohen's $D = .083$), and Dictionary Words ($t(1817.681) = 3.041$, $p < .01$, Cohen's $D = .122$).

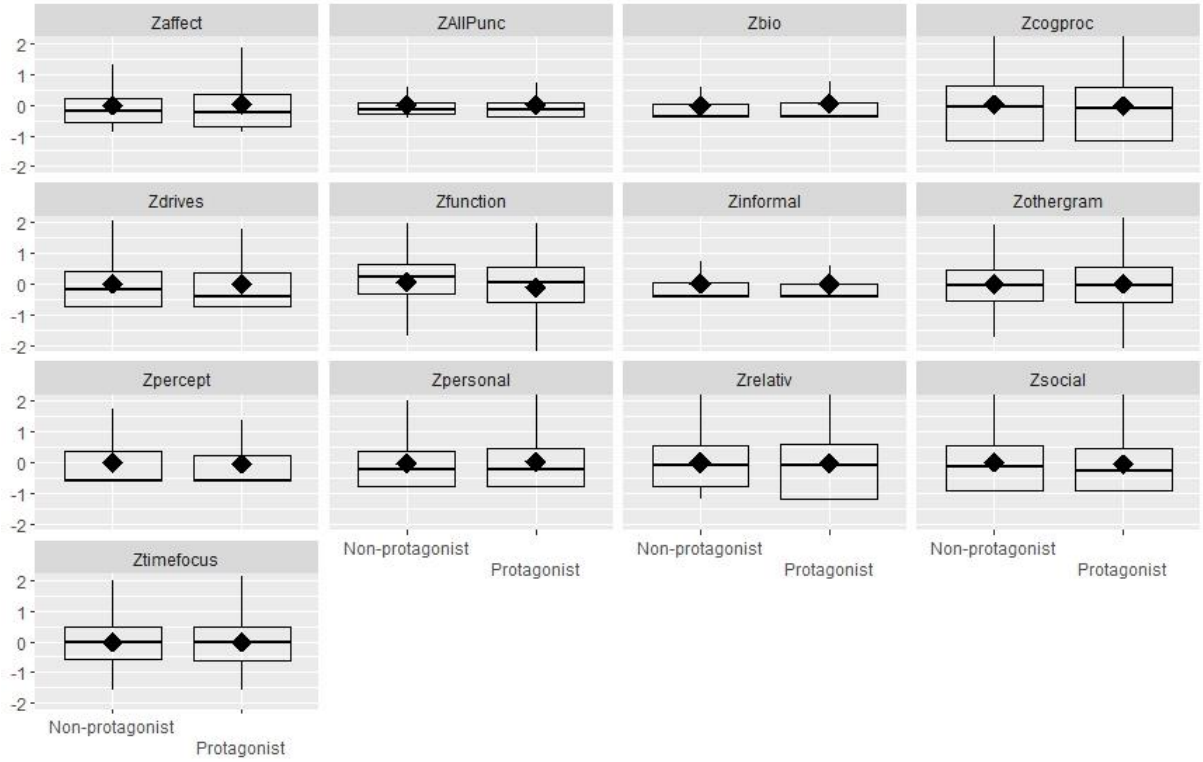


Figure 12: Boxplots of psycholinguistic markers by protagonist status. Means shown as diamonds. Note: marker scores are standardized to Z-scores for ease of comparison.

The other indicators (see Figure 12) follow a similar pattern of higher scores for non-protagonists, although most of the markers have non-significant differences. The only two of note are Social Processes Words ($t(2998) = 2.089$, $p < .05$, Cohen's $D = .081$) and Total Function Words ($t(1854.249) = 4.159$, $p < .001$, Cohen's $D = .166$), both of which exhibit significantly higher scores when the character is not a protagonist.

5 Qualitative Analysis

To understand people's reactions to the deaths of fictitious characters, we performed a qualitative analysis on the collected social media comments. The qualitative analysis was based on thematic analysis methodology (Spradley, 1979; Taylor & Bogdan, 1984). According to this methodology, we treat each review or comment as an ethnographic text and code them to discover patterns in the text that converge into sub-themes and themes (Patton, 1980).

The analysis revealed some interesting themes that we colligated under the following categories: the effects of aural cues, nostalgia and beauty, spoilers, resurrection and transmedia, comparisons and real-life connotations, killing the franchise, and gendered reactions.

The effects of aural cues: Music and silence are both aural cues that come up during the construction of death scenes. Especially, music becomes associated with emotions of sadness and depression with the on-screen death of a fictitious character. Some quotes from the data were: "THAT SONG [...] tears every fucking time"; "The music is like a dagger in my heart when seeing this"; "And then the music sets in perfectly timed. A masterpiece!"; "The silence at the end of this episode still resonates with me as one of the most powerful moments of television ever."

Especially for video game characters, carefully constructed death scenes with music can imply that the death is permanent and a resurrection is not possible ("It really didn't sink in that it was permanent until the music started"). In fact, Whalen (2004) examines the music in video games and outlines how "death music" can signal consequences in dying outcomes: for example, between a game like *Super Mario* wherein Mario dies thousands of times versus a game like *Silent Hill* where it happens a handful of times.

Nostalgia and beauty: For numerous commenters, the death of the character comes with the nostalgia of the times when they were first exposed to it. Multiple commenters would just mention their age or life conditions out-of-the-blue when they are talking about how they experienced this death: "I was roughly about 11 when I played FF7, I found it to be an emotional rollercoaster the whole way through"; "I was [in] kind of shock with this [...] I was 15 at the time, I think"; "I remember playing this on my big box TV, I was 9 at the time"; "So I was really not bothered by her death [...] Oh the thought process of a 14 year old"; "My uncle's told me I cried a lot and I stayed in his garden outside and kept crying [...] this is was before 22 years ago I was 9 years old." Some of these mentions might be hoping to undermine the strong effect that the death had on them. For example, by emphasizing that they were "just a child" at the time, the commenters might be trying to justify why this death caused such a strong reaction for them. This is sometimes viewed as a gendered reaction where seemingly men find it harder to express strong emotional sadness or mix it with humor to diminish it (see further discussions about this in the "gendered reactions" section). However, it might be more likely to be the result of a nostalgia for unadulterated childhood play where the commenters associate these memories with simpler and innocent times (Dixon & Weber, 2010).

Other nostalgic comments are those that underline how the fictitious character will be missed. These are frequently addressed directly to the character ("I miss you partner"; "I miss you Shepard"; "You were ...my sword and my shield... I miss you"; "Kenshin, [I] will miss you"; "I still miss you [L]ee sorry and thanks for everything") or to the show ("God I miss this show"; "I never cried so much during a TV show [...] I miss it so much"). The commodification of nostalgia in TV shows has long been identified as a commercial and even political strategy, especially towards teens and young adults (see Birchall, 2004 on *Dawson's Creek* and Bartlett, 2017 on *Stranger Things*). However, death nostalgia in games comes as an oxymoron, where probably, the main character died many times before the ending when the narratively permanent death was achieved. Christiansen (2014) underlines that although death in video games is always low-stake, there might be a difference in the severity of in-game consequences or player investment in character. In his influential book "The Sense of an Ending", Kermode (2000) underlines the power of closure and the narrative crescendo toward termination. Although these characters die many times throughout the game, their "final" death in their story creates closure, nostalgia, and a sense of loss that the players might feel toward them.

Finally, some nostalgia will come from how the death scene was constructed in a narrative and audio-visual way – sometimes in a way that it becomes a beautiful memory after a while (also coinciding with the acceptance phase of the five stages of loss). Multiple quotes (e.g., "This will always the best death scene I have still seen"; "This is truly one of the most unforgettable moments in gaming history"; "beautifuly written"; "That was cruel but beautifully done"; "this is beautiful, one life has to [be] sacrifice[d] for a better world") underline how some of these

scenes resonate as poetic closures that were described as narrative structures for consolation and solace (Caston, 2007).

Resurrection and transmedia: Video games present a case wherein they can be played and replayed for various purposes (e.g., exploring the game world, speed running, achievements, etc.), even after the game ends. In some cases, knowing of the death can alter the behaviors of the players (e.g., creating a different group progression strategy after learning that Aeris will die half-way through the game) during following replays. In other cases, players will explore the possibility of alternate endings where the character does not die. In multi-product media franchises, the characters may get resurrected or be featured in prequels, dream sequences, etc., and many commenters were aware of the possibility that a character who dies might still appear in following installments ("[I have] never finished ffx [but I] heard [T]idus does come back to life in the end of x-2"; [Let's] hope chief and [C]ortana can reunite in halo 6").

This might get even more confusing for consumers in transmedia universes where game, TV, book and anime versions might diverge: "Funny thing is that he didn't actually [die...] they lived happily ever after"; "I'm sure the books will present a fuller, more satisfactory explanation"; "I have confusions. The anime I watched, Kenshin was still alive at the ending. Which one is this?"

Spoilers: Spoilers are seen as a high-stakes issue when they are about the death of a major character, and consumers can take precautions to avoid learning about the endings of their media narratives prematurely. However, recent research suggests that knowing the outcome of a narrative does not change the pleasure of being exposed to it (Leavitt & Christenfeld, 2011), and in some cases, it might actually enhance enjoyment (Johnson & Rosenbaum, 2015).

Although the mentioned research (Leavitt & Christenfeld, 2011; Johnson & Rosenbaum, 2015) suggest otherwise, in the study data the commenters were generally angry at being exposed to spoilers, and the general consensus was that spoilers undermined the effects of character deaths: "not sure if I want to keep going now"; "Unfortunately I knew about it happening so when it happened it didn't effect me all"; "Wait a minute...Aeris dies???..Thanks for the spoiler alert asshats."; "maybe because I knew she was going to die, I didn't allow myself to get emotionally invested in her character"; I was at the first season and i was checking who was Marissa's actress and google search results gave me the spoiler that she died [...] It ruined the show for me." However, some commenters underlined that although the death was spoiled, it still came out as effective and surprising: "I had the unfortunate spoiler about Nate's death a little while before I watched it, but I imagined it would be a lot more extreme..."; "I already was given the spoiler about this part, and I know I'll cry if I don't watch it in advance"; "I knew what was going to happen Aeris [...] but still i felt sad..."

Comparisons and real-life connotations: In the comments, there were a lot of comparative sections – a phenomenon that was almost exclusive to video game characters. Players liked to point out other games and characters' deaths that were unexpected and had made them sad. Frequently, this was done in a diminishing way (e.g., by pointing out that the death scene in question was ineffective but another death scene in another game was more effective, etc.). This kind of comparison was almost non-existent in TV discussions.

There were also numerous real-life references, whether they are to real-life loss or how the death was perceived in terms of real-life family and friends: “Now that I'm a father of a daughter, this scene hits me deep”; “my best friend, my confidant, my sister in law died about the same time as Mark [...] so this show has such a special memory for me”; “i just remember the first time i play this, it was at night it was raining and my 2 daughters were [in] the next room, i remember that after this cinematic scene i get up i walk into my daughter's room and i kissed them, this was a very touching moment.” Relating to this observation, previous research suggests that loss, grief, and trauma can be tackled and healed through narratives (Neimeyer, 1996; 2014).

Killing the franchise: Occasionally, deaths of favourite characters might turn into a loss of motivation to continue interacting with a franchise (“Marissa's death killed the show”; “It ruined the show for me”; “Now I dont feel watching season 8”; “the next three seasons just weren't the same without him”). This phenomena seems to be happen exclusively for TV shows.

Gendered reactions: A prevalent expression of grief for the death of video game characters is to mix it with humor to hide it as an anti-masculine behaviour. Some examples containing strong language mixed with humor are: “OK. FUCKING FINE! I CRIED!! BUT THEY WERE TEARS OF RAGE AND MURDER!!!”; “this dude is making stuff up, no one cried at a video game, since we are all burly mans men”; “they [aren’t] tears, just man water leaking from my face”; “Where men cried”; “Is someone chopping onions?” Although we have no information about the gender of the commenters, we assumed such comments as commenters self-exposing their gender since they referred to themselves as man.

Despite some of these being self-aware attempts at criticism on misguided masculine culture, some were harder to distinguish between genuine attempts to minimize a showing of emotions as a masculine person. The stress and its detrimental effects related to men (especially teens and young adults) of balancing masculinity with public displays of emotions are well documented (Fischer et al., 2000). Coupled with the recent exposure of online video gamer communities displaying strong cases of toxic masculinity (Massanari, 2017; Banet-Weiser & Miltner, 2016), this video game-exclusive phenomena seems worrying. Contrastingly, an acknowledgement of emotions in the TV death discussions was never coupled with similar concerns. Although our data set does not contain any information on the commenter’s gender, it was our assumption that both categories (TV and games) had a healthy distribution of commenter genders. As a result, it was telling that the commenters for games exclusively felt the need to mix their emotional reactions with humor.

6 Discussion and Conclusion

6.1 Discussion of the results

Overall, our results illustrate that the commentators were serious about the deaths of fictitious characters, indicative of the fact that entertainment approaches reality in many ways, and also psychologically. While these characters inspire, teach and move us with their stories, actions and lives, their deaths also contribute to our understanding of our own experiences and our ability to make meaning of the human condition. With potential increases in online interactions with fictional characters in virtual reality and immersive experiences (Loban, 2021), we expect this connection to only strengthen.

Reaction to Deaths: First in our analysis of the five stages of grief through which the commentators were progressing, we find that commentators are moving through these stages similarly to how they might react to the death of a real person. The most recent death from our sample set (Daenerys from *Game of Thrones*) still displayed heavy reactions of anger, as opposed to others that have moved onto the stages of Depression and Acceptance. These findings also point to a gender-based differentiation between the reactions to the deaths of male and female characters, marking the deaths of female characters as harder to accept. This is not surprising, since narratives in media have long employed the 'damsel in distress' trope wherein "real or perceived physical risk or chivalry tends to be enacted more by men than women" (Diekman & Clark, 2015) and the 'woman-in-the-refrigerator' trope representing "[women] who have been either depowered, raped, or cut up and stuck in the refrigerator" (Simone, 1999) or any other storage domestic or otherwise. The death and murder of female family members have also been a common trope in TV and video games, used to encourage male protagonists to take action.

Medium: We also find that TV deaths are more easily accepted than video game deaths. While the TV characters have a history of coming back from death (through fake deaths or resurrection) or "living" other forms of existence after death (Thompson, 2006), video games have a stronger discourse of eternal life for their characters through restarting and respawning (Milburn, 2018). Since players are already used to their characters dying over and over throughout the gameplay, a persistent narrative death seems like a harder condition for them to accept. It is common practice for players to see a character die in a game story and to go online to research if there is a way in the game to keep them alive (for example through game choices or becoming more powerful). Additionally, we find a further negative correlation between a character being playable and the acceptance of their deaths, where not only it is hard to accept the death of a video game narrative character, but it gets harder to accept their deaths if the character was playable.

Word Usage: In our quantitative analysis, we look at how language changed between the different stages of grief, and find that the commentators start out this process with authentic denial and anger (high Authenticity) that decreases over time. Emotional Tone markers also peak at the Denial stage, and drop sharply afterward. Accordingly, Analytical Thinking markers will start as low in the initial stages and get higher as they move on to depression and acceptance. The Word Counts and Words Per Sentence peak at the Bargaining stage, which makes sense as in this stage the commenters have to go through elaborate explanations and discussions about why the character died or had to die in the story (or maybe how they can come back or not). All of these changes further cement the observation that while the commenters may be candid, authentic and emotional shortly after the death of the character, they likely will become more analytic, chatty and expressive over time, especially during the Bargaining stage.

It is perhaps unsurprising to see the Affective Process Words usage peak at the stages of Anger and Acceptance, and recede in others. It is possible to surmise that these point to the affective stages of anger and reconciliation, effectively creating polar opposites of emotional responses. This is further supported by the use of Informal Language that peaks at the Anger stage, followed by Depression. It is similarly possible to surmise that the first use of informal language

points to anger, and the others points to loss and questioning the outcome. Cognitive Processes Words peak at the Bargaining stage, much like Analytical Thinking, illustrating once more the process of meaning making that the commenters go through for these deaths.

Word Usage by Gender: Comparing psycholinguistic markers in terms of gender, we find that most significant changes are skewed towards female characters who spark higher Word Counts, and Dictionary, Total Function, Social Processes, and Cognitive Processes Words. In fact, the only marker that was significantly higher for male characters was Analytical Thinking. This brings us back to our discussion about male protagonist deaths in narratives being more acceptable (and even logical), and female deaths being less acceptable (requiring more social and cognitive discussions to justify). Ingalls (2010) explains that despite our universal hero figure being male, there is also a valid female hero figure, as long as this figure "*unlike the typical male-generated hero, has a good family, and caring for that family is a major concern of the hero*" and "*the hero's actions are not propelled by anger or rebellion*." Previous studies offer that if a female character becomes too tough, masculine or strong in a narrative, they may be punished by death so as not to disrupt the patriarchal order (Crosby, 2004). However, antithetically, if a female character stays feminine and away from anger and vengeance, her sacrifice for family members might be seem more transcendental in meaning.

Word Usage by Medium: Comparing the psycholinguistic markers of game versus TV characters, it is possible to see that the death of game characters sparks more authentic (Authenticity) discussions around their needs, motives, and drives (Drives Words) and when, how and where they died (Relativity Words), while the death of TV characters sparks more emotional discussions (Emotional Tone) around the visual and aural way the death was represented (Perceptual Processes Words) as well as how the event of dying was represented in relation with actor bodies on screen (Biological Processes Words). We previously mentioned that gamers are more likely to see these characters die again and again due to failures in game play goals, before the characters narratively die on screen. This might explain the lack of interest in how the final death happened on the screen for games, and instead, the players focus on the reasons that brought the character to this point and the conditions of the death event. On the TV screen, however, death would be an event that has not happened to the particular character previously, and so how it is shown cinematically through the body of the actor would be a main issue of interest. Previous studies have discussed the graphics of dead bodies on news media (Auchter, 2016) and cinematic media (Pizzato & Perdiago, 2010), and conclude that they might be triggering for viewers, which is a concern that is rarely shared for digitally constructed artificial bodies in video games. One factor that relates to this is that the bodies of game characters that are usually constructed digitally and modeled artificially on the screen would naturally be less realistic to the observers than an actor body on film.

Word Usage by Role: Additionally, we compare the psycholinguistic markers between characters who are protagonists versus those who are not, and specifically for video games, characters who are playable and those who are not. Characters who are not protagonists spark significantly longer discussions (Word Count), and seem to be discussed through their family or friendship connections (Social Processes Words), presumably with the main characters. This is a slightly surprising result since commenters would be assumed to have more connections and information regarding the protagonist rather than any side characters. One explanation we

can offer is that the death of a side character inevitably results in discussing the effects of their death on the protagonist. For video games, it is also possible to question whether the character was playable or not. Occasionally, video games will allow side characters to be playable during certain portions of the game, and much like the results for protagonists, the playable characters also sparked longer, richer and more authentic discussions (Word Count, Words Per Sentence, Authenticity). Significantly higher markers for non-playable characters were Social Processes Words (again, presumably discussing their social relations with the playable characters) and Perceptual Processes Words.

All of the comparisons of these psycholinguistic markers are summarized in Table 9.

Table 9: Summary of psycholinguistic marker comparisons based on whether they are significantly higher or where they peak.

Stages of Grief	**Denial**	**Anger**	**Bargaining**	**Depression**	**Acceptance**
	Emotional Tone	Affective Process Words Informal Words	Clout Word Count Words Per Sentence Cognitive Processes Words	Informal Words	Authenticity Affective Processes Words Perceptual Processes Words
Gender	**Female**			**Male**	
	Word Count Social Processes Words Cognitive Processes Words			Analytical Thinking	
Media	**Video Games**			**TV**	
	Authenticity Drives Words Relativity Words			Emotional Tone Perceptual Processes Words Biological Processes Words	
Protagonist	**Yes**			**No**	
	-			Word Count Social Processes Words	
Playable	**Yes**			**No**	
	Word Count Analytical Thinking Authenticity Relativity Words			Social Processes Words Perceptual Processes Words	

Novel Insights: Finally, our qualitative results outline new insights into how consumers interact with the death of characters on screens.

Spoilers: Before being exposed to the death, consumers will either interact with or try to avoid spoilers. Giving or avoiding spoilers on social media has been a major discussion point for audiences, however, research suggests that spoilers do not diminish the effects of narratives (Leavitt & Christenfeld, 2011), and in fact, in certain cases they may actually enhance enjoyment (Johnson & Rosenbaum, 2014). While experiencing the death sequence, viewers will usually be moved by and remember aural cues, specifically the music that is used. Shortly after being exposed to the death, they might worry about or claim that the death will kill the franchise for them (as an apparent form of Anger), and will discuss the possibility of resurrection or transmedia appearances (as an apparent form of Bargaining).

Reflections: Our qualitative results also highlighted that after some time, most virtual character deaths are remembered as being nostalgic and beautiful moments in the story (which points to stages of Acceptance), and that commentors will occasionally liken these experiences to real-life losses in their life.

Gender Effects: Complementary to our gender-based results in the psycholinguistic analysis, we also find that the gender of the commenter affects the ways that they might be allowed to respond to the on-screen deaths. Male commenters are expected not to feel emotional about the death and not cry (or cry "manly" tears)—humor is commonly mobilized to at the same time confess and cover emotional responses ("something in my eye"). This is, of course, a well-documented social phenomenon wherein men are expected (or self-impose) to mask grief (Martin et al., 2000; Vogel et al., 2011).

Comparing our results with Harrer's (2018) book, *Games and Bereavement,* we find matches with the previously identified themes in this book which were: (1) through whose perspective the grief narrative is told; (2) whether the character was a part of player's control scheme; (3) visual representation on the screen; (4) character design; and, finally, (5) auditory representation of the event. For the first and second points, we also uncovered difference for characters that were protagonists versus side characters. For the final three points, our qualitative results also highlighted the effects of audio-visual representation of the death event on the screen where we presented a more fine-grained strata.

6.2 Limitations and future research

Our study is limited by some aspects that present a number of avenues for future work. First, in our sampling of the characters we did not consider villains, only the "good" characters. It would therefore be interesting to analyze if and how consumers' reactions to the death of antagonist characters differ from their reactions to protagonist deaths. For example, sadness and depression might be replaced by gloating and satisfaction, and even relief. Second, we did not operationalize different levels of the anthropomorphic presentation of the characters, and it has been found that the level of realism affects the degree of identification with a character (Cowell & Stanney, 2003). Therefore, operationalizing the level of character realism as a variable that possibly affects consumer reactions would be an interesting avenue to pursue. Third, we did not analyze the collective or social aspects of the mourning process, i.e., how the consumers of entertainment support each other. The fact that people are discussing the deaths of virtual

characters online indicates that they want to share their sentiments, and perhaps find people that experience the same emotions (e.g., agony, sorrow, sadness). This collective mourning of virtual characters should be an aspect that is explored further in future research. Fourth, our data and analysis do not include any reasoning behind why the character was killed off in the first place. In some cases, this is as for a practical reason as killing a character off-screen because the actor decided to leave the show, or to cement the fact that the antagonist is irredeemably evil (an analysis on animated feature film showed that killing or attempting to kill the protagonist or a side character was one of the most common physical aggression that antagonists displayed; see Feng and Park, 2015). In other cases, however, the death might be a tool for emotioneering (Freeman, 2004), world-building, or other narrative intent. Finally, we did not use time stamps as a part of our data and analysis for several reasons. The practical reason was that, for consumers being exposed to the death (watching or playing) at different times, there was no way to create a temporal progression of their experiences. The theoretical reason was that the version of the model we wanted to focus on was the later update (Kübler-Ross and Kessler, 2005) that de-emphasizes the sequentially of the stages.

6.3 Conclusion

Fictitious characters in stories, legends, myths and classical texts help us to make sense of the world, and contribute to constructing our identities and social interactions. Similar characters in new media forms like video games and popular media forms like TV series (or transmedia universes that contain both) are extensions and continuations of such a tradition. Although game and media studies focus a lot on identification, immersion, and the engagement with these characters, there is still a gap in understanding how consumers react when these characters are removed permanently from their universes, specifically through conclusive and narrative death. In certain cases, their deaths also mark the end of the stories being told in that narrative universe. Understanding how consumers (viewers and/or players) react to and discuss these deaths can expand our knowledge of the effects of media over people, as well as provide insights to the creators of such media and stories for constructing more meaningful experiences.

In this study we looked at the death of 16 characters equally divided between video games and TV series, by collecting and analyzing 3000 social comments discussing their ultimate demise. For analysis, we coded each comment according to the five stages of grief by Kübler-Ross and Kessler (2005), and performed a combination of quantitative (using LIWC2015 psycholinguistic analysis software) and qualitative analysis (using thematic analysis).

Our results cement the fact that the grief process for a fictitious character is very similar to the grief process for a real person. We find that the commentors start this process with high authenticity and emotions that change to analytical reasoning over time. During this transition, they create rich discussions for bargaining with and justifying the deaths. The most interesting result was the differences seen between the reactions to the death of female versus male characters, as well as the grief masking behaviors of male commentors – both of which point to very gendered dynamics. Although it seems harder to accept the deaths of female characters, this is in fact not an overall positive outcome, since it points to an imbalance in our understanding of the drives and characteristics of female versus male characters in narratives. A further interesting result was the differences in the perception of death of video game and TV characters. Despite the grief processes being similar, the language of the discussions between

these two media differs according to the (visual) representation and frequency of death on the screen. Although we do not conclude that this result points to the occasionally proposed *desensitization* toward death seen in previous research through depictions of violence on media (specifically in video games), it seems clear that the deaths featured in video game narratives carry a different psychological weight and connotation than deaths featured in cinematic narratives.

With the exponential rise of video games and streaming services, we are introduced to an ever-rising number of fictitious characters. Thus, a continuous critical analysis of how these characters are constructed and presented both in how they live and also how they die remains a necessity, in order to understand their effects on how we perceive life, and eventually, death.

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Appendix I

Table 10: Explanations of LIWC Categories.

Category	**Explanation (explanations taken from LIWC website: https://www.liwc.app/help/liwc and Pennebaker et al., 2015)**
WC	Word Count
Analytic	Analytical Thinking (words that suggest formal. logical, and hierarchical patterns)

Clout	Clout (words that suggest social status, confidences, or leadership)
Authentic	Authenticity (words that suggest spontaneity, honesty, or lack of self-regulation)
Tone	Emotional Tone (words that suggest positive or negative tone; numbers below 50 suggest negative tones)
WPS	Words Per Sentence
Sixltr	Words Longer Than Six Letters
Dic	Dictionary Words
function	Total Function Words (such as pronouns, articles, prepositions, auxiliary verbs, common adverbs, conjunctions, and negations)
othergram	Other Grammar Words (such as common verbs, adjectives, comparisons, interrogatives, numbers, and quantifiers)
affect	Affective Processes Words (such as positive and negative emotions)
social	Social Processes Words (such as family, friends, and gender references)
cogproc	Cognitive Processes Words (such as insight, causation, discrepancy, tentativeness, certainty, and differentiation)
percept	Perceptual Processes Words (such as seeing, hearing, and feeling)
bio	Biological Processes Words (such as body, health, sexual, and ingestion)
drives	Drives Words (such as affiliation, achievement, power, reward, and risk)
timefocus	Time Orientation Words (such as past, present, and future foci)
relativ	Relativity Words (such as motion, space, and time)
personal	Personal Concerns Words (such as work, leisure, home, money, religion, and death)
informal	Informal Language (such as swear words, netspeak, assent, nonfluencies, and fillers)
AllPunc	All Punctuation