1.1 Videogame Representation

When I ask how games represent loss, grief and mourning, I assume that videogames are a form of representation, a kind of cultural text which is available for critical media analysis. This chapter discusses how this view is different from dominant perspectives in game studies, and how I will go about applying it to the study of bereavement in videogames.

First, my approach to videogame-specific representation is inspired by three concepts; James Newman's (2002) ergodic continuum, Tobine Smethurts's (2015) notion of interreactivity, and Doris Rusch's (2009) experiential metaphor.

Newman suggests that instead of thinking of games in terms of a solid ludic core, it is more accurate to treat them as fluent, multimodal compositions. This allows scholars to study videogames as diverse and context-specific expressions, describing what is going on in any one moment.

Terminologically speaking, the ergodic continuum is a response to the idea that videogames are ergodic, in that they require a nontrivial effort to be traversed (Aarseth 1997). While acknowledging ergodicity as a unique aspect of game-specific representation, the ergodic continuum argues that this is not the only way in which games make meanings. Apart from rules, mechanics and controls, games use a variety of non-ergodic tools which borrow from other media forms. Obvious ex-

amples are cinematography, narrative, and music, all of which are used in conjunction with game-typical elements.

Tobine Smethurst (2015) coins interreactivity as a term which responds to the vague use of interactivity in games and design discourse. Interactivity is often used synonymously with identification, suggesting that games are somehow more persuasive or effective at conveying their messages than other media forms (Bogost 2009, Flanagan 2009). Meanwhile, audience research shows that players' responses to games are as diverse and unpredictable as in any other media form (Boellstorff et al. 2012, Shaw 2014). A telling example is Adrienne Shaw's discussion of 'passive play' as possible modality of gaming (Shaw 2014). The notion of interreactivity acknowledges such expressions by pointing to the constant back and forth between game system and player. It looks at what a game actually makes players do when they interact with a game world, and accounts for the player's agency to react and co-construct play in unpredictable ways.

Finally, I use Rusch's (2009, 2017) notion of experiential metaphor, which unpacks videogame devices along the question of what gameplay feels like for players. It encourages a view of videogames as canvases for players' emotional projections, based on the idea that all human perception is metaphorically grounded (Lakoff/Johnson 1980). Rusch has suggested experiential metaphor both as a lens for game studies, and as a design method. On an analytical level, it harnesses the analyst's personal associations to a game as a valid research perspective. On a game design level, the designers' own experience 'landscapes' are tapped to design personal game systems. This makes experiential metaphor a tool to explore systems design in conjunction with emotional experience.

TWO MYTHS ABOUT GAMES AND MEANING

Before I show how these three concepts will help me understand representations of bereavement in games, I would like to point to their ethi-

cal motivation within this study. They serve to distance this work from instances of what I consider myth-making in games and design studies.

Myths are powerful tools which help us break down the world's complexities, and emphasise some ideas while silencing others, creating a version of the world that is both plausible and reductive. In game studies, myth-making has helped some scholars to make plausible arguments around games as potentially ground-breaking, unique, and superior form of media culture. Regardless of its good intentions, the effect has been a dominant focus on games' exceptionalism which has harmed the game studies project (Keogh 2014). For the sake of developing a balanced, descriptive view on gameplay and meaning, some myths and their reductive mechanics need to be disarmed first.

The Ergodicity Myth

The most notable difference between videogames and other media is that in order to be played, videogames require a nontrivial effort from the side of a player (Aarseth 1997). In his study Cybertext from 1997, game scholar Espen Aarseth has termed this effort ergodic, derived from Greek ergon, meaning work or path. As ergodic literatures, games are used rather than read, worked through rather than merely interpreted, according to Aarseth. While there is no doubt that videogames are indeed ergodic, and that Aarseth's widely read text has been foundational to the European game studies tradition, there is evidence that ergodicity has also been the basis of prolific myth making. The ergodic myth claims that all about a game which can be considered relevant is its ergodicity. Non-ergodic aspects can be safely dismissed, as they do not, and should not play a role to 'real' game analysis.

First, it needs to be said that dividing games into 'ergodic' and 'non-ergodic' elements sounds both useful and liberating. If games can be divided into parts which players can 'use', and parts which they 'read', we get a nuanced picture of what is going on in a gameplay session. There are moments of actions and 'inactivity' – when looking at a loading screen or watching a cut-scene. Furthermore, in theory, "all

games are created equal, and the difference between different games [are] merely their rules and the challenges they present. This suggests that any set of rules can in principle be made to be about anything" (Juul 2005: 189).

In practice, however, this statement has been mobilised by some game scholars to dismiss game themes as second-rate elements, ignoring players' loud interest in characters, stories, sound, and other 'non-ergodic' game design features. Simply put, the ergodicity paradigm has nurtured a kind of academic fixation on form rather than engaging with what is actually happening when people play and design games. Three examples are discussed below.

First, in Aesthetic Theory and the Videogame (2011) Graeme Kirkpatrick argues that "games need meanings" but that the "activity of playing games is powerfully corrosive to these fictions" (Kirkpatrick 2011: 9). The idea is that the moment a player enters a game, their ergodic effort overrides what would otherwise be fictions. It sounds plausible: A player, tasked with calculating their risks, managing resources, or planning difficult jumps seems far removed from the 'politics' of their character's story or appearance. From this perspective, gameplay can be understood as a kind of subtraction; "strip away the other features and you still have a game" (Kirkpatrick 2011: 42).

What videogames are 'essentially' about are "purposeless techniques of rapid-fire puzzle-solving and managing the values attached to variables in a dynamic environment" (Kirkpatrick 2011: 44). This last quote already reveals a highly selective, closed list of gameplay modalities ("fire", "solving", "managing"), which supposedly stand in for 'games' as a whole. The unspoken assumption is not only that games can plausibly be put in one category, but that different modalities and pleasures of play (i.e. 'reading', 'walking', 'customising') are not included.

The idea that gameplay corrodes a game's meanings also appears in Jesper Juul's study Half Real from 2005. As the titular binary suggests, Juul separates videogames into a "real" part and a "fiction" part. Although he argues that this dichotomy is artificial and will be made

only in order to unite the two parts later on, the proposition is still that the distinction can be made, and that one aspect of games can be deemed more real than the other. For Juul, the real elements are rules and mechanics, because videogames without fiction can still be videogames, while fiction without rules and mechanics cannot. Again, this sounds like a plausible argumentation, but it is based on the assumption that a play experience can be broken down into smaller parts, of which some are more important than others. Juul goes so far as to argue that videogames can be themed and rethemed ad libitum, exchanging graphics and narratives without changing the 'game' itself.

The third demonstration of the ergodicity myth comes from Aarseth and his response to Lara Croft of the Tomb Raider game series (1996-), a particularly loaded example when it comes to the heroine's representation as 'strong female character'. Apart from drawing a diverse fan base, Lara Croft has attracted feminist scholarship, especially around the ambivalent representation of the heroine's gender, race, and sexuality in the first TR instalments (Schleiner 2001, Kennedy 2002, Shaw 2014). Anne-Marie Schleiner delivered with "Does Lara Wear Fake Polygons?" an important essay which explores possible pleasures of consuming Lara. Blending film and queer theory, as well as an internet survey of Tomb Raider fans, Schleiner addresses appropriations of the heroine through play, and subversive practices of modding and hacking. She also discusses the popular Nude Raider patch, a piece of code which removes Lara's clothes and thereby "posits Lara as fetish object of the male gaze" (2001: 222).

Schleiner's conclusions are not unproblematic; she assumes that a sense of identification automatically emerges from the act of playing Lara – whether this be (self-)objectification, drag, masochism or a queer female subject position (223). However, as with Helen Kennedy's essay "Lara Croft: Feminist Icon or Cyberbimbo?" from 2002, the intention is to map Lara's chameleon identity to existing feminist frameworks and relate pleasures of play to players' lived experiences. For both authors, pleasure is a political category; the kinds of pleasure

made available from playing Lara are related to marginalised audiences, especially women and girls.

One important outcome of this debate has been that representation matters particularly because its meaning to the players cannot be predicted, and that motives for and modes of play differ. In response to this debate Aarseth writes: "The dimensions of Lara Croft's body, already analysed to death by film theorists, are irrelevant to me as a player, because a different-looking body would not make me play differently [...]. When I play, I don't even see [Lara Croft's] body, but see through and past it" (Aarseth 2004: 48). The way the ergodic myth is used here is as a deflective strategy to dismiss game scholars from their responsibility as political agents. Ergodicity allows the player-researcher to 'subtract' Lara Croft's complicated history of feminism and desire from Tomb Raider, the game.

As games scholar Brendan Keogh (2014) has pointed out, this kind of subtraction seems absurd, considering that Lara's body informs what players can do in the game. The character's human walking cycle, shooting animation, and climbing routine communicate the gameplay proposition at the core of Tomb Raider. Analogous to that, Lara's other features, such as her age, gender, ethnicity, or class, ground player's interpretations of Lara as a particular kind of woman: Feminist icon or cyberbimbo (Kennedy 2002).

Taken seriously, the ergodic myth could advocate that if Lara suddenly became black, openly gay, and 80 years old, it would not impact anyone's attitude to the game one bit. However, as long as it is taken as an excuse to disregard videogame fan cultures, it fails to be of service to game scholarship.

The Ergodic Continuum

When trying to understand how videogames work, it is tempting to regard moments in which players are active by pressing a button as somehow more essential to the gaming experience than moments 'passively' spent in front of a loading screen, a cut-scene, or inside a cus-

tomisation menu. It is a trivial observation that such moments are equal to ergodic aspects, not only because they have been deliberately designed as such, but because they are registered and made sense of by players. The question then becomes how we can harness the useful ergodicity term without its mythical formalist baggage.

James Newman has proposed a constructive approach by thinking of ergodicity on a continuum. Seen on a spectrum together with other game elements, ergodicity becomes a descriptive term. It refers to moments of player control, which, among other moments also happen in a game. The idea is that moments in which players are not directly in control, but wait for action to happen, or view an event they cannot influence, are equally important for the overall game experience. Newman illustrates this through an example from the psychedelic racing game wipEout,

> "in which the player is treated to a pre-race pan over the starting grid, before being deposited in the driving seat of their vehicle – waiting for the green light... During this section, the game is out of the player's hands... However, rather than simply handing over control when the green light shows, the player gets to rev their engine. This doesn't sound too impressive but it serves a number of purposes. Most importantly, as in games like Super Mario Kart and wipEout, you can try and elicit an extra fast Turbo Start." (2002: np)

By describing the interplay between moments of control, waiting and preparation for action, Newman illustrates the variety of activities which happen inside several seconds of gameplay. Furthermore, he describes the moment at which the player revs their engine in terms of its purpose for the following gameplay moment (eliciting an extra fast Turbo Start). He demonstrates that to view play on an ergodic continuum requires a focus on the microdynamics of action instead of singling out selective game bits as somehow more central than others.

The Interactivity Myth

While the ergodicity myth claims that videogames corrode representation, the interactivity myth states the opposite, namely that videogames enhance the effects of representation because they are 'interactive'. The player, after all, physically holds the controls, steps into a fictional world and explores a character's or world's fate at will. This activity of controlling someone else's story is frequently taken as proof of identification (Shaw 2014). The idea is that by stepping into someone else's world, the player leaves their own world behind temporarily and fully 'becomes' another for the time playing.

Moreover, the kind of responsibility given to the player is taken as indication of their empathy. The player has 'become' another – how can they not empathise with this other. It is easy to infer from this that games are 'empathy machines', somehow better at engaging audiences than other, non-interactive media were ever able to.

From this perspective, the game designers' role is to be a gate keeper of empathy, a kind of magician holding the power to engineer empathy machines. Like in the ergodicity myth, much is made of the fact that the players are in the 'driver's seat' of the action. Yet, while the ergodicity myth reduces games to the mechanics of driving, the interactivity myth believes that game designers determine where the players are driving.

In his book Persuasive Games (2007) American game scholar Ian Bogost argues that by authoring arguments through processes, videogames are more capable representations than other media (Bogost 2009: 29). This is because games "rely on user interaction as mediator, something static and moving images cannot claim to do" (2007: 35). According to him, videogames' interactivity introduces a 'vividness', which makes them 'less static' as representations, and therefore more advanced as persuasive tools in comparison with other media.

Arguing that videogames "earn a spot above moving images on the continuum" (ibid: 35), Bogost regards different media expressions on an evolutionary ladder of signification (ibid: 26, 29) in which vide-

ogames take the highest rank. However, he puts into perspective that interactivity is not a safeguard for persuasion, because both game designers and scholars still have to master the art of interactive sophistication yet.

As part of the book's own persuasive narrative, this age of interactive sophistication exists somewhere in the future; a bright future in which designers will finally be able to elicit desired identification effects in their audiences. Until then, they can work on their procedural literacy skills by reading Bogost's book and be guided by his many examples.

One example is the moral score system in Star Wars: Knights of the Old Republic (2003). This Canadian role-playing game based on the film franchise logs player action according to a prefabricated moral point system classifying each player's action into 'good' or 'bad'. Bogost observes that this classification of morality is arbitrary and imposed by a (silent) designer. Nevertheless, he describes the games' effects as effects on "the player's moral character" (2007: 284). This suggests that there is a causal link between design intention and game experience. Rather than active interpreters and potential oppositional readers, players of Old Republic are assumed to be coerced into the game's moral value system. In fact, for Bogost's argument to work, some degree of player passivity is required. If interactivity is enough to 'persuade' players, such players cannot be active agents of their feelings and interpretations.

The assumption that a direct link can be established between game design and its effect on the player has also been at work in the so-called discourse of "emotioneering" (Freeman 2004). Arguing that emotions can be engineered, Freeman's marketing term promises to help designers "put emotions into games" (2004: 3). Freeman claims that he has developed a number of "deepening techniques" which successfully immerse players into emotionally interesting scenarios with the explicit goal of propelling sales numbers.

Emotioneering claims to provide the kind of 'interactive sophistication' demanded by Bogost in a nutshell and suggests to 'fix' problems

game designers may still have with representational depth. This means that emotion is treated as a usability problem, which can be fixed by supplying the correct input to the 'player machine'. The problems with emotioneering is best explained along Freeman's own illustration (fig. 1).

Figure 1 displays a piece of concept art depicting a dramatic scenario. Inside a tilted frame, we see a big-chested while male hero in a futuristic, danger-stricken environment. Balancing on a platform in a crouched position, the hero stretches out his arm in determination, pointing a gun directly at an alien monster sneakily hiding behind a pillar to the right of the frame. Meanwhile, a distressed woman floating in mid-air is clinging on to the hero's right arm, desperately hoping to be pulled up onto the ledge.

Figure 1: concept art example of an 'emotioneered' gameplay choice

Source: Freeman (2004)

According to Freeman, this scenario invites various players ("him/her") to "make tough choices" and thereby become emotionally invested. Because it "creates emotional depth in the player", the depic-

tion is "similar to how, in real life, we grow emotionally by confronting difficult choices" (Freeman 2004: 5-6).

Freeman seems to assume that because of interactivity – the player is given control over the hero's 'choices' – players slip comfortably into the man's role. The quality of emotional engagement is believed to be determined by the 'engineer', who decides beforehand that it is the man, not the woman or the monster, who the players will side with.

Finally, the engineering term allows Freeman to exploit readers' 'sciency' associations: Something which is engineered is neutral, rational, and driven by function rather than ideology. This camouflages the fact that games always "communicate the values of their creators...not just through their explicit content but through the logic of their design, and the systems they choose to model" (Anthropy 2012: 67). Freeman's story of the white male hero facing 'tough choices' has more to say about his own values within a profit-driven games industry than about the function of emotion in videogames.

While emotioneering uses the interactivity myth for profit, other versions circulate in charity and social change discourse. The reason is that conflating interactivity and social change makes games appear as an ideal platform for activism.

One example for this kind of argument is Mary Flanagan's otherwise excellent study Critical Play (2009), which explores the roles and responsibilities of artistic game designers. Flanagan is overly optimistic about the potential of change through game values, particularly in the way games assumedly 'instil' ideology in players. According to her, players 'incidentally' learn certain values from games' structures and systems of representations, which transform their attitudes (2009: 261). I do not take issue with the idea that games are ideologically charged, or that players incidentally learn from them. What is problematic is Flanagan's assumption that implementing the 'right' values through game design can trigger specific desirable effects in players. Her book discusses a number of such 'virtuous' activist games which, according to the author, succeed at 'engineering' change.

A section of Critical Play is dedicated to the educational charity game Darfur is Dying (2009), which was developed by a team of US-American design students. DID is a browser-based game in which players take the role of a Darfurian refugee and their day-to-day struggle for survival. Flanagan describes the game as "much like a traditional action game", in which "the players forage for water, rebuild their village and negotiate danger, and steadily become more skilful at guiding their characters to avoid and prevent danger as time progresses, so the game has a smooth learning curve" (2009: 245). Like in Ian Bogost's discussion of Star Wars, interaction turns the player into the character and makes them complicit with the design message. Furthermore, Flanagan argues that by inhabiting a simulated environment, "the player is able to step away and think critically about those problems" (ibid: 249).

Interactivity allows players of DID to become critical, but only as critical as the design team has intended them to become. For example, DID asks players to start thinking and caring about the political situation in Sudan, while they do not ask players to challenge the game's selective portrayal of Darfurian landscapes, lifestyles, and experiences. Rather, the tasks of carrying water, running from search teams, and managing village resources are supposedly enough to immerse the player into a relatable 'refugee experience'.

What the interactivity myth conceals is that interactions are always provided from a culturally specific place for a culturally specific audience. DID's 'refugee experience' is provided from the place of a US-based student team and addresses affluent Western audiences – those who are able to perform charity. This means that what is provided in the game is a Western fantasy of 'refugeeness' which talks about rather than to those whose experience is at stake. The exclusion of potentially complex, lived refugee narratives ensures that in-game representations (foraging for water, dirt, desert) can be adjusted to Western expectations of 'refugeeness'. Rather than making up for this by being engaging, interactivity camouflages the real inferential lesson the game provides: That other cultures can and may be stereotyped according to

Western imaginations, if the game designer's intentions are good. In other words, DID 'instils' the player with the ideology of white, Western entitlement.

A recent example for the interactivity myth can be found in gender advocacy discourse, and the argument that reaching 'new' game audiences, such as women and queer people requires a re-branding of interactivity as we know it.[1] While the basic interactivity myth states that interactivity "involve all players, not merely a subset of players" (Bogost 2007: 321), diversity advocates have argued that there are players who, because of their identities, are unable to relate to established games (Shaw 2014). Apart from the fact that both identity formations and player preferences are more than complicated, there has been a push towards the idea that interests can be delineated along gender and sexuality (Shaw 2014: 18). Not only does the market segmentation of interactivity construct caricature versions of gendered taste (Shaw

1 An example for this fringe marketing discourse is the label 'games for girls', which hails to young female audiences through a concrete formula: a simple interaction scheme dressed in gender-typical colours and narratives. Online game repositories like www.girl.me and www.games2girls.com offer a long list of free pink flash games revolving around the themes of fashion, cooking, animals, weddings, and maternity. Stereotypical assumptions about gendered gameplay are repeated on both on the levels of theming and ergodicity. The theming-level shoehorns girls as cute, caring, and domestic, while the interaction-level associates them with everything which is not fast-paced, action-packed resource management (Kirkpatrick 2011). This idea is promoted by 'girl game' developers themselves. At the European Game Developers Conference 2011, Dutch game developers Hofstede and Verbon recommend to apply the 'KISS' principle ("keep it simple and stupid") when making games specifically targeted at girls. They argue that in order to address girls, designers should avoid complex mechanics and control schemes, and instead invest in cute- and pinkness (Hofstede/Verbon 2011).

2014: 90), it also marginalises audiences which are already at the fringe of videogames.

This is where ergodicity and interactivity myths converge. Both talk about game representation in abstract terms, while referring to specific game examples. Mechanics outside an established norm of ergodicity and interactivity tend to be ignored, following a consensus that "these are not really games and their players are not really gamers" (Dovey/Kennedy 2006: 37, Italics original).

Ergodicity and interactivity myths share another feature. Apart from segmenting audiences into taste groups, they limit the bandwidth of what can be considered a game. As game scholar and designer Tommy Rousse observes, some games fail the requirements of interactivity and thereby "cease to be a game". He makes this case in reference to Dear Esther (2012), an atmospheric 3D game, in which the player simply follows the poetic proposition of the implied first-person narrator along. Rousse argues that in order to acknowledge Dear Esther as game, we would have to look at the player's reaction and "extend our notion of interactivity to warmly embrace any experience requiring interpretation and construction between audience and creator" (Rousse 2012).

In a similar vein, game critic Brendan Keogh argues that there is no such thing as a "non-interactive" or un-embodied media text, since "[e]very medium demands an active bodily engagement from the audience – a book needs a reader willing to turn pages in the right order no less than a videogame requires a player to press buttons at the right time" (Keogh 2014: 7).

Finally, Adrienne Shaw has made the important case that rather than immersing players, interactivity has been used for the sake of passive, apathetic play (Shaw 2014: 105). Passive play can take many forms, be it through actively rejecting a game's proposition while still enjoying participation, keeping games on as background noise, or disidentifying with characters. One of Shaw's examples is an interview with Julia, a queer woman of colour, who talks about her relationship with Kratos, the player character in God of War II (2007). Instead of

empathising with Kratos' emotional struggle as a troubled god going through states of betrayal and revenge, Julia admits that Kratos "could be a bunny rabbit for all I care". To her, "[h]e's just the thing on the screen. He's holding the knives, that's all" (Shaw 2014: 97).

Interreactivity

If the interactivity myth shows anything it is that interactivity is poorly suited to account for the complex back and forth between videogames and players. Nevertheless, game-specific representation "is distinct from the one-sided interactivity experienced by readers interpreting a work of literature" (Smethurst 2015). To account for this difference, Smethurst proposes the term interreactivity, which stresses that what is going on in game-specific representation is a series of unpredictable reactions. She writes that interreactivity "allows for the fact that games change in response to user intervention. That is, interreactivity acknowledges that the user must make their agency felt in the game world by employing game mechanics, which are afforded and delimited by rules" (2015: 42).

The concept is based on Tommy Rousse's observation that games elicit reactions, irrespective of how sophisticated their interactivity is. Furthermore, she draws on Brendan Keogh's idea that this back and forth is structured as a cybernetic circuit. "When the player begins to play, they enter into a relationship with the game in which distinctions between the two are difficult to make, since each is so intimately attuned to the other" (Smethurst 2015: 42).

This draws attention to the activities a player can or cannot do when responding to a game system, and the changes evoked in system and player. These changes are not only emotional or intellectual—as with a novel—but additionally strategic and embodied. In response to the game's challenges, the player activates their repertoire of action; they may find different ways through a level, stop at a flower or animation, skip a conversation option. In order to put these techniques into play, players will push buttons on their controller in different ways and

intensities. The wires between themselves and the console will transmit different sequences of electronic pulses.

The program running the game accesses different data from the computer's hard drive and submit alternative combinations of ones and zeroes to its memory. The sound waves coming from the player's speakers will change their modulation and frequency. The display unit will emit different colours of light. The controller might rumble in the player's hands to match the on-screen action. Interreactivity accounts for all of this. All of this is part of a feedback loop between player and game, and the player's tactile experience of this technology is just as much a part of the game as the events taking place on-screen (Smethurst 2015: 42).

Smethurst mentions one limitation of the interreactivity concept, arguing that it is only applicable in situations where the player is in control; when they deal with ergodic elements. I suggest, however, that even in moments when players are disallowed response, this non-reactivity is part of the bigger cybernetic circuit of meaning that defines power and loss of power in the game world. Making players lose a piece of control which they previously felt they naturally owned because they were given the chance to react, is an important way in which games can communicate attachment, loss and grief.

Whether control loss is a part of interreactivity or not (I argue it is), the concept acknowledges the player as an active participant in the 'effects' of play. Depending on their interreactive circuit, they may use play in order to become critical, or disengaged. And, as I will argue next, it acknowledges games as sites for emotional projection and personal meaning making.

FIGURATIVE PLAY AND EXPERIENTIAL METAPHOR

Acknowledging that play is a back and forth between body, hardware and in-game action raises the question what playing a game feels like

for the player. As scholar and game designer Doris Rusch argues, "[t]he notion of embodied experience generally refers to how we make sense of games – i.e., learning by doing – but it also points toward a game's potential to evoke the actual experience of real-life experiential gestalts through quasi-bodily enactment" (Rusch 2017: 74). The idea is that players have the ability to make sense of game worlds in terms of their similarities to real life experiences. "This opens the door for a powerful form of metaphorical mapping and meaning generation" (ibid). Irrespective of designers' intentions, in-game experiences can serve to remind players of personal experience and be used as analogy to understand this experience better.

Within game studies, analogical approaches have been suggested before. One example is Janet Murray's famous exegesis of Tetris in her study Hamlet on the Holodeck (1997). Arguing that videogames can be unpacked as "symbolic dramas" waiting to be subjected to personal projection, Murray writes that the game represents "a perfect enactment of the over tasked lives of Americans in the 1990s – of the constant bombardment of tasks that demand our attention and that we must somehow fit into our overcrowded schedules and clear off our desks in order to make room for the next onslaught" (Murray 1997: 143-44).

In this reading, Murray compares Tetris' falling blocks to overcrowded schedules, making sense of the game through personal association. It is irrelevant whether or not this association matches the design intentions of the Tetris creators; Murray points to a possible meaning of the game by expressing what its dynamics feel like to her. She thereby performs a metaphorical projection which illuminates both how she thinks about late capitalism, and how she experiences the game feel of Tetris.

Game scholar Jason Begy (2013) stresses that instances of metaphorical projection during game interpretation are not arbitrary but based on pattern recognition: Players can recognise game systems as similar to their own experience because they share formal features. This means that "[m]etaphorical projection is not about associating

disparate objects or systems at will, but relies on systemic correlations" (2013: np).

The way Rusch and Begy consider experiential metaphor and metaphorical projection as emotional pattern creation is derived from Lakoff and Johnson's (1980) cognitive linguistic approach. These authors assume that our understanding of experience is grounded in a metaphorical process. This means that the way we experience a routine in daily life linguistically corresponds with other experiences which share a similar experiential structure. Applied to games, we can both discover experiential links to our life through play, and we can design games about life by setting up a system with similar experiential structures.

In other words, experiential metaphor allows players to access the non-ergodic continuum by letting their associations flow. Rusch's own example in Mechanisms of the Soul (2009) is the grappling hook sequence in God of War II (2007). She writes:

"One has to first identify and activate a grip point on a pillar to latch onto by pressing R1 on the PS2 controller. The grappling hook shoots out and attaches itself to the grip point. When the connection is made, one can jump with X and start swinging. Releasing R1 releases the hook. To attach to the next grip point on the next pillar one has to press R1 again. There is always a dizzying and enervating moment of free fall between two grip points. Pressing R1 too quickly after a release latches the hook back to the former grip point. If one waits too long before pressing R1 again one misses the next grip point and falls to one's death. Timing is of the essence, both in terms of how long one waits before reattaching and in terms of when one lets go of the former grip point. If one releases at the wrong time, one flies off in the wrong direction.

Real life rarely offers the opportunity for comparable physical exercise, but the grappling hook pattern still resonated with me in a profound way. By affording the player to enact courage to let go of a safe but unsatisfying status quo in order to move on to a more promising state it evokes associations to a range of similarly structured experiences. The reluctance to let go, the exhilaration of the free fall as a moment ripe with possibilities but without security, the panic that

makes one latch back to the starting point, the anguish that comes with the realization that it is too late to go back, to the feeling of triumph and relief when the adventure has come to a successful conclusion – all these elements can also characterize various experiences of transition and change, be that quitting a job (before having a new offer), getting a tattoo, or breaking up with a boyfriend." (Rusch 2009: np)

In this metaphorical reading of GOWII, the game's features and interreactive dynamics are described in great detail to show how they evoke emotion in the player-researcher. The situation includes "enervating" moments, mixed with moments of "exhilaration", "anguish" and "triumph". By relating technical aspects of game controls and mechanics to emotional mechanics, Rusch interprets functionality in terms of a personal analogy.

As we have seen before in Julia's approach to GOWII, and the way she reduces Kratos to being a "thing on screen", metaphorical projection is an optional part of player reception. Games are unpacked in multiple ways depending on the unique game/player combination at any one time. Metaphorical projection enriches this multitude of possible interpretations. Rusch concedes that rather than replacing literal analysis, personal analogy "provide[s] an additional interpretative cue that helps game comprehension along" (2009: np).

APPLICATION AND LIMITATIONS

I suggest that the three concepts of ergodic continuum, interreactivity, and experiential metaphor are useful to study videogame representation as a coming together of hardware, software, players' bodies and minds. Throughout analysis, they serve to explore the following questions:

- How have videogames in the past constructed scenarios of attachment, loss and grief between characters?
- What (non)ergodic devices have they used to construct meaning around these experiences?
- What interreactive strategies have videogames used in the past to engage players emotionally?

A text-based study can only ever imagine the social effects of design devices, without knowing for sure what happens to meaning after design. This naturally limits the scope of my study to the question what games do to hail to their players and provide spaces for emotional projection. Unlike ethnographical research, textual research is confined to speculations about the responses of grievers in front of the computer or gaming console. It can address the way meaning is constructed through game-specific representation, but it cannot determine the consequences of representation (Shaw 2014).

Furthermore, my approach has a descriptive rather than prescriptive focus, meaning that analysis results will not be comprehensive, or present a complete account of what is possible in videogame representation. My selection of analysis samples is confined to five games which match the criteria of featuring an important relationship between two characters that ends tragically. I analyse these relationships as case studies into how game design has been used in the past to tackle attachment, loss and grief compellingly.

Needless to say, other approaches would have been possible. One possibility would have been to study how players become attached to, and lose aspects of gaming. For instance, there are cases in which players invest a significant number of hours into a game before they lose a favoured item, progress, or their avatar. Other players use gaming to work through their personal traumas (Hernandez 2014).

In this study, I am more explicitly interested in how game designers can build compelling character moments. I suggest that design de-

vices must be reflected in the ways they hark into social and cultural reality. A close reading allows me to look at both, the practical dimension of how devices work, and what they do as cultural tools with a referential function.

Videogames can create tangible scenarios for inter-character bonding, but they often do so by drawing on established stereotypes like the strong male protagonist caring for a less capable damsel in distress.

It is therefore pertinent, for scholars and designers alike, to consider the cultural and pragmatic function of games in tandem. Informed design choices are hardly made by a tunnel gaze on production, but in awareness of the cultural mechanics at work. Cultural scholarship, on the other hand, profits from a look at the 'nasty down below' of assets and algorithms to add substance to reflectivity.

My analysis has an explorative focus in that game devices are identified as they emerge from the sample and its different materialities, scopes, genres, and themes. This is the reason I selected single player games which are fairly diverse in these regards. The design strategies I identify address five dimensions of game design: Rules/mechanics, control scheme, spatial devices, character design and aural representations. The idea is to first delve into the details of how games have used these dimensions to construct love, loss and grief, and to then review their potential use for future game design.

The ergodic continuum allows me to consider social aspects such as markers of age and gender as design devices. Whether consciously or not, game designers make use of these markers to structure parts of their gameplay and to encourage interpretations.

For instance, a player may feel invited to role-play as a mother, because of the way a game represents adults in contrast to children's bodies (Shelter). In conjunction with gameplay, gendered and age-specific character skins make specific claims about love and grief, such as: This is what maternal love feels like.

Through such claims, videogames operate as cultural representations. They use ergodicity to gameplay reference images, stories and ideas which we already know from other media and update them in

media-specific ways. In this book, I look at both: What have videogames done to repeat tired stereotypes, and what can they do to form new approaches to bereavement?

Since attachment matters to understand loss and grief qualities, all analysis chapters start with a section on inter-character care. I observe that games use different interreactive rituals to portray characters' relationships and their power dynamics. Games have suggested nuanced ways to sculpt these dynamics, including constellations of dependency and eye-level relationships.

In most of the games, loss comes surprisingly and unannounced, but games have used different strategies to represent this rupture. Some games use purely non-ergodic devices to portray loss as agency loss. Other games use interreactive strategies to make players walk through their characters' acute loss reaction. Levels of player involvement are games' unique expressive possibilities when it comes to portraying trauma (Smethurst 2015).

Finally, I look at the reaction of an in-game survivor to their loss, as well as the coping strategies developed by fans. Looking at practices of traumatic retelling, hacking and modding, I explore how videogames have put players in the position of 'working through' ludic trauma.