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# Exploring Emotional Attachment to Game Characters

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## ABSTRACT

Engaging game characters are often key to a positive and emotionally rich player experience. However, current research treats character attachment in a rather generic manner with little regard for the differing emotional qualities that may characterize this attachment. To address this gap we conducted a qualitative online survey with 213 players about the game characters they are particularly fond of. We identify seven distinct forms of emotional attachment, ranging from feeling excited about the characters' gameplay competency, admiring them as role models, to deep concern for characters' well-being. Our findings highlight the emotional range that players experience towards game characters, as well as provide implications for the research and design of emotional character experience in games.

## CCS Concepts

•Applied computing → Computer games; •Human-centered computing → Empirical studies in HCI;

## Author Keywords

Character Attachment, Emotional Attachment, Game Characters, Player Experience, Parasocial Relationship, Relatedness

## INTRODUCTION

Throughout our lives we form many different emotional bonds that add richness and fulfillment to our existence: The love we feel for our parents, partner, friends, and pets, but also the attachments we form to everyday objects and fictional characters. Indeed, characters are a key element of many games [1, 23], and games offer different roles for players to embody and interact with. The attachment players form with characters is often core to an engaging player experience [3,

13, 24, 26], and accordingly, game developers have a keen interest in designing believable characters [23, 42]. However, despite much work highlighting the importance of character attachment, especially for emotionally rich player experiences [5, 24, 51], current player experience (PX) research treats the notion of character attachment in a rather generic and undifferentiated manner. Despite the diversity of characters portrayed in games [22, 23, 44, 52], little is known about the range of emotional attachments players form towards game characters.

Indeed, the game industry is not only interested in designing believable characters [23, 28, 30], but is also increasingly concerned with affording players emotional “character experiences” [42]. A nuanced understanding of the range of emotional character attachments is thus necessary to more effectively design and evaluate the character experience, and in turn offer players more engaging and emotionally rich experiences [24]. Moreover, outside of games, researchers have called for looking into the emotional attachment players form with game characters, to gain insights into the design of emotional human-robot relationships [9]. An in-depth understanding of what characterizes different forms of emotional attachment thus not only benefits game designers and PX researchers, but may also provide novel ideas for designing emotionally engaging virtual agents outside of games [9, 21, 35, 55].

We present the results of an online survey and thematic analysis, which aimed to explore the range of attachment players experience towards game characters. In particular, we focus on the emotional qualities that characterize different forms of attachment. The contribution of this work is twofold: First, counter to the rather generic notions of identification and relatedness prevalent in PX research, our findings provide rich accounts of the diverse range of character experience that players encounter in games. Specifically, we identify seven distinct attachment forms, which differ to the extent that players emphasize characters' functional and emotional values. Second, we contribute to the understanding of emotional player experiences [5, 24] by outlining how the different forms of attachment are characterized by specific emotional qualities, such as players feeling excited when controlling powerful characters, admiration of role models, or feeling concerned about their

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protégé. Taken together, these findings extend our understanding of game character attachment and provide implications for designing more emotionally engaging character experiences.

## RELATED WORK

Attachment is a broad term that encompasses many meanings: Love, affection, attraction, liking and so forth. Psychologists have discussed the different forms of attachment we feel in our lives that carry varying emotional significance [29, 34, 47]. For instance, in a recent linguistic analysis, Lomas [34] identified 14 distinct forms of love, broadly grouped into four main categories: caring (e.g., concern for one's family or friends), romantic desire (e.g., passionate love), self-transcendent devotion (e.g., God's love towards humanity), and non-personal (e.g., appreciation of experiences or aesthetic objects). Furthermore, research on product attachment suggests that when people merely appreciate an object for its functionality, it affords only limited attachment and is quickly replaced [37]. In contrast, people sometimes form a strong emotional attachment to a product irrespective of its utilitarian value [37].

## Character Attachment

Besides becoming emotionally attached to living beings and (aesthetic) objects, people also form attachments to media characters. In games, characters are "agents through whose actions a drama is told" (p. 108, [17]), where players either inhabit and control them (avatars or player character) or interact with them in the game world (non-player characters (NPCs) [1, 17, 23]). As such, game character attachment is considered a key element for engaging [3, 26] and emotionally rich experiences [5, 24, 51]. In this project, we understand 'character attachment' as an umbrella term for *the sense of liking, connection and closeness a player feels to any in-game character*, ranging from player characters (PC), the player's avatar, or NPCs.

The game industry is increasingly interested in designing 'character experiences' that engage players on a personal and emotional level [20, 39, 42]. Correspondingly, PX research discusses several concepts relevant to character attachment in games. *Identification*, for instance, has received considerable attention in media psychology, communication research, and PX research alike. According to Cohen [10], identification refers to people imagining *being* the character, that is, viewing the character and their self as one entity. Specifically, similarity identification refers to when people identify with a character who is similar to them [10], whereas wishful identification pertains to people's desire to aspire towards being more like a specific character [19]. People often identify with the characters they control in games [2, 13, 44, 53], which can enhance the player experience through increased autonomy and immersion [3, 26], as well as enjoyment and positive affect [3]. A recent study by Rogers et al. [44] also found that players identify with NPCs, where they reported to identify most strongly with the companion character, followed by the mentor and enemy character.

Another related concept is the notion of *parasocial relationship*, which refers to a long-term socio-emotional bond people

form towards a media persona [12]. In contrast to identification, people perceive the character as an individual entity, separate from their own self [10, 12]. The notion of parasocial relationship was also discussed in other domains of human-computer interaction. For instance, people may develop strong emotional bonds towards technologies [31, 37] and virtual agents [8, 40, 56], treating them like human actors [38]. In games, Song and Fox [46] found that the intensity of the parasocial relationship with NPCs was even related to players' idealized romantic beliefs in real-life.

Another relevant concept in PX research is the psychological need for *relatedness*. Relatedness refers to a sense of belonging and feeling connected to others [45], and hence, accounts for attachment in the broadest sense. The satisfaction of the need for relatedness was found to increase game enjoyment [45] and also to positively influence player well-being [50]. Most studies so far have only considered relatedness towards other players (e.g., [25, 45]). However, Tyack and Wyeth [49] recently argued that parasocial relationships with fictional characters in single-player games may also satisfy the need of relatedness.

## Game Characters and Emotions

Much work has explored the different types of characters in games. In her book on designing believable NPCs, Isbister [23] discusses how characters are experienced differently by players depending on their social roles – whether the character is friendly or antagonistic towards the player, – as well as their power dynamics, that is, how strong the character is relative to the player. Similarly, Warpefelt and Verhagen [52] outline a typology of NPCs, which describes characters in terms of their in-game function, e.g., assisting the PC in gameplay. More recently, Bonsignore et al. [4] explored Isbister's ally and mentor characters in the context of alternate reality games, and found that players enjoyed helping out allies, and appreciated the guidance of mentors. In another study, Emmerich et al. [15] found that players evaluated companion characters more positively when they were perceived as offering a 'meaningful emotional relationship' (p. 149). Concurrently, NPCs were rated less favorably if players felt this emotional level was lacking [15]. However, the study does not elaborate what constitutes a 'meaningful emotional' relationship or what emotions players might have experienced.

Believable game characters have been argued to foster emotional bonds with the player [23, 43]. Consequently, a growing body of work has outlined design principles for creating more believable NPCs [15, 23, 28, 30]. One such key design principle is that characters' emotional expressions should match the context of the events depicted in the game [15, 28, 30, 43]. Ip [22], for instance, found that many characters in modern games express a range of unique and complex emotions. Relatedly, Yannakakis and Paiva [57] suggested dynamic affective adjustment, where NPCs' emotional expression adapt and react to players. Surprisingly, despite the importance of characters' emotional expressions for player experience [27], players' *emotional* experience when interacting with different characters has received far less attention.

In a recent GDC talk [42], *Square Enix*' Sun presented a 'character experience' framework to design engaging and emotional AI-characters in *Final Fantasy XV*. According to Sun, only if players first experience AI-characters as functional and useful in gameplay, will they eventually perceive them as believable and become emotionally attached. Indeed, several studies show that players sometimes value characters' functionality over their emotional value. Coulson et al. [11], for instance, found that players of *Dragon Age* preferred useful characters over physically attractive or friendly characters. Livingston et al. found that players often value the utility of their *World of Warcraft* avatar [33], and in the study of Emmerich et al., players liked a companion character least that was considered least functional [15]. Other studies found that players often perceive characters as mere objects rather than social agents [2, 18], waiting for them to be collected [48]. In the case of PCs, some players treat characters as instruments for expressing their own playstyle [16], whereas NPC teammates are regarded as a supportive resource to be exploited [54]. Other studies have found that players report less empathy when perceiving characters as objects [18], yet react emotionally when losing a character they had invested a lot of time in [5].

While these findings highlight the importance of characters' functionality and believability, players also attach emotional value to some characters, for instance, when they become associated with players' memories [5, 33], or facilitate self-expression [33]. Thus, it comes to little surprise that the game industry is also increasingly interested in creating emotionally engaging character experiences [20, 39, 42]. According to Sun's [42] framework, for instance, the ultimate goal is to engage players emotionally. Nevertheless, only few studies have so far looked into the emotional aspects of character attachment. Bopp et al. [5] found that players described different ways of engaging with characters in emotionally moving game experiences: Some players reported identifying and strongly empathizing with characters, others considered them as role models. However, Bopp et al. do not specify whether these different manifestations of character attachment were accompanied by different emotions.

A few works have explicitly focused on specific emotional reactions towards characters. Eichner [14], for instance, argues that child characters evoke empathetic reactions characterized by "sympathy, care, worry, and the feelings of loss to parental concern for the character" (p. 175) rather than affording identification. In another example, Waern [51] analyzed forum and blog posts related to the *Dragon Age* series, where players reported developing a crush on characters, or feeling jealous when seeing their romantic interest with another character. Nevertheless, the focus of these works is limited to very specific emotional experiences.

## METHOD

Despite the growing body of research around identification and relatedness in games, players' experience of game character attachment has received limited attention, in particular with regards to the potentially differing emotional experiences. To gain a richer understanding of players' emotional attachment

to game characters, we conducted an online survey consisting of a series of open-ended questions.

## Participants

Participants were recruited from various social networks (e.g., Facebook, Twitter), and gaming-related groups on Reddit. The survey was advertised as being about "characters in digital games". A total of 220 participants completed the survey. We excluded seven participants' responses because they provided bogus answers ( $n = 5$ ) or were under the age of 18 ( $n = 2$ ). The final sample consisted of 213 participants aged 18 to 58 (mean = 26.01 years): 128 participants identified as men, 69 as women, 10 as non-binary, 2 questioning, and 4 participants preferred not to state their gender. All participants had a history of playing digital games ( $M = 19.9$  years, ranging from 2 to 41 years). The four most popular game genres were role-playing ( $n = 184$ ), adventure ( $n = 163$ ), action ( $n = 130$ ), and strategy ( $n = 130$ ) games. Thirty-one participants indicated that their profession was related to games in some way (e.g., game developer).

## Procedure

Upon clicking the survey link, participants were introduced to the study and asked for consent. Following a guided recall process, participants were then asked to "*bring to mind a game character you really like or you really liked in the past*" (see Table 1 for full instructions). We chose the term 'really like', because it was expected to be sufficiently broad to capture *different* types of *strong* attachment. We chose 'really like' over related terms such as 'attached to' or 'love', because these typically have purely sentimental or romantic connotations in everyday language [34]. The explanation of *by "really like" we mean [...]* was based on Lomas' linguistic analysis of different types of love [34] to elicit a wide range of responses. The remaining questions were generated in a brainstorming session among the authors with the aim to gain rich and multifaceted accounts of players' attachment to game characters. See Table 1 for the exact wording and order of the questions.

Next, participants reported when they had first encountered the character in question, as well as when they had last played the game. Finally, participants were asked to provide demographic information (age, gender, game experience, and preferred game genres), and could choose to provide their email address, if they wished to enter a raffle to win one of ten \$20 (USD) Amazon gift cards. The survey took 24.9 minutes to complete on average.

## Thematic Analysis

To analyze the responses, we conducted an inductive thematic analysis as outlined by Braun and Clarke [6, 7]. As we were interested in exploring whether there were distinct patterns indicative of different forms of emotional character attachment, the entire data set was analyzed (rather than participants' responses to individual survey questions) with regards to the semantic content (i.e., what participants wrote). The first author was involved in all steps of the analysis, while the other authors contributed to the data coding and development of the themes.

Question
<i>Please bring to mind a game character you really like or you really liked in the past. By “really like” we mean a character you care about, appreciate, desire, respect, are devoted to, or any combination thereof.</i>
1. What is the name of the character?
2. From which game is this character?
3. Please describe this character. For instance, write about the appearance, personality, role or function of this character.
4. We are also interested to know why you really like this character.
5. If you think about your emotional response, how do you feel about this character?
6. Think about when you first encountered this character and now: Please describe how and why your attachment to the character formed or evolved.
7. Imagine this character would be in danger. How does this make you feel?
8. If you had the opportunity to talk to this character, what would you tell them or ask them?

**Table 1.** Survey instructions and questions. All questions were open-ended.

After familiarizing themselves with the data, the first author developed a set of initial codes. These codes were then discussed within the research team, after which the first author applied the coding scheme to the entire data set. The final 74 codes were then collated to develop potential themes. Through discussions among the research team, nine initial themes were identified. The first author then sketched a preliminary thematic map, and compared each participant’s account with the initial themes to ensure that the themes covered all instances. When revising the initial themes, we noticed that some mainly emphasized characters’ functional value (e.g., their utility and competency in gameplay), whereas other themes focused more on characters’ emotional value (e.g., describing a character’s personality, etc). Consequently, we arranged the themes according to their functional and emotional value.

At this point we decided to exclude two initial themes, Aesthetic Appreciation and Childhood Memory, because: (1) they referred more generally to a fondness for a game or to participants’ memory of playing the game, rather than being specifically directed towards a character; (2) As such, these themes potentially apply to *all* forms of emotional attachment and are therefore not of interest to our investigation. Aesthetic Appreciation (n=50) was characterized by participants explaining that the game had made them feel emotional, where rather than focusing on the characters, participants complimented the quality of the narrative, writing and character development: “The alternate history aspect of the old Greek gods being real and a scorned man seeking revenge against them is very interesting.” (P198, M, 23, Kratos, *God of War*). The theme Childhood Memory (n=17) referred to players feeling nostalgic and associating certain characters with their childhood: “I remember running around the yard in the summer pretending

Themes	PC	NPC	Both	n
Cool and Capable	23	7	3	33
Respected Nemesis	3	7	1	11
Admired Paragon	28	5	1	34
Crush	4	7	0	11
Concern for one’s Protégé	1	10	1	12
Sympathetic Alter Ego	22	16	1	39
Trusted Close Friend	3	20	0	23

**Table 2.** Frequency of player character (PC), non-playable character (NPC), and characters being both playable and non-playable at some stage of the game or the game series (Both) reported per theme. Note that the frequency of incidents per theme (n) does not sum up to 213 as an incident could be coded to several themes.

to use his powers as I’d fight off wave after wave of imaginary robots.” (P150, M, 32, X, *Mega Man X*).

The inductive thematic analysis resulted in a final set of seven distinct themes: Cool and Capable; Respected Nemesis; Admired Paragon; Crush; Concern for one’s Protégé; Sympathetic Alter Ego; Trusted Close Friend. Refer to Figure 1 for the final thematic map. Note that functional and emotional value are not mutually exclusive; themes where players’ emphasized a character’s emotional value (e.g., Trusted Close Friend) are not forcibly devoid of functional value.

## RESULTS

Participants named a variety of game characters from different game genres, encompassing 114 playable characters (PC), 86 non-playable characters (NPC), and 13 characters that were playable and non-playable at some stage in the game or game series (e.g., the *Dragon Age* series; refer to Table 2 for the distribution per theme). The most frequently mentioned characters were Link (*Legend of Zelda* series, n=7), Commander Shepard (*Mass Effect* series, n=6), Aloy (*Horizon Zero Dawn*, n=5), and Geralt of Rivia (*The Witcher* series, n=5). The most frequently mentioned games were the *Mass Effect* series (n=13), *Dragon Age* series (n=11), *Mario* games (n=9), and *Final Fantasy* series (n=9).

The majority of participants (n=157, 73,7%) had first encountered the character in question more than two years ago, of which 70 participants (32,9%) indicating that they had first encountered the character over ten years ago. Only 29 participants (13,6%) stated to have encountered the character less than a year ago, and 27 participants (12,7%) 1 to 2 years ago. However, the majority of participants had played the game recently, with almost half of the participants (n=96) reporting to have (re-)played the game within the last year.

Next, we report the different types of emotional attachment we identified through our thematic analysis. Illustrative quotes are labelled with the participant number and information, and character and game name: (P198, M, 23, Kratos, *God of War*) means the quote is from participant 198, who was male and 23 year old, and referred to the character Kratos from the game *God of War*. Following our thematic map (Figure 1), we first report the attachment forms emphasizing the character’s functional value, followed by the attachment forms that highlight a character’s emotional value. See also Table 3 for an overview of the key findings for each theme.

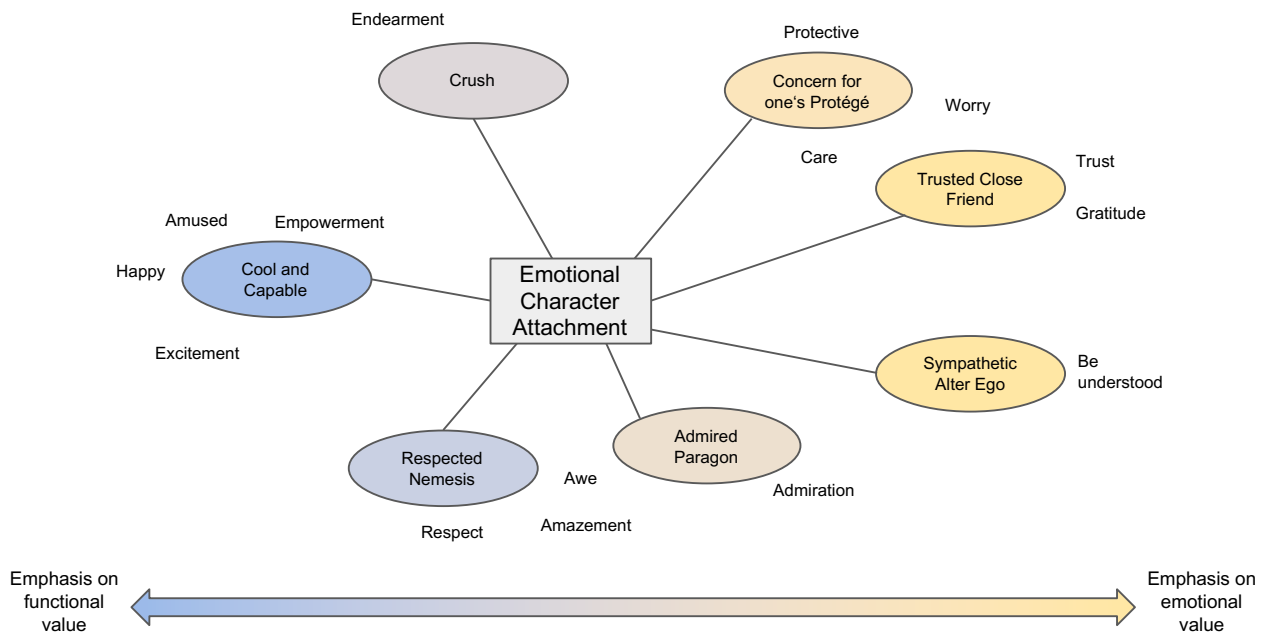


Figure 1. The final thematic map representing the seven forms of emotional attachment identified with the key emotions. The double arrow at the bottom refers to the degree of emphasizing character's emotional and functional values.

### Cool and Capable

We named the first theme 'Cool and Capable', because participants described feeling empowered, amused, and excited about a character's in-game capabilities, where: "playing her makes you feel exactly as you'd expect it would. Badass, in control, powerful, and free to amuse yourself even when fighting very challenging enemies." (P157, M, 28, *Bayonetta*, *Bayonetta*). The majority of characters in this theme were PCs, where participants praised the character's utility and power in gameplay. For example, P98 first described that

"Darius is a character with fairly strong defenses and very high damage potential. He is typically used as the frontline of his team, helping to protect teammates that have less survivability while dealing high damage to the enemy team. He also possesses the potential to quickly eliminate multiple members of the enemy team when certain conditions are met." (P98, M, 26, *Darius*, *League of Legends*)

The same participant emphasized that they "really enjoy the cooperative aspect, so having some ability to save teammates is something that appeals to me."

Besides their in-game competencies, these characters were praised for being entertaining: "They are really funny in a really oblivious way (...) At first, it was hard to connect to Zer0 due to a lack of distinguishing characteristics, but eventually their humour warmed me up to them" (P90, F, 20, *Zer0*, *Borderlands 2*). Indeed, several participants mentioned that

they wanted to "buy them a drink" (P1, M, 22, *Commander Shepard*, *Mass Effect*) or "just take him out for a beer and some laughs" (P18, F, 28, *Mario*, *Super Mario Franchise*) if they had the opportunity in real life.

### Respected Nemesis

This theme refers to players feeling respect and awe towards a game's villain: "I would let him know that he holds my utmost respect." (P211, M, 25, *Naked Snake*, *Metal Gear Solid*). This was often because participants perceived the character as particularly charismatic and exhibiting specific virtues, such as fairness. For instance, P99 noted that they "absolutely adore" an enemy character, not only because they are challenging to beat, but because they exhibited fairness towards their ally:

"If you beat Smough first, Ornstein absorbs his powers by gently placing a hand on him, in respect for fighting at his side. On the other hand, if you beat Ornstein first, Smough absorbs his powers by crushing him with his hammer, out of jealousy and envy. (...) I hate the fact that Smough kills him, I try to avoid this scenario as much as possible and kill Ornstein myself." (P99, M, 27, *Dragon Slayer Ornstein*, *Dark Souls*).

Nevertheless, as the Respected Nemesis was antagonistic to the PC, several participants also reported conflicted feelings, "I'm scared of her, but also amazed, and somehow attached to her" (P29, M, 18, *GLaDOS*, *Portal/Portal 2*).

	Cool and Capable	Respected Nemesis	Admired Paragon	Crush	Concern for one's Protégé	Sympathetic Alter Ego	Trusted Friend	Close
Players' key emotions	Happiness, excitement, empowerment, amusement	Respect, awe, amazement	Admiration, awe, respect, amazement	Endearment	Worry, feel protective, care, responsibility, proud	Be understood	Trust, care, worry, gratitude	
Characters' typical attributes reported	Characters are skilled, useful, competent, powerful, entertaining in any moment, have joyful personality	Charismatic appearance, some virtuous traits like fairness, strong and powerful in gameplay or narrative	Virtuous traits the players aspire themselves: kindness, courageous; Gameplay and mental strength: badass	attractive appearance	vulnerable and less experienced than PC but not helpless	Characters share similarities with players	Loyal and accommodating to other characters including PC	
Prototypical example characters	Geralt of Rivia, <i>The Witcher</i> series; Bayonetta, <i>Bayonetta</i>	GLaDOS, <i>Portal 1&amp;2</i> ; Dragon Slayer Ornstein, <i>Dark Souls</i>	Aloy, <i>Horizon Zero Dawn</i> ; Link, <i>The Legend of Zelda</i> series	Dante, <i>Devil May Cry</i> ; Dorian Pavus, <i>Dragon Age: Inquisition</i>	Clementine, <i>The Walking Dead</i> ; Ellie, <i>The Last of Us</i>	Madeline, <i>Celeste</i> ; Mae Borowski, <i>Night in the Woods</i>	Atton Rand, <i>Star Wars: Knights of the Old Republic 2</i> ; Garrus Vakarian, <i>Mass Effect series</i>	

**Table 3. An overview of the key characteristics found for each theme regarding players' experienced emotions, characters' attributes identified, and prototypical example characters. PC = Player Character.**

### Admired Paragon

We coined the next theme 'Admired Paragon', where participants expressed their admiration for a character: "I admire her for her strength and kindness in any situation" (P67, F, 25, Yuna, *Final Fantasy X*). These characters, predominantly PCs, typically embodied virtues the participants aspired to themselves. As such, participants referred to game characters as role models to whom they look up to. As the following quote of P172 explains, several participants also mentioned that they try to emulate the characters' virtues in real-life:

"Ever since I was little, I always looked up to Link and wanted to be like him. He's a literal embodiment of courage - something that I've struggled with but have always wanted to get better with. He's so selfless, and does everything in his power to help people (...) That's something that I always strive to do, I try my best to be kind, and I try my best to be more courageous in my own life." (P172, M, 28, Link, *The Legend of Zelda*)

While these characters were typically praised for their kindness, many participants also emphasized their gameplay strength as well as mental strength, particularly for being 'badass': "I love the attitude shown by her, never giving up, not taking shit from anybody just a badass lady dealing with an alien while showing empathy for those around her." (P17, M, 28, Amanda Ripley, *Alien: Isolation*).

### Crush

This theme described instances, where participants described becoming infatuated with a character: "I had a crush on him, he was sweet, smart, varied and complex." (P38, F, 30, Atton Rand, *Star Wars: Knights of the Old Republic*). Participants typically described how much they like the character without referring to specific emotional experiences: "I love love love Dante." (P41, F, 33, Dante, *Devil May Cry*). Instead, they emphasized how they were attracted to the characters' appearance and demeanor, "He's cool and has a sword and is cute and dorky" (P126, F, 23, Link, *The Legend of Zelda*). Some participants specified that "I feel a certain kind of love for Niles as my character was married to him in the game. Endearment would be a better word." (P10, M, 21, Niles, *Fire Emblem Fates*). One participant also expressed feeling "melancholy. I'm sad my character couldn't be in a happy relationship with him" (P128, F, 33, Solas, *Dragon Age: Inquisition*).

### Concern for one's Protégé

We refer to the next theme as "Concern for one's Protégé" to describe instances, where participants expressed deep concern, worry and a sense of responsibility for a character: "without help I think he could find himself in a lot of trouble. This makes me feel anxious, and protective." (P92, M, 29, Ryuji Sakamoto, *Persona 5*). Characters were typically a less experienced and younger NPC, introduced in the game as someone the PC needs to look after. Participants described bonding with these characters, sometimes even likening them to children or younger siblings: "First and foremost, I care for her as I would care for a younger sister. I really really like her" (P142, M, 21, Ellie, *The Last of Us*).

Players' concern for the "Protégé" often influenced their in-game actions, highlighting the character's emotional value:

"Every time I interacted with the character or had to decide upon something, I usually thought about Clementine first. For example, (when) she's present in the room and I have to decide to either kill this person for revenge or leave them to suffer - my decision is influenced by her presence since I don't want her to see anyone die, especially by her new carer." (P210, M, 19, Clementine, *The Walking Dead*).

Indeed, several participants highlighted how they perceived themselves as the character's mentor, who has to teach them to become a good person: "it was my duty playing Lee to look out for her and raise her well as my top priority." (P105, M, 25, Clementine, *The Walking Dead*). Consequently, witnessing the Protégé character's development and growth afforded players a sense of pride, where, "as his older brother, I would have been proud of him how well he managed on his own and how much he grew up during that journey." (P167, Naiee, *Brothers: A Tale of Two Sons*).

Nevertheless, despite their concern for the character, several participants stressed that their Protégé was not helpless, making the player "feel responsible for her without making her a burden. I think the largest factor to that is she's determined and headstrong so she's willing to go through this adventure with you instead of needing to be dragged along." (P7, F, 25, Clementine, *The Walking Dead*).

### Sympathetic Alter Ego

We coined this theme 'Sympathetic Alter Ego' to describe instances where participants felt sympathetic towards characters, because they felt they shared similar personal experiences with them. Rather than referring to specific emotions, participants described how they could relate to characters and their plight, "Many times I could so very much relate to her and I was thinking 'Girl, I know how you feel right now'." (P170, F, 35, Commander Shepard, *Mass Effect*). Similarly, many participants emphasized that they strongly identified with the character, where P102 describes that:

"when other characters in game got mad at her or were mean to her it would feel like they're mad at me and sometimes cause me to cry. (...) Conversely when her friends would stay by her and help her when she most needed it it felt overwhelmingly good." (P102, NB, 23, Mae Borowski, *Night in the Woods*)

Conversely, participants described how upon recognizing commonalities they felt understood by characters. For instance, P111 compares her personal experience with chronic illness to the one experienced by the game character:

"There's a scene in Act III where the dialogue cuts between her picking mushrooms in a forest and her standing, panicked, outside a hospital. I've never heard anyone describe the specific feeling of that moment you realize you're gonna be forever-sick so accurately. I had to put the game down for a bit because I was overwhelmed. (...) Over time, I've found myself coming back to Act

III over and over because it feels so comforting to feel understood." (P111, F, 22, Cate, *Kentucky Route Zero*).

Notably, several participants described how recognizing themselves in – and in case of PCs, – acting as characters provided them an opportunity for self-exploration and reflecting on their gender identity: "I'm personally not sure about my gender, right now I think I'm transfeminine and identifying as her somehow makes sense to me." (P81, NB, 24, Chell, *Portal*).

### Trusted Close Friend

The last theme was characterized by participants feeling a strong personal connection with characters, describing how "For the most part, I feel trust and gratitude." (P34, M, 23, Diego, *Gothic Franchise*), due to the characters' loyal, caring, and accommodating nature also beyond gameplay:

"At first she's not the most social and warm person, but after hours spent with her fighting by my character's side I really loved having her because not only is she a great warrior she's also loyal and independent and trustworthy. (... she) will fight for her friends until she dies." (P87, F, 26, Jack, *Mass Effect 2*)

Notably, as the quote by P87 indicate, this theme highlighted the character's emotional value, such as where *Mass Effect's* Garrus gave the participant "a feeling of having a friend. A real friend, whose friendship is not bound by conditions of any sorts. That feeling is rare in the real world." (P32, M, 21, Garrus Vakarian, *Mass Effect Franchise*).

Feelings of worry and care were also characteristic for this theme. However, rather than feeling protective, participants explained that they rooted for the characters to succeed in their endeavors and cared for their well-being:

"I wanted him to succeed. I wanted everything in his plans to go smoothly. I gave it my all to see to it that his perfect idea of having a 'peaceful revolution' came to fruition. I wanted to see him happy and I did, which in turn also made me happy." (P54, M, 20, Markus, *Detroit: Become Human*).

Notably, while this theme shares some overlap with the themes, Concern for one's Protégé and Sympathetic Alter Ego, they were rarely mentioned together by the same participant. Moreover, in contrast to the Sympathetic Alter Ego, where the boundary between the character and the participants' self was somewhat blurred, participants clearly described the "Trusted Close Friend" as a separate entity. Indeed, the majority of the characters mentioned in this theme were NPCs.

## DISCUSSION

Character attachment is an important aspect of the player experience of many games. However, in PX research it is often discussed in broad terms, such as identification [3, 44], relatedness [45, 49], or "emotionally meaningful relationship" [15]. In order to gain a more nuanced understanding of this phenomenon, our study set out to explore the range of emotional experiences players associate with game characters. Counter to current broad notions of character attachment (e.g., [23, 32, 45]), our findings highlight that character attachment is not



simply about a generic sense of liking. Rather, it encompasses many distinct forms of emotional attachment, reflecting some of the diversity of real-life forms of attachment and liking [29, 34, 47]. Our findings show that the experience of different forms of character attachment is characterized by distinct emotional qualities: Players feel excited about cool and capable characters; express respect for a charismatic and fair nemesis; or admire characters as role models and embodiments of virtue. Others reported having a crush on characters; becoming concerned and worried over a character they felt responsible for, felt sympathy for characters sharing similar life experiences, and sometimes likened characters to trusted friends they were grateful for.

Before discussing the implications of our work, we first note some similarities between the themes identified in our analysis and previous work. For instance, Respected Nemesis, Concern for one's Protégé, and Close Friend bear some semblance to the archenemy, pet, and ally described in Isbister's character typology [23]. Additionally, the notion of Sympathetic Alter Ego resembles similarity identification [10], and the Admired Paragon overlaps with wishful identification [19]. However, in contrast to the aforementioned works, our findings further clarify the distinct emotional qualities that players experience through the different forms of character attachment.

Importantly, our findings extend our understanding of relatedness to game characters [49]. While all our participants likely experienced some degree of relatedness, – both to non-player (NPCs) and player characters (PCs), – the experience of relatedness was clearly qualitatively distinct between the different attachment forms, in particular with regards to players' emotional experience. Moreover, we found that themes also vary with regards to their emphasizing characters' functional and emotional value [42]. Some themes mainly highlighted characters' emotional value, focusing on the player's and characters' emotionality [42], such as when players felt they had a Trusted Close Friend in a character. Others, such as the Cool and Capable theme, mainly focused on character's functional value, similar to previous work discussing characters as instruments for expressing player skill and playstyle [16] or valuing characters for their utility [33]. Similar distinctions were previously discussed in product attachment research [37] and even in the context of interpersonal relationships [36]: Consumers may appreciate a product for its utilitarian and/or emotional value; and we may value people for being kind, good-looking, and/or competent. In the context of games, we may hence argue that players may experience both emotional relatedness and functional relatedness towards characters. It remains to be seen, however, whether this translates to a more or less pronounced experience of relatedness.

Our findings are also significant for gaining a better understanding of previous player studies on character attachment. For instance, in the study of Emmerich et al. [15] participants reportedly experienced an “emotionally meaningful relationship” with Ellie in *The Last of Us*, but the meaning of this phrase was left unclear. Based on our findings, in particular the theme of Concern for one's Protégé, we assume that players developed a personally meaningful bond to the character

as they felt responsible and concerned for her well-being. In contrast to Ellie, Emmerich et al. [15] argued that the character Elizabeth in *Bioshock Infinite* did not offer such an emotional experience. Incidentally, while Ellie was mentioned by several participants in our study, Elizabeth was not mentioned at all. While Emmerich et al. [15] do not discuss why Elizabeth failed to engage players emotionally, our findings provide insights on how a particular emotional attachment might have been fostered.

As such, our findings have some implication for the design of emotional character experience [42]: The themes identified in our study may aid game designers in envisioning and targeting a specific emotional character experience, similar to how the Spectrum cards [41] may inspire and facilitate the design of new emotional game experiences. For example, if the intended character experience is for players to consider Elizabeth as a Trusted Close Friend, the game needs to provide opportunities for players to experience feelings of trust and gratitude towards her. Hence, Elizabeth could help the PC and demonstrate that the player can rely on her. This might not only pertain to supporting the player in gameplay [23, 52]. For instance, she might also offer players moral support when making difficult decisions. Moreover, gaining an understanding of Elizabeth's personal goals [28, 30], may further provide players the opportunity to root for her. Conversely, if interacting with Elizabeth is intended to make players feel protective of her, then she should be more vulnerable than the PC and require their help from time to time [14]. Yet, she still should be moderately capable in gameplay, as completely helpless characters tend to be perceived negatively by players [15, 54]. Expressing believable emotions [15, 28, 30] might further support the impression of vulnerability outside of gameplay, for instance, expressing fear when confronting an opponent.

For the Sympathetic Alter Ego and the Crush forms of emotional attachment, it is more difficult to provide implications for design. The extent to which players feel related to the Sympathetic Alter Ego is strongly dependent on how much the character's experiences resonate with the players' own personal experiences. With regards to Crush, our data provide little information on why players became infatuated with characters. Nevertheless, our findings provide a starting point for more nuanced evaluation of the character experience, as every attachment form differs with regards to its emotional qualities. For instance, to evaluate whether the intended character experience has been achieved, players' emotional reactions to characters should be assessed in some way (e.g., via players' emotional expression [57]). For example, if players were to experience only limited concern for a character intended as a Protégé, a re-design of the character's design and function might be in order.

### Limitations

First, due to the exploratory nature of our study, no causal inferences may be derived on whether the characteristics identified for each attachment form actually *cause* the corresponding emotional experience. Future work should therefore investigate how specific game design aspects – cosmetic, narrative and gameplay-related – shape the emotional character experi-

ence, thereby generating more practical and concrete design implications. Moreover, it remains to be seen whether the different forms of emotional attachment invariably give rise to a positive player experience. For instance, while a Protégé type character should exhibit a certain sense of vulnerability for evoking feelings of care and concern in players, an ineffective character (e.g., as often featured in so-called ‘escort missions’) will likely be received more coldly [15, 54].

Second, while the online survey was useful for us to explore the range of emotional character attachment, this method did not allow for a more in-depth examination of different attachment forms. For instance, several players described their attachment in rather generic terms, where they simply praised the game and characters for making them emotional, without further specifying their feelings. By interviewing participants we could have asked them to elaborate further, which might have allowed us to link their experience to one of the more concrete forms of emotional attachment we identified in our study. An interview study could also help clarify the role of emotional and functional value for the different forms of emotional attachment. Recall that Sun argued that to establish an emotional character experience, characters must first provide functional value to players [42]. In our study, players clearly appreciated characters’ functional value for some of the emotional attachment forms (i.e., Cool and Capable, Concern for one’s Protégé). However, it is less clear-cut for the other attachment forms, as participants mostly emphasized the emotional value without commenting on a character’s functional value.

Third, the way our survey questions were worded might have affected participant responses. For instance, we asked participants to report “how they feel” about a specific character, as we were particularly interested in players’ emotional reactions. While participants consistently reported similar emotions within the same attachment forms, yet distinct emotional patterns between differing attachment forms, we cannot completely rule out that participants exaggerated the intensity of their emotional responses.

Similarly, as we were interested in exploring strong attachment players experience towards game characters, we asked participants to report on a character they *really liked*. Hence, the wording of our survey likely encouraged participants to choose a character they already knew well, and with whom the attachment had already been established over several months and even years. While our findings provide insights on players’ experience of strong emotional attachment, future research should examine the formation and process of attachment. For instance, by surveying players about a character from a game they played recently, or by conducting a long-term study, in which players document their evolving attachment over multiple play sessions. A longer-term study may also provide insights into how different forms of attachment evolve and change over the course of a game, as well as how this influences players’ emotional experience: For example, a character might start out as the player’s Protégé, who they have to protect and mentor, but eventually the character develops into the player’s Respected Nemesis. This bears the potential for

richer emotional character experiences, where players first feel concern for the character, betrayed at the character becoming antagonistic to them, yet also proud of how strong they have become thanks to the player’s nurturing.

### Future Research

To strengthen our understanding of relatedness in games and design more emotionally engaging characters, future work should investigate specific forms of emotional attachment more closely. For instance, unlike the diverse forms of interpersonal romantic attachment discussed in psychology [29, 34, 47], the Crush theme we identified in our study arguably constitutes a rather superficial and emotionally shallow form of character attachment. By focusing specifically on romantic experiences in games, e.g., Dating Sims [46] or games with romance options [11, 51], future studies may deepen our understanding of emotional player experiences, and in turn contribute to novel and enriching forms of emotional game character attachment.

Similarly, while previous work has discussed the different types of antagonists in games [23, 52], players’ emotional experience thereof is yet largely unclear. The Respected Nemesis likely only constitutes one of many possible player-villain attachments, as not every antagonist evokes feelings of respect and amazement. While the game industry has demonstrated interest in designing for multi-faceted player-villain attachment (e.g., [20]), to our knowledge, no work has yet looked into players’ experience of what makes game antagonists appealing (or not), or what forms of emotional attachment players establish towards them (e.g., what makes one love or hate one’s nemesis [20]).

Next, our study findings provide a starting point for designing specific forms of emotional character attachment, e.g., players appreciate the presence of virtuous traits in the Admired Paragon and Respected Nemesis. More work is necessary to generate concrete and actionable design implications (e.g., Lee and Heeter [30] and Isbister [23]) for *how* to design specific emotional character experiences. For instance, how might virtuous character traits be reflected in gameplay and in the game narrative, so that players feel admiration towards characters.

Moreover, as previous work reported mixed results on the influence of player gender identity on identification [3, 44, 53], it is important to explore how players’ gender identity shapes how they describe and relate to characters. The extent to which this matters likely also varies between the attachment forms. For instance, players’ gender identity and sexual orientation likely have a greater impact on whether players become infatuated with a character, whereas this might be less pronounced where the intended emotional attachment is mainly about perceiving a character as Cool and Capable.

Finally, while our study participants often mentioned pre-scripted characters (e.g., Clementine in *The Walking Dead*, who only responds to the player as scripted through the game’s narrative and dialogue), our findings may nevertheless prove insightful for studying emotional attachment with AI-based game characters [20, 42]. For instance, Ravenet et al. [43] suggested that modeling the emotions and social behaviours

of a virtual game agent may contribute to a more believable and emotional character. Our findings may hence form a starting point for modeling emotional behaviour of AI characters, such as how they ‘feel’ and behave based on their emotional attachment to other characters. For example, an AI-controlled character attached to their Protégé, may always exhibit some degree of worry, constantly look out for them, and act with the Protégé’s safety as their first priority. Such modeling of game agent’s emotions and behaviours then, may in turn influence players’ overall emotional experience of the game [57]. Moreover, AI characters may provide opportunities for novel emotional character experience, where they may be particularly suited to evoke different forms of romantic attachment. For instance, playful love [29, 34] may be facilitated through an interactive exchange (e.g., flirting, playing coy, teasing) between the PC and NPCs, or between NPCs.

## CONCLUSION

Game character attachment is a key contributor to engaging and emotional player experiences. Yet PX research has so far treated character attachment in a rather generic manner, with little regard for the emotional nuances that might characterize this attachment. To address this gap, we surveyed 213 players about the game characters they particularly liked and identified seven distinct forms of emotional attachment: These attachments ranged from feeling excited and powerful because of a character’s competence in gameplay, respect towards a fair and charismatic nemesis, to feelings of mutual sympathy, caring, and worrying for characters’ well-being. Our findings contribute to a better understanding of PX by extending the notion of character attachment and relatedness with game characters. Further, our findings provide implications for the design and evaluation of richer emotional game character attachment.

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